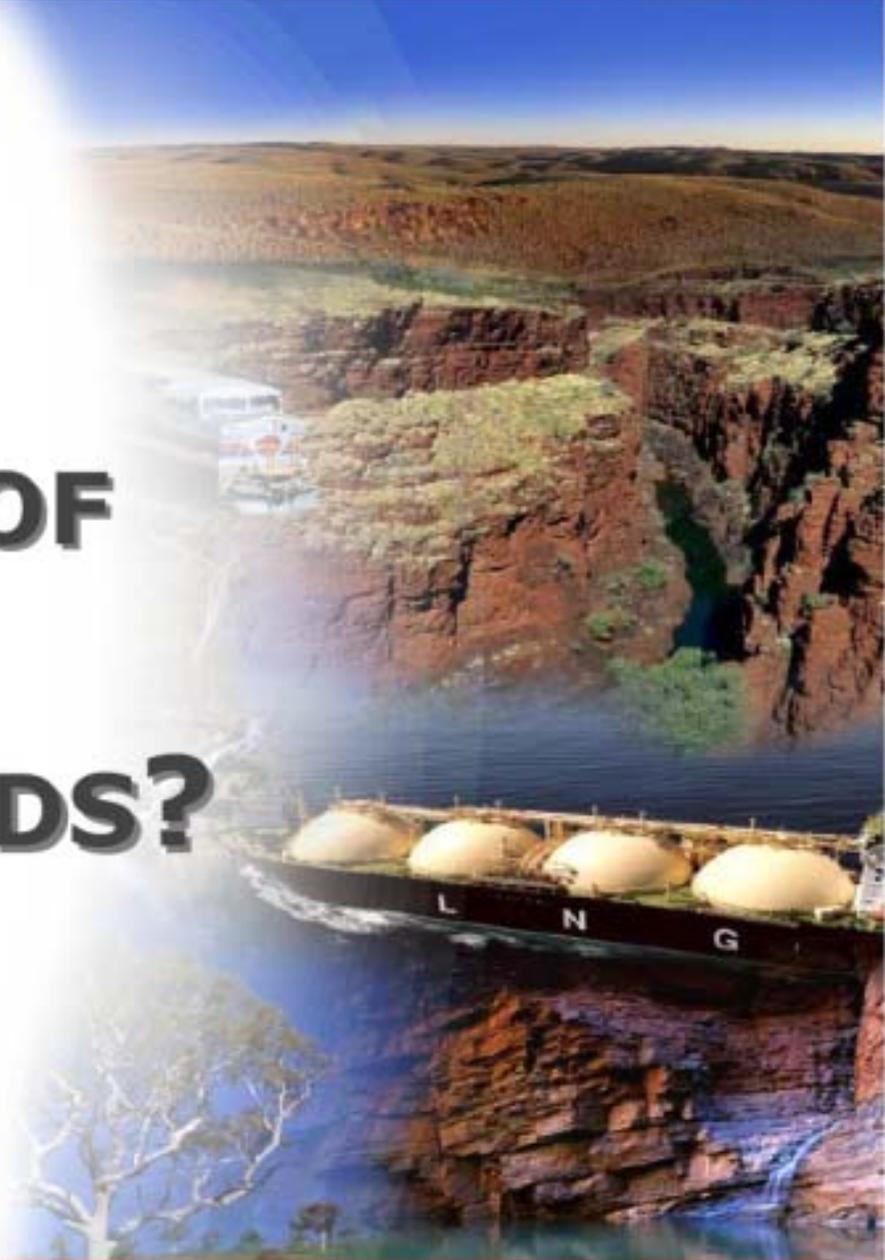


PILBARA REGIONAL COUNCIL



BEST OF BOTH WORLDS?



**Seeking a Sustainable Regional Employment Solution
to Fly In– Fly Out Operations in the Pilbara**

Best of Both Worlds?

Fly In – Fly Out Research Project Final Report

A Research Report funded by
the Lotteries Commission



The Pilbara Regional Council (PRC) was formally established under the Western Australian Local Government Act 1995, in May 2002, to assist Councils in the coordination of resource sharing and common issues common to all member Councils.

The formation of the PRC has strengthened pre-existing cooperation between the Pilbara Local Government Authorities. The Pilbara Regional Council participants are the Shire of Ashburton, Shire of East Pilbara, Town of Port Hedland and the Shire of Roebourne.



The Pilbara Regional Council's purpose is:

"To provide an efficient and effective service to Pilbara Local Government Councils by facilitating resource sharing, identifying funding opportunities, providing for an innovative cooperative approach and a united voice to benefit the people of the Pilbara "

The Pilbara region covers an area of more than 510,000 square kilometres, about 20 % of the landmass of Western Australia. The population of the Pilbara region is approximately 45,000. Due to the extreme isolation of the Pilbara Region obtaining adequate and appropriate resources is often difficult.

The Pilbara Regional Council has provided the vehicle for structured partnerships to achieve benefits for individual council areas by sharing resources and special expertise. The PRC has endeavoured to address issues that impact on the region as a whole and has developed as a strong lobbying body of State and Federal Government. Key projects are as wide and diverse in their nature as the landscape and people of the Pilbara Region, with Council recently undertaking the Pilbara Aged Care Study, Pilbara Infrastructure Audit and Pilbara Regional Art Gallery Feasibility Study.

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The author accepts sole responsibility for any omissions or errors of fact or interpretation in this report.

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Executive Summary

Context and Objectives of the Study

The primary objective of this research was to work with key stakeholders and the communities affected by Fly-in/Fly-out (FIFO) operations to develop a more sustainable and mutually advantageous future by arriving at strategies to maximize identified benefits and minimize identified negative impacts of FIFO in the Pilbara.

Pilbara Regional Council's proposal to undertake this research stemmed from concerns aired by family and community members, indigenous people, service providers and business operators regarding the increasing incidence of FIFO operations in the Pilbara and the lack of action by stakeholders to address these concerns. Grant funding was secured for this project by the Pilbara Regional Council in collaboration with Consultancy North, from the Western Australian Lotteries Commission.

Research Design:

The research took a four phase approach:

- Phase One: A simple desktop audit of the current FIFO situation within the Pilbara at the current time.
- Phase Two: Exploration of issues relating to FIFO practice
- Phase Three: Invitation for local community participation in interactive and collaborative planning phases in order to best plan a strategic framework.
- Phase Four: Presentation of a strategic plan representing the best available knowledge incorporating local ideas and responses to the wider body of state, national and international solutions possible to act as a blueprint for future planning and the best evidence available to ensure a sustainable community approach is secured.

In order to ensure each phase of the grant was fully realized, separate methodologies were used, resulting in the use of a quantitative survey for obtaining data in Phase One, and a 'Grounded Theory' qualitative research approach was used for Phase Two. Phase Three adopted an 'Action Research' approach.

Findings:

Phase One: Desk Top Audit

Utilising survey data cross referenced to Mines Department Records, Transport Industry records and Australian Bureau of Statistics data, it was ascertained that:

- Mining/Resource Industry accounts for 25% of the Total Pilbara Workforce
- Of the 25% of people employed in the mining/resource industries 43% were Fly-in/Fly-out workers
- The overall percentage of the Total Pilbara workforce involved in Fly-in/Fly-out employment as of February 2004 was 14%.

Shift Lengths and Rotation Schedules:

Examination of shift length characteristics in the Pilbara region revealed the following: 58.9% of workers worked 10-12 hours daily, 24.5% worked 8-10 hours daily, 15.5% worked more than 12 hours daily and 1.1% worked less than 8 hours daily.

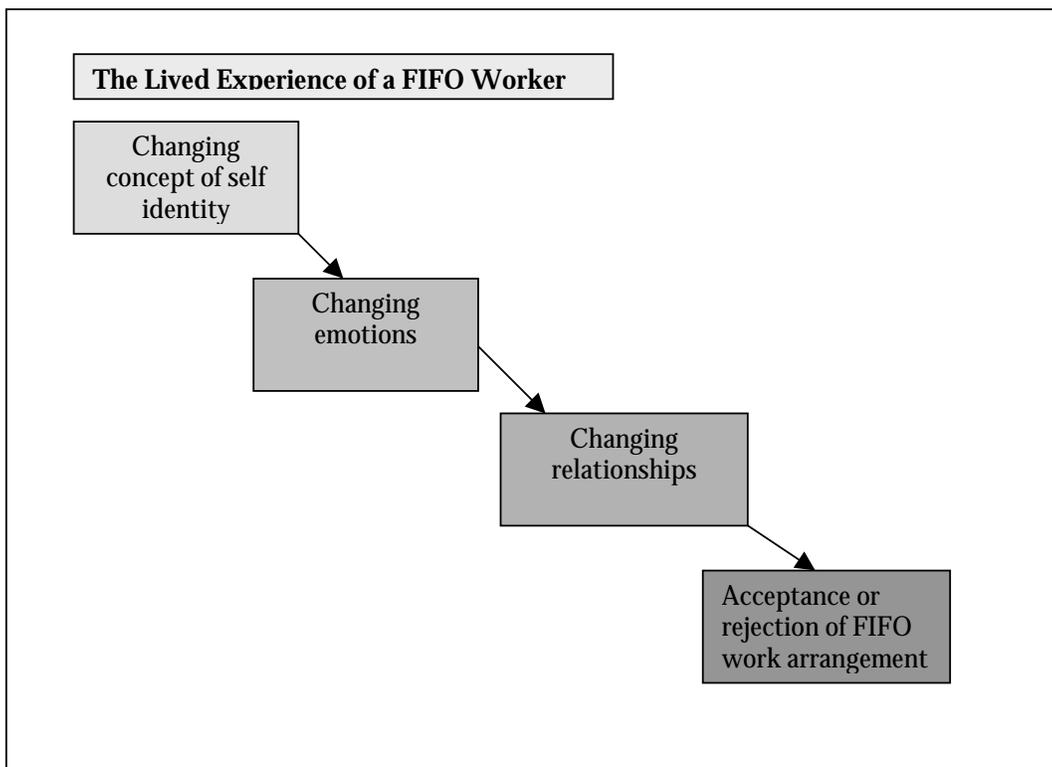
It was found that an enormous variety of shift rotation patterns existed –however Some generalizations that can be made about shift rotations are:

- The most common rotation patterns are 2 weeks on/1 week off, 3 weeks on/1 week off, 6 weeks on/1 week off.
- Contractors tend to favour the longer periods of work on site
- Workers across the industry in general, prefer shorter rotation lengths
- There is no empirical data that explicitly links extended shift length and long rotations to lowered safety records.

Phase Two: Issues relating to Fly-in/Fly-out practice

Experiences of Fly-in/Fly-out workers & their families:

It was possible to classify the effect Fly-in/Fly-out practices had on workers and their families in a cascading continuum of emotions clustered in distinct categories as represented in the figure below:



Strategies to support fly-in/fly-out workers could be developed with an appreciation of where each particular worker might be at an emotional level at specific times of his/her long distance commuting experience. Generalizations relating to the average length of time from initial commencement of this style of employment to eventual acceptance or rejection of the work style could be drawn and averaged at around 6 months. Factors that could lengthen or shorten this process or add to the level of upset/distress to the worker or family were: strength of personal relationships, relationship characteristics, personality style, personal support mechanisms and ability to maintain communication.

Overall both positive and negative experiences were discovered, a summary of these experiences follows:

Positive Experiences

- Growth of personal independence and freedom.
- Strengthening of skills and parental role expansion
- Enhanced quality of time spent with partner
- Pioneering/adventurous spirit stimulated
- Career advancement
- Financial satisfaction
- Bonding & mateship
- Strengthening of relationships
- Strengthening of coping skills

Negative Experiences

- Poor communication
- Loneliness & isolation
- Abandonment of responsibilities
- Marital dysfunction
- Family dysfunction
- Grief & Loss
- Depression
- Possible substance abuse
- Personal devaluing within the family unit
- Guilt at leaving the family

Other Issues identified by key stakeholder groups:

REGIONAL PROFILE

Issue: Many families of FIFO workers and FIFO workers themselves were unaware of the attractions and community activities already present in the Pilbara Region itself and felt it needed more publicity and promotion.

The cultural wealth and environmental attractions of the region in particular was poorly appreciated.

Issue: Difficulty getting budget seats on scheduled flights and high cost of travelling to the Pilbara was seen as a problem both by prospective residents and those already residing in the region.

Issue: FIFO contributes to regional population decline. Population decline has contributed to restructure of electoral boundaries and loss of political representation.

REGIONAL BUSINESS DEVELOPMENT

Issue: The small business/local business community perceive the FIFO workforce as a threat to their survival, growth and diversity.

Issue: FLY OVER EFFECTS –economic opportunity is lost from the region and local economy is adversely affected.

Issue: There is an absence of state policy to encourage regional development.

TAXATION & ALLOWANCES

Issue: Zone rebates and taxation structures can be misused by FIFO workers and do not benefit regional residents enough to attract them or compensate them for the higher cost of living in the north-west of the state.

Issue: Indirect taxes such as sales tax and fuel excise encourages centralization of populations in metro areas and acts as an impediment to regional investment.

RECRUITMENT & EMPLOYMENT

Issue: Recruitment /employment strategies used by some resource companies do not appear to enable residents available in regional areas to access jobs.

Issue: Longer shift lengths favoured by the resource industries as part of compressed work schedules within the region, have altered family dynamics and the opportunity for workers to interact in local social/leisure and sporting activities.

Issue: Long rotation cycles (combined with extended shift lengths) have detrimental implications for health, safety, productivity and turnover of employees.

EDUCATIONAL STANDARDS/OPPORTUNITIES

Issue: Educational standards in the Pilbara Region are considered by some families to be below the standard that might be reached in metropolitan areas, thus FIFO work might be chosen in order to maintain a family home base in the metro areas, to enable children better access and opportunities.

Issue: Higher teaching staff turnover in the region, limited range of subjects offered in state schools and generally poorly maintained and rundown facilities, have contributed to rejection of the local school system as the preferred choice for some parents.

Issue: Absence of a University campus in the region.

HOUSING/ACCOMODATION/TRANSPORT

Issue: Inflated housing prices and reduced availability of family style accommodation is believed to have prevented families from purchasing real estate and settling in some regions of the Pilbara.

Issue: Some families of FIFO workers are reluctant to visit the Pilbara on vacation, because of the high cost of overnight holiday accommodation combined with travel costs of regional airlines.

Fly- In/Fly-Out Issue Summary and Recommended Strategic Actions

<p>5.1.1 Inadequate communication between FIFO workers and their families after FIFO work style commences.</p>	<p>5.1.2 Loneliness and lack of support for partners of FIFO workers and their families</p>	<p>5.1.3 Significant depression in both FIFO workers and their partners if untreated can lead to substance abuse or ongoing psychological disturbances and ill health.</p>	<p>5.1.4 Loneliness and lack of support for FIFO workers whilst on site in the Pilbara region.</p>	<p>5.1.5 Long working hours prevent FIFO workers from accessing local services and shopping in the Pilbara region.</p>	<p>5.1.6 Poor availability of private phone/email in enclosed air-conditioned conditions. Lack of technological expertise to be able to utilize computerised communication options.</p>
<p>To enable FIFO workers and their families to build and maintain good communication links.</p>	<p>To ensure the partners and families of FIFO workers are adequately supported and are aware of ways in which they can build their own social support systems or access professional help if necessary.</p>	<p>To raise awareness in both workers, families, employers and the wider community about aspects of depression, and the dangers of significant ill health and risks of alcohol and drug abuse, arising as a result of depression.</p>	<p>To ensure FIFO workers are adequately supported and are aware of how to access help, counseling or professional services in the Pilbara. To increase FIFO worker awareness of the wide range of activities available to them to offset loneliness in the Pilbara.</p>	<p>To enable FIFO workers to have better opportunities to access shopping and services and to maximize the potential for local businesses and services to increase sales.</p>	<p>To ensure FIFO workers have adequate means by which they can maintain communication links with their partners and families.</p>
<p>a. Develop a short course dealing with communication and relationships in long distance commuting suitable for presentation at remote work sites. b. Circulate literature relating to the problems associated with FIFO c. Survey Pilbara mine sites to ascertain communication facilities available to FIFO workers throughout the region meet a benchmark standard</p>	<p>a. Locate a funding source and prepare a submission to develop an informative website and/or web forum to act as a support for partners of FIFO workers. b. Design and pilot a resource kit for FIFO worker's partners offering positive constructive solutions to anticipated problems c. Circulate literature discovered during this report via employer networks d. Prepare a submission to facilitate an annual/biannual workshop for families</p>	<p>a. Support health department initiatives to promote and develop mental awareness and drug awareness within the community b. Encourage local development of a collaborative partnership through the auspices of the Mental Health and Community health teams as well as mining unions and mining companies to develop a men's health forum capable of engaging the mining community.</p>	<p>a. Investigate the possibilities of collaboration with local service groups to set up a local buddy system to encourage families to spend time with a FIFO worker in a normal family environment b. Encourage FIFO workers to become involved in the recreational /leisure /special interest groups in the Pilbara region c. Advertise activities and things to do in the Pilbara region d. Make a short informative video showcasing the interests catered for in the Pilbara region</p>	<p>a. Develop a personal shopper service and regularly produce catalogues of special s and goods that could be circulated throughout. b. Arrange regular transport to shopping venues for FIFO workers c. Encourage the develop of food delivery services to cater for FIFO workers ion accommodation camps in the larger towns. d. Utilise Chamber of Commerce to pass on FIFO needs</p>	<p>a. Survey Pilbara mine sites to ascertain communication facilities available to FIFO workers throughout the region meet a benchmark standard b. Ensure that resource companies be made aware of the specific needs of FIFO workers in relation to communication.</p>

Fly- In/Fly-Out Issue Summary and Recommended Strategic Actions

<p>5.2.1 Many families and FIFO workers were unaware of the attractions and community activities present in the Pilbara region. The cultural wealth and environmental attractions of the region in particular was poorly appreciated.</p>	<p>5.2.2 Difficulty getting budget seats on scheduled flights and high cost of traveling to the Pilbara was seen as a problem both by prospective residents and those already residing in the Pilbara.</p>	<p>5.2.3 FIFO contributes to regional population decline. Population decline has contributed to restructure of electoral boundaries and loss of political representation.</p>	<p>5.3.1 The small business/local business community perceives FIFO workforce as a threat to their survival, growth and diversity.</p>	<p>5.3.2 Fly over effects-economic opportunity is lost from the region and local economy is adversely affected.</p>	<p>5.3.3 There is an absence of state policy to encourage regional development.</p>	<p>5.4.1 Zone rebates and taxation structures can be misused by FIFO workers and do not benefit regional residents enough to attract or compensate for the high cost of living in the north.</p>
<p>To raise the Profile of the Pilbara region.</p>	<p>To make traveling to the Pilbara as cheap and accessible to permanent residents and prospective residents as is possible . To reduce the relative isolation experienced by residents in remote areas of Western Australia.</p>	<p>To retain political /electoral representation by attracting populations to live and stay in the Pilbara region.</p>	<p>The small business community should not focus on the threat posed by FIFO work styles but be able to recognize and exploit the untapped market potential in the FIFO community.</p>	<p>To Market the Pilbara in such a way that economic opportunity is not lost from the regions and local economies are boosted. To ensure industry capabilities are marketed effectively.</p>	<p>The appropriate and fitting state policy encouraging regional development is developed and reviewed.</p>	<p>To ensure zone rebates are not used by FIFO workers inappropriately. To have zone rebates reviewed and adjusted.</p>
<ul style="list-style-type: none"> a. Market the Pilbara. b. Prioritise tourism in forward planning strategies. c. Ensure a current and realistic assessment of infrastructure strengths , weaknesses and needs to support population growth and tourism fluctuations is obtained. d. Prioritise infrastructure that supports tourism. e. 	<ul style="list-style-type: none"> a. Encourage competition between airlines b. Support and publicly and officially welcome new airline initiatives entering the Pilbara transport industry. c. Lobby other regional/national air transport companies to consider the Pilbara as a package holiday destination as Broome has so successfully done. d. Encourage permanent residents and prospective travelers to outline their need specifically to airlines. e. Show feedback from this report to airlines to raise their awareness of issues f. Monitor communication links and standards across the Pilbara 	<ul style="list-style-type: none"> a. Lobby political parties and government b. Continue to lobby state government for financial assistance to improve local conditions and infrastructure to enable population growth is catered for. c. Promote the Pilbara lifestyle and advantages of living in the region to other areas of the state. d. Promote the Pilbara lifestyle to FIFO workers e. Address areas of resident dissatisfaction. 	<ul style="list-style-type: none"> a. Encourage interaction between FIFO workers and small business operators to find opportunities for supply of goods and services. b. Feedback information discovered and collated during the course of the research regarding possible needs of FIFO workers. c. Encourage E-Commerce initiatives. 	<ul style="list-style-type: none"> a. Review the efficiency of the Industry Capability Directory. b. Investigate other ways of showcasing regional capabilities, especially web-based solutions. c. Actively pursue prospective developers from a local base. d. Undertake an annual resource analysis to assess the capacity of existing training and skill development. e. Continue to recognize and reward outstanding innovative local businesses in public to maintain a high profile. 	<ul style="list-style-type: none"> a. Lobby members of the government directly and specifically highlight regional concerns and issues faced by lack of policy. b. In relation to issues identified by the Keating Report addressing resource development, state agreement Acts and development approval processes which to date have items pending of importance to this region-ensure strategic regional feedback is utilized to call for a definitive decision and finalization of the recommendations of the report. 	<ul style="list-style-type: none"> a. Regions should actively lobby for taxation changes Regional residents should be encouraged to lobby the government to address inequalities and misuse of zone rebates. b. Business should strive to provide more employee incentives such as rental subsidies and purchasing of housing. c. PDC should continue to publicise the cost of living in the Pilbara.

Fly- In/Fly-Out Issue Summary and Recommended Strategic Actions

<p>5.5.1 Recruitment and employment strategies used by some resource companies do not appear to enable residents available in regional areas to equitably access jobs.</p>	<p>5.5.2 & 5.5.3 Longer shift lengths combined with long rotation cycles favoured by the resource industries as part of compressed work schedules within the region, have altered family dynamics and the opportunity for workers to interact in local activities and has detrimental implications for health, safety, productivity and turnover of employees.</p>	<p>5.6.1 Educational Standards in the Pilbara region are considered by some families to be below the standard that might be reached in metropolitan areas</p>	<p>5.6.2 Absence of a university campus in the Pilbara region</p>	<p>5.6.3 Higher teaching staff turnover in the region, limited range of subjects offered in state schools and generally poorly maintained and rundown facilities have contributed to rejection of the the local school system as the preferred choice for some parents</p>	<p>5.7.1 Inflated housing prices and reduced availability of family style accommodation is believed to have prevented families from purchasing real estate and settling in some regions of the Pilbara.</p>	<p>5.7.2 FIFO families are reluctant to visit the Pilbara on vacation because of high cost of overnight accommodation combined with travel costs of regional airlines.</p>
<p>To ensure residents in regional areas are given fair access to employment opportunities.</p>	<p>Strive for shorter shift patterns across all regional workplaces and ensure employees, employers are made aware of industry guidelines and research relating to safe rotation lengths.</p>	<p>To raise perceptions of educational standards in the region. To identify particular strengths an education in the Pilbara would have versus a metropolitan education</p>	<p>To foster and support initiatives to attract undergraduate and postgraduate facilities in the region</p>	<p>To reduce staff turnover in the region. To ensure schools in the region are well maintained and efficiently designed.</p>	<p>To ensure misconceptions about real estate availability and opportunities are clarified</p>	<p>To encourage FIFO families to visit the region</p>
<p>a. Seek funding to monitor the recruitment behaviour of resource companies within the region b. PRC in collaboration with local stakeholders should be encouraged to develop a model of recruitment/employment behaviour that does not disadvantage Pilbara residents c. Distribute Pilbara regional employment strategy models to all resource companies and prospective developers during their community consultation phases of development prior to the completion of the approvals process</p>	<p>a. Locate a funding source and prepare a submission to develop an informative website and/or web forum to act as a support for partners of FIFO workers. b. Design and pilot a resource kit for FIFO worker's partners offering positive solutions to anticipated problems c. Circulate literature discovered during this report via employer networks d. Prepare a submission to facilitate an annual/biannual workshop for families</p>	<p>a. Curriculum in Pilbara schools needs to match rural resources, occupations and lifestyles and to encourage enterprise. b. Increased vocational education and training in schools should be encouraged. c. Closer collaboration with the resource industries should be pursued in order to develop school based traineeships in some of the regional centres in the Pilbara where this is not a priority at present. d. Residential based schooling in the larger regional centres of the Pilbara should be promoted e. Reduce staff turnover by offering better incentives to experienced able teachers</p>	<p>a. Offer scholarships to facilitate study within the region, to publicise university initiatives and boost student intakes. b. Encourage resource companies to offer scholarships locally. c. Encourage resource companies/other employers to utilise university services for staff training. d. Assist universities to discover types of courses relevant to the regions population. e. Promote the Pilbara region to other universities to encourage competition.</p>	<p>a. Councils should lobby education department to improve school facilities and conditions. b. Local action might be warranted in the short term to improve substandard conditions c. Lobby education department to enhance financial incentives and air-conditioning subsidies for teachers. d. Support local government initiatives to purchase GEHA housing to lease back to GEHA.</p>	<p>a. Market the Pilbara to likely investors</p>	<p>a. Home exchange over holiday periods could be investigated. b. Encourage local accommodation providers to market and implement a discount for FIFO families visiting their partners over school holidays c. Packages coinciding with FIFO rotations could be devised to interest FIFO workers without families or working as a couple to experience the Pilbara region on their time off rather than flying out. d. Showcase the Pilbara at every opportunity. e. Access funding from WA Tourism Commission to boost and promote Pilbara events. f. Provide up-to-date listings of accommodation in the region.</p>

List of Abbreviations

ABS	Australian Bureau of Statistics
AusIMM	The Australian Institute of Mining and Metallurgy
DIDO	Drive-in/Drive-out
DOIR	Department of Industry and Resources
FIFO	Fly-in/Fly-out
HR Manager	Human Resource Manager
LGA	Local Government Area
LDC	Long Distance Commute
MARCSTA	Mining and Resource Contractors Safety Training Association
MCA	Minerals Council of Australia
MISHC	Minerals Industry Safety and Health Centre
MOSHAB	Mines Occupational Safety and Health Board
MSC	Minerals Safety Council
PRC	Pilbara regional Council
PDC	Pilbara Development Commission
PACC	Pilbara Area Consultative Committee
QDME	Queensland Department of Mines and Energy
SIMTARS	Safety in Mines Testing and Research Station
WADME	Western Australian Department of Minerals and Energy

Glossary

Asymmetric roster:	<i>A shift roster which works more days than it has off. Asymmetric rosters are most common for FIFO operations. For example: 14 x 12 hour shifts on site and 7 days off. Asymmetric rosters have long hours, both for weeks on site (84 hours) and averaged over the days on and days off (56+ hours per week)</i>
Best Practice:	<i>The best proven way of operating any process or task.</i>
Casual Employee	<i>An employee hired on a daily basis or on a per/cycle basis (that is to fly in to site and work for the full FIFO cycle.</i>
Community Capacity Building:	<i>The ability of a community to pursue its own sustainable development.</i>
Company Employees	<i>Employees of the company that owns the mine or resource company. 'Company' employees usually refer to permanent employees, but can include all company employees (permanent, fixed term and casuals)</i>
Compressed work week	<i>A working week where the standard 40 hours is worked in less than 5 days.</i>
Contractors:	<i>Persons who are engaged to do work at a site but are not employees of the site occupier. Also referred to as 'sub-contractors' or 'subbies'.</i>
Drive-in/Drive-out (DIDO)	<i>Travel to the mine is by road, and the workforce resides on site for a period of time before referring to the pickup point. Transport between the pickup point and the mine is supplied by the company. One or both journeys are paid as work time. Usually operates on a 12 hour shift pattern. DIDO is different to FIFO in that distances between the mine and the pickup point are shorter and individual employees may have the option to self commute to the site.</i>
Employed full-time/part-time:	<i>Employed "full-time" means that the person worked 35 hours or more in all jobs on average per week. Employed "part-time" means a person works less than 35 hours in all jobs in an average week.</i>

Even time schedule:	<i>A 12 hour shift schedule with the same ratio of work days to days off .</i>
Family:	<i>A family is defined as two or more persons, one of whom is at least 15 years of age, who are related by blood, Marriage (registered or defacto), adoption, step or fostering, and who are usually resident in the same household.</i>
Fixed Term employee:	<i>A fixed term employee is usually on a contract of between six and 24 months. Sometimes called 'temporary fulltime' employees.</i>
Fly-in/Fly-out (FIFO):	<i>Travel to the mine site is by air, and the workforce resides on site for a period of time before flying back to the pickup airport. Transport between the pick-up airport and the mine is supplied by the company.</i>
Greenfield Mining Enterprises:	<i>Mining Enterprises being undertaken in areas that haven't been processed or developed previously.</i>
Hazard:	<i>A source of danger or harm that has the potential to cause injury or illness.</i>
Household:	<i>A household is defined as a group of two or more related or unrelated people who usually reside in the same dwelling, who regard themselves as a household, and who make common provision for food or other essentials for living.</i>
Intensive Work schedule:	<i>Any roster that averages more than 42 hours a week.</i>
Joint Venture:	<i>Two or more companies who combine resources to work toward a common goal</i>
Lost Time Injury:	<i>Any injury sustained in the workplace that results in 1 or more workdays lost in recuperation.</i>
Parent Company:	<i>Where the mine operations is sub-contracted to a principal contractor, the lease holder of the mine is sometimes referred to as the parent company.</i>
Principal Contractor:	<i>Term for the company that is engaged to undertake the actual mining for the lease holder. Principal mine contractors can have a similar employee structure to mining companies. That is, they will have permanent, fixed term and casual employees.</i>

Permanent Employee:	<i>A permanent employee refers to an employee with a continuous appointment within a company.</i>
Open pit mining:	<i>A surface mining method in which overlying rock and soil are removed to expose the ore body, which is then drilled, blasted and loaded into trucks or railroad cars for haulage from the pit.</i>
Qualitative Research Methodology:	<i>Type of research style, which relies on information, derived through interview and discussion rather than facts and figures. Qualitative Research is a situated activity that locates the observer in the world. It consists of a setoff interpretive, material practices that make the world visible. Qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of meanings people bring to them.</i>
Quantitative Research Methodology:	<i>Type of research style that relies on statistical and numeric data to derive information from which conclusions can be drawn.</i>
Reserves:	<i>Identified resources of fuel bearing rock or substance.</i>
Risk:	<i>A measure of the likelihood and severity of a personal injury, illness or incident occurring from exposure to a hazard.</i>
Royalty:	<i>Amounts of money paid by a company operating a mining property to the actual owner of the mineral rights. The amount may be based on so much per tonne produced or by a percentage of revenue or profits.</i>
Severity rate:	<i>Average number of days lost per million hours worked.</i>
Social Capital:	<i>Value of social resources within a particular community of people or environment</i>
Stakeholder:	<i>Persons or groups with any interest in an operation, project or proposal. Can include community members/groups businesses, government groups, politicians, community activists and media etc...</i>
Sustainable Development:	<i>Development which meets the need of the present without compromising the ability of future generations to meet their own needs</i>

Underground mining:

Extraction of ore through vertical shafts from the surface, or horizontal tunnels, drifts or crosscuts driven into the ore body.

Validity:

The extent to which a measurement tool measures that which it purports to measure

1. Introduction

1.1 Regional Profile: The Pilbara Region

The geographical area represented in this research is comprised of four Local Government areas:

Shire of Ashburton;

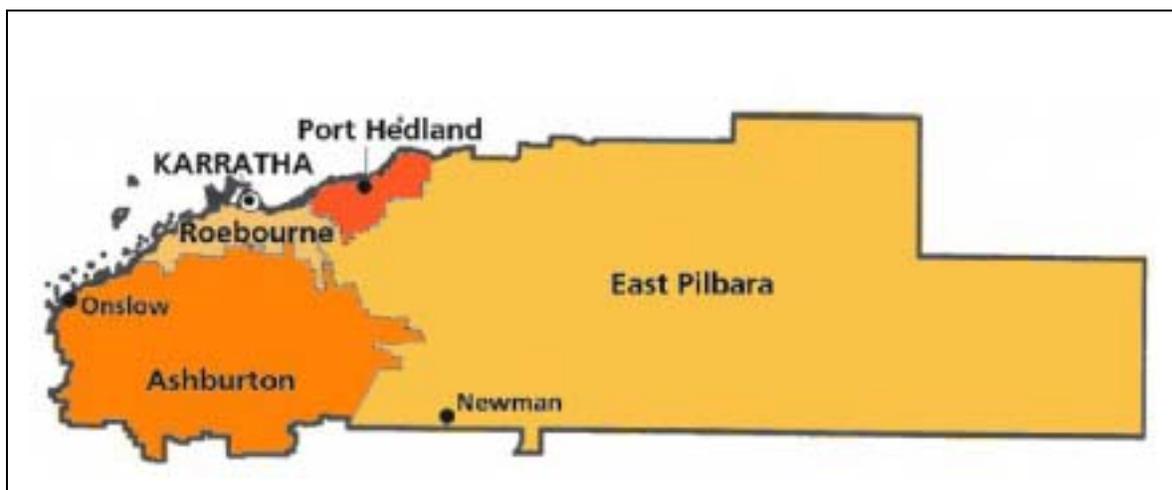
Shire of East Pilbara;

Shire of Roebourne and

Town and Local Government Area of Port Hedland.

It is a large (land area of approximately 505 378 square kilometres-507 896 including offshore islands) geographically isolated area dominated by mining and pastoral activities and characterised by its harsh climate and long distances between relatively small towns, communities, stations and worksites.

Figure 1: Pilbara region map showing local government boundaries.



The towns and communities within the Pilbara Region include:

Towns	Communities
Dampier	Bindi Bindi (Onslow)
Onslow	Ngurrawaana (Millstream)
Pannawonica	Cheeditha (near Roebourne)
Karratha	Strelley communities of
Roebourne	Warralong, Woodstock and Mijijimiya
Wickham	Tjalka Warra (near Port Hedland)
Point Samson	Tkalka Boorda (within Port Hedland)
Tom Price	Pipunya (near Marble Bar)
Paraburdoo	Irrungadji (near Nullagine)
Newman	Jigalong
Port Hedland	Jimparinya
Marble Bar	Camp 61
Nullagine	Mugarimya (Yandeyarra)
	Parngurr
	Punmu
	Kunawarriji

The Population

The estimated permanent population for the Pilbara Region is approximately 39 441, according to data recorded during the most recent national census. (ABS,2001)

The Region's population is distributed between the four local government authorities as represented in the table below :

Table 1: Population distribution within the Pilbara region

Population Distribution						
Area	1986	1991	1996	2001	2002p	% of Region
Ashburton	8706	7922	7379	5945	5816	14.7%
East Pilbara	9297	10111	6937	5843	5773	14.6%
Port Hedland	13320	12516	12281	12615	12731	32.3%
Roebourne	16306	16001	13829	15058	15121	38.3%

p =projected population

(Source: *Estimated Resident Population (ERP)*, ABS, 2001)

The Pilbara Region currently makes up 2 % of the State's population with the majority of the Pilbara population residing in the western third of the Pilbara Region clustered around the major towns.

In the Pilbara, the difference between the census data obtained by ABS and the ERP figures obtained by the Health Department is quite significant. The Health Department adjusts the results of the latest Census, as reported above, with independent indicators of population change such as dwelling approvals, licensed drivers and medicare enrolments. Whilst significant difference in estimated ERP and ABS data was noted in the previous 1996 census amounting to a 4,303 person discrepancy, the accuracy of the 2001 ABS census has correlated to a small variation of approximately 100 persons less than the Health Department ERP for the same period. (Mahmood, 2002.)

Population Origin / Ethnic Diversity

Aboriginal and Torres Strait Islander people comprise approximately 13.4% of the total Pilbara Population compared with a state average of 2.6%.

The Pilbara Region census data(ABS, 2001) lists 45 separate nationalities as being present within the region, however there are thought to be still more than this. Population who were born overseas make up 27.6 %, 11.9% were born in a non-English speaking countries.

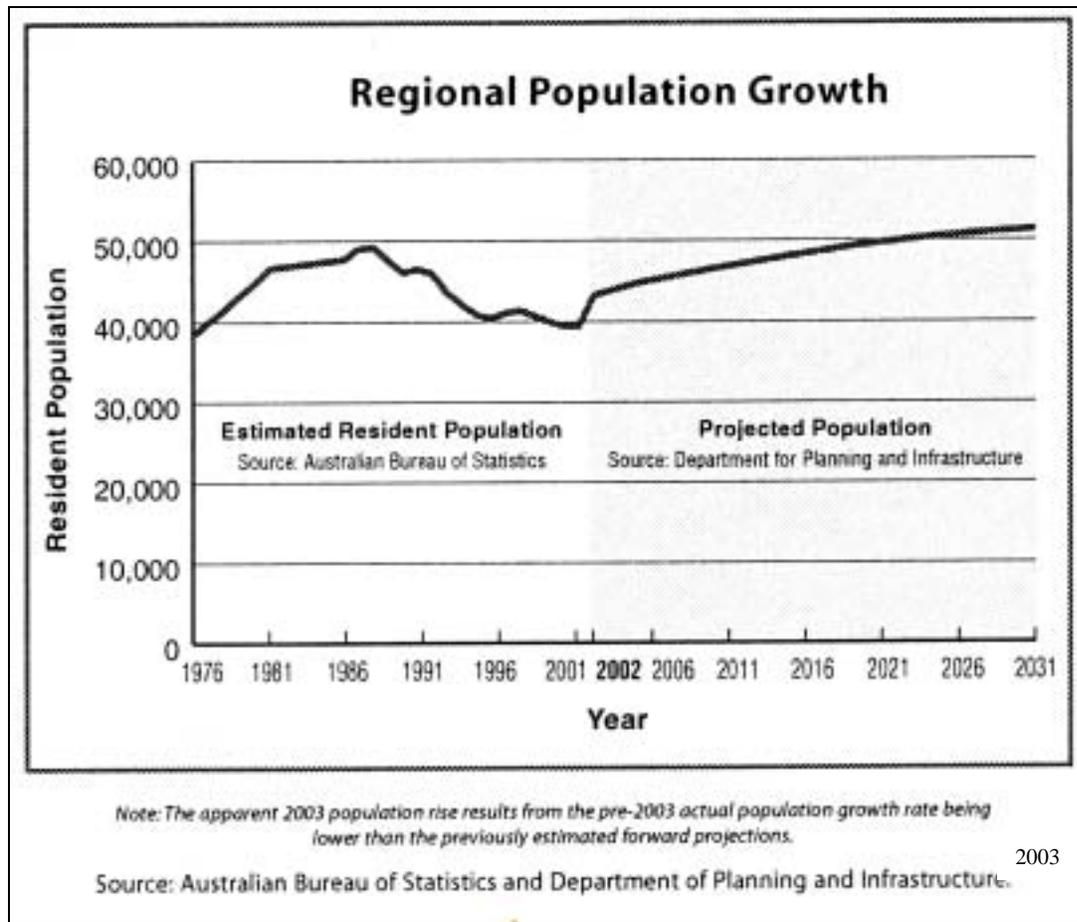
Population Trends and Projections

Community populations have fluctuated over the last 8-10 years during periods of economic boom linked to non-permanent construction related employment activity.

According to the Pilbara Economic Perspective, (PDC, 2003) the Pilbara's economy, dominated by the resource sector, has had the most significant effect on population stability. The large workforces involved in temporary construction phases of projects in the resource industries contributed to population growth in the mid 1980's, a brief growth period for Port Hedland between 1996-1998, but an overall decline in population from the early 1990's to 2002.

Growth projections for the Pilbara Region according to the Department for Planning and Infrastructure estimate that the population could grow to 49,798 in 2023 and 51,100 in 2031.

Figure 2: Regional population growth



Labour/Industry Profile of the Pilbara

The major economic activity in the region is the mining of iron ore and base metals, and the production of oil, gas and salt. The Pilbara generates approximately 8% of national exports, and the region's total mining and petroleum production was valued at \$14.9 billion in 2001/2002 representing 56.6% of the State's total.

Table 2: Employment by industry

Industry Classification	1991	1996	2001
Agriculture, forestry & fishing	303	309	446
Mining	6727	5044	5032
Manufacturing	1081	1354	1174
Electricity, gas & water supply	636	186	220
Construction	1512	1551	2183
Wholesale Trade	2495	618	859
Retail Trade		1782	2043
Transport & Storage	1075	951	902
Communication Services	156	162	192
Finance & Insurance	946	193	153
Property & Business Services		1071	1728
Government Administration & Defence	586	575	988
Education	2946	1333	1322
Health & Community Services		1284	1197
Cultural & recreational services	1419	121	191
Accommodation, café's & restaurants		1015	997
Personal & Other Services		600	770
Not Stated	14161	396	371
Non-classifiable economic units		274	285

(Department of Employment and Workplace Relations, 2002; Pilbara Economic Perspective, 2003.)

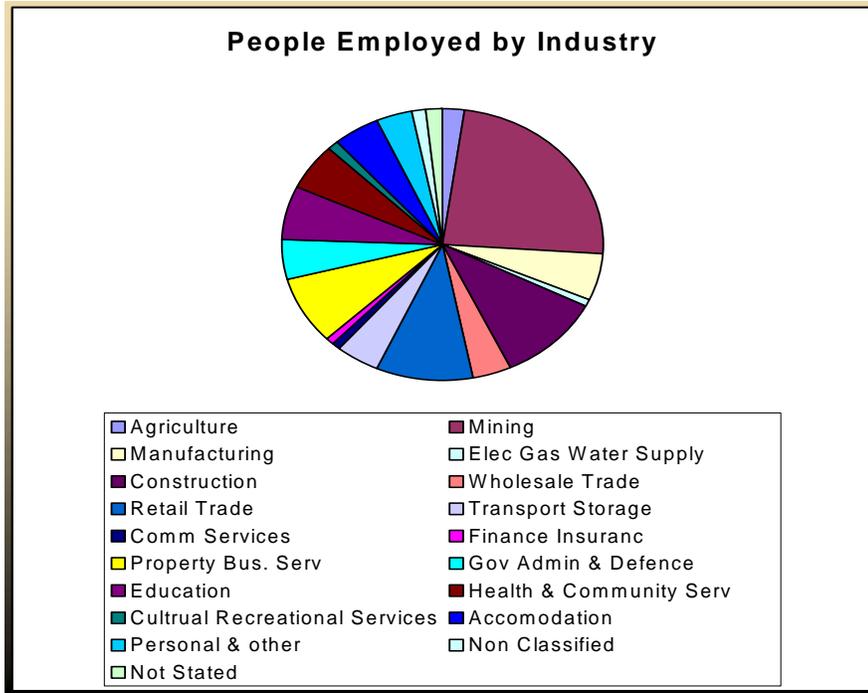


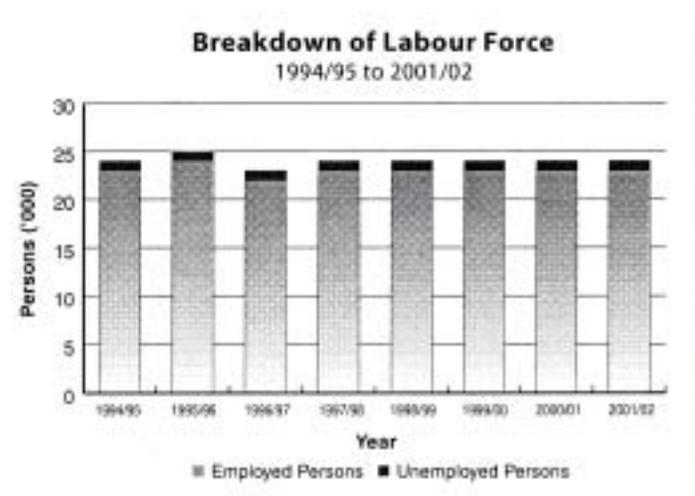
Figure 3: People employed by industry

Employment Rates

Trends:

According to the ABS (2001) and Pilbara Economic Perspective (2003) figures drawing on Department of Industry and Workplace relations data, the unemployment rates for the Pilbara have remained relatively stable and are currently as demonstrated below.

Figure 4: Breakdown of labour force



Note: Each financial year is calculated on a four-quarter average.

Source: Department of Employment and Workplace Relations.

1.2 Project Background

The mention of long distance commuting work arrangements or Fly-In Fly Out work practices (FIFO) as they are most often referred to when thrown in to almost any discussion amongst local Pilbara residents and other key stakeholders is bound to elicit a response. It seems almost everyone has some opinion about this practice and some anecdotal or other experience to recount regarding their views. There is no doubt that it is an issue which has raised fears and concerns in many people's perceptions. It is in this context that as a relatively new resident to the Pilbara, though not to the mining and resource industry itself, that the researcher was able to investigate the undercurrents and issues related to this topic from a platform of curious neutrality.

The fortunate situation of having external grant funding from a source not heavily biased towards any one stakeholder, that is the Western Australian Lotteries Commission, secured by the efforts and applications of the Pilbara Regional Council, and a generous time frame to ensure a wide range of data could be evaluated, analysed and considered strengthened the quality of the research produced.

The grant parameters included several discrete research tasks and opportunities for investigation within the realms of time and funding allocated.

Phase One:

A simple desktop audit of the current FIFO situation within the Pilbara at the current time showing variation and development of long distance commuting from its initial modest beginnings to its current manifestations.

Phase Two:

Exploration of issues relating to FIFO practices.

Phase Three:

Invitation for local community participation in interactive and collaborative planning phases in order to best plan a strategic framework.

Phase Four:

Presentation of a strategic plan representing the best available knowledge incorporating local ideas and responses and the wider body of state, national and international solutions possible to act as a blueprint for future planning and the best evidence available to ensure a sustainable community approach was secured.

In order to ensure each phase of this grant was fully realized it seemed appropriate to employ separate and thus more suitable research methodologies to match the type of information sought in each phase of the research. Thus a mixed research approach was chosen.

1.3 Project Outcomes

The following outcomes were predicted for the predicted for the project:

- Sustained and strengthened well-being of families and the community
- Identification and collaborative prioritization of issues relating to FIFO by all stakeholder participants
- Local solutions to local problems will be identified and trialed if possible
- Community members will be provided with the opportunity to participate and effect meaningful change in their communities.
- Collaborative networks will be established amongst families, communities and groups previously removed from one another.
- Identification of best practice solutions aimed at minimizing the negative impacts experienced by the increasing incidence of FIFO operations in the Pilbara
- Long term sustainability for the Pilbara
- Identification and establishment of a 'best-fit' match whereby industry needs and community development can be nurtured to mutual advantage
- The Pilbara will be profiled in a positive light as an innovative leader in the regions

It was anticipated that families and communities across the Pilbara and families in other areas of the state, who are affected by FIFO operations would be better off at the end of the project. Families and communities should be stronger and have better capacity building capabilities. Certain individuals and communities should emerge as leaders and proponents of social change after having been involved in the community development process. Resource companies should also emerge with enhanced public profiles and a clearer impression of their corporate responsibilities.

1.4 Definitional Issues

The phenomenon of Fly-in-Fly-out (FIFO) work style being explored in this research project is not a wholly accurate descriptor. Difficulty in selecting an appropriate term to describe the work style that is the subject of this investigation has been acknowledged by other authors frequently in the past decade. (Storey,1999; Storey & Shrimpton, 2001; Cliff et al, 2003)

The practice has also commonly been referred to as “long distance commuting” (LDC), or “commuter mining” however as it must be acknowledged that current day usage of the abbreviation “FIFO” has gained momentum and colloquial meaning, particularly within the Pilbara Region and the State of Western Australia, this is the terminology selected for this specific research report.

Thus the phenomenon of FIFO in this context refers to:

‘Circumstances of work where the place of work is sufficiently isolated from the workers place of residence to make daily commute impractical.’

The added situation in which extended work hours have become commonplace throughout the mining/resource industries particularly in the Goldfields and Pilbara region of Western Australia has already been recognized and has been the subject of several reports, reviews and enquiries over the past 2-3 years. (Cliff et al, 2003; Extended Work Hours Review Panel, October 2003; Queensland Mining Council, 2003) When workday hours become greater than 10-12 hours a modest commute of just one hour from home, can result in extension of the day for the worker to 14 hours, which would seem excessive and could be proven in the future to have safety and health implications for the worker. Whilst it is true that in many of the operations currently running in the Pilbara Region do, in fact utilize aircraft of varying sorts, others rely on bus/car transportation to relocate workers from home to workplace. Thus FIFO is not an accurate descriptor in these cases, although where this does occur, the author has attempted to identify alternative arrangements that have been established.

2 Desk Top Audit -Phase One

The Mines Department of WA in its first survey exploring the demography of the phenomenon of long distance commuting (LDC) or Fly- In Fly-Out (FIFO) employment in Western Australia, in April 1991, (Department of Mines Western Australia, 1991) showed only a modest number of mines utilizing FIFO activities and concluded that FIFO had minimal impact on the mining industry and was not expected to increase in a major way, in the foreseeable future. The 1991 survey was initiated in response to concerns expressed by local government on the negative impact of Long Distance Commuting and the perceived effect this might have on regional economies. Similarly this report initiated by the Pilbara Regional Council shared identical concerns when funding was secured in 2002, to undertake research addressing the phenomenon, within the specific confines of the Pilbara region, almost eleven years later.

The initial report outlining the nature and extent of Long Distance Commuting in Western Australia showed a relatively small percentage of the workforce utilizing this style of employment, it was a phenomenon contained for the most part, to open cut gold mines with short mine life expectancies and clustered in the Meekatharra area. The small numbers of workers involved in this practice, as demonstrated quantitatively in this report, would surely have quelled the fears of many opposed to the practice. The numbers spoke volumes. Perhaps perceptions of FIFO had been mislaid in 1991. Initial reasons put forward for the use of this practice by employers and contractors involved: short term project life and isolation of the site as major contributors, and seemed fairly reasonable, economically justifiable and ultimately self limiting.

It seemed obvious that the approximate number of workers involved in FIFO work arrangements in the Pilbara Region at present, would be an essential place to start in this report. Exactly how many workers are we talking about, what proportion of the total workforce is involved and what are the principle reasons the resource industry has elected this style of work arrangement, are other industries and are other employers following this same practice? It would be ludicrous to produce a report outlining this perceived phenomenon without first mapping the real extent of the workforce involved.

To this end, a number of different agencies and approaches were utilized in order to ensure the most accurate estimation of the numbers of workers involved, ranging from examination of Mines Department Records, Transport Industry Records and Australian Bureau of Statistics data, contacting Employers and Contractors directly and continuing to track changes at 3-6 monthly intervals throughout the research period.

(See Appendix 3)

The extent of FIFO workforce within this region can be seen in the figures and tables below:

Figure 5:
Percentage of the total Pilbara workforce involved in mining and resource industry employment.

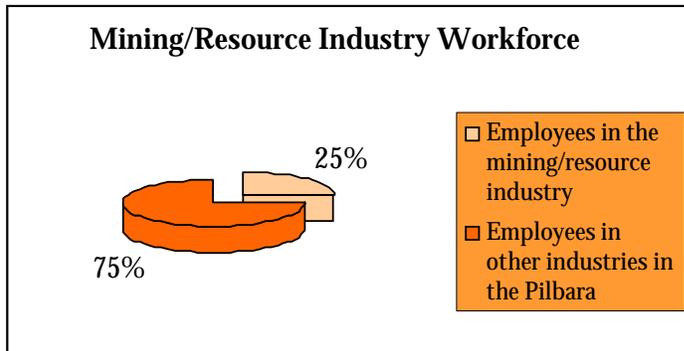


Figure 6:
Percentage of the resource and mining industry workforce involved in LDC or FIFO employment.

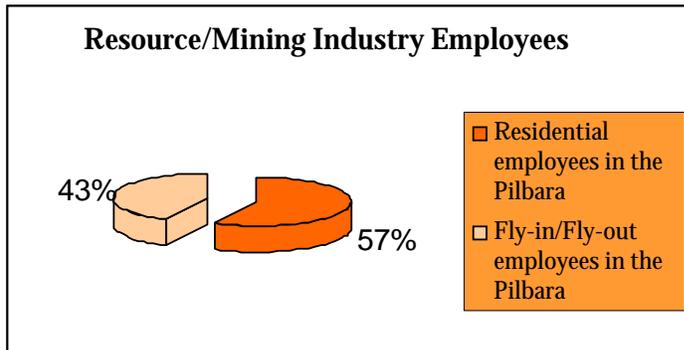
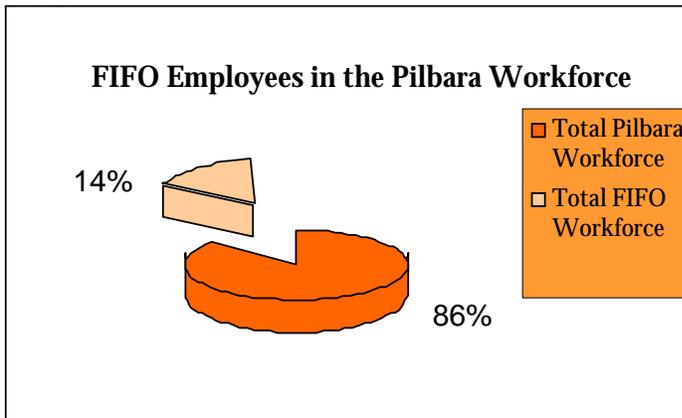


Figure 7:
Percentage of the total Pilbara workforce involved in LDC or FIFO employment as of February 2004.



Profile of major Resource Industries shift lengths

Following analysis of data obtained from the major resource industry companies within the Pilbara it was ascertained that the standard shift lengths for most employees are as demonstrated in the table below:

Table 3: Shift length characteristics in the Mining/Resource industries in the Pilbara

Less than 8 hours worked daily	More than 8 hours- up to and including 10 hours worked daily	More than 10-up to including 12 hours worked daily	More than 12 hours worked daily
1.1%	24.5%	58.9%	15.5%

Shiftwork schedules

While the 'traditional work schedule' is typified by approximately 40 hours of work during the daylight hours, per week, an increasing variety of work schedules have developed. 'Shiftwork' schedules involve working hours outside of the standard workday (8.00 – 9.00 a.m. to 4.00 – 5.00 p.m.).

Information retrieved during data collection locally, suggests that very few workers in the resource industry, in the Pilbara Region work in traditional work schedule arrangements, and in fact there are enormous variations across the region in not only working hours per week but also in shift rotation patterns. Several factors contribute to this variation:

Schedules vary significantly within the resource industries depending on occupations and according to the type of work performed. Since shift schedules are generally determined at individual work sites, diverse schedules are found even within this single industry group.

Work schedules are also influenced by certain laws and regulations.

Concern from government regarding the need for industry guidelines for shift rosters has recently become evident and has been the subject of review panels, working parties and has generated comprehensive discussion papers across Western Australia and Queensland in the past few years. (QDME, 2003; WACME, 1994,1998,)

The Western Australian Chamber of Minerals and Energy, in particular, provided comprehensive guidelines for shift rostering. Health and safety in relation to shift length and rostering have repeatedly been key issues addressed within the resource and mining industry at key industry conferences over the past decade. It has been recognised, however, that this has been an industry initiative and not a government directive and as such companies are not obliged to adopt recommendations provided in the guidelines. The extent to which industry has in fact taken these guidelines into practice has not been assessed or measured.

The Mines Occupational Safety and Health Board of Western Australia (MOSHAB) started developing a code of practice in 1998 following a recommendation from its *1997 Fatality Inquiry Report*. The process is reported to be continuing, and still in planning stages. (QMC, 2000)

The issues and concerns created by working extended hours was also addressed in November 2003, by the Extended Working Hours Review Panel, who invited the project researcher to present an overview of issues relating to this to the panel.

This review panel was not merely interested in the resource sector but sought to encompass a wide range of occupations and industries in as many diverse work sites and settings as were possible.

Shift Rotations

Traditional work schedules generally involve working five days on a single shift, followed by two days off. Such a schedule can involve eight or 12 hour shifts and three (day, evening, and night) or two (day and evening or day and night) shifts per day, which may be fixed, rotating, or a combination of the two. Shiftwork systems are employed to cover seven days a week of continuous operation, such as in some areas of the resource industries.

Shift rotation may be rapid (three days) or long (four weeks); it may proceed forward (day, evening, night) or backward (day, night, evening). Other types of shift scheduling exist, and have been increasing in popularity. For example, the compressed work week, in which employees work approximately 40 hours in fewer than five days, is now a commonplace arrangement in the Pilbara region.

The process by which specific shiftwork schedules are selected at individual work sites in the context of FIFO workers is thought to relate to economic factors and availability of transportation to assist workers to travel to and from work sites from their home bases.

Some generalisations can be made about shift rotations in the Pilbara region:

- The most common rotation patterns are 2 weeks on/1 week off, 3 weeks on/1 week off, 6 weeks on/1 week off.
- Contractors tend to favour the longer periods of work on site
For instance: some Contractors have been known to employ workers for up to 12 weeks on/1 week off.
- Workers across the industry in general, prefer shorter rotation lengths.
- There is no empirical data in existence at this stage which has directly linked extended shift length and long rotations to lowered safety records.

Other considerations

Anecdotal evidence found within local literature and via public discussion and consultations, suggests that Resource companies in the region are not the only employers to utilize similar commuting arrangements to fill vacant job positions.

The extent to which this is currently occurring would require more detailed survey not possible within the time frame of this research. Industry groups such as the Education, Health and Service Providers, and Electricity, Water and Gas Utility Employers have featured most prominently amongst this potentially hidden FIFO group.

Employee numbers quoted in this report are based on units of Full Time Equivalent Workers as supplied to the researcher by Resource Industry representatives irregardless of length of job/employment nature (for example: casual/temporary/contractor/ permanent employee etc...) or actual shift length at time of counting employees and are reliant on the industrial standard of counting a fulltime worker as having worked a normal working week.

3 Research Methodology

3.1 Research Design

3.1.1 Overview

This phase of the exploratory research project brings forward for analysis, the perceptions of FIFO workers, their families and community stakeholders in the Pilbara Region. Formal ethical research approval was not requested from any institution or committee prior to the research, primarily due to the absence of such a supervisory body being present at that time in the Pilbara Region. Nevertheless, effort to adhere to ethical research principles was made and is outlined in some detail.

The process of participant data collection and analysis by the researcher was informed by ongoing critical literature reflection, and conducted alongside the deliberations of a small key steering group and the overarching supervision of the Pilbara Regional Council. This iterative approach of considering and including a range of stakeholder perspectives, provided the means by which the researcher can inform the Pilbara Regional Council how to strategic plan and manoeuvre through the complex issues that surround the focus of this project-sustainable approaches to FIFO employment.

3.1.2 The Research Plan

To strengthen this project's design in bringing forward the diversity and depth of stakeholder and participant's perspective, the researcher employed the technique of triangulation (Patton,1990). In this study three means of triangulation were employed, namely,

- Data (drawing on a variety of data sources including perceptions from a variety of stakeholders, and the wider perceptions of the Pilbara Regional Council),
- Investigation (the use of a researcher with expertise in qualitative research, who had a broad understanding of regional communities and FIFO lifestyle and practices)
- Methodological Approach (the use of multiple qualitative analytical methods)

Focus groups were conducted to enable consumers to elaborate their expectations, experiences, key concerns and misconceptions, successes and solutions and other elements of perceptions of FIFO workers, resource companies and regional community issues. The focus groups of stakeholders were assembled with the assistance of various community and industry groups and networks established by the researcher in the early stages of the project.

Individual interviewees were identified through these same networks and via media requests and distribution of requests through accommodation and industry venues.

Participant profiles were collated – which did not contain personal details of a confidential nature. In accordance with the *Privacy Act 1988*; written consent of all participants involved in the interview process was obtained and a copy of the Information sheet (See Appendix 5) was provided to, and discussed with, all participants prior to the conduct of the interview.

3.1.3 Methodological Strategies

Recruitment Strategy

As is accepted practice in qualitative research, the non-probability sampling technique was purposive, in that the aim was to provide a rich source of data about the phenomena of concern. (Patton,1990) The basis of purposeful selection is “selecting information-rich cases for study in depth” where information rich cases are “those from which one can learn a great deal about issues central to the purpose of the research.” (AIHW, 1998)

The purposeful sample for this study was selected from stakeholder groups identified in initial stages of the project by the Steering Committee and Pilbara Regional Council. A range of recruitment methods were employed in this qualitative research in order to rapidly assemble a representative and comprehensive participant profile.

In particular, a media article appeared locally in regional newspapers which mentioned interviews and focus groups, and called for volunteers. A range of organisations were contacted by letter to recruit participants. A web forum hosted by the Australian Broadcasting Commission, was utilised to build a data base of interested parties, this was found to be particularly effective in recruiting metropolitan participants.

3.1.4 Data Collection

Focus Group Discussion Schedule

Focus groups of between 60-90 minutes in duration were conducted with refreshments available for all participants. The format of the discussion generally followed the same flow but was dependent upon the nature of the focus group members. On arrival of a participant, the researcher introduced herself and requested that participants read the Information Sheet and sign the attached consent form if agreeing to participate. Participants were given an introduction to the research when all participants had arrived. Following introductions, hospitality arrangements, re-affirming confidentiality, the researcher reviewed the purpose of the focus group introducing the research being funded by the Lotteries Commission. The researcher took notes during the session and used whiteboard/poster paper to record group ideas as the session proceeded.

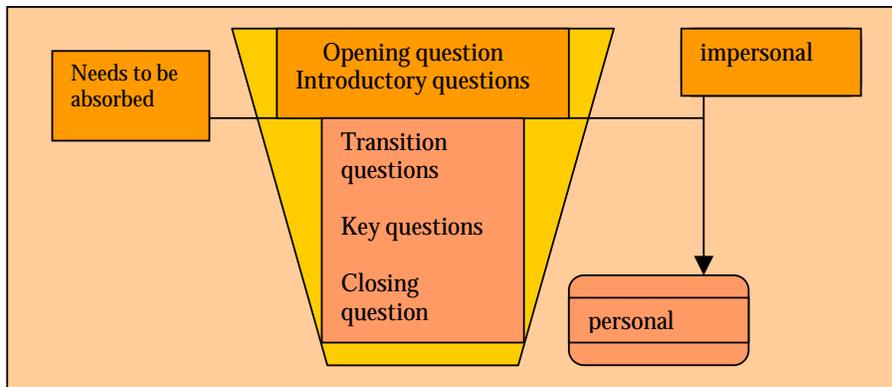
At each focus group, participants were reminded that there were no right and wrong answers to any question and that it would be expected that there may be varying experiences and opinions amongst participants. Participants were reminded that one of the roles of the researcher as facilitator would not be to interrupt discussion unless the focus of discussion shifted to a topic that was not appropriate.

Participants were assured of anonymity and that there was no requirement on any of their parts to inform the group of any personal employment situations or sensitive issues.

Focus groups have a particular logic (see figure 8) Questions are guided by a funnel design. Relatively broad, easy, non-threatening questions are initially asked to promote group cohesion, rapport and trust. Introductory questions are then followed by transition questions (which help participants move their thinking towards the key issues), and finally key questions which are targeted and more personal in nature) are asked. Often only the key questions are of real interest; the other questions are used to create an atmosphere in which participants can gather their ideas

and feel secure enough to respond. As closely as possible, focus groups are asked the same range of questions in order to enable contrasts and comparisons to be drawn both across and within groups.

Figure 8: Structure of focus group questions



(Adapted from Smyth, Caruana & Ferro, 2003)

At times it was necessary for the researcher to ask probing questions, so as to explore the focus of interest. To encourage discussion, the facilitator built on previous remarks by a participant and ensured that participants took the opportunity to elaborate their perceptions. In bringing the focus group discussion to a close, the researcher recapped points made and sought feedback from the participants about these points. Participants were invited to make any comment and were sincerely thanked for their involvement and informed about the way in which their commentary would contribute to the report being prepared.

Interview Data Collection

Interviews were carried out on a one-to-one basis with a duration ranging from 40 minutes to 120 minutes, the duration mainly dependant on additional comments given by the interviewees. Interviews were taped and a transcript produced following interview. In addition to taping interviews, the researcher also took notes to help guide the discussion and to provide cues for reflecting back information to the interviewee and for summary purposes.

As with focus group participants, on arrival of an interview participant, the researcher introduced herself and requested the interviewee read the Information Sheet and sign the attached consent form, if agreeing to participate. An introduction to the research was then given and as with the focus group procedure described earlier, assurance of anonymity was discussed.

The nature of the interview was one which encouraged prolonged dialogue, anecdotes about the experiences of FIFO and suggestions about how this work practice could be improved. A key question guide was occasionally referred to by the researcher. (see Appendix 5) This open-ended method was one in which participants were allowed to reflect in a more sustained way about their experiences. Telling stories is a valid evaluation tool in terms of providing rich, thick text which forms the basis for improving situations.

These interviews were particularly helpful as specific issues were explicated which helped to provide feedback to help in strategic planning stages of the research.

Strategic Planning Workshop with Key Stakeholders

Mindful of the necessity of incorporating the full spectrum of stakeholder perspectives, the researcher conducted a workshop with members of the Pilbara Regional Council and other local government department representatives on 4th April 2004.

This workshop provided an opportunity to engage with some interested groups and policy makers to ensure that all points of view had been considered in the final report presentation.

3.1.5 Data Analysis

As has been highlighted, focus groups and semi-structured interviews are an appropriate method of data collection in this type of research. Focus group issues were recorded at the time of the session. Most of the semi-structured interviews were audio taped and transcribed for analysis. The methodology used to analyse (interrogate) the data broadly follows the grounded theory approach, a methodology which generally speaking enables the researcher to sample information from a range of sources and identify retrospectively issues and themes, and in this case logistical solutions before arriving at more concrete theories and insights about the FIFO phenomenon .

The analysis involved:

- Each transcript was studied; transcripts by stakeholder group, by sampling of groups, and whole of data collated were studied to give a sense of whole;
- Themes and categories were identified group-by-group, by sampling of groups, and whole of data collated;
- Recurrent patterns were identified group-by-group, by sampling of groups and whole of data collated; and
- Summative themes and research findings were developed.
- Feedback of summative themes and findings was incorporated into final interviews to check with participants for validity.

The method of data analysis is described below:

Level One: Descriptive Analysis

In this stage (which occurred alongside all other data collection stages) the corpus of material was read in order to describe stakeholder perceptions, and the different types of presentations or ways a participant speaks about FIFO and the Pilbara environment. On an ongoing basis the researcher carefully read all data collected to elicit patterns of meaning, contradictions and inconsistencies. Contrasting ways of thinking and exceptions to patterned routines that include contradictory descriptions were examined. This process could be said to be a formulation of categories by sorting issues into clusters that seem to group together.

Data was initially clustered under:

- Bad Experiences of FIFO workers and their families
- Good experiences of FIFO workers and their families
- Relationships between workers and their families
- Relationships between workers and their employers
- Financial Issues/Considerations
- Community/societal beliefs
- Roles and relationships
- Personal Emotional Costs

Level Two: Thematic Analysis

This stage drew on the first stage of analysis to generate a table of themes. Thematic analysis of data collected contributed significantly to build a comprehensive picture of stakeholder perceptions in relation to the objectives of the project.

The themes informed the critical analysis and the development of draft recommendations and strategies arising from this project.

Level Three: Critical Analysis

In addition to analysing data collected during the project, and literature reviews sought before and during the project, utilisation of the Strategic Planning Workshop allows the researcher to stand back from the research and enter a process of critical reflection.

3.1.6 Limitations

Rather than conducting wide consultations with large numbers of stakeholders and organisations, the focus was upon gaining a broad overview of perceptions and issues from more specifically representative groups in order to capture the diversity of perceptions. The need to complete the project within a short time frame meant that decisions had to be made about what could realistically be achieved in order to provide the most useful and valid information.

As an independent researcher, remaining impartial to the phenomenon of FIFO and its effects has perhaps been the biggest challenge. It is almost impossible not to form an opinion after having interviewed employees and stakeholders from across the Pilbara region, who are suffering the negative effects of family separation, isolation and loneliness. Attempts to ensure academic robustness and validity have been made by seeking data analysis advice from two different academic contacts familiar with this qualitative research style.

3.2 Participant Profile

3.2.1 Overview

Individual interviewees and focus group participants were asked general demographic questions and specific questions that were collated into a participant profile. Data collated enabled participants to be allocated to a specific stakeholder group according to their experiences and position in regard to FIFO work practices.

The responsibility to collect profile information of participants was undertaken at the time of participation by the researcher, in the explicit understanding that this information would not be used in any way to identify the participant or compromise confidentiality.

To provide a more detailed overview, data collected has been assembled in the tables that follow.

3.2.2 Summary of all interview participants

Table 4: Overview of the interview participants

Stakeholder Group	Number Interviewed
FIFO Worker Present	33
FIFO Workers' family member not living in the region	28
Non FIFO worker Living locally Working in the mining/resource industries	24
FIFO worker Past	15 Total-39
Non FIFO worker Living locally Working in the education/health/police/gov. or service industry	22
Non FIFO worker Living locally Unemployed/retired	12
Non FIFO worker Living locally indigenous	9
Non FIFO workers Living locally Retail/wholesale/trade/ construction/manufacturing & Other industries	35
Politicians	4
Secondary Students/teenagers not in the workforce yet	7
Primary school students	2
TOTAL	191

Table 5: Participant Age

Age 6-11	12-16	16-20	21-30	31-40	41-50	51-60	>60
2	7	11	34	57	45	27	8
n=191							

Table 6: Participant Sex

Male	Female
105	86
54.9%	45%

4. Findings

4.1 Overview of the Findings

Research findings are outlined in three major sections commencing with a brief explanation of the literature review process that was used in the course of this research. The literature review forms the next part of this chapter outlining the major sources of information relating to FIFO operations discovered. It should be noted also, that much of the literature sourced during this research is embedded in the most appropriate areas of the findings, where it can be used to compare and contrast with the raw data found by the researcher.

The Lived Experience of the FIFO worker and their family is discussed in the second part of this chapter and includes evaluation details of a pilot study trialing a self help guide designed during the course of the research project.

The third part of the chapter involves a commentary of the issues raised by other key stakeholders involved in the research.

4.1.1 Literature Review Process

The strategy used to locate texts relating to Fly-in/Fly-out activities by the researcher followed the accepted research standards of searching library databases, using keywords to establish the location of any possible relevant texts. The table below indicates the libraries utilised during the period of research.

Table 7: Libraries consulted during the research project

Library Name	Location
Karratha Campus- PilbaraTAFE	Karratha
South Hedland Campus-Pilbara TAFE	South Hedland
Newman Community Library	Newman
Tom Price Community Library	Tom Price
Battye library	Perth
Ballarat School of Mines University of Ballarat	Ballarat Victoria
School of Mines WA	Kalgoorlie
Curtin University library	Perth

Once items of potential interest were located, texts were examined for further references which might be of relevance to the project.

The added advantage of searching the Battye Library was that it had unparalleled geographical relevance concentrating on Western Australia and Australiana, and had many unpublished or informally printed or un- published surveys, reports, paraphernalia, and thesis included.

Local Sources

References already obtained before the current researcher commenced working on the project were minimal and contributed a small amount of historical data only.

A general appeal to local stakeholders for them to be on the lookout for information which might be of relevance to the project was made in an introductory letter and via media and during focus groups and interviews.

Internet Search Process

A monthly check of the “Search Engine Watch” (www.searchenginewatch.com) website to find latest best search engines relevant to this research topic-(these change fairly rapidly in the IT environment) was used over the period of research.

Using a variety of search engines/metasearch/crawler engines and a mixture of word prompts, according to the search engines usage instructions and prevailing expert opinion on the use of phraseology (Nicholson, 2000) It was possible to obtain the build a comprehensive list of possible texts to follow up.

During the period of the research process the top choices were:

- Google
- AllTheWeb(used to be called FAST)
- Yahoo
- MSN Search (using Inktomi)
- AOL Search
- Ask Jeeves (natural language search)
- Hot Bot
- Lycos
- Look Smart (human-compiled directory)
- Open Directory
- Alta Vista
- Wise Nut

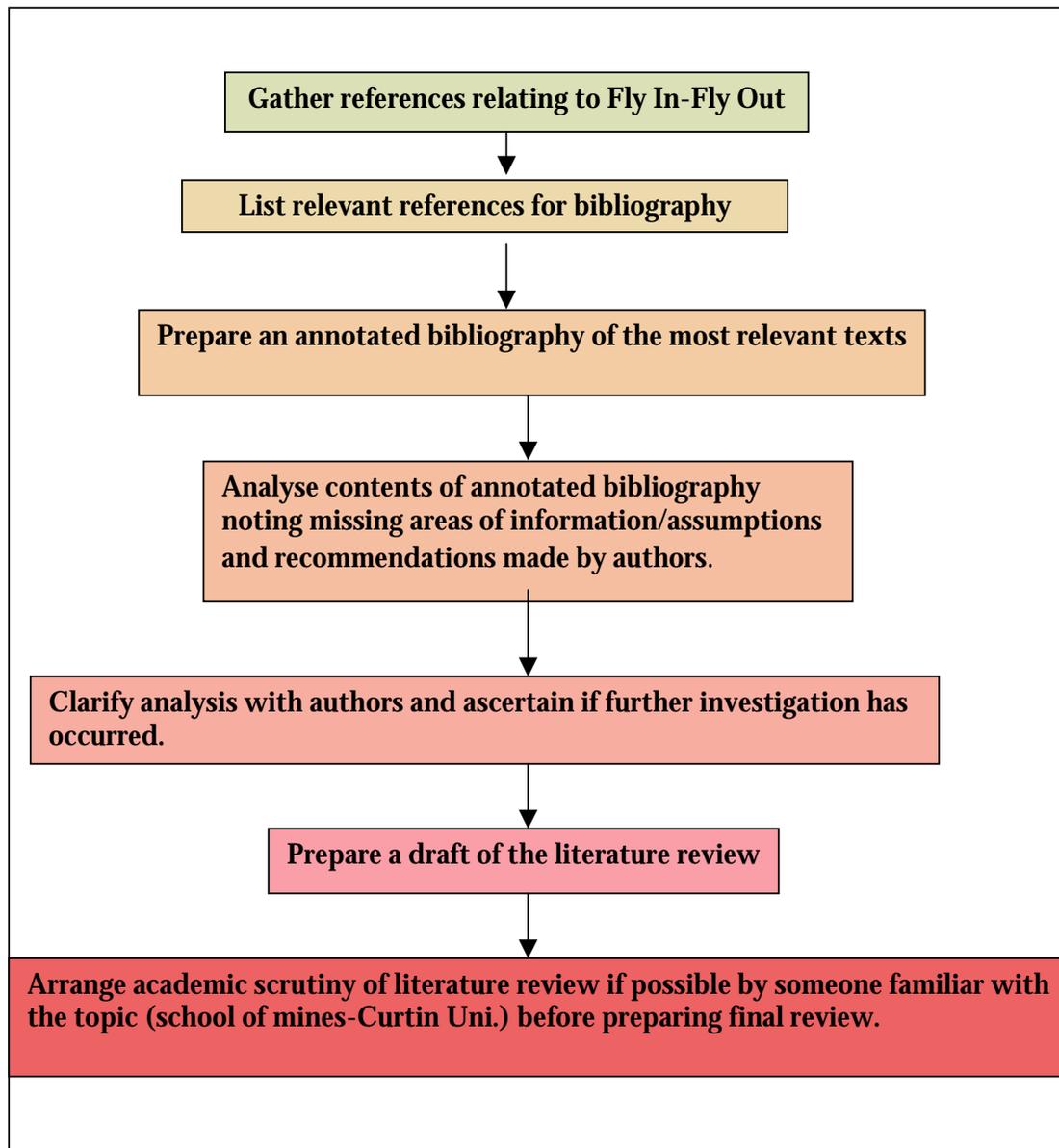
Words/phrases used to search included the following combinations:

- Fly-In Fly-Out
- “Fly in- Fly Out”
- “Fly-In – Fly-Out”
- “Fly-In/Fly-Out”
- “long distance commuting” –advanced search-“mining industry” advanced search- australia
- “offshore employment”
- “compressed work schedules”, “fixed work schedules”, “rotating work schedules”
- “mining issues”
- Flyinflyout
- Mining issues
- Community sustainability
- Mining Issues-advanced search “women”-advanced search “indigenous”

In addition a number of key web sites which were likely to be updated frequently were checked at least once monthly during the project:

- ABC News site
- Northern Australia forum webpage
- Regional Australia homepage
- AUSImm webpage
- CFMEU faxstream pages
- Global Mining directory
- Minex pages
- School of Mines pages
- Chamber of Mines –Canada
- Chamber of Mines-South Africa

Figure 9: Literature Review Process Flow Chart



4.1.2 Literature Review

The literature reviewed for the purposes of this project supported the need to examine the origins of FIFO practices both in the Australian context and also from a global perspective. The most valuable article discovered early in the life of the project was a collection of seminars presented in Queensland in 2001, by Professor Keith Storey, a recognized international expert in the field of long distance commuting, based at that time, at Memorial University, Newfoundland, Canada. This invaluable series of lectures was presented at the invitation of the Queensland Mining Council. Professor Storey discussed in detail the effects of FIFO operations in the regional Western Australian context. Details arising from these articles, which incorporated probably the most comprehensive bibliography of FIFO references yet to be compiled, (though still only a few pages long!) has been used largely as a basis for this review, but has been added to, and expanded to encompass the most recent developments. In almost all literature reviews the author had access to, regarding the topic of FIFO, acknowledgement has been made about the absence of information about this phenomenon. Despite the enhanced ability research now has with electronic data and research retrieval systems, the literature relating to FIFO remains meagre.

The Origins of FIFO and the Global Picture

According to Storey and Shrimpton during a presentation given to the Australian Mines and Metals Association Conference, in June 1991, the imbalance between Australia's natural resources and the geographical location of the bulk of the Australian population has always been a problem from the perspective of the minerals industry. The traditional solution utilized by mining companies in order to resolve this problem, was to construct mining towns, as near as practical to the mineral resource. More recently the changes in both the structure of the mining industry and trends in the attitudes and lifestyle choices of the present day workforce, has manufactured the alternative of long distance commuting, amongst other reasons.

Some early international examples of this kind of commuting behaviour have their origins during the 1940's and 50's in the Gulf of Mexico's offshore oil sector, far Northern Canada and Scotland, where the establishment of permanent communities was simply not an option.

Long distance commuting operations only began to become an option, and gain some small momentum within the Australian mining industry since the 1980's. (Gillies, Wu & Jones, 1997; Limerick et al, 1991)As is almost certainly the case today, earlier employees participating in what we colloquially refer to today as FIFO, are usually home based amidst the populations clustered in coastal areas, large cities or larger regional mining towns. (Storey & Shrimpton,1991) Government and investment community pressures do not discourage the practice of FIFO, using economic rationalism as an powerful argument in its defense, a practice which will continue undoubtedly, to keep it a feature of the mining community in the future.

Significant resource development in the north-western part of Western Australia began in the 1960s and was accompanied by the development of residential towns. Newman and Goldsworthy are prime examples of towns built by companies to accommodate mine workers and their families, similarly companies contributed to the cost of infrastructure development in places like Port Hedland. In return, mining companies received benefits from government in the form of lower rates and taxes. (Storey, 2001)

Over the past 20 years there have been few such towns constructed. The higher costs of town construction and maintenance, costs and difficulties of providing social overhead capital, industrial disputes, worker preferences for the opportunities offered by larger metropolitan areas, structural changes' within the mining industry, and changing taxation arrangements, have all contributed to making the FIFO alternative increasingly attractive to mining companies in Western Australia.

The cost-benefits of commute operations are well-documented (Storey and Shrimpton 1989). By using this system instead of building a permanent townsite, the Argyle diamond operation in northeast Western Australia was estimated to have saved some \$50-70million in capital expenditures. Companies opting for commute arrangements could write off the costs of mine site camps and avoid paying capital gains on the properties 'developed.' Over a relatively short period, this has become the model which many companies have chosen to follow; the corollary has been the absence of development of new mining towns since Roxby Downs was completed in the 1980's. This reflects the reluctance of major development companies to invest capital in such ventures.

Even some previous mining towns, for example Telfer, have been re-converted from residential towns of families to FIFO camps, albeit with enhanced facilities. According to Storey (2001) the number of commute operations in Western Australia has increased dramatically over the past few decades, mainly associated with an increase in the number of short-life gold mining operations. In 1991 there were some 31 FIFO operations in Western Australia (Storey and Shrimpton 1991). By 1998 there were 34 gold operations alone (Maxwell 1997 p11), together with at least six mines of other types. In addition several other commute-based developments were approved or under way at that time, including Hamersley Iron's Yandicoogina iron ore project and Anaconda's Murrin Murrin nickel project. Momentum has not slowed since then, as a result, there are now probably more FIFO mining operations in Western Australia than in any other region or country. According to the Australian Bureau of Statistics, (ABS, 2000) more than 90 per cent of the current Australian FIFO operations are located in Western Australia.

A report generated by the Department of Mines in 1991, is both one of the few reports undertaken in Western Australia even to this day, and one of the most useful and in some ways ironic, from a historical sense, in that it was generated before FIFO had really become widespread and assumed that that style of operation would not increase significantly in the future, nor threaten regional communities and regional development. This assumption is not explained-however the surveys did return a large amount of information relating to job satisfaction of employees and their feedback may have contributed to this. The Department of Mines survey of 26 FIFO mines indicated that, of five nominated reasons for the adoption of the commute option, the isolation (44 percent), and the short life of the project (31 percent) were most important (Department of Mines 1991 p23). Several mines (12 percent) indicated that these factors were of equal importance. These and other contributory factors are summarized below:

Isolation

Over the past decade significant changes have occurred in absolute and relative costs which tend to favour commute arrangements over new town construction.

Factors inhibiting the development of new communities include:

- the cost of building and operating new resource towns
- absence of government financial support for new town development
- longer lead time required for new town approvals and construction
- environmental implications of new town construction
- administrative implications of managing a town as well as a mine

increased costs associated with town closure once the resource is exhausted or is no longer economic.

Factors encouraging commuting include:

- improved quality and relative decline in communication costs
- improvements in aircraft and aircraft safety and relatively lower air travel costs
- lower turnover and absenteeism levels than in resource towns
- access to a larger supply of qualified labor
- preference for metropolitan over rural living by many workers and their families.

Short-term Gold Operations

Most of the new commute operations developed over the past decade have been gold mines. Gold production in Western Australia rose dramatically from 11.2 tonnes in 1980 to 146.6 tonnes in 1989. Between 1990 and 1995 annual production fluctuated somewhat but showed an overall increase from 180.8 to 189.8 tonnes. The years 1995 to 1997 saw another significant increase to 238 tonnes. (ABARE 1998 p270)

Growth in output in the 1980's was characterized by the development of relatively high cost, short-life operations associated with:

- strong gold prices and the drive to develop mines to reap benefits before the introduction of the 1991 gold tax.
- enhanced abilities with newly developed technology and techniques to process lower grade ore to achieve higher yields in mines with relatively short resource reserve lives. Where such mines were in relatively remote locations FIFO was by far the most cost-effective development option.

In the past, the view had been that large-scale and long-term projects were more costly to operate as FIFO operations than as traditional townships (Kinhill 1991). In his earlier articles Storey (1999) ponders the unexplained 'about-face' by the resource industries. In contrast Storey (2001) a few short years later concludes reasons for the increase in FIFO operations could be better summarised into the following categories.

- Structural changes in the resource industry particularly in technological advancements coupled with the need to increase profit margins with the overall resultant trimming of workforce numbers. As with many other industries outsourcing in the form of contracting labour is seen as a cost saving measure. Storey argues that with contractor labour, work rosters are often significantly longer than for company personnel, thereby requiring fewer FIFO trips to and from the mine. Short-term contracts may also give companies greater flexibility to modify the size of the workforce as necessary.
- Search for qualified labour in a climate of industrial growth has inevitably resulted in difficulties finding sufficient skilled and experienced local labour, or finding labour which is willing to relocate on a permanent basis to the regions
- Taxation issues linked to the current tax structure

In another relatively recent publication, commissioned by the office of Robin Chapple MLC, titled 'Long Distance Commuting-: Problems for Regional Western Australia', Lambert (2001) presents a brief report discussing FIFO commuting from the perspective of comparing the cost to set up a town versus FIFO employment. Like Storey he cites Kinhill's financial comparison of town versus FIFO. Fringe benefit tax is referred to and discounted by the author who assumes, given survey results, that fringe benefit tax does not play a major part in justifying LDC operations-he does however lead the reader into the assumption that lack of government support

in strengthening infrastructure has made the option of relocating workforce into regional centres an unattractive option.

Lambert specifically mentions high housing costs, low house ownership and more expensive food, as indicators that the Pilbara is not an attractive regional centre to relocate to for a FIFO worker. Overall the report is useful as a summary of some of the issues involved. Lambert, unsurprisingly, acknowledges the absence of serious reports and studies into FIFO.

The Regional Impact of FIFO

In the process of reviewing the multitude of regional strategy documents, environmental reviews, impact statements, reports and other miscellaneous material, there were many indications that significant concerns are harbored, about the detrimental impact the practice of FIFO has on the regional centres, it was also a concern that some misconceptions associated with FIFO might be held.

Storey (2001) similarly has reviewed regional strategy documents and reduces major criticisms into three overlapping areas: the health and well-being of the individual and the family; the economic impacts of FIFO on local businesses; and the economic and social capital of regional communities. More specifically:

- FIFO has negative social consequences for individuals, families and the communities where they live, contributing to greater abuses of alcohol and drugs, family violence and break-ups, parenting problems and reduced community involvement.
- Companies benefit from resources in the regions but, by basing their workforces in Perth, give little back to those regions.
- Businesses in the regions fail to benefit from FIFO as most of the benefits go to service and supply companies in Perth.
- FIFO arrangements harm the regions by contributing to population decline and associated federal grant decreases, and negative business decisions such as the closure of bank branches.

Disadvantages of commute arrangements are perceived to include:

- the failure of the system to provide employment or training opportunities for people in the area
- the need for young people (the children of those who settled in the mining towns of the 1960s) to leave the area in order to find work which ironically could be situated in their own region.
- the inhibition of population growth in the area
- the receipt by the region of only a small share of the Royalties
- lack of development of regional resources
- the problem that the approach shows no concern for regional or community social development;
- the undermining of government policy with respect to decentralisation and regional growth.

Compressed work schedules, extended work hours and occupational safety

The effect of working compressed work schedules and extended work hours in an already risky industry, has been a topic of some conjecture in the last few years. The inherent risk to safety, that could be considered when working a non-traditional work pattern, such as is the case with most FIFO workers, has been a focus of recent research and discussion both from inside and outside industry circles.

In Western Australia investigations into long hours worked, fatigue in the transport industry and recommendations arising from the Shaw Enquiry may well have been the impetus needed by John Kobelke, Minister for Labour and Industry, to commission a review of extended work hours, undertaken late in 2003. Recent press releases suggest that the findings from this review may well be channeled into the format of best practice guidelines which though not enforceable, would benefit assessing risk factors in terms of occupational health and safety planning and implications in the case of any litigation that might occur between an employer and employee. Similarly in Queensland, risk factors associated with shift work has been a topic of recent research and subsequently recommendations for best practice and industry guidelines have emerged as a result. (QMC, 2001)

Family separation and stress

Despite there being little documented research relating to parental absence and family stress in relation to FIFO, there is some relevant literature available that discusses parental separation in military families. The comparison of risk factors experienced by military and FIFO families has demonstrated that they share the common risk factors of regular parental absence, concerns about employment conditions, family disruption and social support issues. Research directed at military families, has suggested regular parental absence can impact negatively on family functioning. (Sibbel, 2001; Eastman, et al, 1990) Specific problems with partners experiencing increased anxiety, emotional withdrawal, disruptions in parental behaviour, and a cyclic pattern of depressive behaviour, in sync with partner absence, was detected.

Differences do however exist in the length and duration of parental absence between the military and FIFO workers, given the military tend to be away from home for considerably longer periods than most FIFO workers. Differences can also be noted in the nature of social support offered by the military services. FIFO workers partners and family do not live in clusters of military housing in close proximity to each, or experience the same level of informal regular contact in most cases, it would be assumed.

In a study of 785 Navy families (Eastman et al, 1990) a link was drawn between family functioning and life stress whereby families who perceived greater life stresses also experienced lower levels of family functioning. Maternal stress, not surprisingly, where it was well controlled, was reflected in enhanced family functioning, where it was not controlled, or where the mother withdrew emotionally into depression and isolation, family functioning was seen to suffer and anxiety and depressive related problems were experienced by children. Further investigation into the likelihood of maternal stress, revealed that a mothers attitude to separation, marital satisfaction prior to separation and the mother's ability to cope with the separation contributed significantly to the amount of maternal stress suffered.

Studies of the Canadian and North Sea offshore oil workers and FIFO workers in Canada's far north demonstrate that the partners of FIFO workers studied, a variation in the degree of coping with the stressors of the lifestyle could be identified. Positive attitudes to FIFO employment and short-term contracts were concluded to directly co-occur with more positive coping experiences and subsequently less harm on children. (Shrimpton & Storey, 1991)

4.2 The Lived Experience of a FIFO worker

4.2.1 Case Studies

Little is known about the lived experience of a FIFO worker. What follows are several brief case studies that illustrate a common range of FIFO experiences and the family and relationship dynamics surrounding this style of work practice. Names have been altered to preserve confidentiality.

Case Study 1: Peter

Peter is 36, and has been involved in the FIFO workforce for over four years. Peter got engaged in 1998 to his girlfriend, Natalie, who at the time had a good job in a government department in the Perth metropolitan area. Peter and Natalie met in Perth where they both grew up.

Before taking on a FIFO job in the Pilbara region, Peter, spent 3 months unemployed following forced retrenchment, and had been searching for a suitable position in the metro area. Prior to this Peter had been steadily moving towards middle-management and supervisory positions. Since working in FIFO style employment in the Pilbara, Peter successfully reached a management position.

Less than 6 months ago, Peter and Natalie married in Perth, and have recently moved into a newly renovated house in a popular inner city suburb.

Peter acknowledged that:

“...long distance wedding planning was a daunting task I wouldn’t try again in a hurry...”

Peter described the reasons he took his FIFO job:

“...at first it was just because I was desperate to get back into work again, you know being unemployed was a bad time for me and it put so much strain on everyone. I just thought whatever, I’ll give it a go, one minute I was working my way up for a promotion, the next I was at the bottom of the heap and I couldn’t find anything else, money didn’t come into it at the time, I would have taken anything local if it was going...”

Peter felt that the work arrangement was harder on his partner than him at first and he hadn’t put much thought into the time they would be apart when he accepted the job:

“...It wasn’t easy...it was a shock at first...especially for Nat...she pretty much fell apart in the first few weeks....I was just getting into the job and it was a six week stretch my first stint, and when I got back for my week off...I felt a bit like a stranger...and she couldn’t stop crying...I didn’t want to go back at first.....”

Peter commenced work on a 6 week on, one week off roster pattern which he was able to change to a 3 week on 1 week off pattern after two more rotations.

This was seen by both Peter and his partner as a great improvement and much more emotionally manageable.

Despite this there were many issues in the first few months of FIFO work that Peter felt were difficult to cope with.

“...It seemed like there was not just a problem with distance keeping us apart, there was a distance between us even when we were together...and the thought of having to leave again so soon was like a weight you carry around on your back on your week off...I wouldn't talk about it but I knew we were both thinking about it...we still do...I would wonder what I would miss out on often and I was on my best behaviour not to have an argument while I was home...it was strained and it didn't get better until we had a really big bust-up fight and I realised something had to change in the way we talked to each other...”

Peter discussed what he considers the key to maintaining his relationship and working away from home to involve a careful commitment to quality communication.

“...You've got to be prepared to keep the communication lines open and really listen to what people are saying...sometimes read between the lines...some of the other guys up here were a great help, knew the story and had made some of the same mistakes and helped me work out what seemed to be going on...we have managed to get better and better at communicating, email and text messages have saved us a lot of grief...the daily contact is what has saved us. That's something you have no idea of when you sign on for a job like this...”

Peter described his lowest point in his time as a FIFO worker and how he resolved the situation:

“...I hit bottom on the first Christmas I worked...and even though Nat didn't say it...I know she felt it like...it was terrible and I'd been up here for a while.. in the job 8 months by then...We'd organised holidays together for the week after New Year and I hadn't got a Christmas present for her...and I felt really awful and worn out and low..... When I got home we almost weren't talking and eventually once we'd got relaxed on holidays she laid it on the line, told me how miserable she was and how she felt with me away. We sort of negotiated a compromise... where we had a financial goal and both made a sort of bargain to stick to it...get the house deposit sorted out then I'd start actively looking for a job back in Perth again and that would take us till around June. Well..... we got to June and other ideas cropped up, couldn't find a house we liked for the money we had and we renegotiated a few more months...but definitely home by Christmas. It was like if you had a goal in sight and you worked it out together you could cope...but it has to be both people working on it and agreeing with each other...or I don't think it would work out. We finally got the house but it needed a lot of work..and so I stayed on the job and then we got married and now we want a little put aside for Nat to give up work so we can have a baby.”

Peter and Natalie never considered the possibility of moving permanently to the Pilbara at any stage. Natalie had also never visited the Pilbara whilst Peter has been working there, choosing instead to co-ordinate their holidays together in other holiday destinations. Peter reflected:

“...I know how she felt about her job, she worked hard to get up in her department and she deserves to reap the rewards. It was different for me, I lost my job and I was just so damn glad to get another job, anything would do...it was different for her..I wouldn't ask her to move away from family and her mates..it wouldn't have been right...”

Case Study 2: Barbara

Barbara and her family had lived in the Pilbara for eight years and built a large circle of friends in the region. Barbara's husband Clive made the choice to move the family south and go to FIFO employment when the couple's son was due to start Year 9, rationalising that he would get a better education in Perth and that it would have been worse for him had they sent him to a boarding school. FIFO became the lesser of two evils for them. After 14 months of this arrangement, Barbara was facing a desperate situation.

"...to cut a long story short what seemed like a good idea has turned into an absolute nightmare. If you had family and friends to support you then you stand a chance, but in my case I have tried to make friends but it hasn't been easy..."

In order to reduce her sense of isolation Barbara contemplates work:

"...A few times I have tried to work but found that even more stressful as I get even less chance to see my husband when he comes down..."

Barbara's husband, Clive, works on a 14 days on: 7 days off roster. Barbara has become increasingly depressed and unhappy and has started to seek help to overcome her feelings:

"...I really hate the idea of taking medication but things have sunk so deeply that I had no other choice. Depression has become my worst enemy and I quite often don't know how I'll face another day. One 'psychologist' told us that my husband should give up work, but it isn't that easy because there is no work for him here in Perth. I don't want my husband to be unemployed and I don't know how we would survive without any income if he did. I feel absolutely trapped and I wish there was some sort of counselling about this type of employment before it was offered to us."

Barbara had tried seeing her GP several times and two different psychologists in the past 4 months, but was aware that she was not alone in her plight:

"...a workmate of my husbands' wife has tried suicide twice since they made the shift. So I live from day to day in the hope that we may get a transfer back to a place where we can all be together..."

Barbara felt that it was the responsibility of the major resource companies in the Pilbara to assist the wives of FIFO workers:

"...I reckon it's the BIG COMPANIES someone needs to help us wives get some support group going..."

Six months after initially being interviewed Barbara and Clive were able to move back to the Pilbara. Barbara emailed the following message on Christmas Eve:

"Christmas Eve and for most of the year I have been trying to resign myself to the fact that my husband was to have been rostered on at work and I would be spending a lonely Christmas apart. Sounds a bit dismal and I have been trying for many months to put a more positive spin on it but deep down I knew that on the day I would find it difficult....Well we don't have to be apart

now, a few months ago an opportunity came up for my husband to transfer to a site which will allow us to be together again. It was a very difficult decision to make as it meant selling our lovely home, the one we had intended to retire in, the one we had put our heart and soul into. But as my husband says, it is just a house and being together as a family is to me the most important thing. So we have purchased a new home in a mining town and are now in the process of cutting the ties down south by selling our home there.

We are looking forward to the new year and a more settled future. It will probably take a while to recover....but I can now say that I better understand mental illness and depression and what drives people to attempt suicide. In the future maybe I will be able to help someone else..."

Case Study 3: David and Amanda

David and Amanda work for the same company on a remote worksite south east of Port Hedland and have been in the FIFO work force for over two years, on and off.

They are in their mid thirties, have no children and work on a 14 days on / 7 days off roster. The mine site where they work is composed entirely of FIFO workers and offers several accommodation options such as a small unit, suitable for couples, which they find themselves comfortable with at present. The camp amenities boast a small gym, pool, sauna, tennis court and wet mess with satellite television. Direct flights to the minesite from Perth occur three times a week. The couple have a substantial residential property in a growing coastal area two hours drive away from Perth.

David describes his lifestyle literally as "the best of both worlds" and his experience of FIFO and working on remote work sites as vast, having been in the mining industry for over ten years.

"This company is the best I've ever worked for...working and living within a mine site has often left me feeling like 'Big Brother' is watching in other places and it's been overbearing and single minded. I don't know what it is about this place, maybe the fact that Mandy is here with me, though we have our fights every now and then, or maybe that it's like, the other facilities aren't bad, there are things to do if you've still got energy to burn after work."

Amanda describes the FIFO lifestyle in a similar way:

"I think this is a reasonable arrangement for us at this present time...this is an excellent camp and especially because there are great little units to live in. The fact that there are more women here than most sites, almost 50:50 at the moment makes it unusual, there's one woman who has been coming back here on and off for years...saves up enough for whatever she wants and says, that's it "I'm off" and then turns up again six months later just not able to cope without the high income and this kind of lifestyle.

We have got a sort of plan to get our finances sorted, I don't think we'll do that once we make the move back south, then we'll try and make a go of it, but for the short term this is a great idea."

David discusses his feelings about the Pilbara Region:

"To be honest I haven't seen anywhere near as much as I'd like to and some of the things you see...sunsets and landscape and stuff...just blow you away here...its just magic...and its like...its not well advertised and you cant get here that cheaply...its easier to get to Bali than it is to Newman...its just wrong and a big waste of potential tourist dollars...."

4.2.2 General Findings

The second part of this chapter draws the themes of the lived experiences of FIFO workers together and attempts to present them in a manner that gives insights into the phenomenon, by arranging them into clusters of themes.

Demographic data relating to the interviewees contributing to this section of research findings is represented in the figure below:

Table 8: Demographic data relating to the ‘Lived Experience’ of FIFO workers:

Stakeholder Group	Number Interviewed	Gender		
		Male	Female	
FIFO Worker -present	33	22	11	
FIFO Worker – past	15	10	5	
Family member of FIFO worker	28	2	26	
Years of FIFO employment involvement of interviewees				
The mean years of involvement with FIFO work style was M=4.56 years The range was from 1 month to 18 years.				
Rotation Cycles of FIFO workers				
2 weeks on /2 weeks off	21%			
2 weeks on/1 week off	13%			
9 days on/5 days off	16%			
3 weeks on/1 week off	14%			
Other rotation pattern*	36%			
*This included a large range of other patterns and reflected FIFO arrangements without regular patterns for instance combinations of 2 days on/4 days off/2 days in metro office/2 days off/4 days on site/4 days off; incremental rostering such as: 2 days on /2 days off followed by 3 days on/3 days off, 4 days on/4 days off, 5 days on/5 days off etc...				
Geographic location of Present FIFO workers and families home base				
Perth Metropolitan Area	Southwest of WA	Other WA regional area	Interstate	Overseas
37	12	6	5	1

Overview

The Lived Experience of a FIFO worker was categorised into four separate themes each with their own particular cluster of experiences:

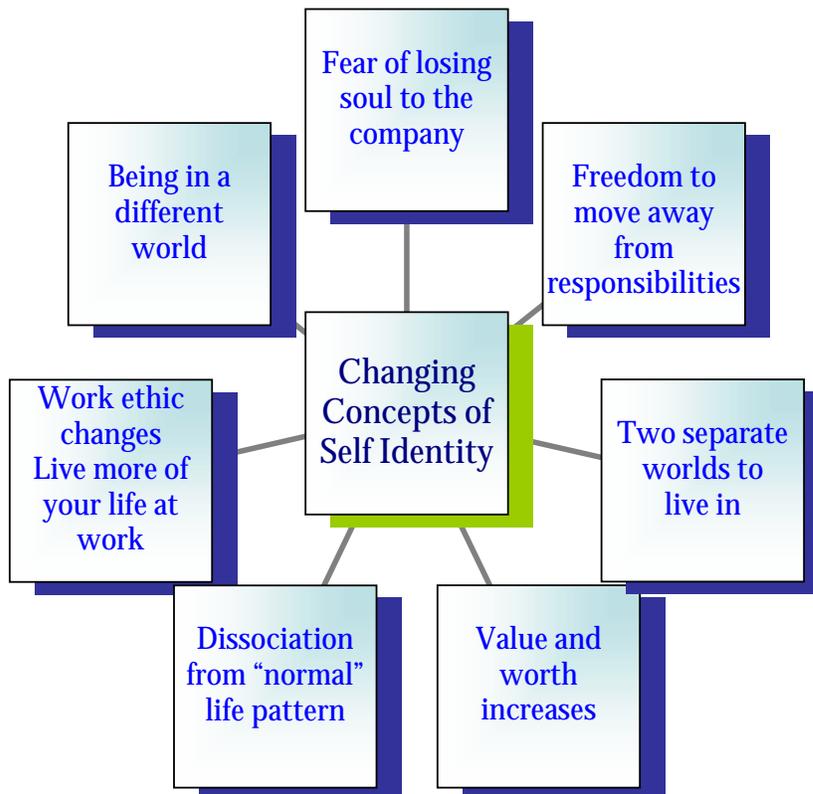
- Changing Concept of Self Identity
- Changing Emotions
- Changing Relationships
- Acceptance or Rejection

Each of the categories is examined sequentially and discussed in detail utilising selections of taped transcript data resulting from the interview participants, where possible, and other corroborative data obtained during the literature review, to best illustrate their experiences.

Changing Concepts of Self Identity

Interviewees were asked to describe their personal experience of becoming a FIFO worker, or the spouse or significant family of a FIFO worker. Some common themes were easily identified resulting in a cluster of response themes, falling initially under the broad heading of 'personal identity'. Eventually these themes could be refined into the more descriptive category of 'Changing Concepts of Self Identity' with a number of recurrent responses as demonstrated in the figure below:

Figure 10: Changing concepts of self identity



Being in a different world

The experience of being in the FIFO workforce, for many workers, was often identified as akin to being placed in a different world. Some responses focussed on the geographical features of the region:

“It’s dry, it’s red, its dusty, its big, its like a different country from the south...”

“Newman’s hot and sticky, you get here out of the plane and its like you’ve gone to another planet, I’ll never get used to that sick feeling of getting off the plane with the heat hitting you like a sauna...”

Other respondents made analogies about the otherworldliness and relative isolation of the FIFO lifestyle itself. One experienced FIFO miner, employed by a contractor, at a mine site several hundred kilometres south of Port Hedland, described his experience of being in a different world with a hint of disapproval in his tone:

“I live my working life working all hours from dawn to dusk, then I come home and live like an astronaut, like bloody Neil Armstrong, in an air conditioned metal box, I have little contact with the real world and they can’t reach me...”

Further discussion revealed his sense of loneliness and alienation, which appeared to have been compounded, by his frustration at the lack of appropriate telephone facilities provided at the miners quarters.

Freedom to move away from responsibilities

The sensation of leaving domestic cares and struggles on the other side of the ‘airport departure gate’ was mentioned by both FIFO families and workers. In some cases this sense of newly found freedom, particularly if there had been some strain and disharmony in the home life, was embraced with gusto. The space and distance was initially welcomed by some men, and quite controversially by one woman who had left her spouse and two children at home to pursue her “dream” job. Pat explains her position:

“ Look it’s like anything... the grass always seems greener someplace else...but you know...you want me to be honest with you... I’m not the mothering kind... I’m really bad and I get irritable and I feel like screaming some days. You think bad of me for this, some people do...turn their noses up.....specially the inlaws...The kids are big enough now, at primary school, their dads really good with them, and I’m just not that maternal, I worked hard in occupational safety and my safety officer stuff, I had to battle a lot with miners and this job is like the big reward... the big payoff. I love Phil and the kids to death...but I gotta have something of my own and I get on that plane and just let out a long deep breath....”

This situation is also discussed by another FIFO wife who comments:

“I have also observed a percentage of these “work away dads” who enjoy the “escapism” if I can use that term, of getting away from domestic responsibility and sadly watch their “couldn’t care less’ attitude as their excited little ones greet them at the airport. Sometimes they don’t even get a hug or any acknowledgement other than a gruff “get in the car when you’re told” and the wife/partner gets a peck on the cheek without any sign of feeling...”

Another comment coming from a FIFO worker:

“If a person’s family is suffering by dad not being there then they need to take action and if necessary take a pay cut and put the family first, however getting rid of FIFO would be penalizing those who choose and like this sort of work. If dad is looking to escape the family life, is FIFO the problem or is it something a bit closer to home ie himself, communication...the list could go on...”

Two separate worlds to live in

The contrast between home and work as being totally separate worlds and realities was described frequently in a number of different ways:

“...Look I don’t want to say too much about this but...I’ve had friends accuse me of leaving Jo at home to just handle everything...while I go swanning off to Karratha...I’d like them to see I’m not going to a nice homely comfortable house..we live in two separate worlds and I’d love to see how they cope with it...”

“...I have a different style of working or coping from work to home...at home I’m dad and I’m number one, I’m made to feel like I’m the boss and my life is a just so packed full of stuff. At work I’m a number, no..that’s probably not really fair, I’m a part of a much larger team, I feel okay like I’m not a pleb...or anything, but I’m part of a well oiled machine and I’m a link in the team, nothing special. They’re two different worlds we live in and sometimes I have to switch roles really quickly, my behaviour has to change to fit in...”

In the case of workers involved in offshore rigs, the comparison relating to the vastly separate worlds experienced was geographically obvious but summed up succinctly by one worker:

“I’ve commuted to work from Tassy for 18 years....we have a little hobby farm... work and home are like chalk and cheese. I love my home and the greenness of the place, but I never get over the thrill of taking off in a chopper over the ocean, I feel like a pioneer, like an explorer or probably like Dick Smith does...its like there is an element of risk, no safety net...a far cry from the farm in Tassy...”

Fear of losing the soul to the company

A surprising number of interviewees described their feelings of being totally immersed in the company shortly after commencing as a FIFO worker. The perception of the company having an omnipotent presence and rapidly becoming central to their lives was commonly expressed. That this process was a deliberate company tactic, in some cases, in order to get the FIFO workforce to concentrate their focus on the ‘job at hand’ was intimated by several workers. Similarly, wives/significant others of FIFO workers felt the impact of the company to be overbearing at first:

“He comes home from work for his week off and I hear XXXX(company name) this...XXXX that, it gets annoying and frustrating when I want to tell him about what we’ve been up to down here, you know the kids and that are busting to tell him stuff, and that name crops up about a dozen times an hour, like it has this hold on him, and he makes it sound so important at work...”

Conversely one FIFO wife who had previously lived in Goldsworthy, described the omnipresent and overbearing infiltration of the company within social circles, as a malevolent and dominant presence within the town. Following the experience of living in that community including the traumatic decommissioning of the town, she was more than satisfied for her husband to participate in the FIFO workforce.

Value and worth increases

The financial incentives offered by FIFO employment are almost certainly one of the greatest attractions this style of work has. The ability to stick to a negotiated plan, with the agreement of the worker and their partner in order to reach a financial target or commitment contributed to the sense of the individuals self worth and their ability to work as the principle breadwinner and provider.

Some of the financial incentives discussed by interviewees were for projects such as: to pay for a house, business venture, special holiday, or to send their children to private school or university.

“ Look don’t get me wrong...FIFO work has been the making of us...our kids have a better life and we’re setting ourselves up...”

“You can go through a hell of a lot for that pay check...but one things for sure it keeps you coming back...there are lots of things I don’t like about it..you know..stuff that gives you nightmares...like what the missus is gonna do down there...is she okay..are the kids behaving or getting away with bloody murder...but its bloody good to know I’m keeping it all afloat...its my hard work...its my choice...”

In the case of workers that had spent some time unemployed the sense of renewed value and self worth was profound. In Case Study 1, explored at the beginning of the chapter, Peter was one classic example of this.

Dissociation from normal life pattern

Close relationships were formed with working colleagues in the relative isolation of the FIFO destination. These relationships would act as a buffer at times against the strangeness or loneliness of the FIFO lifestyle some workers felt initially. The adaptation to the longer working hours or extended hour workdays, which has become a feature of FIFO was often blamed by some workers as disruptive and abnormal and took some time to adjust to:

“Its difficult at first to get used to the strange work patterns and shifts. I’d feel like putting my feet up for a smoko and there’d still be hours left to go until knock off time. It took me a lot of energy at first to just get out of bed in the morning and I was sort of overtired then when I got back to the camp, I couldn’t sleep for the life of me...”

“My wife gets really pissed off with me when I go home and stay up till all hours...she’s pretty exhausted with the kids running around all day and she was wanting to sleep...pretty normal I guess when I lived down in Perth all the time, but now I don’t go to sleep early, my rhythm’s all off...”

Similarly in his discussion of prevailing conditions in the remote gold mining towns of the Northern Goldfields, Peter Lavelle, reported on ABC’s Health Matters:

“High incomes and long hours can lead to abuse of substances, like amphetamines and alcohol. Long shifts, often around the clock, mean that miners are frequently “out of sync” with their normal body rhythms, leading to conditions like sleep disorders, stomach ailments, heart disease and mental health problems...”

Health Matters. [Accessed from www.abc.net.au/health 03/07/2003]

Yossi Berger, Australian Worker's Union's national health and safety officer describes the combined effects of extended shifts and lengthy on-site periods, in an article focusing on FIFO workforces, published in the Bulletin magazine, in a particularly descriptive way:

“...He's highly irritable, his noradrenaline level is shot to pieces, he really does behave as if he is post a lot of alcohol. We call it shift lag.”

(Johnson, L. 1998. The jet-set and go miners- Pique and shovel. *Bulletin: Vol 117*
Issue: 6152. pp 36-39)

The concept of having a period of readjustment back to 'normal' when FIFO workers return to their home base was commented on frequently by the partner and family groups of FIFO workers. Of the 28 families of FIFO workers interviewed, 20 described this slow return to normality once a FIFO worker had come off shift. Similarly 30 of the 48 present and past FIFO workers mentioned this period of readjustment. Significantly this appeared to be more of a problem for workers involved in rotations of three weeks on/one week off and above. Common suggestions from these interviewees noted that for at least the first two days of time off, sleep and recovery was the main priority undertaken.

Work ethic changes – live more of your life at work

The idea that FIFO style employment could be held responsible for changes to how people choose to spend their leisure time, even off site, was a surprising finding during this project. This appeared to mirror an internal philosophical shift in some workers. To what extent this has been provoked by the introduction of extended work hours is a hypothesis on which no corroborative research data could be identified. One interview participant, a 32 year old male FIFO worker, considers the changing nature of his leisure time activities and comments :

“...I go home for my week off and I find myself looking for projects to do...I feel like the days are empty and have no structure..sometimes I'm like a bear with a sore head and I drive Cathy nuts trying my DIY ideas and making a mess around the house...I know I've changed a lot...maybe I'm just older or something and you get into renovation or there's so much of it on the telly...makes you want to have a bit of a go yourself...but maybe I just have to have something to work on...I dunno what it is...”

Home renovation and maintenance was mentioned as a popular leisure time activity by at least eight different male FIFO workers, during the interview process. Other popular leisure time interests mentioned during the interview process involved sporting activities, mentioned by four male FIFO workers and two female FIFO workers, learning to fly and/or building kit planes or model planes by four FIFO workers. Picnics, barbeques and day trips with family and loved ones were other pastimes popularly mentioned.

In other cases, work undertaken, during times offsite, could be assumed to be driven by economic factors:

“...I know of a few guys who have jobs when they go off shift up here, like they work their stint, then have businesses to go to... and one guy I know has a farm in the wheatbelt...not going too good when he first started up here...but he reckons he'll go back for good one of these days...he works really hard...”

“...Look I’m a tradesman..and there’s lots of work going down south too...I keep on working and jobs come up and if I can do one or two it keeps me out of the house...”

Adopting a second job in periods of time when a FIFO worker is off site is referred to as “moonlighting” and is seen as a common occurrence amongst workers who work compressed work schedules. The Queensland Mining Council in their 2001 report (*Safety performance related to shiftwork in the Queensland mining industry*) listed ‘moonlighting’ as a serious safety risk factor.

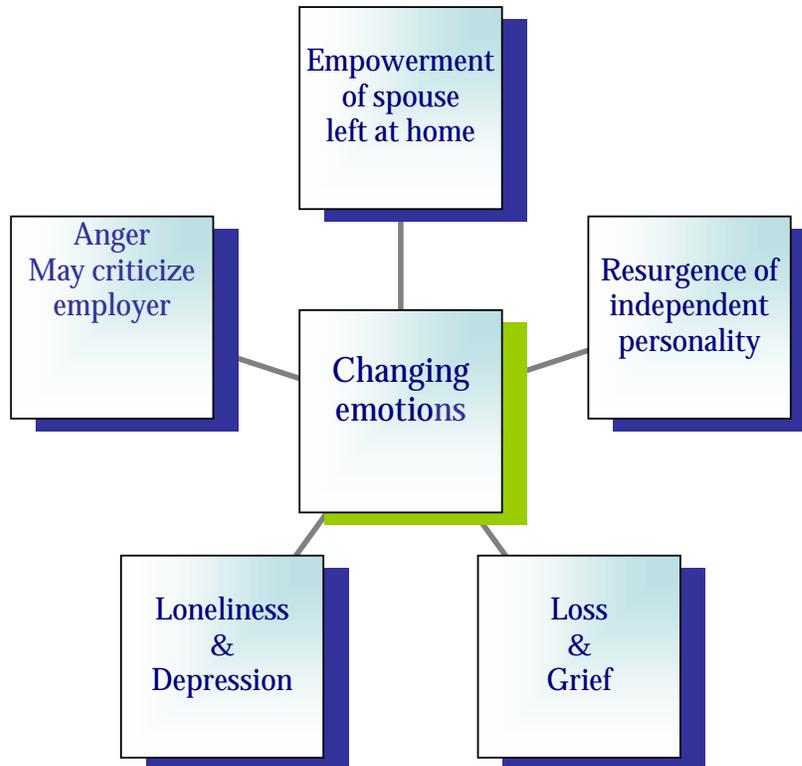
In the case of one female FIFO worker interviewee who was breaking into her chosen profession of geology and finding her first placement far from her usual support systems and vastly different to her expectations, adaptation to the mine site environment involved working significantly more hours than she was contracted to do, to prove herself in the male dominated industry.

“I found that working in the field you have a short time to prove yourself, like within two minutes of walking in. Because I was a girl...I wasn’t necessarily the flavour of the month when I turned up...I had to work twice as hard not to slip up and I ended up checking and rechecking everything I did...I think if I’d been closer to home and nearby my folks I’d have been more relaxed and coped a little better...”

This experience correlates with other data discussed in Pattenden’s study of Women in Mining, presented to the National AIMM Conference, in 1998. The common trend for many women to work past the end of their rostered shifts and often into their time off to keep pace or advance in the mining industry was said to be prevalent. It could be assumed that female FIFO workers whilst living and working on remote mine site, would be particularly vulnerable to overworking and burnout. Pattenden’s study lists comprehensively some of the isolation and alienation issues already faced by women working in the minerals and resource industry, if these other stressors and issues were added to exhaustion and burnout, it is easy to comprehend the ongoing recruitment and retention problems faced by the female mining workforce.

Changing Emotions

Figure 11: Changing Emotions



Empowerment of spouse left at home

A significant number of interviewee's identified positive experiences relating to FIFO work styles. There has always been an underlying assumption that if the practices of FIFO was so negative and emotionally taxing, that people would not choose this work style, thus the number of readily available employees willing to undertake such an unusual and potentially harmful style of employment would be minimal. The opposite has in fact been the case, despite the high workforce turnover attributed anecdotally to FIFO work styles, there is still a ready supply of employees willing to commute. Not discounting previous research which suggests some FIFO workers choose this work style out of desperation following periods of unemployment (Storey et al, 1999; Siddons, 2001) and as was amply demonstrated in Case study 1 featured at the beginning of this chapter, whereby, Peter's decision to elect to try FIFO style employment was heavily influenced by his loss of his metropolitan job and his continued inability to find work. It must still be the case, however, that there are, in fact some positive factors influencing the worker's decision to undertake FIFO employment and to stay in this kind of employment.

One of the positive experiences repeatedly identified during the process of personal interviews, involved the empowerment of a spouse of a FIFO worker left at home whilst his/her partner commutes away to work.

Women in particular, left alone at the home base to cope with all the daily household responsibilities, found that they developed skills and capabilities that they had not realised were

within their ability and scope. This led to increased confidence in many cases, and the sensation of satisfaction and achievement. Of the 28 partners/family members interviewed, this was mentioned 22 times, however, it should be acknowledged that in at least four of these cases, this was not regarded as a positive outcome, but more of an unavoidable reality. The overall findings of increased empowerment, is verified by several other researchers. (Sibel,2001; Storey and Shrimpton,1998)

Similar findings emerged from studies undertaken by Dr Gillian Munro in her doctoral work undertaken at the University of Scotland, relating to work and family life in Scotland's fishing and oil industries:

“...women frequently said they valued their independence from their husbands who were absent...they were able to take decisions about childcare and home maintenance, to manage financial accounts, maintain social and kin relationships...Whereas in many cases men retained the symbolic power to control such family items as spending, women in fact had the knowledge and operational experience of these matters...” Page 15

How do individuals relate to their local communities through work and family life? Some fieldwork evidence. Arkleton Research Papers No.3. Gillian Munro, 2000

The empowerment of women was not always viewed in a positive light by some men who believed in a more traditional balance within the male/female relationship.

Taking over traditional male roles whilst the male was absent, appeared to cause some resentment and the potential for relationship disharmony or conflict.

“...It's a real trade off between accepting a great job offer and leaving the family at home to their own devices. We have some fairly intense family issues crop up, my thirteen year old son has got closer to his mother and stuff he should be asking me, he asks her, like she's now the head of the family, and I feel...I don't know...its not guilt...but its kind of something lost that I cant get back now....its hard to explain...”

Resurgence of independent personality

Being separated from the principal partner in a relationship gave both parties space to develop personal interests and time for their own pursuits, which might not have existed before. Despite the enforced nature of their time apart, some interviewees remarked that it was something that they grew to appreciate and look forward to.

One working mother of two, whose husband had been commuting to Karratha for 15 years poignantly stated that:

“...our marriage would have been finished 10 years ago if it hadn't been for XXXXX(names resource company). Our kids got the best of both of us and didn't have the stigma of divorce hanging over them. We just got on with it in our own way...sometimes I couldn't wait for him to leave so I could be myself again...”

During the interview process, participants were asked to offer constructive tips and advice for other FIFO families and workers. This information was collated and is presented at the end of this section of the report. The maintenance of individual pursuits and interests was seen as highly useful, this is summarised by onewoman whose partner had been involved in FIFO work for over eight years:

“...get involved in organizations or causes that you personally believe in. put meaningful things in your life other than your partner, it will get you through the time he is away...”

Loneliness and depression

Loneliness at some stage of their FIFO experience, was mentioned by almost all interview participants. The concept that loneliness is felt by all people at sometime or other in their daily lives, regardless of their lifestyle, has been verified by leading psychologists and researchers over the years, is often described as ‘transient loneliness’ and thus this finding cannot necessarily be attributed to the FIFO experience alone. (Montgomery & Evans, 1986) The point at which transient loneliness becomes pathological and damaging, and escalates into depression, appears to depend partly upon some external stressors, for instance in the case of FIFO workers, extended separation from family, loved ones and home; and partly on an individual’s internal coping mechanisms. The exhaustion and stress of working extended shifts for many days in a row could hamper an individual’s ability to maintain objectivity and internal resilience, thus his/her coping mechanisms may be unable to deal with the stress of loneliness. Some male FIFO workers describe this situation succinctly:

“...the crushing, gut-wrenching loneliness becomes unbearable...”

“...loneliness and depression as you walk out to that plane is intense...”

“...its hard to describe exactly-loneliness is like a bruise...its like under the surface and if you think about it too much, like you knock it or bump it...it hurts...”

There is general agreement between medical experts and researchers that common reactions to loneliness and depression in men is to become withdrawn and quiet. (Pattison, 2001; Pease et al,2001; Read, 1889) This type of behaviour, also termed as ‘isolation’, was commonly manifested by withdrawal from others, and was recounted by many interviewees as a common coping mechanism to the stresses of FIFO lifestyle particularly in the mine site environment. According to Pease et al(2001) :

“ A woman talks outside her head, that is, you can hear her, whereas a man talks inside his head...When he has a problem he talks to himself while she talks to other people ...This is why, when under pressure of problems or stress, a man will clam up and stop talking...this silence is often distressing and frightening for a woman...” page 155

Pease, A & B Pease. 2001. *Why men don't listen and women cant read maps.*

Two interviewees described an interesting aspect of the loneliness felt at leaving their pets at home for extended periods of time. The guilt that one worker felt in having to put his dog in the kennel for two weeks at a time, was evident as one single man identified this as one of his main regrets about the work style he was involved in.

Women left at home, similarly, could also suffer from loneliness and isolation, this was demonstrated in both Case Study 1 and 2 at the beginning of this section of the report, a family member of a FIFO worker also discussed this in terms of the effect of one person’s loneliness adding stress to another:

“...my daughter’s partner has done fly-in fly out and the loneliness can at times be very difficult- my daughter’s partner worried about her being lonely while he’s on site and this can be distracting for him...”

The extent to which loneliness and depression escalates into serious illness in the context of the FIFO workforce is almost impossible to measure, given the pre-existence of depression and its widespread nature within the community. Depression has been recognised by the Federal and State Health departments in all recent strategic plans and reviews, as a significant health problem and treatment challenge for the future.

Depression that is severe enough to interfere with normal functioning and which does not improve with time is considered to be an illness. It is commonly believed that around eight to fifteen percent of adults have symptoms of depressive illness. According to Dr Christine Read (1998), there are certain circumstances associated with higher rates of depression including: poverty, belonging to a minority or feeling different, social isolation and loneliness.

Sadness, loss and grief

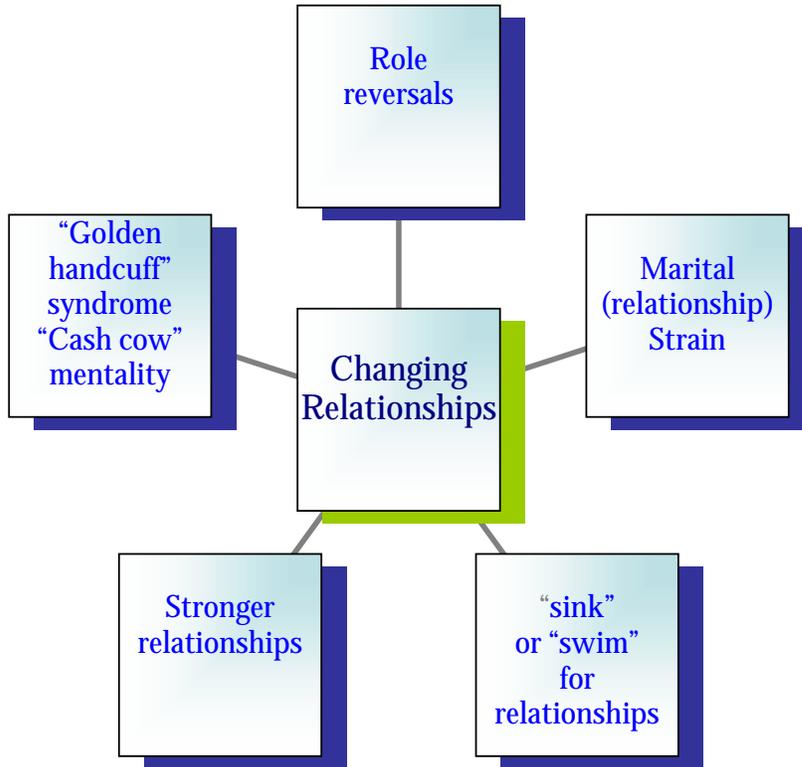
Being separated from the principal partner, and the family home unit in some cases had an extremely negative effect on the emotions of either or both partners and family members. Often men in particular recognised important milestones in their children’s lives that had been missed, with feelings ranging from sadness to more extreme reactions akin to grief. This reaction has been reported in a number of other industries associated with employees who are required to be absent from their homes on a regular basis. These include the military or armed forces, the merchant marine, deep-sea fishing, forestry, construction, transportation as well as the mining and petroleum industries characteristic of the Pilbara FIFO population. (Sibbel,2001)

Anger - may criticize employer

Thoughts and expressions of anger may occasionally be directed at the employer as a direct response to the stressful situation a FIFO worker may find themselves in. Men in particular were more likely to react in an angry manner and focus on attributing blame to the employer over a wide range of issues. Anger as a normal reaction a man might have to stress and change is cited by Montgomery, in his classic stress manual, You and Stress(Montgomery et al, 1986)

Changing Relationships

Figure 12: Changing Relationships



Role reversals

Change in family members roles when the partner or father was away from home was discussed by many interviewees. The sense that whilst the partner was away, the mother would adopt a “forced independence” and revert to a “forced dependence” when the husband returned was also discussed by other researchers. (Sibbel, 2001; Storey and Shrimpton,1998)

If both parents have different values and beliefs about familial behaviour management, the frequently changing roles of the parents within their family settings could lead to inconsistencies and confusion within the family in this area.

Marital relationship strain

Commonly reports of marital relationship strain, at some time of the FIFO experience, were prevalent in a high proportion of people interviewed.

“The exhaustion of commuting, the loneliness of being both in a relationship and alone and the misunderstandings that erupt during unsatisfying telephone calls in the dead of night take their toll...a long distance relationship is the equivalent of signing up for a year’s worth of dirty weekends. A lot of effort, some passionate interludes and not much to show for it apart from a health balance of frequent flyer points...”

“Life is all about the nitty gritty boring details of living. Even if you’re bickering about whose turn it is to make the coffee, you’re interacting. Long distance you find yourself just acting! If your partner only gets a few minutes of your time in a rushed phone call, you’re hardly likely to drone on about your day to day hassles, the real things that go on, instead you’ll keep up a bright face and sift through the mess of daily trials and tribulations to come up with an interesting story to brighten things up. You are of course not being yourself, and you’ve lost your vital everyday support...and that’s the start of a strain in the relationship...”

Relationship strain and overall family stress was thought by many participants to increase if the rotation pattern was excessively long, that is longer than 3 weeks on rotation, enforcing a longer separation. In her research with families of FIFO workers, Sibbel (2001) relates the preferences of women she interviewed to be for shorter rosters.

‘Sink or swim’ for relationships

The sense that a couple would cope with the separation and stresses of FIFO or split up under the strain was discussed by several interviewees. The possibilities were often seen as fairly polarised, things either worked out or they simply didn’t almost as if the stress of FIFO was an issue for which some people could never be prepared, and thus if a couple wanted to preserve their relationship then they may have to forgo FIFO work styles entirely.

“Two young families in my lot experienced fly in fly out. One lot came to grief when the wife decided she preferred the money but not the old man. Second lot decided when the wife could not cope with teenage kids alone that it was better for Dad to earn less and be home on a permanent basis. I think he misses the mateship on the mine site but he is doing the right thing.”

In discussing relationship failure, internationally renowned expert, Alan Pease cites seventy four percent of working women and ninety eight percent of non-working women name the biggest failing of their partners as a reluctance to talk, particularly at the end of the day. (Pease et al, 2001) Poor opportunities for communication experienced by FIFO workers and their families has been mentioned as an issue of some concern during the data collection phase of this project. The ability for couples involved in FIFO work styles, to maintain the ability to talk, or at least communicate and maintain communication over the period of work rotation could be seen as a key factor in relationship survival.

The extent to which mine sites have made suitable provision for workers to be able to maintain communication links, is obviously not seen as a high priority by some companies and contractors. During the first phase of research in which a desk top audit was taken, contact was attempted with over 60 companies operating within the Pilbara region, discussions with camp administrators and managers regarding the position and nature of phone facilities revealed that whilst most employees would have access to a phone service, assurances of privacy in an air-conditioned or weatherproof environment, away from flying insects, was not assured. Email access was limited in almost all cases, unless the FIFO worker worked at a level within the organisation whereby access to the internet and an email facility, was intrinsic to his/her job description. Given the importance of maintaining communication and its impact on the survival of relationships, it would seem a useful exercise to develop a regional best practice policy for minimum communication provision at mine sites.

Stronger relationships

Some interviewees identified a strengthening in their partnerships and relationships following commencing FIFO style work. The ability to build a manageable strategy capable of withstanding the stresses of separation coupled with shorter rotation patterns good communication, especially the use of email/computer based communications and adequate support for each person in the relationship were key factors in the strengthening of relationships. In particular relationships within some families left behind at the homebase were strengthened. One father describes the effect his absence had on his young son:

“Matt’s gotten a lot closer to his mother and he’s taken it on himself to do his bit.”

Similarly well meaning family members can also offer support :

“My mother and mother-in-law in Perth are totally supportive of the FIFO arrangement and try to help out where they can, actually we were a bit guarded about letting them in at first, but as long as they give us some space on my time off, its actually been a pretty good thing and brought us a lot closer.”

Golden handcuff syndrome/Cash cow mentality

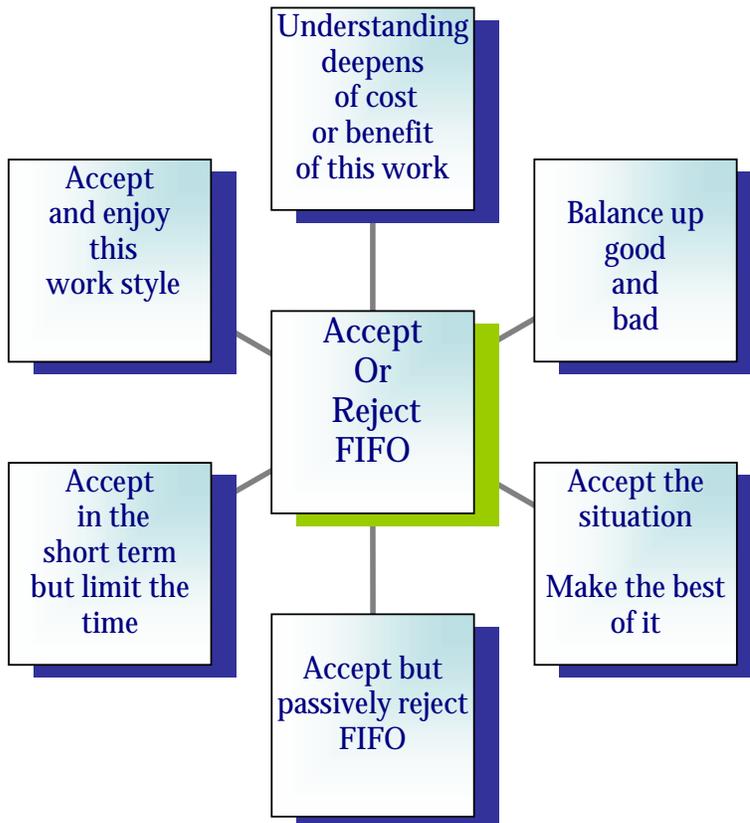
The sense of becoming addicted to the high wages attributed to FIFO work, was expressed often, and in some cases resentment relating to their spouses spending habits, emerged from the point of view of men working away. To be described as having “golden handcuffs’ or being a “cash cow”, amongst other even more derogatory references, and have achieved colloquial recognition within mining circles.

The sense that women at home were happy with their lifestyles whilst the high wages came in each payday was suggested with some bitterness by several interviewees. In one remote site in the central Pilbara, the story of a woman working on the mine site who worked for 6 months at a time as a FIFO worker, and who had been back five times having run out of money, after having vowed each time she left, to never return, was related to the researcher by more than one source.

Acceptance or Rejection: Exploring the Options

The eventual acceptance or rejection of the options available to the worker fell into quite clear and definitive categories and is briefly summarised in figure 13 below and related explanatory comments.

Figure 13: Acceptance or rejection



Understanding deepens of the cost or benefit of FIFO employment

An awareness of the complexities of the FIFO work style and the various effects it might have appeared to become clearer after at least 6 months, and for some individuals struggling with particularly stressful situations, a few months longer. Women affected negatively by FIFO work styles, in particular, quickly reached a stage where they were able to articulate a deeper range of effects of FIFO employment. The range of emotions and interplay of relationships experienced prior to reaching this point was likened to a rollercoaster ride by some interviewees.

Balance up good and bad

Some interviewees had systematically rationalised their decision to adopt a FIFO lifestyle by measuring the good up against the bad aspects. Despite admitting the decision to be overall a very difficult one, it seems logical reasoning was often used to decide whether to stay in the FIFO work force. The ability to act and think logically in the initial stages of adjusting to FIFO, was acknowledged by some FIFO workers to have been hampered by the interplay of emotions experienced.

Accept the situation - Make the best of it

Commonly the stoic sentiment that 'you would make the best of it' until something closer to home, or more agreeable, came along was expressed particularly by men interviewed.

“ Adding to the problem is the prevailing culture amongst men of ‘taking it on the chin’, believing that “a man’s got to do what a mans got to do”-that is, tough it out without complaint and without seeking help...”

Accept but passively reject FIFO

Some workers recounted anecdotes of their workmates who stayed on even though they were having difficulty coping with the FIFO lifestyle but who were reluctant to admit it and instead appeared to manifest all the signs of stress, anger and depression.

“Some people are just impossible to work with, they can be so prickly and hard to get on with...they make it hard on themselves and everyone else...they should just admit defeat or learn how to deal with it or move on...”

The observations of this male co-worker when explored further, revealed that in his opinion his co-worker may have been unaware of his own dissatisfaction, that he was somehow acting out 'subconsciously'

Accept in the short term but limit the time

One of the most commonly mentioned coping strategies offered by couples interviewed involved the bargaining or negotiation of a defined period of time that FIFO work styles would be undertaken. The suggestion that both partners in a relationship needed to “buy in” to the arrangement was mentioned often, particularly by the partner left at the home base. This was also demonstrated in Case Study 1 at the beginning of this section, where Peter discusses this concept of negotiation:

“We sort of negotiated a compromise...where we had a financial goal and both made a sort of bargain to stick to it....but it has to be both people working on it and agreeing with each other...”

The process of negotiation was mentioned often by interviewees when asked to offer advice for other FIFO workers and their families.

Accept and enjoy this type of work style

The interviewees who enjoyed this type of work style were also most likely to offer constructive strategies that demonstrated how they had managed to cope with the lifestyle. A list of such strategies is summarised at the end of this chapter.

“...The one thing that seems to be forgotten, is that nobody has to do FIFO work. I am a very happy FIFO worker who would not consider doing the same work if I was based in a country town... My home is in Perth and it is the only place I would consider working. I think that we all have choices and everybody needs to do what suits them best...”

“...FIFO is not for everyone, but there is a large segment of the community that prefers this lifestyle..”

“FIFO is right for me at this time in my life...it's a young fella's game...I don't know how I'll feel in a few years time...”

Table 9: Summary of Positive & Negative Experiences of FIFO Workers & Families:

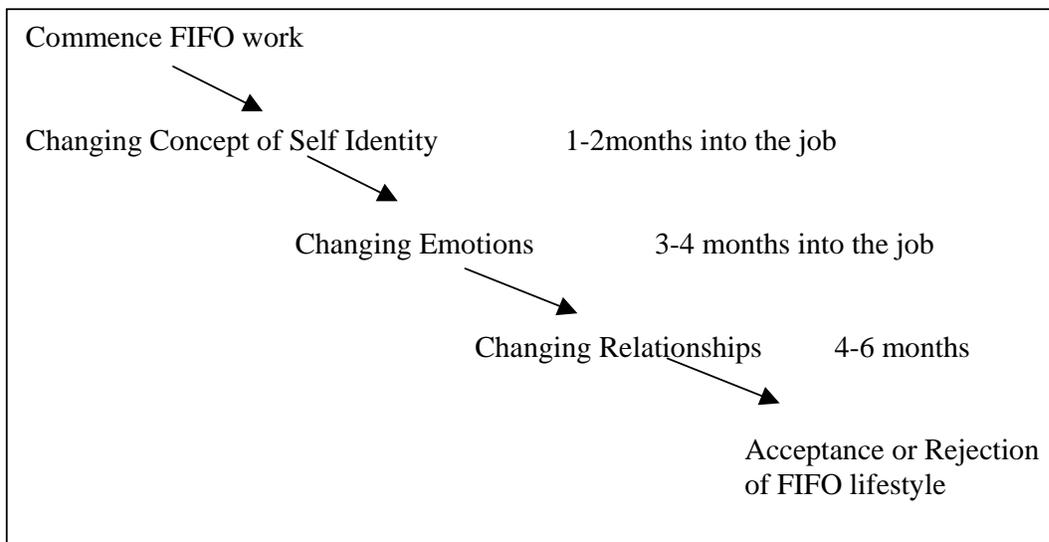
Positive Experiences	Negative Experiences
Growth of personal independence and freedom	Poor communication
Strengthening of skills and parental role expansion	Loneliness and isolation
Enhanced quality of time spent with partner	Abandonment of responsibilities
Pioneering/adventurous spirit stimulated	Marital or family unit dysfunction
Career advancement	Grief and loss
Financial satisfaction	Depression
Bonding and mateship	Possible substance abuse
Strengthening of relationships	Personal devaluing within the family unit
Strengthening of coping skills	Guilt at leaving the family unit

Support Strategies

Strategies to support and involve FIFO workers need to reflect an appreciation of where each particular worker might be at an emotional level at specific times of his/her long distance commuting experience. Conclusions can be drawn about average length of time from initial commencement of FIFO style employment to eventual acceptance or rejection; although strength of personal relationships, relationship characteristics, personality style, personal support mechanisms

Involving the worker and his/her family and the work rotation pattern may lengthen or shorten such predictions.

Figure 14: The Lived Experience of a FIFO worker-Continuum of Emotions



Strategies for coping with Long Distance Relationships from FIFO families and FIFO workers

- “Take souvenirs from everything you do together, even if it’s just a matchbox from a restaurant and display them in your living space. Surrounding yourself with them will make that time together seem not so far away. “
- “Choose your battles: Those of us with such little precious time together cannot afford to waste that time bickering over trivial things. Every health couple fights, just save it for the really important stuff only.”
- “If you are in the same time zone, pick a favorite show and promise to watch it at the same time, while having the same snack or drink. When something funny or sad happens during the show, you can know that your loved one laughing or crying at the same time as you.”
- “...Give yourselves a pat on the back! When it seems hard, remember that it is! Give yourself a break by reminding yourselves that what you are doing is very difficult and some never even try to keep the relationship alive. Even regular relationships take a lot of effort, understanding, commitment, and patience, and long distance relationships require even more. Take a moment to be proud of yourselves for being successful at such a difficult challenge. Tell your partner. “Congratulations.”!....
- “...I keep this kind of diary we send to each other every 3-4 days. The content is the content of a letter, but also heaps of other stuff, like what the other has been doing that day, how the other feels about all kinds of things, things that annoy you at work and camp food and stupid things people do. I experience a great deal of consolation and happiness when I write that diary/letter. I have also noticed that through this way, we get to know each other well, as we share our deepest thoughts with each other. Every time when I feel really down, I write and after that I feel very very relieved.”
- “Keep a journal for two weeks or so, then send it with other items. When I write in the journal, I can be sure that in a few days she’ll be reading over my life, and feel like she’s a part of it, and I like to read what she’s written because it makes me feel connected to her....”
- “...getting little heartfelt surprise gifts is a great part of FIFO...the feeling of your heart skipping a beat when you get a package in your mail slot, and you know its from your girlfriend...it’s a great feeling...”
Some of the small surprises I get from my girlfriend sound silly but just help me understand she cares -things like: Favorite sweets, chapstick for dry lips
(I’d mentioned the lack of choice up here) Aromatherapy oil, a back massager, favorite music compressed onto a minidisk, the latest book of a favorite writer, a soft feather pillow to replace the hard one I had been stressing over...stuff like that makes a lot of difference.

- “...there are a lot of things you can send in the mail: holiday related items, tapes and music mixes, cute things you find in gift shops, videos if you have the equipment, poetry (yours or stuff you’ve found”) and songs...”
- “Use internet phone applications....they keep the phone bills really low, and let you still hear the other person’s voice....”
- “I just want to offer some extra advice to anyone going into a commuting job. Be faithful to your partner and if something does happen be honest with your partner, don’t ever go into a long distance work situation thinking “What he/she doesn’t know wont hurt them” because I can say from experience that if it ever does come out it hurts 20 times more, and for me the guilt is too much to bear...”
- “During visits home, you might feel a little bit awkward-sometimes I do, sometimes I don’t...and things are still working. You may want to take things slow for the first few days. And in my experience the goodbyes get a little bit easier each time.”
- “Don’t bother about what other people think. Its what you and your partner mean to each other. It is really helpful to have supportive friends at either end and remember: “Absence Makes the Heart Grow Fonder”
- “ ...managing a long distance relationship can call for rigid maintenance. I don’t mean to make it sound impersonal, like attention to the oil changes in your car, but this is knowledge I gained first hand, having been a FIFO worker for almost a year before I got married to my husband. The distances can be hard to deal with, make no bones about it. But the good news is, its not impossible. In fact it can add positive and memorable elements to a relationship. You cant just hop into a car and meet each other because you have some time to kill. Those little informal meetings, which can add so much to a new relationship, are not negotiable. In all probability you will never learn to like this, but if you want your relationship to have any chance at all, you will come to accept it. The key is to find other ways to compensate for the lack of one on one time as often as possible...”
- “..in close distance relationships little gestures can be ignored without having a deep impact. Not so with FIFO couples. Every small detail counts, because sometimes these are all you have. Get the number of a good florist, don’t forget special occasions, that includes the day you met, when your partner has a bad day even a bad hair day...you get the idea....”
- “...There is one vicious little detail you have to learn to deal with and that is outrageous phone bills. Make sure you shop around for the very best STD rates you can get, don’t settle for good rates only on weekend or after five pm, more times than not you’ll need to call at other times...”
- “...When you are together, savour the quiet time you have together. Getting together with friends is fine, but it should never take over the opportunity to develop your relationship. This might mean speaking to family and friends honestly, so they don’t get offended by your refusals. People who don’t have to deal with FIFO often don’t understand the dynamics involved. Usually a few minutes of explanation will solve the bulk of this situation.”

- “Be tough when it comes to vital opportunities to be together. Let your boss, family and friends know that your partner will be at home. Organize your life so that your time together will be unhindered. Do things that draw the two of you closer rather than emphasize the distance between you.”
- “...get involved in organizations or causes that you personally believe in. put meaningful things in your life other than your partner, it will get you through the time he is away...”
- “This is going to sound pretty corny but you need to get hold of colourful fun stationary, and tons of it. Also different colour pens, this helps break up the monotony. This might seem like a minor detail but it does make a difference. The funniest thing my partner did was send me this hilarious card that read:
“There are so many things that remind me of you” on the outside, on the inside it read “This month, it was the phone bill.” That cracked me up, it doesn’t have to be cutesy and mushy sentimental stuff, having a laugh about things helps a lot.”
- “I separated from my wife and I was finding it hard to keep track of my kids, then I bought my teenage daughter a mobile with prepaid card and I encourage her to use it... like its our way of keeping in touch...it’s made quite a bit of difference and her mother doesn’t hassle about the enormous bills on the landline...”
- “...I have only one thing to recommend about coping with long distance relationships, and that is: develop a talent for phone sex... now this can be a bit humiliating and as you get older, sometimes you sound like a dirty old man, you want to hope the guy in the next phone booth cant listen in.... if you’re out at XXXX (names a remote work site which does not have mobile phone coverage) ...but it can be a bit of fun ”
- “You’ve gotta be inventive use emails, webcams, electronic greeting cards, digital photos...anything to stay in touch with the family while you’re away...”
- “...I once went to a school concert down here in Mandurah and held the phone up so my husband up in Karratha could hear...I didn’t want him to miss out...”
- “...My husband and I always talk to the kids about the reasons why he has to fly away to work...they miss him heaps and its hard on them, but I figure its better they know the reasons behind it so they don’t think its their fault...”
- “The company I work for has enough planes going up and down, that I can take annual leave days so that I dont miss birthdays and anniversaries...they have saved me a lot of grief...I know other blokes when I’ve worked at other places on FIFO who faked sick leave to just be at home for something special and this lets everyone down...and then you get some guys who stay up at the mine cause they need the dollars or whatever, who are just plain miserable when something like a birthday or special occasion is happening at home and they’re just bastards to work with until they get home again...the guilt eats away at them...they take it out on the blokes around them without even realizing...”

- “Sometimes I find it difficult to talk on the phone after he’s been on a long shift...they make them work extended hours and occasionally there’s overtime...he finishes quite late and our two kids are full-on and I’m exhausted by the end of the day...that’s why I like email...he can email me in the evening and there’s something nice to wake up to in the morning...I don’t have to wait up...with email it doesn’t matter about what time you send it...”
- “...before you begin commuting, both partners need to buy into the set-up...the hardest thing can be... if one person agrees and the other is halfhearted...it can go on for a while if there’s an end in sight..”
- “...you may not be interested but one way to fill time and meet lots of people is volunteer work. Sounds a bit grim but many people find it is the answer to their needs. Your local shire or library will have a list of those who will welcome you with open arms...”
- “I am a FIFO worker, and so are 500 odd of my work mates. I have been doing this type of work for about 8 years now, and my partner and I don’t have a problem with it at all. The fact she also worked on site for a time, and understands the workplace helps a lot. It is all about choice, if you don’t want to be away from home for long periods then don’t join the FIFO lifestyle. However compare this to a father working long hours, coming home late at night, working weekends, etc, there is no real difference. My partner is friends with my co-workers partners which is a ready made support network of people in a similar position.”
- “...Most employers provide a free and confidential counselling service to their employees and their families. You may be able to talk over some of the issues.”
- “We do a lot of daytime stuff together when he’s home...movies, picnics, drives, lunches, walks on the beach etc and find its wonderful doing these things while most other people are working...To sum up I feel it’s the way you use the time you have together that makes the difference and if I didn’t have email to keep contact it would be awful”

4.2.3 Pilot Research FIFO Worker Tool Kit

Introduction

The concept of producing a document for the purposes of assisting FIFO workers and their families was raised frequently during the course of the interview and focus group data collection. One particular interviewee produced a four page brochure issued by Lifeline in conjunction with the Centre for Rural and Remote Health funded by the Commonwealth Department for Health and Ageing under the National Mental Health Strategy. This brochure, produced in November, 2002, focused primarily on Surviving the Drought, and was broad enough in its dealings with family and relationship issues to be easily adapted to encompass the stress experienced by FIFO workers and their families. The “toolkit” concept resonated with this particular interviewee, who stated:

“Its part of the toolkit you would normally take to work with you...it helps you cope with the job...” In order to test the usefulness of this resource, the toolkit was redrafted following consultation with local mental health professionals within the region during a focus group held in the region in February 2004.

The Toolkit was photocopied onto a single A3 sized sheet double sided and was laid out as follows on the next four pages.

Tool Kit for Surviving Fly-in/Fly-out Relationships

Long distance commuting work styles can prove very stressful for many workers and their families. It can leave many people feeling weighted down or trapped and isolated in a situation they are unable to easily change or resolve.

A degree of stress is normal in life. Common triggers for stress are frustration, conflict, change and pressure. In particularly difficult times, such as the first few months after commencing FIFO style employment, the number of stress responses and their intensity increases. Some examples of stress symptoms are listed below:

Physical:

Tiredness, headaches, accidents, neck and shoulder tightness, restlessness, ulcers, hypertension, respiratory problems, diarrhoea or constipation, chest pain, back pain, upset stomach, skin problems, weight loss or gain.

Psychological/Emotional:

Irritability, mood swings, nervousness, low self-esteem, worry, anxiety, tearfulness, guilt, fear, anger, sleep problems, depression, helplessness, hopelessness, shame, confusion, forgetfulness, dull senses, negative attitude, poor concentration.

Behavioural/Social:

Seeking isolation, fewer contacts with friends, overworking, lashing out, blaming, nagging, resentment, aggression, arguing, alcohol/drug/tobacco use.

If stress is experienced for long periods of time it can result in physical, mental and emotional exhaustion and 'burnout'. The following strategies may help you handle these stress responses. They may also help reduce some of the stressful effects of FIFO style employment.

1. Communication:

Keeping in touch is vital.

Communication means talking about what's going on in your life, and how you're feeling about things. If you don't communicate, your significant other and family probably isn't going to be able to read your mind.

Communication also means listening too!

Keeping in touch doesn't have to be expensive-Emails/text messages/snail mail and short telephone messages can go a long way in maintaining open lines of communication.

2. Respect and Honesty:

In order to pull off a long distance relationship you need to have a lot of trust in your partner. If you don't, you may end up wasting a lot of time wondering where they are and who they're with. Insecurity isn't a good aspect to drag into a relationship.

RESPECT. If you are leaving your Significant Others at home for job reasons or you have been left at home whilst your partner has travelled away to work, you need to form some new friendships. Significant others should respect the existence and time devoted to this new life. A new life doesn't mean you don't care about your partner any more, it means you're still a living breathing valuable person when they aren't around. It also cuts down on the ever present "I miss you!" loneliness and longing.

Respect your partner's right to live a life which doesn't revolve solely around you.

HONESTY. Be honest about how you feel about your relationship, and what's going on in your life. Again mind reading is unusual. If your job or home life is keeping you busy, or if you're sick tell your partner-it's easier to understand why you haven't phoned or e-mailed in a while, or why you seem cranky or moody. Don't forget to tell them about the good things happening in your life as well as the bad ones!

In the unfortunate case you decide your relationship isn't working-for goodness sake, don't just leave the other person in the dark, be honest with them. This doesn't mean being rude or thoughtless. Pick the right time to break the news.

3. Coping with changing roles:

Commencing FIFO style employment can lead to considerable personal and familial upheaval. Traditional roles and relationships within the family can be turned upside down.

In close relationships the best plan is cohesion-ride the situation out together. Be sensitive to one another's feelings and pay attention to unspoken pain as well as verbalised distress.

Changing roles can lead to feelings of guilt and embarrassment. When things go wrong, people tend to blame themselves or think they've failed in some way. These feelings are seldom justified. By examining the whole situation, you may be able to see things more realistically.

People under stress may also use alcohol to "unwind" or "drown their sorrows". But alcohol can increase feelings of depression and sadness, and overuse can lead to further family and social problems, injuries and illnesses.

4. Helping Children and Adolescents through tough times

Children are often very aware of what is happening around them. When adults withhold information, it can result in mixed messages, confusion and tension. Children know when something is wrong, even though they may not know what it is, and they fill in the blanks themselves. They tend to imagine the worst and may think they are to blame.

Children may hear you say, "Everything is fine" but see the distress on your face, hear it in your voice and experience it in your lack of patience. Parents should admit their concerns to children and involve them as far as possible in decision making.

Children can learn valuable lessons from watching how parents deal with pressure and stress. They can learn that painful feelings can be handled, and that decision making involves information gathering, looking at alternatives and selecting the best option.

- Have family meetings to discuss issues when everyone is at home
- Be honest and open about what is happening
- When a decision has been made, point out what will remain the same and what will change.
- Outline the children's responsibilities, ie: to do well at school and help at home.
- Outline your responsibilities, ie: to worry about...

Adolescents have similar needs but are more susceptible to their own stress. Communication is even more important with them as events may directly affect their future.

With both children and adolescents, parents need to be aware of changes in mood, behaviour, friendships, eating or sleeping patterns. Discuss these changes with them and seek professional help if concerned.

5. Preventing Isolation

Although the natural inclination is to isolate yourself in times of crisis, it is one of the worst things you can do. All the research shows that people with strong connections with families, friends and communities cope best in times of crisis. Social support is important because it reduces the sense of isolation, lessens depression and anxiety and provides a network of people who can listen and offer support. Often this source of support will be found within the workmates and their families who might be experiencing identical feelings.

Unfortunately people may draw away from a family or individual in trouble, thinking their distance is polite and respectful. They may feel their well meaning help is a burden to the troubled person or fear they will say the wrong thing. Sometimes the person themselves may not want help. Men, in particular, often find it difficult to talk about problems or ask for help.

6. Gaining a sense of control

Everyone responds differently to stress. Those who handle stress more effectively tend to have a realistic sense of their limits, a knack for turning problems into opportunities, an ability to challenge their reactions to situations and maintain a positive outlook.

You can start to develop a sense of control by:

- Not overreacting to the problem
- Becoming aware of negative self talk (I'll never survive this, I cant cope if I go back to work)
- Replacing negative self talk with realistic self talk (I've been through this before and survived, I'm not a quitter)
- Maintaining routines and networks with other people.

People under high levels of stress can take their frustrations out on themselves and others. They can blame themselves for events or situations or turn their frustrations to others in the form of anger.

Anger can be expressed within the family or directed at others at work or in the community, including people in authority or the employing contractor or company.

7. Looking after yourself

To cope well in stressful situations you need to look after yourself. If stress is allowed to accumulate, such as when many stressful events occur together, the body can be affected and health and decision making capacity and relationships may suffer. Your ability to cope is a combination of hereditary and learned responses, so you can improve your ability to cope.

- Become aware of your stress level
- Regularly take time out for relaxation and fun.
- Maintain communication links as best you can with family, friends and the community.
- Make sure you eat and sleep well.
- Keep involved with sport hobbies and other recreational activities.
- Vigorously exercise 30 minutes a day to relieve tension.
- Don't let the crisis of being apart from your loved one dominate your life completely.

8. Getting Help

Most employers provide a free and confidential counselling service to their employees and their families. You may be able to talk over some of your problems and issues with this service.

You can always talk your problems over with a Lifeline counsellor by phoning:

13 11 14

Evaluation Aims

- To assess the usefulness of the redrafted “toolkit” brochure.
- To encourage feedback and constructive criticism from the target audience of the “toolkit”
- To present a small research pilot to use as a base for generating funding for a similar endeavour.

Evaluation Questionnaire Methodology

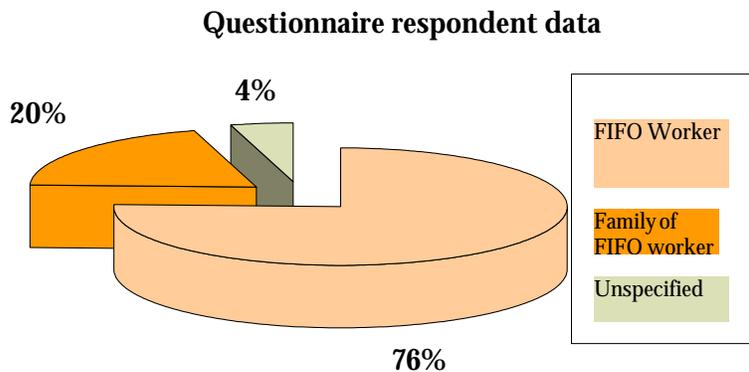
Questionnaires were distributed by post attached to a copy of the FIFO Toolkit, to all suitable contacts on the research database, who had been interviewed or expressed an interest in the research project, and who had been or were directly involved as an employee or the relative of an employee in a FIFO capacity.

In all, 127 questionnaires were circulated during February 2004 with a request to return by 1st April. By the specified date 45 completed questionnaire’s had been returned. Questionnaire respondent profiles are described in the figure below:

Table 10 : Questionnaire respondent demographic details

Nature of Involvement with FIFO	Male	Female	Total No of surveys distributed	No. of surveys returned
FIFO Worker	18	16	84	34
Family of FIFO Worker	1	8	43	9
FIFO involvement unspecified	2	-	-	2

Figure 15: Questionnaire respondent data



Data obtained from the questionnaire is summarised in the figures below:

Table 11 : Responses to Question 1

How would you rate your fears and anxieties about long distance commuting and its effects before you read this leaflet?	Number of responses
Not anxious at all	6
Slightly uncomfortable	8
Moderately anxious	12
Quite Anxious and afraid	6
Extremely Anxious	11
Not answered	1

Table 12 : Responses to Question 2 in grouped categories

Question2: Now that you have read this information, how would you describe your attitudes and understanding?
Unchanged -4 responses “This is what I’ve understood all along...this hasn’t been any great revelation to me...”
Understanding has improved- “...now I can explain some of what I have been experiencing and be on the lookout for signs of stress...” “I understand a little more but I need to know more specific details about how to cope with the situation...” “I understand some of the experiences I’ve had in the past, however some of the helpful tools you provide aren’t much use to me when we don’t have email access and mobile contact...” “I found some of this quite informative...I wouldn’t use an employee assistance program though as you tend to be labelled...you didn’t mention much about how supportive work colleagues and the onsite nurse can be...”
Attitude Shifts “I think this toolkit might change my mind if I hadn’t decided on FIFO one way or another..it might put you off doing it...but for me we like the money and the time off you get at home...the lifestyle suits us...it just hasn’t been all that stressful...I think we’ve coped pretty well...we’re a tight family” “...I have coped well personally, but I have seen guys who sort of withdraw into themselves, bite your head off at times and are just painful to work with...and I’d like to photocopy this leaflet and stick it in the mess so they could change their attitude a bit or at least realise that they need some help.”

Table 13: Responses to Question 3/4

In your opinion were there any topics that should have been included? 33 responses summarised into categories below	Any topics that should have been left out? 4 responses
Marriage guidance	"...Some of it was a bit obvious and patronizing..."
Financial issues -general -running two households	"..a bit repetitive at times..."
Helping fellow employees	"...leave out the bits about phones and computers we don't have that kind of access here and it is a bit of an issue..."
Building workplace harmony on remote sites	"...There needs to be a separate toolkit brochure for the FIFO worker and the family of the FIFO worker...I have been both and believe me they do go through different things and neither is easier than the other..."
Drug and Alcohol options	
Need more contact information and useful references	

Table 14: Responses to Question 5

Question 5: Did you find the information presented was:			
Too deep	Too superficial	At a good level	Not answered
0	14	28	3

Figure 16: Information presentation

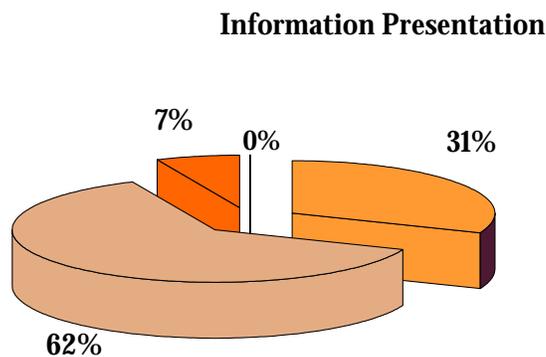


Table 15: Responses to Question 6

Any other comments about how this information could be presented.
“Leave it in the airport or in the back of the plane seats for FIFO workers...”
“This should be given to employers to circulate around, print it in the Iron Chronicle”
“I’d like to see a website and have it set out with links to contacts and a forum for wives of FIFO workers so they could be an online support.”
“ I like that this hasn’t cost a lot of money to produce its not some glossy attempt and its pretty down to earth...it’s a good start but you need to go further and make it more explanatory...maybe some real life case studies would help.”

Discussion and Conclusions:

Overall the response rate for the return of the evaluation questionnaire was better than expected, at 35%, especially from a single opportunistic mail shot in a limited timeframe, like this one. It must be acknowledged that in this small sample, the opportunistic selection of participants was taken from a group of workers and their families already familiar with the overarching research project and its general aims and objectives, and as such had a keen interest, in many cases, in returning information that often they had been instrumental in asking for, during either focus groups or personal interviews. It might be assumed, given this context of participants, that if this questionnaire accompanying, the FIFO toolkit, had been randomly distributed throughout the FIFO stakeholder groups in the Pilbara, a much lower response rate would have been expected.

The generally encouraging results of the evaluation of this questionnaire, despite the use of an obviously small sample and other limitations of this relatively small pilot study, together with the suggestions offered by the participants via the questionnaire should be collated and used in the preparation of a funding proposal. The negative comments of the respondents generally criticised the language used, or the tone of discussion the “toolkit”, rather than the concept of producing such a document itself.

Recommendations:

In light of the conclusions drawn above it seems appropriate to recommend further development of this type of “toolkit” and to continue to evaluate and alter the contents of the tool kit to be more accurate and appropriate to the needs of FIFO workers and their families.

4.3 Findings from other stakeholder groups

A combination of interview data, focus group feedback and strategic workshop planning notes, combined with relevant contemporary references are used in this section of the report, to identify discuss and analyse issues, raised by the various stakeholder groups consulted over the period of this research project.

Major categories of issues are examined under the following headings:

- Pilbara Regional Profile- Recognition of the Pilbara
Attracting populations to the Pilbara
-incentives
-disincentives
Regional Infrastructure
- Regional Business Development
- Taxation and Allowances
- Recruitment and Employment
- Educational Standards and Opportunities
- Housing, Accommodation & Transport
- Socio/Economic Considerations
- Positive Aspects of FIFO

4.3.1 Pilbara Regional Profile

The issue that the Pilbara Region was not well advertised and had not been well promoted, emerged from many discussions, both through interview participants as well as focus groups. This has been noted before now by other researchers. (SCORD,2004)

To ascertain levels of awareness of regional Western Australia, Perth residents were questioned in the survey report '*Living in the Regions: The views of Western Australians*. (Department of Commerce and Trade,1999) Perth residents were asked if they could name any towns in each of the nine regions. Findings revealed that a significant number of people could not identify any towns in the northern regions and were likely to confuse the Kimberley and Pilbara towns. Thirty-nine percent of respondents were unable to name any towns in the Pilbara. Only one in four people surveyed could identify Port Hedland as a Pilbara town. The following table adapted from the report demonstrates Pilbara towns known by those surveyed:

Table 16: Recognition of Pilbara towns in the metropolitan region

PILBARA TOWNS KNOWN	
Don't Know	39%
Port Hedland	25%
Karratha	17%
Newman	10%
Dampier	7%
Tom Price	6%
Paraburdoo	5%
Onslow	3%
Roebourne	3%
Wittenoom	3%
Marble Bar	1%
Shay Gap	1%
Goldsworthy	1%

It could be assumed from this result that the Pilbara was not well recognised as a region and thus some publicity and promotion is warranted. This also correlates with the opinions of FIFO workers and many other stakeholders, particularly from the business community, when they were interviewed. In order to attract stable permanent residential workforce populations to the Pilbara, as well as capitalise on the potential tourist economy, future regional Strategic Plans must include recommendations to plan for, promote and publicise the Pilbara.

There is an opportunity to market the Pilbara to FIFO workers and other temporary residents in the region. Many short-term residents populate the towns of the Pilbara region, aside from mining and resource industry workers. A large group of people, mainly government employees comprised of teachers, police, health workers and public servants (both State and Commonwealth) provide infrastructure and services within the region. For most of these employees, extra government allowances or assistance is offered to allow for the added expense and disadvantage of living in a region remote from metropolitan services. The majority of these workers have expectations of staying in the regions for short periods of time 2-3 years, with for some professions, (Education & Health workers) the added financial incentives accumulating and peaking around the third year of

continuous service. There is significant anecdotal evidence in the teaching and health work industries, specifically, that recruitment and retention of staff has been difficult over the past few years and is a topic of great concern to managers in the Pilbara Region. From an economic point of view, constant efforts to advertise, recruit and orientate new staff is costly in both human and material resources.

Data obtained from interview and workshop sources confirms this problem. When explored in more detail some of the reasons employees in these industries choose to leave the Pilbara could be broadly summarised into the following categories.

- **Dissatisfaction with Government Employee Housing**
- **Inadequate Financial incentives to truly cover the costs incurred living in the Pilbara**
- **Loss of culture/entertainment/sporting variety**
- **Distance from family/friends and relative support structures-including cost to have relatives visit and stay in the area affordably.**
- **Local Pilbara conditions including issues such as: poor literacy and academic levels(education department data), violence, crime (interviewees cited: South Hedland/Roebourne/Karratha)**
- **Failure to penetrate established social circles in the town-**
- **“not working for the company-don’t belong”**
- **(much more prevalent in mono-industry towns and Karratha specifically)**
- **Poor career prospects for spouse, partner, or children.**
- **Lack of public transport (Karratha/Dampier/Roebourne/Port Hedland)**
- **(Particularly at night)**
- **Comparability with resource company wages can be a powerful incentive to draw people out of the service industries into mining and resource sector.**
- **Its not their home town. There is no sense of hometown belonging.**

Dissatisfaction with Government Employee Housing

The Government Employee Housing Authority (GEHA) is the Western Australian Government agency responsible for providing housing for employees, of most State Government agencies in all parts of Western Australia, apart from the Perth Metropolitan Area, Mandurah and Bunbury.

Created in 1964 by the Western Australian Government, the Government Employees' Housing Authority provides accommodation for all manner of Government employees — Police officers, teachers, magistrates, fisheries officers, public servants, forestry workers and their own staff to name but a few, in all corners of the State from Kununurra and Kalumburu in the North to Esperance and Eucla in the South. With approximately 4600 houses, duplexes and apartments (the majority being single detached family homes) GEHA is the second largest landlord/owner in Western Australia and largest employee housing provider in Australia.

The Authority's head office is located in East Perth with a regional office in both Karratha and Port Hedland. In GEHA's 2002-2005 Strategic Plan, the authority clearly articulates its vital role within the region:

“Attracting and retaining public sector staff in the state's regional areas is an integral part of regional development and a vital component of the governments commitment to the region....GEHA helps departments encourage their employees to relocate to the country by providing accommodation”

In the Pilbara GEHA manages over 1000 properties. (see Appendix) People listed as government employees, with eligibility to access to GEHA properties has been estimated to be approximately 3500 . (ABS Census, 2001) Naturally some of these employees have alternative accommodation within the region, having another member in the family working for a company with a different housing scheme, or people who have purchased their own property, being among this group.

Tenants of the GEHA disclosed a range of major criticisms during the interview process. The following issues were commonly discussed:

- Run down and poorly maintained properties
- Poorly designed housing-particularly bathrooms and kitchens
- Antiquated and expensive ducted air conditioning
- Properties clustered in high crime areas with few security provisions
- Dated internal colour schemes and carpeting

Criticisms did not include major problems with the GEHA staff or the management of the GEHA service. Issues relating to the length of time it took for maintenance work to be carried out on broken or damaged items was explained by GEHA staff, to be a consequence of the high demand and relative shortage of tradesmen in the Pilbara Region.

Further initiatives by GEHA of specific benefit to tenants in the Pilbara region have recently been announced. A nine year program of renovation and improvement works will commence in the near future (exact date TBA) which involves renovating kitchens and general home improvements, altering floor coverings, establishing patio, paving and reticulation to the value of 1.5 million dollars in the Pilbara region alone. A project manager will be employed locally to oversee works. The speed with which renovation and improvement can be achieved is of course limited by the availability of tradesmen and contractors to work on the project within the region.

The source of central funding for GEHA has in the past relied heavily on self-funding through rent of their own properties. There was minimal provision for construction of new properties in the past decade, and as older property assets were sold to keep the scheme running, subsequent reduction of income in the form of ongoing rents, was an unwanted side effect. This income drain was compounded by the practice of leasing properties where no suitable GEHA properties were available. Leasing properties has not been shown to be an economically viable or sustainable approach. The recent introduction of “cost-recovery” rents has reversed this trend, however, and thus enables a small boost in income. Locally this boost has been generated into improvement schemes.

Most notably, 12 old single man units in Newman have been acquired and are undergoing extensive renovation and refurbishment.

One of GEHA’s strengths in assisting regional population retention, and increasing property purchases, could be seen to be the opportunity offered to tenants to purchase their rental property. The Authority currently has a program where tenants may apply to purchase the property in which they reside as a ‘tenant in occupation’, at prices based on current market value. Home improvements made by the tenant during the period of residency are taken into account by valuers and deducted from the eventual sale price.

In this scheme the tenant has the advantage of exclusive purchase, meaning, that they are not competing with other prospective applicants, as would happen in an auction situation.

Another innovative concept GEHA has recently promoted involves forming partnerships with the private sector and local governments to develop new housing stocks in regional areas. The plan involves building and leasing property back to GEHA, and represents a win-win situation, from the regional perspective. Local government has the benefit of a stable return on their investment, , with minimal outlay in the form of real estate fees, guaranteed tenancy, 52 weeks a year. The purchase of newer more attractive properties, has the advantage of recruiting and retaining skilled professionals into the region.

Within the Pilbara region, this opportunity was considered recently by the Town of Port Hedland, who announced their intentions to borrow enough funds to purchase up to 40 homes, to buy into this scheme. (NorthWest Telegraph, 14th April, 2004) Despite some local criticism, generally baulking at the amount of money to be allocated to the scheme, this can only be seen as a low risk, proactive step taken by local government.

Further evidence of GEHA’s commitment to striving harder to make the Pilbara an attractive place to live and work and utilising the strengths and capacity of the local population can be seen in two recent initiatives sponsored by GEHA.

- **Reticulation Scheme:** In the Hedland area 1/6th of the GEHA properties have been reticulated in order to establish and maintain garden and lawn around GEHA properties. Plans to extend this have been made and wait funding and implementation. Satisfaction of tenants who are the recipients of these improvements is evident, where in some cases, properties have been transformed.

- **Newman Reticulation Project**

Students from Newman Senior High School, who were considered at risk of discontinuing their education after year 10, remained on for year 11 after taking part in a GEHA home reticulation project. The reticulation project was commenced last year in an attempt to address concerns voiced about a number of year 10 students who were displaying no interest in the school program.

A report outlining the project can be viewed on the GEHA website and describes the project in greater detail. (GEHA, 2003)¹ Excerpts from this report follow:

Eight students worked under supervision to install reticulation to a number of homes. GEHA covered the cost of materials, electricity and plumbing, while TAFE staff provided skills training and supervision.

“Students who had been disinterested in school were arriving at 7.30 each morning keen to go to work and built good relationships with all Newman TAFE staff,”

“They worked in hot conditions, digging trenches by hand, but showed a level of motivation they had not displayed in the classroom.”

Seven of the eight students received Certificate 1 in Horticulture. The other beneficiaries have been GEHA tenants, whose gardens are now serviced with reticulation systems.

“The Newman reticulation project has demonstrated how partnerships between Government agencies can benefit the wider community,” said GEHA Executive Director Trevor Clarey, adding that, “Credit must be given to GEHA’s Area Manager for his initiative in developing the programme.”

Plans are underway to run a similar initiative in 2003

Dissatisfaction with GEHA accommodation is also believed to stem from “unrealistic tenant expectations”. The type of property tenants have left behind at their home base, may impact greatly on their satisfaction with their GEHA residence. To leave a large double storey home with all “mod cons” and an ocean view is simply not replicable in the Pilbara in most cases. Not only are an absence of these kinds of properties available for GEHA to lease, but there simply aren’t the tradesmen available to build such dwellings from scratch, should funding become suddenly available. In order to keep rents in the Pilbara at an attractively low rate and to compensate for age and house condition rents are adjusted. The table below indicates the level of discount attributed to areas of the Pilbara.

¹ GEHA website address: <http://www.geha.wa.gov.au>

Table 17: Rental Discounts

Location in the Pilbara Region	Discount for Distance from Perth	Discount for Distance from Coast	Discount for Distance from Regional Centre	Discount for Town Amenity Level	Total Area Discount
Cane River	20	2	8	24	54%
Cassia	20	-	8	8	36%
Cooke Point	20	-	8	4	32%
Dampier	20	-	-	4	24%
Jigalong	20	6	20	24	70%
Karijini NP	20	4	12	24	60%
Karratha	20	-	-	4	24%
Koombana	20	-	8	4	32%
Lawson	20	-	8	8	36%
Marble Bar	20	2	12	16	50%
Millstream	20	2	8	24	54%
Newman	20	6	16	4	46%
Nullagine	20	6	12	16	54%
Onslow	20	-	8	8	36%
Pannawonica	20	2	8	12	42%
Paraburdoo	20	6	12	12	50%
Port Hedland	20	-	8	4	32%
Roebourne	20	-	-	16	36%
Shellborough	20	-	8	8	36%
South Hedland	20	-	8	8	36%
Spinifex Hill	20	-	8	4	32%
Strelley River	20	-	8	24	52%
Tom Price	20	6	12	8	46%
Walnut Grove	20	-	8	8	36%
Wickham	20	-	4	4	28%
Yandeyarra	20	4	12	24	60%
Yule River	20	2	8	24	54%

Rents are calculated on the median rental price you would expect to pay in the metropolitan area for a property of similar size and amenities. In addition the age of the property is taken into account with a further 20% reduction in properties built pre 1985 and a further 20% reduction on top of this for pre 1975 properties.

Inadequate Financial Incentives:

Financial incentives available to various state and government employees include:

- air conditioning subsidy :-October- end April
- return airfares from Perth
- assistance with relocation expenses
- financial bonus payments for locality
- enhanced opportunity for professional development
- subsidised housing-for instance GEHA housing as above

Air conditioning subsidy is generally calculated by paying a standard number of electricity units per month per dwelling, this has been widely criticised for two major reasons. Tenants with older ducted air conditioning have much higher bills and consume much more electricity, than tenants with houses with more recent, split system air conditioners. Similarly the design of many houses prevents the flow of air from the main air-conditioning unit to adequately cool all areas of the house. One of the other criticisms levelled at the air-conditioning subsidy has been that the weather pattern does not match the subsidy allocation, it is still hot at the time the air conditioner subsidy stops especially in poorly designed and placed older GEHA housing which has not been planned to maximise cool and minimise heat in environmentally friendly ways.

Locality/gratuity allowances are paid to some professional groups living within the region in order to offset the cost of living far from urban areas, for instance:

Registered Nurses working in the Pilbara are offered a gratuity payment of 6 weeks base rate of salary after 2 years of service, and 3 weeks after each additional 12 months. An extra 5 days of northwest leave annually, on top of their 20 days of annual leave, annual return airfare to Perth with travel days (2 if flying, 4 if driving) and 4 days professional development leave every 12 months.

Despite the wide range of offers to nurses locally, nursing positions within the region remain unfilled, and are often filled by nursing agency staff at a much higher cost, that is clearly not sustainable within the health system. The reliance on agency staff is not so surprising, considering the country is in the midst of a national nursing shortage. Some northern regions have begun to act much more proactively, and have started efforts to enhance the conditions and opportunities staff might earn if they choose to work in their region. Kununurra and Wyndham Health Services have chosen to offer staff the opportunity to upskill and upgrade their post registration qualifications whilst working in the region. Negotiations made via the Centre for Remote Health in Alice Springs enabled a number of distance education modules focusing on rural and remote health to be studied by nurses with support and encouragement from their employers. This education program is recognised for its cultural awareness training and encompasses tropical medicine and indigenous nursing issues. What results is a win-win situation for both parties. Staff get to upgrade and up skill on the job and walk away, not empty-handed, but with a significant accredited qualification, the knowledge gained is appropriate to their practice locally, and beneficial to the health of the community. In this example, staff are expected to make a commitment to stay for a number of

months in the region in return. Other examples of proactive marketing involve upgrading nurses quarters or lodgings in order to attract nurses. This is a particularly interesting strategy in the context of Port Hedland, where the single quarters offered to staff working at the Pilbara's only regional hospital, have in the past been publicly criticised in the local newspaper.

Teachers in the Pilbara receive a specifically calculated locality allowance regardless of salary level as well as a specific gratuity payment paid annually which peaks on the third year of continuous service:

Table 18: Gratuity Payments & Financial Incentives
(2003, Education Department, WA)

School Location	Locality Allowance Per annum	Extra Gratuity payment			TOTAL
		Year 1: 20% payment	Year 2: 35% payment	Year 3: 45% payment	
Hedland	\$5420	\$2028.60	\$3550.05	\$4564.35	\$10,143
Karratha	\$5811	\$860.50	\$1505.88	\$1936.13	\$4302.50
Newman	\$4935	\$1255.20	\$2196.60	\$2824.20	\$6276
Pannawonica	\$8123	\$1928.70	\$3375.23	\$4339.58	\$9643.50
Roebourne	\$5628	\$3268	\$5719	\$7353	\$16,340
Tom Price	\$4935	\$1365.90	\$2390.33	\$3073.28	\$6829.50
Wickham	\$5001	\$1371	\$2399.25	\$3084.75	\$6855

The degree to which these extra payment allocations adequately compensate for the higher cost of living and financial disadvantages faced in the northern regions, has engendered mixed responses from groups of teachers. Some teachers feel the allocation to be adequate, and some clearly feel financially disadvantaged. Air conditioning in some of the older GEHA houses has been reported anecdotally in some focus groups, and is confirmed by the researcher's personal experience, to cost between \$10-15/day to run, when only half of this will be repaid in air-conditioning subsidy, this represents an added cost to weekly domestic budgets.

In order to monitor, what has been described by some interviewee's and focus groups as exorbitant and unjust prices across the Pilbara Region. The Pilbara Price Surveillance Scheme was instigated by the Pilbara Development Commission. The surveys are conducted in major supermarkets in the Pilbara and the metropolitan area on a quarterly basis; results are published in local newspapers. In the fourth and final survey for 2003 (as published on the Pilbara Development Commission website) "...fluctuating variances between Perth prices and those in the Pilbara", were noted. Results showed: the cheapest basket of groceries was found to be at Wickham, in the preceding quarter' being 8.4% more expensive than Perth. Marble Bar, unsurprisingly carried the highest cost of a basket of groceries, costing 38.6% more to purchase than it would have done in Perth.

Similarly, the Regional Price Index demonstrated in Table 20 and shows differentiation between different towns in the Pilbara region. The results below are published in an index form with Perth being the base figure of 100.

Table 19: Regional Price Index

TOWN	Index	Population
Perth (base figure)	100%	
Dampier	111.2%	1,232
Karratha	112.2%	9,338
Marble Bar	138.6%	290
Newman	110.2%	3,500
Onslow	122.3%	1,000
Pannawonica	118.2%	900
Paraburdoo	116.8%	1,000
Port Hedland	113.8%	15,000
Roebourne	133.4%	796
Tom Price	113.9%	3,000
Wickham	108.4%	1,520

The price of fuel has also been criticised by local residents, particularly in light of the fact that fuel is off-loaded at Pilbara ports and yet ironically, attracts the highest fuel prices in Australia.

Compared with the average cost of fuel in Perth, residents in the Pilbara region pay substantially more for fuel. During the last quarter, motorists in the Pilbara have paid 21.24% more for unleaded fuel, 19.51% more for leaded fuel, 13.53% more for diesel and 17.96% more for LPG than the Perth motorist. Table 21 below shows results from the fuel prices survey:

TOWN	UNLEADED	LEADED	DIESEL	LPG
Perth	89.25	93.10	93.30	36.60
Dampier	102.90	106.90	100.80	NA
Karratha	103.63	108.50	101.50	75.93
Marble Bar	122.00	126.00	121.00	98.00
Newman	111.00	NA	104.90	76.09
Onslow	112.50	NA	109.50	78.00
Pannawonica	103.00	106.00	104.00	NA
Paraburdoo	105.50	NA	103.50	NA
Roebourne/Wickham	105.10	108.87	110.00	88.00
Tom Price	105.50	113.50	103.50	71.90
Port Hedland	103.90	108.90	100.50	70.50

PILBARA DEVELOPMENT COMMISSION (December 2003)

Loss of culture/entertainment/sporting variety:

Many stakeholders identified the belief that cultural, sporting variety and entertainment choices, had been compromised by the gradually declining population. The implementation of FIFO work styles in many areas of the Pilbara, was associated by many participants, in interview and focus groups, with the population decline, and thus, by the simple linking of cause and effect, the practice of FIFO, the catchall scapegoat, was blamed. Increasing efficiency and changes in the work practices within the minerals/resource industry has resulted in an overall reduction of employees needed to produce the same, or even more resource output, within the region, regardless of the work style adopted. Overall reduction in the workforce in relation to productivity has been noted not only across Australia but worldwide. (Storey, 1999) To blame FIFO solely for the reducing population would be ignoring other complexities and impulses operating on people's decisions and choices.

Nonetheless, the percentage of the workforce involved in FIFO in the Pilbara, as earlier deduced in the desk top audit, is estimated at around 14% , the loss of the partners and families you would reasonably expect to find accompanying these workers, does in fact partly explain why many positions in the voluntary organisations and part-time retail sector have remained vacant and the overall effect of FIFO employment has been felt even more acutely.

The Pilbara region boasts of having around 500 special interest groups encompassing a vast range of sporting activities, in particular.(PDC, 2003) Reducing participation in special interest groups, compromises social capital and positive and healthy functioning of voluntary groups, eventually leading to loss of vitality of groups to a point where they are forced to disband. Anecdotes were offered in many interviews and focus groups that related the situation of many groups that have closed or that are struggling to survive, within the region. Other than the reducing population due to FIFO employment, the introduction of extended shifts in the workplace has impacted on the amount of leisure time workers are willing to commit, to their hobbies and pastimes. Extended hours make it difficult to attend activities designated on weekday evenings in particular.

The psychological and social benefits associated with becoming involved in community special interest groups and organisations, are vast and well documented already. Active involvement in a sporting group, and participation in team building activities, in particular, contributes to better work performance and increased productivity. (1999, Pease et al) The cases argued against the practice of extended work hours, initially a feature of FIFO employment which has started to become accepted across the minerals industry, so far, have focussed more on the loss of time for families to interact and not the loss of numbers from the special interest and sporting groups.

Distance from family and friends and relative support structure including cost to have relatives visit and stay in the area affordably:

Distance from family and friends in metropolitan areas, has been raised often in interview and focus group data, as a significant factor in choosing to return to the metropolitan area or for a few people, to remain in the Pilbara. Studies into the changing nature and relationship of work and family indicates that relatives, especially grandparents, are responsible for significant amounts of family support, and even unpaid child-minding nationwide. (Stone, 2000) Some typical comments made by participants in the interview process clarify this position:

“...I feel like the kids haven’t had the chance to get to know their grandparents...”

“To be honest, I really miss the small town we used to live in, everyone was like a family there and people looked out for each other...here (Karratha) I don’t even know my neighbours and even if I did, they move on pretty quickly, there wouldn’t be time to get to know them before they moved on...”

“...I worry a lot about my family, they’re not getting any younger and they cant make the trip up here...its just too far...I need to be able to visit them more often...having them live up here just isn’t an option...for one the health care they need just wouldn’t be available...”

The power family ties had to draw populations was verified in the ‘Living in the Regions’ survey (Department of Commerce and Trade, 1999) The attraction of family and friends, feature as one of two major reasons, for survey respondents to live in Perth. Table 22 adapted from this survey demonstrates how family and other factors measure up against each other.

The alternative option of having family visit and stay in the Pilbara, was often discounted by respondents, for the primary reason that there were significant costs involved in travelling and staying in the Pilbara. Accessibility of air travel and suitable accommodation were also cited as reasons why family might not come to visit often in the Pilbara region.

Table 21: Reasons for choosing Perth for place of permanent residence

Reasons for Choosing Perth	%
Family	26%
Good services, facilities, shopping	26%
Entertainment/social/cultural opportunities	18%
Climate	16%
Coastal lifestyle	16%
Quiet lifestyle	16%
Friendly people	14%
Employment/better income	9%
Clean environment	8%
Education	8%
Beautiful scenery	8%
Sporting facilities/recreational activities	5%
Safe environment	4%
Easy commuting	2%

Whilst the Pilbara region cannot compete with some of the factors mentioned in this survey by respondents, the relative importance of factors that the Pilbara region already has and can build further on should be recognised. Efforts to market the Pilbara to populations, need to focus particularly on these valuable assets, for instance: climate, coastal lifestyle, quiet lifestyle, friendly people and employment.

Poor career prospects for spouse, partner, or children:

Occasionally comments regarding poor career prospects for a family member or partner were mentioned as a negative of living in the Pilbara. Two particularly common sentiments expressed, related to children's career prospects and lack of child care facilities available to enable mothers to work more often. The issue of not being able to find appropriate child care within the region has also been mentioned in many recent forum's held across the region. (2003, Ministry of Planning)

Local Pilbara Conditions:

-Poor literacy and academic levels

Behavioural and truancy problems, in some areas of the student population, leading to poor literacy and lower academic achievement, have been listed as reasons teachers might view teaching in the Pilbara, to be a difficult experience. Rising levels of burn out and occupational stress are said to be common, however staff in their focus group discussions, commented on the positive and supportive atmosphere found in the region's schools, which helped to offset other issues.

-Violence and Crime

Evidence of small pockets of crime and violence are noted in many regions of the Pilbara.

Comparability with resource company wages:

The lure of the high wages earned in the resource industries in comparison to a government employee or someone working in the public service sector is a significant factor to consider, when deciding on lifestyle and employment choices. To be faced with the prospect of being 'headhunted' by a major resource company, to earn a proportionately higher wage, is something few employees can not fail to be impressed by.

Some anecdotes circulating the major regional towns are so commonly told, that they have achieved credibility in a manner akin to classical 'urban myths'. In focus groups these stories of the stereotypical dedicated hardworking service professional, being lured away from their true vocations, to the stereotypical big bad mining company, to make their fortune, takes on a tone of propaganda.

No sense of hometown belonging:

Demographic surveys have revealed that most people now residing in regional areas were not born in their current locality. Data emerging from the *Living in the Regions ; The Views of Western Australians* report, suggests that only 16% overall of survey respondents grew up in the area in which they now live, while a further 16 per cent came from somewhere else in the same region. The remaining 68% it must be assumed have come from somewhere else.

This is clarified in the Pilbara Regional Snapshot (PACC, 2003) and has been a trend noted in earlier reports and studies. This means that regional populations may not have relatives and family in the same region, and relatively few will have a sense of history or ancestral ties to keep them in the region. When explored further and from the perspective of the Pilbara region, it was discovered that of the people who grew up in the Pilbara, only 6 % still lived there. 94 % were in fact from somewhere else, and 63 % had been in the Pilbara less than ten years. The sense of hometown belongingness, that is such a feature in other countries, is clearly not evident in this case.

Given the added data obtained during the 2001 national census (ABS, 2001) relating to the ethnic mix of the Pilbara region, it could be generalised that the Pilbara population appears to have the characteristics of a young, highly mobile, short- staying, multi-cultural collection of people. One of the few interview respondents to comment on this trend, was a 30 year old indigenous woman living in Roebourne, who felt the cultural significance of her sense of where she belonged, was probably the single greatest factor in her staying in the region:

“...I come back her to stay and my family is here, why else would I be here, where else would I go...these fella’s we had em come with the railway from somewhere else, big fellas and they worked and that and then they come and go...come and go...but this not their place, their home and they never belong here like us...and we don’t belong their place either...”

Attracting Populations to the Pilbara regions:

During the research process discussions of what stakeholders felt were the good aspects of the Pilbara were listed for discussion:

- Unique geographical environment with national parks and natural beauty.
- Huge resource reserves which has stimulated a national focus on the area as an economic powerhouse
- Regionally based TAFE with a good vision focussed on training needs appropriate to the needs of the Pilbara
- Recent commencement of Curtin University offering local courses
- The people of the Pilbara are an untapped resource
- A strong community of artists
- Career opportunities for some people
- High wages are possible

4.3.2 Regional Business Development

The small business/local business community perceive the FIFO workforce as a threat to their survival, growth and diversity. Many different stakeholders demonstrated the level of discontent caused by this perceived threat, when asked about their understanding of FIFO and its impact.

“Fly-in/fly-out will kill regional business...”

“Business is suffering because of these guys... who just don't give anything back to the community.”

“...we had a lot more business diversity in the region before FIFO came in, now it just bleeds the region dry...”

“We've lost a lot of small businesses, little things like, they start up for a while then fizzle out...you can tell how many men live here with all the sporting and fishing shops, look at Kmart-the size of the fishing section and then compared to the size of the sewing area.....we need a really big Spotlight to open up, they'd make a killing....”

The fear that FIFO employee numbers would continue to grow exponentially was commonly expressed, the general consensus appeared to be that small local business people believe a cap should be placed on the number of FIFO workers by the state government.

FLY OVER EFFECTS

Storey (1999) describes the concept of 'fly-over' effects to explain the situation whereby resource companies purchase goods and sometimes services from large well known suppliers in the metropolitan regions. In many cases a pre-existing supply agreement/collaboration with business outside the Pilbara region already exists. In this situation economic opportunity is lost from the region, and local economy is adversely affected. The volume and range of goods required to supply mining and resource companies, combined with fierce competition in Perth, means that if local companies wish to compete for this business they would have to underprice Perth prices to compete. The smarter option for regional businesses is to develop smaller more specialised businesses which employ local producing policies. Significant dialogue needs to be established and continue between local business and larger resource companies to identify areas of need that might be met locally on an ongoing basis.

The ongoing economic development of Western Australia's rural and regional communities, in order to attract investment from potential investors, depends on the ability of regional businesses to identify and promote their own industry potential.

In June 2003, the Cabinet Standing Committee on Regional Policy and the Cabinet agreed to preparation of 'Priority Plans' for each of the state's non-metropolitan regions. With the assistance of the Pilbara Development Commission and input from key stakeholders, a paper titled, *Possible Priorities for the Pilbara* was produced and included identification of 4 key groups of outcomes. The opinions expressed represent a broad range of stakeholders and thus have enormous relevance to this research study.

Discussion criticising the region's heavy reliance on the mining/resource sector and suggests diversification would enhance the regions long-term sustainability. To this end, tourism is suggested as a viable alternative that should be investigated.

In order to assist regional businesses The Pilbara Development Commission can provide assistance to community and industry groups seeking funding through a number of Financial Assistance Schemes administered by the Department of Industry and Technology. To what extent this assistance is utilised is not known.

4.3.3 Taxation and Allowances

The concerns of community stakeholders can be separated into two main issues:

- Return of royalty revenue to the community
- The impact of State Agreements that result in loss of rate income

Return of Royalty Income

Community concern regarding return of royalties has been a “hot” topic for many years. Documentation accessed during research, arising from previous objections to development approvals, where the community has been consulted, usually shows surprisingly similar responses: An example of this universality of feeling is summarized in the comments below:

“What’s coming back to our town?”

“Please work together with other mining companies in this state and particularly the Pilbara and with the local and state government representatives to have a say in how part of the mining royalties are distributed.we need as much support as we can to address the State Agreement Act for mining royalties, instead of people wanting more from mining companies directly.”

“What commitment is the company and the state government going to give to the council to be involved in the state agreement or have a return of royalties.”

“Rates are already very high. Mining companies benefit from the town’s provision of servicesthe state government should provide the town with ongoing grants to compensate.” (Consultancy North, 2003)

Community members responding to this consultation process indicated concerns with the level of services provided by both Government and private enterprise. The payment of royalties under the State Agreements Act, is perceived by many to have the potential to facilitate growth in the socio-economic capacity of the community.

The impact of State Agreements that result in loss of rate income:

Community concern about the loss of rate income through the State Agreements Act is evident in the following comments:

“No mention of paying rates again individuals of this town are required to support big business and companies who do not pay rates!!!!”

“Unfair that Council is unable to get rates off land under the State Agreement Act. Would be good if resource companies takes the initiative to offer the town some benefits.....”

Resource development approval processes and State Agreement processes have recently been critically examined in order to speed up and streamline the overall approvals process. Enhanced

opportunities for community consultation and collaboration feature in the resulting recommendations. (See Appendix 10 for a fuller explanation) The extent to which existing state agreements are adhered to, in respect to workforce/accommodation and infrastructure provision commitments, appears to be closely monitored by key representatives in the DOIR who have intimate knowledge of each specific State Agreement Act where they exist. Significant anomalies between State Agreement Acts already in place, and actual practices occurring in the Pilbara at present on these sites, were not able to be detected.

4.3.4 Recruitment & Employment

Most participants indicated that employment issues relating to the use of FIFO workforces, within the Pilbara Region, had the potential to impact negatively on the local community. Employment was consistently mentioned by interview and focus group participants.

There were, in fact, some key areas of concern which were repeatedly discussed both in focus groups and in interviews:

- The widely held belief that recruitment and employment strategies adopted by the major resource companies might unfairly overlook residents in regional areas already willing and able to perform. There was a belief expressed that recruitment would be undertaken in metropolitan areas first, creating an inequity of access for regional workers.
- The trend towards longer shift lengths, favoured by the resource industries as part of compressed work schedules within the region, have altered family dynamics and the opportunity for workers to interact in local social/leisure and sporting activities.
- Long rotation cycles (combined with extended shift lengths) have detrimental implications for health, safety, productivity and turnover of employees.
- Indigenous training and employment opportunity with the exception of one or two mines was thought to be poor.
- Local employment in service and support industries (small local businesses and contractors) would be enhanced if each resource company made a commitment to use local suppliers where viable or at least afford them the opportunity to tender for provision of goods and services.

The collation of comments below reflects the views of participants that helps to develop insights and contextualize community concerns:

“I am concerned about using FIFO workers when we have our own kids ready and willing to work, that just get passed over...”

“...Employment should happen in the Pilbara first and foremost. When you get a big FIFO workforce...then all the money leaves town and everyone suffers you know shops, services, small business, sporting groups and education.”

“...Look I know its realism to have some people come in on FIFO contracts especially for construction jobs like out at the ‘burrup’ at the moment...because they’re not going to employ that many people for ever...but its important that the supply of workers up here is tapped into before getting people in from outside the region...you want to know why unemployment is low up in the Pilbara...its because no one can afford to stay here for long if they were out of work...look at the cost of living for one thing...”

“...I think there needs to be a lot more consultation within indigenous communities and groups about what they are able to contribute, what kind of working conditions they can handle, how we could work together to resolve some of the problems that crop up...there just isn't a place for them in FIFO work that I can see, but there might be some other kind of flexible alternative...”

In 2001-2002 the unemployment rate for the Pilbara was 4.3% whereas the unemployment rate for Western Australia was 6.7% (Pilbara Economic Perspective, 2003.) The Indigenous unemployment rate was 13.9%

The total population of Aboriginal and Torres Strait Islander people in the Pilbara was 6515 which comprises 16.5% of the total Pilbara population. Considering this proportionately high percentage (higher than the state average) and the associated unemployment rate, opportunities for training and employment, in particular for Indigenous people is an issue of importance.

It is significant, that despite the increased opportunity for employment provided by the resource industries Indigenous unemployment remains high whilst the remaining workforce unemployment percentage is low. Major resource companies in the region support initiatives to employ both a nominated proportion of indigenous community and a nominated percentage of workforce from within the region.

Recent initiatives to rate the major multi-nationals performance have attracted attention in the region. (See Appendix)

In a recent research report investigating employee turnover at FIFO mines in Australia- *Workforce Turnover in FIFO Mining Operations in Australia: An Exploratory Study*, Beach, Brereton and Cliff (2003) present some key findings relating to employee turnover in the mining industry. There was a general consensus reached that longer shift rotations can be disruptive to families and individuals and contribute to workforce turnover. This finding is consistent with the opinions expressed by the local community who had raised this as a issue of concern. Similarly interviewees in this research study, expressed the opinion that rapid turnover in FIFO workers was related more to exhaustion and being 'worn out' than a professed dislike of the work practice. Difficulty in retaining the FIFO workforce was noted as an issue and one manager quoted to sums this up:

“They hit the wall and move on. It's the nature of FIFO that people get sick of it. Its influenced by many things, the age of the kids, the years in FIFO, where they live, family connections and movements of them and friends...FIFO is measured in dog years. It's dependent on the person, but most people get really tired of it after a while.” Page 20 (Beach et al, 2003)

Within a sample of mine sites studied by the researchers, longer rosters were accompanied by higher turnover rates. The researchers noted that workers on a 9 days on/five days off roster were generally more stable and satisfied, as it combined higher earnings with the advantage of having every second weekend at home.

4.3.5 Educational Standards and Opportunities

Perceptions of educational standards

Issues relating to education have featured prominently amongst stakeholder concerns. Educational standards in the Pilbara Region are considered by some families to be below the standard that might be reached in metropolitan areas, thus FIFO work might be chosen in order to maintain a family home base in the metro areas, to enable children better access and opportunities. This common perception, held by many participants, whilst discussing their concerns about the standard of high school education in the Pilbara Region, was expressed concisely by one young mother during a focus group:

“ We’re prepared to stay until at least year nine, but then we have to make a choice, split the family and leave their dad up here and all go south as soon as the oldest gets to year nine, or send one off until the other is ready two years later, and then there’s this little one who’s only four now.....and boarding is expensive. That’s where FIFO might work well for the family, you’d miss him like mad, but its for the best but it’ll be hard for everyone...it’ll break up the family a lot.”

In this case FIFO was seen as an opportunity for the breadwinner in the family to maintain a high income and continue in a stable secure position, whilst resolving the issue of where to best educate their children. The question this poses has to be: had the opportunity to resolve this situation, by adopting FIFO work styles not been available, what would the family have done?

When asked how long they thought they might stay in the town, several women admitted to having agreed to make the best of it, for the money, up to a certain goal.

“...we have a five year plan, by that time we’ll need to get to decent schooling in Perth and our house will be well on the way to being finished....if he wanted me to stay any longer, I’d be pretty upset, we’d have to talk about it a bit, they only see their grandparents once a year, can’t afford to come up very often, they (the kids) need grandparents.....”

The perception that rural education is somewhat inferior to metropolitan education is not a new concept, and has been mentioned often by researchers, White-Davidson (1999) in her Masters thesis, *Rural Views: schooling in rural/Remote Communities* cites two major reports identifying rural education in Australia as an area of disadvantage. The reports pointed out that students from rural Australia did not enter universities in numbers proportionate to their urban counterparts, they had less curriculum choices and they were unsettled by a widespread belief that education in remote communities was inferior to that provided in urban areas.

In *Living in the Regions: the views of Western Australians* (Department of Commerce & Trade, 1999) the mobility of high school students was explored. Parents were asked what they had planned to do for their child’s high school education, options adopted by parents across the 9 regional areas resulted in 78% choosing to utilise local high school, 12 % of families sent their children to Perth, whilst 8% move or split the family, 5% use a regional school away from home and 2% use a non-school options such as distance education or tutors. When the Pilbara regions’ results are considered in light of these generalised results, conclusions can be readily drawn. Not only do only 56% of children stay in local government high schools, but a staggering 25% of families either split outright or move the family away from the area to access high school education. Exploration of parental satisfaction in the schooling option chosen demonstrated that

parents preferred to be closer to their children, and would possibly stay in the regional areas, if regional schools were made a more attractive option. The possibility that some parents use entry to high school as a trigger or impetus to leave a regional area, and the prevailing view that exposure to school in Perth was needed by children, to expose them to the wider urban world were also identified by the researchers, as possible explanations of student/family mobility.

The movement of students to the metropolitan areas has been studied intensively by both regional communities and the education department over the past few years.

In order to track the movement trends of high school students, the education department, commenced collecting census data at the year 8 and year 11 levels. Whilst the impetus to collect such data was presumably to enable infrastructure planning and appropriate allocation of resources to areas of obvious need, definite patterns of movement south to urban areas can be seen.

Whilst the family chooses to resolve the dilemma of high school education by moving, feedback from high school age children during focus groups indicates their choice would not be to move if the option were possible:

“ I feel a bit nervous about going to Perth next year for year 10, but mum is going to move down in March and dad ‘s staying up here to work...I’ll miss my friends heaps and I wont know anyone. I’m sure I’m going to get lost all the time, but at least I’ll get to do some other subjects, I want to study law or psych, I’ve got to get good marks to get in to uni....”

Similarly students expressed fear of getting ‘stuck’ in the region unemployed without prospects:

“ If you get suspended or expelled from school you have nowhere else to go and you have to look for a job, you’d never survive living away from your parents because the rents are too high and your only option is to get a job somewhere that has accommodation, to do that you have to have a trade or experience...its like you’re stuck if you stuff up at school.”

Staff Turnover, Recruitment & Retention

Higher teaching staff turnover in the region, limited range of subjects offered in state schools and generally poorly maintained and rundown facilities, have contributed to rejection of the local school system as the preferred choice for some parents.

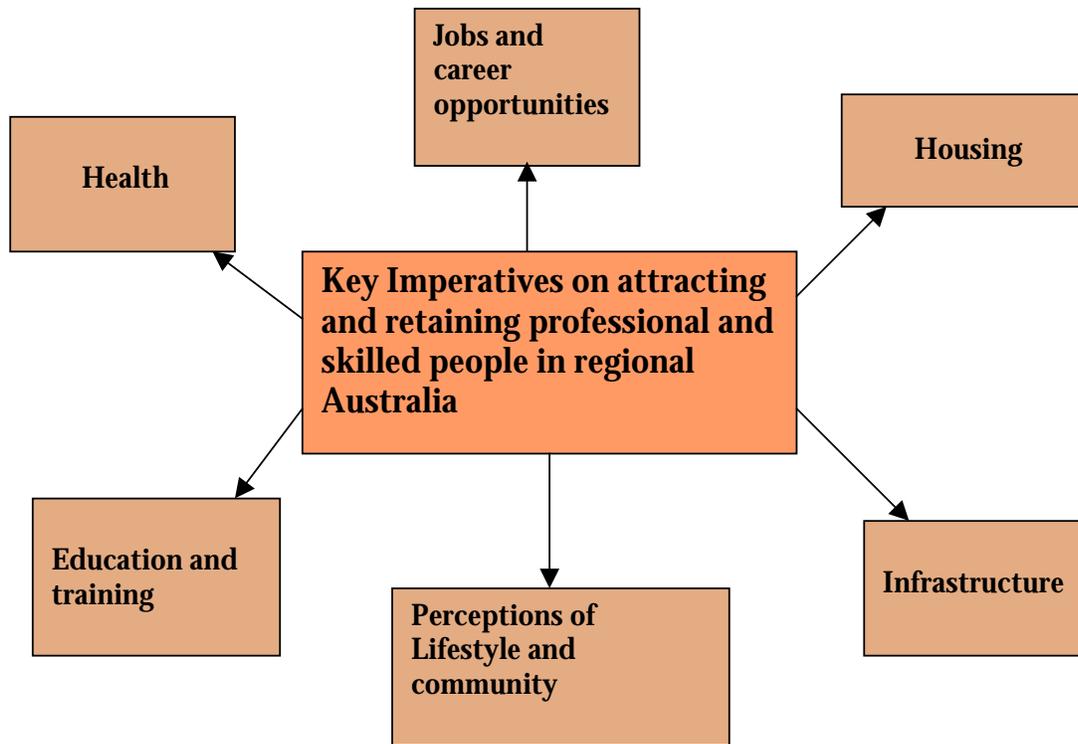
In a summary of issues presented in the ‘*Possible Priorities for the Pilbara*’ submissions, (PDC, 2003) quality of education is said to be seriously undermined by the high staff turnover in the region, attracting and retaining staff is seen as a crucial priority. The summary of issues explains that the lack of teachers reduces the curriculum choices available, thereby resulting in students leaving to ensure they have better access and opportunity.

Recruitment and retention of experienced teachers appears to have been an issue for some time within the education department. Unverified reports of 30-50% turnover rates have been suggested in focus groups held with educators in more than one centre in the Pilbara. A recent initiative undertaken by the Standing Committee on Regional Development, ‘*Attracting & Retaining Skilled People in regional Australia: A Practitioner’s Guide*’ suggests a number of key imperatives associated with the attraction and retention of professional and skilled people should be addressed. These imperatives are diagrammatically represented below:

Figure 17: Key imperatives on attracting and retaining professional and skilled people in regional Australia

(Adapted from Attracting & Retaining Skilled People in Regional Australia, 2004)

Key Imperatives



4.3.6 Housing, accommodation and transport

Significant concerns were voiced in relation to housing/accommodation and transport issues. The main community and stakeholder concerns centre on the following issues:

- Inflated housing prices and reduced availability of family style accommodation is believed to have prevented families from purchasing real estate and settling in some regions of the Pilbara.
- Fear of lower income earners and ageing residents that with the influx of FIFO construction workers looking for accommodation, rents have the potential to significantly increase in periods of such rapid growth accompanying construction phases, in major resource developments.
- Some families of FIFO workers are reluctant to visit the Pilbara on vacation, because of the high cost of overnight holiday accommodation combined with travel costs of regional airlines. Prices are driven artificially high because of lack of availability of accommodation to cater for increased populations of FIFO workers and seats on airlines are often booked out weeks in advance.
Lack of competition between regional airlines has also kept prices high.

In regard to the availability and adequacy of current housing stock, participants described experiences that provide an insight into the concerns:

“Housing is a huge issue, specifically the shortage of quality housing. There is a volatile market due to high demand. An influx of population during a construction phase will result in a sudden increase in rental and sales prices.”

“...if people want to move to Karratha to search for work, housing is a big issue....not only are some of the available houses pretty ancient, and there are some about the place that are in pretty bad condition, you have to have enough money to pay the high prices before you even get a job sorted out ...”

Information obtained from focus groups including some local real estate agents the confirmed that although rental properties were available, that the quality of these properties was generally poor. Longer-term residents, in particular those employed by small business and non-government services, which did not have housing provided through their employment packages, find it difficult to compete on the housing market. This impacted greatly on these service areas as they found it increasingly difficult to attract and retain staff.

As an alternative to paying high rent, some lower income families would choose to stay in Caravan parks, which quickly become full with permanent tenants. This impacts on the ability of tourists to obtain accommodation in same areas of the region during some peak holiday periods.

Other Issues Raised by Stakeholder Groups

Socio-Economic Impact of FIFO to the Pilbara Region

Despite the industry wide use of random drug testing within the minerals industry –influx of drugs into the community via the well-paid FIFO workers was expressed as a community fear. Startling anecdotal evidence was provided relating to the prevalence of usage of iv drugs and was related by several interview candidates(in different towns) to incidences of uniformed employees of identifiable resource companies in major towns, being publicly observed picking up needle/syringes on their way to or from work. The blatancy of such an act was remarked upon coupled with the fears of the interview candidates for the safety of the rest of the workforce if such practices were as widespread as suspected.

Much earlier discussions detailing beliefs and perceptions relating to the socio-economic impacts of FIFO workforces, have been identified by several different local authors and research projects over the past decade. (Bickerton,1996;Children of the Pilbara, 1981;Christensen, 1990a; Eckhart,1996;Edmunds,1989; Huntly, 2001; Kopusar, 2002; Jaffe *et al*, 1996;Smith *et al*,1997)

Beneficial aspects of FIFO to the Pilbara Region

- Added opportunity to show the Pilbara off to yet more people-FIFO workers might grow to appreciate the lifestyle and opportunities available within the region if they were exposed to positive promotion and were able to experience the many great aspects of living in regional Western Australia.
- Growth and development promotes community optimism-the abundance of wealth generated within the region albeit being contributed to by FIFO workers not living in the region permanently was nevertheless seen as a positive image for the region.

5. Issue Summary & Recommendations

5.1. FIFO Workers and their Families

5.1.1

Issue: Inadequate communication between FIFO workers and their partners/families after FIFO work style commences can hamper family relationships.

Desired outcome: To enable FIFO workers and their families to build and maintain good communication links.

Recommended strategies:

- (a) Develop a short course dealing with communication and relationships in long distance situations suitable and appropriate for presentation in remote work sites.
- (b) Circulate literature relating to the problems associated with FIFO and its implications on communication throughout mines, airports and regional centres utilising industry networks.
- (c) Survey Pilbara mine sites to ascertain communication facilities available to FIFO workers throughout the region, meet a benchmark standard.

**Responsibility for Implementation of Strategy/
Possible Funding Body:**

Mental Health Funding
RHSET Grant (Federal)
HDWA Grant (State)
Lotteries Commission
Collaborate with large resource companies
Family & Children's Services

5.1.2

Issue:

Loneliness and lack of support for partners of FIFO workers and their families.

Desired Outcome:

To ensure the partners and families of FIFO workers are adequately supported and aware of ways in which they can build their own social support systems or access professional help if necessary.

Recommended strategies:

- (a) Locate a funding source and prepare a submission to develop an informative website and/or web forum to act as support for partners of FIFO Workers.
- (b) Following on from the success of the FIFO “tool kit” pilot and utilising the pilot evaluation in future submissions - design and trial (evaluate) a resource document specifically for FIFO worker’s partners exploring: ‘normal responses,’ ‘danger signs’ and offering positive constructive solutions.
- (c) Circulate literature relating to the problems associated with FIFO and its implications via employer networks.
- (d) Locate a funding source and prepare a submission to facilitate an annual/biannual workshop for families in order to increase knowledge, understanding and to build supportive contacts and networks.

**Responsibility for Implementation of Strategy/
Possible Funding Body:**

Mental Health Funding
RHSET Grant (Federal)
HDWA Grant (State)
Lotteries Commission
Collaborate with large resource companies
Family & Children’s Services

5.1.3

Issue:

Significant Depression in both FIFO workers and their partners, if untreated, can often result in alcohol/substance abuse or ongoing psychological disturbances and ill health. Depression can also compromise attention and dull reaction times and thus pose a safety risk in the workplace.

Desired outcome:

To raise awareness in both workers/families employers and the wider community about aspects of depression, and the dangers of significant ill health and risks of alcohol and drug abuse, arising as a result of depression.

Recommended strategies:

- (a) Support Health Department initiatives to promote and develop mental health awareness within the community.
- (b) Support Health Department initiatives to promote and develop drug awareness within the community.
- (c) Encourage local development of a collaborative partnership through the auspices of the Mental Health and Community health teams as well as mining unions and mining companies to develop a men's health forum capable of engaging the attention of the mining community.

**Responsibility for Implementation of Strategy/
Possible**

Mental Health Team/Regional Public Health Promotion Unit.

Funding Body:

Collaborate with large resource companies

5.1.4**Issue:****Loneliness/lack of support for FIFO workers whilst on the job in the Pilbara Region****Desired outcome:**

To ensure FIFO workers are adequately supported and are aware of how to access help, counselling or professional services in the Pilbara.

To increase FIFO worker awareness of the wide range of activities available to them to offset loneliness in the Pilbara.

Recommended strategies:

(a) Investigate the possibilities in collaboration with local CWA/Apex/Lions/ or Rotary Clubs to set up a local buddy system to encourage local families to spend time with a FIFO worker in a normal family environment.

(b) Encourage FIFO workers to become involved in the voluntary/sporting/leisure sector and promote actively the 550 special interest groups available in the Pilbara Region.

(c) Advertise activities and things to do in the Pilbara, in pamphlet form in the airport, mess halls and accommodation villages.

(d) Make a short informative video showcasing the interests catered for in the region suitable for viewing in the airport lounge.

**Responsibility for
Implementation of
Strategy/
Possible**

Pilbara Development Commission
Local Service Clubs
Pilbara Tourist Association

Funding Body:

5.1.5**Issue:** Long working hours prevent FIFO workers from accessing local services and shopping in the Pilbara.**Desired outcome:** To enable FIFO workers to have better opportunities to access shopping and services and to maximise the potential for local businesses and services to increase sales.

- Recommended Strategies:**
- (a) Personal shopper service be encouraged to develop and visit mess/accommodation villages on a regular basis. This could be done by an existing business person or as a group initiative. Regularly produce a catalogue of specials/goods that could be circulated throughout the accommodation village/mess or tea room. Particular attention should be given to Valentine's Day and Christmas as opportunities to enable workers with partners living a long distance away, to maintain and enhance personal contact.
 - (b) Arrange regular transport to shopping venues from accommodation villages. Ensure drop-off and pick-up times are not too short.
 - (c) Encourage the development of a 'galloping gourmet' style food delivery service to FIFO workers in accommodation camps and villages situated within the major regional towns. Ensure that this operates in times that match shift knock-off times.
 - (d) Utilise Chamber of Commerce network to ensure local businesses are made aware of potential for sales opportunities to FIFO workers.

Responsibility for Implementation of Strategy/Possible Funding Body:Local Chamber of Commerce Groups
PDC

5.1.6**Issue:**

**Poor availability of private phone/email in enclosed air conditioned areas.
Lack of technological expertise to be able to use computer applications.**

Desired outcome:

To ensure FIFO workers have adequate means by which they can maintain communication links with their partners/families.

Recommended strategies:

- (a) Survey Pilbara mine sites to ascertain communication facilities available to FIFO workers throughout the region.
- (b) Ensure that resource/mining companies are made aware of the specific needs of FIFO workers in relation to communication. Employers should be encouraged to comply with best practice guidelines developed to set a standard minimum provision of a range of communication options.
- (c) Ensure bodies responsible for maintaining and developing communication infrastructure within the region are made fully aware of the communication needs of employees at remote minesites. For example, become involved in collaborative planning with Telstra representatives when asked for community/consumer feedback and input. Lobby for enhancement of existing network particularly in respect to high speed internet and mobile coverage in areas of the region which do not have these services already.

5.2. Regional Profile

5.2.1

Issue:

Many families of FIFO workers and FIFO workers themselves were unaware of the attractions and community activities already present in the Pilbara Region itself and felt it needed more publicity and promotion.
The cultural wealth and environmental attractions of the region in particular was poorly appreciated.

Desired outcome:

To raise the profile of the Pilbara Region

Recommended strategies:

- (a) Market the Pilbara
- (b) Prioritise tourism in forward planning strategies.
- (c) Ensure a current and realistic assessment of infrastructure strengths, weaknesses and needs to support population growth and tourism is obtained.
- (d) Prioritise infrastructure expenditure that supports tourism:
 - seek commitment for funding for unfinished road sealing and maintenance.
 - review and seek funding to upgrade airports.
 - consider expansion to recreational boating facilities.

5.2.2

Issue:

Difficulty getting budget seats on scheduled flights and high cost of travelling to the Pilbara was seen as a problem both by prospective residents and those already residing in the region.

Desired outcome:

To make travelling to the Pilbara as cheap and accessible to permanent residents and prospective residents, as is possible.
To ensure the effects of isolation are ameliorated by being able to easily secure affordable transport in, around and out of the Pilbara.

Recommended strategies:

- (a) Encourage competition between airlines.
- (b) Support and publicly and officially welcome new airline initiatives entering the Pilbara transport industry.
- (c) Lobby (court) other regional/national/international air transport companies to consider the Pilbara as a package holiday destination. (as Broome has done)
- (d) Encourage permanent residents and prospective travellers to outline their needs and requirements directly to airlines.
(Weight of public pressure may make some impact)
- (e) Take issues raised relating to pricing and availability, outlined in this report to the airlines to raise their awareness of the community and show local feedback to their services.

5.2.3

Issue:

**FIFO contributes to regional population decline.
Population decline has contributed to restructure
of electoral boundaries and loss of political representation.**

Desired outcome:

To retain political/electoral representation
by attracting populations to live and stay in the Pilbara

Recommended strategies:

- (a) Lobby political parties and government
- (b) Continue to lobby state government for financial assistance to improve local conditions and infrastructure to enable population growth is catered for.
- (c) Promote the Pilbara lifestyle and the advantages living in the region has to FIFO workers and families.
- (d) Promote the Pilbara lifestyle to other areas of the state (especially regional centres where most of the Pilbara population originates from).
- (e) Address areas of resident dissatisfaction outlined in the report. For instance: GEHA housing issues should be addressed to State Government; local transportation needs should be addressed with Local Government, and transport companies; Crime prevention issues should be addressed to the Police Department; Education issues to the Education Department.etc..

Responsibility:

PDC/PRC/PACC/Local Government

5.3 Regional Business Development

5.3.1

Issue:

The small business/local business community perceive the FIFO workforce as a threat to their survival, growth and diversity.

Desired outcome: The small business/local community should focus not on the threat posed by FIFO work styles, but be able to recognise and exploit the untapped market potential in the FIFO community.

Recommended strategies:

- (a) Encourage small business/local business community to interact with FIFO workers to find opportunities for supply of goods or services.
- (b) Feedback information discovered and collated during the course of the research regarding possible needs of FIFO workers.

Responsibility for Implementation of this strategy.

Circulate information to local Chamber of Commerce for distribution

5.3.2

Issue:

Fly-Over Effects-economic opportunity is lost from the region and local economy is adversely affected.

Desired outcome:

Market the Pilbara

To ensure economic opportunity is not lost from the region and to boost the local economy. To ensure industry capabilities within the Pilbara region are marketed effectively.

Recommended strategies:

- (a) Review the efficiency of the Industry Capability directory. Many companies haven't seen it, and/or don't use it. Is it doing the job it was designed for? That a labour market description detailing the skills of the local community should be part of the industry capability directory
- (b) Investigate other ways of showcasing regional capabilities, especially web based solutions. Encourage Ecommerce initiatives –particularly collective local business / industry websites. Encourage revitalisation of the initial concept of the 'Pilbara portal' by marketing and advertising the benefits and possibilities which it could provide if fully developed.
- (c) Prepare a case to highlight regional business capabilities to **actively pursue** prospective developers who are considering investment in the region. Outline exactly what can be done from local base and show off good past track records. Cooperate locally and Co-ordinate an approach with other businesses to boost the potential.
- (d) That an annual resource analysis be undertaken to assess the capacity of existing training and skill development, to identify any gaps and to publicly report on performance.
- (e) Continue to recognise and reward outstanding, innovative local businesses in public to maintain high profile.

Responsibility for implementation of the strategies:

Regional training providers
PDC
DOIR

5.3.3**Issue:****There is an absence of state policy to encourage regional development****Desired outcome:**

That appropriate and fitting state policy encouraging regional development is developed and reviewed.

Recommended strategies:

(a) Lobby members of government directly and specifically highlight regional concerns and issues faced by the lack of policy.

(b) In relation to issues identified by the Keating Report addressing resource development, state agreement acts, and development approval processes. It was recommended by this report that State Agreement acts be abolished; to this date no final decision has been made. Strategic regional feedback should be considered to call for a definitive decision on this issue.

**Responsibility for
Implementation of
Strategy:**

PRC/Community Stakeholders

5.4 Taxation and Allowances

5.4.1

Issue:

Zone rebates and taxation structures can be misused by FIFO workers and do not benefit regional residents enough to attract them or compensate them for the higher cost of living in the north-west of the state.

Desired outcome:

To ensure that zone rebates are not used by FIFO workers inappropriately.
To have zone rebates reviewed and adjusted.

Recommended strategies:

- (a) Regions should actively lobby for taxation changes. Regional residents should be encouraged to lobby the government to address inequities and misuse of zone rebates.
- (b) In order to offset the higher cost of living in the regions and to attract population growth, and improve employee recruitment and retention rates, larger employers should be encouraged to provide more financial incentives to employees-in the form of enhanced rental subsidies, allowances and longer term housing-employee purchasing schemes.
- (c) P DC – continue to monitor and publish ‘cost of living’ visibly in local media/ and electronically to ensure public are kept fully informed.

5.5 Recruitment and Employment

5.5.1

Issue: Recruitment /employment strategies used by some resource companies do not appear to enable residents available in regional areas to access jobs.

Desired outcome: To ensure residents in regional areas are given fair access to employment opportunities.

Recommended strategies: (a) Seek funding to monitor the recruitment behaviour of resource companies within the region.
-This would best be achieved by appointing a consultant/project worker and/or steering committee to review existing arrangements and practices.

That PRC in collaboration with local stakeholders, take the initiative to develop a model of recruitment/employment behaviour that does not disadvantage Pilbara residents, suitable for distribution to all resource companies in the region.
(Consult with HR Experts, local employment agencies and regional stakeholders to develop a flowchart model of recruitment/employment that favours regional employees.)

(b) Distribute Pilbara regional employment strategy model to all resource companies and prospective developers during their community consultation/review phases prior to completion of the approvals process.

(c) Actively lobby the Minerals Council of the Australia to ensure that mining/resource companies within their existing self-regulatory framework, acknowledge their moral responsibilities to minimise FIFO practices within mining operations.

Responsibility for Implementation of Strategy: PDC/PRC
Relevant government departments

5.5.2

Issue:

Longer shift lengths favoured by the resource industries as part of compressed work schedules within the region, have altered family dynamics and the opportunity for workers to interact in local social/leisure and sporting activities.

Long rotation cycles (combined with extended shift lengths) have detrimental implications for health, safety, productivity and turnover of employees.

Desired outcome:

Strive for shorter shift patterns across all regional industries and workplaces.

To ensure employees, employers are made aware of industry guidelines relating to safe rotation lengths and best practice guidance is aimed for when negotiating with new developers and resource companies.

Recommended strategies:

- (a) That the true social and community costs of extended hours be publicised well locally to prevent the practice becoming commonplace outside the mining industry.
- (b) (Lead by example) Starting in local government areas ensure employees do not negotiate or adopt longer working hours in return for time off in lieu or other compensation.
- (c) Support investigations designed to explore occupational risks of extended hours. Support investigations designed to explore occupational risks of long rotations and short breaks off. (Asymmetrical Rostering)
- (d) Support specific unions and professional bodies when renegotiating awards for their employees, using information discovered and outlined in this report as evidence of protest. For instance Nurses Award being negotiated this year will call for a cap on daily hours worked, Education Department and Police Department due for negotiations in 2006....etc...
- (e) Contribute arguments in favour of shorter rotations when community opinion is asked for in planning processes.

Responsibility for Implementation of Strategy:

Chamber of Commerce
PRC/PDC
Collaborate with large resource companies

5.6 Educational Standards and Opportunities

5.6.1

Issue:

Educational standards in the Pilbara Region are considered by some families to be below the standard that might be reached in metropolitan areas, thus FIFO work might be chosen in order to maintain a family home base in the metro areas, to enable children better access and opportunities.

Desired outcome:

To raise the perceptions of educational standards in the region.
To identify particular strengths an education in the Pilbara would have versus a metropolitan education.

Recommended strategies:

- (a) Curriculum in Pilbara schools needs to match rural resources, occupations and lifestyles and to encourage enterprise.
- (b) Increased vocational education and training in schools should be encouraged.
- (c) Closer collaboration with the resource industries should be pursued in order to develop school based traineeships in some of the regional centres in the Pilbara where this is clearly not a priority at present.
- (d) Residential based schooling in the larger regional centres of the Pilbara should be considered as a matter of priority.
- (e) Reduce staff turnover by offering better incentives to experienced able teachers.

Responsibility for Implementation of Strategy/Possible Funding Body:

District Office-Education Department
PRC via representatives on Local Education Planning Committees.

5.6.2

Issue:

Absence of a University campus in the region

Desired outcome: To foster and support initiatives to attract permanent Undergraduate and Post graduate facilities in the region.

- Recommended strategies:**
- (a) Offer scholarships to facilitate study within the region, to publicise university initiatives, and boost intake of students.
 - (b) Encourage resource companies to offer scholarships locally.
 - (c) Encourage resource companies and other employers to utilise university services for post graduate training and qualifications where possible, in order to assist employees to achieve higher education aims locally, rather than in their vacation time/unpaid leave or via external studies.
 - (d) Assist universities with representatives already operating within the region (ie.Curtin University)to discover the type of courses relevant to workers in the region. The potential niche market of supplying qualifications to workers in resource/mineral industry/offshore industry, should be highlighted.
(A mining engineer travelling to Kalgoorlie to attend the School of Mines, to obtain postgraduate qualifications in offshore drilling technology, could be better catered for in the region where such activities are occurring.)
 - (e) Promote the potential of the larger regional towns in the region to other universities to encourage competition.

5.6.3

Issue:

Higher teaching staff turnover in the region, limited range of subjects offered in state schools and generally poorly maintained and rundown facilities, have contributed to rejection of the local school system as the preferred choice for some parents

Desired outcome:

To reduce staff turnover in the region
To ensure schools in the region are well maintained and efficiently designed

Recommended strategies:

- (a) Council should lobby education department to improve school facilities and conditions.
- (b) Local action might be warranted to improve sub standard conditions in the short term.
- (c) The Education Department, should be lobbied to enhance financial incentives and air-con subsidies for employees. In order to attract and retain teaching staff, current incentives offered are clearly insufficient and need urgent review.
- (d) Schools with situations of higher staff turnover, in particular, should be investigated thoroughly and reported on, so that improvements and alterations can be implemented and acted on. For instance, teachers leaving the region should be encouraged to feedback reasons for leaving, and general impressions and suggestions, via exit questionnaires. Information should be collated locally at District Office and used for forward and strategic planning.
- (e) Support local government initiatives to purchase GEHA housing to lease back to GEHA.
- (f) Actively lobby government to allocate even more funding to GEHA to enhance and refurbish existing properties within the region.

5.7. Housing Accommodation and Transport

5.7.1

Issue:

Inflated housing prices and reduced availability of family style accommodation is believed to have prevented families from purchasing real estate and settling in some regions of the Pilbara.

Desired outcome:

To ensure misconceptions about real estate availability and opportunities are clarified.
To encourage property investment in the region.

Recommended strategies:

- (a) Market the Pilbara to likely investors.
- (b) Encourage real estate agents in the Pilbara region to actively engage in advertising which utilises the electronic media. (For example: websites featuring images of available properties and searchable commerce options.)

5.7.2

Issue:

Some families of FIFO workers are reluctant to visit the Pilbara on vacation, because of the high cost of overnight holiday accommodation combined with travel costs of regional airlines.

Desired outcome:

To encourage the partners and families of FIFO workers to visit the region.

Recommended strategies:

- (a) ?Home exchange program over holiday periods
- (b) Encourage local accommodation providers to market and implement a discount to FIFO families visiting their partners over school holiday periods (especially off peak tourist season) to encourage tourism in the region and capture workers who would normally fly out, to stay in the local region for their children's holidays.
- (c) (Similarly packages coinciding with FIFO rotations could be devised to interest FIFO workers without families, or working as a couple, to experience the Pilbara region on their off-time rather than flying- out. For example: Fishing/Diving expeditions/ Outback expeditions could be specifically marketed and target FIFO workers.)
- (d) Showcase the Pilbara at every opportunity-particularly high profile events such as the Perth Show, to show the range of cheap options available in the Pilbara.
- (e) Access funding from the WA Tourism Commission to boost and promote unique Pilbara events.
- (f) A current listing of travel options/accommodation available should be circulated to all FIFO workers and made easily retrievable via the internet.
- (g) Continue to review the retrievable information currently available electronically relating to the Pilbara region on a regular basis, and actively encourage a more cohesive collaborative and informative web presence for the Pilbara region. Initiatives elsewhere in the state have proven particularly effective – for instance the Midwest regions' portal , 'Ocean2Outback' received the regional services category award of the WA Information Technology and Telecommunications Awards in March, 2004. This website provides a blueprint which could be mirrored in the Pilbara region. (See website: www.ocean2outback.com.au)

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Early Mining in the Pilbara	Hamersley Iron	1985
Yandicoogina Project: Social Implications Study	BHP Iron Ore	1987
A Study of Attitudes in Roebourne, WA	Aboriginal Studies Press	1989
Pilbara 21 Final Strategy Report	State Government initiative	1992
Northwest Women's Health Gathering	Northwest Women's Health Association	1993
Accommodation Study of the Pilbara Region	PDC	1994
Men's Health Project Report: Pilbara Men's Health	Pilbara Public Health Unit	1994
A Nature-based Tourism Strategy	WA Tourism Commission and Department of Conservation and Land Management	1995
A Strategy report for the co-ordination of the Pilbara Tourism Industry	Tourism Coordinates for PDC	1995
Identifying opportunities for increasing tourism in the Pilbara	Market Equityfor PDC	1995
Pilbara/Gascoyne Islands Ecotourism Management Strategy	Tourism Co-ordinates for PDC	1995
Pilbara Land Use Strategy	PDC	1995
Pilbara Regional Profile	PDC	1995
Port Hedland Port Authority-Port Strategy	Port Hedland Port Authority	1995
Report of the Chief Executive Working Party on Essential Services to Aboriginal Communities	WA Government	1995
The Role of Ports in Western Australia	WA Government	1995
Pilbara Economic Development Strategy	PDC & Department of Commerce and Trade	1996

Pilbara Region Water Resources Review and Development Plan	Waters and Rivers Commission	1996
Port Hedland and South Hedland Recreation Needs Study	Landvision and Shirley Barnes & Associates for South Hedland Enhancement Scheme	1996
Town of Port Hedland-A Social Profile	Hedland College Social Research Centre	1996
Pilbara Population & People	Department of Commerce & Trade and PDC	1996
Pilbara Regional Transport Strategy	Department of Transport	1997
Planning for Aboriginal Communities	Western Australian Planning Commission	1997
Port Hedland Area Planning Study	Ministry of Planning WA	1997
Port Hedland Land Development Survey	Ministry of Planning WA	1997
Roads 2020 Regional Road Development Strategy	Main Roads WA	1997
State Industrial Buffer Policy	WA Planning Commission	1997
State Planning Strategy	WA Planning Commission	1997
Review of Nickol Bay Population Study	DRD	1998
Growing Older in the Pilbara Sustaining a Quality of Life	Commonwealth Department of Aged Care	1999
Pilbara Industrial Capability Register	DOIR	1999
Pilbara Population & Health Profile	Pilbara Public Health Unit	1999
Roebourne Housing, Population and Temporary Accommodation Snapshot	Shire of Roebourne	2000
Long Distance Commuting – Problems for Regional WA	David Lambert for the Office of Robin Chapple	2001
Pilbara Economic Perspective	PDC	2001
Pilbara Area Strategic Plan 2002-2005	Pilbara Area Consultative Committee	2002
Pilbara Public Health Unit Business Plan 02/03	Pilbara Public Health Unit	2002

Town of Port Hedland Strategic Plan	Town of Port Hedland	2002
Environmental/Social/Economic Review of Gorgon Gas & Barrow Island	Chevron Texaco	2003
Indicators of Drug Use: Pilbara & Gascoyne Health Region	Drug & Alcohol Office Department of Health	2003
Pilbara Economic Perspective	PDC	2003
Pilbara Resources Register	PDC	2003
Possible Priorities for the Pilbara	Compilation of public Submissions-PDC	2003
Regional Trends & Indicators – Pilbara	Department of Local Government and Regional Development	2003
Pilbara Regional Priority Plan	Standing Committee on Regional Development	2003
Power of the Pilbara-Liftout	The West Australian Newspaper -19/03/2003	2003
Housing and Land Snapshot Update	PDC	2004
Pilbara Resources Register	PDC	2004

Appendix 1:
Project Timeline

Appendix: Project Timeline

Late 2001-Early 2002	Original proposal for the research was investigated by Consultancy North, the research and development arm of Eastern Pilbara College of TAFE, Hedland in 2001
	Local government agencies/interested parties/stakeholders were contacted for letters of support to be used to apply for funding to study the FIFO phenomenon in the Pilbara Context.
	Pilbara Regional Council submitted the proposal to the Lotteries Commission of WA, accompanied by supporting documentation.
July 2002	Successful grant secured from Lotteries Commission Limited term contract for provision of services negotiated between Pilbara Regional Council and Consultancy North for a period of 18 months from 1 st August 2002-30 th November 2003.
1st August 2002	Project worker commenced working from Pilbara TAFE
October 8th 2002	4 month extension requested by Pilbara TAFE
April 28th 2003	Research & Development officer employed by Pilbara TAFE)0.6 Full time Equivalent (12 month contract) based in Karratha Campus of Pilbara TAFE
May 2003	Commenced: literature review process commenced contacted all major resource companies Identified stakeholders Commenced desk top audit
June 2003	Project Worker visited all local government areas on a field trip Commenced database of contacts and potential interviewees
July 2003	Third week in July meeting with Executive Officer, PRC in order to realign project timelines and renegotiate with Lotteries Commission- verbal confirmation received. Written confirmation and new contracts drawn as a result of this discussion-limited term contract re aligned to extend from June1st 2003 – May 30 th 2004.
August 2003	Media opportunity with Kevin Richards-Pilbara News Interviews and public consultation commence.
September 2003	Progress Report forwarded to PRC Interviews including videoconferencing with Perth families commence.
October 2003	Project worker travels through goldfields and gathers more case study data.
November 2003	Progress Report forwarded to PRC Lotteries Commission Progress Report forwarded to PRC.
December 2003	First week in December-invoice for progress payment generated from Pilbara TAFE 14 th December-Correspondence to PRC from Research & Development Officer advising relocation to South Hedland campus for remainder of contract following 5 week vacation period.
January 2004	Project worker on annual leave as scheduled.
February 2004	Project worker returned from leave- relocated to South Hedland campus of Pilbara TAFE 3 rd week in February-notification by PRC that Lotteries Progress report had not been filed-report reviewed and emailed back to PRC overnight 26/2/04. Interim Report requested by PRC
March 2004	Notified by PRC to forward Interim Report for council to review prior to council workshop on 2nd April 2004.
April 2004	Research & Development officer presents Interim Report to PRC on 2 nd April 2004.
May 2004	Research Officer forwards Draft Report for comment to PRC

Appendix 2:
Pilbara Region Key Features Map

Appendix 3:

Resource Projects Approached for FIFO Information

Operating & Committed Projects

Apache Energy Limited	Pilbara rail Company
BHP Billiton Iron Ore	Haoma Mining NL
BHP Petroleum	Kitchener Mining NL
Birla Nifty Ptd Ltd	Newcrest Mining Ltd
Boodarie iron	Onslow salt Pty Ltd
Burrup Fertilisers Pty Ltd	Origin Energy Resources Limited
Chevron Texaco Australia Pty Ltd	Robe River Mining Company Pty Ltd
Dampier Salt Limited	Robert Money
ENI Australia Limited	SIPA Exploration NL
Hamersley Iron Pty Ltd	Sons of Gwalia Ltd
	Woodside Energy Ltd

Projects in Development Phase or Under Consideration:

Alkane Exploration Ltd	HiTec Energy Ltd
Apache Energy Limited	Hope Downs Management Service
BHP Billiton Petroleum	Japan DME Ltd
BHP iron Ore	Liquigaz
Chevron Texaco Australia Pty Ltd	Methanex Australia Pty Ltd
Cognis Australia Pty Ltd	Mineralogy Pty Ltd
Dampier Nitrogen Pty Ltd	Pelican Resources Limited
Eso Australia Pty Ltd	SIPA Resources International NL
Hamersley Iron Pty Ltd	Straits Resources Limited
Hancock Prospecting Pty Ltd	Woodside Energy Limited
Wright Prospecting	

Appendix 4 :

Organisations invited to be involved in this research project:

Pilbara Development Commission
Pilbara Area Consultative Committee
Karratha & Districts Chamber of Commerce & Industry
Port Hedland Chamber of Commerce & Industry
Newman Chamber of Commerce
The Department of Industry and Resources
Country Women's Association
Rotary Club of Karratha
Soroptomists International of Karratha & Districts
Toastmasters International – Dampier
Lions Club of Karratha/Dampier
Lions Club of Newman
Business and Professional Women (BPW) Pilbara

Dampier Community Association
Point Sampson Community Association
Wickham Community Association
Local Information Network Karrtha (LINK)
Karrtha Tourist Bureau
Roebourne District Tourist association
Pilbara Tourism & Convention Bureau
Career Network
CRS Australia
Joblink Enterprises INC
Karratha Job Futures
Roebourne Workers Aboriginal Corporation
Family Development & Information Service
Kinway (Relationship & Family Counselling)
Lifeline
Pilbara Individual & Family Support Association
Dampier Youth Group
Roebourne Youth Centre
Salvation Army Youth Group
Karratha Autumn Club
WIROS Senior Citizens
Bloodwood Tree Association
Port Hedland Tourist Bureau

Appendix 5:

The Pilbara: Strengths (assets that exist) and Opportunities (how to build on them)

Extract from:

**Pilbara Area Consultative Committee
Strategic Regional Plan 2002-2005**

In reviewing the work of the PACC and establishing a picture of what strengths and opportunities existed, the following key areas were identified:

Environment:

The Pilbara is a unique area. The competitive advantage that exists with regard to our natural resources is obvious. The natural resources in relation to mining and industry as well as the uniqueness of the landscape and space to attract tourism provides the edge for growth and development.

Potential for Service Provision:

The number of community organizations that exist within the region and the strengthening of local government authority alliances provides a vehicle for negotiating at a state and commonwealth level.

A regionally based TAFE, infrastructure and advances in technological infrastructure also provide opportunity to grow in the Pilbara, through training and education in accordance with a united Pilbara vision.

The People:

The people of the Pilbara are an untapped resource. There is a commitment from the people to add value to the region in a localized manner. Their ingenuity, adaptability, energy and enthusiasm if harnessed will grow the Pilbara. The cultural diversity of the region is also strength. There is a traditional and strong Aboriginal culture. This adds richness to the lives of the people of the Pilbara. The potential for tourism is still unrealized.

National Focus:

At the moment the Pilbara is an area of national focus. The region generates a large proportion of the National export income. The time is right to capitalize on this national spotlight.

Employment and Economic Development:

The region is in a period of economic growth and development in a range of areas including the resources industry, pastoral and fishing which will flow down to small business and tourism. Maximum opportunity needs to be made of each of these areas.

Infrastructure

The Pilbara has an extensive road system that is constantly being extended and improved. Access to most parts of the region is available via sealed roads and national highways. The two major regional centers have airports and capacity for international air traffic. The Karijini, Roebourne, Newman, Tom Price, Onslow, Karratha and Hedland visitors centers are also fully established and highly effective. In terms of tourist attractions, Cossack, the Hedland Art Gallery and Courthouse and the mining industry are all indicative of the extensive infrastructure that continues to grow the Pilbara.

Appendix 6:
Confidentiality Agreement signed by Interview Candidates

The Interview Process:

This interview is part of a study we are doing to develop understanding about issues and attitudes in the Pilbara region in relation to the Fly-In Fly-Out workforce.

The project is being conducted by Consultancy North, a business unit of Pilbara TAFE on behalf of Pilbara Regional Council following the successful allocation of a lotteries grant in 2002.

I wish to ask you some general questions about your lifestyle, your background, your family situation and community and your views about Fly-In-Fly-Out activities in a broad sense. In the project we will keep your answers entirely confidential, and no names and locations will be used in our report of the interviews and subsequent analysis of the data. The report deals with general trends, attitudes and groups of answers.

Please feel free to ask me to clarify any questions and to expand or comment on your answers any time you wish. It is very important to the project that you understand my questions and that you answer as fully and as honestly as possible. It is also important that you feel free to end the interview or to seek more information about the project at any time you wish.

Agreement to Participate in Fly-In-Fly-Out Research Project:

I _____
(Print Full Name)
of _____
(Full Address)

(Town & Postcode)

Have read and understood the description given to me of the research being conducted. I consent to participate in the research project.
I understand that any information collected will remain anonymous both in the resulting report on the research and any subsequent publications.

Signed _____
Date _____

Unstructured Interview Questions: Basic Outline

- 1. How long have you been involved in Long Distance Commuting?**
- 2. What length of rotation cycle is involved? What would be your preference?**
- 3. Describe your living arrangements at home (and at work)**
- 4. How long did you expect to be involved in a Long Distance work schedule? Has this changed? Was it a joint decision?**
- 5. Describe any tension experienced related to the LDC arrangement.**
- 6. How is this arrangement viewed by family/friends/children?**
- 7. What strategies have you used to communicate?**
- 8. What advice would you give to a starting out FIFO worker?(or their family?)**
- 9. Outline the broad advantages versus disadvantages of FIFO**
- 10. Describe your support networks, social ties, leisure activities, domestic chores and arrangements?**
- 11. Have you ever considered moving to a Regional area rather than commuting?**
- 12. What impression do you have of the Pilbara Region?**

Appendix 7:
Annotated Bibliography

Annotated Bibliography

FIFO Reports/References of significant value to this project:

Australian Mines and Metals Association Conference Proceedings, June 1991.

This conference held in June 1991 in Adelaide focused solely on the issue of "Long distance commuting in the mining and hydrocarbons industries" and thus a number of papers emerging from this conference have great relevance to the topic.

For example:

Emmet, E. (1991) Occupational Health and Safety

Limerick J. Crane, R.; Roberts, E.; Baillie, A. (1991) Policy Implications for government.

Merrin, K. (1991) Regional Centre Considerations

Storey, K & Shrimpton, M. (1991) Long Distance Commuting: Labour force issues in the Mining and Hydrocarbons Industries. Management Issues.

Given the date of this conference some of the papers are now approaching obsolete and are of limited use. The work of Storey and Shrimpton has however continued and has been built on subsequently and both have remained at the forefront of reports and consultation in the field.

Brearley, T & P Newton. 1978. *Living in Remote Communities in Tropical Australia. The Hedland Study.* Commonwealth Scientific and Industrial Research Organisation, Melbourne.

The Hedland Study is one of a series, which has involved a wide selection of remote communities in tropical Australia and also included, for comparative purposes, a rural and an urban community. Earlier work took the form of community surveys, with information being generated on the residents of the towns, their previous residential histories, and anticipated length of stay at their present residence. It also described residential conditions and community facilities and sought to present an analysis of people's attitudes towards those aspects of their community environment which they considered important.

Department of Commerce and Trade & the Pilbara Development Commission. 1996. *Pilbara People and Population-A portrait of the population of Western Australia's Pilbara Region.* Pilbara Development Commission, Port Hedland.

This data set sets out to show the trends existing in the region and to measure the region's characteristics against set benchmarks in graphical format where possible.

The graphs gathered by various government agencies have been arranged in sets demonstrating: Population and Demographics, Education and Training and Labour Force, Employment and Income.

Department of Mines. 1991. *The demography of Long Distance Commuting in the Western Australian Mining Industry.*

Interesting report now extremely dated given at the time of its production only a limited number of mines were actively involved in LDC operations and most of these in the gold fields (not the Pilbara region as such). The research is based on a set of surveys which were sent not only to

employers but separately to contractors and employees and some analysis was presented in the final report which discussed the main reasons FIFO or LDC would be chosen as an option for operations in the early 1990's context.

This report is useful from a historical sense in that it was generated before FIFO/LDC had really become widespread and assumed that that style of operation would not increase significantly in the future, nor threaten regional communities and regional development. This assumption is not explained-however the surveys did return a lot of information relating to job satisfaction of employees and their feedback may have contributed to this.

Department of Resources Development. 1998. *Review of Nickol Bay Population Study.*

The Nickol Bay Population Study report was published in 1998 and sought to investigate future major project developments in the Shire of Roebourne including estimates of the number of project construction and operation workforces, and subsequent expected population growth, covering the period up to the end of 2010. Included in the study was the potential tourism industry growth and the timing of associated accommodation and social infrastructure requirements.

One of the recommendations in the Nickol Bay Population Study report was that forecasts of project developments should be regularly reviewed to ensure that information obtained remained relatively accurate and meaningful.

Department of Natural Resources and Mines. 2001. *Guidance Note for Management of Safety and Health Risks associated with Hours of Work Arrangements at Mining Operations.* Queensland Government, Brisbane.

This report was developed to assist in the identification and control of safety and health risks associated with hours of work arrangements for the mining industry.

The report was generated in response to a number of factors:

The mining industry, competing in an increasingly competitive global marketplace has changed work structures accordingly to enhance productivity and reduce costs. Changes in the design of work schedules have resulted in the extension of work hours with a decrease in the number of days worked. Personnel hazards resulting from irregular work and sleep patterns has been associated with increased work related fatigue, decreased alertness and increased accident risk, and employers and employees must take the necessary responsibility to guard against unnecessary risk to health and workplace safety.

This report is designed to be a practical guide for companies, employers and employees on how to control risks arising from workplace scheduling and hours of work and discusses to some extent the effect on the safety and health of individuals and workplaces such hazards may have. The paper is specifically appropriate to Fly-in/fly-out work forces who operate outside the traditional standard working week.

Effects of Hours of Work Arrangements:

Health, family and community-

Body Clock-disrupted sleep patterns created by shiftwork, impact on the quantity and quality of sleep, task performance and create a perceived sense of personal imbalance.

Human Fatigue can include; tiredness even after sleep, psychological disturbances, disinclination to work and general loss of vitality and are often associated with major difficulties in getting adequate undisturbed sleep during the day and a cumulative sleep debt leading to increasing fatigue and decreased performance.

Fatigue can also be considered from the contexts of: work related fatigue such as fatigue resulting from situations requiring concentration for extended periods, working in temperature extremes or high risk situations or non-work related fatigue such as highly variable activities like: sleep disruption due to ill family members or domestic factors, stress, or moonlighting.

Effects on health-

Long term exposure may have deleterious effects on the health of individuals such as: -

Gastrointestinal disorders

-Cardiovascular disease

-Stress related complaints

Those already suffering from pre-existing health conditions face additional burdens.

Effects on family and social life-

Work scheduling that is based solely on organisational requirements may not acknowledge the personal, domestic and social needs of its workforce. In many cases sustainability of a satisfactory social life is obtained at the expense of sleep.

Dislocation of family and social life may result in pressures on relationships, domestic workloads and community activities.

As with sleep and fatigue this has implications for task performance, safety and health, morale, absenteeism, productivity and attrition rates.

Work Performance and Safety

Sleep Deficit:

The cumulative result of sleep disruption may lead to sleep debt and the occurrence of 'micro sleeps'-periods when brief naps lasting 4-5 seconds occur which has a significant impact on safety.

Roster Design:

Good management of roster design can facilitate a balance between maximising productivity and ensuring the safety and health of the workforce. The following concepts should be considered:

-Direction of rotation

-Speed of rotation

-Irregular and unpredictable work schedules

Work scheduling:

In order to minimise the impact of safety and health risks appropriate scheduling is vital and should include:

Recovery within and between work periods

Type of work and workloads

Travel Time:

As well as the actual hours at work travel time can also be considered when calculating possibility of fatigue and recovery times needed. Obvious hazards such as persons driving on long straight desolate stretches of road are a problem especially when fatigued.

Safety:

Two separate safety issues are considered:

-Accidents and incidents

-Exposure to hazardous substances

Moonlighting:

One unexpected outcome of compressed work schedules may be moonlighting, in which employees take additional employment on their days off or during leisure time.

COMMUTER OPERATIONS:

Since FIFO has become more common both benefits and concerns have been expressed. This is heightened when great numbers of consecutive shifts coincide. Many operations have in place risk management processes and typical risk management processes utilise three steps:

- Risk analysis
- Risk assessment
- Risk control

In particular:

“ Satisfactory management of risks to safety and health associated with hours of work arrangements and extended shift rosters for FIFO and DIDO operations may be improved by:

- The provision of full information to prospective employees regarding geographical location, workplace and living conditions on site.
- The recognition that personal problems both on and offsite can adversely affect safety and health.
- Provision of adequate recovery time between periods on site for emotional, physical and social adjustment.
- The establishment of shift changeover process to fully acquaint incoming workers with current mining conditions.
- The provision of good standard of on-site accommodation for workers including contractor's employees where site accommodation is required.
- The provision of a range of recreational facilities together with encouragement to use those facilities
- The provision of adequate health care facilities on site for all workers accessible at all hours.
- The scheduling of regular consultation with the workforce on existing arrangements and proposals for change.
- The encouragement of workers to prepare themselves physically and mentally for return to work following rest and recuperation. “

Department of State Development . 1992. *Long Distance Commuting and regional communities: A Regional perspective.*

(Originally available from the State Development Department-but not accessible from their website now- have some photocopied pages that appear to have come from this report-but was unable to secure a full copy from the department)

Department of State Development . 1992. *The Impact of Fringe Benefit Tax on Remote Area Business.*

Small fairly self-explanatory report available from the internet explaining aspects of Fringe benefit tax in the context of the early 90's political scene.

Lambert, D. 2001. *Long Distance Commuting-: Problems for Regional Western Australia*. Published by the Office of Robin Chapple MLC.

A brief twenty page report (in 18 font) discussing Long-Distance commuting from the perspective of comparing cost to set up a town versus FIFO employment.

Fringe benefit tax is referred to and discounted by the author who assumes, given his survey results, that fringe benefit tax does not play a major part in justifying LDC operations-it does however lead the reader into the assumption that lack of government support in strengthening infrastructure has made the option of relocating workforce into regional centres an unattractive option.

He specifically mentions high housing costs, low house ownership and more expensive food as indicators that the Pilbara is not an attractive regional centre to relocate to for a FIFO worker.

Overall the report is politically skewed and derivative of Shipton & Storey's early research papers-though useful as a summary of some of the issues involved.

Lambert acknowledges the absence of serious reports and studies into FIFO(LDC)

The author refers to Matthew Payne from Pilbara Development Commission and Alex Baillie from the Department of Commerce and Trade (Regional Development Division) as having provided hundreds of pages of information "from all sides of the argument".

Ministry of Planning. 1998. *Port Hedland Area Planning Study* prepared for the Western Australian Planning Commission. State of Western Australia, Perth.

This study addresses all important regional issues and sets out a framework to guide State decision-making and detailed planning at the local level, with a planning horizon of 20-25 years.

Regional Resources, Trends and Planning Implications are discussed categorically covering: Physical characteristics, Environment and Conservation Values, Natural Resource and Economic Development, Infrastructure, Social and Demographic and Heritage and Culture factors.

MOSHAB (Mines Occupational Health Advisory Board) 1998. *Response to Shaw Findings*.

Response to the Shaw Report-which presented recommendations to be addressed in response to recent mining fatalities-acknowledges not much actually done about shift length of time and work schedules and in general discusses the level of implementation of its recommendations.

Pattenden, C. 1998. *Women in Mining. A report to the "Women in Mining" Taskforce for The Australasian Institute of Mining and Metallurgy*. The Australasian Institute of Mining and Metallurgy, Carlton, Victoria.

This research report which forms part of a PhD dissertation examines female participation in the Australian Minerals Industry including insights relevant to minesite and workplace culture and the experiences of women participating in the workforce including those adopting FIFO style work arrangements.

Pollard, L. 1990. *Fly-In Fly-Out: Social Implications/or Remote Resource Development in Western Australia*. Social Impact Unit, Perth.

Very early research paper outlining social alterations involved in the LDC work arrangement using some form of interviewing, although the research paradigm used by this author is not discussed explicitly. This paper does not really examine this aspect to great detail- but does conclude there are a great many positive benefits derived by families as a result of one of the partners being employed in this style of work provided adequate regular communication between worker and his/her family were ensured whilst working away.

Regional Development Council and the Department of Commerce and Trade. 1996. *Regional Futures: Challenges and Opportunities for Western Australia's Regions.*

A broad discussion paper, which outlines the challenges relating to FIFO by the regions to include the following issues:

- Kimberley Region: Maximisation of economic returns to the region from current and future mining operations is of concern as currently "the majority of labour and supplies for mining operations are sourced from outside the region."
- Pilbara region: The practice of fly-in/fly-out is an ongoing factor limiting the expansion of the region's population. Fly-in/fly-out should be encouraged from regional centers such as Karratha and Port Hedland.
- Mid-West Region: Fly-in/fly-out is impacting negatively on smaller communities. Ways of alleviating its effects need to be explored.
- Goldfields-Esperance region: Mining companies should be encouraged to redirect FIFO employees to spend their weeks off in Kalgoorlie Boulder. This will go a long way towards eliminating perceptions and realities that the region is based on a transient population.

Sibbel, A. 2001. *The Psychosocial Well-being of Children from Fly-In/Fly-Out Mining Families.*

Unpublished BA (Psychology) Honours thesis. Faculty of Community Studies, Education and Social Sciences, Edith Cowan University.

Abstract: (directly from the research paper)

The children of fly-in/fly-out (FIFO) mining employees are exposed to the risk factors for depressive disorders of regular father absence associated with hazardous employment conditions, together with disruptions to family routines.

In the absence of previous research in this area, this exploratory study sought to determine whether the levels of depressive symptomatology, anxiety and perceptions of family function of 30 primary school-aged children who were in FIFO employment were less healthy than those of a control group of 30 children whose fathers did not have FIFO employment. The mothers' perceptions of family function were also compared. The children were matched in age and gender.

Analysis comparing the two groups of children's scores on the Children's Depression Inventory (Kovacs, 1992), the revised Children's Manifest Anxiety scale (Reynolds and Richmond, 2000) and the general function sub-scale of the McMaster Family Assessment Device (Epstein, Baldwin & Bishop, 1983), found no significant differences. Both groups were functioning at healthy levels in the three areas.

Significant differences between the scores of the two groups of mothers on the Communication, Affective Response, Affective Involvement, Behaviour Control and General Functioning sub-scales of the FAD were found. In addition the FIFO mothers perceived unhealthy family function in the areas of Roles and Affective Involvement.

These results indicate that further research, focusing on mediating variables including the mothers' wellbeing and FIFO characteristics, is warranted to classify the impact of FIFO on families and children.

Stone, W & Hughes, J. (2001) *Social Capital – Linking Family and Community?*

This paper commences with a comprehensive discussion of the meanings attributed to social capital and how social capital is displayed in family life and is subsequently manifested in communities. The paper draws on data obtained from a national random survey of 1506 Australian households undertaken by the Australian Institute of Family Studies in 2001 in order to explore relationships between family and community.

One of the key hypotheses featuring in recent social capital literature is acknowledged in this paper by the authors. That is, the concept that social capital within one type of social relationship will foster the generation of social capital in other relationships. For example good quality family relationships will generate good quality community cohesion or 'social capital'.

The extent to which this hypothesis is the case, is discussed and following analysis of the data relating to trust and reciprocity, the authors concluded that no correlation could be drawn to prove one way or the other. Alternative ways to test relationships between social capital within families and communities was to examine the extent to which people participate in community life. Community links are often used as indicators of 'social capital' at work (community engagement). To this end engagement in informal social networks in the community, extended family networks, neighborhood ties and friendships, engagement in more formal community groups and civic and political action would be considered as demonstrations of good 'social capital'. Again the authors were unable to find strong definitive links between family relationships and this form of community engagement.

Storey, K . 1999. *Commuter Mining: A Bibliography*

This is a large document obtained directly from the author, although it is downloadable from the internet in the Queensland Mines Department websites —its is actually the most comprehensive list of worldwide references to FIFO in the mining industry compiled and is around 50 or so pages.

Keith Storey is based at Memorial University of Newfoundland in Canada

The Australian Human Rights and Equal Opportunity Commission.(1999). *Bush Talks*.

The Australian Human Rights and Equal opportunity Commission (HREOC) began consultations in March 1998-these consultations were titled 'Bush Talks' and had three main objectives:

- To identify the major human rights issues confronting people living beyond the main population centers.
- To inform rural and remote area Australians and their representative organizations about human rights.
- To develop projects to enhance the enjoyment of human rights in regional, rural and remote Australia for HREOC action in 1999 and 2000.

Reports of the community issues and concerns raised in public meetings area available through the HREOC website. The Pilbara was represented in the talks by a meeting held on the 20th May 1999 in South Hedland.

Other areas of Western Australia represented were:

- Albany
- Bunbury
- Geraldton
- Kalgoorlie
- Kununurra
- Perth

Port Hedland BushTalks – Chaired by Councillor Bob Neville

10 people attended including representatives from juvenile justice, legal affairs, school students, local government employees, politicians. Topics covered.

- The Pilbara
- Health Issues: increasing health problems and decreased funding
Mental Health Services-virtually non-existent
Bulk billing difficult to access
Private health services-non existent
*”Concerns were raised about the health effects of “Flying in-Flying out” staff in remote mining camps and the Port Hedland detention center, as well as the health effects of 12 hour shifts. Although the remuneration can be good, people have little social contact with their families and their workmates.”
- Mining, rates and council facilities
“...Mining companies are non-rateable. There is a legislated State agreement between mining companies and the state which exempts mining companies from paying rates. The local council is not compensated for this, yet is still obliged to provide services. There is also no requirement under this agreement for a study of the social impact of mining in terms of housing and food prices.”
- Education: Lack of curriculum choice in schools in the Pilbara
Low retention rates(though not as low as the Kimberley)
Language abilities not recognized
Need to look for alternatives to mainstream education
Youth coordinator puts together well researched programs but cant get funding.
- Distance Education: school of the Air-poor quality radio signals
Remedial education difficult to access
No high school via school of the air

- Domestic Violence: Increasing incidences of domestic violence
- Drugs: Need for more education(suggested by a high school student)
“Heroin seems to be very strong among the young men who were construction workers with huge disposable incomes and didn’t know what to do with themselves...”
- Youth Suicide: not a big issue at this stage
- Juvenile Justice:Transportation to Perth a big issue
- Youth facilities: substandard
Transportation to facilities still a problem
No bus service on Saturday/Sundays/Public holidays
“...if you don’t have a car it is impossible to get from port to South Hedland.”
- Sentencing young people
- Fines enforcement legislation: Some people unaware of old or pending fines due to mobility or homelessness and receive a third offence and go to prison
- Conditions in Custody: holding cells –mosquito problems and poor showers
Hot police vans
Nearest prison 200kms away – bus leaves at 4.00pm
To get there and arrives after visiting hours
- Family Needs: “...there have been a lot of redundancies offered by mining companies recently. What happens with families that come to live in the Pilbara is that mining companies might buy a house which is a buyback thing with the company. The main breadwinner is usually the man who works for the company, has his super and house in his name and there is actually a huge break-up rate of families up here, I have heard 2 in 3 families break up, and he gets the house and everything.
Loss of operational subsidy for childcare
Little for mums with young children to do during the day as it is so hot outside and inside ‘cabin fever’ sets in.
- Centralisation and privatization of essential services:
Commonwealth services have been centralized
Contracts go out but are not filled
Training providers are not adequate
There are insufficient banks
- Transport in the Pilbara
- Shopping & Prices: “Cheaper to buy junk food” than vegetables
Dominance of the large retail change
“...the complete absence of competition and predatory pricing by the major chains has just wiped out any small business competition. There is not a butcher left in the northwest to the best of my knowledge.”
Expensive fuel is a big issue
Airmiles are pricey and often unavailable on the day you want to travel
- Communication Postal services in particular are very slow-post between South Hedland and Port Hedland can sometimes take 6 days .
Post to aboriginal communities can take between 10 days to 2 months

- Alcohol
- Street Patrol: Pakala Patrol a good initiative
- Water: still no potable water in some communities.
- High Rents & accommodation shortage
- Itinerant residents and homelessness: fringe dwellers and itinerants in town nowhere suitable to stay. On any given night 30-40 people homelessness although sometimes as many as 300-400 people.

Torlach, J. (1998) *Mining Fatalities Inquiry- Western Australia- Opportunities & Initiatives*

Jim Torlach, speaking for the Department of Minerals and Energy responds to the Mining Fatalities Inquiry Report) outlining responses that need to be undertaken by employers and the mining industry in general in relation to Occupational Health and Safety issues-some of which touch on the concept of Long Distance Commuting/Work Schedules/Shift length and work stresses and avoidable situations encountered in the undertaking of employment in the resource sector.

Accessible from the internet.

**Appendix 8:
Community Focus Groups**

Community Focus Group : Summary of Issues Raised

Medical Professionals:

August 2003. GP Practice – one of the larger Pilbara Towns

Present :7

Age Range: 30-55

Gender mix:: 4 Male/3 female

Professions represented: Mental Health/Psychology/Dentistry/Practice Nursing/GP

All persons interviewed had been resident in the Pilbara over 6 months and less than 20 years.

Project worker explained the project to the group and asked for feedback about the impact of FIFO work styles they had observed from their positions as health professionals in the Pilbara.

Main Issues Raised:

- There was significant concern amongst the majority of the group about increasing levels of depression stemming from loneliness and isolation thought to be a product of FIFO work styles. This problem was not restricted to the male population and also reflects the growing incidence of depression as a major threat to health and well-being nationwide over the past decade. There was no quantitative way this could be measured, it is just a growing hypothesis which would need to be monitored and researched if funding and opportunity allowed.
- The inevitable consequences of untreated depression, most visibly suicide, substance abuse, progressive chronic mental conditions and domestic violence are prevalent in the Pilbara Region, but no more so than the rest of the state and this has not appeared to increase with the introduction of FIFO style work practices. It would be easy to demonstrate some of this data quantitatively by utilising mortality reports and other reports which outline a longitudinal monitoring of indicators of depression and suicide attempts amongst other things.
- Enhanced funding and support for psychological services and readily available counselling might help some people involved in FIFO work styles, though this would have to be made accessible and confidential.
- Education programs pre-employment and during employment would be useful to ensure signs of depression and isolation were recognised and treated appropriately. This would need to be embraced by employers in the interests in keeping a healthy well-balanced workforce. Reinforcement of key self-care concepts could be made by utilising media in airports/planes, living quarters and meal rooms.
- Fly-in/ Fly-out work patterns have helped some individuals regain independence and confidence, and is not necessarily bad for all people involved. This has been the case particularly for women and in the cases where lack of family support and infrastructure in the Pilbara would have caused women to become isolated and depressed themselves: "... sitting at home all day waiting for their partners finish their gargantuan shifts..."

Community Focus Group : Summary of Issues Raised

Roebourne Community Group – Roebourne, September, 2003

Present : 7 Indigenous women

Age Range: Approximately 30-60

Gender mix:: Female

Project worker commenced discussion during a skill sharing exercise involving teaching the group of women a separate and related craft technique in order to relax and engage their interest...during the time of this gathering discussion led to the FIFO research she was involved in and the women were asked to share their views and thoughts on the resource industry and the effect FIFO might have on their community. Another Education Department worker was present who took notes from the discussion with the consent of the women. In addition two members of the group consented to further interviews (a longer chat) at a later date.

Issues Raised:

- Lack of local employment or unemployment was seen as an issue for the community
- There was a general concern for the young people with alcohol and drugs
- FIFO didn't make much difference and was seen in some ways as an advantage if the mine they worked for was in sensitive lands-they'd rather no town be built than have a fully running town there.
“...like you got a town and then the kids get grog and before you know it they get into other things...but it doesn't matter what happen... mines make a mess and that's hard to live with....look at bloody gas thing down there...stuffed it all up....now there's up the road...with the new mine...copper mine goin on...at Whim(Creek).....better it not be a town and keep itself to itself...”

Community Focus Group : Summary of Issues Raised

Youth Group - Dampier, October 2003

Present 15 plus one youth worker and one parent

Age Range: 14-17

Gender mix: 5 Male/10 female

The main discussion, led by the youth worker and project officer started with a brief overview of what the research project was looking at, and then handed over to the group to give a snapshot of how they saw the main issues in their life now and then asked them to think about life in the next two years (before reaching employment)

and then the next five years, where did they expect to be and what were the possible problems they might see in the community.

General Issues emerging from group discussion:

- Young people have minimal things to do in the community if they aren't interested in the sport scene.
- Young people are concerned about not being able to secure work locally and feel that there is a large amount of competition for apprenticeships which can be very daunting and "scary".

"You go to an interview or sit a test and your mates are up for the same job and its hard, you don't say much afterwards, but you think someone will be happy and someone will be sad afterwards."

- It is difficult to move about via transportation from Dampier to Karratha and back, due to lack of public services at the right times.

"Transports a big thing here-usually you have to get a lift to go anywhere and sometimes you're driving with people you don't know too well , like you can't expect your parents to get you all the time when they work long shifts."

- Fear of moving to the metropolitan area for further schooling and university.
" I feel a bit nervous about going to Perth next year for year 10, but mum is going to move down in March and dad 's staying up here to work...I'll miss my friends heaps and I wont know anyone. I'm sure I'm going to get lost all the time, but at least I'll get to do some other subjects, I want to study law or psych, I've got to get good marks to get in to uni..."
- Fear of getting stuck in the area unemployed without prospects.
" If you get suspended or expelled from school you have nowhere else to go and you have to look for a job, you'd never survive living away from your parents because the rents are too high and your only option is to get a job somewhere that has accommodation, to do that you have to have a trade or experience...its like you're stuck if you stuff up at school."
- Comments about drug use in the area:

“There are a lot of drugs around on the scene, and alcohol, parents get for their kids....”

“...its seen as the cool thing to do-get smashed on the weekend then you hear about it the next week at school...everyone’s SMS ing where the next parties going to be and who’s place its at...”

“There’s some kids on ‘dexies’ for ADHD or whatever, you know they sell it to other kids that get totally off...it happens a bit...”

There is a lot of peer pressure to drink and smoke and do other drugs..if you don’t people stir you and you feel stupid..”

Community Focus Group : Summary of Issues Raised

Young Mothers Group

Playgroup venue with children present but occupied during time of discussion– Karratha August 2003

Present: 18

Age Range: 21-30

Gender mix:: all female

The Project worker explained the parameters and aims of the research and focus groups at this stage of the research and asked the women to consider what their main thoughts and concerns were related to employment and FIFO practices and lifestyle in general in the northwest. A whiteboard was used to brainstorm and record comments.

The comments on the board were fed back in summary to the group and received general agreement that good representation had been made of their thoughts and issues. The group in general felt at the commencement of the discussion that they had little to do with the FIFO situation and weren't affected by it at all. This attitude appeared to have shifted significantly after discussion.

Issues Raised:

Most of the young mothers present had partners working in the resource industries (only 5 did not) and issues were raised about job security in the future, if employers were going to increase the percentage of FIFO employees, and reduce permanent local employees. The general perception was that resource companies were more interested in economic factors than social factors when they made HR decisions.

Concerns were expressed by mothers about the cost of housing and rent if they had reason to separate from their partner. They felt it would be almost impossible if things got to a violent stage to actually be able to afford to get away.

Generalised concern was felt about the opportunity to utilise day care facilities if they wished to work part-time themselves, this led to a discussion of the limited range and variety of social and stimulating pastimes, to get up to during the weekdays.

"It's a man's town and if you don't like fishing or sport you're pretty well stumped"

"We've lost a lot of small businesses, little things like , they start up for a while then fizzle out...you can tell how many men live here with all the sporting and fishing shops, look at Kmart-the size of the fishing section and the compared to the size of the sewing area.....we need a really big Spotlight to open up, they'd make a killing...."

Lack of accessible public transport was raised as an issue for some women.

When asked how long they thought they might stay in the town, several women admitted to having agreed to make the best of it for the money up to a certain goal.

"...we have a five year plan, by that time we'll need to get to decent schooling in Perth and our house will be well on the way to being finished....if he wanted me to stay any longer, I'd be pretty upset, we'd have to talk about it a bit, they only see their grandparents once a year, can't afford to come up very often, they (the kids) need grandparents....."

General concern about high school education in the Pilbara Region was expressed.

“ We’re prepared to stay until at least year nine, but then we have to make a choice, split the family and leave their dad up here and all go south as soon as the oldest gets to year nine, or send one off until the other is ready two years later, and then there’s this little one who’s only four now.....and boarding is expensive. That’s where FIFO might work well for the family, you’d miss him like mad, but its for the best but it’ll be hard for everyone...it’ll break up the family a lot.”

Community Focus Group : Summary of Issues Raised

Educators based in a large Pilbara Town

September 2003

Present: 26

Age Range: 23-56

Gender mix:: 6 male/20 female

Predominantly secondary school teachers-two primary teachers (both female)present, also support and access educators based in district office.

Project Worker introduced research aims and discussed issues emerging from the research so far. Key Issues as they related to schooling and education were identified by group participation and suggestions from the floor.

Educators were divided into small groups, and were asked to clarify and explore the issues then suggest some possible strategies to offset the issues identified as significant.

The issues considered are summarised below:

- Loss of students out of the Pilbara after year 10: especially if they are considering studying further.
- Low morale and low expectations of school students for their future employment prospects.
- Compressed work schedules have meant parents do not have the opportunities to be with their children as much, on a regular daily basis.
- Construction workforces when they leave town taking their families with them can have a devastating effect on the children in the peer group left behind.
- High turnover of staff in Pilbara Schools –coupled with poor standards of buildings and facilities.

Appendix 9:
Toolkit Evaluation Questionnaire

FIFO Tool Kit Evaluation:

Please take some time to evaluate this information toolkit.
Your comments about the usefulness of this flyer will help the project researcher evaluate and produce a more usable and appropriate document which will meet the needs of workers and their families engaged in FIFO employment.

Please fill in the blanks and circle the answers that apply.

How would you describe your fears and anxieties about long distance commuting and its effects before you read this leaflet?

Not anxious At all	Slightly Uncomfortable	Moderately Anxious	Quite anxious and afraid
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Now that you have read this information, how would you describe your attitudes and understanding?

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In your opinion were there any topics that should have been included?

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Any topics that should have been left out?

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.....

Did you find the information presented:

Too deep	Too superficial	At a good level
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Any other comments about how this information could be presented

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Thank you for taking the time to complete this evaluation. Your comments are important. This questionnaire can be faxed or posted back to the research officer in the envelope supplied.

Appendix 10:

GEHA Properties managed in the Pilbara Region

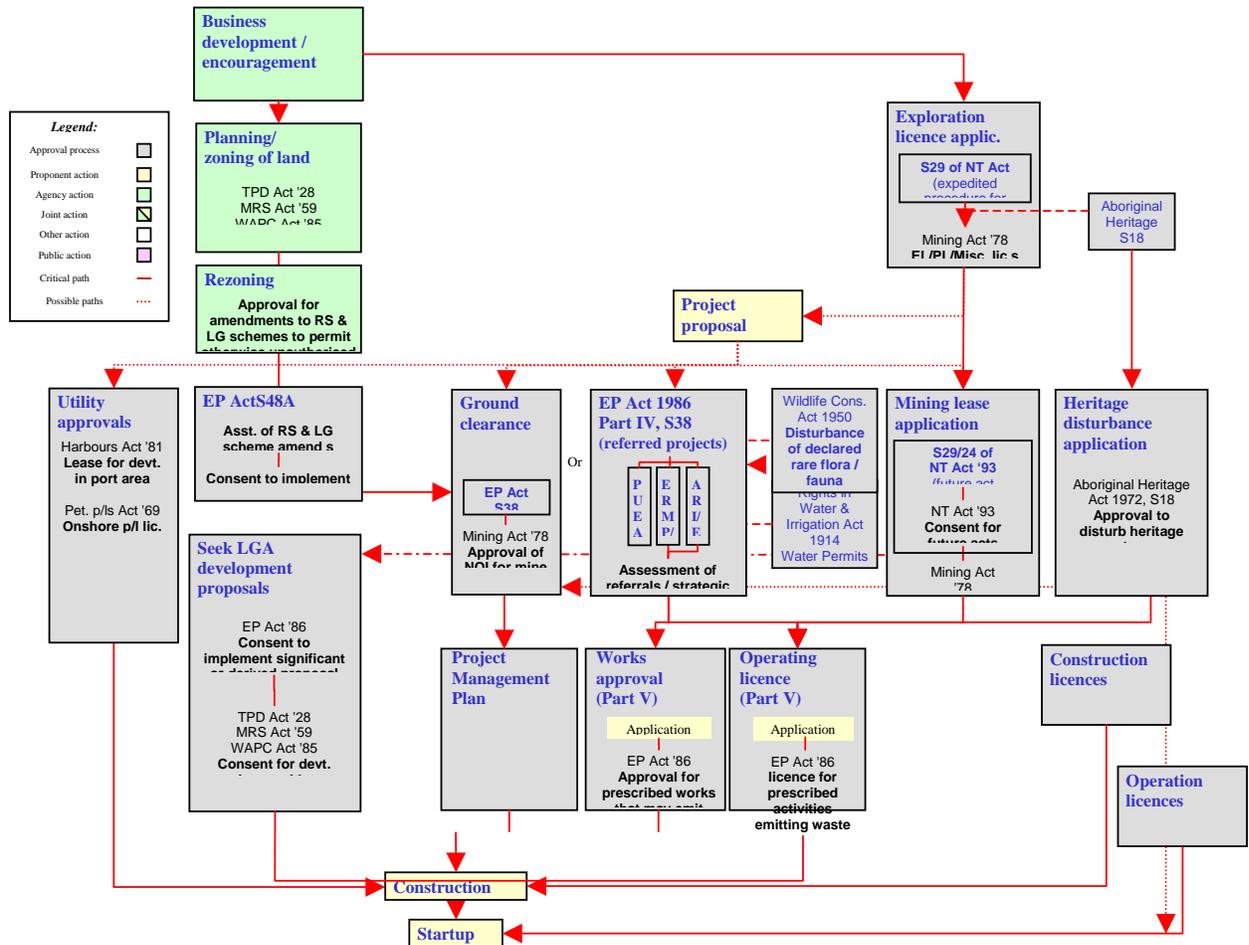
	Owned	Leased	Total
Cane River	1		1
Cape Range NP	1		1
Cassia	6		6
Cooke Point	13	1	14
Dampier	7	6	13
Jigalong	6		6
Karijini NP	3		3
Karratha	177	200	377
Koombana	144	61	205
Lawson	12		12
Marble Bar	12		12
Millstream	5		5
Newman	79	13	92
Nullagine	8		8
Onslow	14	3	17
Pannawonica		1	1
Paraburdoo	20	1	21
Port Hedland	23	15	38
Roebourne	30		30
Shellborough	21	1	22
South Hedland		9	9
Spinifex Hill	10		10
Strelley River	3		3
Tom Price	47	14	61
Walnut Grove	5		5
Wickham	36	24	60
Yandeyarra	6		6
Yule River	2		2
Total			1040

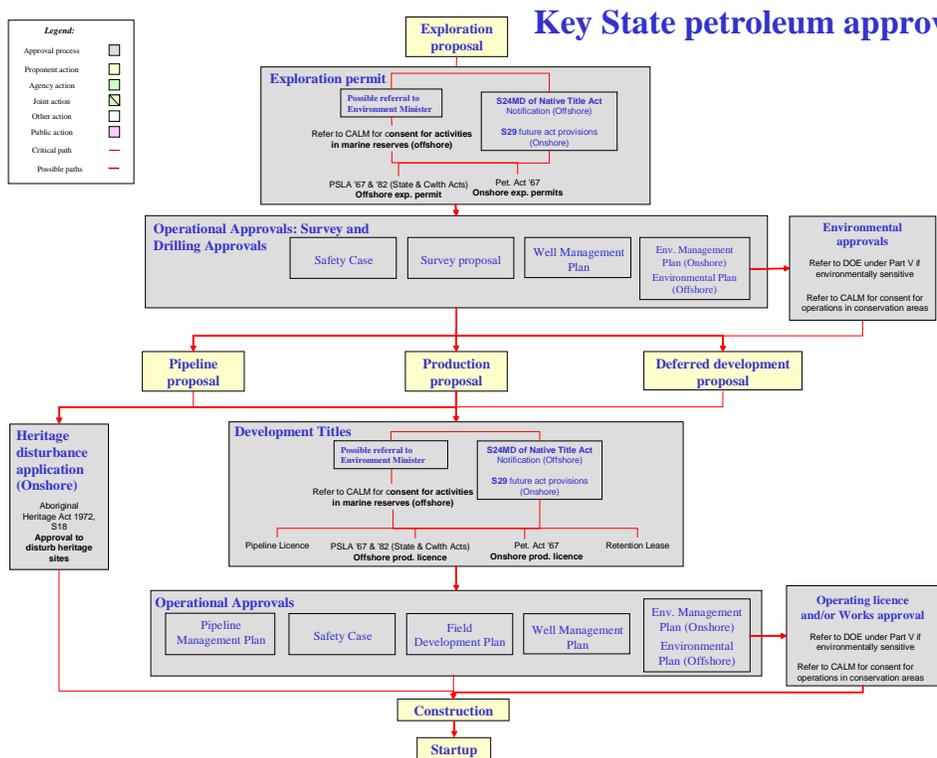
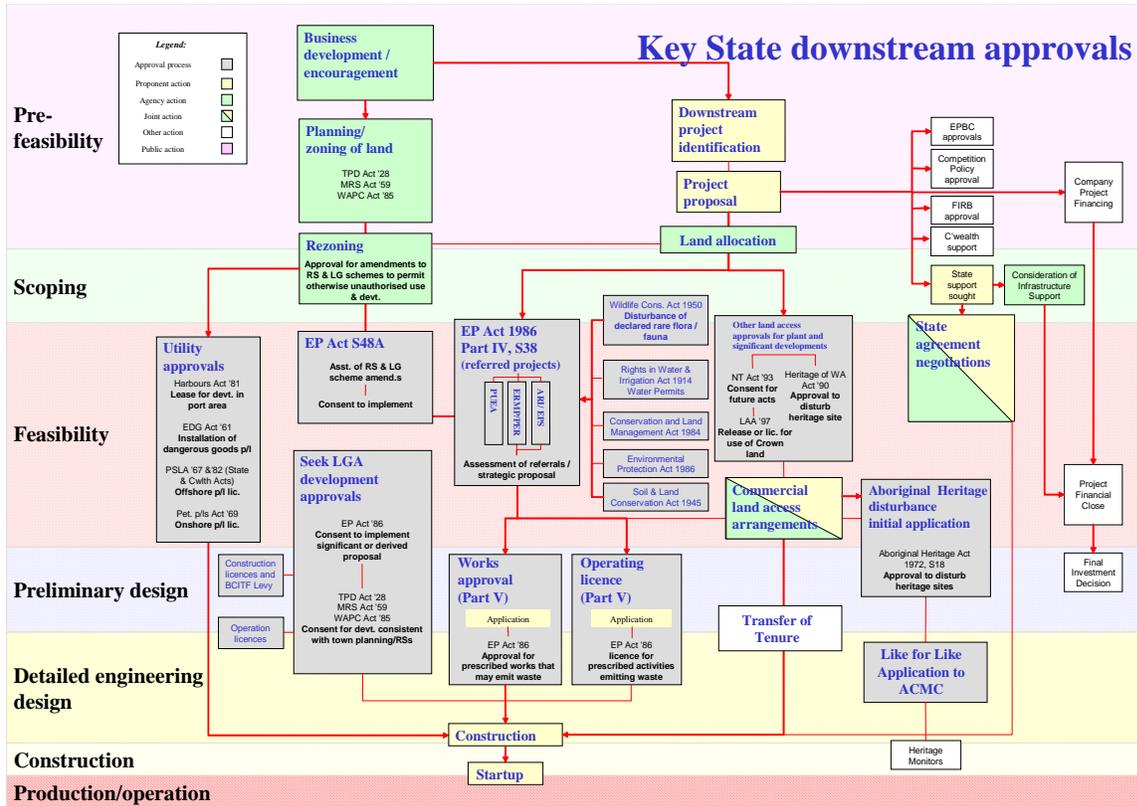
Appendix 11:
**Project Development Approvals System
& State Agreements**

Project Development Approvals System:

In order to understand the path taken by companies to satisfy the approvals required for government consent, to commence a development project, the Department of Industry and Resources (DOIR) has produced a number of overview flowcharts. See figures below relevant to the type of resource developments currently in operation in the Pilbara Region :

Figure 44: Key State Mining Approvals





²In September 2001, the Minister for State Development, Clive Brown MLA, established an independent committee to review the approvals process for development projects operating in Western Australia. The background motivation for this review was described on the Department of Industry and Resources website:

“The current approvals system in Western Australia comprises a variety of discrete approvals existing under a number of essentially single purpose pieces of legislation. The responsibility for administering these approvals rests with a range of different Commonwealth and State Government agencies and statutory authorities. One approval may trigger or inform another, however the system is not integrated, and relies on administrative and facilitative mechanisms to achieve better integration and co-ordination.”

<http://www.doir.wa.gov.au/investment>
[accessed 20/04/2004]

The overarching objective for the review was said to be “..to develop a coordinated, integrated, clear and unambiguous system of government decision making that balances community and developer needs, and will lead to Western Australia being the global location for choice for project development...”

The review committee prepared interim reports which were publicized and enabled public consultation and comment throughout. A final report, titled the “Keating Review”, containing 56 recommendations was presented to the Ministerial Steering Committee overseeing the review. As a result the decision to proceed with ‘progressive’ implementation of at least 1-55 of the recommendations has begun. The flowcharts appearing in figures 44,45,46 above appear to have been generated sometime after this report in an attempt to clarify the current approvals process.

² A summary of the Keating recommendations can be found by accessing the DOIR website, together with a schedule of government positions in relation to the recommendations which were last updated in January 2004.

Specific recommendations arising from the Keating Report which have direct impact on regional communities are summarized in the following table:

Recommendation no.s & Description	Government Position Supported Rejected No Decision	Progress
<p>45/45 State Agreement Acts Restricted future use of the State Agreement Acts is recommended. It is suggested that future Agreements should be restricted to dealing only with project specific issues, should not only include a mechanism for development proposals and approvals, and generally should not require Parliamentary ratification, but exist as contracts between government and project proponents.</p>	<p>No Decision No common position has been reached on the use of state agreements</p>	<p>Both of these recommendations are discussed in a draft position paper that is being prepared for consideration by agencies. The position paper will discuss the background to the proposal mechanism and suggest that it has advantages that should be preserved, and suggest criteria upon which new Agreements should be based.</p>
<p>47-48 Infrastructure/Land Planning Strategic regional planning and advance assessments of potential development sites is recommended with a view to locating industry in appropriate industrial estates. There would be a clear expectation that approval would be forthcoming for a specific project locating in a strategically assessed site, provided that the proposal complies with the strategic plan and regional environmental constraints are identified up front.</p>	<p>Supported These recommendations are strongly supported, with a general call for increased strategic planning. The importance of early commencement of native title consultation and negotiation was noted in the context of having project ready land.</p>	<p>Background to the development of Western Australia's existing strategic Industrial Areas has been documented and a scoping exercise to determine base planning and assessment requirements for "project ready land" has been completed. This information will assist in the preparation of a paper outlining strategic assessments and clearances for existing estates and those that will be required for future estates. The paper will provide a number of options for the definition of "project ready land" for the MSC's consideration. At the same time the government is conducting strategic planning studies on potential industrial sites and infrastructure provision. In particular a Pilbara study will address considerations for project ready land in a sustainability context.</p>
<p>49 This recommendation considers common user infrastructure commitments from government. Recommendations 47-49 are designed for consideration of proposals in a sustainability context.</p>	<p>Supported The principles covered by the recommendation on common user infrastructure is fully supported. However the policies by which the government commits to the funding, and timing of funding, for common user infrastructure needs to be further considered.</p>	<p>The Keating implementation team has not reviewed this issue, but it is a significant area of focus in the DOIR.</p>

State Agreement Acts:

In Western Australia, State Agreements are non-compulsory contracts negotiated between the State and major project developers that establish a framework of rights and obligations to facilitate the development of resources and/or downstream processing. There are 66 State Agreements currently including the North West Shelf natural gas processing projects, the Pilbara iron ore projects, bauxite and alumina, diamonds, mineral sands, salt, timber processing and coal resource projects.

State Agreements are ratified by Parliament, whereby the Government Agreements Act 1979 is the enabling legislation for each agreement, and are administered on behalf of the State by the Minister for State Development by the Department of Industry and Resources. Major developers would be likely to choose to negotiate State Agreements where long term certainty, land tenure and complex approvals are expected. The contents of each State Agreement depend on what is agreed and negotiated between each party and whilst all State Agreements have similar provisions in general they are negotiated on a case specific basis and are thus unique. In general State Agreements are entered into for the life of the project rather than being tied to a timeframe. Information relating to State Agreements provided by the DOIR discusses past agreements:

“...Agreements have made specific provisions to address such issues as long term security of title under either the Mining Act 1978 or the land administration Act 1997; inconsistencies between existing State legislation; infrastructure provision by both the developer and the State; incentive arrangements and requirements for secondary processing obligations on the part of the developer.

State Agreements also generally address how development proposals are to be submitted and approved, the revenue payable to the state through royalties and lease payments, and the provisions giving the state the right to terminate the State Agreement if the developer fails to perform under it, or commits a material breach of the Agreement...”

Provision has also been included in recent State agreements for the submission of additional proposals under the proposals mechanism, if the developer wishes to modify, expand or vary its activities substantially beyond those specified in the approved proposals.”
(DOIR,2003)

In order to achieve final go-ahead for a project detailed information relating to specific details such as: workforce, workforce accommodation, project specific infrastructure and services, land requirements and environmental management needs to be provided.

State Agreement Acts between mining companies and the State government relating to major resource developments in the Pilbara Region:

Iron Ore:

Broken Hill Proprietary Company's Integrated Steel Works Agreement Act 1960

Broken Hill Proprietary Steel Industry Agreement Act 1952

Iron Ore (The Broken Hill Proprietary Company Limited) Agreement Act 1964

Iron Ore (Channar Joint Venture) Agreement Act 1987

Iron Ore (Goldsworthy-Nimingarra) Agreement Act 1972

Iron Ore (Hamersley Range) Agreement Act 1963

Iron Ore (Hamersley Range) Agreement Act Amendment Act 1968

Iron Ore (Hope Downs) Agreement Act 1992

Iron Ore (McCamey's Monster) Agreement Authorization Act 1972

Iron Ore (Marillana Creek) Agreement Act 1991

Iron Ore (Mount Bruce) Agreement Act 1972

Iron Ore (Mount Goldsworthy) Agreement Act 1964

Iron Ore (Mount Newman) Agreement Act 1964

Iron Ore (Murchison) Agreement Authorization Act 1973

Iron Ore (Rhodes Ridge) Agreement Authorization Act 1972

Iron Ore (Robe River) Agreement Act 1964

Iron Ore (Wittenoom) Agreement Act 1972

Iron Ore Processing (BHP Minerals) Agreement Act 1994

Iron Ore Beneficiation (BHP) Agreement Act 1996

Iron Ore Direct Reduced Iron (BHP) Agreement Act 1996

Iron Ore (Yandicoogina) Agreement Act 1996

Salt:

Dampier Solar Salt Industry Agreement Act 1967

Evaporites (Lake MacLeod) Agreement Act 1967

Leslie Solar Salt Industry Agreement Act 1966

Onslow Solar Salt Agreement Act 1992

Gas:

North West Gas Development (Woodside) Agreement Act 1979

Barrow Island Act 2003 (Gorgon)

Energy:

Pilbara Energy Project Agreement Act 1994

Commonwealth Legislation

The Department of Industry and Resources administers the following legislation through the Commonwealth/Western Australian Offshore Petroleum/Minerals Joint Authorities:

Petroleum (Submerged Lands) Act 1967
Petroleum (Submerged Lands) (Registration Fees) Act 1967
Petroleum (Submerged Lands) (Royalty) Act 1967
Petroleum (Submerged Lands) Fees Act 1994
Petroleum (Submerged Land) Amendment Act 2001
Offshore Minerals Act 1994
Offshore Minerals (Registration Fees) Act 1981
Offshore Minerals (Mining Licence Fees) Act 1981
Offshore Minerals (Exploration Licence Fees) Act 1981
Offshore Minerals (Retention Licence Fees) Act 1994
Offshore Minerals (Works Licence Fees) Act 1981³

³ Further information relating to the above Acts can be obtained from the Australian Government Attorney General's Department. Website access via <http://scaleplus.law.gov.au>

Appendix 12:

Mining Towns Built since 1967



(1987, Australian Mining Industry Council)

Appendix 13:

Scrutiny of Major Industry

Corporate Responsibility Table

Australian Conservation Foundation has begun actively monitoring the behaviour of Corporations which affect Australian communities, it is their opinion that:

“Corporations are the most common vehicles for business activity, often possessing enormous wealth and influence. In fact many corporations have now become so large and successful they have a financial base larger than some countries.

In many respects the world economy is dictated by the activities of large multinational corporations, and environment groups like ACF now realise corporations as well as governments need to be targeted in our efforts to achieve an ecologically sustainable future.

Because of government regulation and shareholder pressure, many corporations now take more seriously than ever their responsibilities as 'good corporate citizens'. But the Australian corporate community still has a long way to go. ACF works with government and the business sector to ensure that the momentum of change in corporate behaviour continues and strengthens.”

The Corp Rate project brings together the expert opinions of three Australian organisations to assess the corporate governance, social and environmental performance of Australia's top 50 listed companies. The Australian Consumers' Association (ACA), Oxfam Community Aid Abroad (OCAA) and the Australian Conservation Foundation (ACF) were respectively responsible for the corporate governance, social and environmental performance assessments.

[Accessed from the Australian Conservation Foundation Website: acfonline.org.au 4th June 2004]

Summary of Results

Company	Governance (ACA)	Environment (ACF)	Social (Oxfam)	Average
<u>Westpac Banking Corp</u>	100	62	69	77
<u>Telstra Corporation</u>	100	63	50	71
<u>BHP Billiton Limited</u>	100	33	57	63
<u>WMC Resources Limited</u>	100	32	47	60
<u>National Australia Bank</u>	91	42	45	59
<u>Bluescope Steel</u>	91	35	46	57
<u>Origin Energy</u>	80	52	39	57
<u>Southcorp Limited</u>	89	42	39	57
<u>Amcor Limited</u>	80	43	45	56
<u>Brambles Industries</u>	87	38	43	56
<u>AMP Limited</u>	89	40	37	55
<u>Australian Gas Light</u>	76	38	50	55
<u>Insurance Australia Group</u>	80	50	34	55
<u>Alumina Ltd</u>	78	32	53	54
<u>Foster's Group Limited</u>	89	38	28	52
<u>Coles Myer Ltd</u>	80	32	40	51
<u>Wesfarmers Limited</u>	67	38	47	51
<u>Commonwealth Bank of Aust.</u>	87	27	32	48
<u>Macquarie Bank Ltd</u>	91	25	29	48
<u>St George Bank</u>	87	27	30	48
<u>Suncorp-Metway</u>	89	27	28	48
<u>Australia & New Zealand Bank</u>	78	32	30	47
<u>Mayne Group Ltd</u>	89	20	25	45
<u>Woodside Petroleum</u>	67	30	39	45
<u>Rinker Group Limited</u>	87	20	25	44
<u>AXA Asia Pacific</u>	64	32	34	43
<u>Fairfax (John) Holdings Ltd</u>	69	40	20	43
<u>Lend Lease Corp</u>	69	35	22	42
<u>Rio Tinto Limited</u>	53	27	47	42
<u>Tabcorp Holdings Ltd</u>	67	28	30	42
<u>CSL Limited</u>	73	22	29	41
<u>Santos Ltd</u>	67	22	35	41
<u>Boral Limited</u>	53	32	35	40
<u>CSR Limited</u>	69	27	25	40
<u>QBE Insurance Group</u>	76	30	15	40
<u>Telecom NZ Corporation</u>	59	35	25	40
<u>Macquarie Infrastructure</u>	63	25	29	39
<u>Mirvac Group</u>	69	25	23	39
<u>Coca-Cola Amatil</u>	44	40	31	38
<u>Hardie (James) Industries</u>	62	28	20	37
<u>Woolworths Limited</u>	58	25	26	36
<u>Qantas Airways</u>	56	23	27	35
<u>Stockland</u>	58	20	20	33
<u>General Property Trust</u>	46	32	16	31
<u>News Corporation</u>	58	23	11	31
<u>Publishing & Broadcasting</u>	42	27	24	31
<u>Westfield Holdings</u>	38	20	22	27
<u>Westfield America</u>	31	20	22	24
<u>Westfield Trust</u>	31	20	22	24