

NATIONAL VOCATIONAL EDUCATION
AND TRAINING RESEARCH PROGRAM

OCCASIONAL PAPER

An exploration of labour mobility in mining and construction: who moves and why

Georgina Atkinson

Jo Hargreaves

NATIONAL CENTRE FOR
VOCATIONAL EDUCATION RESEARCH



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About the research

An exploration of labour mobility in mining and construction: who moves and why

Georgina Atkinson and Jo Hargreaves, National Centre for Vocational Education Research

Labour mobility is one of the core elements of a well-functioning labour market and is a relatively common phenomenon in Australia. The Australian economy, during its various cycles, often experiences both labour and skills shortages. This study reinforces that labour mobility itself is linked to those cycles, in that in a slow labour market a person may move for stable employment, while in a buoyant economy employers use incentives to influence mobility. With the Australian mining industry now experiencing a downturn after a very strong peak, it is imperative that more is understood about what encourages or impedes mobility.

This research synthesises existing literature on labour mobility in order to better understand who moves and why. A qualitative analysis completes the study by capturing the views of labour hire and recruitment firms as well as employers and others with a direct interest in recruitment and workforce planning in both the mining and construction industries.

Key messages

- Around 10% of workers change their job each year. Of those who change jobs, only 5% move considerable distances (for example, interstate). Around 2% of workers commute long distances.
- The majority of labour mobility decisions are driven by the personal priorities of the individual, including family commitments.
- When the labour market is buoyant, competition for workers is high and poaching is common. This can lead to cycling through the same group of workers and an increase in the temporary movement of workers, especially those who have the desired skills and experience.
- Sudden fluctuations in growth require a rapid response to labour recruitment by industry. If this is coupled with a strong preference from employers to hire individuals with specific levels of experience, then contradictions arise.
- In relation to fly-in fly-out (FIFO) workers, individuals are often attracted by high salaries and new opportunities, but may struggle to find employment due to strict entry requirements (including experience levels and regulatory and licensing requirements).
- Solutions to filling skill and labour shortages may be best addressed through a combination of a broader search radius, a more flexible approach to relevant experience, engagement with apprenticeship programs and collaborative programs/activities with education providers to produce work-ready graduates.

Rod Camm
Managing Director, NCVET

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Introduction

Labour mobility describes the flow of workers between jobs. It reflects the freedom of workers to use their skills wherever opportunities exist. In this context, some employers see labour mobility as the 'key' to skills shortages, such as those occurring in the resources boom.

The mining and construction industries were chosen for this study because, according to Australian Bureau of Statistics (ABS) data, labour mobility among workers in the mining and construction industries is relatively high. However, the data do not explain the intentions and underlying rationale behind mobility, which is what this report seeks to address.

Labour mobility has traditionally been seen to encompass changing employers, occupation type or industry, but it can also refer to geographical movement for employment, whether it is a permanent relocation, or temporary, in the case of long-distance commuting. For the purposes of this study we have adopted this broader approach to mobility rather than restricting it to changing jobs or geographic location on a permanent basis. The broader view of labour mobility is pertinent, given the increasing reliance on a long-distance commuter workforce in the mining industry.

Our focus is on identifying factors that influence or impede mobility decisions, noting that locations, the resource being mined and the skills required in the respective mining or construction operations differ and that labour mobility is subject to market forces.

This research specifically addresses the following questions:

- During the recruitment process, what weight is placed on the qualifications and licensing requirements as well as the characteristics of applicants?
- What are the characteristics of people who move and those who do not move for work?
- What motivates people to move?

This paper consists of two main sections, a literature review (in two parts) and a qualitative analysis. The literature review is broad and attempts to cover a range of measures in relation to labour mobility from the perspective of individuals and workers; the second part of the literature review focuses on long-distance commuting in the mining industry as a specific case study. The qualitative analysis, which comprises the second main section of the report, looks at mobility through the lens of employers and recruiting agents, again drawing out the implications of various types of mobility in the mining and construction sectors.

To take this further, the first part of the literature review, which we've titled 'Labour mobility: what drives it and why is it important?', provides an overview of labour mobility in Australia and its extent; discusses the benefits and costs of labour mobility; identifies different types of labour mobility; and looks at the characteristics of people who move jobs and their reasons for doing so. The story painted by this literature is that labour mobility is relatively common in Australia and fairly stable. In addition to people changing jobs, there appears to be considerable change in occupation type and industry. However, the proportion of people who move substantial distances for work is relatively few. While the proportion of people who relocate is small, the numbers of people undertaking long-distance commuting are increasing. When it comes to reasons for changing jobs, most people do so because they are dissatisfied and want to find a better job. This includes

satisfaction with the level of pay, job security, the nature of work, the hours of work, and the flexibility to balance work and life commitments.

The second part of the literature review looks more specifically at labour mobility in the mining industry as a case study, with a particular focus on long-distance commuting. The literature shows that, when it comes to labour mobility in mining, the reasons for changing jobs are quite similar to those mentioned above: workers are dissatisfied with aspects of their job. Long-distance commuting as a way of ensuring that labour is flexible and mobile is a double-edged sword. On the one hand, it provides industry with a flexible labour force, which responds to demand and gives individuals the chance to maintain their connections and lifestyle at home. On the other hand, factors associated with long-distance commuting, such as roster length, time spent on site, the workplace culture and time away from family and its associated pressures, can contribute to dissatisfaction.

A gap in the research to date has been the views of labour hire and recruitment specialists. This gap was the impetus for the qualitative aspect of our study, which consisted of 23 semi-structured interviews with a number of labour hire and recruitment firms, as well as employers and peak industry bodies in the mining and construction industries. These interviews were conducted between April and June 2013.

The second section of this report presents the results of this new data exploring employer and labour hire perspectives on the issue of labour mobility as well as unpacking the role of occupational qualifications and regulations in the mobility of workers. We look into the reasons why workers find work or change jobs in the mining and construction industries and their motivations for doing so, and include a focus on long-distance commuting. The report also examines issues surrounding experience, qualifications and licensing and whether they act as barriers to working in the two industries.

The report concludes with some final comments.

Labour mobility: what drives it and why is it important?

Labour mobility, including the flexibility with which workers can move between jobs, is an important aspect of a healthy economy, as it can help adjustments in the labour market originating from both sudden changes in the economy and longer-term structural change (D'Arcy et al. 2012). Easy and rapid labour mobility, like capital, can be responsive to changing patterns of consumer demand, product development and new technologies, which in turn facilitate flexibility, maintain dynamism and growth, and help economies avoid stagnation and rigidity (Sweet 2011).

Economic factors and changes in the economy driven by decline and growth in industries as well as variance in employment opportunities between different regions, push individuals and businesses to look for new opportunities in new areas. But mobility is not just driven by structural changes, as individuals may change jobs for personal reasons, such as pursuing career advancement and improvements in wages and benefits, as well as for work–life balance and lifestyle reasons. A flexible labour market allows employers to respond to the business cycle and any growth or decline in markets (Sweet 2011).

However, where there are benefits to a mobile and flexible labour force, there can be a downside. For some workers, labour mobility reflects job insecurity, particularly for low-skilled workers (Mitchell 2008). For workers moving from one low-paid and/or low-skilled job to another, there can be little employment stability, career progression or training opportunities (Pocock et al. 2011; Yu, Bretherton & Schutz 2012).

For employers, high turnover can increase the cost to firms if it leads to repeated and ongoing expenditure on recruitment, induction and initial training. It may also lower productivity if high turnover deters firms from investing in the longer-term development of employee skills (Martin & Bowers 2000; Sweet 2011). Concerns about excessive turnover are compounded by concerns about skills shortages. When workers become scarce, employers may need to employ people who are less suitable, perhaps with less relevant experience and skills and less desirable personal presentation (Richardson 2007). Increased competition for workers pushes employers to offer higher wages and benefits to attract labour from other locations. Mobility also reflects competition between industries, when one industry (for example, mining) attracts its workforce by offering higher wages, benefits and flexible working arrangements, in order to attract labour from other industries, which struggle to retain their own workers (Department of Education, Employment and Workplace Relations 2008).

Finding suitable workers is not restricted to competition amongst different industries. As the research undertaken in this project demonstrates, when the demand for labour is high, there is also stiff competition between employers in the same industry.

It is these benefits and costs to labour mobility that put pressure on governments to intervene. This can include: incentives to individuals to relocate to find work; incentives to employers to facilitate relocation; standardising qualifications and licensing to reduce the barriers to moving between states/territories; and investing in training in areas (in specific locations, occupations and industries) of perceived skills shortages.

Overview of labour mobility in Australia

Extent of labour mobility

Compared with other countries, the Australian labour force is very mobile, with Australian workers more likely to change their jobs than workers in most other Organisation for Economic Co-operation and Development (OECD) countries (Sweet 2011).

The ABS Labour Mobility Survey provides information on the labour market experience and movement of Australian workers. The most recent data, from the 12 months to February 2013, show that around 10% of workers changed their employer or business (ABS 2013a). Looking at the previous Labour Mobility Survey from 2008, Sweet finds that over a quarter of workers (27%) had some change in their work situation in the previous 12 months. Promotions or transfers are the most common, accounting for two-thirds of the changes. Changes in the number of hours worked accounted for a third and changes in job accounted for one-tenth. One in ten workers changed job each year, and about twice the number experienced other significant changes in their employment situation with the same employer (Sweet 2011).

Labour market turnover varies with economic cycles, and this percentage, of around one in ten workers changing jobs each year, has stayed relatively stable over the past few decades (D'Arcy et al. 2012).

Types of labour mobility

There are different types of labour mobility. First of all, job change could be voluntary or involuntary. Some people lose their jobs, whereas others choose to leave. Involuntary job separation, which accounts for about one-third of job change, is initiated by employers and includes retrenchments and the end of temporary jobs. Voluntary job separation, which accounts for the other two-thirds and the majority of job changing, is initiated by employees and includes those who resign to look for other work, or resignations for personal or lifestyle reasons. Over the past two decades, there has been a decrease in involuntary job change, which is reflective of the more buoyant labour market during that time (Karmel, Lim & Misko 2011; Sweet 2011; D'Arcy et al. 2012).

Fewer than 20% of workers changed their jobs for involuntary reasons; that is, because their job was temporary or they were retrenched. Watson's analysis shows that the balance between voluntary and involuntary job change depends on the buoyancy of the job market, as involuntary job loss was much higher, at 32% in 2002, compared with 2008 (Watson 2011, p.11).

Occupational and industry job change

Job changers are fairly mobile when it comes to changing occupation and/or industry. Of those who change jobs, only about a quarter to a third changes their employer and stay in the same kind of job. Around one-fifth changed their industry but kept the same occupation, and one-tenth changed occupation but stayed in the same industry. Around 30% changed both industry and occupation (Watson 2011).

In relation to occupation, Sweet (2011) finds that changing jobs is most common among machinery operators and drivers and sales workers and is least common among managers. He also finds occupational change to be highest among sales workers, labourers, and community and personal service workers, and lowest among professionals and technicians and trades workers.

Tradespeople in construction have particularly high retention and low attrition in their trade (Karmel, Lim & Misko 2011, pp.16–17). Occupational mobility in the trades is not significantly different from professional occupations, although there is some variance between trades, as there is with the

professions. The rate of attrition is similar, regardless of whether the economy is in a good state or a bad state; however, the balance between job leavers and job losers alters. Employers often think that attrition has gone up, but in reality it is job churn, as people move between employers without changing their occupation (Karmel, Lim & Misko 2011).

Workers are more likely to change their occupation if the demand for other occupations is high, and they may need to change occupations during periods of high unemployment to ensure job security (Haukka 2011, p.42). Looking at occupational mobility in three industries – construction, automotive and aged care – in Queensland, Haukka (2011) finds that labourers working in the construction industry are much more likely to change their occupation and the industry they work in than are tradespeople. For those tradespeople who did report working in a different occupation, most worked in occupations related to construction (Haukka 2011, pp.47–8).

Comparing construction with the two other sectors, aged care and automotive, Haukka (2011) found that people working in construction (excluding labourers) were much less likely to have any intention to change either occupation or industry. However, workers in the construction industry had just as much intention of changing their employer as did those in the other industries. This would suggest that, while people working in the construction industry are just as likely to change their employers as everyone else, they are perhaps less likely to change their occupation or the industry they work in.

Looking at industry type, mobility between employers is highest in the mining industry, with around 20% of workers changing employer between 2007 and 2008. Labour mobility in the mining industry is discussed in more detail in the case study. Other industries with high labour mobility include accommodation and food services and administrative and support services. Those who are least likely to change employers work in education and training; health care and social assistance; agriculture, forestry and fishing; and public administration and safety (Sweet 2011).

Geographical mobility: relocation and long-distance commuting

Looking at the geographical aspect of labour mobility, it is clear that only a small percentage of people who change job each year move location to do so. Using the Household, Income and Labour Dynamics in Australia (HILDA) Survey, Watson (2011) finds that around 30% of people who change their job also change their location. Of these, just under half moved nine kilometres or fewer, therefore remaining in the local labour market. Around 30% move intermediate distances. The remaining one-quarter to one-fifth of job changers moved 500 km or more. So, of the 10% changing jobs every year, HILDA suggests that only one in 20 (5%) relocates interstate (fewer than 1% of workers).

Of the estimated 1.2 million (1 232 338) who changed jobs in 2008, 386 426 moved location, with approximately 50 000 moving 100–499 km and 75,000 moving 500 km or more. This indicates that, of people who changed jobs, only around 5% move interstate (Sweet 2011).

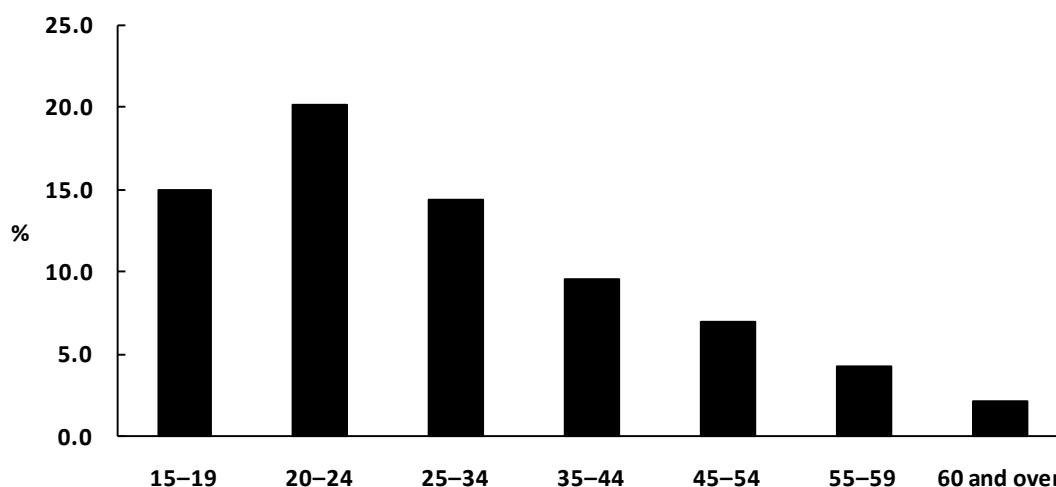
Another aspect of labour mobility is long-distance commuting. Data from the 2011 census suggest that around 1.5% of workers commute interstate. While it is a fairly small percentage, between 2006 and 2011 there were significant increases in commuting workers in Western Australia and the Northern Territory, and the number of people who were commuting long distances in WA doubled to 13 600 in 2011. Long-distance workers in WA work disproportionately in mining, construction and public administration. Approximately 50% of mining workers in Western Australia are commuters (de Silva, Johnson & Wade 2011, p.2). This issue of long-distance commuting in the mining industry is also explored further in the case study.

Characteristics of mobile workers

Age, family and home ownership

Overwhelmingly, younger workers are more likely to change jobs than older workers (Shah 2009). Roughly 20% of job changers are between the ages of 20 and 24. Workers aged younger than 30 years are almost twice as likely to change jobs compared with workers in their 50s and over (Sweet 2011; Watson 2011). This is not surprising, given that it may take time – and a few job changes – for young people to find jobs and careers that they like or are good at. Young people are also less likely to be tied to a location because of family commitments or home ownership.

Figure 1 Change of employer/business in the previous 12 months and age (2008)¹



Note: ¹ The reference population is those with their employer or business for fewer than 12 months and who worked at some time during the year.

Source: ABS (2008, *Labour mobility Australia*, reproduced from Sweet 2011).

Changing jobs is more common among the unmarried than the married: 14% compared with 9% (Sweet 2011). Other studies suggest that home ownership can also reduce the likelihood of mobility. While it makes sense that having a spouse and children and owning a home might tie workers down and inhibit their mobility, Watson, in his analysis of HILDA, finds that these types of family factors are actually relatively weak. However, he does find that for those who do move, they are much more likely to do so for housing-related and family-related reasons than for job-related reasons (Watson 2011).

Location

Mobility also varies by region. Watson (2011) finds that workers living in the Northern Territory, the Australian Capital Territory and Perth are much more likely to change jobs, whereas workers in Tasmania are much less likely to do so. Job mobility is higher in metropolitan than non-metropolitan areas, presumably because there are greater employment opportunities (Bill, Mitchell & Welters 2007).

Gender

There is little difference between men and women when it comes to labour mobility. However, there can be differences within gender, depending on the type of occupation. For women, there is a large difference between managerial/professional jobs (15%) and blue-collar jobs such as machinery operators (7%). However, it does not seem that skill level is a key factor here, as sales workers,

another lower-skilled occupation, also have a higher turnover. For men there is little difference between occupations, ranging from 12% to 15%, depending on the occupation (Watson 2011).

Employment status and tenure

Not surprisingly, casual workers are more likely to change jobs than non-casuals (17% compared with 13%) (Watson 2011). Those with a prior history of unemployment and those who have spent a period of time outside the labour force are also more likely to change jobs. However, as Watson (2011) suggests, job change among non-permanent employees and those who have spent time outside the labour market or in unemployment is more indicative of job churn rather than labour mobility. Unemployed people who are prepared to move, whether moving location or changing industry or occupation, have a better chance of getting work than unemployed people who are not as mobile (Mitchell 2008, p.70). Whether a worker has leave entitlements or not is also an indicator of whether they are more likely to change jobs. Those without paid leave entitlements are nearly twice as likely to leave as those with paid leave entitlements: 19% compared with 11% (Watson 2011).

In relation to job tenure, having short tenure, of less than a year, does not make people more likely to change jobs. However, workers with long job tenure (around 20 years) are much less likely to change jobs (Watson 2011). This is also the case with tradespeople: the longer their tenure, the less likely they are to leave (Karmel, Lim & Misko 2011). The same is also true for occupational tenure. The longer a person stays in a particular occupation, the less likely they are to change occupation (Haukka 2011).

Skills and education levels

Low-skilled workers, measured by qualification level, with Year 11 or less being the highest qualification, are less likely to be mobile than workers who have Year 12 or higher level of education (Mitchell 2008). Indeed, low-skilled workers are at risk of being 'left behind' in regions where there is labour market decline or stagnation (Mitchell 2008). Mitchell also finds that, even in regions of labour market growth, low-skilled workers are disadvantaged when they are required to compete with higher-skilled workers who are moving to the region for employment.

While Mitchell finds lower-skilled workers may be less likely to move industry or occupation, more recent research shows low-skilled workers are more likely to change occupation than workers with a higher level of skill (Haukka 2011; Shah 2009).

Irrespective of education level, there is evidence that people who are overskilled for their job tend to leave their job more frequently than other workers, probably because their skills are being underutilised in their job (Sweet 2011).

Why do people move or change jobs and are they better off?

The majority of people who leave their job do so because they are dissatisfied and want to find a better job (65% of job changers in 2008). It is perhaps not surprising that people who do not like their jobs – for whatever reason – are more likely to change.

Examining job dissatisfaction a little further, Watson looks at satisfaction with level of pay, job security, the nature of work, the hours of work, and flexibility to balance work and life commitments. He finds that hours of work and flexibility do not appear to be an issue. It is the workers who are concerned with the level of pay, the nature of work and job security who are more likely to change their jobs. Satisfaction with job security seems to have the most impact, with those most worried

about a lack of job security considerably more likely to change jobs. As Watson suggests, it is 'better to move on, before being moved' (2011, p.21).

Looking at the geographical mobility aspect, people relocate for many different reasons. In his analysis of the Household, Income and Labour Dynamics in Australia Survey, Watson (2011) finds that, of those who changed their residence in 2008, over half did so for housing-related reasons, such as moving into a bigger or better house. Just short of 30% moved for family-related reasons, while around 15% moved for lifestyle reasons. Only around 17% of people who moved did so for job-related reasons. This includes, among other reasons: starting a new job, transferring for work and looking for a new job. Family and lifestyle reasons also play a large part in why people terminate long-distance commuting work (Peetz, Murray & Muurlink 2012; Kinetic Group 2012a).

Employment outcomes

When it comes to employment outcomes, whether labour mobility is a good or bad thing depends on a person's employment situation before they change jobs or move.

Unemployed people are more likely to relocate than those already employed and those not in the labour force. The unemployed movers are also much more likely to find work than the unemployed who do not move (Mitchell 2008). So for unemployed people who are looking for work, mobility appears to be a good thing.

For workers who already have a job, those who change their job are also likely to improve their job satisfaction (Watson 2011). But while their job satisfaction may have improved with the change, workers are often still concerned about job security. Lack of job security may motivate people to change their jobs, but changing jobs does not generally improve the situation (Watson 2011).

Income

The literature looking at the benefits of labour mobility on income shows mixed results. Being mobile does not necessarily lead to higher income, as wages tend to rise with length of tenure, so staying rather than leaving is more likely to result in higher wages (Richardson 2004). And in comparing people who did not change their jobs with people who did, Watson finds that those who changed jobs do not necessarily see an increase in income compared with those who stayed put (2011).

Tradespeople who choose to leave a trade and move into a different occupation also move into a better-paying occupation. The story is less rosy for tradespeople who lose their jobs, who not only suffer a drop in wages but also occupational prestige (Karmel, Lim & Misko 2011).

However, other research shows that if low-skilled workers change industry or occupation they are more likely to benefit from a wage increase than if they had stayed in their old job (Mitchell 2008, p.71). Of those who moved, just over a quarter (26.1%) of low-skilled workers benefited from an increase in pay, but this compares with nearly 38% of a pay benefit for skilled workers.

As the findings in later sections of this paper show, employers in the mining sector use high salaries to attract employees with specific skills and experience. So while there may not be substantial income benefits for all job changers, certainly some occupations and industries and some highly sought-after skills are likely to attract higher salaries, making job change financially worthwhile.

Skills and interest

While the financial benefits of changing jobs is limited for many job changers, there are benefits when it comes to using and developing skills. Watson (2011) finds that people who changed their jobs had the opportunity to make greater use of their skills and also had the opportunity learn new skills. Changes in occupation generally lead up the qualifications ladder, particularly for occupations at the lower end of the qualifications scale. This suggests that occupational mobility generally sees workers moving into higher-skilled occupations (Sweet 2011, p.26).

Recent research by Mavromaras, Mahuteau and Wei (2013) shows that people with vocational education and training (VET) qualifications who change their occupation but stay in the same industry sector have the best labour market outcomes. In contrast, changing industry is rarely beneficial to individuals, although they may be making this change to realise benefits in the longer-term. Mavromaras, Mahuteau and Wei (2013) suggest the benefits of changing occupation and the drawbacks of changing industry can be explained by the concept of 'human capital'. When people change jobs or move, they leave behind the skills, knowledge and networks associated with a particular job and industry. However, moving to a new occupation (particularly after completing a higher-level qualification) shows that workers have acquired 'new technology'. This explains the benefits of moving to a new occupation but remaining in the same industry: the pay-off from acquiring new skills without losing the knowledge and networks of a specific sector.

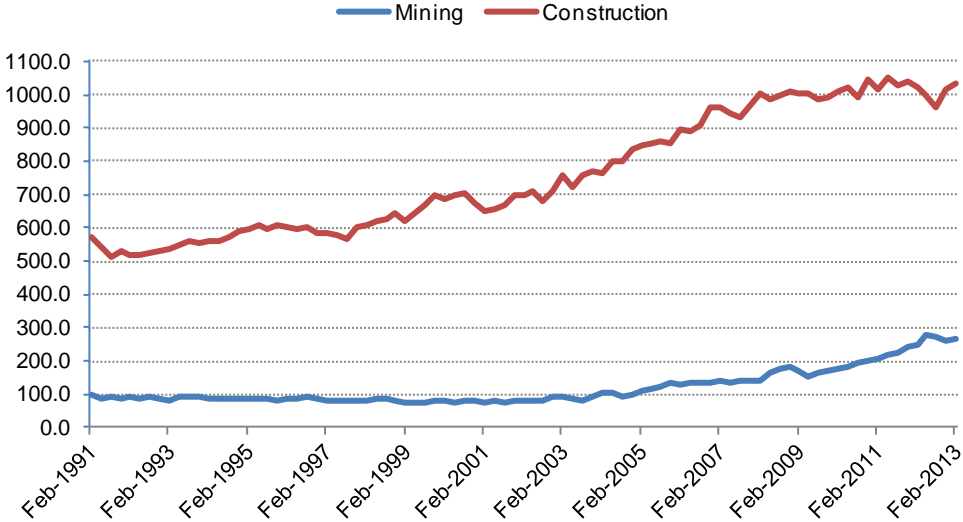
The story of job change is not so rosy for workers who are overskilled. These workers are more likely to have higher rates of voluntary job separation than well-matched workers, perhaps because they feel their skills are underutilised and they are dissatisfied with their job as a result. Changing jobs does not necessarily improve skill match and few overskilled job changers moved to a job where their skills were utilised (McGuinness & Wooden 2009; Sweet 2011; Watson 2011).

Case study: labour mobility in the mining industry

Characteristics of the mining workforce

Australia has experienced strong growth in the mining industry in the last decade. Since February 2002, the number of people employed in the industry has more than tripled. The boom in the mining industry also considerably affects the growth in the construction industry, given that there is a high demand for building infrastructure to allow a mining operation to extract, process and transport minerals as well as the need to build new houses in the high-growth mining towns. By comparison, over the last decade, from May 2002 to May 2012, construction industry employment has increased by around 40%.

Figure 2 Employed persons in mining and construction industries, February 1991 – February 2013 ('000)



Note: Data are original data.
Source: ABS (1991—2013).

The largest employment markets for mining are Western Australia, which accounts for 41.5% of the mining workforce, Queensland, at 29.6% of the mining workforce, and New South Wales, at 18.5% (Kinetic Group 2012a; Minerals Council of Australia 2013a).

The rapid growth of the mining industry has led to an increase in demand for workers who are prepared to move to mining regions or undertake long-distance commuting. While much of the story around the mining workforce is about 'fly-in fly-out' (FIFO) and 'drive-in drive-out' (DIDO) workers, towns with close proximity to mines, particularly in the Bowen Basin and Pilbara regions have seen considerable population growth. According to the 2006 and 2011 census, the average annual increase of the usual-residence population between 2006 and 2001 for the whole of Australia was 1.6%. For towns in the Pilbara (Karratha, Newman and Port Hedland) it was between 3.6% and 7%. In the Bowen Basin it was around 3% and in Roxby Downs in South Australia, it was 4.1%.

In most cases, the percentage of men in mining towns had also increased between 2006 and 2011 and the industry remains dominated by male workers. However, the percentage of female mining workers increased from 15% to 17% between 2006 and 2011 (ABS 2013b).

Across the high-growth mining towns, employment in the mining industry accounted for over 30% of total employment (over 50% in two Bowen Basin towns and Roxby Downs). Construction industry employment in these towns accounted for around 15% of employment. Not surprisingly, these towns also had higher labour force participation rates and lower unemployment rates than the rest of Australia.

Long-distance commuting

There has also been a growth in the long-distance commuting workforce, which is an increasingly popular form of labour movement, particularly in the mining industry (although it is not counted as mobility in the ABS Labour Mobility Survey). At the time of the 2011 census, there were approximately 213 773 long-distance commuters in Australia, representing 2.1% of the Australian workforce. This is a rise of 37% since 2006. While the long-distance commuting workforce is spread out over numerous industries, around 21% of long-distance commuters work in the mining industry, with 13% working in the construction industry. Around 30% of all long-distance workers commute to capital cities, followed by 26% of workers commuting to the mining regions, the Pilbara and Bowen Basin (Minerals Council of Australia 2013b).

Employment in the mining industry has grown by 65% in the five years to 2011, compared with an average increase of 10% across all other industries. The number of mining workers who are long-distance commuters has also increased by 85% in that same timeframe, from 23 961 to 44 610 (Minerals Council of Australia 2013b). Coinciding with the growth of long-distance commuting to supply labour in the mining industry is the move away from mining communities and mining towns (Buchanan, Baldwin & Wright 2011).

For the industry, the advantage of a long-distance commuter workforce is that it enables firms to attract skilled workers quickly and easily. It is a means of supplying a mobile workforce, one that can provide a flexible approach in responding to the highs and lows in the demand for labour and therefore adapt to changes in project cycles. This is particularly relevant during labour-intensive short-term projects, such as the construction phase. It is also a cost-effective way of minimising production costs by avoiding building permanent infrastructure and services (Buchanan, Baldwin & Wright 2011; de Silva, Johnson & Wade 2011).

For individual workers, long-distance commuting can provide workers with flexible rosters and the ability to retain their existing social networks and lifestyle choices in their home locations (Buchanan, Baldwin & Wright 2011; Chamber of Minerals and Energy of Western Australia 2012). Long-distance commuting can also provide workers with the opportunity to move between jobs and locations and offer new opportunities and variety to employees, as well as extended periods of time off due to the rosters.

However, the long-distance commuting lifestyle, such as long hours, mining camp living arrangements and being away from home for an extended period of time, may not suit all workers, particularly as a long-term working arrangement, and may contribute to the high turnover in the industry (Beach, Brereton & Cliff 2003; Buchanan, Baldwin & Wright 2011).

The recent report of the House of Representatives Standing Committee on Regional Australia (2013) identifies some of the negative impacts long-distance commuting has on regional communities. They find that long-distance commuting (specifically fly-in fly-out and drive-in drive-out) has created and exacerbated inequalities in the regional communities, where there is a high reliance on the long-distance commuting workforce in close proximity. The committee cited issues of housing affordability, cost of living, access to services, security issues, and limited employment opportunities as some of the negative effects of long-distance commuting on regional communities.

A worker's experience with long-distance commuting appears to have an impact on their labour mobility and whether they stay in their job.

High turnover

Turnover in the mining industry is high compared with other industries. While turnover rates vary between industries and employers and according to whether contractors are taken into account, the broader mining industry experiences turnover rates of between 15% and 25% (Beach, Brereton & Cliff 2003; Sweet 2011; Kinetic 2012b).

The Queensland mining industry, for example, is currently experiencing a turnover rate of 17%, which increases to 24.4% when contractors are included. Nearly half of the turnover accounts for contracts ending (47%), while 43% accounts for resignations. The turnover rate for new recruits is higher and nearly a quarter (23.4%) of new recruits do not make it through their first year (Kinetic Group 2012b). It is estimated that this turnover of new recruits costs the industry around \$30 million in the hiring, placement and training of new workers (Kinetic Group 2012b). Employees who live more than 300 km away from their work — long-distance commuters — have a much higher turnover rate and are more than twice as likely to leave their employer than those workers who live closer to their site of employment (Kinetic Group 2012b).

According to Beach, Brereton and Cliff (2003) a turnover rate over 20% is considered to be detrimental to the productivity of a mining site. In their study of nine mining sites in Western Australia and the Northern Territory, they estimated the cost of high labour turnover in an open-cut FIFO mine employing 300 people to be \$2.8 million. The costs associated with high turnover rates include: separation costs and recruitment, training and induction costs, as well as loss of knowledge and productivity during the changeover period.

Reasons for mobility and changing jobs

Labour turnover rates are influenced by a number of factors, which can either be external or internal to the individual and company. External factors include the broader economic climate and the extent of growth in the mining industry. The availability of alternative employment in the local area, either in the mining industry or out of it, is also cited as influencing turnover rates (Beach, Brereton & Cliff 2003).

Internal workplace factors include roster length (shorter rosters are associated with lower turnover rates), the availability of training and skills development, and the management's level of commitment to training and development, workplace culture and management's commitment to creating and maintaining a positive workplace culture.

The factors which influence workplace culture include management attitudes and behaviour and workplace policy and practice, such as performance management and discipline, training and

development, opportunities for career progression and variety in jobs. Those managers who had contained turnover attributed it to equitable remuneration, a commitment to training and skills development, good management, and developing and maintaining the desired organisational culture (Beach, Brereton & Cliff 2003).

As well as workplace culture, personal and family reasons and deteriorating personal relations can also be an indicator of turnover rates (Beach, Brereton & Cliff 2003; Peetz, Murray & Muurlink 2012). Looking at shift workers in the coal and energy industries, Peetz, Murray and Muurlink (2012) found that over a quarter (29%) of respondents indicated that their work life interfered often, or almost always, with their ability to develop and maintain friendships in the community. They also found that there is a high correlation between a partner's disaffection with their spouse's working arrangements and the spouse's probability of leaving their job. Around 20% of partners wanted their partners to get a job elsewhere (non-shift work) if possible; 58% did not. Some of the issues for spouses included: anxiety about regular travel; anxiety about working night shifts; time spent away working affecting the time spent at home; household chores; and family responsibilities. Others said that their spouse's work hours made it difficult for them to maintain their own friendships and community connections.

Like labour mobility more broadly, the reasons for changing jobs in the mining industry are generally related to job dissatisfaction; that is, dissatisfaction with the job and career opportunities, workplace culture and supervisors. But there are also factors associated with the specific sector, such as location and commuting arrangements and the impact these have on a worker's family and social life.

Interest in working in mining

Other research cited previously suggests that people who move location do not generally do so primarily for work-related reasons (Watson 2011). However, it would appear that in the mining sector there is a great deal of interest in relocating for work or long-distance commuting. In a study currently underway, Nicholas and Shah (forthcoming) surveyed 3000 adults of working age in New South Wales and South Australia about their willingness to relocate for work. Their initial findings show that if people were offered employment in two regional areas, Karratha and Emerald, around 60% would be willing to move for work. This is despite just over a quarter of survey respondents stating they were looking for work, or were seeking work in a different state.

Pryce et al. (2013) in their study of potential FIFO workers found that there is a huge interest in participating in FIFO work. Over 95% of their study participants showed an interest in undertaking FIFO work in either Queensland or the Northern Territory, the main reasons being pay and conditions, followed by rosters and time off, followed by opportunities to retrain and upskill. Further, around three-quarters of participants said they would be willing to work anywhere in Australia if they got a FIFO job. Of those who identified as potential FIFO workers, around a third noted their occupation as technicians and trades workers, while a third were professionals or managers. While there appear to be plenty of potential workers interested in working in the mining industry, perhaps the idea of relocating for work or undertaking long-distance commuting is more appealing than the reality of it.

This report now looks at labour mobility in the mining and construction industries from the perspective of recruitment and labour hire firms, employers and peak industry bodies. It examines the characteristics of those who relocate for work or undertake long-distance commuting and draws out some of the issues identified in the literature review relating to relocation and long-distance commuting, and the impact these have on the mobility and retention of workers. The study also focuses on the role that recruitment practices, training, experience, qualifications and licensing have on facilitating or limiting the mobility of workers in the two sectors.

The factors influencing labour mobility – views of stakeholders

In order to gain a practical insight into the nature of mobility in the mining and construction sectors we spoke to labour hire and recruitment firms, employers and contracting companies and a number of peak industry associations. In total we gathered information from 20 organisations (see appendix) between April and June 2013. Interviews were based on a semi-structured set of questions and conducted by phone.

As noted earlier, a broad definition of mobility, especially in the resources industries, involves various manifestations – travelling from a capital city to an on-site residential location, being based in a regional community with fly-in fly-out or drive-in drive-out requirements of various distances, and relocating to a mining town on a permanent or temporary basis. It can involve intrastate or interstate movement and remote or off-shore locations, and sometimes multiple sites. There are sites that may still be reasonably regional or remote but with a town close by, or extremely remote sites, making FIFO the only option for employment, thereby limiting freedom of choice by both employers and workers.

For the purposes of our study we have taken this broader approach to mobility; we are not just talking about changing jobs or geographic location on a permanent basis. Our focus is on identifying the factors that influence or impede mobility decisions, noting that locations, the commodity being mined, the skills required in the respective operations and the various phases in the lifecycle of a mine or construction project differ and require shifts in the patterns of workforce composition and type of mobility required.

The organisations we spoke to cover the full gamut of occupations in the resources and construction sectors, including ‘white collar’ professional roles such as engineers, geologists, geoscientists and project managers and ‘blue collar’ roles such as skilled and semi-skilled trades, general labourers, mobile plant operators, maintenance personnel and drivers. Various types of operations are represented in the study: civil building and construction, and open pit, underground, off-shore and in-situ recovery mining operations across sectors such as metallurgical coal, gas, aluminium, copper, zinc, silver, lead, diamond, gold, uranium and iron ore.

About the sample

The labour hire and recruitment firms

Information was collected directly from recruitment specialists working in mining or construction at large and small or boutique labour hire and recruitment firms across Australia; their level of individual experience and expertise in recruitment ranged from 12 months to over ten years. Eight labour hire and recruitment firms participated in the study.

Some were specialist agencies that provided candidates across all aspects of a mining or construction project, while others focused on particular areas, such as labourers or professionals and executives. The number of workers placed by these firms depends on their size and specialities but can range from below 100 to thousands of placements over a year. Many of the agencies provided both contract and casual placements for short-term projects and permanent placements for long-term projects.

We spoke to agencies working in a specific location such as one state, working nationally with offices in more than one state or territory, and some with satellite offices in places such as the United States, Africa and New Zealand.

The employers

Our interviews were with managers or staff in human resource areas across a range of small and large employers. Smaller employers were those owning and operating one mine site. Larger companies included those with multiple projects and diversified interests across all aspects of the business, some with international operations. Seven employer or contracting firms participated in the study.

Employers were using a mix of permanent staff, labour hire and contractors or outsourced roles. Many of the employers we spoke to carried out their own recruitment. They either did not use recruitment consultants at all, or only did so when needing to fill a specialist niche role.

Limitations in the sample

Given the limited nature of this project, the results should be treated with caution as they are not generalisable across all mining and construction sectors. In particular, the sample does not fairly represent the variability in size and nature of operations; the construction industry is not as well represented as mining; the views of smaller employers and recruitment firms are not well represented; and the geographical distribution of respondents is concentrated in the mining states of Western Australia, Queensland and South Australia. In addition, this study only represents the views of a select few individuals in peak industry associations who have a particular perspective on the issue; and the views of individual workers beyond some participants in the National Apprenticeships Program are not captured.

What we found

This section reports the results of the interviews. Questions were structured around the three main themes of recruitment, relocation and turnover, and the stakeholder perceptions of the impacts or influences each of these may or may not have on labour mobility.

The economic and business cycle

All interviewees confirmed that workforce planning, employment, mobility and turnover in the mining and construction industries are subject to economic cycles. They agreed that the market was significantly slower in mid-2013 than it was 12 months earlier, suggesting that, generally speaking, it is currently not too much of a challenge to find suitably qualified and experienced workers.

The general perception among most stakeholders is that these cycles are inevitable and no specific intervention is required. However, the challenge is that these industries are susceptible to slight and sudden swings in demand as well as to the volatility of resource pricing, making the sector more susceptible to external shocks, meaning that the status quo can change readily.

Labour mobility overall is a good thing – it enables skill gaps to be plugged more easily and enables choice for the employer and choice for the employee. The idea of trying to second guess the economy is not intelligent – we usually get it wrong. One should let the market play itself out. (Peak industry association)

In a period of rapid expansion individuals are more likely to 'chase the dollar' because wages and benefits are the incentives that employers use to fill roles. Mobility may be more prominent in

professional roles (such as engineers) as they are in high demand, can command higher wages and move between employers easily. In construction the workforce will flow to the 'higher tier' projects paying above base rates, leaving lower-tier projects struggling to fill roles. During these times mobility may also be adversely affected because more jobs exist closer to home and individuals may be less willing to trade lifestyle for income.

In low-growth periods, employees tend to stay with their employer, but there are also more people in the labour pool to choose from. The issue is not a shortage of labour (people) willing to move, but a shortage of specific skills. Turnover does not seem to be as much of an issue; mobility may be greater when projects are completed and roles dry up, and people are more willing to move and compromise lifestyle for stable employment.

Because mining is either boom or bust there is always inconsistency in finding people ... either there are lots of jobs and not enough people, or the person you want might say 'I won't get out of bed for less than \$45 an hour'; and then there are times with not many jobs and more people.

(Recruitment specialist)

It all depends on the market and who has been swallowed up at a particular time. Hard-to-fill positions exist then. Some positions are easy to fill at times and harder to fill at other times. It is dependent on boom and bust cycles and taking people off each other.

(Recruitment specialist)

The impact of recruitment approaches and decisions

There appears to be a 'careful' approach to recruitment and a considerable screening process for people seeking work in the mining sector. This screening process is undertaken by employers and labour hire firms. Ensuring that prospective employees have the right qualifications, experience and attitude, in terms of fitting in with the culture of a mining or construction site and undertaking FIFO, is paramount.

Labour hire firms and employers use a range of strategies to attract candidates, including advertising either on their own websites or Facebook and in local or regional newspapers, as well as through employment sites such as SEEK and CareerOne. A number of recruitment specialists and employers explained that this is 'just part of the process' and not how they expect to find their candidates. Typically, the first option is checking the fit of individuals who are already registered on specific company-based or recruitment databases and head hunting or word-of-mouth recommendations. Sites such as LinkedIn and national job portals such as the Australian Government's Resource Sector Jobs Board and the Australian Mines and Metals Association (AMMA) 'mining oil and gas jobs' portal¹ are also used quite heavily.

It is all about networks and specialising in the field — asking clients and candidates for referrals or already knowing somebody that would be suitable — we know everyone in 'that space'.

(Recruitment specialist)

Employers also attend trade fairs and recruitment expos, promote their brand and reward staff for referring personnel into the organisation.

(Peak industry association)

Competition and poaching is rife, particularly during times when the demand for labour is high. Employing people based on recommendations is also widely practised. This selectivity relies on extensive professional networks and social capital on the part of the employer or recruitment firm,

¹ In May 2013 there were over 1500 vacancies listed on that website across engineering, managerial, professional, trade and technical roles: <miningoilandgasjobs.com>.

but compounds the labour or skill shortage issue, as the same pool of people are in demand. There is a tendency to cycle through the same workers without necessarily introducing 'new blood'. This is further compounded by the emphasis placed on the level and type of experience workers bring with them.

The poaching strategy is alive and well and this also drives up wages. I have heard anecdotally that there have been people at the airport trying to recruit anyone with a fluoro shirt on coming off flights. (Peak industry association)

It is all about timing, head hunting and actively looking for the people we need has to happen. We are not the only company looking for particular kind of person. Basically just go on experience most of the time. (Employer)

For the harder-to-fill roles, for example, particular types of engineers, geoscientists, diesel fitters and automotive electricians, employers may turn to the recruitment specialist, especially when they are looking for someone with very specific skill sets, knowledge and experience. They also resolve recruiting difficulties by employing a different skill set and retraining new recruits, or through salary incentives. Many resort to lengthy recruitment periods or end up not recruiting at all.

Employers also use labour hire or contract companies for blue-collar, general labourer or casual roles, and when they need an experienced tradesperson immediately. One of the issues the contracting firms face is the employer 'poaching' the contract staff they like, by offering them permanent positions. This is an easy recruitment practice for the employer, as the contract company has done the hard work – finding suitable people, developing their employability skills and preparing them for mobility.

Most of the stakeholders we spoke to emphasised that those companies operating in regional or remote areas have a preference and strong desire to hire from the local or residential workforce, where possible. Overall, there is a commitment in the industry to employ and train local workers, as it costs time and money to bring labour in and to retrain during high turnover periods.

The role of qualifications, licensing and experience

On the whole, mandated qualifications and licensing (or tickets such as Confined Space or Working at Heights) will always come first in a hiring decision: they are critical and come with the role. Applicants will not even be considered if they do not have them.

The construction phase of major resource projects is very labour-intensive and requires significant numbers of employees to commence work straight away to ensure projects are completed on time and on budget. Without this timely access to employees, projects cannot be built and sustain ongoing employment opportunities during their operational phase. In this context employers will require significant numbers of work-ready candidates who already possess appropriate licensing requirements. (Peak industry association)

But it would appear the more crucial issue is whether the qualifications and licences have been 'used in the field', and this is more challenging.

It is not just about having the ticket and the degree – this has to be coupled with relevant specific experience. (Recruitment specialist)

If the candidate has the appropriate licensing *and* experience then that is the best solution. Time is of the essence. At the end of a day the employer will take experience over non-mandatory licenses. (Recruitment specialist)

The extent of experience required depends on the type of role, but it can range anywhere from at least two years and up to ten or 15 years for a senior professional role. It becomes even more challenging finding the right person when the experience required is related to a specific commodity or type of mine or the complexity of project.

There is often a raft of qualifications required in some highly specialised roles. Often these skills can only be sourced from overseas. For example, some firms require helicopter maintenance workers who require up to six tickets of competency only taught in the UK and France.

(Peak industry association)

Experience is used as a risk-mitigation strategy. The number one emphasis is safety but productivity and compliance are also influenced by experience. Employers need staff who can step into a role easily and be productive immediately, so this means employing only those with an appropriate track record. It is primarily driven by the sheer magnitude of investment (billions of dollars) in mega-scale projects.

The issue is you might be able to find someone with experience ... but not experience in mining.

My employers won't even look at an electrician if there is a perception they have come from a small maverick residential company.

(Recruitment specialist)

Safety comes first and all employees required to operate any equipment or be on our sites need to have appropriate tickets *and* experience.

(Employer)

Soft skills such as teamwork, having a positive attitude, discipline, diligence, safety focus, quality orientation and the cultural fit of candidates are considered important and valued in both trade or technical roles and managerial or professional roles. According to many of the employers and labour hire firms we spoke to, finding a candidate with the appropriate soft skills was one of the biggest challenges.

It is always difficult to find the right blend, especially when it comes to having the ideal soft skills thrown in the mix.

(Employer)

Because labour hire is casual employment the employer does not need to give a reason for not calling someone back. But in reality it is because that person does not meet the 'cultural ideal' for that mine site.

(Recruitment specialist)

Many employers and labour hire firms are increasingly using rigorous pre-employment procedures to assess the behavioural fit and soft skills of candidates more comprehensively. But the amount of effort put into screening also depends on the immediate needs of the business, the type of project and the timing in the economic cycle. For a small established mine site with a team working well, the cultural fit of candidates is always critical. In a downturn there is a larger pool of qualified and experienced people readily available, so soft skills and cultural fit might play a greater role in the selection process. On the other hand, less emphasis is placed on soft skills when it comes to a large-scale project requiring over 2000 people within two months.

Labour hire firms in particular are selective, in terms of the people they recommend: after all their reputation is at stake. More often than not they consider the experience, attitude and potential cultural fit of the candidate over and above the technical skills. Some labour hire firms mentioned how difficult it is to find genuine people, particularly at the professional level, 'really wanting to *contribute* to the organisation and not just *chase the dollar*'.

In summary a combination of qualifications (including mandatory licences), experience and soft skills are all important, but the ratio of those three elements depends on the role and economic cycle.

Moving from other industries to mining

People want to 'get into mining' because of the perception that there is money to be made, or, as one recruitment specialist put it, 'the mining hype – everyone wants to be on the horse that is running the best race'. The reality is that it is not especially easy to get a job in mining when employers are putting so much emphasis on the 'right kind' of experience and attitude. Perhaps a more nuanced discussion around what is meant by experience is needed.

While head hunting plays a large part in filling roles, this study suggests it is more prevalent amongst those already working in the industry. Suggestions that the mining industry is poaching skilled tradespeople from other industries may not hold true. This is not to say that people do not try. Opportunities may be perceived as being more accessible and sustainable than in other declining industries such as manufacturing.

I get so many calls from people who want to work in mining but there are not the opportunities everyone thinks there are – mining demands certain skills and experience – chances are it is hard to get into these areas. (Recruitment specialist)

You can buy the pieces of paper but if you have worked in an office all your life then you have no chance. (Recruitment specialist)

On the other hand, the industry is conscious of trying to match interested skilled and semi-skilled people with employers in mining. One such initiative is the Australian Mines and Metals Association (AMMA) Skills Connect² project, which aims to deliver specialised training and skill development programs to get more locals into resource jobs. The initiative 'will provide resource employers with a single point of access to services ranging from school-to-work programs, traineeships, apprenticeships, verification of competency, migrant gap training and labour sourcing'.

Another initiative is the National Apprenticeships Program (NAP).³ This adult apprenticeship program was developed by a group training organisation (GTO) – East Coast Apprenticeships – to specifically address the growing shortage of skilled workers in the minerals and energy sectors. The National Apprenticeships Program aims to recruit adult apprentices who can achieve 40% or more recognition of prior learning before being considered for placement in the mining sector. This is an option for individuals who may be displaced from industries and regions experiencing downturns (such as manufacturing) to undertake a rigorous skill assessment process and receive on- and off-the-job training and access to employment in the resources sector. It is a partnership approach between the group training organisation, industry and training providers, using recognition of prior learning and gap training; the training is flexible, its aim being to suit the individual and employer.

Most importantly, with respect to mobility, *all* apprentices who apply for the program agree up front that they will work anywhere in Australia on a FIFO or DIDO arrangement. (They do not need to relocate.) In some situations individuals may choose to relocate to be closer to their workplace but it is not a requirement or impediment to their joining the program. The challenge has been attempting to sell the concept to a project-centric industry against some very successful traditional apprenticeship programs.

While there is still a steep learning curve with understanding the safety culture of the industry the main benefit of the NAP is we get people that are immediately productive. They already have a

² Skills Connect is funded by the Commonwealth Government through the National Resources Sector Workforce Strategy.

³ <<https://nationalapprenticeships.com.au/>>, viewed June 2103. The National Apprenticeships Program commenced with significant seed funding provided by the Commonwealth Government.

high level of maturity because they have been in the workplace for a while, and an unexpected benefit was the amount of leadership skills they came with. The key to success is around partnerships: the support a GTO offers, agility on behalf of the RTO, commitment of the individuals and employers prepared to dedicate time to the program. (Employer)

The role of training, graduates and apprentices

When it came to discussing the role of training and the importance of graduates and apprenticeship programs for the industry, a variety of contradictory views and tensions surfaced.

Some of the people interviewed in this study suggest employers in mining do not have the time to put untrained people into tasks on the job, and 'nobody is available on site to train anyway'. A single focus on operational necessity takes precedence. And as with most industries it is the training budget that is hardest hit during difficult economic times.

The guys that are highly skilled are used all the time and nobody else gets an opportunity because there is no time for training on the job. This then limits the amount of people with skill sets in those areas. (Recruitment specialist)

Industry definitely likes to integrate training and skills development more generally, but they balance commercial concerns with how much training they can do – the primary goal is projects on time and on budget – and providing evidence to investors that their staff are qualified and ready to go. (Peak industry association)

While there is a strong apprenticeship culture in the construction industry, there are differing views in the mining industry on the benefit of apprentice programs, either the traditional or non-traditional pathway such as the National Apprentice Program. Some employers are very clear about not having an apprentice on site, or using the traditional apprentice pathway, because competency-based progression is one thing, but the individual needs sufficient 'time on the ground to be tooled up'.

Although the numbers of apprentices and trainees in the mining sector have grown over the period 2003 to 2011, they still only represent around 5% of the total mining workforce and approximately 20% of apprentices in the mining industry are aged 21 years or over (Australian Mines and Metal Association post-interview submission 2013). One of the primary challenges for the industry may lie in shifting the mindset of those employers who presently do not support existing apprenticeship pathways.

Others suggested that the mining industry does invest in training, with employers offering in-house and external training opportunities and providing a strong focus on talent identification and development. Indeed, a recent study by NCVET on behalf of the Minerals Council of Australia estimated that the sector spent just over \$1.1 billion, or 5% of payroll, on training during the financial year ending 30 June 2012 (Minerals Council 2013c). The participants in our study indicated an increasing focus on specific competencies and skills sets rather than qualifications, which also confirms the findings from the Minerals Council report.

Some interviewees expressed concern about the concept of 'work-ready' graduates. In particular the issues seem to lie with the employer perception of quality of (some) graduates and disparity across the practical training offered at universities. This may also be a reflection of the employer preference for experience.

When it comes to hiring someone fresh out of university or someone with three to five years experience on site an employer will pick the person with experience. These are multi-billion

dollar projects and working on them is challenging – going straight from university without any idea of the physical dimensions and scale of a project is a risk to the employer.

(Peak industry association)

Not one size fits all when it comes to graduates – it comes down to the needs of the employer – if it is a simple operation and not too much tinkering you would go for a graduate with more technical skills; if you are running a large development company then you might need someone who has better lateral thinking skills.

(Peak industry association)

Although the mining industry has a strong preference for hiring experienced workers, it is those employers who use a combination of workforce planning for busy cycles ('knowing what the critical roles will be and when') and apprentice and graduate intake programs to 'grow their own' experience who are best able to ride the economic swings. Internships make sense because they give an employer first bite at those who prove themselves to have talent – it is a 'clever way of stocking the pipeline'. It is self-evident that those employers who do offer graduate or apprentice programs are the ones providing the opportunities to new starters to develop that highly valued on-the-job experience in the industry.

As one peak industry association representative said, the industry needs to view 'training and development as an uninterrupted skills pathway – regardless of the business cycle'.

One of the more successful strategies by far – if you can't go out and find an experienced quality professional – then the next best thing is growing your own ... and training them in your own processes from day one.

(Employer)

Part of the issue has been the education cycle lagging behind the industry cycle: industry has a huge upswing and immediate need for people, but the timeframe of people coming through with appropriate qualifications is slow. Some participants in our study suggested this does seem to be improving, with the number of graduates 'being about right'. In addition, new initiatives such as the Associate Degree in Engineering are being rolled out to combat skill shortages in that area.

Characteristics and motivations of people who travel or move for work

All of the employers and recruitment specialists we spoke to indicated there were no obvious commonalities associated with people who travel or relocate for work.

The decision to FIFO or relocate is an individual one which can't be broken into categories.

(Peak industry association)

But most agreed there are two main factors influencing the mobility decision: family circumstances and financial reward. The first depends on the overall life and career stage of the individual, while determining the balance between higher wages and lifestyle plays a huge role in people's decisions.

Family

By far the biggest hurdle affecting the mobility of workers is family commitments. Particular issues are families not wanting to leave behind established social connections and communities; concerns relating to adequate schooling or moving children out of schools; families not being able to settle; access to amenities such as churches, health and personal care services; work opportunities for the spouse; costs for relocating an entire family; and housing affordability.

Family plays a major part in the relocation decision, whether it be moving from Perth to a mining township or moving from Adelaide to Perth.

(Employer)

It is not surprising that those more prepared to undertake FIFO or relocate at the drop of a hat are single males with no family ties. (Recruitment specialist)

Inconsistent secondary school completion arrangements between states makes relocation more complicated for parents determining their child's transition. (Peak industry association)

One recruitment specialist suggested that Australians are generally not willing to move as they 'do not want to leave where they have grown up'.

Individuals from other countries are more willing, they are not tied to place – generally these are the ones that get placed in residential roles. (Recruitment specialist)

Money

In a tight labour market employers will offer incentives such as higher remuneration to source and retain workers. In addition, remuneration packages are structured for living remotely, 'the harder the location, generally the more one has to pay to get somebody to work there'. This benefits the employee and facilitates mobility, but impacts on local businesses and other industries, who cannot afford to pay the salaries that mining companies offer.

The industry [mining] is very competitive and employees do get approached and offered increased remuneration. (Employer)

Remuneration does play a part – if we really want somebody we would pay. (Employer)

Not always about the money

While looking for or being offered higher wages is often cited as the foremost reason people change employers or relocate, it is not always about the money. In a slower economic cycle, improving job security and stability were also mentioned as reasons for changing jobs or relocating. It is about 'going where the opportunities are'. Some stakeholders indicated that reasons can vary, depending on the occupation, with professional roles paying more attention to their longer-term career progression, while blue-collar roles or semi-skilled labourers are driven more by remuneration.

Many participants cited the following reasons for moving, none of which is financial:

- seeking a new challenge, diversity or career progression
- having issues with their supervisor/management or culture on site
- wanting better conditions or benefits such as security or a different roster to improve work–life balance (depending on personal requirements)
- being unhappy with the amenities and choices on site or in the town
- seeking a change of lifestyle, either relocating to a 'nicer location' or giving up FIFO to reclaim their lifestyle.

The impact of FIFO

Some of our interviewees pointed to the frustrations and fatigue of FIFO: 'everyone wants to do it until they do it'.

On the other hand a FIFO arrangement may be preferred because it allows people to work in remote areas without having to permanently relocate. There tends to be a stable cohort of those working as FIFOs: as one person suggested, 'there is a fairly small minority on the fringes that cannot handle it

and they are the ones the media finds to present the bad side'. For many it is a lifestyle choice that does work well if they are able to manage their family relationships.

By and large the people who are prepared to move or travel for work are those whose life situation it suits. (Peak industry association)

If people go into it with a clear view and informed judgement and if their motivation is correct then they can manage it comfortably. (Group training organisation)

With a 2 week on 2 week off roster I actually see it as getting six months of the year as quality time with my family, and for the times I am away the wife gets the remote and a clean house. (FIFO worker, via group training organisation)

It should be remembered that FIFO is itself a sensible and practical way to facilitate labour mobility and ensure skills are made available when and where needed, while not forcing employees to permanently relocate against their wishes. (Peak industry association)

Employers and employees are increasingly aware of fatigue management and work–life balance. Communication with current staff and potential employees prior to employment has improved over recent years, with a greater awareness of what 'they are getting into'. Site visits are also part of recruitment processes to ensure informed decisions are made. Strategies are underway to extend communication to spouses and family members, such as Mining Family Matters and FIFO Families to help with the day-to-day experiences of FIFO, but more could be done to address the emotional burdens and social connections for the families of FIFO workers.

If you work in the resources industry in general you are aware that certain roles are remote and we have not found this to be an issue. (Employer)

There is a lot more understanding these days around FIFO and what rosters work best, but if a good role in a nice location came up then a person might be more receptive to move. (Recruitment specialist)

Consequences of turnover and strategies to retain employees

The majority of the people we spoke to agree that turnover exists in both the mining and construction industries. The causes and effects of turnover are felt differently for each employer and can vary according to the economic and business cycle. There appears to be a culture in the mining industry, particularly in the larger companies, whereby employees work on a particular site or project for a few years before moving on to pursue a new opportunity. A careful approach to recruitment does not prevent high turnover, but monitoring the reasons behind it is helping employers to find ways to improve staff retention.

Employee turnover in the resource industry is amongst the highest in the Australian economy for reasons including the difficulty of the work, the remoteness of project locations and the competition for skilled workers. (Peak industry association)

You expect turnover, people come with a 'game plan' to get the experience they need or to make the money they want, move from job to job and then they get out of there. Three years is the tipping point. If you get past that then you tend to stay for a longer time. (Recruitment specialist)

In an attempt to combat turnover and retain employees, employers use a range of initiatives, including flexible rostering, bonus and share schemes, salary packaging and benefits such as housing allowances, gym memberships, health subsidies, excellent on-site general amenities and social gatherings. Training and career development opportunities are also an integral part of retention

strategies. Several people indicated that the 'best strategy of all is making sure supervisors and managers are good people people'.

Rostering can have a big impact but the employer has to balance what is productive and what employees want. It is about consultation and each workforce will be different.

(Peak industry association)

One of the main reasons for leaving a residential mine site or mining town is the isolation and separation from family. Often it may be nothing to do with the township or job itself. Even when there are the basic services such as child care, education and shopping, the issue is 'lack of choice'. The onus is on the individual to engage with the local community, but employers as well as labour hire firms recognise they have a role to play in settling new people – to encourage engagement and being part of the community themselves – as well as offering other forms of socialisation to assist the relocation of workers to new areas.

Things like being able to go to the footy, a horse race (even if once a year) – this is what adds a bit of colour to their life, they are not just up there working – it is the one thing that helps retention and sanity.

(Recruitment specialist)

It's about showing them that we care and we are available to talk and help, nipping problems in the bud early or it could be as simple as helping the employee buy a new pair of boots.

(Recruitment specialist)

Successful relocation relies on being friendly and doing new things they might have never done before – taking up new activities – you need to put yourself out there to be happy in a mining community. It can very quickly crash and burn for those who don't realise and accept that life in a mining town is very different to the city.

(Employer)

It appears that the size of the employer and their reputation does matter. Small-to-medium employers who focus on providing stability generally have less of an issue with turnover. They consider their employees to be more loyal and not necessarily as keen to 'chase the money' (or if they do they end up coming back). Turnover for them may be a result of flatter organisational structures. Larger employers, particularly in mining and construction, are more likely to feel the 'churn' amongst their workforce. This occurs because individuals are attracted by the dollar – premium wages on offer in the hard-to-fill professional roles and for those in blue-collar roles who are willing to move for even a small pay increase (for example 50c an hour).

In summary, high turnover implies high mobility on the part of the individual worker. Employers can benefit from high mobility in attracting workers but when it comes to keeping their workforce they will use various strategies to retain individuals, effectively impeding mobility. In addition, questions relating to employee loyalty can in turn result in a negative opinion on the part of employers who suffer from high turnover. This has a flow-on effect with recruitment patterns, staff development and long-term planning, especially given the contract and the competitive nature of the work. The use of ad-hoc recruitment practices makes it difficult to get a clear picture of the scope of this 'churn'.

In reality, when the mobility decision comes back to the personal decisions and the challenges faced by the individual, the employer has little influence or responsibility for what is happening or the choices they need to make.

Government policy

Some stakeholders suggested there are Commonwealth, state and territory regulatory policies that could be harmonised to facilitate rather than impede mobility. The three consistently raised issues were stamp duty on housing, secondary school policies and the portability of licensing and qualifications. The nature of the issues raised is touched on below:

- *Stamp duty on housing*: when substantial cost is involved in selling and buying real estate this is a major factor in the decision-making process of individuals to permanently relocate.
- *Variation in state/territory secondary school policies*: for children still at school, transition between states should be seamless. In previous years differing school leaving ages impacted on a family's decision to move interstate, and now there is no minimum school leaving age but education and training participation requirements that are age-linked. Variation amongst the states and territories still exists and in some instances school students are disadvantaged, for example, if they are required to repeat a year of schooling.
- *Portability of licensing and qualifications, especially for electricians and plumbers*: a mutual recognition of occupational licenses for the six priority occupations of electricians, plumbers, carpenters and joiners, bricklayers, refrigeration and air-conditioning mechanics and motor mechanics was implemented in June 2007. Under this agreement, people who registered to practise an occupation in one jurisdiction are entitled to practise an equivalent occupation in another jurisdiction without undergoing additional testing and registration processes, although if overarching occupational structures are not equivalent the licence can be restricted.

Final comments

This study reinforces the perspective that labour mobility is linked directly to the economic and business cycles. For example, in a slow market a person may be more willing to move if stable employment is on offer elsewhere (an individual may trade lifestyle for stability), while in a buoyant market employers will use remuneration to influence mobility. When the market is buoyant and the demand for suitably skilled and experienced workers is high, competition and poaching are common. This often leads to cycling through the same group of workers, especially those who have the desired skills and experience. Naturally the labour pool of relevant suitable workers is limited, which complicates the issue of skill and labour shortages.

The literature shows that people change their jobs for reasons related to job satisfaction. This is also prominent in mining, with people changing jobs because they were seeking a new challenge or career progression; they had issues with their supervisor/management; or the workplace culture on site was not to their liking. But lifestyle factors are also important, with workers seeking better working arrangements, rosters and benefits to improve their work–life balance. Some were simply not happy with the amenities in a particular site or town, and others became dissatisfied with long-distance commuting.

While job and lifestyle-related reasons for changing jobs were common, the most cited reason and the main motivation for change was seeking better remuneration. The high importance of income and remuneration-related benefits is particularly pertinent in the mining sector. This is quite different from the existing literature on labour mobility more broadly, which suggests that income-related reasons are not necessarily the main reasons for job change, and an increase in income does not necessarily occur as a result of job change.

The overall picture painted in the qualitative analysis suggests the following pathway for a FIFO worker. Individuals are initially attracted because of the salary and perceived opportunities but may struggle to enter the industry because of strict entry requirements. If an individual does secure a role, the issues of lifestyle changes, family and job satisfaction may be raised. This leads to an individual either leaving after a relatively short time or moving to another FIFO role and roster which better suits their lifestyle.

There appears to be considerable interest among potential workers in entering the mining industry, through either long-distance commuting or relocation. The industry and recruitment specialists in this study are aware of the perception that people from other industries may want to get work in the mining industry and the impact this may have on other industries, who lose workers to mining. However, with the emphasis on appropriate experience, getting work in the industry is not as easy as potential candidates often think.

From the employer or recruiting agency perspective, when it comes to finding the right person for the job, having the correct mandatory licenses, tickets and qualifications were essential. After this, overwhelmingly, employers and recruiters were interested in finding someone with the right amount and type of experience. Ideally, potential candidates should have the appropriate ‘soft skills’, such as a positive attitude and teamwork, but this was not the primary requirement.

The focus on getting people with the right experience is understandable from an employers’ view. Obviously they want individuals who know what they are doing because they have done the work

before and can start on site immediately. This is particularly relevant for highly specialised roles and for ensuring workplace health and safety.

The literature suggests that the mining industry does provide a considerable amount of education and training for its workers, and the findings from this project confirm that training is valued and seen as a way of attracting and retaining suitable workers. This includes: programs which aim to upskill and match people with jobs in mining; industry involvement in rolling out particular qualifications; traditional apprenticeships; and internships for graduates. In particular, internships and graduate programs are viewed as a way of building the work experience of graduates and increasing the pool of workers. However, the qualitative interviews conducted in this study also indicate some tensions associated with the value placed on apprenticeship programs and concerns regarding the 'work-readiness' of graduates, reflecting the persistent focus on experience.

Our overarching conclusion relates to the importance of the economic cycle. As mobility is a key issue for addressing the labour and skills shortages created in an upswing, it is important to understand what facilitates and impedes mobility. There are clearly some general characteristics relating to the people who are more willing to move (for example, single people with no family ties), but the reality is that there are a variety of factors at play, and decisions are driven by the personal priorities of the individual, including family commitments. It could also be argued that solutions to filling vacancies may be less about a willingness to move on the part of individuals and more about employer expectations of experience and work-ready graduates.

This study has considered labour mobility issues broadly and teased out the nuances of the resources and construction sectors. Given the small scale of this research the topic might be worth further testing across a broader range of industries, as well as exploring the questions with individual workers, training organisations and a broader cross-section of employers, recruitment firms and peak industry associations. In addition, further analysis on the most recent ABS Labour Mobility Survey is warranted.

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Appendix

Organisations consulted

AngloAmerican, Queensland

Anonymous peak industry association

Australian Mines and Metals Association

Crocksolid Mining and Industrial Labour Hire, Mackay, Queensland

East Coast Apprenticeships

Energy Mining Group, Perth, Western Australia

Energy Skills Queensland

Heathgate Resources, Adelaide, South Australia

Minerals Council of Australia

Mineworks Group, Perth, Western Australia

OzMinerals (Prominent Hill), Adelaide, South Australia

Rio Tinto, Perth, Western Australia

SKILLED, Whyalla, South Australia

Stellar Recruitment, Perth, Western Australia

Thiess Contractors, Queensland

Thomas & Coffey, Queensland and New South Wales

WorkPac Group, Adelaide, South Australia

WorkPac Group, Roxby Downs, South Australia

WorkPac Group, Whyalla, South Australia

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