

FIFO workforce in Cairns

Perspectives from Cairns based FIFO workers employed in North-West QLD and Groote Eylandt in NT



Summary Report

January 2013

An Initiative of the Cairns FIFO Coordinator Project

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Australian Government
Department of Industry, Innovation
Science, Research and Tertiary Education



**THE CAIRNS
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and Groote Eylandt in NT
Summary Report

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Disclaimer

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Executive summary

This report provides a detailed description of Fly-In-Fly-Out (FIFO) workers who reside in the Cairns region and work in the resources industry in North-West Queensland and the Northern Territory.

Methodology

A survey was administered among travellers at Cairns Airport in October – November 2012, who identified themselves as (1) working in the Australian resources sector on a FIFO basis and (2) residing in Cairns (hence no in-transit FIFO workers). The 197 questionnaires collected constitute the basis for the findings in this report.

Demography of the FIFO workforce

The surveyed FIFO workers are not all that different from the average worker in Cairns, be it that they are predominantly male and more likely to be partnered. The dominant age bracket is 30 to 39 years of age. Younger cohorts are underrepresented when benchmarked to the Cairns workforce.

Pathways into FIFO employment

Pathways to FIFO employment are available from various educational backgrounds. However, most interviewed FIFO workers have extensive work experience both inside and outside the resources industry suggesting that a mixture of work experience and educational qualification is the preferred entry ticket. Career paths into FIFO employment with limited experience in the resources industry exist, provided the worker has relevant work experience outside the resources industry.

Journey from home to mine site

The majority of surveyed FIFO workers who reside across the Cairns region live in the vicinity of Cairns Airport, limiting their travel times to and from the airport to less than an hour. The majority of Cairns based FIFO workers work at three mines in North West Queensland (Century, Ernest Henry and Cannington mine) and one in the Northern Territory (Groote Eylandt). FIFO workers are more satisfied with onsite accommodation than with offsite accommodation.

Contractual arrangements

The vast majority of interviewed FIFO workers work on a two week roster (7 days on; 7 days off or 8 days on; 6 days off). Three and four week rosters exist, but only sporadically. The incidence of casual employment in the Cairns FIFO workforce is much lower than Australia wide. Wages are substantially higher: while 84% of all workers in Cairns earn less than \$80,000 per annum, the same applies to only 6% of the FIFO workers.

Worker perceptions about FIFO work

Amongst the survey respondents, FIFO workers rate the chance of job loss much higher and the chance of finding a similar or better paying job in case they lose their current job much lower than the average Australian worker. This combination may lead to elevated levels of employment security/continuity anxiety.

Social interaction

Social interaction between the interviewed FIFO worker and Cairns based friends and family is dependent on where they are on their roster, e.g. if on roster then contact intensity is much lower than when at home. However, FIFO workers prefer to have more contact with Cairns based friends and family members while both on and off roster. Evidently, being away from home is not the only barrier FIFO workers face to interact with the people with whom they wish to interact. The pay package, sustained periods off, and a clear work/life balance are the top three positives of their work according to FIFO workers. The three main negatives identified were: Being away from home and family, not being around for emergencies / special events and long working hours.

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1. Introduction

In September 2009, the Australian Government announced the establishment of the National Resources Sector Employment Taskforce (NRSET) to develop a comprehensive plan to meet the skills needs (at that time) of more than 75 major resources projects expected to commence in Australia over the following five years. The Cairns Fly In Fly Out (FIFO) Coordinator initiative arose from Recommendation 5.4 from the NRSET report and forms part of the National Resource Sector Workforce Strategy launched in March 2011 by the Commonwealth Government. The Cairns FIFO Coordinator Project is being funded by the Commonwealth Government over two years as a pilot project, to develop links between resources projects in remote locations and skilled workers, including local unemployed job-seekers. SkillsDMC launched the Cairns FIFO Coordinator Project in November 2011.

A core objective of the project is to identify the potential FIFO workforce in the Cairns region and to establish a pathway to link this workforce to mining, construction and infrastructure jobs required by existing and emerging resources projects in northern and western Australia. SkillsDMC commissioned The Cairns Institute at James Cook University to undertake research which would help the Project partners, the Commonwealth Government and the region better understand the existing FIFO workforce in the Cairns region, and to identify the skills and experience of job-seekers who have potential to join the FIFO workforce.

Since no data sources are available to describe the Cairns FIFO workforce, JCU conducted a survey among FIFO workers at Cairns Airport to answer the research question. This report presents data that describes the demography of the FIFO workforce residing in the region and working in Australia, their commute, their job and associated satisfaction levels. This information is critical in shaping a hub, which caters for the needs of FIFO workers.

The report is structured as follows: Section 2 presents the chosen methodology to answer the research question. Section 3 concentrates on describing the existing FIFO workforce residing in the Cairns region, while Section 4 provides conclusions of the research exercise.

This report on the FIFO workforce in Cairns should be read in conjunction with its companion report, *Identifying & profiling potential FIFO workers: Perspectives from Far North Queensland* (January 2013).

2. Methodology

Whilst studies that looked at the demography and job satisfaction of FIFO workers in the resources industry in Queensland have been done before – most notably United Research Services (United Research Services [URS]) (2012), these studies use place of work as the unit of analysis. To the best of our knowledge, no study has looked into the demography and job satisfaction of FIFO workers that share the same residential region or city in Queensland. Therefore a survey was conducted among FIFO workers who reside in the Cairns region, but work outside that region (though in Australia) and travel by plane as they need to travel long commuting distances.

2.1 Survey design

It is anticipated that all Cairns based FIFO workers will travel via Cairns Airport to their work destination. Consequently, a survey was conducted among travellers at Cairns Airport who identified themselves as (1) working in the resources sector on a FIFO basis and (2) residing in Cairns (hence no in-transit FIFO workers). To maximise representativeness of the sample data, the survey was conducted over four consecutive weeks (October – November 2012), four days per week. The length of the survey period ensured that a complete cycle of FIFO rosters was covered; the weekly intensity ensured most flights that (based on their destination) could arguably

be identified as FIFO flights were covered. We targeted the QQ901 Alliance Airlines flights to Groote Eylandt mine (Tuesdays); QQ891 Alliance Airlines flights to Cannington mine (Wednesdays and Thursdays); QQ825 Alliance Airlines flights to Century mine (Tuesdays and Wednesdays); QQ714 Alliance Airlines flights to Ernest Henry mine (Wednesdays and Fridays); Q660 Skytrans flights to Mount Isa (Tuesdays, Wednesdays, Thursdays and Fridays). A copy of the survey is presented in the appendix to this report.

At the end of the four week period a total of 197 completed surveys were obtained, which constitute the basis for this analysis.

2.2 Articulating the survey's sample population

It is hard to estimate the size of the pool of FIFO workers, who reside in the Cairns region. Cummings (2010) estimates that there were about 2,150 FIFO workers based in Cairns in 2008, based on Census 2006 and airline seats data. That total includes FIFO workers based in Cairns working overseas in Papua New Guinea (PNG). Using Cummings (2010)'s airlines seats data, we estimate that 470 Cairns based FIFO workers work in PNG, implying the 2008 population of FIFO workers residing in Cairns and working elsewhere in Australia is 1,680.

To update those 2008 figures, we can use the 2011 Census data to estimate the population by focusing on respondents to the Census who report:

1. to be employed in either the mining, construction or 'electricity, gas, water and waste services' industries;
2. Cairns as their place of usual residence;
- 3a. Australia (except Cairns) as their place of work if employed in the mining industry, and;
- 3b. a region in Australia (other than Cairns) as their place of work that is known for mining activity, if employed in construction or 'electricity, gas, water and waste services' industries.

The grand total is 940. However, the Australian Bureau of Statistics acknowledges that this number should be seen as an underestimate as it faced key challenges to cover all FIFO workers for the Census (Australian Bureau of Statistics [ABS], 2012).

Our decision to use flight destination as a proxy for access to FIFO workers at Cairns Airport does mean however, that we miss a segment of the FIFO population that fly from Cairns to the mine via a third airport. These FIFO workers are likely employed by different mines (mines in Queensland or the Northern Territory without direct connections to Cairns Airport or mines in other states in Australia) than the workers we surveyed.

If we assume that the degree of underestimation of FIFO workers in the 2011 Census is constant across space, we can establish which share of the Cairns based FIFO population working elsewhere in Australia was targeted by our survey strategy. The 2011 Census reports 480 FIFO workers who reside in Cairns, work at Groote Eylandt (NT) or in North West Queensland in the mining, construction or 'electricity, gas, water and waste services' industries. As a consequence, our survey strategy covers 51% of the total population of FIFO workers, residing in Cairns, working in the resources industry elsewhere in Australia. Whilst we surveyed the odd FIFO worker from non-targeted flights, their share in the total sample is less than 5%.

It is therefore important to note that the results as we present them in this report refer to FIFO workers residing in Cairns, employed by the bigger mines in North West Queensland and Groote Eylandt – Northern Territory.

2.3 Representativeness of the data

To examine the representativeness of our sample, key demographics arising from our survey are compared to results found in the Workforce Accommodation Survey conducted by URS Australia in November 2011. URS conducted the survey onsite in the four major resources regions in Queensland, including the North West Minerals Province. The vast majority of FIFO workers that were interviewed work in the North West Minerals Province, hence the URS cohort of workers in the resources industry who identified to be non-residential workers can be expected to be fairly similar to our cohort (although they may reside all around the country). Consequently, key demographics of both cohorts were compared to cross check the validity of our sample – see Table 1.

It can be noted that fewer women participated in our survey than in the URS survey, but otherwise the samples show strong similarity in terms of age, relationship status, dependent children and work experience in the resources industry.

Table 1: Comparing key demographics of URS and JCU survey

Surveys	URS survey	JCU survey
Demographics		
Gender:		
Female	21.1%	1.3%
Male	78.9%	98.7%
Age (average years)	40.7	41.2
Relationship status:		
Single	15.9%	20.0%
Relationship	84.1%	80.0%
Dependent children:		
Yes	42.5%	49.4%
No	57.5%	50.6%
Work experience:		
0-12 months	10.5%	13.3%
13-24 months	6.3%	10.0%
25-60 months	19.6%	22.2%
61 or more months	63.6%	54.4%

Source: URS Workforce Accommodation Survey and JCU FIFO survey

Whilst it is not known whether either of the two surveys is representative, the fact that they line up (apart from gender), along with the sampling technique employed and the size of our sample in relation to the total population, provide us with a sufficient degree of confidence that results presented in this report are accurate for FIFO workers residing in the Cairns region and employed by the bigger mines in North West Queensland and Groote Eylandt – Northern Territory.

3. Fly-in Fly-out workforce in the Cairns region

This section of the report presents the main findings of the FIFO survey organised under six headings: demography, career paths, travel journey and onsite facilities, contractual arrangements, worker perceptions about FIFO work and social interaction. These six topics are discussed separately.

3.1 FIFO employment: Demography of its workforce

To assess whether the FIFO workforce in Cairns is distinct in certain characteristics from the overall workforce in Cairns findings from our survey are compared to findings from the Census 2011 for the Cairns region.

Figure 1 shows that nearly all FIFO workers are male, in stark contrast to the overall Cairns workforce, which has a fairly even gender split workforce

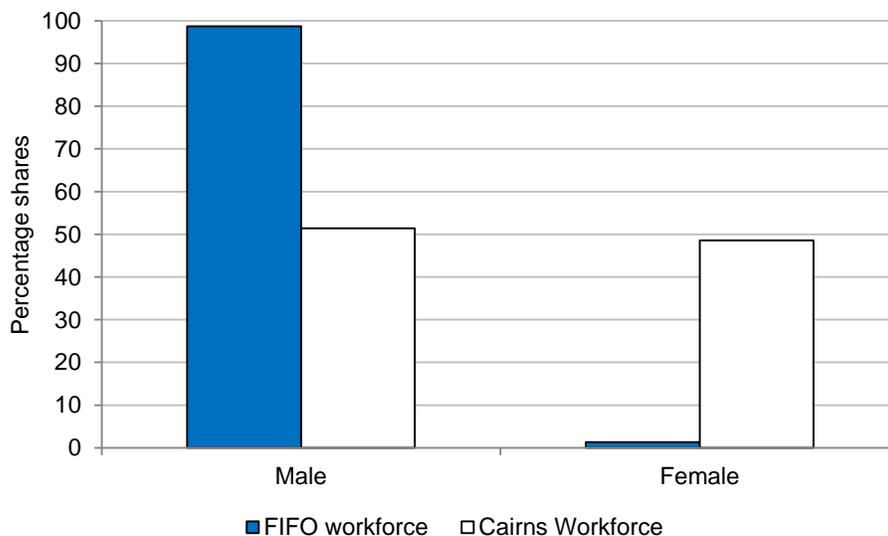


Figure 1: Gender composition FIFO workforce versus overall Cairns workforce
Source: JCU FIFO survey, 2011 ABS Census

Figure 2 plots age cohorts. The results indicate that the FIFO workforce is slightly underrepresented among workers below the age of 30. In particular, workers below the age of 20, for whom there were no respondents, are underrepresented (which is in line with the URS survey). The most prevalent age bracket in the FIFO workforce is 30 – 39 years of age.

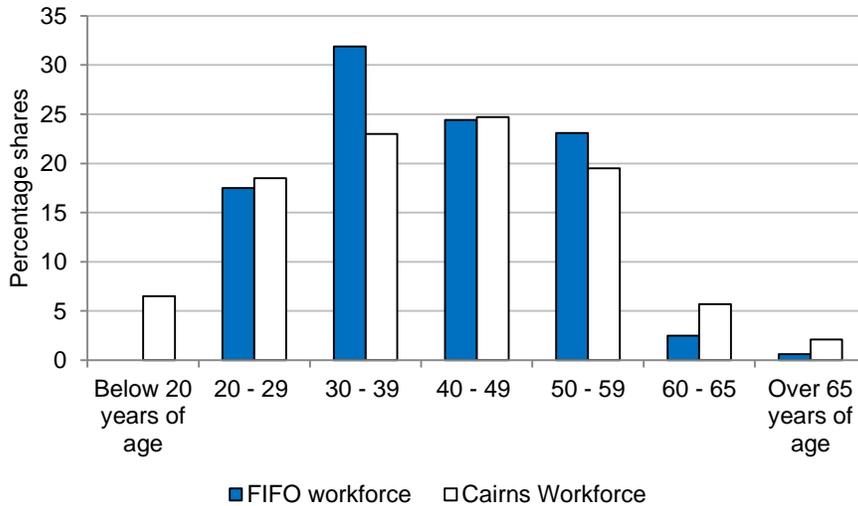


Figure 2: Age composition FIFO workforce versus overall Cairns workforce
Source: JCU FIFO survey, 2011 ABS Census

Figure 3 shows that four percent of the FIFO workforce does not have Australian citizenship, whilst (not shown in the figure) nearly 5% of the FIFO workers with Australian citizenship are of Aboriginal or Torres Strait Islander descent. That percentage is in line with the Cairns workforce.

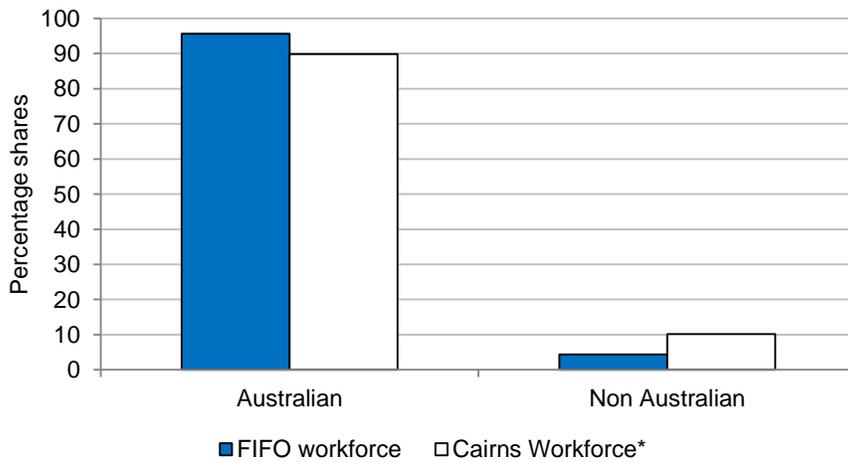


Figure 3: Australian citizenship composition FIFO versus overall Cairns workforce
* As percentage of total population. Census figures linking citizenship to the labour force are not available.
Source: JCU FIFO survey, 2011 ABS Census

One in five FIFO workers is single, while that amount is nearly double in the Cairns workforce – see Figure 4. Consequently, if roster work weighs heavily on the cohesion of families, this is exacerbated by the fact that FIFO workers are more likely to have families.

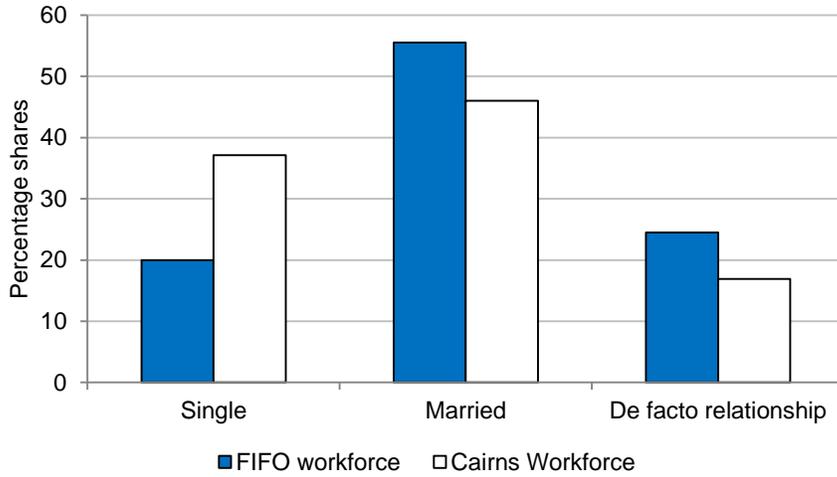


Figure 4: Relationship composition FIFO workforce versus overall Cairns workforce
 Source: JCU FIFO survey, 2011 ABS Census

The share of FIFO workers that have dependent children (49%) is similar to that of the Cairns workforce (51%). However, Figure 5 shows that if the FIFO worker has children, they are more likely than the average worker in Cairns to have more than one dependent child.

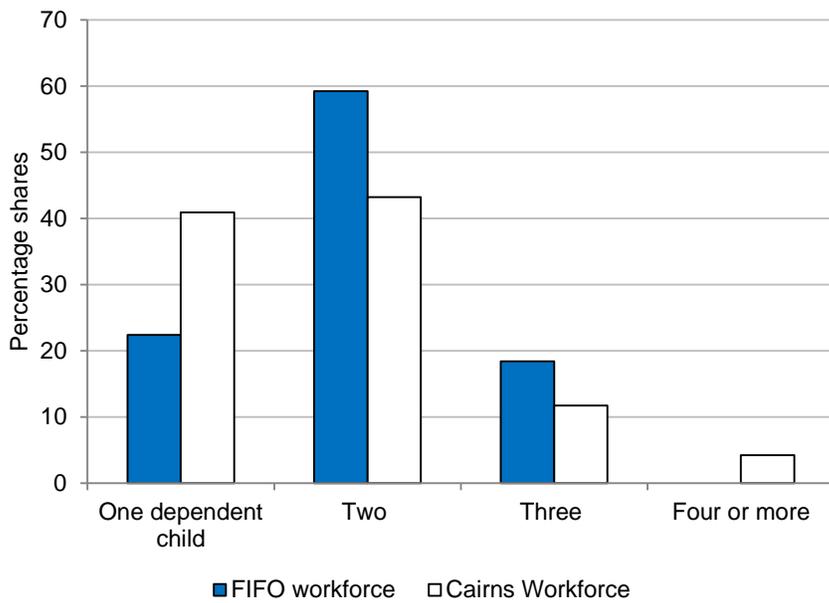


Figure 5: Dependent children FIFO versus overall Cairns workforce
 Source: JCU FIFO survey, 2011 ABS Census

In conclusion, FIFO workers are not all that different from the average worker in Cairns, with the exception that they are predominantly male and more likely to be partnered.

3.2 FIFO employment: Career paths into FIFO arrangements

To investigate career pathways leading into FIFO employment three types of careers: 'Managers and Professionals', 'Technicians and Trade workers' and 'Machinery operators and Labourers' have been distinguished. Important job roles within the 'Managers and Professionals' category are managers (23.1%) and geologists/engineers (23.1%); in 'Technicians & Trade workers' they are fitters (38.0%), electricians (15.5%) and boilermakers (11.3%); in 'Machinery operators & Labourers' they are operators (57.7%), miners (16.9%) and drivers (8.5%).

Figure 6 shows that one in six FIFO workers are managers or professionals, while the remaining FIFO workers are equally divided among technicians and trade workers, and machinery operators and labourers.

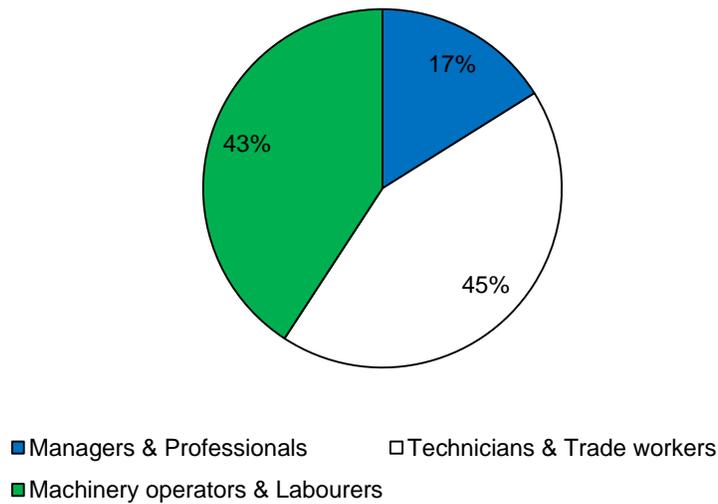


Figure 6: Occupational distribution (percentage shares) of FIFO workforce
Source: JCU FIFO survey

Educational attainment at entry into the resources industry shows the segregation between the three occupations – see Figure 7. The resources industry typically requires a university degree for management and professional positions; an (advanced) certificate for technician and trade worker positions, while year 12 or less is the dominating highest educational attainment level of those entering machinery operator or labourer positions.

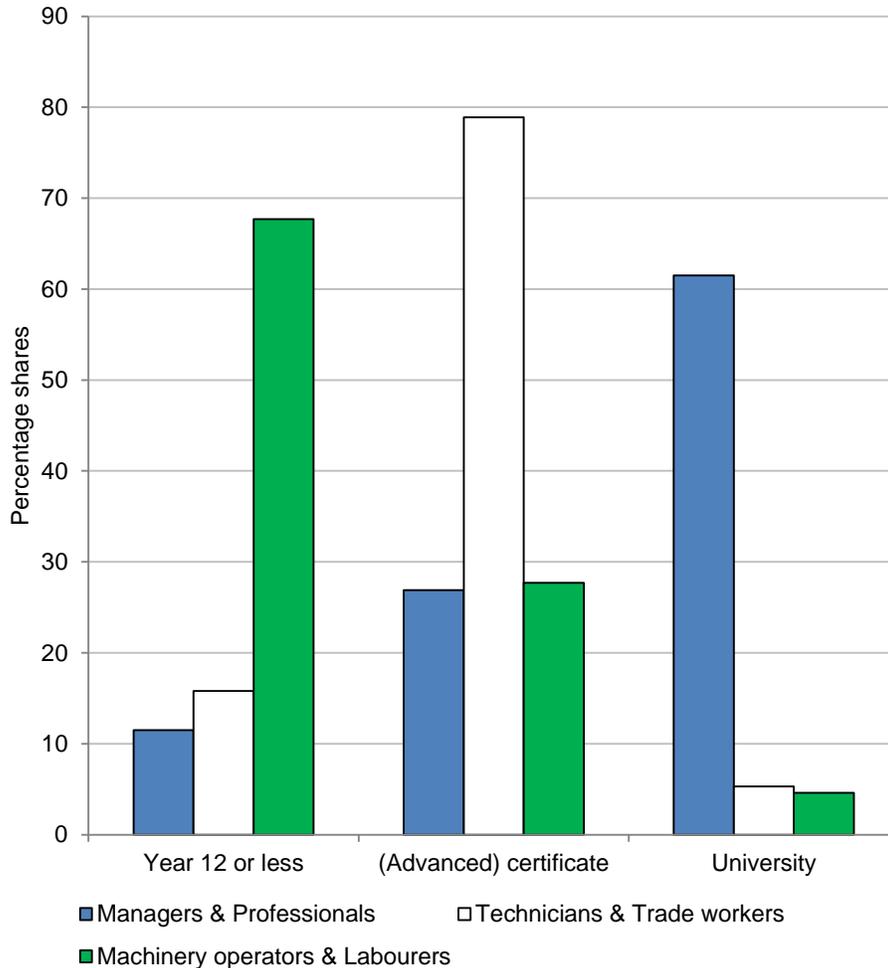


Figure 7: Educational attainment at entry into resources sector to occupational levels
Source: JCU FIFO survey

The first column of Figure 8 demonstrates that since entering the resources industry, only a minority of FIFO workers have not completed any further training. If FIFO workers have completed further training, the last three columns of Figure 8 highlight that that training is more likely external training for managers and professionals, while FIFO workers in the other two occupational categories complete the majority of their training in house. External training for managers and professionals are typically specialist courses offered at university level, while their in house training is in the area of management and supervision. Technicians & Trade workers either complete certificates externally, or safety and supervisory training in house, while Machinery operators & Labourers predominantly complete training in the occupational, health and safety domain.

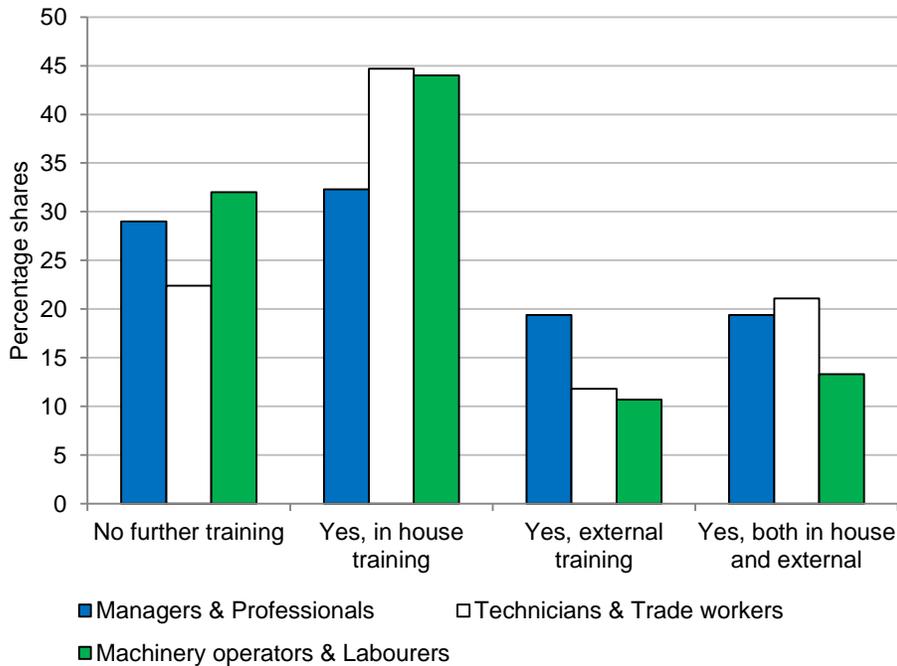


Figure 8: Further training and (if so) type of training to occupational levels
Source: JCU FIFO survey

Table 2 shows that FIFO workers have – regardless of their occupation – on average eight to nine years of work experience in the resources industry, of which a significant part is in a FIFO capacity. However, that does not mean that the sector does not recruit workers for FIFO roles without industry experience. One in four FIFO workers have a maximum of one year FIFO experience, while one in six FIFO workers have a maximum of one year experience in the resources industry. Moreover, since their job role spell is shorter than their FIFO spell, FIFO workers have changed job roles during their FIFO spell.

Further, it can be noted that only a small minority of FIFO workers have no work experience outside the resources industry, which holds true for all occupational levels. Those who indicate they have worked outside the resources industry report between 12 and 16 years of work experience, before entering the resources industry. The top three industries from which they migrated to the resources industries are: 'Construction (30.7% of FIFO workers who have work experience outside the resources industry come from construction)', 'Agriculture, Forestry & Fishing (22.1%)' and 'Transport and Storage (10.7%)'. Occupations from which FIFO workers migrated to the resources industries (if applicable) are more widespread. The top 10 are: Mechanic (10.8%), Fitter (10.0%), Operator (10.0%), Manager (6.9%), Labourer (6.2%), Electrician (6.2%), Engineer (5.4%), Carpenter (5.4%), Boilermaker (4.6%) and Driver (4.6%).

Finally, only 1.2% of the FIFO workers with one year or less experience in the resources industry report no work experience outside the resources industry. Consequently, career paths into FIFO employment without work experience (be it in our outside the resources sector) are rare.

Table 2: Work experience prior and at the resources industry of FIFO workers

Occupations	Managers & Professionals	Technicians & Trade workers	Machinery operators & Labourers
Career trajectory			
Experience in resources industry:			
Average (years)	7.8	9.3	8.4
One year or less (% share)	16.1%	16.2%	9.3%
Experience in FIFO role (years)			
Average (years)	5.8	6.1	4.8
One year or less (% share)	26.7%	19.5%	24.4%
Experience in current job role:			
Average (years)	3.3	3.3	3.4
One year or less (% share)	32.3	40.8	42.3
Experience outside resources industry:			
Yes	86.2%	82.2%	89.7%
No	13.8%	17.8%	10.3%
Experience outside resources industry (if positive) (years)	12.2	14.1	15.8

Source: JCU FIFO survey

3.3 FIFO employment: Journey from home to mine site

The journey that FIFO workers make at the start of each roster from their home in the Cairns region to the mine site will now be presented with a focus on travel from their residence to Cairns Airport and the accommodation facilities provided at the mine.

Figure 9 shows where the FIFO workers that participated in the survey reside. The darkest blue area is postal area 4870 which includes the Cairns CBD and Cairns Airport. To the south of the airport there is a high density of FIFO workers in Edmonton (postcode 4869), Bayview Heights (postcode 4868) and Gordonvale (postcode 4865); to the north in Clifton Beach (postcode 4879) and to the west in Mareeba (postcode 4880). Two thirds of all interviewed FIFO workers reside in the above areas; the remainder are spread across the region between Port Douglas in the north and Ingham in the south. We found that 12% of FIFO workers moved to the Cairns region to take up the FIFO job.

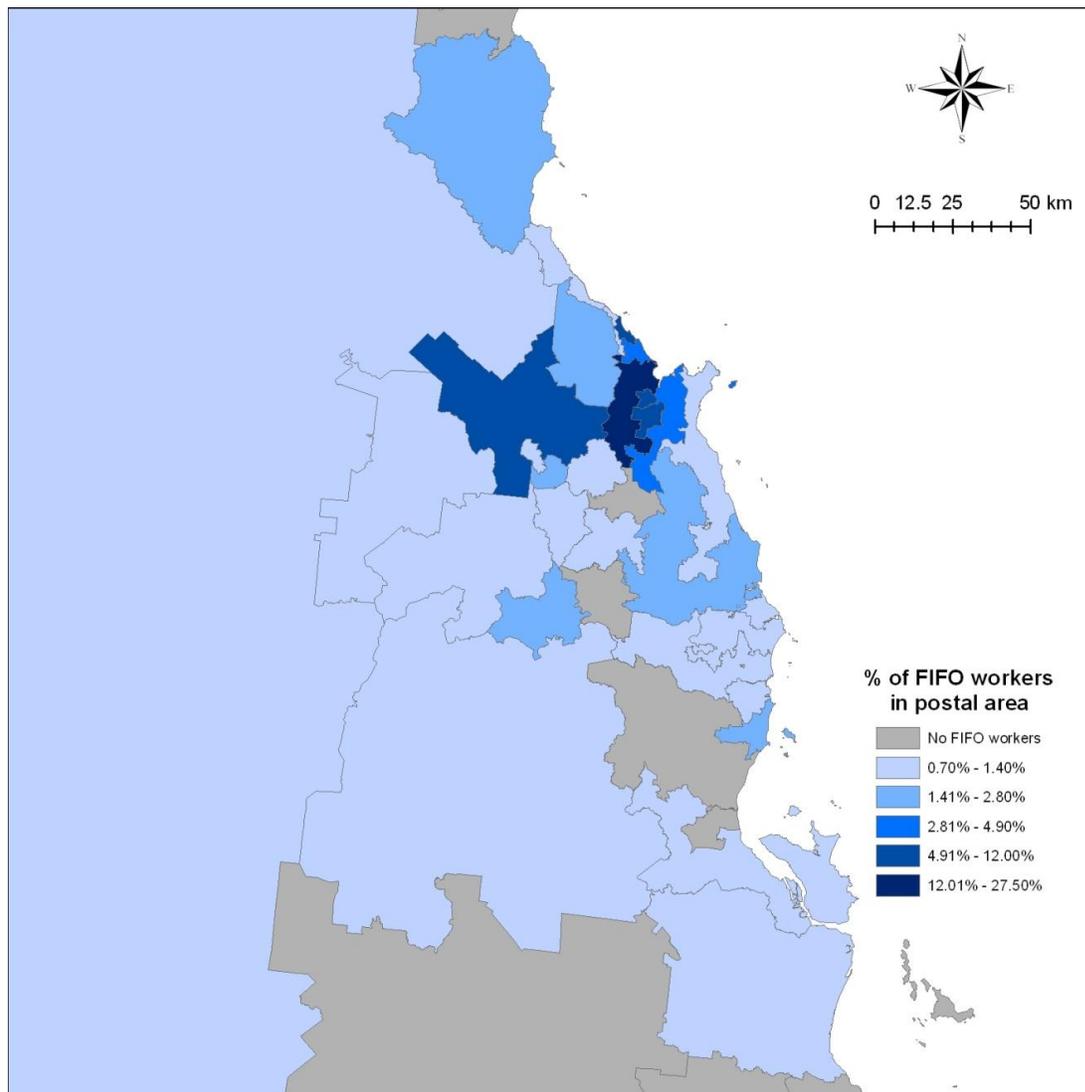


Figure 9: Spatial spread of FIFO workers over Cairns region (using postal areas)
Source: JCU FIFO survey

FIFO workers were asked to report the travel time from their residential address to Cairns Airport. Average travel times were then calculated for each postal area in which at least one FIFO worker resides. The results are plotted in Figure 10. Focussing on the postal areas where FIFO workers concentrate, the map highlights that Cairns Airport can be reached within an hour from all these areas. Travel time creeps above one hour for those who live further away from the airport, especially those approaching the airport from the south.¹

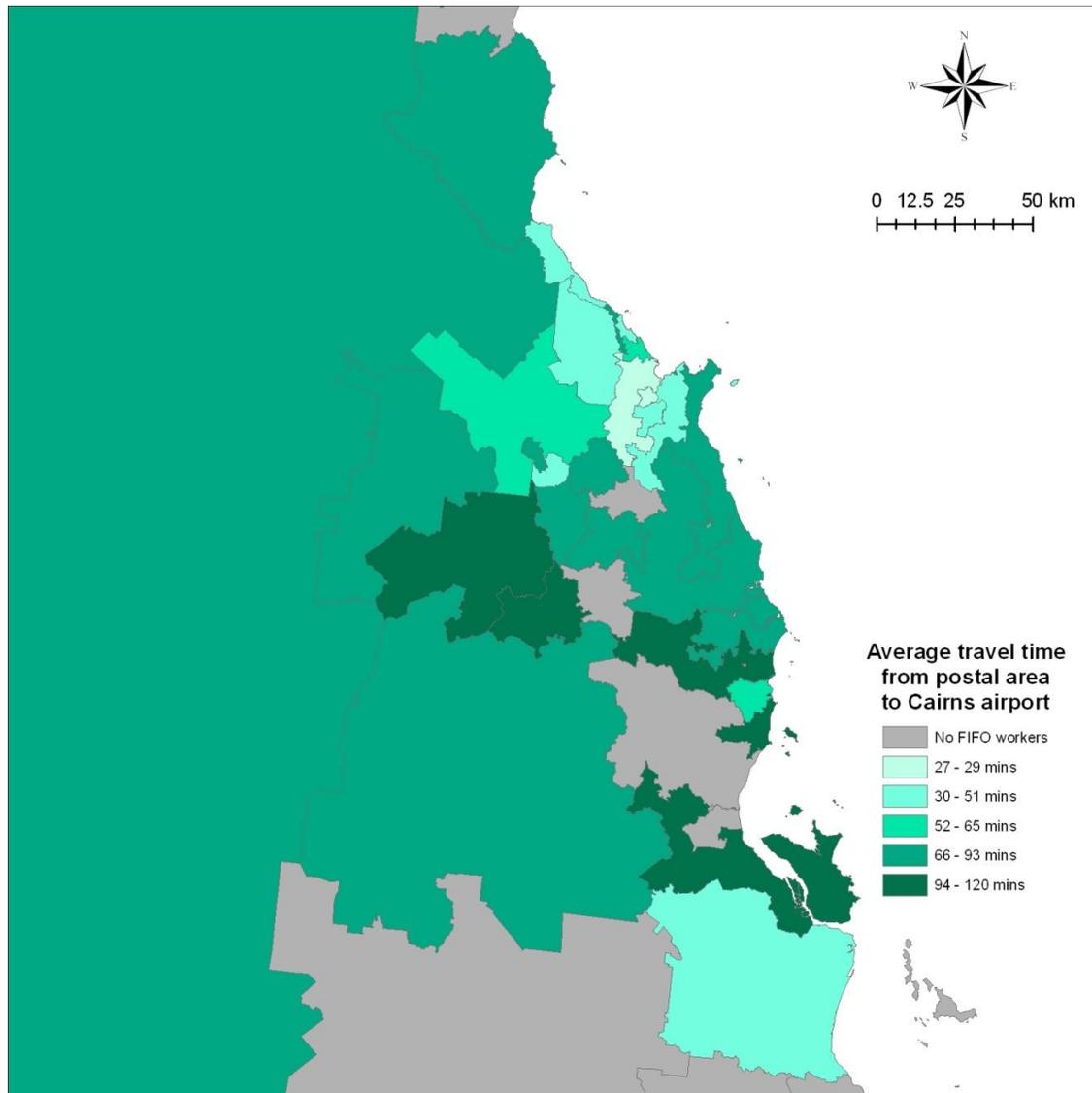


Figure 10: Average travel times FIFO workers to Cairns Airport (using postal areas)
Source: JCU FIFO survey

Once the FIFO workers have made it to Cairns Airport, they fly out to the mine site. Table 3 shows the main destinations of the FIFO workers who reside in Cairns. The results indicate that four mines provide employment to nearly 90% of all surveyed FIFO workers. MMG's Century mine, which is northwest of Mount Isa close to the Northern Territory border, employs 30% of the

¹ The results for Ingham (most southerly coloured region) stand out. That is either a result of misreporting or indeed FIFO workers from that region fly (not drive) to Cairns Airport.

Cairns FIFO worker sample. The second largest employer is BHP Billiton’s Groote Eylandt mine in the Northern Territory, employing a quarter of the sample. XStrata’s Ernest Henry mine, in Cloncurry near Mount Isa, employs one in five of the sampled FIFO workers, whilst BHP’s Cannington mine, in McKinlay, south west of Mount Isa, employs a further 13% of the FIFO workers sample.

Table 3: Destination of FIFO workers residing in Cairns

Name mine	Location	Mine owner	Resources	% share of FIFO miners
Century	Lawn Hill, QLD	MMG Ltd	zinc	30.0%
Groote Eylandt	Groote Eylandt, NT	BHP Billiton	manganese	25.1%
Ernest Henry	Cloncurry, QLD	XStrata	copper, gold & magnetite	22.5%
Cannington	McKinlay, QLD	BHP Billiton	lead & silver	12.8%

Source: JCU FIFO survey

Figure 11 presents the accommodation arrangements available to the FIFO workers when on roster. Three quarters of all FIFO workers have onsite accommodation. However, differences between mine sites exist. Century mine and Cannington mine provide onsite accommodation exclusively, while Groote Eylandt and Ernest Henry mines also have significant offsite accommodation arrangements.

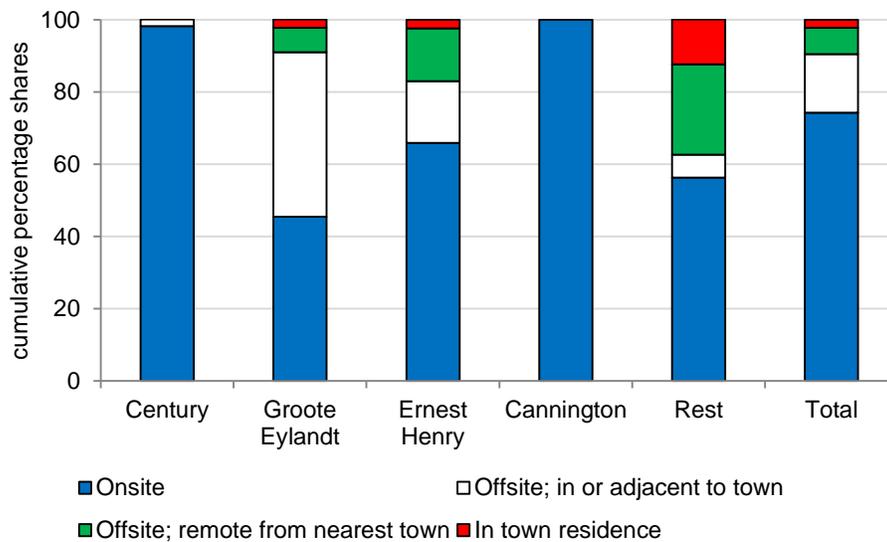


Figure 11: Accommodation arrangements at the mine site

Source: JCU FIFO survey

Distance from accommodation to the mine also transpires into average daily commuting time, which is about 10 minutes when accommodation is onsite (Cannington and Century), but which doubles if offsite accommodation is provided – see Figure 12.

FIFO workers were also asked to rate their satisfaction with the quality of accommodation while on roster, ranging from 1 (very poor) to 5 (excellent) – see Figure 12. When comparing Figure 11 and 12, it is noted that accommodation satisfaction is highest for the mine sites that provide nearly exclusive onsite accommodation (Century and Cannington mines); Groote Eylandt mine – lowest share of onsite accommodation – was found to have the lowest accommodation satisfaction rating.

Figure 12 also includes commuting times between location of accommodation and location of the mine. We found a link between commuting time and accommodation satisfaction. However, we should be careful interpreting that link. Since commuting time correlates with location (and hence type) of accommodation, the link in Figure 12 between commuting time and accommodation satisfaction may in fact be a link between type of accommodation and satisfaction.

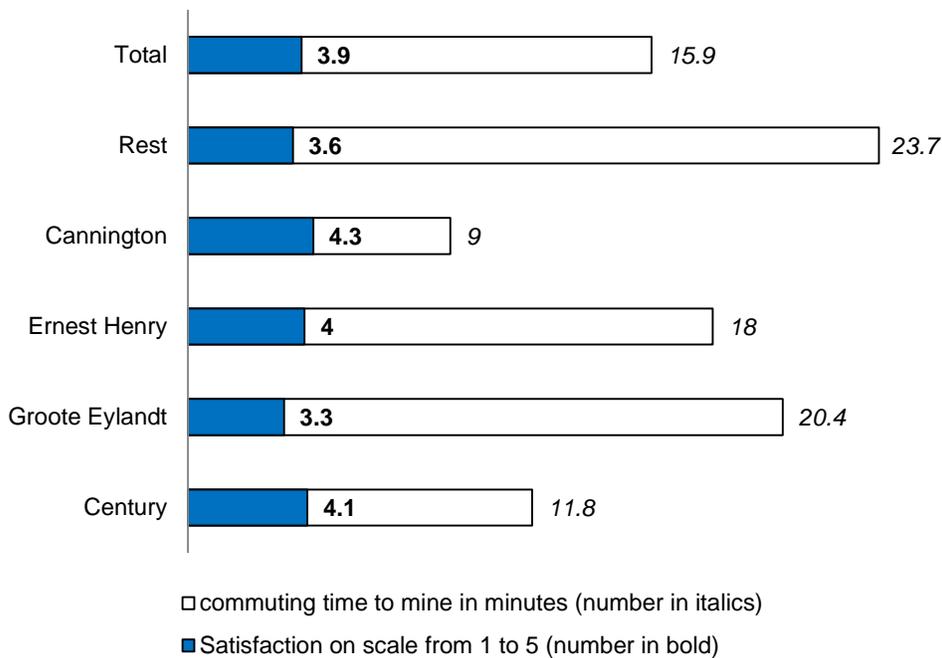


Figure 12: Accommodation satisfaction ratings and commuting time
 Source: JCU FIFO survey

3.4 FIFO employment: Contractual arrangements and rewards

The typical contractual arrangements FIFO workers face is examined by defining who their typical employer is. Figure 13 shows that nearly 40% of the FIFO workers are employed by contractors. The remainder of the FIFO workers are employed by the company that operates the mine. Mine operators prefer to outsource construction and to a lesser degree maintenance activities of the mine. Mine operators less frequently outsource operation activities.

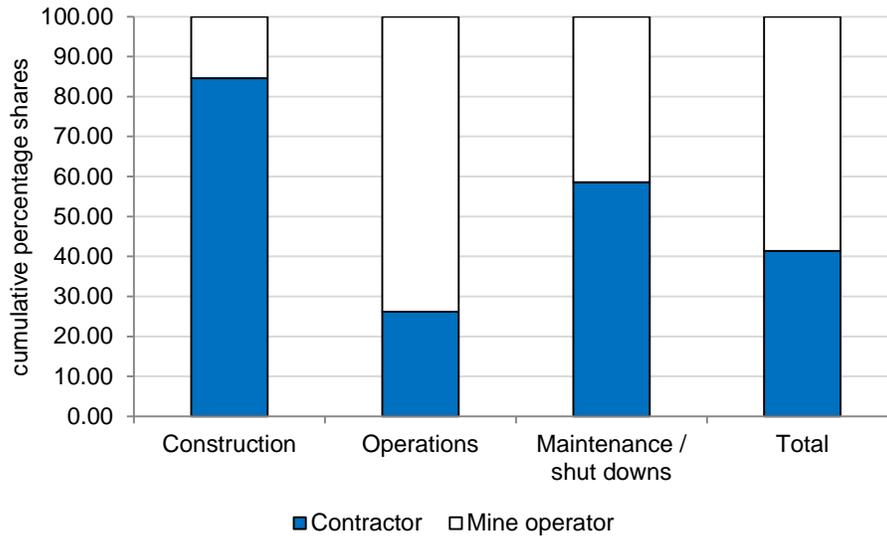


Figure 13: FIFO worker's employer split to job role
Source: JCU FIFO survey

The most distinctive characteristic of FIFO employment is the roster. Table 4 presents the most common roster structures. In the case of day shifts, while three and four week cycles exist, the vast majority of FIFO workers (93%) complete two week cycles. Within that two week cycle the vast majority of FIFO workers have rosters of either seven days of work followed by seven days off, or eight days of work followed by six days off. If the FIFO worker is on a night shift roster (a quarter of the FIFO workers surveyed were about to commence a night shift roster), a roster typically converts into a seven nights on; seven nights off roster. Furthermore, three or four week night shift rosters are uncommon. The length of a shift is predominantly either 12 hrs (53.3%) or 12.5 hours (23.9%). The remainder shift lengths are small deviations from the two main shift lengths.

Table 4: Roster structures for day and night shifts

Type of roster (day shifts)		Type of roster (night shifts)	
7 days on; 7 days off	40.1%	7 nights on; 7 nights off	81.3%
8 days on; 6 days off	49.7%	8 nights on; 6 nights off	15.4%
9 days on; 5 days off	1.9%	9 nights on; 5 nights off	3.3%
10 days on; 4 days off	1.3%	10 nights on; 4 nights off	0.0%
Two week roster	93.0%	Two week roster	100.0%
15 days on; 6 days off	1.3%		
14 days on; 7 days off	2.6%		
12 days on; 9 days off	1.3%		
Three week roster	5.1%	Three week roster	0.0%
14 days on; 14 days off	1.9%		
Four week roster	1.9%	Four week roster	0.0%

Source: JCU FIFO survey

Exploring labour market conditions reveals that less than 10% of FIFO workers are on a casual contract, which is less than half the Australia wide share of casual employment in total employment at 24% (ABS, 2010). This low casualisation rate of FIFO work provides FIFO workers more job security than found elsewhere in the labour market – see Figure 14. There are some differences however, between occupational levels. Managers have more secure labour market conditions than Technicians & Trade workers in particular.

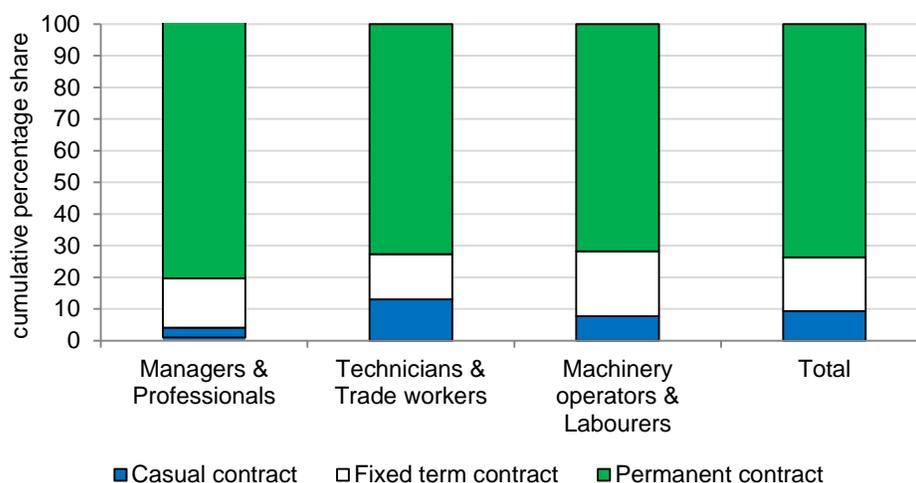


Figure 14: FIFO worker's contract arrangements
Source: JCU FIFO survey

Income wise, the resources sector is an attractive employer – see Figure 15. Only 6% of respondents earn less than \$80,000, which compares to 84% for the overall workforce in the Cairns region (Census, 2011). The majority of FIFO workers earn between \$100,000 and \$150,000 per year. That holds true across all three occupational levels. One third of managers earn more than \$150,000, while such annual wage levels are much less prevalent within the other two occupational levels.

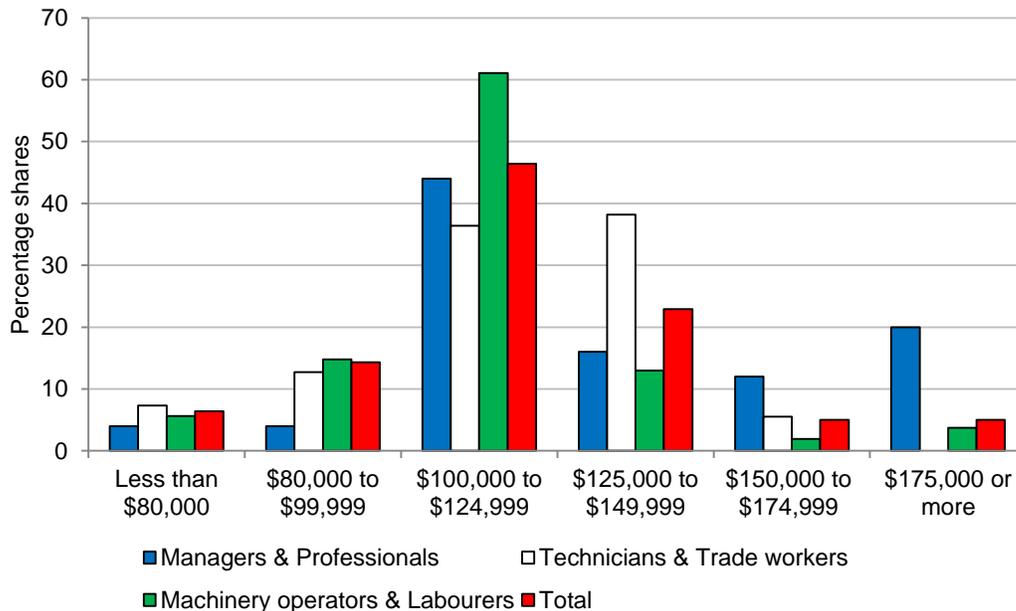


Figure 15: Annual remuneration package FIFO worker
Source: JCU FIFO survey

3.5 FIFO employment: Worker perceptions

To provide insight into the FIFO worker’s perceptions about FIFO employment, respondents were asked to rate (on a scale from 0 to 100) the likelihood that they would:

- leave their current job in the next 12 months;
- lose their current job in the next 12 months, and;
- find a job that would be at least as good as their current job (in terms of pay) in the event that they lost their current job.

The findings from the FIFO survey were compared to those from the Household, Income and Labour Dynamics in Australia (HILDA) survey, which asks the same questions of a representative sample of the Australian workforce. Unfortunately, the latest available wave of HILDA data is for the year 2009 – see Families, Housing, Community Services and Indigenous Affairs [FaCHSIA] (2010). However, that is nonetheless after the start of the global financial crisis. Moreover, comparison through time shows that ratings for these questions are fairly stable.

Figure 16 contains the average ratings for the three questions outlined above. FIFO workers think on average there is a 23% chance they will resign from their current job within the next 12 months. That is in line with the Australian average. We asked those who rated the percent chance of resignation above 50% to indicate whether the following factors contributed to that elevated rating (in brackets the number of times the factor was mentioned): “don’t like the job, because the impact FIFO has on private life” (6); “don’t like the job, because of the physicality of the work” (0); “like the job, but can find a similar job with better conditions elsewhere in the

resources sector” (16); “like the job, but expect to be promoted to a different job at the same employer” (6).

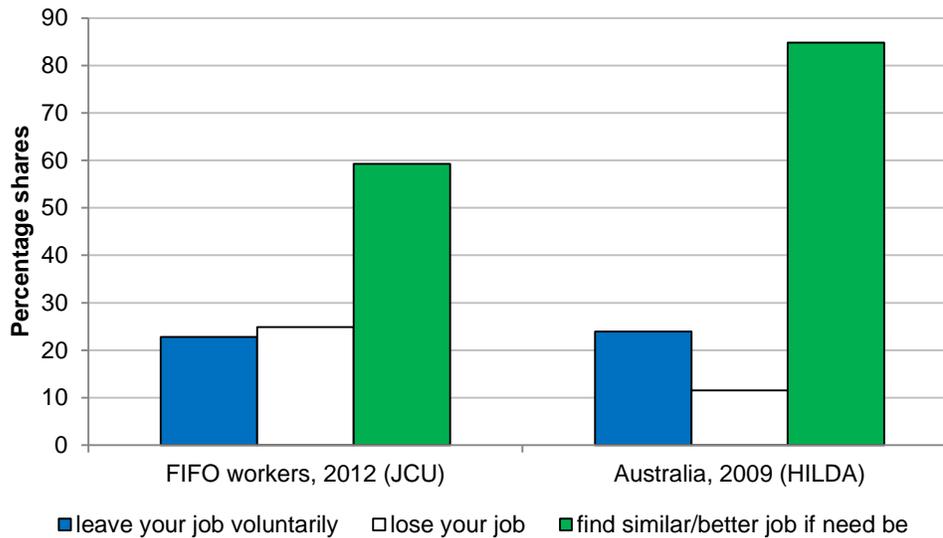


Figure 16: Job perceptions of FIFO workers
Source: JCU FIFO survey

FIFO workers rate their chances of losing their current job within the next 12 months twice as high as the average Australian worker – see Figure 16. Clearly, the FIFO workers are aware of the cyclical nature of the industry they work in. Recent media attention announcing the end of the mining boom may play a role here. Finally, Figure 16 shows that if FIFO workers were to lose their current job, they rate their chances of finding a similar or better paying job at 59%, which is substantially lower than the Australian average which sits at 85%. Again this is no surprise, given the remuneration packages on offer in the resources industry – see Figure 15. However, the combination of an above average chance of losing their current job and below average confidence in finding a similar or better paying job in case of job loss, may contribute to elevated levels of employment security/continuity anxiety among FIFO workers.

Further interrogation of the data looked at the type of contract, employer, occupation and differences between mine sites to better understand perceived job satisfaction / security of FIFO workers.

Figure 17 shows that FIFO workers on a fixed term contract and even more so FIFO workers on a casual contract, rate the likelihood of leaving their current job more highly than workers on a permanent contract. The likelihood of leaving voluntarily may be a result of fears that if they do not leave voluntarily in the next 12 months, they will be made redundant in that period, as the reported likelihood of losing their job is very high (for FIFO workers on casual contracts it is nearly four times as high as for the average Australian worker). Casual FIFO workers do have higher expectations of finding comparable alternative employment, but that rating is still well below the Australian average.

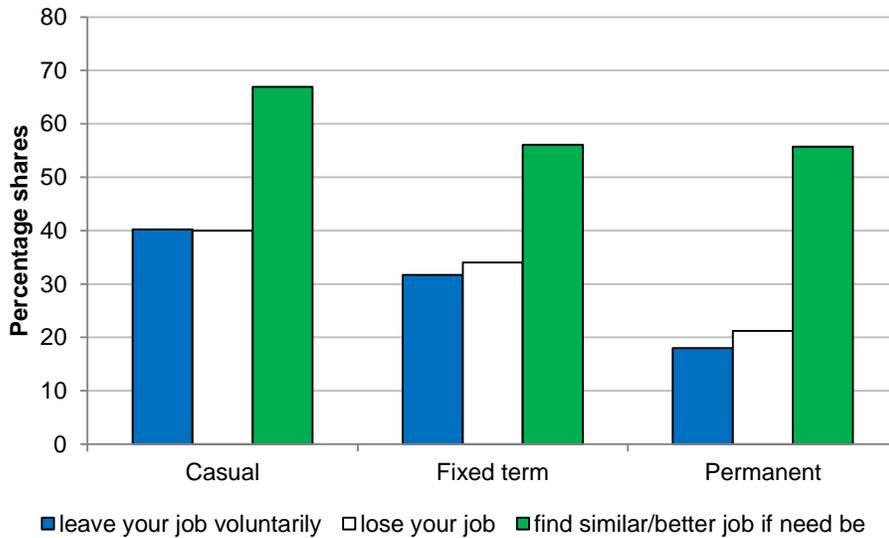


Figure 17: Type of contract and job perceptions of FIFO workers
 Source: JCU FIFO survey

FIFO workers who work for contractors indicate they are more likely to leave their job voluntarily than those who work for mine operators – see Figure 18. The same applies for likelihood of losing current job. These differences are mainly driven by the fact that contractors are more likely to offer casual or fixed term contracts than mine operators.

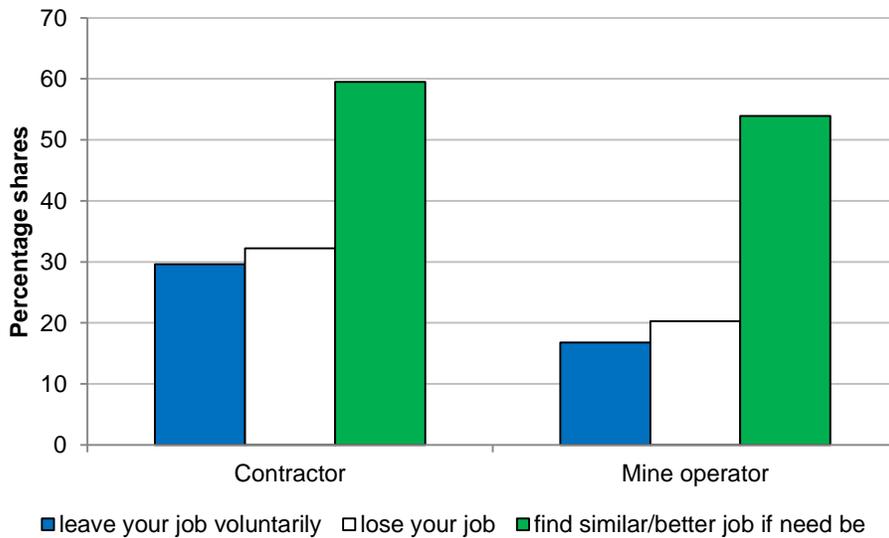


Figure 18: Type of employer and job perceptions of FIFO workers
 Source: JCU FIFO survey

Figure 19 illustrates that differences in perceptions about job satisfaction/security between occupational categories are limited, although ‘Technicians & Trade workers’ and to a lesser degree ‘Machinery operators & Labourers’ rate the chance to lose their current job within the next 12 months higher than ‘Managers & Professionals’.

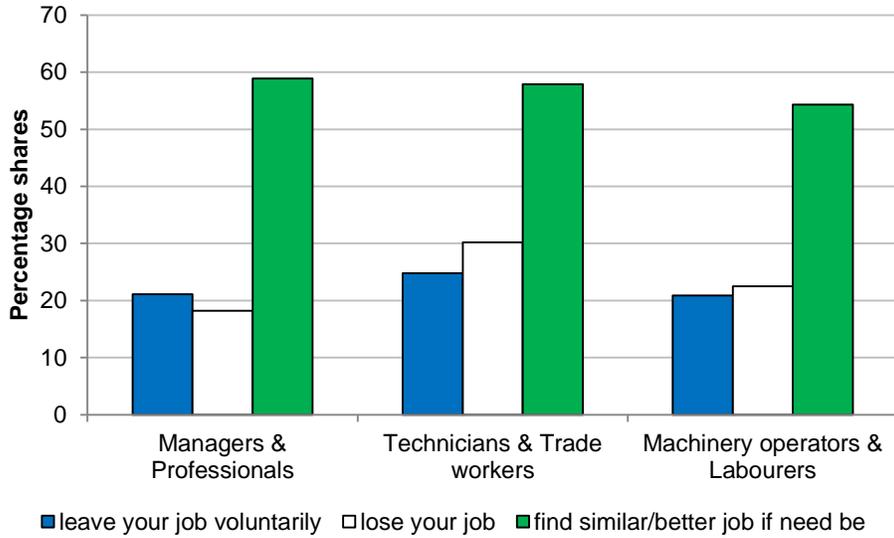


Figure 19: Type of occupation and job perceptions of FIFO workers
 Source: JCU FIFO survey

Finally, Figure 20 demonstrates that FIFO workers at Groote Eylandt mine find it relatively hard to imagine they would find comparable alternative employment, which also reflects in a lower likelihood to leave voluntarily. The main problems seem to concentrate at the smaller mines (category 'other'), where perceived likelihood of resignation and job loss is high.

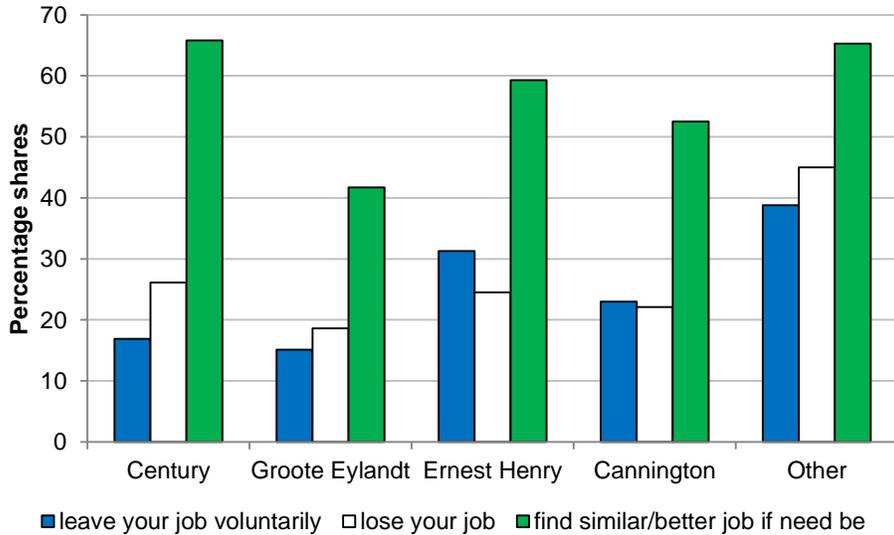


Figure 20: Type of mine and job perceptions of FIFO workers
 Source: JCU FIFO survey

3.6 FIFO employment: Social interaction

One of the key identifiers and potential dissatisfying elements of FIFO work are the extensive periods FIFO workers are away from their home and families in Cairns. Depending on the structure of the roster that could be every second week or if a three week roster applies, two consecutive weeks in every three weeks – see Table 4.

To shed some light on the impact of the roster on the social interactions of FIFO workers, respondents were asked to indicate whether they never / sometimes / often interacted with family and/or friends based in Cairns and sport and social clubs based in Cairns, while on roster and while off roster. Figure 21 illustrates that while on roster, 30% of the FIFO workers interact often with family, whilst 60% have some contact with them and a further 10% do not contact family at all. That changes dramatically once the FIFO worker is off roster, when more than 80% often interact with their families. A similar but less pronounced picture appears for Cairns based friends and members of sport and social clubs: much more contact while off roster.

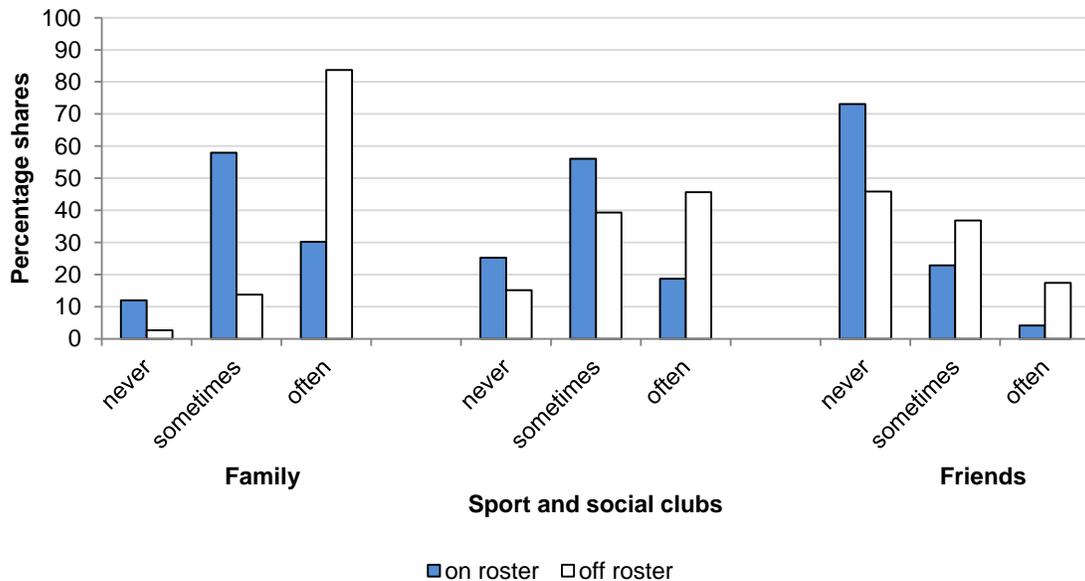


Figure 21: Frequency of social interaction with Cairns based persons / clubs (on/off roster)
Source: JCU FIFO survey

The above picture shows a sharp distinction in interaction between on and off roster periods, but that does not necessarily indicate dissatisfaction. Consequently, FIFO workers were asked to indicate with whom they would like to have more (or less) contact while on roster and while off roster. They could indicate up to two persons / organisations – see Appendix question 32 in the survey. In Figure 22, a net count of the answers provided is presented.² While on roster, FIFO workers would like more contact with their family, friends, and (members of) sport and social clubs in Cairns, whilst they prefer less contact with their bosses. Interestingly, the same pattern is apparent while off roster. Again, the FIFO workers prefer more contact with their family, friends and (members of) sport and social clubs in Cairns. Clearly, being away from home is not the only barrier FIFO workers face to interacting with the people with whom they wish to interact.

² For example, five FIFO workers indicated they wanted to see their workmates less often while on roster; while two FIFO workers indicated they wanted to see their workmates more often while on roster. The score for 'workmates' on roster that we produce in Figure 22 is therefore 2 – 5 = –3.

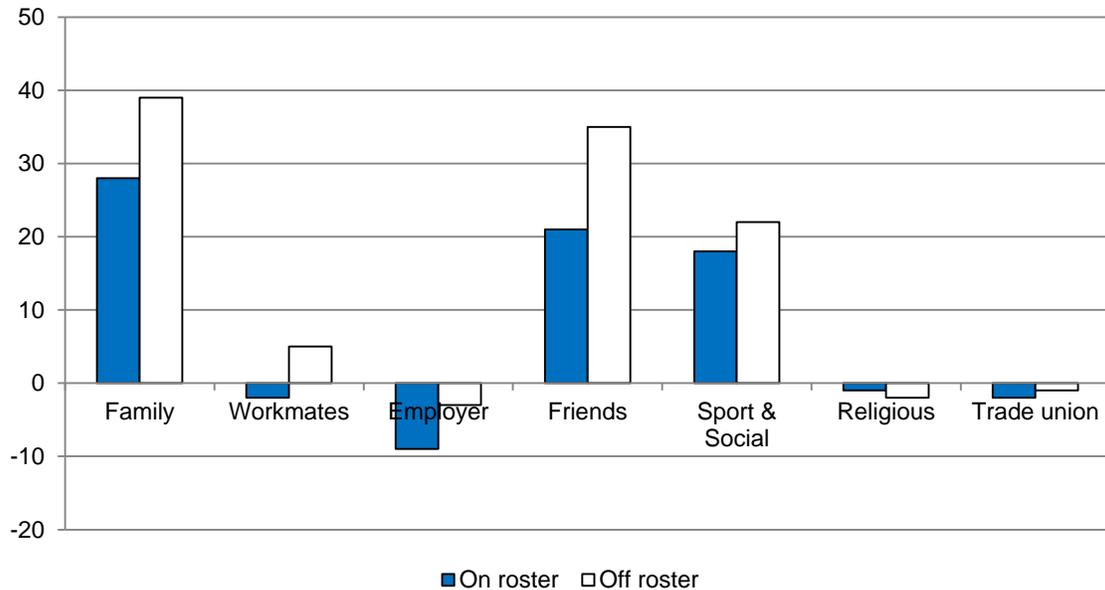


Figure 22: Net count of contacts FIFO workers prefer to interact more (on/off roster)
Source: JCU FIFO survey

Subsequently, FIFO miners were asked to list the two best and the two worst things about being a FIFO worker. In total 316 'best things' were recorded. Leading advantages of doing FIFO work are (in brackets the number of times this advantage was mentioned):

- 1) **Pay package (126)** - pay is an important factor in the decision to do FIFO work. It allows some to live a lifestyle otherwise unattainable. For some, it means they only need to work part time to earn the equivalent of an average fulltime income;
- 2) **Sustained periods off (124)** - advantages of sustained periods off are that FIFO workers can spend quality time with their families and have sufficient time to do work around the home. For some, the sustained periods off even allows time to set up their own business;
- 3) **Clear work/life balance (13)** - the physical distinction between work and home allows the FIFO worker to fully concentrate on work when at work and 'switch off work' when at home, concentrating on their families. This clear work/life balance makes sustained periods off more productive;
- 4) **Easy to get to work (11)** - FIFO workers do not need to drive to work five days a week, hence accruing substantial travel time savings;
- 5) **Job variety (9)** - FIFO workers appreciate the variety their job entails, both in terms of job content and the places they travel for their job;
- 6) **Live wherever you like (8)** - the residential location of the FIFO worker is not constrained by the location of the employer. That is, the FIFO workers can live wherever they want (also assisted by the pay package), without compromising their employment options.

In total 247 'worst things' were recorded. Leading disadvantages of doing FIFO work are (in brackets the number of times this disadvantage was mentioned):

- 1) **Being away from home (145)** - being away from home for extended periods of time is the most important disadvantage of FIFO work as it leads to separation from family / friends;
- 2) **Not around for special events/emergencies (25)** - if an emergency arises at home and the FIFO worker is on site, they cannot assist physically. The same applies to special events in the community/family, which occur during on roster time;
- 3) **Long hours (23)** - 12 hour shifts can be demanding, leading to fatigue;
- 4) **Travel to and from airport/waiting at airport (13)** - time (and money) lost travelling to and from airports and waiting at airports is a down side of FIFO work;
- 5) **Isolation (12)** - FIFO workers indicate they feel disconnected from the real world while on roster, especially when internet/phone connectivity is poor, leading to a feeling of isolation;
- 6) **Early starts (10)** - early flights interfere with sleeping routines, leading to fatigue.

The list of advantages and disadvantages of FIFO work make clear that FIFO workers live in two different, separate, worlds. While there are advantages to that separation in terms of a clear work/life balance, there are also significant drawbacks such as the disruption to family and social life. Being at home for an extended period does not necessarily mean the FIFO worker can fully immerse themselves into a social life. For some social activities there is an expectation of weekly attendance (FIFO workers for example mentioned church attendance or team sport), which the FIFO worker cannot comply with. Moreover, it requires two to tango in social interaction. The people that FIFO workers wish to interact with during time off, may not be available for interaction, given their own busy lives.

These reasons may explain why FIFO workers indicated that they preferred more interaction with friends at home in Cairns even during the periods that they were in Cairns.

4 Conclusions

Based on the results of a survey conducted among FIFO workers at Cairns Airport in October – November 2012 a profile of the FIFO workforce that resides in the Cairns region and works in the resources industry in North-West Queensland and Groote Eylandt – Northern Territory has been provided. In terms of their demography, FIFO workers are not all that different from other workers in the Cairns workforce, although women are less engaged with FIFO type of work.

Most FIFO workers have extensive work experience both inside and outside the resources industry suggesting that a mixture of work experience and educational qualification is the preferred entry ticket. However, career paths into FIFO employment with limited experience in the resources industry exist, provided the worker has relevant work experience outside the resources industry.

While FIFO workers reside as far north as Port Douglas and as far south as Ingham, the majority live in the vicinity of Cairns Airport, limiting their travel times to and from the airport to less than an hour. FIFO workers are more satisfied with onsite accommodation than with offsite accommodation.

All FIFO workers work on rosters which will keep them at the mine site for extended periods followed by extended periods off at home. The employer covers all flight costs and pays the FIFO workers wages well above the typical wage structure in the Cairns region.

Social interaction between the FIFO worker and Cairns based friends and family is dependent on where they are on their roster, e.g. if on roster then contact intensity is much lower than when at home. However, FIFO workers prefer to have more contact with Cairns based friends and family members while both on *and* off roster. Evidently, being away from home is not the only barrier FIFO workers face to interacting with the people with whom they wish to interact.

The pay package, sustained periods off, and a clear work/life balance are the top three positives of their work according to FIFO workers. Being away from home and family, not being around for emergencies/special events and long working hours are the three main identified negatives.

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6. Appendix: Fly In Fly Out Miner Survey

FLY IN FLY OUT MINER SURVEY



Mining is crucial to keep Australia going. FIFO workers are crucial to keep mining going. Your views are therefore crucial to the sector and this country. This survey is about *your views* and how they can be used to improve your life at home and at work. Participation is voluntary and your answers are anonymous.

If a choice is requested, fill circle like this: •. Otherwise please provide the answer in the provided space.

1. What flight are you on?	Flight number: _____				
2. What is your current role/job title?	_____				
3. What is your occupation?	<input type="radio"/> Manager	<input type="radio"/> Professional	<input type="radio"/> Tech/Trade	<input type="radio"/> Machinery/Ops	<input type="radio"/> Labourer
4. Who is your current employer?	_____				
5. What is the status of your employment?	<input type="radio"/> Permanent	<input type="radio"/> Part-time	<input type="radio"/> Contract	<input type="radio"/> Temporary	<input type="radio"/> Casual
6. How long have you been in your current role?	_____	years	_____	months	
7. Is your employer operating the mine or a contractor?	<input type="radio"/> Mine operator	<input type="radio"/> Contractor	<input type="radio"/> Other		
8. Are you in a construction, operational or maintenance role?	<input type="radio"/> Construction	<input type="radio"/> Operations	<input type="radio"/> Maintenance/Shuts		
9. Where are you employed?	Site name: _____	Location: _____			
10. Does your employer cover the full cost of this trip?	<input type="radio"/> Yes	<input type="radio"/> No			
11. How long is your average travel from home to Cairns airport?	_____	minutes			
12. Where is your point of hire?	_____	Do you have to pay for travel legs? Specify	_____		
13. What year did you first enter the workforce (either full or part time)?	_____				
14. How many months/years have you been working as a FIFO worker?	_____	years	_____	months	
15. How many months or years have you worked in the resources sector?	_____	years	_____	months	
16a. Do you have work experience outside the resources sector?	<input type="radio"/> Yes		<input type="radio"/> No		
16b. → If yes, what was your industry/occupation prior to changing to the resources sector?	Industry: _____	Occupation: _____			
17. What was the highest level of education you had achieved on entry into the resources sector?	<input type="radio"/> Year 12 or less	<input type="radio"/> Trade certificate / apprenticeship	<input type="radio"/> Other certificate		
	<input type="radio"/> University		<input type="radio"/> Technicians / advanced certificate		
18a. Have you completed any other training or qualifications since employed in the resource sector?	<input type="radio"/> No	<input type="radio"/> Yes, in house training	<input type="radio"/> Yes, external training		
18b. → If yes, what was the name of the last course you completed and the provider?	Name of course: _____	Name of provider: _____			
19. What is the main qualification(s) required for your current role?	_____				
20. What is your FIFO roster: days on/days off (nights on / nights off)?	_____ / _____ / _____	20b. Cycle start day	_____		
21. For this roster will you be on:	<input type="radio"/> day shift	or	<input type="radio"/> night shift		
22. How many hours in each shift do you work?	_____	hrs			
23. Where do you stay at the end of each shift?	<input type="radio"/> Onsite camp		<input type="radio"/> Offsite camp remote from nearest town		
	<input type="radio"/> Offsite camp in or adjacent to town		<input type="radio"/> In town residence (e.g. motel, caravan park)		
24. How long is your average travel from camp to site?	_____	minutes			
25. How would you rate the quality of site accommodation?	<input type="radio"/> very poor	<input type="radio"/> poor	<input type="radio"/> neutral	<input type="radio"/> good	<input type="radio"/> excellent
26a. What do you think is the percent chance that you will leave your job voluntarily in the next 12 months? (that is, quit or retire)	0% (i.e. no chance) – 100% (i.e. absolute certainty):		_____	%	
26b. → if more than 50%, what factors contribute to that view?	<input type="radio"/> don't like the job, because of impact FIFO has on private life <input type="radio"/> don't like the job, because of the physicality of the work <input type="radio"/> like the job, but can find a similar job with better conditions elsewhere in the resources sector <input type="radio"/> like the job, but expect to be promoted to a different job at the same employer <input type="radio"/> other, specify: _____				
27. What do you think is the percent chance that you will lose your job during the next 12 months? (That is, be made redundant or not have your contract renewed)	0% (i.e. no chance) – 100% (i.e. absolute certainty):		_____	%	
28. If you were to lose your job during the next 12 months, what is the percent chance that the job you eventually find and accept would be at least as good as your current job, in terms of wages and benefits or annualised salary?	0% (i.e. no chance) – 100% (i.e. absolute certainty):		_____	%	
29. What are the two best things about being a FIFO worker?	1. _____	2. _____			
30. What are the two worst things about being a FIFO worker?	1. _____	2. _____			

6. Appendix: Fly In Fly Out Miner Survey

31. How often do you interact with each of the following (while you are on site and while you are at home)? Please fill out the following table (i.e. fill one circle per line for on site and once circle per line for at home).

Contact frequency / location	While on site (<i>on roster</i>)			While at home (<i>off roster</i>)		
	often	sometimes	never	often	sometimes	never
Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Workmates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employer / Superior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friends at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friends on site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sport and social clubs at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sport and social clubs on site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Religious organisation at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Religious organisation on site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resources council or other mining association	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trade union	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Occupation organisation at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Occupation organisation on site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Council at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Council on site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local politician/member	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

32a. In an ideal world, your contact frequency with the persons / organisations mentioned above might be different. Please copy two contacts from the above table with whom you would like to change contact frequency the most *while at home*. And tell us whether you would like more or less contact.

contact person / organisation	More contact	or	Less contact
1. <input type="text"/>	<input type="radio"/>	or	<input type="radio"/>
2. <input type="text"/>	<input type="radio"/>	or	<input type="radio"/>

32b. Now please copy two contacts from the above table with whom you would like to change contact frequency the most *while on site*. And tell us whether you would like more or less contact.

contact person / organisation	More contact	or	Less contact
1. <input type="text"/>	<input type="radio"/>	or	<input type="radio"/>
2. <input type="text"/>	<input type="radio"/>	or	<input type="radio"/>

33. Which age group do you belong to? < 20 20-29 30-39 40-49 50-59 60-65 > 65

34a. Are you Australian? Yes No

34b. → if Australian, are you Aboriginal Australian or Torres Strait Islander? Yes No

34c. → If non-Australian, what is your nationality?

35. Are you? single married in a relationship

36a. Do you have dependent children? yes no

36b. → if yes, how many children? dependent children

37. What's the postcode and suburb of your home address? Postcode: Suburb:

38. Did you move to the Cairns region to take up your current FIFO job? Yes No

39. What typical yearly remuneration package category do you fit into? ≤ 79,999 80,000 – 99,999 100,000 – 124,999 125,000 – 149,999 150,000 – 174,999 ≥175,000

40. Are you male or female? male female SURVEY NO.

41. Is there anything else you would like to tell us about how FIFO work affects your lifestyle – either positively or negatively?

0	<input type="radio"/>				
1	<input type="radio"/>				
2	<input type="radio"/>				
3	<input type="radio"/>				
4	<input type="radio"/>				
5	<input type="radio"/>				
6	<input type="radio"/>				
7	<input type="radio"/>				
8	<input type="radio"/>				
9	<input type="radio"/>				