

## FLY IN / FLY OUT: A SUSTAINABILITY PERSPECTIVE

A discussion of the triple bottom line impact of fly in / fly out operations in Western Australia's resources sector

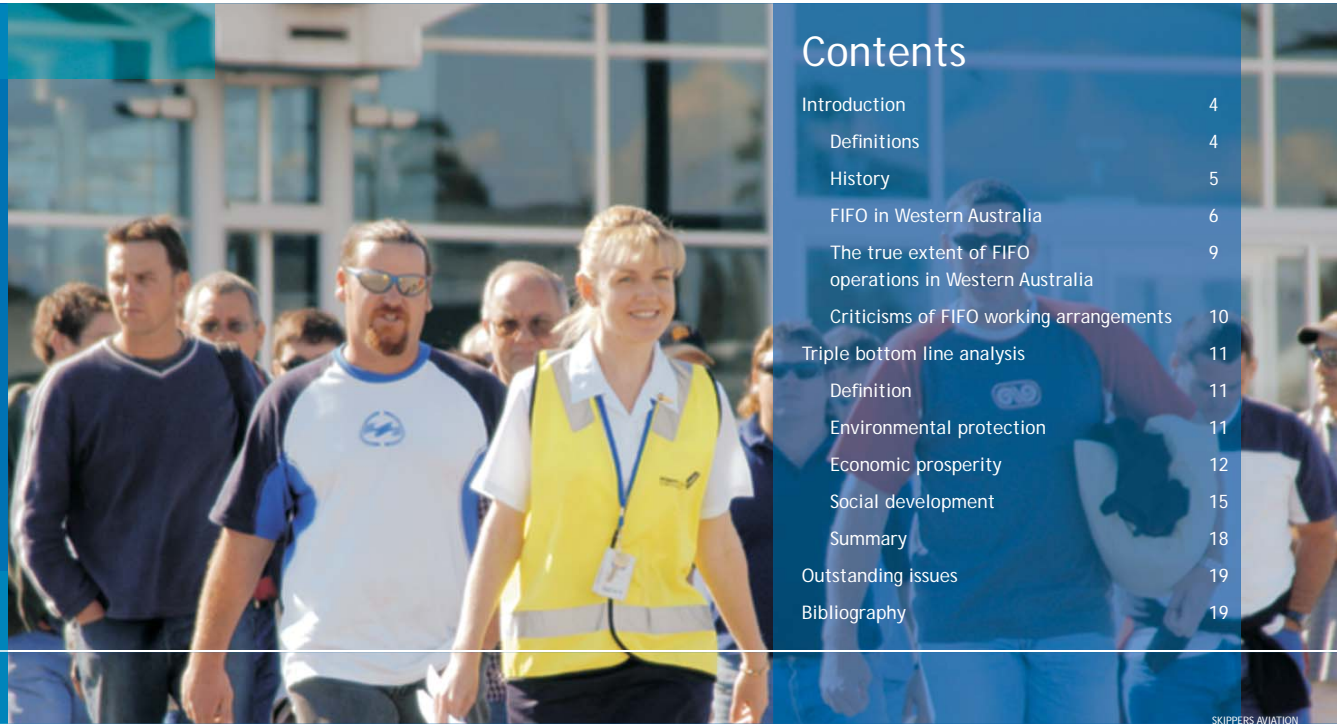


JANUARY 2005



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## Introduction

The purpose of this document is to assist in providing a balanced discussion of the use of fly in / fly out working arrangements in Western Australia's resources sector.

The discussion examines available research in the area of fly in / fly out operations, as well as the practical experience of a diverse range of resource sector operators. Fly in / fly out is examined in the context of the emerging concept of sustainability<sup>1</sup>, which contemplates economic, social and environmental considerations.

## Definitions

Fly in / fly out (FIFO) mining operations are those where food and lodging accommodation are provided for workers only at the mine site. FIFO is also referred to as:

- Long distance commuting (LDC) which can include ship in / ship out (SISO), drive in / drive out (DIDO) via private vehicle or company bus, as well as FIFO; and
- Commute mining.

The essential elements of FIFO and LDC are that workers live and work at the mine site for a period of time, then return to their homes in between rosters.

In Western Australia, the majority of long distance commuting workers commute on a fly in / fly out basis, with a minority utilising drive in / drive out arrangements. For the purposes of this document, fly in / fly out refers to all long distance commuting, unless otherwise specified.

Throughout the world, fly in / fly out has largely replaced the construction of residential towns as a means of accommodating workers for remote area mining operations.



SKIPPER AVIATION

<sup>1</sup> For a discussion of sustainability concepts and approaches, see the Western Australian Government's Sustainability Website at <http://www.sustainability.dpc.wa.gov.au>

## History

### Fly in / fly out and long distance commuting

#### Offshore operations

FIFO had its origins during the late 1940s in the offshore oil sector in the Gulf of Mexico, and has been further developed by the offshore oil industry around the world. There has been rapid growth in FIFO operations since the late 1970's, driven largely by the expansion of the offshore oil industry due to rising oil prices and exploration imperatives. There were an estimated 60,000 FIFO workers in the North Sea in the late 1980s.

#### Onshore operations

Throughout the world, fly in / fly out has largely replaced the construction of residential towns as a means of accommodating workers for remote area mining operations.

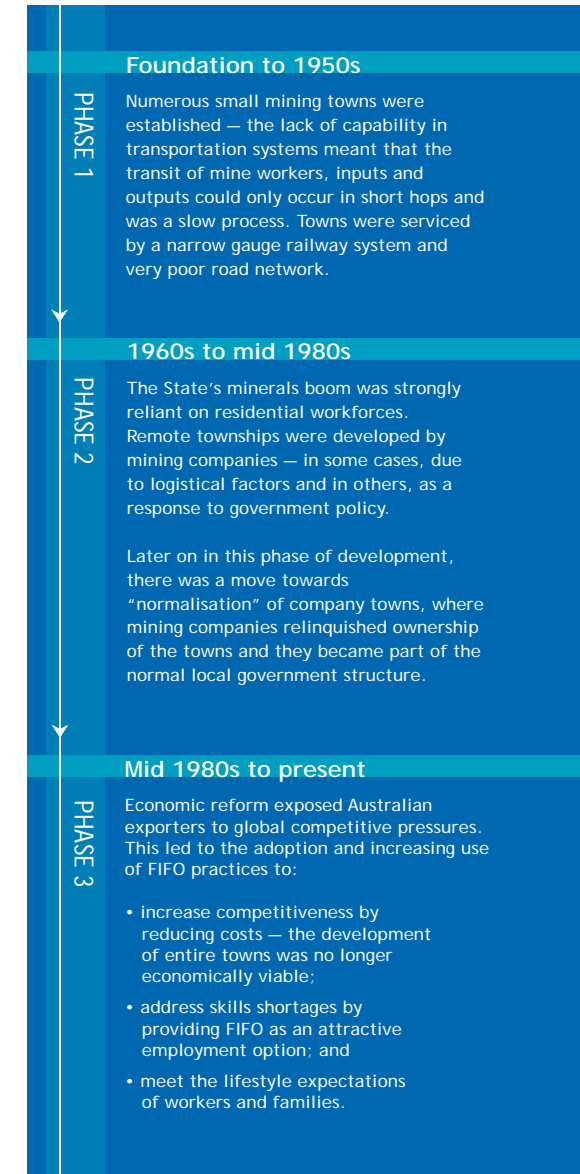
The first modern FIFO operation was in Canada, a country whose geographical dispersion of resource deposits and population centres is in some ways similar to that of Australia. The last new residential mining town constructed in Canada was Tumbler Ridge, British Columbia in the late 1970s, while the last mining town constructed in Australia was Olympic Dam, South Australia in the mid 1980s.



NEWMONT AUSTRALIA LIMITED

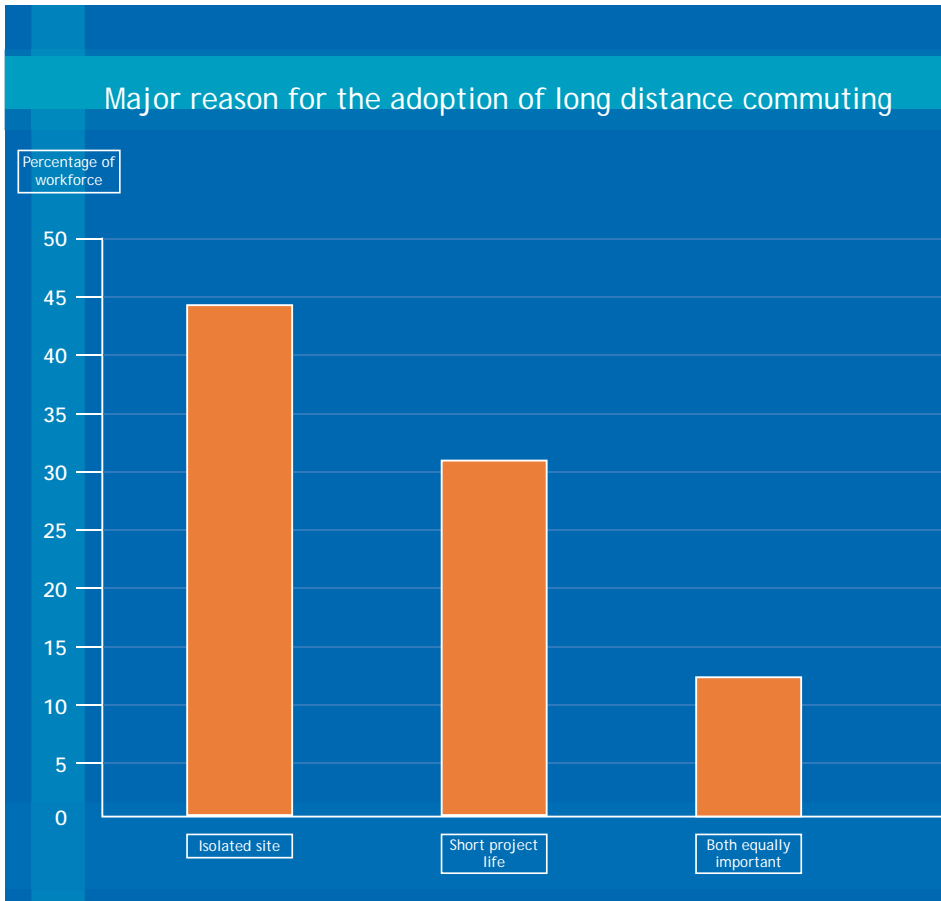
### Mining in Western Australia

The development of the mining industry in Western Australia can be described as occurring in three phases, as shown in the following diagram.



## FIFO in Western Australia

There is no specific data available on the aggregate dollar value of mining operations in Western Australia that are reliant on FIFO. However, analysis of the mining operations of publicly listed companies in Western Australia has shown that 46.6 percent of companies utilise FIFO<sup>1</sup>. Assuming that these operations are generally representative of the sector in their use of FIFO and production value, it is estimated that \$12.6 billion per year of mining operations in Western Australia are reliant on FIFO.<sup>2</sup>



<sup>1</sup> Hogan, L. and Berry, P. (2000) Mining and Regional Australia: Some Implications of Long Distance Commuting, Australian Commodities, Vol. 7, No. 4, pp. 648-659

<sup>2</sup> This amount represents 47% of the \$27 billion earned from mineral and petroleum operations reported by the Department of Industry and Resources, at <http://www.doir.wa.gov.au/mineralsandpetroleum/index.asp>

## Key reasons for the use of FIFO

A survey in 1991 by the Department of Mines of 26 FIFO mines indicated the major reason for adoption of FIFO was isolation (44%), short life of project (31%) and both equally important (12%).<sup>1</sup>

Professor Keith Storey, an international expert in the field of long distance commuting, has identified factors inhibiting the development of new communities in remote locations including:

- Cost of building and operating new resource towns;
- Absence of government financial support for new town development;
- Longer lead time for new town approvals and construction;
- Environmental implications of new town construction;
- Administrative implications of managing a town in addition to a mine; and
- Increased costs associated with town closure, once resource exhausted or no longer economically viable.

Professor Storey identified the following factors which encourage the use of FIFO:

- Improved quality and lower cost of communications;
- Improvements in aircraft and aircraft safety, and relatively lower air travel costs;
- Lower turnover and absenteeism levels than in resource towns; and
- Preference for metropolitan over rural living by many workers and their families.<sup>2</sup>

<sup>1</sup> Storey, 2001, p136 <sup>2</sup> Storey 2001 <sup>3</sup> Hogan et al., 1999, p675

<sup>4</sup> Newton and Bell, 1996 as reported in Hogan et al., 1999, p675

<sup>5</sup> Garnaut et al., 2001, p6 <sup>6</sup> Pilbara Regional Council, 2004, pp45-46

<sup>7</sup> Hinde, 1991, as quoted in Storey & Shrimpton, 1991, p8

## Isolation

Australia is a highly urbanized country with approximately 89 percent of the population living in towns of 1000 people or more – over half of Australia's population lives in five large coastal cities.<sup>3</sup> Added to this, Australia has a relatively mobile population and labour force with about 17 percent of the population moving on average each year.<sup>4</sup>

The consequence of a mobile population with a preference for living in urban centres has led to a significant migration away from regional and remote areas. Since 1986, there has been a marked movement of population to coastal regions and a general decline in regional population. Remote regions have experienced a net migration loss, amounting to eight percent of the population in 1991.<sup>5</sup>

Much of Western Australia's mineral wealth is found in the North West and Eastern Goldfields regions of the State, in remote and often harsh environments, and away from the State's major population centres. While in the past, mining companies have constructed residential towns in these environments, it has become uneconomic to do this.

A recent report commissioned by the Pilbara Regional Council, *Best of Both Worlds?*, acknowledged the increasing use of FIFO as a response to the challenge of carrying out mining operations in isolated locations.<sup>6</sup>

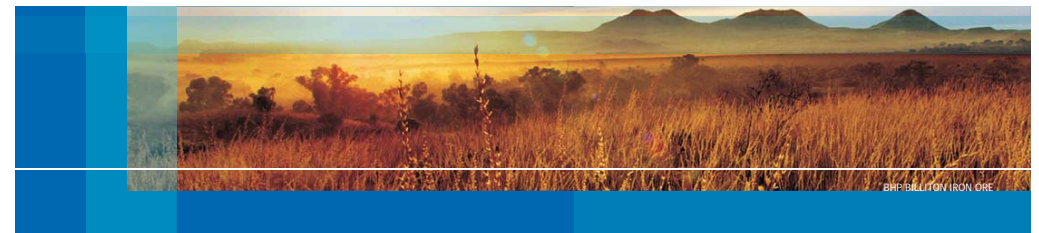
## Short project life

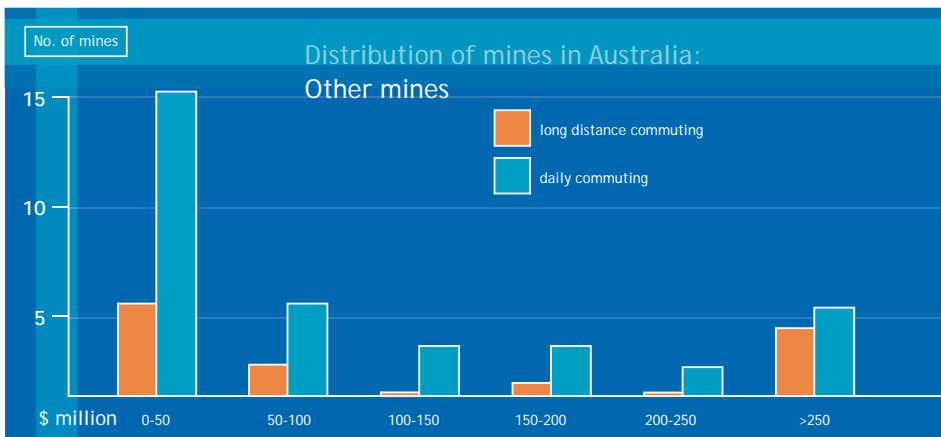
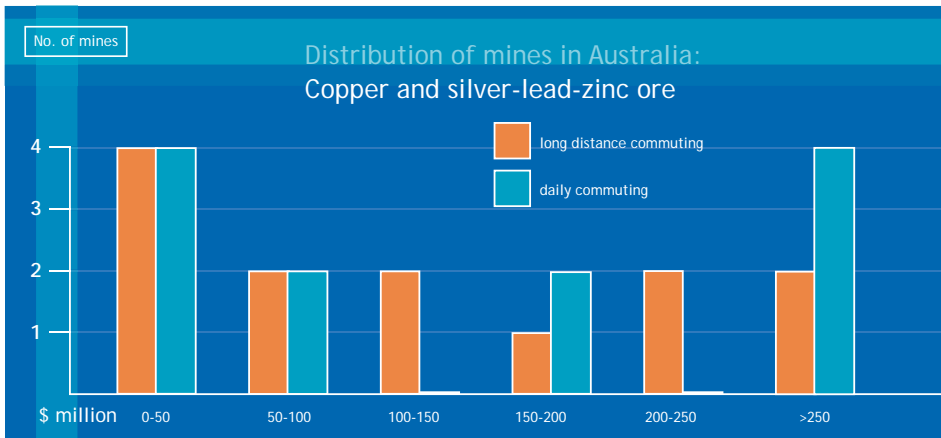
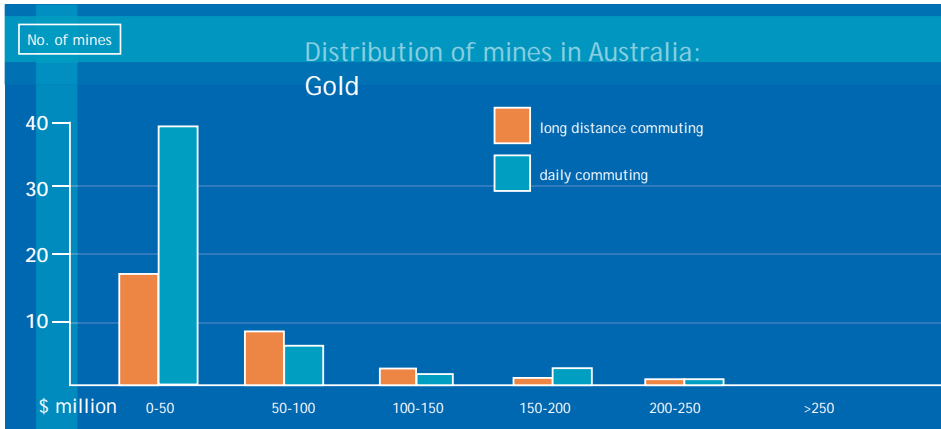
A market bias is emerging towards investment in precious metals linked to risk aversion strategies that favour projects with low cost, short life commitments.<sup>7</sup> The quick returns provided by these mines (typically gold) enable investors to minimise political risk and maximise short term gain.

The growth of Western Australia's gold mining sector has seen an increasing number of relatively short life operations, as previously uneconomic deposits have become viable in the light of improvements in prices.

Increasing productivity through technology and improvements in working practices has also tended to reduce the viable life of mineral deposits.

All these factors have tended to reduce the operating time frame of many of the State's mining operations, and therefore to provide a greater incentive to utilise FIFO arrangements.





## The true extent of fly in / fly out operations in Western Australia

### Numbers of employees involved in FIFO compared to other arrangements

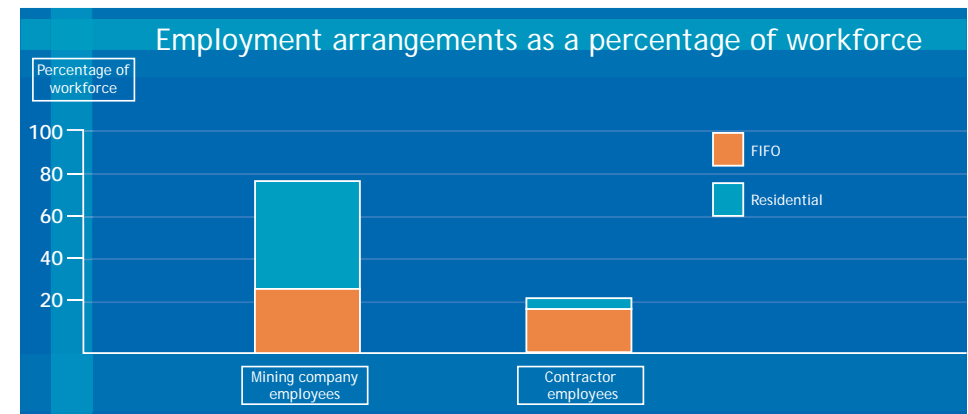
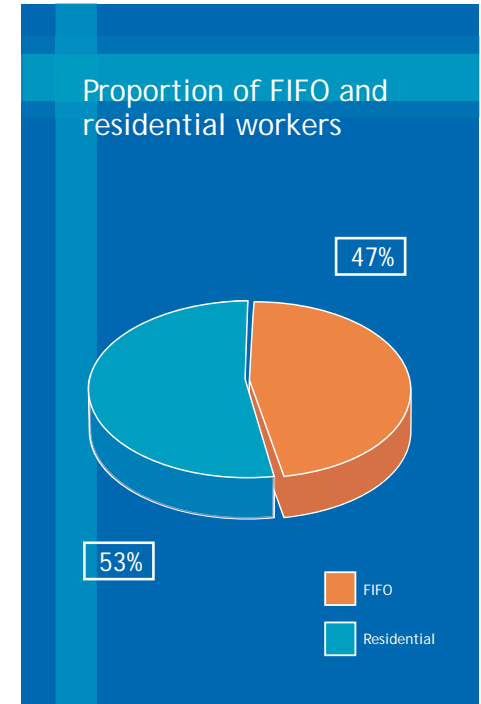
Opponents of long distance commuting tend to over estimate the percentage of FIFO personnel. The extent of contract work involved in FIFO and mining operations is also often over stated.

Research undertaken in 2000 by Lindsay Hogan and Peter Berry revealed that a minority of the mines of publicly listed companies were based on FIFO.<sup>1</sup> A detailed breakdown of the use of FIFO as compared to daily commuting is shown in the graphs (see opposite page) published by Hogan and Berry.

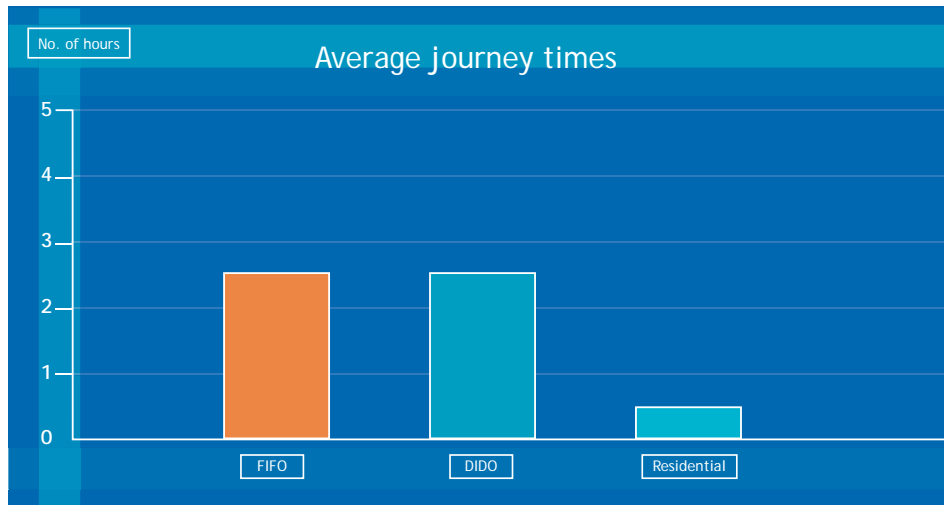
Source: Hogan, L. and Berry, P. (2000) *Mining and Regional Australia: Some Implications of Long Distance Commuting*, *Australian Commodities*, Vol. 7, No. 4, pp. 648-659.

A CME survey of over 100 mining operations and over 18,000 mining industry personnel shows that:

- 76.5% of all personnel are employed directly by mining companies;
- 23.5% of all personnel are employed by contractors;
- 53% of all mining employees are employed on a residential basis;
- 47% of all mining employees are employed on a fly in / fly out basis, including 4.7 percent utilising drive in / drive out arrangements;
- 62.5% of directly employed personnel are residential and 37.5% are FIFO; and
- 22.3% of contractor personnel are residential and 77.7% are FIFO.



<sup>1</sup> Hogan, L. and Berry, P. (2000)



### Journey times for FIFO and other employment arrangements

The CME survey data shows that:

- The average journey time for FIFO operations was about 2.5 hours with a minimum of 15 minutes and maximum of 5 hours;
- The average journey time for DIDO operations was 2.5 hours with a minimum of 1.5 hours and a maximum of 4 hours; and
- The average journey time for residential operations was about 25 minutes with a minimum of 6 minutes and maximum of 42 minutes.

### Criticisms of FIFO working arrangements

Opponents of FIFO express concern about the impact on regional communities of the increasing trend towards long distance commuting. It is often claimed that FIFO leads to a loss of economic and social value to regional areas.

Mining continues to provide significant employment opportunities in regional and remote Australia. In remote areas, mining now employs almost as many people as agriculture<sup>1</sup>, which is an increase on the 1996 levels, where mining employment was 85 percent of the level of employment in agriculture.<sup>2</sup>

Changes in the nature of mining operations have impacted on regional and remote areas. Employment associated with mining operations often fluctuates over time<sup>3</sup> – with different stages in the life cycle of mines resulting in changes in the amount of employment created. Employment is typically largest during construction phase, decreasing as mining operations commence and scales down as the ore body is exhausted or the mine becomes unviable.<sup>4</sup>

Historically, numerous small remote mining settlements have been developed only to disappear due to exhaustion of mineral deposits, low prices or technological limitations. A few towns have endured due to discovery of new deposits or new technologies<sup>5</sup>, though even large towns such as Broken Hill have suffered long term decline in employment and population from the impact of various mining related factors.<sup>6</sup>

There is no doubt that regional and remote communities have encountered difficulties associated with the uncertain nature of resource development. It would be overly simplistic, however, to associate these difficulties with the utilisation of FIFO working arrangements.

Other criticisms of FIFO seem to be aimed more at long working hours rather than long distance commuting itself. While it is certainly the case that longer shifts predominate in FIFO based employment, this is a choice that suits workers at the FIFO operation, who prefer to adopt longer daily shifts in return for extended periods at home when they are away from work.

<sup>1</sup> Garnaut et al., 2000, p48 <sup>2</sup> Garnaut et al., 2001, p3 <sup>3</sup> Garnaut et al., 2001, p40 <sup>4</sup> Garnaut et al., 2001, p40-41

<sup>5</sup> Garnaut et al., 2000, p48 <sup>6</sup> Garnaut et al., 2001, p41

## Triple Bottom Line Analysis

### Definition

A convenient definition of sustainability is provided in the Western Australian Government's Sustainability Code of Practice<sup>1</sup>:

*Meeting the needs of current and future generations through an integration of environmental protection, social advancement and economic prosperity.*

Consideration of this triple bottom line – environmental protection, social advancement and economic prosperity – is the basis of the following discussion of FIFO from a sustainability perspective.

### Environmental Protection

A key concept of sustainability is that settlements need to reduce their "ecological footprint"<sup>2</sup>. The size of the ecological footprint of a settlement will depend on such factors as:

- The extent of clearing of native vegetation required for the settlement;
- Whether exotic fauna are introduced as a consequence of the settlement; and
- The impact of recreational activities associated with the settlement.

There can be no doubt that a camp for FIFO workers occupies a much smaller footprint than a residential town. The extent of land clearing required to establish a town is substantial – space is required for family housing, access roads and recreational facilities. Families also require space for recreation (recreational activities may include four-wheel driving and other activities that have a significant environmental impact), and it is not possible to prevent the importation of cats, dogs and other exotic fauna which are brought into the town as family pets.

There is also greater impact on the environment through the additional infrastructure required to sustain a town – power, water and wastewater treatment facilities are required on a much greater scale than is necessary for a FIFO camp. In remote areas, this impact is substantial.

FIFO camps are low environmental impact settlements. At the conclusion of a mine's operating life, the area utilised for the FIFO camp will be rehabilitated in line with the company's obligations under its mining approvals. This is obviously not the case with a residential town.

<sup>1</sup> Government of Western Australia, 2004

<sup>2</sup> Government of Western Australia, 2004



### Case study: Environmental protection

I took some people from Canberra through the Pilbara a month or so ago ... they had completely the wrong idea ... they got about half way there and they said where are all the mines, you know we expected to see rape, pillage and devastation everywhere and we said well the road we're driving on has devastated more of the landscape than the mine that we're going to visit – if you look at the surface area of the road and it's engineering etc, that's done more damage to the environment than the surface area of a pit. So from an environmental point of view and damage to the land, residential towns and the need to have services it would be much bigger.

*Operational Manager, contracting company*

environmental protection

## Economic Prosperity

A number of trends have substantially shifted the economic balance in favour of the use of FIFO over the construction of new mining towns, including:

- Relative costs of FIFO operations compared with conventional towns;
- Continuing improvements in the cost, reliability and safety of transport; and
- Conventional towns commonly lack the economic diversity and alternative employment opportunities required by contemporary two income families.<sup>1</sup>

### Costs of town construction

Costs of town construction have become so prohibitive that long distance commuting is essential to the viability of many mining operations. The huge cost of constructing permanent townships is highlighted by the fact that the Argyle diamond operation in North East of Western Australia was estimated to have saved some \$50-70 million in capital expenditure through the use of FIFO rather than a residential workforce.<sup>2</sup>

### Skills shortages

FIFO has become a critical element of maintaining a viable resources sector as the industry is challenged by significant tightening in the labour market. While skill shortages are an issue for many industries across Australia at present, the problem is exacerbated in regional and remote areas due to the smaller pool of labour available.



<sup>1</sup> Storey & Shrimpton, 1991, p8 <sup>2</sup> Pilbara Regional Council, 2004, p45

## Regional economic benefits

It has been suggested that FIFO operations result in a loss of economic opportunity to regional communities. In fact, to the extent that FIFO enables the development of resources that would be uneconomic in the event that a residential workforce was required, the spin off from these operations generates economic benefits to the region that would otherwise be lost.

Many criticisms of FIFO from a regional economic perspective appear to be based on grievances related more to the revenue base of local governments rather than the nature of the working arrangements themselves. Without dismissing these concerns, it does not seem sensible to impose restrictions on mining operations which would affect the viability of certain mines and quite possibly result in the reduction of economic opportunities for regional communities.

FIFO operations have played a direct role in stimulating investment in regional services. In regional aviation for example, FIFO has enabled enhanced services and lower prices, providing an important stimulus for regional economies. According to regional aviation operators interviewed for this publication, fly in / fly out operations have provided a boost to their business that has greatly enhanced their ability to provide services to regional and remote communities. Increased services and reductions in ticket prices have been made possible through economies of scale attributable to FIFO operations.

## Case studies: Skills shortages

When the mining boom hit us just under a year ago, suddenly the pool of labour available in [local town] was simply not sufficient. Not only were we opening mines and needing to double our workforce, but there were other new nickel mines opening up all around, all of them closer to town than we were - so we just could not keep the miners employed on a residential basis. So mid year we changed to FIFO.

*Managing Director, nickel mining company*



It's always been difficult to fill all the residential positions. Certainly the industry has got more attractive with the growth, [but] there has never been, even in a downturn, the position where we have been able to fill every position in those key technical roles.

*Operational Manager, Pilbara based major mining company*

As contractors we tend to be the expansion factor ... every time something extra happens and [the mining operations] need more labour, more equipment or people, [they] turn to contractors and that's where the short term stuff comes in. You can't turn around on a need to be based in say Paraburdoo near Hamersley. You can't turn around and just decide, oh we need 50 more people, let's go and build 50 houses ... even if you've got the money and want to spend it, it's not an option.

*Operational Manager, contracting company*

skills shortages



## Case studies: Regional economic benefits of FIFO

[FIFO operations] in the remote area then make the regional centre more sustainable as well, especially if they direct a lot of their core business —things like shutdown maintenance all comes out of that regional centre ... there's a group of people that will do maintenance across all the lines as well as provide newspapers and all that through the local agencies, the local post office, liquor — that will all be bought through the local agencies here.

*Operational Manager, Pilbara based major mining company*

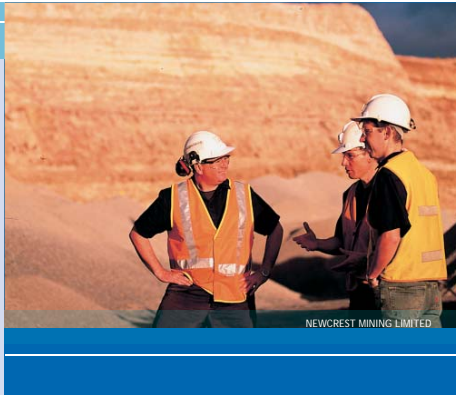
Like a lot of companies, we have a policy as a company to employ locally and to use local businesses and local services wherever possible ... we are about to build a camp and it's going to be locally built and they'll still employ a whole bunch of local trades people and construction contractors and so on for 3 or 4 months to build that camp. Maybe a million dollars or more is poured into the local economy.

*Managing Director, nickel mining company*

A regional aviation operator reports that the size of its charter services business for FIFO mining operations helps sustain the services it provides to regional communities. Without the existence of FIFO charters, the operator would have to:

- Reduce the number of flights in and out of regional communities; and
- Increase ticket prices substantially for regional residents and tourists.

regional economic benefits



## Case study: Initial FIFO operations leading to residentially based workforce

... there will always be a small fly in / fly out component but what we want to get away from is having these 3 or 4 charter flights come up every week ... maybe one day we'll bring a small group of technical people who might spend some of their time working in Perth and some time here at site, and we'll bring them up on commercial flights or maybe we'll just have one small charter each week. For the next 3 years or so, we'll still be continuing commute flights, charter flights, but we hope the demand on those will decrease so that around about 2008 we can start dropping those planes off which will save us money and instead, you know, we spend that money on the region, employing local people in the region ...

... by 2008, we want to have at least 80% of our workforce locally based.

*Senior Executive, mining company with operations in the North of Western Australia*

## Initial FIFO operations leading to residentially based workforce

A major mining company in the State's North originally developed the operation using FIFO. At the time, the nearest town could not provide the number of skilled workers required.

Having utilised a FIFO workforce in order to establish and operate the mine, the company now intends to move towards a residentially based workforce. As the mine is currently using a FIFO workforce, the move to a residential base can now occur in a graduated, planned and sustainable way.

## Social development

### Benefits for mine workers

The ability to access FIFO arrangements has enabled a profound improvement in the quality of life for large numbers of mine workers and their families.

Conventional mining towns lacked health, educational, social, recreational and retail services — essential elements of a contemporary quality lifestyle.

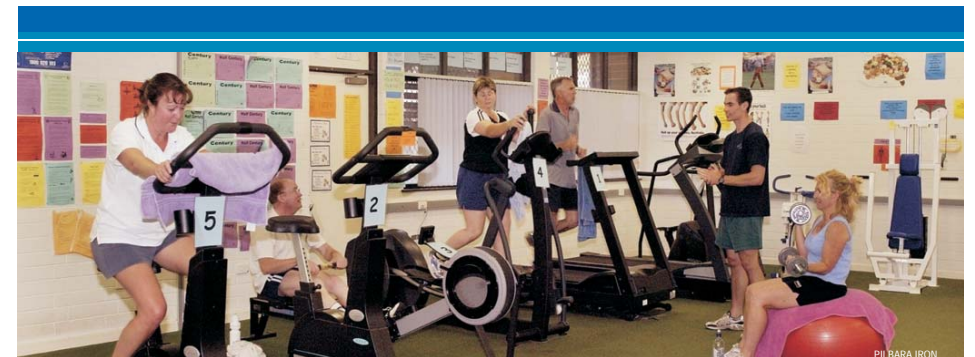
By maintaining a family base in a large regional or metropolitan centre, mine workers have been able to maintain employment in their industry while also ensuring that they and their families are able to enjoy a good level of government and commercial services.

### Benefits for indigenous people

With their smaller footprint and generally shorter mine life, FIFO operations are arguably less disruptive to indigenous communities than residential towns. It has also been found that affirmative action programs for indigenous people which encourage participation in resource development while attempting to maintain key elements of traditional lifestyle are more successful under FIFO than residential arrangements.<sup>1</sup>



The ability to access FIFO arrangements has enabled a profound improvement in the quality of life for large numbers of mine workers and their families.



<sup>1</sup> Storey & Shrimpton, 1991, p8

## Family impacts

Workers who make a choice to engage in FIFO arrangements balance the difficulties associated with the work - isolation and separation from family and friends - against the economic and lifestyle benefits that the work offers.

While it has been asserted that FIFO may impose a higher than normal level of stress on families, this is not necessarily the case. Recent research which examined the psychological stresses upon the families of FIFO workers revealed "...preliminary indications that despite being exposed to the risk factors of frequent parental absence associated with hazardous employment conditions, children from FIFO families did not experience significantly higher levels of depressive symptomatology, anxiety and family dysfunction than non-FIFO children."<sup>1</sup>

This research did identify that FIFO mothers perceived higher levels of family dysfunction than non-FIFO mothers, and this is an area where further work is warranted so that the stresses on families arising from long distance commuting can be better understood and more effectively addressed.

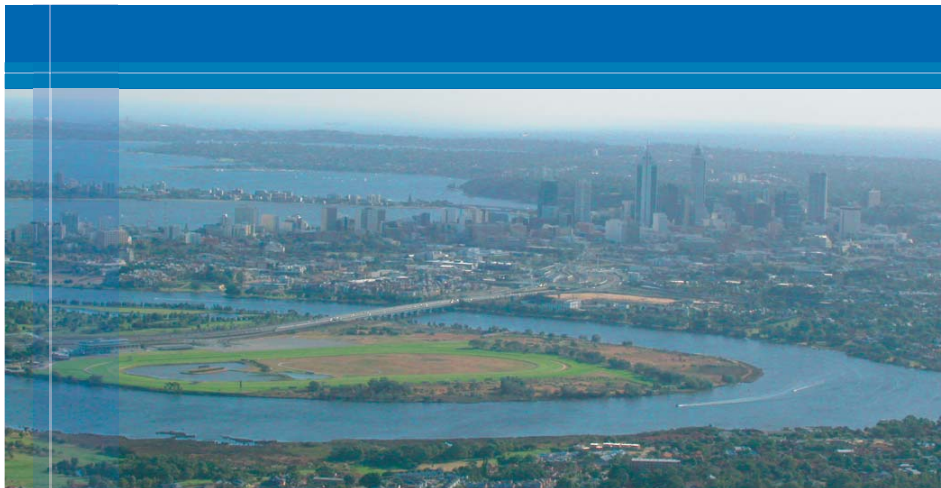
## Usual residence of FIFO workers

FIFO workers choose to live all across the State. An analysis of Commonwealth electorates, based on estimates using ABS 2001 Census data and CME survey data, shows that Western Australian Commonwealth electorates have as few as two hundred and as high as over three thousand FIFO employees as residents. In some electorates FIFO employees therefore form significant proportions of all enrolled voters.<sup>2</sup>

Analysis of State electorates using the same base data and estimating methods shows a similar picture. A small number of electorates have single figure numbers of FIFO employees living within their boundaries. At the other end of the scale, some electorates have numbers of residents in the high hundreds who work FIFO arrangements. These types of figures show that FIFO employees could form a significant voting bloc if there was an issue or set of issues to unite their votes.

## Impact on regional communities

Use of FIFO in remote mining operations has influenced the pattern of regional economic growth in Australia - slower in some remote regions and more rapid in others particularly coastal regions where FIFO employees are typically based.<sup>3</sup>



<sup>1</sup> Sibbel, 2001

<sup>2</sup> The ABS 2001 Census data only reports FIFO workers who were at the mine site on census night, and therefore does not enumerate workers who were rostered off at the time of the census. Since the overall number of FIFO mine workers in Western Australia is able to be estimated from ABS statistics and CME survey data, it is possible to estimate the total of all FIFO workers in an electorate using the formula: (FIFO Workers Total/ABS Census Data Total)\*Total for Federal Electorate. This process of estimation assumes that the FIFO workers enumerated on Census night are representative of all FIFO workers in terms of their usual residence, which is reasonable given the random nature of whether a person was rostered on or off on Census night.

<sup>3</sup> Hogan and Berry, 2000, p658

## Case studies: Lifestyle choices

... we need to tackle this notion that you can just regulate and change circumstances - you can't actually force people to go somewhere.

... if your family is in Perth and you've grown up there and got friends there, that's why people want to stay ... often their decision to be FIFO is because their big priority may be that they're living in Leeming, their kids are going to the school they prefer them in therefore they've got their priorities sorted so that their kids' education is the most important thing - so you tend to do fly in / fly out rather than the kids fly in / fly out.

*Operational Manager, contracting company*

You try to get a guy to come and work and his wife lives in Perth and the family go to school in Perth and she's got a job in Perth, you tell them that if you want to work for us you've got to move your family and come live in [remote town], they'll just say "cheers, goodbye, I'll go work for another company".

Quite apart from the fact there is not enough housing ... to accommodate all the people you need, you cannot get people to change their whole lifestyle and come and live [there]. You can't do that. I know that 10 years ago, 50 years ago, that was the norm but it is not the norm anymore.

*Managing Director, nickel mining company*

It's one of those individual decisions ... [some workers] would rather have the arrangement so they [can] go back to the cities irrespective of any Government legislation or anything else - they still want to work in the industry and fly in / fly out is one of the ways of doing that.

*Operational Manager, Pilbara based major mining company*

A major mining company operated a residential workforce at what was originally a company town in the Pilbara region. From the mid 1990s onwards, people were given the choice of either continuing to live in the town and work or to be based in Perth and fly in / fly out on a shiftwork basis ...

Since that time, a growing number of people have chosen to take this option and only one sixth of the workforce at the mine is now residential. The company believes that when FIFO is offered, people will take up the option - for a wide range of lifestyle reasons. The key issue, according to the company, is that this is driven by worker choice.

I have spoken to some people in FIFO that have done it as a lifestyle choice because they are raising their family on a small farm just out of Perth, or their wife just really likes to live in Hillarys and they have done it for that reason ...

*Managing Director, privately owned mining company*

lifestyle choices

## Case study: Regional social benefits

What I've seen by what one of our [fly in / fly out] contractors has done by being in a town, it doesn't take away from the community growing at all. It helps the community to grow and it brings a whole lot of other skills and perspectives into the town and that company is committed to adding to the community as well even though their employees travel in and out and their business is using local businesses.

And the other thing I think is misunderstood is regional or surrounding mines with fly in / fly out will use a regional centre if it has the right benefits and our policy is to use it ...

*Operational Manager, Pilbara based major mining company*

regional social benefits

## Summary

The challenge of providing accommodation and infrastructure for mine workers and their families has resulted in four basic models of worker settlement:

- New single company mining town - for example, Newman from 1967 to 1981;
- New central mining towns - for example, Moranbah (Qld) from 1971 to present;
- Expansion of existing settlements - for example, Kalgoorlie; and
- Fly in / fly out - for example, Argyle Diamond Mine from 1985 to present.<sup>1</sup>

It seems clear that where FIFO arrangements are utilised in Western Australia, the result is greater economic prosperity and lower environmental impact than residential alternatives.

On balance it appears that FIFO provides social benefits for workers who choose this form of employment, although there are issues associated with stresses on families that warrant further investigation, so that potential problems can be detected and addressed effectively.

On the whole, long distance commuting offers a sustainable development solution in dealing with remote mining operations, and is also assisting the resources sector to deal with the problem of skills shortages.

It seems clear that where FIFO arrangements are utilised in Western Australia, the result is greater economic prosperity and lower environmental impact than residential alternatives.



PILBARA IRON



## Outstanding Issues

While FIFO is a critical component of resources sector operations, it is clear that the best outcome for regional communities will be achieved by finding a balance between residential operations as the predominant form of employment, with FIFO being utilised where warranted by isolation factors and/or labour shortages.

Stakeholders can work together to find the correct balance by exploring a range of measures that could enhance the opportunities for residentially based mining operations.

These measures include:

- Examining the basis of Local Government funding to ensure that Local Governments are able to deliver services that are required;
- Examining the availability and standard of housing in regional and remote communities;
- Greater consultation between local communities and mining companies on development projects;
- Examination of ways in which the capability of regional businesses can be enhanced to maximise the opportunities associated with FIFO operations in the region;
- Partnerships between resource companies, Local Governments, Development Commissions, Port Authorities and other stakeholders to assist in building the capacity of regional and remote communities; and
- Examination of ways in which educational, health and recreation services can be enhanced in order to increase the attractiveness of regional centres as a residential base for families.

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