Submission Number: 125.2
Date Received: 30/5/2012

SC

QUEENSLAND
resources
COUNCIL

25 May 2012

Committee Secretary
House of Representatives Standing Committee on
Regional Australia
PO Box 6021
Parliament House
CANBERRA ACT 2600
AUSTRALIA

Dear Committee Secretary

Please find attached supplementary material to the formal public submission from the Queensland Resources Council to the House of Representatives Standing Committee on Regional Australia Inquiry into Fly-in Fly-out and Drive-in, Drive-out Workforces. We appreciate the extension provided to QRC by the Inquiry for the lodgement of this material.

As noted in the submission, the Queensland Resources Council (QRC) is the peak representative organisation of the Queensland minerals and energy sector. The QRC's membership encompasses exploration, production, and processing companies, energy production and associated service companies. The QRC works on behalf of members to ensure Queensland's resources are developed profitably and competitively, in a socially and environmentally sustainable way.

The QRC submission provided a resources sector-wide perspective on issues relating to non-resident workers. The submission provides a focus on resource sector growth and demand for workers and the need to optimise the opportunities and choices for both residential and non-residential workforces.

QRC's evidence to the Inquiry at the hearing held in Brisbane on 24 February 2012 included the provision of preliminary findings from a QRC Workplace Accommodation Survey of 2,275 resource industry workers (1,241 residential and 1,009 non-residential) in Queensland.

The purpose of QRC's Workforce Accommodation Survey was to:

- Quantify the demand for the various types of workforce accommodation arrangements (residential or non-residential options such as FIFO, DIDO or BIBO) from a workforce perspective; and
- Identify key factors driving choices in relation to these workforce accommodation arrangements.

In brief, the key finding of this survey is that a large proportion (44 per cent) of both residential and non-residential respondents to the survey *have taken their job because their preferred accommodation arrangement was available*, be that residential or non-residential. That is, if either residential or non-residential options were not available across the sector, there would be a significant number of people who would not choose to work in the sector.

ABN 59 050 486 952
Level 13 133 Mary St Brisbane Queensland 4000
T 07 3295 9560 F 07 3295 9570 E info@qrc.org.au
www.qrc.org.au

Thus, in the current context of the current significant skills shortage, being able to offer choice between residential and non-residential accommodation arrangements is essential if the sector is to staff current and future resource projects.

A number of important findings are included in the attached:

- *QRC Workforce Accommodation Survey Report;* and
- *QRC Workforce Accommodation Survey Executive Summary Report*

Thank you for the opportunity to provide this supplementary material to the House of Representatives Standing Committee on Regional Australia Inquiry into Fly-in, Fly-out and Drive-in, Drive-Out Workforces. If you have any questions about any of the issues raised in this response, please contact Bronwyn Story, Community Development and Environment Policy Adviser, on 3316 2513 or bronwyns@qrc.org.au

Yours sincerely

Michael Roche
Chief Executive

QUEENSLAND RESOURCES COUNCIL

WORKFORCE ACCOMMODATION ARRANGEMENTS IN THE QUEENSLAND RESOURCES SECTOR

QUEENSLAND RESOURCES COUNCIL WORKFORCE SURVEY

MAY 2012

WORKFORCE ACCOMMODATION ARRANGEMENTS IN THE QUEENSLAND RESOURCES SECTOR

This study addresses a significant gap in research to date. Despite previous investigations, much public discussion and the acceptance of anecdotal assumptions, no-one has asked workers on a significant scale about what factors drive their choice on residential or non-residential workforce arrangements.

At end January 2012, 2,275 survey responses were received in either electronic or hardcopy form.

This included 1,241 surveys that could be identified as being returned by residential workers and 1,009 identified as being returned by non-residential workers. Twenty-five (25) surveys could not be identified as either residential or non-residential.

The number of surveys completed satisfactorily (2,275) and the distribution between residential and non-residential respondents are sufficient to have confidence in the results.

Summary findings

- There is little difference in demography, family characteristics, or time spent in the resources sector between residential respondents and non-residential employees. This suggests that different accommodation arrangements do not attract or suit a particular 'type' of person [see Table One].
- More than 60% of both residential workers and non-residential workers have been in the sector for five years or more [see Table One].

The residential workforce

- Almost half the residential respondents surveyed (47%) live in their own dwelling, with slightly fewer renting (45%). An assumption is made that the remainder stay with friends or relatives. Operations, trade and administrative staff combined are more likely to own their own dwelling than professional staff, who are more likely to be in rented accommodation, supported by a rental subsidy.
- Nearly half own a house elsewhere.
- Overall, 72% who are renting indicated that they receive an accommodation subsidy. This rate varies depending on the role the respondent has within the organisation. Forty-three per cent of those receiving a rental subsidy are professional staff with 56% being workers in operational and trade roles.

The non-residential workforce

- Over 60% are accommodated in camps or villages close to their worksite.
- Almost three quarters (73%) say that they own or are purchasing a dwelling at their place of permanent residency.
- Seventy per cent of those who live in Queensland have permanent addresses in coastal towns. Few live inland [see Table Six].
- About one in 10 is interested in purchasing a house close to their worksite [see Tables Four and Five].

Satisfaction with current accommodation arrangements

- Most resident and non-resident workers (64%) are happy with their current accommodation arrangements, and would not change. There is no material difference in satisfaction with accommodation between residential respondents and non-residential respondents. This is key finding from the study, and indicates that it is important that the sector is able to offer a choice of accommodation.
- About 21% of all respondents indicated that they are ready to change accommodation arrangements, with 22% of these being residential workers seeking to change to non-residential accommodation, and 20% being non-residential workers wanting to change to residential status [see Tables Two and Three].
- Eleven percent (11%) of all respondents specifically stated they are in non-preferred accommodation arrangements, with more non-residential respondents (15%) in that situation than residential respondents (8%) [see Tables Two and Three].
- Forty-four per cent (44%) of residential and non-residential respondents say they are in preferred accommodation arrangements, and have taken the job because their preferred arrangements were available. The implication is that if either residential or non-residential options were not available across the sector, there would be a significant number of people who would not choose to work in the sector [see Tables Two and Three]
- A higher percentage of non-residential respondents rated their accommodation as good or excellent (61%) than did residential respondents (34%), confirming industry feedback that high quality, affordable local housing is hard to find.

The percentage rating their accommodation poor or very poor was 19% and 25% respectively.

The importance of accommodation arrangement in deciding employment

- The accommodation arrangement is important or very important in employment decision making to 82% of residential workers and 70% of non-residential workers. Given that most respondents are in preferred accommodation arrangements; this highlights the importance of being able to provide choice at whole of industry scale.
- Accommodation arrangement is similar in importance to salary, career development, reputation of employer and work roster in deciding to work at the current site.
- The overall trend for both respondent non-residential workers and residential workers is the same – 'work-life' balance' and 'overall quality of life' factors are the most important influencing factors in deciding accommodation arrangements for both groups. The factors 'quality of accommodation', 'suits family arrangement' and 'allows involvement in family life' were ranked highly by both residential and non-residential respondents, although the former group placed more emphasis on them. (It must be noted, however, that non-residential workers' responses to the question of the importance of factors in deciding accommodation arrangements must be treated with caution as the data suggest that some non-residential worker respondents may have either misinterpreted the question or have responded according to their views of their place of work location rather than their permanent home location).
- Although the two groups are likely to have different interpretations of what these more highly-ranked terms mean to them, the fact that these are scored similarly for both groups shows that there are features of non-residential working that suit some people, just as there are features of residential working that suit others.

Background

The peak representative body for Queensland minerals and energy companies – the Queensland Resources Council (QRC) – commissioned URS Australia in August 2011 to gather the views of sector employees regarding their working and residency arrangements in Queensland.

The study was prompted by a substantial build-up in the number of resource projects in the Bowen Basin and forecast growth in the Surat and Galilee Basins and North West Minerals Province.

The QRC sought to quantify workforce demand for various types of accommodation arrangements and to provide evidence regarding the factors driving workforce accommodation choice.

Housing the workforce

Employment forecasts point to potentially 40,000 additional jobs in the Queensland resources sector by 2020, with most growth in the Bowen and Galilee Basins. Current, proposed and commenced developments in the Galilee Basin are expected to establish a significant mining workforce there by 2020 from a currently small base.

Although absolute numbers in the Surat Basin are lower, there is an expectation of a more than four-fold increase in the operational workforce.

Of concern is how resource companies will meet these workforce requirements, bearing in mind the strain on already struggling services and infrastructure in existing and emerging mining and gas regions.

This is not only adding to the challenge of attracting workers to these locations but also contributing to angst in local communities. The situation was exacerbated by devastating natural disasters in 2011, which further stressed service provision and infrastructure delivery in some areas.

As a result of the above factors, a lack of employees locally and a growing preference among many potential new employees to decline residential accommodation, resource companies are anticipating a high proportion of future employment growth will be non-residential.

Employees opting for careers in the resources sector typically need to decide whether they will reside locally (near their workplace), or whether they will travel to and from their permanent residence to their place of work for blocks of rostered time.

Such long-distance commuting options are typically referred to as FIFO (fly in-fly-out) but also include options such as drive in-drive out (DIDO) and bus in-bus out (BIBO). This decision by individual employees not only influences their own family life but also that of the community in which they reside and in which they work.

The rationale for the study is the need to obtain directly, the workforce's views about employment in the sector.

URS Australia developed a mechanism that allowed for the following objectives to be achieved:

- Quantify the demand for the various types of workforce accommodation arrangements from a workforce perspective and
- Identify key factors driving choices in relation to workforce accommodation arrangements.

Study approach

The Workforce Accommodation Study utilised a mix of desktop review, qualitative interviewing and quantitative surveying to gather data from the Bowen and Surat Basins and North West Minerals Province.

A key component was a Workforce Accommodation Survey that investigated worker perceptions of accommodation choices and what influences their employment and accommodation decisions.

The study's objective was to obtain detailed information to quantify demand for various types of workforce accommodation arrangements and to identify the key factors driving workforce choice in relation to accommodation arrangements.

Almost 8,000 (7,800) hard-copy surveys were distributed in addition to an online version also made available to employees.

Key Findings

- Demand for employees in the Queensland resources sector is outstripping supply and hence there is some suggestion that employees – especially those relatively new to the sector – are becoming more discriminating in their choices of employer and employment conditions.
- Among those surveyed, accommodation arrangements rank similarly in importance with salaries, career opportunities, employer reputation and work roster as work-related factors in deciding employment. The survey findings are supported by the views of HR personnel in the sector responsible for recruitment and employee management.
- The factors influencing choice between residential and non-residential accommodation arrangements are similar, with 'work-life balance' and 'overall quality of life' factors being the most important influencing factors in deciding accommodation for both groups. The factors 'quality of accommodation', 'suits family arrangement' and 'allows involvement in family life' were also ranked highly. Although the two groups are likely to have different interpretations of what these more highly ranked terms mean to them, the fact that these are scored similarly for both groups shows that there are features of non-residential working that suit some people, just as there are features of residential working that suit others.
- About two thirds of all respondents – in both residential and non-residential arrangements - are satisfied with their accommodation arrangements. Of those people satisfied, two-thirds would not have taken their current position if their preferred accommodation arrangement was not available. Conversely, only 12% of respondents are not satisfied with their current accommodation arrangements. The remaining 20% are ready to move either from residential to non-residential, or vice versa.

The clear implication is that being able to offer choice between residential and non-residential accommodation arrangements across the resources sector as a whole and across all regions to current and potential employees is essential if the resources sector is to staff current and future projects.

The full report is available on the Queensland Resources Council website at http://www.qrc.org.au/_dbase_upl/WorkforceAccommSurvey_URS_FINAL.pdf

TABLE ONE

Table One Characteristics of respondents

Characteristic	Bowen Basin		NWMP		Surat Basin		Other/Unknown		All Responses	
	Residential Worker (RW)	Non-Residential Worker (NRW)	Residential Worker (RW)	Non-Residential Worker (NRW)	Residential Worker (RW)	Non-Residential Worker (NRW)	Residential Worker (RW)	Non-Residential Worker (NRW)	Residential Worker (RW)	Non-Residential Worker (NRW)
Number	600	604	398	221	110	109	133	75	1,241	1,009
Percentage of Total Workers	50%	50%	64%	36%	50%	50%	64%	36%	55%	45%
Gender (% Total Workers)										
Male	39.3%	44.6%	45.6%	28.0%	42.1%	44.0%	45.8%	26.2%	42.4%	38.6%
Female	10.9%	5.2%	18.9%	7.5%	8.3%	5.6%	22.9%	5.1%	13.1%	5.9%
Age (% by Residential Status)										
Less than 25 years	10.8%	6.8%	9.8%	5.4%	10.0%	11.0%	9.0%	6.7%	10.2%	12.0%
25 - 34 years	23.3%	22.5%	32.7%	28.5%	26.4%	25.7%	22.6%	21.3%	26.5%	44.0%
35 - 49 years	38.0%	42.1%	39.7%	44.8%	40.0%	36.7%	35.3%	33.3%	38.4%	24.0%
50+ years	26.7%	27.8%	17.6%	21.3%	22.7%	25.7%	30.8%	29.3%	23.9%	16.0%
(blank)	1.2%	0.8%	0.3%	0.0%	0.9%	0.9%	2.3%	9.3%	1.0%	4.0%
Relationship Status (% by Residential Status)										
In a relationship	87.0%	86.4%	82.4%	84.1%	86.9%	82.1%	90.0%	76.4%	85.8%	84.7%
Not in a relationship	13.0%	13.6%	17.6%	15.9%	13.1%	17.9%	10.0%	23.6%	14.2%	15.3%
Children (% by Residential Status)										
No children or non-dependent children	56.1%	51.4%	56.4%	57.5%	36.9%	54.7%	54.3%	68.1%	54.2%	54.3%
Dependent children	43.9%	48.6%	43.6%	42.5%	63.1%	45.3%	45.7%	31.9%	45.8%	45.7%
Years in the Resources Sector (% by Residential Status)										
0-12 months	6.0%	7.3%	11.6%	10.4%	20.0%	12.8%	7.5%	12.0%	9.2%	8.9%
12-24 months	6.5%	6.1%	6.8%	6.3%	8.2%	11.0%	9.8%	4.0%	7.1%	6.5%
2-5 years	15.7%	14.9%	24.4%	19.5%	26.4%	21.1%	18.0%	9.3%	19.7%	16.2%
5+ years	68.7%	65.4%	56.0%	63.3%	35.5%	45.9%	57.9%	62.7%	60.5%	62.6%
(blank)	3.2%	6.3%	1.3%	0.5%	10.0%	9.2%	6.8%	12.0%	3.5%	5.7%

TABLE TWO

Residential workers

Amongst the residential workers, 47% prefer this arrangement ***and*** responded that they would have only have taken the job if their preferred accommodation arrangement – being residential – was available. Only four per cent of residential respondents would appear to have taken up a non-preferred arrangement while at the same time saying they would not do this, suggesting that perhaps for these few people, there was no choice possibly due to the geographical location of the operation.

Table Two Decision to take job as affected by available accommodation – residential workers

Residential Worker - Existing Situation	Would have taken if preferred accommodation not available		Would have taken accommodation Only if preferred accommodation available		Grand Total
	(n)	(%)	(n)	(%)	
Residential Worker - Not Preferred	54	4.5%	42	3.5%	96
Residential Worker - Preferred	256	21.5%	563	**47.4%**	819
Residential Worker - Ready to change	113	9.5%	160	13.5%	273
Grand Total	**423**	**35.6%**	**765**	**64.4%**	**1188***

* 14 respondents did not answer Q12, 14 respondents did not answer Q17 and 25 respondents did not answer both

Non-residential workers

Of the total number of non-residential workers, 40% prefer non-residential accommodation and working arrangements, ***and*** responded that they would only have taken the job if their preference for transient worker accommodation was available. Only six per cent of all non-residential respondents said they were in a non-preferred situation and that they would not have taken the job if they could not have obtained their preference – again suggesting either that they had no choice or that there other factors in their decision making.

Table Three Decision to take job as affected by available accommodation – non-residential workers

non-Residential Worker - Existing Situation	Would have taken if preferred accommodation not available		Only if preferred accommodation available		Grand Total
	(n)	(%)	(n)	(%)	
non Residential Worker - Not Preferred	97	10%	58	6.0%	155
non Residential Worker - Preferred	219	23%	383	**39.9%**	602
non Residential Worker - Ready to change	76	8%	126	13.1%	202
Grand Total	**392**	**41%**	**567**	**59.1%**	**959***

* 25 respondents did not answer Q12; 13 respondents did not answer Q17 and 12 respondents did not answer both

These are important data, indicating that between 40 and 47% of workers in the sector are in their preferred accommodation arrangement *and* they would only have taken the job if that arrangement was available.

Further, the percentage is similar for both residential and non-residential workers. The implication is that if the resource sector cannot offer both residential and non-residential accommodation at whole of state scale, a lot of workers would be lost to the sector.

TABLE FOUR

Table Four Preparedness to purchase house close to workplace

	Bowen Basin (n=1,204)		NWMP (n=619)		Surat Basin (n=229)		Other		Combined	
	RW	NRW	RW	NRW	RW	NRW	RW	NRW	RW	NRW
Already have	26.3%	3.3%	48.5%	1.4%	45.5%	4.6%	29.8%	1.3%	35.5%	2.9%
No	48.3%	83.3%	25.9%	93.2%	26.4%	76.1%	42.0%	76.0%	38.5%	84.1%
Yes	22.5%	13.1%	24.1%	5.4%	28.2%	17.4%	22.9%	8.0%	23.6%	11.5%
(blank)	2.8%	0.3%	1.5%	-	-	1.8%	5.3%	14.7%	2.4%	1.5%
Grand Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

There is a clear difference between residential and non-residential respondents, with only 11% of the latter interested in house purchase near the workplace, compared to 59% of residential respondents who have either made a purchase or would do so if the opportunity occurred.

Respondents were given an opportunity to comment on their reasons for their response. There were 982 responses by those who stated that they would not buy a dwelling close to their workplace if the opportunity arose. These responses have been analysed and categorised into 11 broad categories. Most are self-explanatory, however, the following describes the process of selecting categories.

- Not Preferred Location captures all responses which suggest that it is the location of the workplace and nearby town that is a primary detractor for home purchase. A typical comment being "it's in the middle of nowhere" or "don't like living in mining towns and too isolated"
- Where respondents have made mention either of the cost of purchasing a dwelling close to their workplace or where they refer to a preference for investing elsewhere, this has been categorised as 'cost/investment'.
- If a respondent has made specific mention of the lack of facilities including schools (e.g. "No social activities / variety for shopping"; "Small, isolated, no facilities, no private schools") this has been categorised as 'lack of quality facilities and/or services'.
- When specific mention has been made of the 'coastal lifestyle' then the response has been categorised as 'prefer coast'.
- Comments about retirement, moving out of the sector or general uncertainty about the sustainability of the mine have group together as 'Work future uncertain').
- Those who commented that the reason they would not purchase a house because they were staying in accommodation subsidised by their employer are noted as 'Company House/Rental Assistance'.
- People who have a house elsewhere are classified as such.
- 'Other' captures the remainder who could not be easily categorised.

TABLE FIVE

Table Five Comments for not wanting to purchase a dwelling near work place

Category	No.
Not Preferred Location	234
Cost/Investment	225
Family/Lifestyle	149
Happy Where I Am	110
Prefer Coast	84
Other	49
Lack Of Quality Facilities and/or Services	38
Work Future Uncertain	33
Company House/Rental Assistance	22
No Interest	21
Already Have A Home Elsewhere	17
Grand Total	**982**

Three of the nine non-residential workers who were interviewed at the commencement of the study stated that they would consider relocating to the community near to the mine but only if they received free rent or at least a considerable housing subsidy. These interviewees stated that the benefit of living in an accommodation village is that everything is paid for so it would be difficult to move from this. Also, these interviewees understood that housing was both expensive and limited in the areas where they worked.

TABLE SIX

Table Six **Home location for non-resident workers**

Area	Principal Towns	#	%
CQ Coastal North	Mackay, Sarina, Mirani, Airlie Beach, Proserpine, Bowen	192	28.0%
North Queensland	Townsville, Ayr, Charters Towers, Ingham	112	16.3%
Brisbane	Brisbane	90	13.1%
CQ Coastal South	Miriam Vale, Agnes Waters, Gladstone, Rockhampton, Yeppoon, Emu Park	78	11.4%
Wide Bay	Gympie, Hervey Bay, Maryborough, Bundaberg	46	6.7%
Sunshine Coast	Caloundra, Maroochydore, Noosa, Maleny	38	5.5%
Far North Queensland	Cairns, Innisfail, Atherton, Port Douglas, Merreba	34	5.0%
Toowoomba	Toowoomba, Pittsworth, Millmerran, Warwick, Oakey, Crows Nest	25	3.6%
Gold Coast	Gold Coast, Tweed Heads, Beaudesert	24	3.5%
Bowen Basin South	Emerald, Blackwater, Springsure, Biloela, Middlemount, Capella, Tieri	21	3.1%
Surat	Miles, Taroom, Roma, Mitchell, Surat, St George	14	2.0%
Mt Isa	Mt Isa, Cloncurry, Julia Creek	5	0.7%
Dalby	Dalby, Chinchilla, Jandowae, Tara	4	0.6%
Bowen Basin North	Moranbah, Clermont, Nebo, Dysart, Glenden, Collinsville	2	0.3%
Central West Queensland	Tocal	1	0.1%
TOTAL QUEENSLAND RESIDENTS		**686**	**100%**
NSW		22	
VIC		6	
SA		4	
WA		2	
Overseas		1	
(blank)		20	
Grand Total		**741**	

QUEENSLAND RESOURCES COUNCIL
LEVEL 13, 133 MARY ST, BRISBANE QLD 4000
T (07) 3295 9560 F (07) 3295 9570 E INFO@QRC.ORG.AU WWW.QRC.ORG.AU

QRC PROFILE

The Queensland Resources Council is the peak representative body for more than 250 companies with interests in the state's minerals and energy sector. The QRC's 93 full-member companies comprise explorers, miners, contractors, mineral processors, oil and gas producers and electricity generators. QRC service companies cover the gamut of professional services provided to the resources sector in the four corners of Queensland.

Workforce Accommodation Arrangements in the Queensland Resources Sector

Workforce Survey

MAY 2012

Prepared for

Queensland Resources Council

Level 13, 133 Mary Street
BRISBANE QLD 4000

42907923

URS

Project Manager:

....
Vicki Williams
Principal Social Scientist

Principal-In-Charge:

....
Dr Don Burnside
Principal Natural
Resources Scientist

Author:

....
Vicki Williams
Principal Social Scientist

Reviewer:

....
Pat Vidler
Senior Social Scientist

URS Australia Pty Ltd

Level 4, 226 Adelaide Terrace
Perth WA 6000
PO Box 6004, East Perth,
6892Australia

T: 61 8 9326 0100
F: 61 8 9326 0296

Date: **13 April 2012**
Reference: 42907923/01/03
Status: FINAL

Document delivery

URS Australia provides this document in either printed format, electronic format or both. URS considers the printed version to be binding. The electronic format is provided for the client's convenience and URS requests that the client ensures the integrity of this electronic information is maintained. Storage of this electronic information should at a minimum comply with the requirements of the Commonwealth Electronic Transactions Act (ETA) 2000.

Where an electronic only version is provided to the client, a signed hard copy of this document is held on file by URS and a copy will be provided if requested.

Table of Contents

Table of Contents

Table of Contents

Table of Contents

Tables

Table of Contents

Figures

Appendices

Abbreviations

Abbreviation	Description
Accommodation arrangement	The term accommodation arrangement refers to whether a worker has a residential accommodation arrangement or a non-residential accommodation arrangement.
Accommodation type	The term accommodation type refers to whether a worker stays in a caravan, motel, accommodation village or private residence.
CSG	Coal Seam Gas
DEEDI	Department of Employment, Economic Development and Innovation
DIDO	Drive In Drive Out – a term commonly used to denote an employee who travels by car or bus from home for blocks of work time, including overnight away from the employee's home. See also LDCW – Long Distance Commute Worker and NRW – Non-Resident Worker and FIFO – Fly In Fly Out
FIFO	Fly In Fly Out – a term commonly used to denote an employee who travels by air from home for blocks of work time, including overnight away from the employee's home. See also LDCW – Long Distance Commute Worker and NRW – Non-Resident Worker and DIDO – Drive In Drive Out
LDCW	Long Distance Commute Worker – a term used in this report to denote travel from home for blocks of work time, including overnight away from the employee's home. See also NRW – Non-Resident Worker and FIFO – Fly In Fly Out and DIDO – Drive In Drive Out
mtpa	Million tonnes per annum
NRW	Non-Resident Worker - a term used in this report to denote travel from home for blocks of work time, including overnight away from the employee's home. See also LDCW – Long Distance Commute Worker and FIFO – Fly In Fly Out and DIDO – Drive In Drive Out
NWQMEPS	North-West Queensland Mineral and Energy Province Study
OESR	Office of Economic and Statistical Research
QRC	Queensland Resources Council
SLA	Statistical Local Area
SPQ	Single Persons Quarters
SPWG	Social Policy Working Group of the Queensland Resources Council
RW	Resident Worker (a worker who lives in a town or city near to the mine operation, whether in a privately owned or company owned dwelling.)

Executive Summary

The Queensland Resources Council (QRC) is a non-government organisation representing the interests of companies involved in the exploration, mining, minerals processing and energy production industries. It is the Queensland resources sector's key policy-making body, working with all levels of government, interest groups and the community.

Prompted by a rapid increase in the number of projects in the Bowen Basin and forecasted growth in the Surat and Galilee Basins and the North West Minerals Province, the QRC commissioned a study in August 2011 to gather the views of sector employees regarding their working and residency arrangements in the minerals and energy sector.

The QRC has noted the effect of the current and projected expansions in increasing the pressure on public social and hard infrastructure in mining and gas regions, and the challenges faced by all governments in meeting the demand for additional services. This is increasing the difficulty the sector is experiencing in attracting and retaining skilled workers at the many sites across these regions. While there is an accumulation of studies on the changing demography in these regions, the QRC has sought to quantify the workforce demand for various types of accommodation arrangements and to provide evidence regarding the factors driving workforce accommodation choice.

Housing the resource sector workforce

The estimates of future operating employment show that the numbers of people employed by the sector will nearly double in the years to 2020, with the majority of this growth occurring in the Bowen and Galilee Basins. In the case of the latter, current proposed and commenced developments will establish a significant mining workforce in the region by 2020.

Although absolute numbers in the Surat Basin are lower, there is an expectation of a more than four-fold increase in the operational workforce.

Of particular concern is how resources industries will meet their workforce requirements. Expanding workforces across the sector are putting added strain on already struggling services and infrastructure in existing and emerging mining and gas resource regions. This is adding to the difficulty in attracting workers to these locations and contributing to angst in local communities. The situation has been exacerbated by the impact of devastating natural disasters in 2011, which further stressed service provision and infrastructure delivery in some areas.

As a result of rapid employment growth, strained services and housing shortages away from major centres (e.g. Brisbane, Rockhampton, Mackay and Townsville), a lack of local employees and preference for non-residential employment by many potential employees, resource industries are anticipating a high proportion of future employment growth to be non-residential.

Employees opting for careers in the resources sector typically need to decide whether they will reside locally and near to their workplace, or whether they will travel to and from their permanent residence to their place of work for blocks of rostered time. These long-distance commuting options are typically referred to as FIFO (i.e. fly in-fly-out) but also include options such as drive in-drive out (DIDO) and bus in-bus out (BIBO). This decision by individual employees not only influences their own family life but also that of the community in which they reside and in which they work.

The rationale for the study is the need to obtain directly, the workforce's views about employment in the sector. This study addresses a significant gap in research to date. Despite previous investigations, much public discussion and the acceptance of anecdotal assumptions, no-one has asked workers (on a significant scale) about what factors drive their choice on residential or non-residential workforce arrangements.

The QRC commissioned URS Australia (URS) to develop a mechanism that allowed for the following objectives to be achieved:

- **Quantify the demand for the various types of workforce accommodation arrangements from a workforce perspective and**
- **Identify key factors driving choices in relation to workforce accommodation arrangements.**

Approach

The Workforce Accommodation Study utilised a mix of desktop review, qualitative interviewing and quantitative surveying to gather data from across three regions in Queensland being the:

1. Bowen Basin
2. Surat Basin
3. North West Minerals Province.

Interviews

Face-to-face and telephone interviews were held with staff with responsibility for Human Resources and related matters in mineral and energy companies operating in the Bowen and Surat Basins and North West Minerals Province. A total of 14 semi-structured interviews were conducted. The purpose was two-fold – to gather essential background information and to inform development of the survey. The interviews were also used to request certain statistical data from each of the companies with regard to their workforce size and accommodation arrangements.

The purpose of the interviews was to establish:

- Whether the company was experiencing difficulty in recruiting employees due to accommodation availability
- If companies were experiencing problems with recruitment, whether it is a company-wide issue or specific to certain sites
- Human Resource (HR) Managers' views on accommodation issues impacting on recruitment rates – and the evidence on which those views are based and
- The programs or activities in place to address accommodation needs and the success or otherwise of those programs.

During interviews with HR personnel, the interviewer requested the names and contact details for two or more site personnel who might be available for telephone interview. No particular occupation group was targeted and it was at the discretion of the company as to who they nominated.

The purpose of this second round of interviews was to better understand views on accommodation choices and options from the perspective of workers located at the operational sites. Outcomes from the interviews were also used to inform the development of the Workforce Accommodation Survey, and to support the findings of the Survey.

A total of 17 interviews were conducted - nine with workers located in the Bowen Basin; two in the Surat Basin and six in the North West Queensland Minerals Province. The second round of interviews was conducted entirely by telephone and included interviews with Mine Managers, Compliance Coordinators, HR Officers, Environmental Advisers and Inventory Coordinators. The questions sought to establish an employee's:

- experience of accommodation options (both positive and negative) and why they elected to work under their current arrangement

- rating of the relative importance of various factors in taking up employment in the sector and
- views on accommodation arrangements and issues that might influence recruitment decisions.

The Workforce Accommodation Survey

A key component of this study is the Workforce Accommodation Survey that investigated worker perceptions of accommodation choices and what influences their employment and accommodation decisions. The objective of the survey was to obtain detailed information to quantify demand for various types of workforce accommodation arrangements and to identify the key factors driving workforce choice in relation to accommodation arrangements.

Development of the survey was informed by the desktop analysis, and interviews with HR and company staff. Representatives from the QRC Social Policy Working Group were also invited to comment on the content of the survey to confirm that the questions being asked would be understood by the target audience.

The survey was distributed through representatives of the participating QRC member companies, utilising a range of methods to suit each company's operations and arrangements. Nearly 8,000 thousand (7,800) hardcopy surveys were distributed to the companies and an online version was also made available. The variety of distribution methods was necessary to maximise participation and meet the necessary practical realities of the various company operations.

The survey was undertaken in two stages. Over four thousand (4,800) hardcopy surveys were distributed by all participating companies (except for BMA) in November 2011, and those companies also advised their workforces that the survey was available online. The proportion of the 4,800 hardcopy surveys actually received by workers in unknown.

BMA, a significant operator in Queensland commenced distribution of 3,000 printed surveys on 9 January 2012, while also advising their workforce that the survey was available online.

By 27 January 2012, 2,275 surveys had been received either in electronic or hardcopy form. This included 1,241 surveys that could be identified as being returned by residential workers (RW) and 1,009 identified as being returned by non-residential workers (NRW). Twenty five surveys could not be identified as either residential or non-residential.

Because potential respondents were notified by both mail and electronically it is not possible to provide an accurate response rate. It is assumed that the total number of people notified of the survey were those provided with hardcopies of the survey the response rate would be around 29%. However,, there is no way to determine the number of email recipients of the electronic request for participation. Regardless, URS is of the opinion that the return of 2,275 completed surveys represents a sufficiently large number of responses to allow data analysis.

Summary Findings - The Survey Sample

- The response rate has been relatively high indicating a reasonable level of interest among the workforce in completing the survey. The number of surveys completed satisfactorily (2,275) and the distribution between residential respondents (1,241) and non-residential (1,009) respondents is sufficient to have confidence in the results (Note: 25 respondents did not state their residential status).

Executive Summary

- There is little difference in demography, family characteristics, or time spent in the resources sector between residential respondents and non-residential respondents. **This suggests that the different accommodation arrangements do not attract or suit a particular 'type' of person**.
- More than 60% of both residential workers and non-residential workers have been in the sector for five years or more.

Residential respondents

- Almost half the residential respondents (47%) live in their own dwelling, with slightly fewer renting (45%). Operations, trade and administrative staff combined are more likely to own their own dwelling than professional staff, who are more likely to be in rented accommodation, supported by a rental subsidy.
- Nearly half the residential worker respondents own a house elsewhere.
- Overall, 72% of all residential worker respondents who are renting indicated that they receive an accommodation subsidy. This rate varies depending on the role the respondent has within the organisation. Forty three per cent of those receiving a rental subsidy are professional staff with 56% being workers in operational and trade roles.

Non-residential respondents

- Over 60% of non-residential workers are accommodated in camps or villages close to their worksite.
- Three quarters (73%) of non-residential worker respondents indicated that they own or are purchasing a dwelling at their place of permanent residency.
- Seventy per cent of non-residential worker respondents who live in Queensland have their permanent addresses in coastal towns. Few live inland.
- About one in 10 non-residential workers is interested in purchasing a house close to their worksite.

Satisfaction with current accommodation arrangements

- **Most respondents (around 64%) are happy with their current accommodation arrangements, and would not change**. There is no material difference in satisfaction with accommodation between the residential respondents and the non-residential respondents. This is key finding from the study, and indicates that it is important that the sector is able to offer a choice of accommodation.
- About 21% of all respondents indicated that they are ready to change accommodation arrangements, with 22% of these being residential workers seeking to change to non-residential accommodation, and 20% being non-residential workers wanting to change to residential status. Being able to make these changes will be important for these respondents.
- Only 11% of all respondents specifically stated they are in non-preferred accommodation arrangements, with more non-residential respondents (15%) in that situation than residential respondents (8%).
- Forty four per cent of both residential and non-residential respondents are in preferred accommodation arrangements, **and** have taken the job because their preferred arrangements were available. **The implication is that if either residential or non-residential options were not available across the sector, there would be a significant number of people who would not choose to work in the sector.**

- A higher percentage of non-residential respondents rated their accommodation as good or excellent (61%) than did residential respondents (34%). The percentage rating their accommodation poor or very poor was 19% and 25% respectively.

The importance of accommodation arrangement in deciding employment

- The accommodation arrangement is important or very important in employment decision making to 82% of residential workers and 70% of non-residential workers. Given that most respondents are in preferred accommodation arrangements, this highlights the importance of being able to provide choice at whole of industry scale.
- Accommodation arrangement is similar in importance to salary, career development, reputation of employer and work roster in deciding to work at the current site.
- The overall trend for both respondent non-residential workers and residential workers is the same – *'work-life' balance*' and *'overall quality of life'* factors are the most important influencing factors in deciding accommodation arrangements for both groups. The factors *'quality of accommodation'*, *'suits family arrangement'* and *'allows involvement in family life'* were ranked highly by both residential and non-residential respondents, although the former group placed more emphasis on them. (It must be noted, however, that non-residential workers' responses to the question of the importance of factors in deciding accommodation arrangements must be treated with caution as the data suggest that some non-residential worker respondents may have either misinterpreted the question or have responded according to their views of their place of work location rather than their permanent home location).
- Although the two groups are likely to have different interpretations of what these more highly ranked terms mean to them, the fact that these are scored similarly for both groups shows that there are features of non-residential working that suit some people, just as there are features of residential working that suit others.

Key Findings

Five key findings are provided.

1. It is clear that the demand for employees in the resources sector in Queensland is outstripping supply and hence there is some suggestion that employees, especially those relatively new to the sector are becoming more discriminating in their choices of employer and employment conditions.

2. Among those surveyed, accommodation arrangements rank similarly in importance with salaries, career opportunities, reputation of employer and work roster as work-related factors in deciding employment. The survey findings are supported by the views of HR personnel in the sector responsible for recruitment and employee management.

3. The factors influencing choice between residential and non-residential accommodation arrangements are similar with *'work-life' balance*' and *'overall quality of life'* factors being the most important influencing factors in deciding accommodation for both groups. The factors *'quality of accommodation'*, *'suits family arrangement'* and *'allows involvement in family life'* were also ranked highly. Although the two groups are likely to have different interpretations of what these more highly ranked terms mean to them, the fact that these are scored similarly for both groups shows that there are features of non-residential working that suit some people, just as there are features of residential working that suit others.

4. About two thirds of all respondents – in both residential and non-residential arrangements - are satisfied with their accommodation arrangements. Of those people satisfied, two-thirds would not have taken their current position if their preferred accommodation arrangement was not available. Conversely, only 12% of respondents are not satisfied with their current accommodation arrangements. The remaining 20% are ready to move either from residential to non-residential, or vice versa.

5. The clear implication is that being able to offer choice between residential and non-residential accommodation arrangements across the resources sector as a whole and across all regions to current and potential employees is essential if the resources sector is to staff current and future projects.

1 Introduction

The Queensland Resources Council (QRC) is a non-government organisation representing the interests of companies involved in the exploration, mining, minerals processing and energy production industries. It is the Queensland resources sector's key policy making body and works with all levels of government, interest groups and the community.

Prompted by the rapid increase in the number of projects in the Bowen basin and forecasted growth in the Surat and Galilee Basins and the North West Minerals Province, the QRC commissioned a study in August 2011 to gather the views of sector employees regarding their working arrangements and the location of residence in the minerals and energy sector.

The QRC has noted the effect of the current and projected expansions in increasing the pressure on public social and hard infrastructure in mining and gas regions, and the challenges faced by all levels of government in meeting the demand for additional services. This is increasing the difficulty the sector is experiencing in attracting and retaining skilled workers at the many sites across these regions. While there is an accumulation of studies on the changing demography in the regions, the QRC is seeking to quantify the workforce demand for various types of accommodation arrangements and to provide evidence regarding the factors driving workforce accommodation choice.

Ultimately the QRC is interested in information on the demand for various types of workforce accommodation arrangements and to gather evidence of the key factors that drive workforce choice. This report presents that information.

1.1 Development in the Queensland resources industry

The resources sector in Queensland contributes about $25.2 billion to the state's economy and is growing at a rapid pace (see https://www.qrc.org.au/01_cms/details.asp?ID=2968). The QRC's Growth Outlook Study (November 2011) concludes:

"All available evidence points to the Queensland resources sector being on the cusp of unprecedented expansion. The resources sector is driving this expansion and has shown that it has the financial capacity, commitment and experience required to develop new projects. Capital expenditure on resource projects in Queensland in 2011 is expected to be almost double that achieved at any point prior to the Global Financial Crisis" (Deloitte Access Economics 2011, p. 4).

The study recognises the impact that a rapidly growing resources sector will have noting that:

"The projected expansion in the resources sector will create a significant requirement to expand the supply of labour in Queensland. … this excess demand is initially created during the construction phase and is sustained as construction ends and the operating workforce is built up." (Deloitte Access Economics 2011, p. 62).

The study identified that under a full growth scenario there would be a demand for up to an additional 40,000 workers through the period to 2020.

These developments are occurring in many inland regions across the state, with the area subject to resources development extending geographically. While new projects are adding to activity in the Bowen and Surat Basins, projects are being initiated in the Galilee Basin, which has seen no activity until now. Exploration is identifying opportunities in all these areas, and in the North West Minerals Province.

1 Introduction

In regions not traditionally dominated by the resources industry, these developments are affecting local communities and economies. Recent events in the Galilee Basin led to the Queensland Department of Employment, Economic Development and Innovation (DEEDI) commissioning an *Economic and Social Impact Study* (Economic Associates 2010). This was prompted by announcements in 2010 by companies such as Hancock Coal Pty Ltd ($7.5 billion Alpha project and Kevin's Corner project), Waratah Coal Pty Ltd ($5.3 billion China First development), and AMCI Group and Bandanna Energy Joint Venture (South Galilee project) to develop projects in and around Alpha, a small town of approximately 350 residents located in Barcaldine Regional Council (BRC), between Emerald and Barcaldine. These, and other projects in the Basin, are expected to result in the addition of some 6,000 new jobs within a 50 km radius of Alpha.

The Surat Basin is also the site of significant resources development. Developments include coal seam gas (CSG) projects being operated by Origin Energy at Spring Gully and Talinga, and Santos at Fairview, and coal mines operated by Peabody, Yancoal and New Hope. Some of these operations were included in the sample of projects investigated as part of this study. Other developments in the Surat Basin include Xstrata Coal Queensland's Wandoan Coal project that is expected to require an 850-strong workforce once operational (approximately 700 accommodated in an onsite village and 150 resident locally). The project is situated immediately west of the Wandoan township (population 450) in the Western Downs Regional Council area.

In more established resources regions, new projects are being developed and existing projects are expanding. In the North West Minerals Province, the Ivanhoe-Osborne operation is investing $1,345 million in mining copper concentrate and gold, commencing in 2012, while the Ivanhoe-Merlin Project will invest $337 million in mining molybdenum and rhenium, commencing 2013-2014. These and other developments will result in a modest increase in employment in the mining industry in the region.

New projects in the Bowen Basin include the BHP Billiton-Mitsubishi Alliance (BMA Coal) Caval Ridge ($4,200 million with first coal by 2014) and Daunia ($1,600 million with first coal by 2013) mines and Goonyella-Riverside expansion; the Yancoal-Athena operation at Springsure ($2,500 million committed with a commencement in 2013-2014), the Vale-Belvedere Joint Venture (Aquila Resources) with $2,800 million to be invested for a 2017-2018 start, and Rio Tinto Australia Coal's Winchester South Mine near Moranbah commencing in 2016-2017 (source: www.queenslandeconomy.com.au accessed 4 January 2012).

The workforce implications of these developments are considered in the following sections. Current and future growth in the four regions (North West, Bowen, Galilee, Surat) is a key stimulant for study, although the focus of the investigation has been on workforce accommodation practices within established operations and their workforces.

1.2 Workforce management issues facing the resources industry

1.2.1 Current and projected workforce numbers

The employment, and therefore workforce effects, of a rapidly growing resources sector is of critical interest to the Queensland Resources Council (QRC). The current numbers and location of the workforce in the Queensland resources sector is shown in Table 1-1, with forecast additional numbers identified by industry included, based on developments such as those profiled in Section 1.1.

The estimates of future operating employment show that the numbers of people employed in the sector will nearly double in the years to 2020, with the majority of this growth occurring in the Bowen and Galilee Basins. In the case of the latter, the current developments will effectively create a mining workforce in the region by 2020.

1 Introduction

Although the absolute numbers in the Surat Basin are lower, the impact of an increased workforce will result in a more than four-fold increase in the operational workforce.

Table 1-1 Current and forecast workforce in the Queensland resources sector

Resource Region*	Statistical Divisions**	Residing Employees (FTEs) 2010/2011**	Regional resident workforce	Forecast additional operating employees by 2020***
North West	North West	3,143	6,996	1,700
	Northern	2,502		
	Far North	1,351		
Bowen Basin	Mackay	9,945	20,744	16,900
	Fitzroy	10,799		
Galilee Basin	Central West	146	146	15,500
Surat Basin	Darling Downs	1,000	1,209	5,500
	South West	209		
South East	Brisbane	9,531	11,537****	n/a
	Gold Coast	385		
	Sunshine Coast	486		
	West Moreton	289		
	Wide Bay-Burnett	846		
Total		**40,632**	**40,632**	**39,600**

* Regions as defined for this Report ** Source: Lawrence Consulting (2011), p. 9
*** Source: industry estimates reported in Deloitte Access Economics (2011), p. 34 **** some of these people will be non-residential employees at operations in the other regions, in particular in the Bowen Basin

Of particular concern is how industry will meet their workforce requirements. Expanding workforces across the resources sector are putting added strain on already struggling services in the existing and emerging resource regions, which is adding to the difficulty in attracting workers to these locations and contributing to community angst in local communities. The situation has been exacerbated by the impact of devastating natural disasters in early 2011 that have further stressed service provision and infrastructure delivery in some areas.

As a result of the rapid rate of employment growth, strained services and housing shortages away from major centres (e.g. Brisbane, Rockhampton, Mackay and Townsville), lack of local employees and preference for non-residential employment by many potential employees, the sector is anticipating a high proportion of the employment growth to be non-residential as shown in Table 1-2.

Table 1-2 Forecast operating workforce growth to 2020

Basin	Non-resident demand	Local demand	Non resident/ local split
North West	1,300	400	79%
Bowen Basin	12,700	4,200	75%
Surat Basin	3,000	2,500	55%
Galilee Basin*	14,700	800	95%

* based on anecdotal estimates
Source: Deloitte Access Economics (2011), p. 34

1.2.2 Employment issues in 2012

For the past two years, employee recruitment agency, Hays Recruitment[1] has rated skills shortages in the resources sector as the top employment issue in Australia. For

[1] see www.hays.com.au/common/pages/news/newsdesc.aspx?id=656. Accessed 3 January 2012

1 Introduction

2011, Hays recruitment listed the following issues within its top 10 employment issues for Australia:

The resource industry's efforts to overcome skills shortages – the resources boom will reshape the labour market as employers and the government scramble to find solutions to the impending skills crisis (Number 1).
Western Australia and Queensland – Skills shortages will expand rapidly from the resources industry across the entire workforce and employers will eagerly watch how companies in Western Australia and Queensland adapt to skills shortages. Employers will also be looking at the impact on salaries and at the strategies businesses use to recruit in a skills shortage market. In many ways these two states are the forerunners for the rest of the country in terms of how to deal effectively with skills shortages. [Note: with the expansion of the industry in both states some competition has emerged between the states to attract skilled workers. It is not uncommon to find workers in the Pilbara region who are flying in from their primary residence in Queensland and further afield, including New Zealand.] (Number 9)

For 2012, the number one employment issue in Australia as listed by Hays was:

Skills shortages in the resources and energy sectors – at both the trades and professional levels, will grow in 2012 given the number of large projects already underway or due to commence. LNG will also be a big feature in 2012, and there will be a huge demand for expertise in this industry.

While the employment issues identified by Hays Recruitment are likely to have an impact on employee (and employer) decision-making other factors are also at play. For many employers and employees in the resources sector, unlike almost all other industry sectors, an important consideration in project planning and workforce participation decisions is that of residential location.

There is a paradox in that while the resources sector is developing jobs in regional and remote parts of Queensland, there is a pervasive trend in the Australian populace towards urbanisation. Since 1921, the population living in metropolitan Australia has increased from 43% to almost 70% in 2006 (ABS). This is also a worldwide trend as people move to centres with access to more services, more amenable physical settings, or where housing is more available and affordable.

Even in regional areas, smaller settlements contract as people move to larger regional centres with better services. These larger centres have been referred to as 'sponge towns'. In attracting people to work in the resources sector, many of which are located away from the major population centres in Queensland, resource companies are working against this trend. This demands different and innovative approaches to obtain the required workforce in a tight and demanding labour market.

1.2.3 Employment models in the resources sector

For employees opting for careers in the resources sector, they typically need to decide whether they will reside locally, near to their workplace or whether they will travel to and from their residence to their place of work for blocks of time. These long-distance commuting options are typically referred to as FIFO, that is, fly in-fly out but also include options such as drive in-drive out (DIDO) and bus in-bus out (BIBO). This decision by individual employees not only influences their own family life but also that of the community in which they reside and in which they work.

FIFO is a common predominant term used to describe *non-resident workers*. This refers to both the travel (commute) arrangements of workers as well as their accommodation arrangements. It tends to capture those who fly in and out as well as those who drive in and out, and/or are bussed in and out of the work site. It also refers to the accommodation arrangements of workers during their roster period. Given the diversity of accommodation choices it may refer to workers who stay in transient workers' villages operated by the employer and located on the mining tenement, in commercial accommodation operated by a third party for the express use of the employer, in commercial accommodation operated by a third party for multiple company tenants, houses located within a nearby town site, motel and/or hotel rooms leased by the employer, and other options. Because of the variety of accommodation options there are varying levels of economic and social interaction between the non-resident worker (NRW) and the communities near to the resource operation.

For QRC member companies, meeting their skills needs means that they will need to understand how employees and potential employees make decisions around the workforce accommodation choices available to them. The QRC is seeking to improve their (and their member companies') knowledge of the demand for various types of workforce accommodation arrangements and to gather evidence of the key factors that drive workforce choice. It is the intention for this information to assist in lobbying government for the delivery of the necessary infrastructure to support either local residence or FIFO arrangements as desired by resource sector employees. The ultimate aim is to respond to some of the workforce attraction and retention issues referred to in the QRC's *Growth Outlook Study* (Deloitte Access Economics 2011) and in the QRC's submission to the House of Representatives FIFO Enquiry (QRC 2011).

1.2.4 Obtaining the workforce's views

The rationale for the study is the need to obtain the workforce's views about employment in the sector, direct from the people employed. This study addresses a significant gap in research to date in that despite previous research, much public discussion and assumptions being made on anecdotal evidence, no-one has asked workers (on a significant scale) what factors drive the choices they make about residential or non-residential workforce arrangements.

1.3 Project objectives

The QRC commissioned URS Australia (URS) to develop a mechanism that allows for the following objectives to be achieved:

- **Quantify the demand for the various types of workforce accommodation arrangements from a workforce perspective; and**
- **Identify key factors driving choices in relation to workforce accommodation arrangements.**

1.4 Definitions

One of the matters that this study has highlighted is the variation in terminology used in the mineral and energy sector, in the media, and in the research realm to describe workforce accommodation arrangements.

Given the extensive work that the Queensland Government's Office of Economic and Statistical Research (OESR) has conducted on demographic trends in resource communities in Queensland, it is appropriate to utilise their terminology. The OESR is the peak, authoritative source of socio-economic statistics in Queensland. The OESR is working with QRC to develop an accurate picture of workforce numbers (residential and non-residential) in Queensland resources regions, as an important input to regional planning by governments and industry.

The OESR (2011) describe a 'non-resident worker' as those people who are not residents of the local area (the defined Statistical Local Area where the workplace is located) where they regularly work. According to the OESR terminology a non-resident worker differs from other short-term or casual visitors to the area as described below.

- The duration of their stay in the area is extended and regular. This usually takes the form of a period of work followed by a rest interval at their place of usual residence.

1 Introduction

- While living in the area, the worker stays in commercial accommodation (hotels, motels or caravan parks), or in worker accommodation.
- Non-resident workers are often categorised according to their means of travel between home and place of work, either as FIFO or DIDO.

On the other hand are the *residential workers*. These are workers who live in a town or city near to the mine operation, whether in a privately owned or company owned dwelling.

For the purposes of this study on accommodation choices we have focused attention on whether a worker is resident in the area or not. Following the OESR terminology, the definitions below were adopted:

- **Residential Worker (RW)** – a worker is considered residential where they typically return to their home at the end of each shift to a residence located in a town in proximity to the work site; and
- **Non-Residential Worker (NRW)** – a worker who commutes from where they usually live, staying in the local area for the duration of their roster (FIFO/DIDO). While living in the area, the worker stays in commercial accommodation (hotels, motels or caravan parks) or in a worker accommodation village which may be located in town centres or adjacent to a mining or resource lease[2].

The mode of travel between usual place of residence and the work site is not of significance to the study and so we refer in places to FIFO workers and this should be read to include all commuting workers (i.e. FIFO, DIDO [including Bus In Bus Out]).

[2] OESR (2011: 35) make mention of private accommodation as follows: “Head-leased private housing is sometimes used as interim accommodation for newly arrived workers with families, particularly those awaiting permanent housing in the local area. Private housing is also rented by groups of unaccompanied workers, either in the form of private group housing arrangements or as overflow rooming to existing hostels”. However, their definition of a non-resident worker is one who lives locally in **non-private** dwellings.

For the purpose of this survey, the term **accommodation arrangement** refers to whether a worker has a residential accommodation arrangement or a non-residential accommodation arrangement.

The term **accommodation type** refers to whether a worker stays in a caravan, motel, accommodation village or private residence.

2 Project Approach and Methodology

This study has been a collaborative effort between URS Australia Pty Limited and the Queensland Resources Council (QRC), specifically their Community Engagement Division. Access to member companies has been assisted through the QRC's Social Policy Working Group (SPWG) – a group of management personnel from member companies who inform the social policy debate within the QRC. Various aspects, not affecting the design or independence of the study have been reviewed by the SPWG including the terminology used in the survey and the proposed mechanisms for survey distribution.

2.1 Data Gathering and Analysis

The Workforce Accommodation Study has utilised a mix of desktop review, qualitative interviewing and quantitative surveying to gather data from across three regions in Queensland being the:

1. Bowen Basin;
2. Surat Basin; and
3. North West Minerals Province.

These regions are described in Section 3.1.

The Bowen Basin covers LGAs of Banana Shire, Central Highlands Regional Council, Isaac Regional Council and Whitsunday Regional Council. These areas were formed in 2008 following local government amalgamations in Queensland.

2.1.1 House of Representatives Inquiry into FIFO and DIDO workers

The timing of this study coincided with the Commonwealth House of Representatives Standing Committee on Regional Australia's Inquiry into the experience of Fly-In, Fly-Out (FIFO) and Drive-In, Drive-Out (DIDO) workers in regional Australia which commenced in August 2011. The Committee was tasked to look into a range of issues, including:

- the extent and projected growth of FIFO/DIDO work practices;
- the impact of FIFO/DIDO on individuals, communities and companies;
- long-term strategies for economic diversification in towns with large FIFO/DIDO workforces;
- provision of services, infrastructure and housing availability for FIFO/DIDO employees

The Committee called for submissions and by the time the submission period closed some 152 had been received from companies, groups and individuals across Australia. Relevant submissions that were publicly available (see references in Section 6) have been reviewed and assimilated into the overall desktop study, including the submission made by the Queensland Resources Council.

The Committee is also travelling throughout regional Australia to hold public hearings and meet with people involved with FIFO/DIDO. It is expected that the findings from this Workforce Accommodation Study will be used by the QRC to inform discussions with the Committee.

2.1.2 Desktop Review

In addition to the submissions noted above the desktop review has viewed studies from around the world that have investigated, or make reference to, workforce accommodation options and issues in the mineral and energy resources sector. The focus has been upon Australian examples with a stronger focus on the situation in

2 Project Approach and Methodology

Queensland. The reference list (Section 6) provides the details of those studies, reports, papers and media items that have been included in the desktop review.

The purpose of the desktop review has been two-fold.

Firstly, it provides critical background information on the context within which this study has taken place. Accommodation location choices of workers engaged in the mineral and energy resources sector generate a great deal of attention in the public realm across Australia, particularly in the long-established and/or rapidly growing resource areas of Queensland and Western Australia. In Queensland the debate is intensified because many of the areas where extraction occurs are regional but not remote. That is, operations are located near to established, although small, towns and communities. This may have an impact on whether companies establish a FIFO or residentially based workforce operation, or, as is common, a combination of the two.

The second aspect to the desktop study has been to inform the development of the quantitative Workforce Accommodation Survey instrument. Much research and many surveys have been undertaken in (and on) the Queensland resources sector. The Bowen Basin particularly has been the centre for a considerable number of studies and is one of the focus areas for the Queensland Government through their Office of Economic and Statistical Research. URS has been able to draw upon this earlier research and, where appropriate, to tailor the Workforce Accommodation Survey questions so that they align or are consistent with earlier surveys. This enables some comparison between surveys. However, the QRC study has a specific objective which has guided the development of the survey so the questions have been framed to achieve that purpose.

Information gathered through the desktop analysis is contained in summary in Section 5.1.

2.1.3 Interviews with company personnel

Human resources personnel

Face-to-face and telephone interviews were conducted with staff with responsibility for Human Resource and other related matters within mineral and energy resource companies with operations in the Bowen and Surat Basins and in the North West Minerals Province. A total of 14 semi-structured interviews were conducted. As with the desktop study, the purpose was two-fold – to gather essential background information and to inform the development of the survey. The interviews were also used to request certain statistical data from each of the companies with regard to their workforce size and accommodation arrangements.

The purpose of the interviews was to establish:

- Whether the company was experiencing a particular problem with recruiting employees due to accommodation availability;
- If companies were experiencing problems with recruitment, whether it is a company-wide issue or specific to certain sites;
- HR Managers' views on accommodation issues impacting on recruitment rates – and the evidence on which those views are based; and
- The programs or activities in place to address accommodation needs and the success or otherwise of those programs.

A copy of the HR Interview Guide used by the interviewers has been included at **Appendix A**.

Operational personnel

During interviews with HR personnel, the interviewer requested the names and contact details for two or more site personnel that might be available for telephone

2 Project Approach and Methodology

interview. No particular occupation group was targeted and it was at the discretion of the company as to who would be selected.

The purpose of this second round of interviews was to better understand views on accommodation choices and options from the perspective of workers located at the operational sites. Outcomes from the interviews were also used to inform the development of the Workforce Accommodation Survey, and to support the findings of the Survey (see Section 4).

A series of questions were drafted to guide an informal, semi-structured interview process. These were designed such that the workers accommodation status (i.e. residential or non-residential) determined which questions were asked.

A total of 17 interviews were conducted with nine interviews conducted with workers located in the Bowen Basin, two in the Surat Basin and six in the North West Queensland Minerals Province. The second round of interviews was conducted entirely by telephone and included interviews with Mine Managers, Compliance Coordinators, HR Officers, Environmental Advisers and Inventory Coordinators. The majority of the interviews were with administrative or management personnel. The number of personnel and their residential status is shown in Table 2-1 below

The questions sought to establish an employee's:

- experience of accommodation options both positive and negative and why they elected to work under their current arrangement;
- rating of the relative importance of various factors in taking up employment in the industry;
- views on accommodation arrangements and issues that might influence recruitment decisions.

A copy of the Site Personnel Interview Guide is provided at **Appendix A**. In general terms most interviewed workers (6 of 8) in residential accommodation were provided with a choice between residential or non-residential types of accommodation, although only 4 of 9 non-residential workers interviewed had a local residence option (i.e. the worksite is located remote from an established town).

Twelve interviewees mentioned that they were in relationships and eight of these indicated they had young families still living at home. Three interviewees referred to their single status and one of these had children who lived with their ex-partner. Two interviewees did not refer to their relationship status.

Table 2-1 Site personnel interviewee numbers by region and residential status

Location	Currently residential		Currently non-residential		Total
	Residential only available	Choice of accommodation type	Non-residential only available	Choice of accommodation type	
Bowen Basin	1	4	1	3	9
NWMP	1	1	3	1	6
Surat Basin	0	1	1	0	2
Total	**2**	**6**	**5**	**4**	**17**

2 Project Approach and Methodology

The information that emerged from the interviews is consistent with much of the published information on the residential/non-residential debate in the mineral and energy resources sector in Queensland.

The findings from the interview process have also been incorporated into the Workforce Accommodation Survey analysis and used to support survey findings in Section 4.

2.1.4 Workforce Accommodation Survey

A key component of this study is the Workforce Accommodation Survey which investigated worker perceptions of accommodation choices and what influences their employment and accommodation decisions. The objective of the Workforce Accommodation Survey was to obtain detailed information to quantify demand for various types of workforce accommodation arrangements and to identify the key factors driving workforce choice in relation to accommodation arrangements.

Survey design

The design of the survey has been guided by the findings from the earlier tasks in this project – namely the desktop study and company interviews. A draft of the survey was provided to the QRC for review and was subsequently provided to members of the QRC's Social Policy Working Group. The intention in providing the survey to the SPWG was to ensure that questions were compatible with their workforce accommodation arrangements, that the terminology used was understood, and that question could be addressed by their workforce. The QRC reviewed the survey to ensure that it would provide them with their information needs.

The purpose of the survey was to gather qualitative and quantitative information from workers as to their views and preferences regarding their choice of workforce accommodation arrangement, and the factors that influenced their choices.

A combination of open and close ended questions was used in order to maximise responses and gain a fuller understanding of the range of factors influencing people's accommodation decisions, especially given the range of accommodation arrangements in the industry.

Survey administration and response rate

The survey was distributed through representatives of the participating QRC member companies, utilising a range of methods to suit each company's operations and arrangements. Nearly 8,000 thousand (7,800) hardcopy surveys were distributed to the companies and an online version was also made available. The variety of distribution methods was necessary to maximise participation and meet the necessary practical realities of the various company operations.

The survey was undertaken in two stages, as shown in Table 2-2. Over four thousand (4,800) hardcopy surveys were distributed by all participating companies except for BMA in November 2011, and those companies also advised their workforces that the survey was available online. BMA, a significant operator in Queensland, commenced distribution of 3,000 printed surveys on 9 January 2012, and at the same time advised their workforce that the survey was available online.

Table 2-2 Survey administration

Stage	# of hard copy surveys distributed	Description	Dates
1	4,800	Participating companies except BMA	28 Nov - 16 Dec 2011
2	3,000	BMA	9 - 27 Jan 2012

2 Project Approach and Methodology

Paper copies of the completed surveys were sent back to URS by mail, and manually entered into the online survey software, which allowed the collation of all responses.

By 27 January 2012, 2,275 surveys had been received either in electronic or hardcopy form. This included 1,241 surveys that could be identified as being returned by residential workers (RW) and 1,009 identified as being returned by non-residential workers (NRW). Twenty five surveys could not be identified as either residential or non-residential. Not all surveys were completed in their entirety, that is, some questions have been left blank. When analysing data we have been mindful of these data gaps and have predominantly noted the percentage of respondents to each question in the findings. The total number of responses to each question is noted throughout the report.

Because potential respondents were notified by both mail and electronically it is not possible to provide an accurate response rate. If we assume that the total number of people notified of the survey were those provided with hardcopies of the survey the response rate would be around 29%. However, some caution should be taken here. On the one hand there is no way of determining whether all of the hardcopy surveys reached 7,800 individual workers – the actual receipt rate may have been lower. Additionally, there is no way to determine the number of email recipients who responded to the electronic request for participation. Regardless, we are of the opinion that the return of 2,275 completed surveys represents a sufficiently high rate of return to provide confidence in the results.

2.1.5 Presenting the findings

The findings from the survey are presented in Section 4. In presenting the findings, totals for responses to individual questions may not align with the total number of surveys returned. This is because not all respondents answered all questions, and hence there are missing data for most questions. In all cases, the number of non-responses to individual questions formed a very small percentage of the total number of surveys returned.

2.2 Developing Conclusions

Summary and key findings from the Workforce Accommodation Survey and Conclusions are presented in Section 5.

3

The context for the Workforce Accommodation Study

3.1 The Queensland Resource Regions selected for the Study

Three resource regions were selected for this study.

3.1.1 The Bowen Basin

The Bowen Basin covers an area of approximately 171,000 square kilometres in Central Queensland stretching from Collinsville in the north to Theodore in the south. It is located in the Regional Council areas of Isaac, Central Highlands and Whitsunday, and the Shire of Banana.

Major towns supporting the mineral and energy resources sector include Moura (2006 pop. 1,774), Moranbah (pop. 8,400), Collinsville (pop. 2,063), Dysart (pop. 3,137), Middlemount (pop. 2,038), Emerald (pop. 13,400), Blackwater (pop. 5,031), Glenden (pop. 1,112), Clermont (pop. 1,854) and Tieri (pop. 1,679). These regional towns are between 200 and 300 kilometres inland from the coast, but have close links with the major centres of Bowen, Mackay, Rockhampton, Yeppoon and Gladstone which have a collective population of over 200,000.

The Queensland Department of Employment, Economic Development and Innovation[3] (DEEDI) reports the region as having 47 operating coal mines that produce all of Queensland's high-grade coking coal, and much of the export-traded thermal coal. These mines produced 180 million tonnes of saleable coal in 2009-10, representing 87% of the state's total output, and directly employ around 29,550 full-time equivalent (FTE) positions (as at 30 June 2011). The mining workforce is about 20,000 and represents 29% of the total workforce.

The Bowen Basin is also seeing an increase in the development of the energy sector with an expanding coal seam gas industry particularly around Blackwater and Moranbah. This, coupled with the very active coal industry will lead to significant expansion of the resources sector in coming years. Coal production in the Bowen Basin is predicted to increase from 180 million tonnes per annum (mtpa) currently to 400 mtpa by 2020. State royalties from coal mining, much of it derived from mines in the Bowen Basin will increase from $2 billion currently to just over $6 billion by 2020 (Deloitte Access Economics 2011). The current workforce is expected to double over this time.

The Office of Economic and Statistical Research (OESR) within the Queensland Treasury Department has released data to show the full-time equivalent (FTE) population in the Bowen Basin increased by 15% between 2006 and 2010. The FTE population in 2010 was made up of 83,839 residents and 14,613 non-resident workers (approximately 15% non-residential). Most of the non-resident workers were housed in purpose built accommodation villages with the remainder housed in commercial accommodation such as hotels, motels and caravan parks. OESR reports that these non-resident workers "comprise workers and contractors associated with mining and gas production, as well as the construction of associated infrastructure".

Most of the non-resident workers in the Bowen Basin drive in and out of their work site and many live on the coast in major centres such as Bowen, Mackay, Rockhampton and Yeppoon, all of which have experienced significant growth over recent years.

[3] See http://mines.industry.qld.gov.au/mining/central-qld-info-maps.htm

3.1.2 North West Queensland Minerals Province

The North West Queensland Minerals Province is centred on the Mount Isa-Cloncurry region and has an area of 43,000 square kilomteres. The area contains a significant portion of the world's known lead and zinc resources as well as large resources of silver, copper and gold (Department of Employment, Economic Development and Innovation website). Most of the population of 29,000 lives in Mt Isa (20,000) and Cloncurry (3,000), with Xstrata employing 4,000 people at its Mt Isa mines. There is no other centre in the region with a population greater than 1,500. The region contributed $4.7 billion to gross state product in 2005-2006, with mining contributing 73% of this value.

Economic activity and population have been relatively stable over a number of years, although this will change with $5.3 billion in projects being developed which will increase construction employment by nearly 3,000 and add 2,000 jobs in operations. Close to 80% of all new employees in Queensland's north west will be FIFO (Deloitte Access Economics 2011). Current employment in the resources sector is residential in Mt Isa and Cloncurry, and FIFO in remote mines.

Despite being highly prospective, as confirmed in the North-West Queensland Mineral and Energy Province Study (NWQMEPS), many areas within the province are relatively under-explored. In response, in June 2010, the Queensland government announced the *Greenfields 2020* making available funding for the Collaborative Drilling Initiative (CDI) aimed at stimulating exploration investment in Queensland. Six rounds of funding have seen a range of exploration activities throughout Queensland with several proposals located in the NWQ region. New discoveries are continually being made, with many advanced mineral projects expected to become operational within the next 3 years.

The region has close links with the City of Townsville (population 200,000) which is the port for export of minerals from the region, and also the source of goods and services into the region. Many of the FIFO employees working on resource projects in the North West Region live in Townsville, and the City Government is promoting a role as a 'hub' or 'source' of employees for the resources industry across northern Queensland (and into the Bowen and Galilee Basins). There are major planning initiatives underway to support the attraction of investment in infrastructure and facilities that will likely result in a population increase in Townsville to around 300,000 by 2030.

3.1.3 Surat Basin

The Surat Basin study area covers approximately 110,000 square kilometres and includes the local government areas of Toowoomba, Western Downs and Maranoa Regional Councils. The main towns in the Basin include Dalby (2006 pop. 9,778), Chinchilla (pop. 3,681), Miles (pop.1,164) and Roma (pop. 5,983). Dalby is a key administrative centre for the region and is situated approximately 200 km west of Brisbane.

While the Surat Basin has traditionally been an agricultural region, a number of major resource projects are being developed in the region. The Basin has significant reserves of coal seam gas and more than six billion tonnes of proven thermal coal resources which are largely undeveloped and highly suitable for electricity generation. Coal mining is also a developing industry in the Surat Basin with many companies progressing with their Environmental Impact Studies.

Unlike open-cut or underground mining, extraction of the coal seam gas is more dispersed with upwards of 100 wells drilled across the gas field. Production wells extract the gas and water which is then separated before the gas is compressed at a central compressor station and transported via a high-pressure pipeline.

Drilling of wells is an ongoing activity across the gas fields. The Australian Petroleum Production and Exploration Association (APPEA) estimates that Queensland currently has about 2,000 CSG wells. Should all Queensland's LNG projects proceed, the number of wells would increase to 18,650 wells (www.appea.com.au/images/stories/Policy_CSG/appea%20response%20to%20csg%20by%20the%20numbers_final.pdf, accessed 13 March 2012).

The CSG industry recruited 2,409 people in just the second half of 2011 see http://www.appea.com.au/images/stories/media/120307_new%20csg%20employment%20stats%20released.pdf, accessed 13 March 2012)

QRC's *Growth Outlook Study* suggests a need for approximately 5,500 additional operational employees for the resources sector in the Surat Basin in the year 2020 under a full growth scenario (QRC 2011 p. 34).

3.2 The Current Skills Shortage in the Resources Sector

3.2.1 The challenge and possible consequences of the skills shortage

The QRC (2011) has determined the percentage of direct and indirect employment attributable to the resources industry across a number of Local Governments in the Bowen Basin and surrounding areas, as shown in Table 3-1. These percentages show that employment in the industry is close to the maximum that can be expected in the local government areas within and close to the region, with the implication that new employees will need to be attracted from areas distant from the Bowen Basin. It is likely that many of these new employees will be employed on FIFO block rosters.

Table 3-1 Percentage employment in the resources industry

Local Government	Resources employment* (%)
Whitsunday	6.6
Rockhampton	11.7
Mackay	39.7
Gold Coast	0.7
Isaac	92.2
Central Highlands	87.3
Hervey Bay	1.1

* direct and indirect employment
Source: QRC (2011), p. 22

The QRC *CEO Sentiment Index* is a survey of the QRC's full member company Chief Executives covering the majority of mining, minerals processing, contracting, exploration, electricity generation and oil and gas extraction activity in Queensland. In September 2011 the *Sentiment Index* reported the attraction and retention of skilled employees as the highest order concern going forward[4]. The report noted that

"intense competition for staff is pushing wages to unsustainable levels with mismatches in capabilities and roles reported which is impacting upon productivity. Movement of workers from employees to individual sub-contractors is also inflating wages" (QRC, 2011a, p. 4).

Another high order concern relates to high input costs including those associated with labour, accommodation, and services.

[4] Note that this had decreased from a high ranking of 80 to a lower ranking of 72 by December 2011 but clearly remains as a high ranking issue (QRC, 2011c).

3.2.2 Queensland Government's approach to addressing the skills shortage

The Queensland Government is committing resources to addressing the skills shortage in the regions of interest to this study through a number of approaches (as presented in the QRC's Submission to the House of Representatives Standing Committee on Regional Australia's Inquiry into FIFO/ DIDO Practices).

Improving information quality

The Queensland Government's Office of Economic and Statistical Research (OESR) has worked collaboratively with QRC under the SRC Partnership Agreement to develop and implement a process to improve population and workforce estimates for resource communities. This work is enabling the provision of accurate population information and predictions to inform community, industry and government planning about the consequences of current and predicted population change. This will assist in improving the planning and provision of infrastructure, services and goods for all Queenslanders, particularly in areas of predicted, and on-going, resource sector growth.

Skills and Training Taskforce

The new Queensland Government's Policy *Pathways to a Skilled Trade Future* (http://lnp.org.au/policies/grow-a-four-pillar-economy/pathways-to-a-skilled-trade-future) commits the Government to deliver 10,000 additional apprenticeships and to establishing a Skills and Training Taskforce as part of their plan to grow a four pillar economy and reduce unemployment to 4% in 6 years.

The Taskforce is to reform and revamp skills and training by:

- Focussing and matching training on improving job outcomes for individuals and industry;
- Reforming the current trade training pathway to increase completion rates;
- Transforming VET investment to support demand driven training; and
- Establishing the right governance structure of the VET system to ensure accountability, value for money, and increased completion rates.

Additionally, the Government has committed to a range of measures in its Resources and Energy Strategy, including:

- ...strong support for the Queensland Minerals and Energy Academy, assisting young people to prepare for a career in the resources sector
- Continuing to support a whole of Government approach in partnership with industry to ensure improved training and enterprise development for Indigenous people with Queensland's resources sector.
- Supporting the QRC's Women in resources Action Plan and other industry-based initiatives to attract women to work in the sector
- Reforming Skills Queensland...

These commitments are beginning to be met through the *Pathways to a Skilled Trade Future* policy, as well as additional policies such as the *Strengthening our Communities – Supporting Women* policy to provide 500 scholarships of up to $20,000 over four years to boost the numbers of women enrolling in the professions in traditionally male-dominated areas such as engineering, agricultural science, geology, architecture and building services courses..

The critical importance of school students improved access to quality Science, Technology, Engineering and Maths (STEM), and training of many more STEM-qualified teachers, remains unabated in the education system , yet is the basis for many trade, advanced trade and professional occupations desperately required by the resources sector, and a range of other industries that underpin our economy and standard of living.

3.3 Accommodating the resource industry workforce

The relative remoteness of some mining operations in the 1960s and 1970s prompted many companies to construct what became company owned and operated towns (Petkova *et al*, 2009). Towns built explicitly for mining have historically struggled with gaining the critical mass to ensure their long-term sustainability particularly in the provision of social infrastructure, and attracting secondary investment outside of mining (Lockie *et al*. 2009).

By the mid-1980s the, at times, sub-standard provision of services and facilities and the lack of general amenity in the communities prompted resource companies to reconsider their workforce and settlement arrangements. Further, introduction of Fringe Benefits Taxation (FBT) in the 1980s imposed a tax impost on the benefits received by employees in company owned and operated towns and houses, which supported the re-think on employment arrangements. Finally, investing in town design and construction is a long-term commitment that may not be aligned with rapidly changing demands for commodities, and the requirement for a short-term return on capital to justify initial project investment.

Around this time non-residential working schedules were identified as an alternative to offering residential accommodation, especially where this would have required substantial investment in new town infrastructure. In addition to providing workers with more flexibility as to where they could reside non-residential accommodation was also considered more economic for operations with defined project lives, operating in internationally competitive markets (see for example, Chamber of Minerals and Energy, 2011). As such, long distance commuting (fly in-fly out (FIFO) or drive in-drive out (DIDO) operations) became more prevalent.

3.3.1 Non-residential workforces

The growth in the use of long-distance commuting (often termed as FIFO) by non-residential workers (NRWs) has generated considerable research interest into the effects of the practice on the workers themselves, their families and on the communities near to the mining operations. Since the early- to mid-2000s a number of studies investigating FIFO effects have emerged but there does not appear to be consensus as to whether those effects are entirely negative and if so, towards whom.

What is clear is that over the next decade the use of long distance commuting by a non-residential workforce is expected to grow faster than reliance on residential workforces as the sector grows and expands into new areas and operations (as shown in Table 1-2). FIFO is a sustainable and maturing workforce management practice in the resources industry.

Although there is a large body of literature commenting on the nature of long distance commuting as a workforce management practice in the industry, and in regional Queensland, there has been little or no direct inquiry of employees about their preferences for workforce arrangements, or the influences upon their employment decisions. This study is aimed at addressing this deficiency.

The decision to commence a non-residential work arrangement (FIFO or DIDO) is influenced by a range of factors. These are important when considering worker choices as they provide insight into their motivations and needs. Rolfe *et al.* (2007, 2008) have identified some of the drivers for workers to pursue FIFO or DIDO work schedule, which include:

- Housing in the mining town is too expensive, and or there is a shortage of housing for purchase;
- The worker, and or their family are unwilling to move;
- The mining town lacks recreational activities;

3 The context for the Workforce Accommodation Study

- The mining town lacks services and facilities (e.g. education facilities for child or partner); and
- Employment opportunities are limited and the decision to opt for a non-residential working arrangement provides opportunities outside of the workers' home town or city.

Decisions regarding accommodation and commuting choices have been associated with different stages in workers' lives (Rolfe *et al.* 2008; Sibbel, 2010). For example, younger employees may prefer to live in larger centres and commute. One employee interviewed for this study is currently working a 7 day on, 7 day off roster and utilises the longer period off to travel and essentially has no permanent address. Rolfe *et al.* (2008) have found that workers with younger families may prefer to live locally (within 30 minutes of travelling) to allow more time for the family to be together. As their family ages and needs change, the worker may then move to a larger centre and commute. Data from this study tends to support this.

The introduction of twelve hour shifts has led to significant changes to the way in which surrounding mining communities operate, and, the experience of the communities, and of visitors (Murray & Peetz, 2008). Twelve hour shifts make long distance commuting a more viable option for workers particularly when coupled with a good roster that provides for large blocks of off-roster time (Rolfe, 2011; Murray & Peetz, 2008). However, 12 hour shift arrangements also introduce issues associated with shift worker fatigue management, safety, and health (Murray & Peetz, 2008). Safety management is important for DIDO shift workers who drive themselves home after their shift and some companies interviewed in this study have instituted fatigue management processes that require (or incentivise for) employees to rest before commencing the journey. Many sites provide a "bus-in bus-out" service from site to major coastal centres so that employees do not need to drive themselves.

Non-residential accommodation options

Non-residential worker accommodation varies greatly depending on the nature and location of the operation. Earlier temporary accommodation options were simple and typically were located away from townships. This resulted in a physical and social separation of the workers from the nearest 'host' community. Given this, the design and location of non-resident worker accommodation has been receiving increasing attention, particularly directed towards the better integration of worker accommodation with nearby towns. This is partly to address criticisms by local residents and governing bodies that traditional worker accommodation villages are segregated and unattractive and also partly to make the villages a more attractive option for the workers.

A number of accommodation services providers are developing designs and quality of service that address the typical complaints about worker accommodation villages. Specialist companies such as The MAC, the Morris Corporation and the Maroon Group are delivering accommodation services to the resources sector. The MAC, for example, currently owns and operates five facilities in Central Queensland at Coppabella, Moranbah, Middlemount, Nebo, and Dysart with nearly 5,500 rooms. Likewise the Morris Corporation provides accommodation options in Glenden, Collinsville, Moranbah and Emerald. Maroon Group Accommodation currently operates an accommodation facility in Calliope. Other specialist companies are entering the market as demand for resources sector accommodation facilities outstrips supply. Interestingly, some companies whose primary market had been in the tourism sector are turning towards resources sector clients as the tourism market is negatively affected by the downturn in the global economy, and the rise in the value of the Australian dollar.

3 The context for the Workforce Accommodation Study

Non-residential people and their 'host' communities

To address the increasing development of accommodation villages the Queensland Urban Land Development Authority (ULDA) has released a *Non-Resident Worker Accommodation Guideline* (August 2011). The Guideline is described as a living document that provides parameters for the location and design of accommodation facilities, and works towards connectivity, integration and amenity with the surrounding ('host') community. The guidelines work around two governing principles regarding planning and design criteria with design benchmarks listed against each criterion. These are summarised in Table 3-2.

The principles and criteria address the themes of ensuring the accommodation fits in with the existing town infrastructure, and is able to deliver quality of life to the residents of the accommodation. The criteria also address the need for flexibility of purpose through time, and the opportunity to contribute to the existing community's well-being. Adherence to these principles and criteria should enable non-resident accommodation to make a net positive contribution to the social and economic life of the 'host' community.

Table 3-2 ULDA Non-Resident Worker Accommodation Principles and Criteria

Principle 1	Principle 2
Non-resident worker accommodation is located and designed to be integrated within or on the edge of the town	Non-resident worker accommodation adequately provides for occupants and has a high level of on-site amenity
Criteria	
• Identifying a suitable location • Designing to connect to services, facilities and networks in surrounding areas • Preserving amenity to achieve desirable integration • Planning for changing circumstances over time • Catering for non-residential uses and facilities • Providing access to infrastructure and community facilities and services	• Responding to the characteristics of the workers • Providing for the safety and comfort of the occupants

Source: Urban Land Development Authority (2011)

The relationships between non-residential workers and their 'host' communities have attracted considerable comment.

Some of the commentary in the media and that published by some researchers paints non-residential employment practices as inherently destructive of regional town life, and the well-being of the workers themselves (see Carrington and Pereira 2011). Other researchers, noting that the practices are here to stay, highlight the complexity and multi-faceted nature of the debate about non-residential workforce models, and there are arguments for more investigation into the growth of these models (see for example, Centre for Social Responsibility in Mining 2011, Haslam McKenzie 2011, Rolfe 2011, Sibbel 2010). In this context the following statement by Sibbel (2010: 12) is relevant.

Community perceptions regarding FIFO have been often stereotypical and negative. For example, some public rhetoric has described FIFO as "the cancer of the bush", a cause of "marriage break up" and "children running amok". There has also been a tendency to attribute a wide range of problems to FIFO. Shrimpton and Storey aptly describe this as the "attributability problem", in which the image of FIFO leads to a tendency to attribute all problems to it when in reality the issues are more complex and there are many other influences on people's lives and wellbeing such as stage in the family life cycle, availability of social support or the presence of pre-existing issues.

The nature of work practices undertaken is also of interest. It has been argued that 12 hour shifts contribute to a disconnect between the local community and non-resident workers who are less likely to engage in the social and lifestyle aspects of the town. For example, it is suggested that shift work can impact on the synchronicity between shift-workers and non-shift-workers resulting in social dislocation between workers and their family and friends (Murray & Peetz, 2008). This contributes to the development of a 'different' town culture that is based on occupation needs (Bulmer, 1975 cited in Murray & Peetz, 2008). As such, due to the disruption to typical interpersonal and social patterns, shifts are perceived within some communities as having a negative impact on the overall sense of community and sense of place within the town. This commentary overlooks the fact that an increasing proportion of residential workers are also on 12 hour shifts within a 'work block' and may take the opportunity to leave town on days off seeking recreational experiences outside town.

Although there is evidence that new workforces with a high percentage of non-resident workers are not seen as being beneficial by existing residents of towns in resource regions (see Carrington and Pereira 2011), as noted previously there has been no direct inquiry of the workforce themselves about their preference for workforce arrangements. This study answers that fundamental question.

3.3.2 Residential accommodation

Housing availability and affordability issues

Providing residential accommodation to workers is entirely dependent on the availability and affordability of suitable housing stock in towns near to the work site. In areas where resource activity is high, access to affordable housing is a defining issue.

The influx of both residential and non-residential resource sector workers to some mining towns is contributing to housing and accommodation shortages, and consequently has dramatically inflated rental and purchase prices. For example, median weekly house rents in Moranbah are reported to have risen from $137.50 per week (pw) in 1998, to $680 pw in 2008, to current levels of $2,000 pw (see also Petkova *et al.* 2009, Macdonald, 2011). A review of prices for listed 4x2 houses in Moranbah in January 2012 suggests they range in price between $700,000 and $1,000,000. High housing costs are typically associated with resources communities and represent a form of localised 'Dutch Disease' where rapid development results in pressures which transfer costs to other sectors of the economy which in turn restrict economic development (Rolfe *et al*. 2007a).

In the case of non-residential workers, companies that are unable to obtain accommodation for short-term construction workers in specialist villages, may rent houses at high rates and use them to accommodate several employees on rotation in the house. The resultant level of rental inflation has meant that some permanent residents are finding themselves squeezed out of the market and hence their community (URS, 2011).

3 The context for the Workforce Accommodation Study

As well as outright shortage of houses, part of the problem relates to a lack of diversity of dwelling styles in some purpose built towns. Being able to have access to a diversity of housing from stand-alone family style residences through to village-style accommodation allows towns to be better able to meet fluctuating demands for accommodation for changing ratios of non-resident to resident workers, and changing family sizes (see comments in Haslam McKenzie 2008). The failure for housing provision to keep up with demand in resource-dependent towns is reported anecdotally as a cause of over-crowding in existing houses, and illegal use of caravan accommodation (see for example, Anon 2011).

There is evidence of market failure in the provision of housing to meet demand. Although house prices and rents are high in many resource towns, there is limited evidence that this is stimulating sufficient investment in new accommodation. It seems that the private and public investors in housing in many towns either cannot keep up with a rapidly increasing demand, and/or may regard the costs of building new houses prohibitive, and/or be reluctant to invest in housing infrastructure that may not be needed in that location at some time in the future (risk aversion).

Other reasons for market failure include practical limitations (land availability, planning approvals, availability of builders etc.), and also changed demographic, social and employment patterns with ‘block shifts’ allowing workers to live within a wider region, and a bias by some people against residence in smaller towns as opposed to large centres such as Mackay or Rockhampton (Rolfe undated). Some of the reluctance to invest based on uncertainty about resource industry sustainability may be overcome by the evidence of long-term growth in industry activity, as shown in the QRC’s *Queensland Resource Sector State Growth Outlook Study* (Deloitte Access Economics 2011).

Addressing the housing shortage - The Urban Land Development Authority

Formation, by the Queensland Government, of the Urban Land Development Authority (ULDA) has been a key initiative aimed at addressing critical housing issues across the State. This is one of the most significant factors in the liveability of communities, particularly when it comes to attracting non-resource sector employees for support services. The ULDA has the ability and specific powers to free up land in areas of significant population growth, including mining regions.

This has enabled 14 Urban Development Areas (UDAs) to be declared across Queensland, most in resource industry areas. The declaration of UDAs enables housing development, specifically including affordable housing development, to progress more rapidly in resource communities. The ULDA works with local councils, the resource industry, housing companies and Government Agencies to develop a range of new housing models that meet the needs of local communities in resource towns.

The ULDA has commenced work on the Clinton UDA in Gladstone, which will deliver nearly 300 new dwellings, with 60% of these available at below the median house price for the area. The declaration in September of the Tannum Sands UDA has launched a second project in Gladstone that will provide a range of housing options for the local community. Construction will commence in Roma, Blackwater and Moranbah in the coming months. The pilot of the Priority Homebuyer Initiative (PHBI) in the Clinton UDA has been successful in targeting sales at low to moderate income households, many of whom will be key workers in the Gladstone community. The PHBI will be rolled out in other resource communities in 2012.

The ULDA is also contributing some housing stock to initiatives such as the Isaac Affordable Housing Trust, a trust created by the Isaac Regional Council to enable allocation of National Rental Affordability Scheme (NRAS) incentives to develop affordable housing in the region (Ihttp://www.isaac.qld.gov.au/web/guest/index.shtml/-

3 The context for the Workforce Accommodation Study

/asset_publisher/f7Gg/content/isaac-takes-unique-step-to-address-housing-issue, accessed 13 March 2012).

4

Findings from the Workforce Accommodation Study

The findings presented here are based on:

- Interviews with Human Resources Personnel;
- Interviews with Site/ Operational Personnel; and
- Workforce Accommodation Surveys returned by 27 January 2012.

4.1 General characteristics of survey respondents

The general characteristics of the respondents are shown in Table 4-1 by region and employment status. Some differences are apparent between regions as described below. Note that the region respondents were classified as working in was calculated using their response to Question 4 ‘At what site are you currently working’. Using this data it was possible to identify their specific workplace region (see Appendix B)

4.1.1 Bowen Basin

- There is an even distribution of non-Residential Worker (NRW) respondents (50%) to Residential Worker (RW) respondents (50%).
- A higher proportion of respondents are male NRW.
- Twice as many female respondents are RW as opposed to NRW.
- 32% of respondents are aged under 35 years and a slightly lower proportion (27%) are aged over 50 years.
- The majority of both NRW and RW respondents are in a relationship.
- Over 65% of both NRW and RW respondents have been in the industry for 5 or more years.
- 56% of RW respondents have no children or have non-dependent children, similar to NRW respondents where 51% have no, or non-dependent children.

4.1.2 North West Minerals Province

- A higher proportion of respondents reported being RW (64%) compared to NRW (36%).
- There are a higher proportion of women respondents in the North West Minerals Province (26%) than in the Bowen (16%) or Surat Basins (14%).
- 39% of respondents are aged under 35 years and 19% above 50 years – the smallest proportion in this age group across the regions.
- 63% of NRW respondents and 56% of RW respondents have been in the sector for five (5) years or more.
- Similar proportions of RW (56%) and NRW (57%) respondents have no, or non-dependent children.

4.1.3 Surat Basin

- 50% of respondents are RW and 50% are NRW.
- 13.9% of respondents are female, the lowest proportion of all three regions.
- 37% of respondents are aged under 35 years while 24% are aged 50 years or more.
- Almost 40% more NRW respondents have dependent children than do RW.
- While 35% of RW respondents have been in the sector for 5 years or more, 46% of NRW respondents have been in the sector for 5+ years.
- Almost a quarter (20%) of RW respondents have been in the sector for 12 months or less.
- 16.5% of all Surat Basin respondents have only been in the sector for 12 months or less.

4 Findings from the Workforce Accommodation Study

4.1.4 Regional differences

One of the key findings from these demographic data is that there are few points of difference between residential and non-residential workers on most points of analysis.

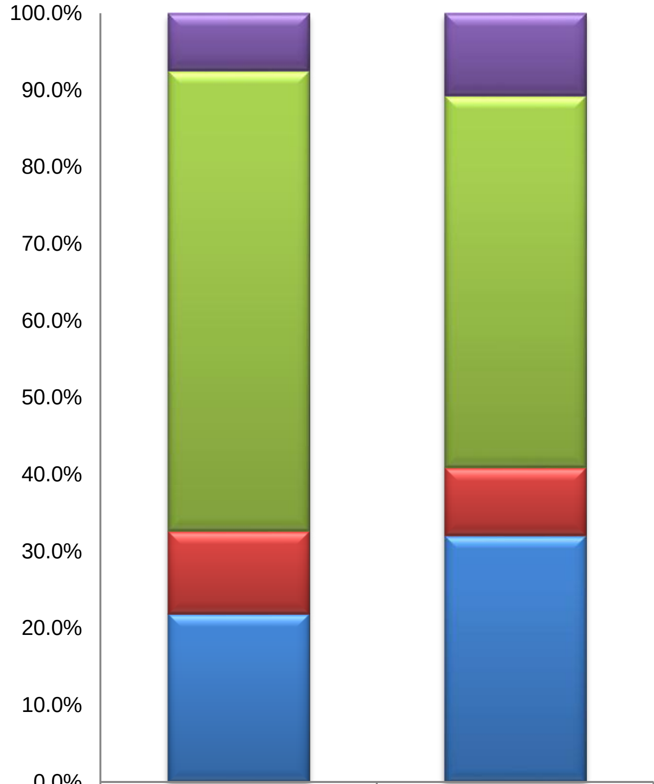
Some of the key points of difference between the regions are as follows:

- The North West Minerals Province shows a higher proportion of women in the workforce and respondents were generally younger than other regions;
- Workers in the Surat Basin have been in the sector for a shorter period of time while Bowen Basin and North West Minerals Province workers have more experience in the sector; and
- The ratio of RW to NRW respondents is higher in the North West Minerals Province than in either the Bowen or Surat Basins.

4.1.5 Response rates to individual questions

As noted in Section 2.1.5, in presenting the findings, totals for responses to individual questions may not align with the total number of surveys returned. This is because not all respondents answered all questions, and hence there are missing data for most questions. Where relevant the NULL entries are included in Tables to show the response rates for individual questions.

The number of responses for each question is shown in the table captions. In all cases, the number of non-responses to individual questions formed a very small percentage of the total number of surveys returned. Where a respondent has not provided sufficient responses to individual questions to enable categorisation they have been removed from the overall numbers for that question and are not included in the calculation of proportions. As a result the figures shown in the report may not always correspond to the tables shown in Appendix C.



	non-Residential Worker	Residential Worker
Other	7.4%	10.7%
Bowen Basin	59.9%	48.3%
Surat Basin	10.8%	8.9%
North West Minerals Province	21.9%	32.1%

Table 4-1 Characteristics of respondents

Characteristic	Bowen Basin		NWMP		Surat Basin		Other/Unknown		All Responses	
	Residential Worker (RW)	Non-Residential Worker (NRW)	Residential Worker (RW)	Non-Residential Worker (NRW)	Residential Worker (RW)	Non-Residential Worker (NRW)	Residential Worker (RW)	Non-Residential Worker (NRW)	Residential Worker (RW)	Non-Residential Worker (NRW)
Number	600	604	398	221	110	109	133	75	1,241	1,009
Percentage of Total Workers	50%	50%	64%	36%	50%	50%	64%	36%	55%	45%
Gender (% Total Workers)										
Male	39.3%	44.6%	45.6%	28.0%	42.1%	44.0%	45.8%	26.2%	42.4%	38.6%
Female	10.9%	5.2%	18.9%	7.5%	8.3%	5.6%	22.9%	5.1%	13.1%	5.9%
Age (% by Residential Status)										
Less than 25 years	10.8%	6.8%	9.8%	5.4%	10.0%	11.0%	9.0%	6.7%	10.2%	12.0%
25 - 34 years	23.3%	22.5%	32.7%	28.5%	26.4%	25.7%	22.6%	21.3%	26.5%	44.0%
35 - 49 years	38.0%	42.1%	39.7%	44.8%	40.0%	36.7%	35.3%	33.3%	38.4%	24.0%
50+ years	26.7%	27.8%	17.6%	21.3%	22.7%	25.7%	30.8%	29.3%	23.9%	16.0%
(blank)	1.2%	0.8%	0.3%	0.0%	0.9%	0.9%	2.3%	9.3%	1.0%	4.0%
Relationship Status (% by Residential Status)										
In a relationship	87.0%	86.4%	82.4%	84.1%	86.9%	82.1%	90.0%	76.4%	85.8%	84.7%
Not in a relationship	13.0%	13.6%	17.6%	15.9%	13.1%	17.9%	10.0%	23.6%	14.2%	15.3%
Children (% by Residential Status)										
No children or non-dependent children	56.1%	51.4%	56.4%	57.5%	36.9%	54.7%	54.3%	68.1%	54.2%	54.3%
Dependent children	43.9%	48.6%	43.6%	42.5%	63.1%	45.3%	45.7%	31.9%	45.8%	45.7%
Years in the Resources Sector (% by Residential Status)										
0-12 months	6.0%	7.3%	11.6%	10.4%	20.0%	12.8%	7.5%	12.0%	9.2%	8.9%
12-24 months	6.5%	6.1%	6.8%	6.3%	8.2%	11.0%	9.8%	4.0%	7.1%	6.5%
2-5 years	15.7%	14.9%	24.4%	19.5%	26.4%	21.1%	18.0%	9.3%	19.7%	16.2%
5+ years	68.7%	65.4%	56.0%	63.3%	35.5%	45.9%	57.9%	62.7%	60.5%	62.6%
(blank)	3.2%	6.3%	1.3%	0.5%	10.0%	9.2%	6.8%	12.0%	3.5%	5.7%

4.2 Current Accommodation Arrangements

In responding to the survey, respondents were required to nominate whether they were in a residential or a non-residential arrangement. In the survey form (see page 1, top of second column, **Appendix B**), respondents were provided with clear definitions of Residential and Non-Residential Worker, as described in Section 2.1.4 and repeated here. Following the OESR terminology, the definitions below were adopted:

- **Residential Worker (RW)** – a worker is considered residential where they typically return to their home at the end of each shift to a residence located in a town in proximity to the work site; and
- **Non-Residential Worker (NRW)** – a worker who commutes from where they usually live, staying in the local area for the duration of their roster (FIFO/DIDO). While living in the area, the worker stays in commercial accommodation (hotels, motels or caravan parks) or in a worker accommodation village which may be located in town centres or adjacent to a mining or resource lease.

In interpreting the responses, the assumption is made that respondents correctly identified their status, although where individuals' responses to particular questions are at odds with expectations, these have been highlighted, although the frequency of such occurrences is low. Interpreting these possible anomalies cannot be done with any degree of certainty.

4.2.1 Residential Worker respondents

Those who nominated themselves as residential workers were required to describe the type, ownership (owned or being purchased) and current uses of the dwelling they are living in, and any other dwelling they have an interest in (see Question 10a to 10f in **Appendix B**). The responses are presented in Table 4-2.

Table 4-2 Home ownership of residential workers (number and proportion)

Number	Bowen Basin	North West Minerals Province	Surat Basin	Other	(blank)	Total
Residential Workers Owning/ Purchasing Own Dwelling	214	242	70	4	57	581
Residential Workers Renting	329	130	32	-	62	558
Residential Workers Not Purchasing or Renting	57	26	8	-	10	102
TOTAL	**600**	**398**	**110**	**4**	**129**	**1241**

4 Findings from the Workforce Accommodation Study

Percentage by Region	Bowen Basin	North West Minerals Province	Surat Basin	Other	(blank)	Total
Residential Workers Owning/ Purchasing Own Dwelling	35.7%	60.8%	63.6%	100.0%	44.2%	46.8%
Residential Workers Renting	54.8%	32.7%	29.1%	-	48.1%	45.0%
Residential Workers Not Purchasing or Renting	9.5%	6.5%	7.3%	-	7.8%	8.2%
TOTAL	**100%**	**100%**	**100%**	**100.0%**	**100.0%**	**100%**

Residential workers and home ownership

Approximately half of all respondent residential workers own or are purchasing their own dwelling (47%). Of those 660 respondents who are not purchasing or owning their own home, 85% are renting and it might be presumed that the remainder are staying with family and/or friends. Home ownership amongst residential workers is much lower amongst respondents in the Bowen Basin where 36% of respondents indicated that they owned or were purchasing their own dwelling compared to 61% in the NWMP and 64% in the Surat Basin.

Housing subsidies for residential workers

Overall, 72% of residential worker respondents who are renting indicated that they receive an accommodation subsidy (see Table 4-3). This rate varies markedly dependent on the role the respondent has within the organisation, with 83% of professional staff receiving a rental subsidy, compared to 61% of workers in operation, administration and trade roles.

Table 4-3 Rental subsidy of Residential Workers who are renting

Rental Subsidy (Residential Workers)	Bowen Basin	North West Minerals Province	Surat Basin	Other	Total
Do not receive rental subsidy	14.3%	41.5%	96.9%	25.8%	26.8%
Receive rental subsidy	84.5%	58.5%	3.1%	72.6%	72.3%
(blank)	1.2%	-	-	1.6%	0.9%

There is considerable variation between the regions with regard to the payment of an accommodation subsidy. The interviews with HR personnel tended to suggest that the payment of an accommodation subsidy of some form was more common in the remote NWMP region where there is the payment of short-term relocation allowance, rental subsidies and mortgage assistance. In the Surat Basin one respondent who is renting indicated that they were in receipt of a rental subsidy. In the Bowen Basin 85% (n=278) of respondents received a rental subsidy, as did 59% (n=76) of those in the NWMP.

Residential worker respondents and their role in the organisation

All respondents were asked to state their current role within the organisation (see Question 7 in **Appendix B**). This was a free text field in the survey and thus generated a variety of responses. The data have been analysed and roles categorised into five categories: Administration; Operations; Professional; Trade and Other.

Although a number of those respondents who nominated themselves as residential workers did not state their role, the categorisation has allowed analysis of home ownership and rental status according to the individual’s role. Around 37% of operations and trade respondents and 43% of administration staff respondents own or are purchasing their home compared to 40% of professional staff respondents.

The high costs of for companies of providing housing

As reported by the HR interviewees, the high costs of housing can make it difficult for companies to take on new recruits and house them locally. Even though wages are typically high for employees in the sector, unless the rents are significantly subsidised the high costs will detract employees from moving to the area. As an example of the level of subsidy paid by companies, in one town the private rental market is asking average weekly rents of $2,400 which are then subsidised by the company, such that the employee pays $150 per week, pre-tax.

In many places the housing is owned by the company but waiting lists are long. Companies are often constrained in building new dwellings by lengthy planning approvals processes and a lack of land available for residential construction. The shortage of land is an issue referred to on more than one occasion during the interviews and is constraining recruitment for companies.

4.2.2 Non-residential workers

Those respondents who nominated themselves as non-residential workers were required to describe the type of non-residential accommodation they occupy, the name of the facility if a camp, and their home accommodation arrangements and location (see Question 11a to 10g in **Appendix B**). The responses are presented in Table 4-4 and Table 4-5.

Type of non-residential accommodation

Most non-residential workers who responded to the question indicated that they are accommodated in a camp or village close to the work site, as shown in Table 4-4. These data should be read with caution as the analysis has shown that where respondents noted the same camp name (Question 11c) there were occasions where they indicated different responses to the question of *"where do you stay?'* (Question 11b). Where possible these data were 'rationalised' prior to analysis.

.

Table 4-4 Type of non-residential accommodation (n=1,009)

	Bowen Basin	North West Minerals Province	Surat Basin	Other	All Regions
Camp close to site	314	194	78	42	628
In town residence (e.g. motel, caravan park)	85	14	18	9	126
Offsite camp in or adjacent to town	179		7	8	194
Offsite camp remote from nearest town	20	12	5	6	43
(blank)	6	1	1	10	18
Grand Total	**604**	**221**	**109**	**75**	**1009**

	Bowen Basin	North West Minerals Province	Surat Basin	Other	All Regions
Camp close to site	52.0%	87.8%	71.6%	56.0%	62.2%
In town residence (e.g. motel, caravan park)	14.1%	6.3%	16.5%	12.0%	12.5%
Offsite camp in or adjacent to town	29.6%	0.0%	6.4%	10.7%	19.2%
Offsite camp remote from nearest town	3.3%	5.4%	4.6%	8.0%	4.3%
(blank)	1.0%	0.5%	0.9%	13.3%	1.8%
Grand Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

4 Findings from the Workforce Accommodation Study

Travel time for non-resident workers varies. Respondents were asked to indicate the 'average travel time from home to camp in minutes' (Question 11d). Responses ranged were from 20 minutes to 8.5 hours. Approximately 17% of respondents who answered this question noted their travel time from home to camp at 60 minutes or less. There is the possibility that there may have been some confusion when responding to the question of whether they were residential or non-residential. Because of this, the responses to this question should not be relied upon.

Non-residential workers living in regional towns

In the Surat Basin there are some companies whose workers are living in the regional towns near to operations but who drive to a work site camp for the duration of their roster. These workers are considered 'locals' because they have housing in local towns and are contributing to the local economy. However, they are staying in work site accommodation and only returning home at the end of their roster. As this study is utilising the definition[5] of 'non-residential' as described by the Queensland OESR, these staff are classified as non-residential in this study.

Relocation to a town to be closer to the work site takes numerous forms. One company reported that some workers had relocated from a major urban centre to the towns where companies transfer their workers to and from site by bus. That is, they have moved to mid-sized regional centres which provide reasonably high quality services so that they have access to a Bus-In Bus-Out (BIBO) commuting arrangement. This could be considered a compromise or middle-ground option that brings workers closer to work but also maintains a connection to their desired lifestyle. One company provides relocation assistance for workers to move to these 'commuting centres' to facilitate their commuting arrangements.

[5] a worker who commutes from where they usually live, staying in the local area for the duration of their roster (FIFO/DIDO). While living in the area, the worker stays in commercial accommodation (hotels, motels or caravan parks) or in a worker accommodation village which may be located in town centres or adjacent to a mining or resource lease.

Home location for non-resident workers

Around three quarters (73.4%) of respondents who nominated themselves as non-residential workers indicated that they own or are purchasing a dwelling at their place of permanent residency, and provided the postcode for that location.

The postcodes for 741 respondents have been categorised according to the region or major town/ city in which they live, and are presented in Table 4-5. Of these 741, 68% or 686 are resident in Queensland. Of the Queensland-based non-residential respondents just under 70% live in Brisbane, the Gold and Sunshine Coasts, the Rockhampton-Yeppoon area, the Mackay area, the Townsville area, and the Cairns area. Few respondents live far away from the coast, or in areas of high resource sector activity.

4 Findings from the Workforce Accommodation Study

Table 4-5 Home location for non-resident workers

Area	Principal Towns	#	%
CQ Coastal North	Mackay, Sarina, Mirani, Airlie Beach, Properpine, Bowen	192	28.0%
North Queensland	Townsville, Ayr, Charters Towers, Ingham	112	16.3%
Brisbane	Brisbane	90	13.1%
CQ Coastal South	Miriam Vale, Agnes Waters, Gladstone, Rockhampton, Yeppoon, Emu Park	78	11.4%
Wide Bay	Gympie, Hervey Bay, Maryborough, Bundaberg	46	6.7%
Sunshine Coast	Caloundra, Maroochydore, Noosa, Maleny	38	5.5%
Far North Queensland	Cairns, Innisfail, Atherton, Port Douglas, Merreba	34	5.0%
Toowoomba	Toowoomba, Pittsworth, Millmerran, Warwick, Oakey, Crows Nest	25	3.6%
Gold Coast	Gold Coast, Tweed Heads, Beaudesert	24	3.5%
Bowen Basin South	Emerald, Blackwater, Springsure, Biloela, Middlemount, Capella, Tieri	21	3.1%
Surat	Miles, Taroom, Roma, Mitchell, Surat, St George	14	2.0%
Mt Isa	Mt Isa, Cloncurry, Julia Creek	5	0.7%
Dalby	Dalby, Chinchilla, Jandowae, Tara	4	0.6%
Bowen Basin North	Moranbah, Clermont, Nebo, Dysart, Glenden, Collinsville	2	0.3%
Central West Queensland	Tocal	1	0.1%
TOTAL QUEENSLAND RESIDENTS		**686**	**100%**
NSW		22	
VIC		6	
SA		4	
WA		2	
Overseas		1	
(blank)		20	
Grand Total		**741**	

4.3 Satisfaction with current employment residential status

4.3.1 Preference for current employment residential status

Respondents to the survey

All respondents were asked to rate their current employment residential status at this time in their life as being either preferred, ready to change or not preferred (see Question 12 in **Appendix B**). The responses could then be analysed according to their own nomination as being either residential or non-residential workers.

The distribution of current satisfaction with existing employment residential status is shown in Table 4-6. Regardless of employment arrangement (i.e. residential or non-residential), the majority of respondents are in their preferred employment residential status across all regions.

This is a key finding from the Survey. Excluding those respondents who could not be categorised by region, between 58 and 73% of non-residential workers, and between 65 and 78% of residential workers are in their preferred arrangements.

As shown in Table 4-7, in each of the regions, respondent residential workers that own (or are purchasing) their dwelling tend to be more satisfied with their employment arrangement than those that rent. The difference between these respondents is more pronounced in the North West Minerals Province where 76% of owners indicate they are in their preferred employment residential arrangement against 50% of renters.

Overall, one third (30%) of respondents indicated at Question 12 of the survey that they are not in their preferred arrangement or they are ready to change. In support of these results, three of the nine non-residential workers interviewed stated that they would consider relocating to the community near to the mine but only if they received free rent or at least a considerable housing subsidy. The benefit of living in an accommodation village is that everything is paid for so it would be difficult to move from this situation. Also, these interviewees understood that housing was both expensive and limited in the areas where they worked.

In answering Q12, only 19% of respondent residential workers that own their house said they are ready for a change, while 25% that rent indicated they are ready for a change in their accommodation arrangement. It is not unexpected that those who own their own home are less likely to want to move, particularly given the state of the housing market in Queensland at the current time. Only 12% of respondents indicated their current accommodation arrangements were not preferred, with more non-residential workers being in that situation (16%) than residential workers (9%). **Again, this is a key finding from the Study**.

4 Findings from the Workforce Accommodation Study

Table 4-6 Satisfaction with current accommodation arrangement – residential vs. non-residential workers (by Number and Percentage)

	Bowen Basin		NWMP		Surat Basin		Other			All Regions	
	non-Residential Worker	Residential Worker	non-Residential Worker	Residential Worker	non-Residential Worker	Residential Worker	non-Residential Worker	Residential Worker	(blank)	non-Residential Worker	Residential Worker
Not Preferred	97	34	25	48	24	8	10	8		156	98
Preferred	353	404	162	257	64	86	34	82		613	829
Ready to change	134	139	32	88	17	13	20	35		203	275
(blank)	20	23	2	5	4	3	11	8	25	37	39
Grand Total	**604**	**600**	**221**	**398**	**109**	**110**	**75**	**133**	**25**	**1009**	**1241**

	Bowen Basin		NWMP		Surat Basin		Other			All Regions	
	non-Residential Worker	Residential Worker	non-Residential Worker	Residential Worker	non-Residential Worker	Residential Worker	non-Residential Worker	Residential Worker	(blank)	non-Residential Worker	Residential Worker
Not Preferred	16.1%	5.7%	11.3%	12.1%	22.0%	7.3%	13.3%	6.0%		15.5%	7.9%
Preferred	58.4%	67.3%	73.3%	64.6%	58.7%	78.2%	45.3%	61.7%		60.8%	66.8%
Ready to change	22.2%	23.2%	14.5%	22.1%	15.6%	11.8%	26.7%	26.3%		20.1%	22.2%
(blank)	3.3%	3.8%	0.9%	1.3%	3.7%	2.7%	14.7%	6.0%	100.0%	3.7%	3.1%
Grand Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Table 4-7 Satisfaction with current accommodation arrangement by region – residential workers

	Bowen Basin (n=600)		NWMP (n=398)		Surat Basin (n=110)		All Responses (n=1,241)	
Residential Workers	Own/ Purchasing	Renting/ Other	Own/ Purchasing	Renting/ Other	Own/ Purchasing	Renting/ Other	Own/ Purchasing	Renting/ Other
Not Preferred	2.3%	7.5%	6.2%	21.2%	5.7%	10.0%	4.3%	11.1%
Preferred	71.5%	65.0%	74.8%	48.7%	81.4%	72.5%	74.2%	60.2%
Ready to change	22.9%	23.3%	18.2%	28.2%	10.0%	15.0%	19.3%	24.7%
(blank)	3.3%	4.1%	0.8%	1.9%	2.9%	2.5%	2.2%	4.0%
Grand Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

4 Findings from the Workforce Accommodation Study

Residential workers interviewed

Residential workers typically referred to daily access to home and family life as a primary benefit of a residential accommodation arrangement. They are able to participate in community life and perhaps more importantly in the lives of their children. Added to this, if the mine site is located in proximity to the larger coastal towns it provides an opportunity to drive to the bigger centres on days off. People can then access the amenities of the larger centres while remaining close to their work place.

Several did refer to the challenges of living in more regional centres related to the limited array of services on offer; lack of entertainment options; fewer schooling choices. One interviewee noted that secondary schooling is limited in terms of curriculum and opportunities for children and one of the children had completed two years of secondary school before asking to transfer to a boarding school in a major centre. According to much of the research this is not uncommon.

Several interviewees mentioned the importance of being part of the community. They felt that their children are safe and looked out for, they are part of the social life of the town and are making a contribution to the community. Their time with their family is not shortened by lengthy travel times as would be the case if they were DIDO or FIFO.

The main complaint with residential arrangements related to the high cost of housing and generally high living expenses (e.g. food, entertainment, construction, etc.). One of the impacts of this is that it was pricing non-resource sector workers out of the market and, ultimately, out of the town. As an example, one interviewee related that it is not uncommon to go to the local chicken take-away outlet only to find a sign in the door saying they are closed because they have no staff. Most businesses, it was suggested, rely on their workers being the partners of resource sector workers because they would otherwise be unable to afford to live in the town on the wages the business was offering.

Not all interviewees were living in company subsidised housing. Some are renting in the private market and one has purchased his own home without company assistance.

Regardless of the challenges, the residentially based interviewees expressed a strong preference for this accommodation arrangement and would mostly not consider changing to a FIFO type arrangement.

Non-residential workers interviewed

Non-residential workers interviewed for the study enjoy the flexibility that a FIFO roster provides, particularly the extended blocks of time away from work. The long breaks (e.g. two weeks) mean that workers can use that time to travel. One interviewee who works a two week on, two week off roster utilises the time to travel internationally and essentially doesn't have a permanent residence. All interviewees mentioned their desire to maintain a residence away from the mine site, typically located in a large centre along the coast (see Table 4-5). Most live in towns where they are able to access the company flights to site. One interviewee working in the NWQMP flies in and out of Townsville but lives on the Sunshine Coast. He was able to salary-sacrifice the flight from home to Townsville as well as one night's accommodation the night prior to departure. It was important for this interviewee to maintain the permanent family residence on the Sunshine Coast and he was willing to pay the additional costs associated with commuting to his workplace.

Two interviewees made mention of the benefit in being able to separate home and work life. They had previously worked in a residential operation and found that the proximity to the mine made them effectively on call and often resulted in longer working hours than their job required.

Working to a FIFO or DIDO roster meant that the family didn't have to relocate. This was considered particularly important where the relocation would disrupt children's schooling and recreational/sporting activities.

4 Findings from the Workforce Accommodation Study

While non-residential workers appreciated the blocks of rostered time they typically had to spend with families some also made mention of the isolation from family and friends that came with rostered time on the job. Several of those interviewed noted that it can be difficult for some workers who were in a relationship to fit back into family life when returning home.

Satisfaction with non-residential arrangements – the HR view

According to HR personnel interviewed, younger workers without children tend to generally favour a non-residential arrangement and to live in coastal centres and cities and commute to their work site either as FIFO or BIBO. The general sense amongst HR personnel interviewed is that these commuting workers prefer the lifestyle and attractions of the bigger cities and coast to the smaller towns inland.

Commuting is also thought to be attractive for those who have ‘established a life’ elsewhere that they are reluctant to leave behind. This might revolve around sporting or recreation pursuits, study or education, family and friend relationships or social activity and opportunity or where a partner was in satisfying employment. Work rosters that provide for significant blocks of off-time (e.g. 14 days on/14 days off) add to the attraction of a FIFO lifestyle. The ability to move to and then live in a favoured residential location on the coast was considered to be a motivation for opting for a non-residential accommodation arrangement.

At the other end of the work life are the older workers (and returning retirees) who often no longer have family commitments and have established their homes and lives in coastal communities. This group often prefer to retain their primary residence and commute to their work place for their roster.

4.3.2 Quality of current accommodation

All survey respondents were asked to rate the quality of their accommodation (see Question 18 in **Appendix B**). The responses have been divided between residential and non-residential workers. Residential respondents have been further classified according to whether they own (or are purchasing) the property in which they reside or whether they are renting either in the private market or from their employer. These data are shown in Table 4-8.

Residential workers

In the Bowen Basin those that are renting appear to be more content with the quality of their accommodation than others across the regions and less likely to rate the accommodation as ‘poor’ or ‘very poor’. A similar pattern is evident in the North West Minerals Province although two-thirds more respondents rate the rental accommodation as ‘very poor’ in comparison to those that own or are purchasing.

The picture in the Surat Basin is more variable. An equal number of owner and renter respondents rate the quality of their accommodation as ‘excellent’ or ‘good’. About a third of owners/purchasers and a third of renters n the Surat Basin rate their accommodation as ‘poor’ or ‘very poor’.

The results for the NWMP show little difference between renters and owners/purchasers with about 30% rating work site accommodation as ‘Excellent’ or ‘Good’ and about 20% rating it as ‘Poor’ or ‘Very Poor’.

4 Findings from the Workforce Accommodation Study

Table 4-8 Quality of accommodation – Residential Workers

Residential Workers	Bowen Basin		NWMP		Surat Basin		Other	
	Own/ Purchasing	Renting	Own/ Purchasing	Renting	Own/ Purchasing	Renting	Own/ Purchasing	Renting
Excellent	12	42	14	5	3	2	35	4
Good	40	110	55	34	14	6	125	20
Neutral	53	85	122	54	21	12	211	21
Poor	49	54	30	17	4	1	89	10
Very Poor	38	25	10	9	17	6	69	4
(blank)	22	13	11	11	11	5	54	3
Grand Total	**214**	**329**	**242**	**130**	**70**	**32**	**583**	**62**

Residential Workers	Bowen Basin		NWMP		Surat Basin		All Regions	
	Own/ Purchasing	Renting	Own/ Purchasing	Renting	Own/ Purchasing	Renting	Own/ Purchasing	Renting
Excellent	5.6%	12.8%	5.8%	3.8%	4.3%	6.3%	6.0%	9.6%
Good	18.7%	33.4%	22.7%	26.2%	20.0%	18.8%	21.4%	30.7%
Neutral	24.8%	25.8%	50.4%	41.5%	30.0%	37.5%	36.2%	31.1%
Poor	22.9%	16.4%	12.4%	13.1%	5.7%	3.1%	15.3%	14.8%
Very Poor	17.8%	7.6%	4.1%	6.9%	24.3%	18.8%	11.8%	8.0%
(blank)	10.3%	4.0%	4.5%	8.5%	15.7%	15.6%	9.3%	5.8%
Grand Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

One of the key determinants of a worker's decision to look to a residential versus non-residential arrangement, according to HR representatives spoken to, is the availability of high quality, affordable housing in the towns near to the work site. In the Bowen Basin particularly, this is a well-reported issue. Housing demand in most towns and regional centres adjacent to minerals and energy resources activity far outpaces supply. Moranbah is singled out by many companies because of the issues in finding suitable locally based accommodation at a price that is affordable. Examples of rental prices in Moranbah were given during interviews – it is not uncommon for properties to rent for between $2,200 and $2,800 per week.

Non-residential workers

Table 4-9 shows the responses to the question *“How would you rate the quality of work site accommodation at the moment”* for non-residential respondents. In the Bowen Basin 57% rate the accommodation as ‘excellent’ or ‘good’. In the North West Minerals Province this figure is 70% and in the Surat Basin 73%. A greater proportion of non-resident Surat Basin workers rated their accommodation as ‘very poor’ with 13.1% in this category.

The higher ranking of the work site accommodation in the North West Minerals Province and the Bowen Basin may be a reflection of the longer history of resource activity on those regions.

As advised by Company HR personnel, accommodation options for the non-residential workforce vary from on-site company-owned and commercially serviced workers’ villages sometimes called remote area accommodation to commercially owned and operated accommodation villages located in or adjacent to major towns. These options provide varying facilities. In response to the questions regarding expectations for workers’ accommodation villages HR representatives noted that workers typically look for the following elements:

- Access to internet (more recently there has been an expectation that wi-fi networks will be available in individual rooms);
- Access to free-to-air and pay-TV options (e.g. Foxtel, Austar);
- Provision of recreational activities including swimming pool, gymnasium, sports fields;
- Good quality food;
- Wet mess with suitable opening hours (i.e. matching shift rosters); and
- Dedicated single rooms, i.e. no ‘hot-bed’ arrangements where the room is shared between workers on different shifts, nor shared by workers on the same shift;

Overall workers wanted a high quality village that can be seen as a “home away from home” offering industry leading standards, and quality aesthetics. Workers have also requested facilities on-site such as car washing facilities, petrol stations and undercover parking.

Table 4-9 Quality of accommodation - Non Residential Workers

		Excellent	Good	Neutral	Poor	Very Poor	Grand Total
Bowen Basin	(n)	94	246	126	82	47	**595**
	(%)	15.8%	41.3%	21.2%	13.8%	7.9%	**100%**
North West Minerals Province	(n)	47	108	45	18	3	**221**
	(%)	21.3%	48.9%	20.4%	8.1%	1.4%	**100%**
Surat Basin	(n)	30	48	8	7	14	**107**
	(%)	28.0%	44.9%	7.5%	6.5%	13.1%	**100%**
Other	(n)	8	26	16	14	1	**65**
	(%)	12.3%	40.0%	24.6%	21.5%	1.5%	**100%**
Grand Total	(n)	179	428	195	121	65	**988***
	(%)	18.1%	43.3%	19.7%	12.2%	6.6%	**100%**

* - 75 NRW did not respond to this question

4.3.3 Preference for residential purchase close to the worksite

In Question 13, all respondents were asked, if they had the opportunity, would they buy a dwelling close to their current workplace (see Question 13 in **Appendix B)**. The data were analysed according to whether the respondents nominated themselves as either resident or non-resident workers, and the region in which they worked. The pattern of responses is shown in Table 4-10.

Table 4-10 Preparedness to purchase house close to workplace

	Bowen Basin (n=1,204)		NWMP (n=619)		Surat Basin (n=229)		Other		Combined	
	RW	NRW	RW	NRW	RW	NRW	RW	NRW	RW	NRW
Already have	26.3%	3.3%	48.5%	1.4%	45.5%	4.6%	29.8%	1.3%	35.5%	2.9%
No	48.3%	83.3%	25.9%	93.2%	26.4%	76.1%	42.0%	76.0%	38.5%	84.1%
Yes	22.5%	13.1%	24.1%	5.4%	28.2%	17.4%	22.9%	8.0%	23.6%	11.5%
(blank)	2.8%	0.3%	1.5%	-	-	1.8%	5.3%	14.7%	2.4%	1.5%
Grand Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

There is a clear difference between residential and non-residential respondents, with only 11% of the latter interested in house purchase near the workplace, compared to 59% of residential respondents who have either made a purchase or would do so if the opportunity occurred.

Respondents were given an opportunity to comment on their reasons for their response. There were 982 responses by those who stated that they would not buy a dwelling close to their workplace if the opportunity arose. These responses have been analysed and categorised into 11 broad categories. Most are self-explanatory, however, the following describes the process of selecting categories.

- Not Preferred Location captures all responses which suggest that it is the location of the workplace and nearby town that is a primary detractor for home purchase. A typical comment being “it’s in the middle of nowhere” or “don't like living in mining towns and too isolated”
- Where respondents have made mention either of the cost of purchasing a dwelling close to their workplace or where they refer to a preference for investing elsewhere, this has been categorised as ‘cost/investment’.
- If a respondent has made specific mention of the lack of facilities including schools (e.g. “No social activities / variety for shopping”; “Small, isolated, no facilities, no private schools”) this has been categorised as ‘lack of quality facilities and/or services’.

4 Findings from the Workforce Accommodation Study

- When specific mention has been made of the 'coastal lifestyle' then the response has been categorised as 'prefer coast'.
- Comments about retirement, moving out of the sector or general uncertainty about the sustainability of the mine have group together as 'Work future uncertain').
- Those who commented that the reason they would not purchase a house because they were staying in accommodation subsidised by their employer are noted as 'Company House/Rental Assistance'.
- People who have a house elsewhere are classified as such.
- 'Other' captures the remainder who could not be easily categorised.

Table 4-11 Comments for not wanting to purchase a dwelling near work place

Category	No.
Not Preferred Location	234
Cost/Investment	225
Family/Lifestyle	149
Happy Where I Am	110
Prefer Coast	84
Other	49
Lack Of Quality Facilities and/or Services	38
Work Future Uncertain	33
Company House/Rental Assistance	22
No Interest	21
Already Have A Home Elsewhere	17
Grand Total	**982**

Three of the nine non-residential workers who were interviewed at the commencement of the study stated that they would consider relocating to the community near to the mine but only if they received free rent or at least a considerable housing subsidy. These interviewees stated that the benefit of living in an accommodation village is that everything is paid for so it would be difficult to move from this. Also, these interviewees understood that housing was both expensive and limited in the areas where they worked.

4.4 Employment decisions and accommodation arrangements

4.4.1 Challenges in recruitment – the HR view

The competition for labour

All of the HR interviewees noted difficulties in recruiting specialist technical personnel in the highly competitive market. In the Bowen Basin companies are struggling to recruit process and mining engineers, geologists, surveyors and statutory roles such as open cut examiners and mine deputies. Positions requiring trade skills such as fitters and turners and electricians are also difficult to fill. One interviewee reported the increase in the amount of time it takes to fill some positions growing from 60 days (from advertising to recruitment) to more than 90 days and in some cases over 200 days.

Companies in the NWQMP are struggling with similar recruitment challenges and are finding it difficult to find mining engineers, crew leaders, superintendents and mine managers, geospatial technicians, mineralogists, geologists, metallurgists, rock mechanics, operators and diesel fitters. There is also difficulty in filling some statutory roles.

The situation in the Surat Basin with Coal Seam Gas companies is different again where the nature of the extraction process means that some of the operational activity is undertaken by Engineering, Procurement and Construction Management (EPCM) contractors who are also responsible for recruitment and provision of the workforce. Nevertheless there are still issues with recruiting some positions particularly instrumental and electrical (I&E) technicians, drilling staff, contract engineers, planners, petroleum energy workers, production operators and experienced superintendents. In general, field operations in the Surat Basin can usually be filled from the Australian labour market as the skills required are less technical requiring mostly Certificate level qualifications. There is also a commitment by most companies to recruit locally where possible and to assist with this companies are providing in-house training and access to external training for employees. However, because the CSG sector is expanding so rapidly in Queensland and in New South Wales competition for workers is high. This has led to the broadening of recruitment drives to look to importing some specialist skills from other countries.

Responding to the challenge

In response to the recruitment dilemma many companies are looking further afield for personnel. Several companies with international offices are utilising their global networks to source staff. They, and other companies are increasingly broadening their recruitment searches to the international market searching in countries such as Canada, United States, South Africa, United Kingdom, Russia, and Poland, and closer to home in New Zealand, Malaysia, Papua New Guinea, India and Indonesia. Several companies are utilising the Temporary Business (Long Stay) Visa (457 Subclass) provisions to employ overseas workers to fill nominated skilled positions in Australia.

Many companies are turning to new methods of finding potential employees including using online social/business networking sites such as LinkedIn® to establish contact with people offering the required skill set. Other mechanisms or approaches that companies are implementing to boost recruitment include conducting career drives in major urban centres (particularly on the coastal strip), encouraging greater participation by women and Indigenous people in the sector, and turning to early career professionals or people with little or no prior experience in the sector. This is especially the case for entry-level positions. Some companies are also looking to older workers including those that have recently retired from the sector. Offering part-time employment options for this cohort has enabled some companies to successfully fill otherwise difficult to fill positions with older, previously retired workers. There were added difficulties reported for companies with operations more distant from the coast.

The importance of offering flexibility in accommodation arrangements

Generally the HR representatives interviewed suggested that offering a variety of accommodation options was the best recruitment strategy as it allowed sufficient flexibility for workers to select the option that suited them best.

The lack of available housing has required some companies to move more towards FIFO arrangements to be able to meet their labour demand. While some of the demand for lower skilled workers can be met from the already locally housed labour force, meeting demand for higher skilled workers typically means a company will need to look further afield. The mineral and energy resources sector is a complex labour market requiring complex solutions. Different accommodation options will be attractive to employees for a variety of reasons and ultimately companies must deliver accommodation solutions that enable them to bring together a workforce.

Non-residential options enable a more rapid deployment as projects come on-stream although in many instances are not the most cost-efficient options for companies. The general perception for the HR personnel interviewed is captured in the comment of one who said “100 per cent residential is not sustainable because the infrastructure provision can’t keep up”.

4.4.2 Accommodation arrangements in employment decision making – survey responses

Importance of accommodation arrangements – overall

All respondents were able to say how important access to their preferred accommodation arrangement was in their employment decision (see Question 16 in **Appendix B)**. Seventy seven (77) survey respondents did not answer this question and 190 were located in Basins other than those under investigation, leaving a total of 2,008 survey responses for analysis.

Over three quarters of all respondents (76%) indicated that access to their preferred accommodation arrangement was ‘very important’ or ‘important’ (50% indicating it was ‘very important’ and a further 26% indicating it was ‘important’ to their employment decision). The responses are shown in Table 4-12 and in Figure 4-1.

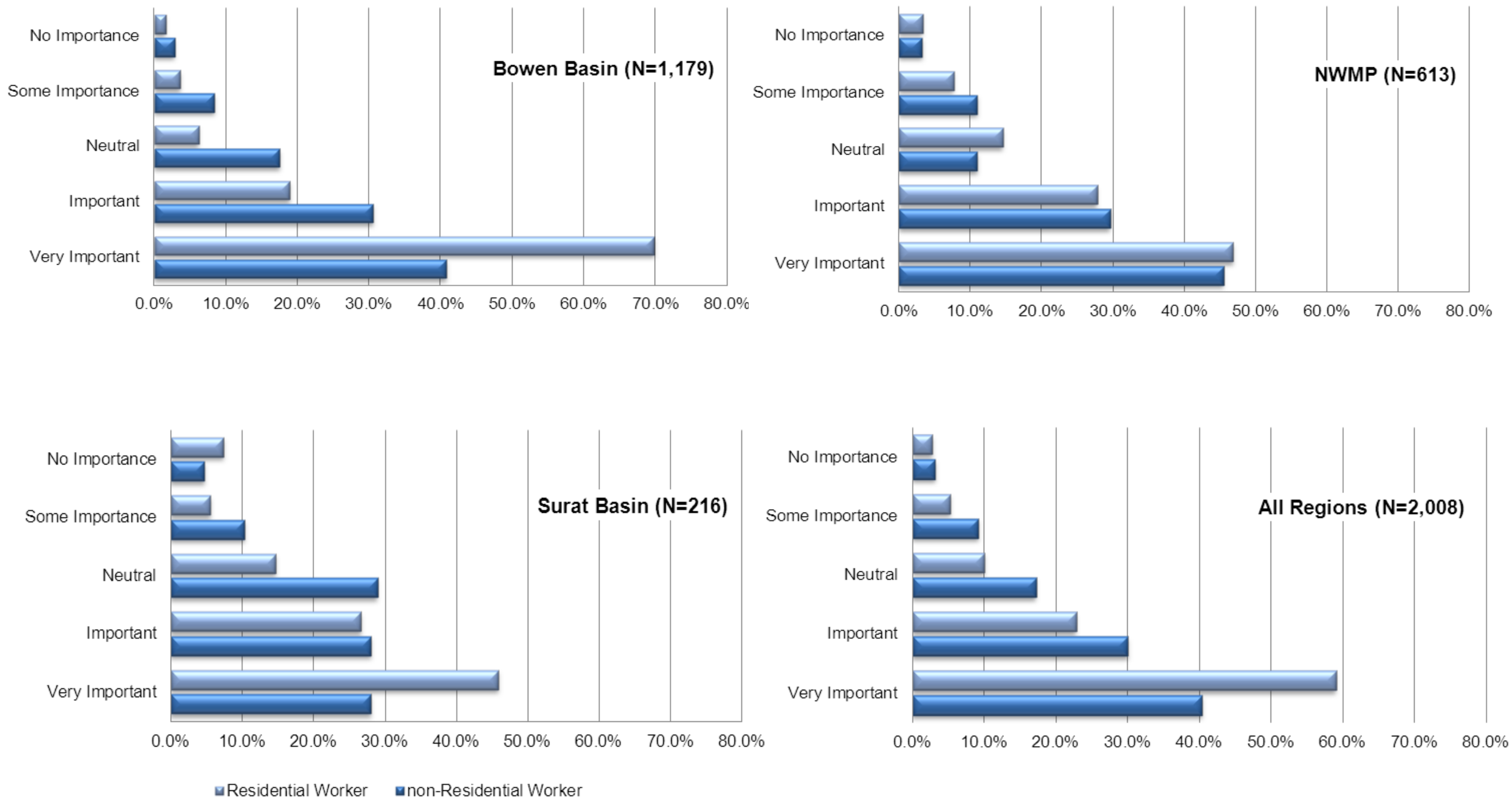
4 Findings from the Workforce Accommodation Study

Table 4-12 Importance of preferred accommodation arrangement in employment decision making by region

		Very Important	Important	Neutral	Some Importance	No Importance	TOTAL
Bowen Basin (n=1,179)	NRW	40.8%	30.5%	17.4%	8.4%	2.9%	100.0%
	RW	69.8%	18.9%	6.2%	3.6%	1.5%	100.0%
	ALL WORKERS	55.1%	24.8%	11.9%	6.0%	2.2%	100.0%
NWMP (n=613)	NRW	45.5%	29.5%	10.9%	10.9%	3.2%	100.0%
	RW	46.8%	27.7%	14.5%	7.6%	3.3%	100.0%
	ALL WORKERS	46.3%	28.4%	13.2%	8.8%	3.3%	100.0%
Surat Basin (n=216)	NRW	28.0%	28.0%	29.0%	10.3%	4.7%	100.0%
	RW	45.9%	26.6%	14.7%	5.5%	7.3%	100.0%
	ALL WORKERS	37.0%	27.3%	21.8%	7.9%	6.0%	100.0%
Combined (n=2,008)	NRW	40.4%	30.0%	17.2%	9.2%	3.1%	100.0%
	RW	59.1%	22.9%	10.0%	5.3%	2.8%	100.0%
	ALL WORKERS	50.5%	26.1%	13.3%	7.1%	2.9%	100.0%

4 Findings from the Workforce Accommodation Study

Figure 4-1 Importance of accommodation to employment decision making by region



4 Findings from the Workforce Accommodation Study

Influence of gender and time in the sector

The answers by all respondents to Question 16 were cross-tabulated with the gender of the respondents and the length of time they had been in the sector.

There is little difference in the rated importance of accommodation choice between genders, and between age groups.

Table 4-13 Importance of preferred accommodation arrangement by gender and by age

	Female	Male	Less than 25 years	25 - 34 years	35 - 49 years	50+ years
Very Important	49.6%	51.1%	34.0%	47.2%	55.5%	52.2%
Important	29.2%	25.1%	33.0%	29.8%	22.7%	25.6%
Neutral	10.6%	13.9%	21.3%	14.3%	11.8%	12.2%
Some Importance	8.4%	6.7%	5.9%	7.6%	7.0%	6.3%
No Importance	2.2%	3.2%	5.9%	1.1%	3.1%	3.8%
Grand Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

n=2,166 for Gender. 109 Respondents did not answer Q16 or Q1

n=2,182 for Age. 93 respondents did not answer either Q16 or Q2

Furthermore, those with more experience in the mining sector (2-5 or 5+ years) rated access to their preferred accommodation arrangement as more important than those with two or less years in the sector as shown in Table 4-14.

Table 4-14 Importance of preferred accommodation arrangement by time in sector

	0-12 months	12-24 months	2-5 years	5+ years
Very Important	34.8%	36.7%	42.6%	57.5%
Important	28.3%	32.0%	32.6%	23.3%
Neutral	19.7%	17.0%	16.5%	10.8%
Some Importance	10.6%	10.9%	6.0%	6.1%
No Importance	6.6%	3.4%	2.3%	2.3%
Grand Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

n=2,106. 179 respondents did not answer either Q26 or Q6

4 Findings from the Workforce Accommodation Study

Eighty one (81) per cent of respondents who have been in the sector for five or more years ranked access to their preferred accommodation arrangement as 'important' or 'very important' while 63% of respondents in the sector for 12 months or less held the same views. This indicates that providing access to preferred accommodation arrangements is important for all employees, particularly those with experience in the sector.

How accommodation arrangements on offer affect employment decisions

The follow up to the question regarding the importance of accommodation arrangements overall, asked respondents to nominate whether (yes or no) they would have taken their current job if their preferred accommodation arrangement was not available (see Question 17 in **Appendix B).**

The question sought to understand whether having access to a preferred accommodation arrangement affected a respondent's decision to take an offer of employment.

Fifty seven per cent of respondents under 25 years indicated they would still have taken their job even if their preferred accommodation arrangement was not available, compared to an average 36% for respondents 25+ years. This may be due to young, more inexperienced people prioritising other factors such as experience and training over their accommodation preference, or it may be that they do not have a family to consider.

Respondents with dependent children rated access to their preferred employment as marginally more important, compared to respondents with non-dependent children or no children, 81% of those with dependent children rated access to their preferred accommodation arrangement as 'important' or 'very important', compared to 74% of those without dependent children. Correspondingly, a higher proportion of respondents with dependent children indicated they would not have taken the job if their preferred accommodation arrangement was not available (67% compared to 58% without dependent children).

There was also a notable variation between how important accommodation arrangement was between residential workers and non-residential workers, with 82% of respondent residential workers indicating they considered access to their preferred arrangement as being 'very important' or 'important', compared to 70% of respondent non-residential workers. Meanwhile, a higher proportion of respondent non-residential workers indicated that they were neutral on the importance of access to their accommodation arrangement, when compared to respondent residential workers (17% compared to 10%).

Despite this, there was little difference in the final decision making of whether to take a job based on accommodation arrangements between non-residential workers and residential workers, with 35% of respondent residential workers indicated they would still have taken the job if their preferred accommodation arrangement was not available, compared to 41% of respondent non-residential workers.

4.4.3 Preference and availability of choice in accommodation

In Table 4-15 and Table 4-16 below, the respondents' current situation is cross-tabulated with their responses to Question 17 'Would you have taken the job if your preferred accommodation was not available?' The total number of responses is presented for residential workers (Table 4-15) and non-residential workers (Table 4-16).

4 Findings from the Workforce Accommodation Study

Residential workers

Amongst the residential workers, 47% prefer this arrangement ***and*** responded that they would have only have taken the job if their preferred accommodation arrangement – being residential – was available. Only four per cent of residential respondents would appear to have taken up a non-preferred arrangement while at the same time saying they would not do this, suggesting that perhaps for these few people, there was no choice.

Table 4-15 Decision to take job as affected by available accommodation – residential workers

Residential Worker - Existing Situation	Would have taken if preferred accommodation not available		Would have taken accommodation Only if preferred accommodation available		Grand Total
	(n)	(%)	(n)	(%)	
Residential Worker - Not Preferred	54	4.5%	42	3.5%	96
Residential Worker - Preferred	256	21.5%	563	**47.4%**	819
Residential Worker - Ready to change	113	9.5%	160	13.5%	273
Grand Total	**423**	**35.6%**	**765**	**64.4%**	**1188***

* 14 respondents did not answer Q12, 14 respondents did not answer Q17 and 25 respondents did not answer both

Non-residential workers

Of the total number of non-residential workers, 40% prefer non-residential accommodation and working arrangements, ***and*** responded that they would only have taken the job if their preference for transient worker accommodation was available. Only six per cent of all non-residential respondents said they were in a non-preferred situation and that they would not have taken the job if they could not have obtained their preference – again suggesting either that they had no choice or that there other factors in their decision making.

4 Findings from the Workforce Accommodation Study

Table 4-16 Decision to take job as affected by available accommodation – non-residential workers

non-Residential Worker - Existing Situation	Would have taken if preferred accommodation not available		Only if preferred accommodation available		Grand Total
	(n)	(%)	(n)	(%)	
non Residential Worker - Not Preferred	97	10%	58	6.0%	155
non Residential Worker - Preferred	219	23%	383	**39.9%**	602
non Residential Worker - Ready to change	76	8%	126	13.1%	202
Grand Total	**392**	**41%**	**567**	**59.1%**	**959***

* 25 respondents did not answer Q12; 13 respondents did not answer Q17 and 12 respondents did not answer both

These are important data, indicating that between 40 and 47% of workers in the sector are in their preferred accommodation arrangement *and* they would only have taken the job if that arrangement was available.

Further, the percentage is similar for both residential and non-residential workers. The implication is that if the resource sector cannot offer both residential and non-residential accommodation at whole of state scale, a lot of workers would be lost to the sector.

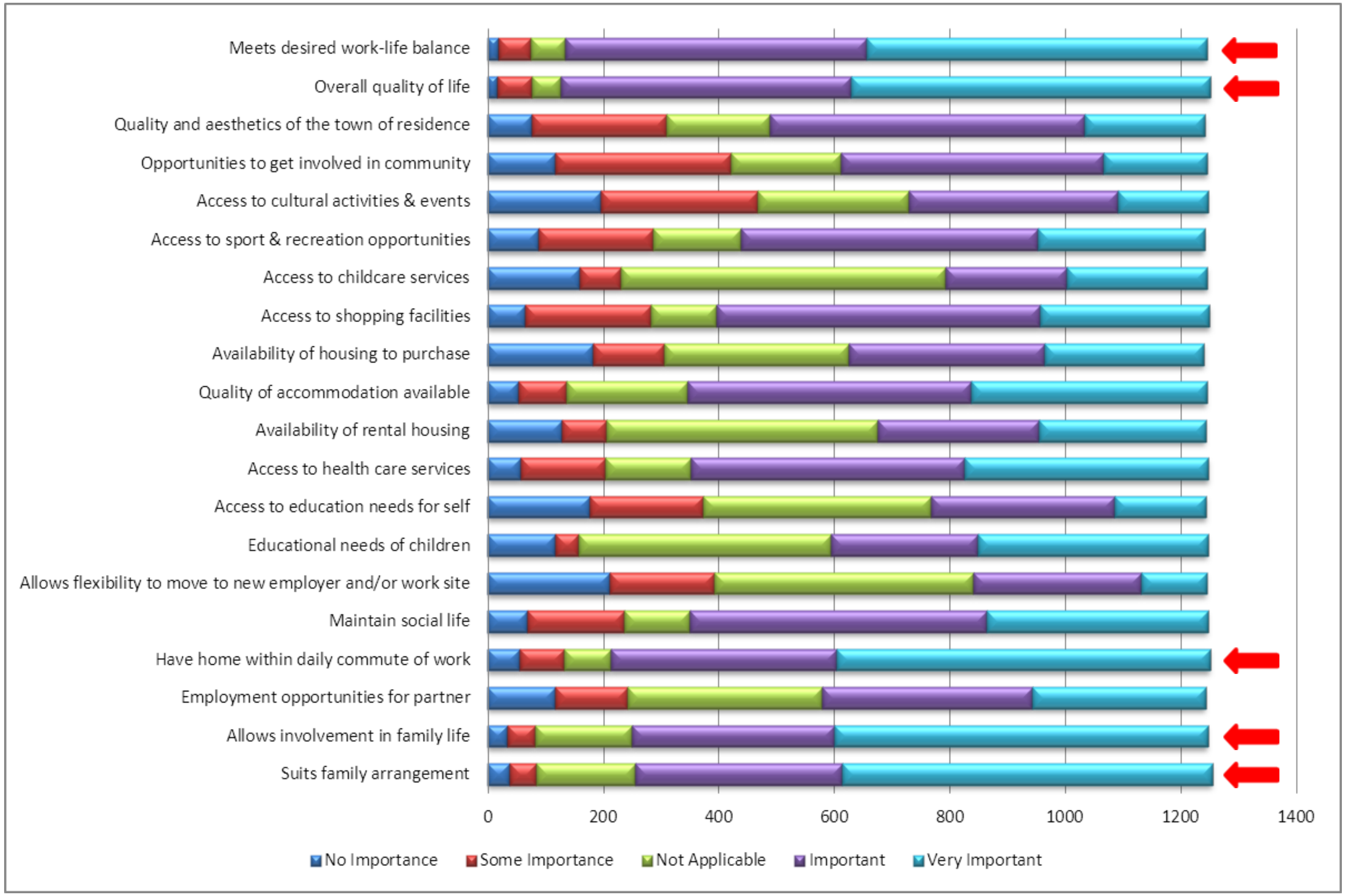
4.4.4 Ranking of factors in deciding accommodation arrangements

Twenty factors that respondents use for deciding their employment accommodation arrangements (measured by percentage of responses which rated the factor as 'important or 'very important') were provided in the survey, with respondents asked to score them on a Likert Scale from 'no importance' to 'very important' (see Question 21 in **Appendix B**). The data for all respondents were analysed according to their nomination as being either residential or non-residential workers and for those with dependent children and those without dependent children (shown in Figure Appendix D-1 and Figure Appendix D-2).

4 Findings from the Workforce Accommodation Study

Residential workers

Figure 4-2 Residential Workers Factors for Decision Making



4 Findings from the Workforce Accommodation Study

Responses from residential workers (see Figure 4-2) indicate that they are ‘family focused’, with the reasons given the highest importance being:

- Suits family arrangement;
- Allows involvement in family life;
- Have home within daily commute of work;
- Meets desired work-life balance; and
- Overall quality of life.

Further, respondent residential workers with dependent children placed an even higher importance on family aspects such as ‘suits family arrangement’; ‘allows involvement in family life’ and ‘have home within daily commute of work’, when compared to respondent residential workers without children. Respondent residential workers with dependent children also gave a higher priority to access to health services.

As would be expected respondent residential workers with dependent children also gave a high priority to education access for their children, with little difference between those with children in primary school, versus those with children in secondary school. Access to childcare services was ranked highly by respondents with dependent children in primary school (66% rated it as important or very important), however perhaps not as high as expected.

Non-residential workers

Non-residential workers consistently rated the factors of lower importance than did residential workers, which in part may indicate that the factors matter less to them in their decision-making, but also may indicate a mis-interpretation of the question. Given that they are in non-residential accommodation remote from their normal home, some may have scored the factors from the perspective of that location, and not their home location. For example, only 20% responded that ‘employment opportunities for partner’ was important or very important suggesting the response related to employment in the non-residential location, not the residential location.

Leaving aside that possible qualification, the general pattern of responses shown in Figure 4-3 from non-residential workers shows that lifestyle and family factors are ranked most highly.

4 Findings from the Workforce Accommodation Study

Figure 4-3 non-Residential Workers Factors for Decision Making

4 Findings from the Workforce Accommodation Study

Comparing residential to non-residential workers

Although non-resident workers' responses must be treated with caution, the overall trend is the same for both respondent non-residential workers and residential workers – *'work-life' balance*' and *'overall quality of life'* factors are the most important influencing factors for both groups.

For residential workers, being able to commute daily to work is the third most important factor, whereas, this will be of little relevance to non-residential workers. The factors *'quality of accommodation'*, *'suits family arrangement'* and *'allows involvement in family life'* were ranked highly by both residential and non-residential respondents, although the former group placed more emphasis on them.

Although the two groups are likely to have different interpretations of what these more highly ranked terms mean to them, the fact that these are scored similarly for both groups shows that there are features of non-residential working that suit some people, just as there are features of residential working that suit others.

For workers with dependent children

In Figure Appendix D-1 and Figure Appendix D-2 the responses for only those workers with (and without) dependent children are presented separately for residential and non-residential workers. From this it can be discerned that there is a reduced importance attached by non-residential workers with dependent children to all factors, although for several the difference is not large. The implication is that both categories of worker with dependent children rate most factors highly.

HR and Site personnel views

Interviewees were asked to provide what they perceived were the top 5 factors that influence their workers employment decisions. Essentially responses fell within seven categories:

1. Salary and remuneration;
2. Roster;
3. Career development;
4. Reputation of the employer (including its international reach);
5. Location of the operation;
6. Accommodation (including employee assistance with accommodation e.g. subsidies); and
7. Workplace culture (including safety).

Each of these factors ranked relatively equally although 'salary' and the 'location of the mine' were mentioned more often than other factors. The 'reputation of the employer' and 'career development opportunities' were reported as the next most frequent responses with the remaining factors equally ranked.

Companies with interests in the North West Minerals Province referred to the 'location of the mine' as one of the key factors in worker's decision making. The HR representatives noted that many people who were enquiring about positions were attracted to the location and lifestyle that came with the remote site. As one interviewee noted, "Mount Isa is an outback city – people who like that sort of lifestyle move there and stay there. They like living in a country town but it's not for everyone".

The companies interviewed variously provided residential and/or non-residential accommodation options for employees. Most offer both but some are entirely residential, some entirely non-residential. All were asked the same questions in regard to the two accommodation arrangement types and the types of workers who opt for one or the other option.

There was general consensus that decisions about accommodation choices were largely related to the stage of life the employee was in. Those with young families tended to generally prefer residential arrangements while their children were younger, mostly in primary school. Thus there appears to be a favouring of residential for workers aged in the 30s and 40s. There does appear to be a shift away from residential arrangements once the child(ren) reached secondary school age, particularly if quality secondary schools were not available in the local town.

The level of service provision in towns is also an important influencing factor, with access to retail and entertainment facilities also raised by employees as important in their decisions as to whether they will relocate to a residential situation. Smaller regional towns are often lacking in these although larger centres typically provide similar levels of service as the more urban settings.

The importance of incentives

HR interviewees provided comment on the importance of incentives in employees' decisions about accommodation arrangements.

Companies recognise the difficulty in attracting people to remote locations away from the coast and offering an attractive roster helps. One company has adjusted their roster from a 9-day fortnight to a 7-day on/ 7-day off arrangement and this has met with support from employees and potential new recruits.

Other mechanisms to attract employees include the provision of housing assistance (including the rental subsidies noted above). Local purchasing assistance is one incentive mechanism to attract and retain employees. Payments of up to $27,000 to reimburse local house purchases have been noted.

In other cases if workers live within 80 km of mine site they are able to access an accommodation allowance and a living away from home allowance (LAFHA). Or, in another case, if the employee lives within 55 km of the mine site they receive a housing allowance in lieu of their not using the accommodation village.

Of interest from the interviews is that not all companies are providing for the travel costs of their non-residential workers. Some workers who opt for long-distance commuting arrangements are able to salary sacrifice their travel costs. Others bear their own costs, for example, workers who drive in and out of site will be required to pay their own petrol costs. That workers continue with these arrangements lends some weight to the suggestion that the attraction of their primary residence is greater than their desire to move more locally to their employment.

4.4.5 Ranking of other work-related factors in deciding employment

All respondents were asked to rank according to a Likert Scale the importance of six other work-related factors in choosing to work at their current site (see Question 20 in **Appendix B**). The responses have been separated between respondents who nominated themselves as being residential workers and those who stated they are non-residential workers.

The data are presented for each employment type (i.e. residential and non-residential) in Table 4-17 and Table 4-18. The weighting shows the relative importance of each factor. The scores for importance of being able to access preferred accommodation (from Q16) have been included in bold for comparison.

The responses show that there is little difference in six of the seven factors in the rating of importance by residential and non-residential workers. The only factor that is scored differently is 'work roster' which is rated as being more important in the decision to work at the current site for non-residential workers. This is not surprising, as this will influence the balance of time spent in the accommodation village and at home. As noted above, advice from the interviews is that rosters for non-residential workers are becoming very attractive as a means of developing a comparative advantage in recruitment.

In comparing the scored importance of being able to access preferred accommodation (addressed in Q16) to the scoring of the other six factors (in Q20), it is apparent that accommodation is less important for all but 'Location of Work' and the generic category 'Other' for residential workers, and less important than salary, work roster and career development for non-residential workers.

4 Findings from the Workforce Accommodation Study

Table 4-17 Importance of factors in taking the current job – residential workers

Factor	No Importance	Some Importance	Neutral	Important	Very Important	Not Applicable	*Weighting*
Access to preferred accommodation arrangement	**3.1%**	**8.8%**	**17.2%**	**30.4%**	**40.4%**	n.a.	**3.96**
Reputation of employer	3.8%	5.7%	15.3%	32.2%	41.8%	1.2%	3.99
Salary	0.8%	2.5%	6.9%	34.8%	54.5%	0.4%	4.38
Work roster	2.8%	4.2%	16.5%	31.4%	43.8%	1.3%	4.05
Career development opportunity	3.0%	2.9%	12.5%	30.7%	49.6%	1.4%	4.17
Location of work	3.9%	6.8%	20.5%	30.6%	36.8%	1.4%	3.86
Other, e.g. Relocation Allowance	11.1%	4.2%	26.0%	18.2%	21.7%	18.8%	2.79

Table 4-18 Importance of factors in taking the current job – non-residential workers

Factor	No Importance	Some Importance	Neutral	Important	Very Important	Not Applicable	*Weighting*
Access to preferred accommodation arrangement	3.1%	8.8%	17.2%	30.4%	40.4%	n.a.	3.96
Reputation of employer	4.3%	6.3%	15.6%	36.6%	36.3%	0.8%	3.92
Salary	0.8%	2.6%	5.8%	31.7%	58.1%	1.0%	4.41
Work roster	1.5%	2.3%	7.6%	27.7%	59.2%	1.7%	4.35
Career development opportunity	2.3%	3.3%	14.7%	32.8%	44.9%	1.9%	4.09
Location of work	5.6%	8.1%	29.6%	30.9%	24.1%	1.6%	3.55
Other, e.g. Relocation Allowance	12.5%	3.8%	27.6%	14.2%	14.3%	27.6%	2.31

5 Conclusions

5.1 Summary findings from the Survey

A summary analysis of the survey findings are presented in point form below.

5.1.1 The Survey sample

- The response rate has been relatively high indicating a reasonable level of interest among the workforce in completing the survey. The number of surveys completed satisfactorily (2,275) and the distribution between residential respondents (1,241) and non-residential (1,009) respondents is sufficient to have confidence in the results (Note, 25 respondents did not state their residential status).
- There is little difference in demography, family characteristics, or time spent in the resources sector between residential respondents and non-residential respondents. **This suggests that the different accommodation arrangements do not attract or suit a particular 'type' of person**.
- More than 60% of both residential workers and non-residential workers have been in the sector for five years or more.

Residential respondents

- Almost half of the residential respondents (47%) live in their own dwelling, with slightly fewer renting (45%). Operations, trade and administrative staff combined are more likely to own their own dwelling than professional staff, who are more likely to be in rented accommodation, supported by a rental subsidy.
- Nearly half of the residential worker respondents own a house elsewhere.
- Overall, 72% of all residential worker respondents who are renting indicated that they receive an accommodation subsidy. This rate varies depending on the role the respondent has within the organisation. Forty three per cent of those receiving a rental subsidy are professional staff with 56% being workers in operational and trade roles.

Non-residential respondents

- Over 60% of non-residential workers are accommodated in camps or villages close to their worksite.
- Three quarters (73%) of non-residential worker respondents indicated that they own or are purchasing a dwelling at their place of permanent residency.
- Seventy per cent of non-residential worker respondents who live in Queensland have their permanent addresses in coastal towns. Few live inland.
- About one in 10 non-residential workers is interested in purchasing a house close to their worksite.

5.1.2 Satisfaction with current accommodation arrangements

- **Most respondents (around 64%) are happy with their current accommodation arrangements, and would not change**. There is no material difference in satisfaction with accommodation arrangement between the residential respondents and the non-residential respondents. This is key finding from the Study, and indicates that it is important that the sector is able to offer a choice of accommodation arrangement.
- About 21% of all respondents indicated that they are ready to change accommodation arrangements, with 22% of these being residential workers seeking to change to non-residential accommodation, and 20% being non-residential workers wanting to change to residential status. Being able to make these changes will be important for these respondents.
- Only 11% of all respondents specifically stated they are in non-preferred accommodation arrangements, with more non-residential respondents (15%) in that situation than residential respondents (8%).
- Forty four per cent of both residential and non-residential respondents are in preferred accommodation arrangements, **and** have taken the job because their

preferred arrangements were available. **The implication is that if either residential, or non-residential options were not available across the sector, there would be a significant number of people who would not choose to work in the sector.**

- A higher percentage of non-residential respondents rated their accommodation as good or excellent (61%) than did residential respondents (34%). The percentage rating their accommodation poor or very poor was 19 and 25% respectively.

5.1.3 The importance of accommodation arrangement in deciding employment

- The accommodation arrangement is important or very important in employment decision making to 82% of residential workers and 70% of non-residential workers. Given that most respondents are in preferred accommodation arrangements, this highlights the importance of being able to provide choice at whole of industry scale.
- Accommodation arrangement is similar in importance to salary, career development, reputation of employer and work roster in deciding to work at the current site.
- Non-residential workers' responses to the question of importance of factors in deciding accommodation arrangements must be treated with caution as the data suggest that some non-residential worker respondents may have either mis-interpreted the question or have responded according to their views of their place of work location rather than their permanent home location. However, the overall trend is the same for both respondent non-residential workers and residential workers – *'work-life' balance*' and *'overall quality of life'* factors are the most important influencing factors in deciding accommodation arrangements for both groups. The factors *'quality of accommodation'*, *'suits family arrangement'* and *'allows involvement in family life'* were ranked highly by both residential and non-residential respondents, although the former group placed more emphasis on them.
- Although the two groups are likely to have different interpretations of what these more highly ranked terms mean to them, the fact that these are scored similarly for both groups shows that there are features of non-residential working that suit some people, just as there are features of residential working that suit others.

5.2 Key Findings

Five key findings are provided.

1. It is clear that the demand for employees in the resources sector in Queensland is outstripping supply and hence there is some suggestion that employees, especially those relatively new to the sector are becoming more discriminating in their choices of employer and employment conditions.
2. Amongst those surveyed, accommodation arrangements rank similarly in importance with salaries, career opportunities, reputation of employer and work roster as work-related factors in deciding employment. The survey findings are supported by the views of HR personnel in the sector responsible for recruitment and employee management.
3. The factors influencing choice between residential and non-residential accommodation arrangements are similar with *'work-life' balance*' and *'overall quality of life'* factors being the most important influencing factors in deciding accommodation for both groups. The factors *'quality of accommodation'*, *'suits family arrangement'* and *'allows involvement in family life'* were also ranked highly. Although the two groups are likely to have different interpretations of what these more highly ranked terms mean to them, the fact that these are scored similarly for both groups shows that there are features of non-residential working that suit some people, just as there are features of residential working that suit others.

5 Conclusions

4. About two thirds of all respondents – in both residential and non-residential arrangements - are satisfied with their accommodation arrangements. Of those people satisfied, two-thirds would not have taken their current position if their preferred accommodation arrangement was not available. Conversely, only 12% of respondents are not satisfied with their current accommodation arrangements. The remaining 20% are ready to move either from residential to non-residential, or vice versa.
5. The clear implication is that being able to offer choice between residential and non-residential accommodation arrangements across the resource sector as a whole and across all regions to current and potential employees is essential if the resource sector is to staff current and future projects.

6

Acknowledgements and References

6.1 References and Acknowledgements

Anonymous (2011). *Submission to the House of Representatives Standing Committee on Regional Australia's Inquiry into FIFO/ DIDO Practices.*

Brereton, D., Moran, C., McIlwain, G., McIntosh, K.P. (2008). *Assessing the cumulative impacts of mining on regional communities: An exploration study of coal mining in the Muswellbrook area of NSW*. ACARP Project C14047.

Carrington, K. and Pereira, M. (2011). *Social Impact of Mining Survey: Aggregate Results Queensland Communities.* School of Justice, Queensland University of Technology, Brisbane.

Centre for Social Responsibility in Mining (2011). *Submission to the House of Representatives Standing Committee on Regional Australia's Inquiry into FIFO/ DIDO Practices*. University of Queensland, Brisbane, Queensland.

Chamber of Commerce and Industry Queensland (2011). *Submission to the House of Representatives Standing Committee on Regional Australia's Inquiry into FIFO/ DIDO Practices*. Brisbane, Queensland.

Chamber of Minerals and Energy WA (2011). *Submission to the House of Representatives Standing Committee on Regional Australia's Inquiry into FIFO/ DIDO Practices*. Submission No. 99, Perth, Western Australia.

Clifford, S. (2009). *The effects of Fly-in/Fly-out commute arrangements and extended working hours on the stress, lifestyle, relationship and health characteristics of Western Australian mining employees and their partners: Preliminary report of research findings*. School of Anatomy and Human Biology, University of Western Australia.

Commissioner for Children and Young People WA (2011). *Submission to the House of Representatives Standing Committee on Regional Australia's Inquiry into FIFO/ DIDO Practices*. Perth, Western Australia

Deloitte Access Economics (2011). *Queensland Resource Sector State Growth Outlook Study*. Report prepared for the Queensland Resources Council, Brisbane.

Economic Associates Pty Ltd (2010). *Galilee Basin economic and social impact study*. Report prepared for the Department of Employment, Economic Development and Innovation, Rockhampton, Queensland.

Franks, D., Brereton, D., & Moran, C. (2008). Coal Mining. Managing the cumulative impacts of multiple mines on regional communities and environments in Australia. Paper Submitted to the *International Association for Impact Assessment, Assessing and Managing Cumulative Environmental Effects Special Topic Meeting*, Calgary, Canada, 6-9 November, 2008.

Haslam McKenzie, F (2008). *FIFO and regional development*. Housing and Urban Research Institute of Western Australia, Curtin University of Technology.

Haslam McKenzie, F. (2011). *Submission to the House of Representatives Standing Committee on Regional Australia's Inquiry into FIFO/ DIDO Practices*. Perth, WA.

Lawrence Consulting (2011). *Economic Impact of Resources Sector on the Queensland Economy 2010/2011*. Report prepared for the Queensland Resources Council.

6 Acknowledgements and References

Lockie, S., Framettovich, M., Petkova-Timmer, V., Rolfe, J., & Ivanova, G. (2009). Coal mining and resource community cycle: A longitudinal assessment of the social impacts of the Coppabella coal min. *Environmental Impact Assessment and Review*, 29, 330-339.

Lovell, J., & Critchley, J. (2010). Women living in a remote Australian mining community: Exploring their psychological well- being. *Australian Journal of Rural Health*, 18, 125-130.

Makenham, M. (2011). *Submission to the House of Representatives Standing Committee on Regional Australia's Inquiry into FIFO/ DIDO Practices*. Registered architect.

Moranbah Medical Practice (2011). *Submission to the House of Representatives Standing Committee on Regional Australia's Inquiry into FIFO/ DIDO Practices*. Moranbah, Queensland.

Murray, G., & Peetz, D. (2008). The big shift: The gendered impact of twelve hour shifts on mining communities. Paper submitted to the *International Sociological Association*, Barcelona, Spain, September 5-8 2008.

Office of Economic and Statistical Research [OESR] (2010). *Demographic analysis of the Bowen Basin region*, Queensland Treasury.

Office of Economic and Statistical Research (2011). *Bowen Basin Population Report*, Queensland Treasury.

Petkova, V., Lockie, S., Rolfe, J., & Ivanova, G. (2009). Mining developments and social impacts on communities: Bowen basin case studies. *Rural Society*, 19, 211-228.

Queensland Resources Council (QRC) (2011a). *State of the Sector, September Quarter 2011*, Volume 3, Number 3, Retrieved from https://www.qrc.org.au/_dbase_upl/SOS_Sept11.pdf, 5 December 2011

Queensland Resources Council (QRC) (2011b). *Submission to the House of Representatives Standing Committee on Regional Australia's Inquiry into FIFO/ DIDO Practices*. Brisbane, Queensland.

Queensland Resources Council (QRC) (2011c). *State of the Sector, December Quarter 2011*, Volume 3, Number 4, Retrieved from https://www.qrc.org.au/_dbase_upl/SOS_December2011.pdf, 6 April 2012

Regional Social Development Centre (2011). *Submission to the House of Representatives Standing Committee on Regional Australia's Inquiry into FIFO/ DIDO Practices*.

Rolfe, J. (2007). Growth in the Coal Industry and Economic and Social Consequences. Presentation to the *Regional Social Impacts of Economic Growth Forum*. Central Queensland University, Mackay.

Rolfe, J. (2011). *Submission to the House of Representatives Standing Committee on Regional Australia's Inquiry into FIFO/ DIDO Practices*. Submission No. 63, Central Queensland University, Rockhampton, Queensland.

Rolfe, J., Miles, R., Lockie, S and Ivanova, G. (2007a). Lessons from the social and economic impacts of mining in the Bowen Basin 2004-2006. *Australasian Journal of Regional Studies*, 13(2): 134-153.

Rolfe,J., Petkava, V., Lockie, S. and Ivanova, G. (2007b). *Mining impacts and the development of Moranbah township*. Centre of Environmental Management, Central Queensland University, Rockhampton.

Rolfe, J., Yabsley, E., Greer, L., Akbar, D., Ivanova, G. and Yabsley B. (2008) *Ensuring Sustainable Benefits from Boom Periods: A Case Study for Long Term Housing Policy in the Bowen Basin*, Final Report Prepared for the Queensland Department of Tourism, Regional Development and Industry, Central Queensland University, Rockhampton.

6 Acknowledgements and References

Rolfe, J., Ivanova, G. and Yabsley, B. (2009) *Housing and Labour Market Issues: Survey of Moranbah Households,* Research Report No 8, Assessing Housing and Labour Market Impacts of Mining Developments in the Bowen Basin Communities – ACARP C16027, Australian Coal Association Research Program, Brisbane.

Rolfe, J., R. Lawrence, D. Gregg, F. Morrish and G. Ivanova (2010) *Minerals and Energy Resources Sector in Queensland Economic Impact Study*, report prepared for the Queensland Resources Council, The Eidos Institute, Brisbane.

Sibble, A.M. (2010). Living FIFO: The Experiences and Psychosocial Wellbeing of Western Australian Fly-in/fly-out Employees and Partner. Unpublished doctoral thesis. Faculty of Computing, Health and Science Edith Cowan University.

Tektum Housing Solutions (2011). *Submission to the House of Representatives Standing Committee on Regional Australia's Inquiry into FIFO/ DIDO Practices*.

Urban Land Development Authority (2011). *Non-resident worker accommodation: Guidelines for location and designing high quality accommodation facilities*. ULDA Guideline No. 03. Queensland.

URS (2011). *Baseline Community Assessment of Karratha*. Unpublished Report prepared for Rio Tinto Iron Ore, Perth, WA.

Acknowledgements

This project has benefited from the generous contributions of time of many individuals.

We would like in particular to thank Bronwyn Story, Community Development and Environment Policy Adviser with the Queensland Resources Council for her time and support of the work. Bronwyn provided invaluable assistance in liaising between URS and the QRC members involved in the project and was instrumental in ensuring nearly 8,000 surveys were distributed on time. We would never have completed our work without her assistance.

We would also like to thank members of the QRC Social Policy Working Group for their comments and feedback throughout the development of the survey and for providing access to their employees.

We are grateful as well to Frances Hayter, Judy Bertram and Jim Divine as well as QRC Chief Executive, Michael Roche for their feedback on the reports and findings.

7 Limitations

URS Australia Pty Ltd (URS) has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of the Queensland Resources Council (QRC) and only those third parties who have been authorised in writing by URS to rely on the report.

It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this report.

It is prepared in accordance with the scope of work and for the purpose outlined in the Proposal dated 29 August 2011 and the emended Proposal dated 12 September 2011.

Where this Report indicates that information has been provided to URS by third parties, URS has made no independent verification of this information except as expressly stated in the Report. URS assumes no liability for any inaccuracies in or omissions to that information.

This report was prepared between December 2011 and May 2012 and is based on the conditions encountered and information reviewed at the time of preparation. URS disclaims responsibility for any changes that may have occurred after this time.

This report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties. This report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

Except as required by law, no third party may use or rely on, this Report unless otherwise agreed by URS in writing. Where such agreement is provided, URS will provide a letter of reliance to the agreed third party in the form required by URS.

To the extent permitted by law, URS expressly disclaims and excludes liability for any loss, damage, cost or expenses suffered by any third party relating to or resulting from the use of, or reliance on, any information contained in this Plan. URS does not admit that any action, liability or claim may exist or be available to any third party.

Except as specifically stated in this section, URS does not authorise the use of this Report by any third party.

It is the responsibility of third parties to independently make inquiries or seek advice in relation to their particular requirements and proposed use of the information in this report.

A

Appendix A Interview Guides

Queensland Resources Council Workforce Accommodation Study (2011)

Background

The **Queensland Resources Council** (QRC) has been asked by member companies to undertake a Workforce Accommodation Study. The overarching objectives for the study are to:

- Quantify the demand for the various types of workforce accommodation arrangements from a workforce perspective; and
- Identify key factors driving choices in relation to workforce accommodation arrangements.

The QRC is seeking to improve their (and their member companies) knowledge of demand for various types of workforce accommodation arrangements and to gather evidence of the key factors that drive workforce choice. It is the intention that this information will also assist in lobbying government for the delivery of the necessary infrastructure to support local resident employees (and communities) as well as non-resident workforce options as desired by resource sector employees.

URS Australia Pty Ltd has been commissioned to undertake the study in four stages:

- Desktop study – review of literature related to the objectives, compilation and analysis of previous relevant research, compilation of statistical information on workforce arrangements from member companies.
- Interviews with company personnel (this interview) – targeted interviews with company HR personnel to obtain information on recruitment issues related to accommodation, worker preferences for accommodation etc.; interviews with site workers (to be nominated by HR personnel) about these matters.
- Survey of a large number of site workers – The information gained from the interviews will be used to develop a short, focused quantitative survey for industry-wide data gathering. The survey will be distributed at sites and be available on-line.
- Analysis, findings, recommendations and reporting – for completion by February 2012, with a presentation to the QRC Board.

About this interview

- Some company specific views are sought based on a set of questions as per the accompanying sheet
- Some further statistical data will be requested through a questionnaire which will be provided at the one-one interviews
- Responses to the questions will be kept confidential and no identifying information will be contained in the findings
- Also seeking the names of two site personnel for additional interviews
- Permission to record the interview

Note: The attached questions will only be used as a guide by the interviewer. The intention is to conduct a semi-structured interview which uses a fairly open framework to allow for focused, conversational, two-way communication. Some general questions or topics have been framed to form the basis for more specific questions which may be asked during the interview. This allows both the interviewer and the person being interviewed the flexibility to probe for details or raise / discuss other / additional issues.

Appendix A - Interview Guides

Interview Questions

Theme 1: Recruitment (General)

- Would you describe the market for skilled mine workers to be competitive? What positions are the most difficult to fill?
- Are you generally able to recruit to positions with little difficulty? Have you had to turn to new modes and/or sources for recruitment, e.g. through training providers?
- Is your organisation actively recruiting overseas? If yes, what sort of positions/visa conditions/numbers?
- In terms of recruitment to operational mine positions do you find that your recruits are new to the sector or that they have come from other operations either in Queensland or elsewhere?
- Does the company recruit according to specified quotas on employment (e.g. certain percentage locally resident, Indigenous employees, etc.)? Have you had any issues in filling quota requirements? Why is that?
- When you are in discussions with potential new recruits what do you think are the top 5 factors that influence their decision to work for you? Are there any factors that new employees would not be willing to compromise on with regard their employment?
- Does the location of the mine operation influence a recruit's decision to work for you?

Theme 2: Accommodation

- In your opinion what typically influences an employee's choices for whether they opt for residential or non-residential (e.g. FIFO) accommodation arrangements?
- Do you have new recruits who are specifically looking to FIFO? Do they give reasons as to why they prefer to travel to and from the site rather than live residentially?
- If recruits prefer commute options, do they question what the on-site accommodation provides? What do they look for (rooms, services, mess, access to internet, recreation activities, etc.)?
- Do you think the recent trend towards providing more innovative accommodation is having an impact? For example, some companies are investing in integrated landscaping, disabled access rooms (ramp access with wide doors etc.), eco village with green ratings, etc. at their sites.
- When you do have new recruits who would like to reside in the community where the mine is situated; do they tell you what they are looking for in that accommodation/area? Are they realistic? Does the company have any issues in meeting employee housing accommodation needs?
- Do employees ask about the level of integration between the village and the nearby communities? Do you get a sense that it is important?
- Have you had employees who have been dissatisfied with the village-style accommodation/residential accommodation provided? What specifically? Have you been able to resolve these satisfactorily?
- If the company is using the services of a specialist accommodation supplier (e.g. MAC services) has the company in place any of the following for their employees based in these villages such as Code of conduct, Drug and alcohol policy, Other workforce management policies? If so, how are these enforced? Have there been infractions of company policy and how is this managed? Does the company face any difficulty in managing their workforce in these villages?
- Anecdotally you may have heard of arguments for and against residential vs non-residential accommodation – from what you have heard what are the pros and cons of residential and camp/village accommodation?

Theme 3: Recruitment (Company Employee/Recruitment Initiatives)

- Does the company offer Housing Assistance to employees/recruits to enable relocation? If so, what is the take up on this? Are there any other forms of assistance offered (note, here we are interested in all incentives offered to potential new recruits which may or may not include housing-related incentives)?
- Recent media and other commentary suggests that non-resident workforce arrangements contributes to such things as family breakdowns or other hardships. 1) What are your views on this..., and 2) Has your company instigated any programs aimed specifically at personal/family counselling? We recognise that information about these programs is confidential but would you say that the programs offered are being highly accessed by staff?

Appendix B Workforce Survey

Appendix B - Workforce Survey

QUEENSLAND RESOURCES COUNCIL WORKFORCE ACCOMMODATION SURVEY

1. Sex	Male ○	Female ○
2. Age	○	Less than 25 years
	○	25 – 34 years
	○	35 -49 years
	○	50+ years
3. Family Situation (Tick all that apply)	○	In a relationship, no children
	○	In a relationship, dependent children in primary school
	○	In a relationship, dependent children in secondary school
	○	In a relationship, non-dependent children
	○	Not in a relationship, no children
	○	Not in a relationship, with dependent children in primary school
	○	Not in a relationship, with dependent children in secondary school
	○	Not in a relationship, with non- dependent children
4. At what site are you currently working?		
5. How long have you been working at this site	○	0-12 months
	○	12-24 months
	○	2-5 years
	○	5+ years
6. How long have you been working in the mining/resources sector?	○	0-12 months
	○	12-24 months
	○	2-5 years
	○	5+ years
7. What is your current role?		
8. What is your current roster (list number days on and days off)		
9. How many hours is each shift you work?		Hrs

The following questions relate to your employment residential status. The definitions are provided to assist you in answering these questions:

Residential – a worker is considered residential where they typically return to their home at the end of each shift to a residence located in a town in proximity to the work site

Non-Residential –a worker who commutes from where they usually live, staying in the local area for the duration of their roster (FIFO/DIDO). While living in the area, the worker stays in commercial accommodation (hotels, motels or caravan parks) or in a worker accommodation village which may be located in town centres or adjacent to a mining or resource lease.

If you are:

- Residential – complete question 10
- Non-residential –complete question 11

10. For Residential Workers		
a. Do you own or are you purchasing the dwelling you are living in?	○ Yes	○ No
b. If no, are you renting?	○ Yes	○ No
c. Do you receive a rental subsidy from your employer?	○ Yes	○ No
d. What type of dwelling do you live in (house, townhouse, duplex, etc)?		
e. Do you own a dwelling elsewhere?	○ Yes	○ No
f. If Yes, is this dwelling:	○	Available for your use on a regular basis?
Go to Question 12	○	Rented to a third party?

11. For non-Residential Workers		
a. Is your travel arrangement: (Fly In-Fly Out, Drive in-Drive Out, Bus In-Bus Out)	FIFO	○
	DIDO	○
	BIBO	○
b. Where do you stay?	○	Camp close to site
	○	Offsite camp remote from nearest town
	○	Offsite camp in or adjacent to town
	○	In town residence (e.g. motel, caravan park)
c. If in a camp, what is the camp name?		
d. How long is your average travel time from:		
• Camp to work?		minutes
• Home to camp?		minutes

Appendix B - Workforce Survey

QUEENSLAND RESOURCES COUNCIL WORKFORCE ACCOMMODATION SURVEY

e. Is your place of permanent residence:	○ Less than 30 minutes from your commute departure point
	○ More than 30 minutes from your commute departure point
f. Do you own or are you purchasing a dwelling at your place of permanent residence (that is when not at work)?	○ Yes ○ No
g. If yes, where is it located (Area/Post Code)?	

12. How would you rate your current employment residential status at this time in your life?	Not Preferred	Ready to change	Preferred
	○	○	○

13. If you had an opportunity, would you buy a dwelling close to your current workplace?	○ Yes
	○ No
	○ Already have
Why/Why not?	
14. When taking up employment at your current workplace, did you have a choice of accommodation arrangement (e.g. non-residential or residential)?	Yes ○ No ○
15. Have you previously worked under a different accommodation arrangement (e.g. if non-residential now have you worked residential before OR vice versa)?	Yes ○ No ○

16. How important is access to your preferred accommodation arrangement (residential or non-residential) to your employment decisions?	No Importance	Some Importance	Neutral	Important	Very Important
	○	○	○	○	○

17. Would you have taken this job if your preferred accommodation arrangement was not available?	Yes ○ No ○

18. How would you rate the quality of work site accommodation at the moment?	Very Poor	Poor	Neutral	Good	Excellent
	○	○	○	○	○

19. If you had an opportunity, would you change your accommodation arrangement (e.g. non-residential to residential)?	Yes ○ No ○
19a. If yes, what would you change about your accommodation arrangement?	○ Change to non-residential
	○ Change to residential
	○ Downgrade/Upsize House
	○ Upgrade room
	○ Other, e.g. from camp to town rental (specify below)
19b. If yes, why do you want to change accommodation arrangements?	

20. How important were the following factors to you in choosing to work at this site?	No Importance	Some Importance	Neutral	Important	Very Important	Not Applicable
Reputation of employer	○	○	○	○	○	○
Salary	○	○	○	○	○	○
Work roster	○	○	○	○	○	○
Career development opportunity	○	○	○	○	○	○
Location of work	○	○	○	○	○	○
Other, e.g. Relocation Allowance	○	○	○	○	○	○
(Please Specify)						

Appendix B - Workforce Survey

QUEENSLAND RESOURCES COUNCIL WORKFORCE ACCOMMODATION SURVEY

21. How important were the following factors in *deciding your employment accommodation arrangements*? (Tick 'Not Applicable' if it does not apply)	No Importance	Some Importance	Not Applicable	Important	Very Important
Suits family arrangement	O	O	O	O	O
Allows involvement in family life	O	O	O	O	O
Employment opportunities for partner	O	O	O	O	O
Have home within daily commute of work	O	O	O	O	O
Maintain social life	O	O	O	O	O
Allows flexibility to move to new employer and/or work site	O	O	O	O	O
Educational needs of children	O	O	O	O	O
Access to education needs for self	O	O	O	O	O
Access to health care services	O	O	O	O	O
Availability of rental housing	O	O	O	O	O
Quality of accommodation available	O	O	O	O	O
Availability of housing to purchase	O	O	O	O	O
Access to shopping facilities	O	O	O	O	O
Access to childcare services	O	O	O	O	O
Access to sport & recreation opportunities	O	O	O	O	O
Access to cultural activities & events	O	O	O	O	O
Opportunities to get involved in community	O	O	O	O	O
Quality and aesthetics of the town of residence	O	O	O	O	O
Overall quality of life	O	O	O	O	O
Meets desired work-life balance	O	O	O	O	O

Are there any other comments on accommodation you would like to make or issues you would like to raise?

Please note this is not the forum for providing accommodation feedback with your employer.

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS SURVEY

PLEASE PLACE THE COMPLETED SURVEY IN THE BOX PROVIDED OR, IF YOU PREFER, YOU CAN POST THE SURVEY TO:
Pat Vidler
URS Australia Pty Ltd
Level 17, 240 Queen Street, Brisbane QLD 4000 Australia

QUEENSLAND resources COUNCIL

3

URS

C

Appendix C Selected Survey Results

Table Appendix C-1 Worker responses by Region

	non-Residential Worker		Residential Worker		Not Stated	Total #
	(n)	(%)	(n)	(%)	(n)	
North West Minerals Province	221	21.9%	398	32.1%	1	620
Surat Basin	109	10.8%	110	8.9%		219
Bowen Basin	604	59.9%	600	48.3%	1	1205
Other	75	7.4%	133	10.7%	23	231
TOTAL	**1009**		**1241**		**25**	**2275**

Table Appendix C-2 Worker responses by residential status and gender (n and %)

	Male		Female		Did Not State			
	non-Residential Worker	Residential Worker	non-Residential Worker	Residential Worker	non-Residential Worker	Residential Worker	(blank)	Total
Bowen Basin	530	467	62	129	4	12	1	**1205**
North West Minerals Province	172	280	46	116	2	3	1	**620**
Surat Basin	95	91	12	18	2	1		**219**
Other	56	98	11	27	8	8	23	**231**
TOTAL	**853**	**936**	**131**	**290**	**16**	**24**	**25**	**2275**

	Male		Female		Did Not State			
	non-Residential Worker	Residential Worker	non-Residential Worker	Residential Worker	non-Residential Worker	Residential Worker	(blank)	Total
Bowen Basin	44.0%	38.8%	5.1%	10.7%	0.3%	1.0%	0.1%	**100%**
North West Minerals Province	27.7%	45.2%	7.4%	18.7%	0.3%	0.5%	0.2%	**100%**
Surat Basin	43.4%	41.6%	5.5%	8.2%	0.9%	0.5%	0.0%	**100%**
Other Region/Unknown	24.2%	42.4%	4.8%	11.7%	3.5%	3.5%	10.0%	**100%**

Appendix C - Selected Survey Results

Table Appendix C-3 Worker responses by residential status and age (n and %)

Bowen Basin	non-Residential Worker	Residential Worker	(blank)	Grand Total
Less than 25 years	41	65	1	107
25 - 34 years	136	140		276
35 - 49 years	254	228		482
50+ years	168	160		328
(blank)	5	7		12
Grand Total	604	600	1	1205

Bowen Basin	non-Residential Worker	Residential Worker
Less than 25 years	6.8%	10.8%
25 - 34 years	22.5%	23.3%
35 - 49 years	42.1%	38.0%
50+ years	27.8%	26.7%
(blank)	0.8%	1.2%

North West Mineral Province	non-Residential Worker	Residential Worker	(blank)	Grand Total
Less than 25 years	12	39		51
25 - 34 years	63	130		193
35 - 49 years	99	158	1	258
50+ years	47	70		117
(blank)		1		1
Grand Total	221	398	1	620

North West Minerals Province	non-Residential Worker	Residential Worker
Less than 25 years	5.4%	9.8%
25 - 34 years	28.5%	32.7%
35 - 49 years	44.8%	39.7%
50+ years	21.3%	17.6%
(blank)	0.0%	0.3%

Surat Basin	non-Residential Worker	Residential Worker	Grand Total
Less than 25 years	12	11	23
25 - 34 years	28	29	57
35 - 49 years	40	44	84
50+ years	28	25	53
(blank)	1	1	2
Grand Total	109	110	219

Surat Basin	non-Residential Worker	Residential Worker
Less than 25 years	11.0%	10.0%
25 - 34 years	25.7%	26.4%
35 - 49 years	36.7%	40.0%
50+ years	25.7%	22.7%
(blank)	0.9%	0.9%

Appendix C - Selected Survey Results

Other	non-Residential Worker	Residential Worker	(blank)	Grand Total
25 - 34 years	16	30	11	57
35 - 49 years	25	47	5	77
50+ years	22	41	4	67
Less than 25 years	5	12	2	19
(blank)	7	3	1	11
Grand Total	75	133	23	231

Other	non-Residential Worker	Residential Worker
Less than 25 years	6.7%	9.0%
25 - 34 years	21.3%	22.6%
35 - 49 years	33.3%	35.3%
50+ years	29.3%	30.8%
(blank)	9.3%	2.3%

Table Appendix C-4 Family Situation by region

All Responses*	non-Residential Worker	Residential Worker	Blank	Grand Total
In a relationship, no children	230	319	4	553
In a relationship, dependent children in primary school	259	364	9	632
In a relationship, dependent children in secondary school	194	207	1	402
In a relationship, non-dependent children	214	236	5	455
Not in a relationship, no children	107	125	5	237
Not in a relationship, with dependent children in primary school	18	20	1	39
Not in a relationship, with dependent children in secondary school	13	10		23
Not in a relationship, with non- dependent children	24	31	1	56
	1059	1312	26	2397

* includes respondents whose regional location is unknown
Note: May be double counting as some respondents with children in primary school also have children in secondary school or who are no longer dependent

Appendix C - Selected Survey Results

Surat Basin	non-Residential Worker	Residential Worker	Blank	Grand Total
In a relationship, no children	30	20		50
In a relationship, dependent children in primary school	31	44		75
In a relationship, dependent children in secondary school	16	27		43
In a relationship, non-dependent children	19	15		34
Not in a relationship, no children	11	9		20
Not in a relationship, with dependent children in primary school	4	4		8
Not in a relationship, with dependent children in secondary school	2	2		4
Not in a relationship, with non- dependent children	4	1		5
	117	**122**	**0**	**239**

North West Minerals Province	non-Residential Worker	Residential Worker	Blank	Grand Total
In a relationship, no children	64	114		178
In a relationship, dependent children in primary school	50	115		165
In a relationship, dependent children in secondary school	39	56		95
In a relationship, non-dependent children	43	61	1	105
Not in a relationship, no children	24	51		75
Not in a relationship, with dependent children in primary school	7	10		17
Not in a relationship, with dependent children in secondary school	3	2		5
Not in a relationship, with non- dependent children	3	11		14
	233	**420**	**1**	**654**

Bowen Basin	non-Residential Worker	Residential Worker	Blank	Grand Total
In a relationship, no children	121	151		272
In a relationship, dependent children in primary school	168	165	1	334
In a relationship, dependent children in secondary school	128	100		228
In a relationship, non-dependent children	134	131		265
Not in a relationship, no children	59	55		114
Not in a relationship, with dependent children in primary school	6	6		12
Not in a relationship, with dependent children in secondary school	8	5		13
Not in a relationship, with non- dependent children	14	16		30
	638	**629**	**1**	**1268**

Appendix C - Selected Survey Results

Note: May be double counting as some respondents with children in primary school also have children in secondary school or who are no longer dependent

Other	non-Residential Worker	Residential Worker	Blank	Grand Total
In a relationship, no children	15	34	4	53
In a relationship, dependent children in primary school	11	39	8	58
In a relationship, dependent children in secondary school	11	24	1	36
In a relationship, non-dependent children	18	29	4	51
Not in a relationship, no children	13	10	5	28
Not in a relationship, with dependent children in primary school	1		1	2
Not in a relationship, with dependent children in secondary school		1		1
Not in a relationship, with non- dependent children	3	3	1	7
	72	**140**	**24**	**236**

Table Appendix C-5 Time in the Sector by Region and Residential Status (n and %)

	Bowen Basin		North West Minerals Province		Surat Basin		Other		Grand Total	
	RW	NRW	RW	NRW	RW	NRW	RW	NRW	RW	NRW
0-12 months	36	44	46	23	22	14	10	9	**114**	**90**
12-24 months	39	37	27	14	9	12	13	3	**88**	**66**
2-5 years	94	90	97	43	29	23	24	7	**244**	**163**
5+ years	412	395	223	140	39	50	77	47	**751**	**632**
(blank)	19	38	5	1	11	10	9	9	**44**	**58**
Grand Total	**600**	**604**	**398**	**221**	**110**	**109**	**133**	**75**	**1,241**	**1,009**

	Bowen Basin		North West Minerals Province		Surat Basin		Other		Grand Total	
	RW	NRW	RW	NRW	RW	NRW	RW	NRW	RW	NRW
0-12 months	6.0%	7.3%	11.6%	10.4%	20.0%	12.8%	7.5%	12.0%	9.2%	8.9%
12-24 months	6.5%	6.1%	6.8%	6.3%	8.2%	11.0%	9.8%	4.0%	7.1%	6.5%
2-5 years	15.7%	14.9%	24.4%	19.5%	26.4%	21.1%	18.0%	9.3%	19.7%	16.2%
5+ years	68.7%	65.4%	56.0%	63.3%	35.5%	45.9%	57.9%	62.7%	60.5%	62.6%
(blank)	3.2%	6.3%	1.3%	0.5%	10.0%	9.2%	6.8%	12.0%	3.5%	5.7%

Appendix C - Selected Survey Results

Table Appendix C-6 Current role in the company by residential status

	Professional	Operations	Administration	Trade	Other	No Response	Grand Total
non-Residential Worker	244	502	91	146	2	24	1,009
Residential Worker	373	451	185	193	12	27	1,241
(blank)			1	1		23	25
Grand Total	617	953	277	340	14	74	2,275

Table Appendix C-7 Residential Workers Dwelling Type

Number	Bowen Basin	North West Minerals Province	Surat Basin	Other	(blank)	Total
Residential Workers Owning/ Purchasing Own Dwelling	214	242	70	4	57	587
Residential Workers Renting	329	130	32	-	62	553
Residential Workers Not Purchasing or Renting	57	26	8	-	10	101
TOTAL	**600**	**398**	**110**	**4**	**129**	**1241**
Percentage	**Bowen Basin**	**North West Minerals Province**	**Surat Basin**	**Other**	**(blank)**	**Total**
Residential Workers Owning/ Purchasing Own Dwelling	35.7%	60.8%	63.6%	100.0%	44.2%	47.3%
Residential Workers Renting	54.8%	32.7%	29.1%	-	48.1%	44.6%
Residential Workers Not Purchasing or Renting	9.5%	6.5%	7.3%	-	7.8%	8.1%
TOTAL	**100%**	**100%**	**100%**	**100.0%**	**100.0%**	**100%**

Rental Subsidy (Residential Workers)	Bowen Basin	North West Minerals Province	Surat Basin	Other	Total
Do not receive rental subsidy	14.3%	41.5%	96.9%	25.8%	26.8%
Receive rental subsidy	84.5%	58.5%	3.1%	72.6%	72.3%
(blank)	1.2%	0.0%	0.0%	1.6%	0.9%

Appendix C - Selected Survey Results

Table Appendix C-8 Residential worker respondents by home ownership and work role

Residential Workers	Administration	Operations	Professional	Trade	Other	No response	Grand Total
Total	185	340	371	153	12	24	1085
Residential workers who own or are you purchasing the dwelling they are living in	79	197	147	69	0	11	503
Proportion of owners	42.7%	57.9%	39.6%	45.1%	0.0%	45.8%	46.4%

Table Appendix C-9 Type of non-residential accommodation

Q11 b. Where do you stay?	Bowen Basin	North West Minerals Province	Surat Basin	Other	
Camp close to site	314	194	78	42	628
In town residence (e.g. motel, caravan park)	85	14	18	9	126
Offsite camp in or adjacent to town	179		7	8	194
Offsite camp remote from nearest town	20	12	5	6	43
(blank)	6	1	1	10	18
Grand Total	**604**	**221**	**109**	**65**	**1009**

	Bowen Basin	North West Minerals Province	Surat Basin	Other
Camp close to site	52.0%	87.8%	71.6%	64.6%
In town residence (e.g. motel, caravan park)	14.1%	6.3%	16.5%	13.8%
Offsite camp in or adjacent to town	29.6%	0.0%	6.4%	12.3%
Offsite camp remote from nearest town	3.3%	5.4%	4.6%	9.2%
(blank)	1.0%	0.5%	0.9%	15.4%

Appendix C - Selected Survey Results

Table Appendix C-10 Access to preferred accommodation arrangement by children

Q16. How important is access to your preferred accommodation arrangement (residential or non-residential) to your employment decisions?						
	No Importance	Some Importance	Neutral	Important	Very Important	Grand Total
With Children	25	51	101	212	543	**932**
	2.7%	5.5%	10.8%	22.7%	58.3%	**100%**
No Children	40	104	188	360	564	**1,256**
	3.2%	8.3%	15.0%	28.7%	44.9%	**100%**

Table Appendix C-11 Access to preferred accommodation arrangement by residential status

Q16. How important is access to your preferred accommodation arrangement (residential or non-residential) to your employment decisions?							
		Very Important	Important	Neutral	Some Importance	No Importance	Grand Total
Bowen Basin (n=1,179)	NRW	40.8%	30.5%	17.4%	8.4%	2.9%	**100.0%**
	RW	69.8%	18.9%	6.2%	3.6%	1.5%	**100.0%**
	ALL WORKERS	55.1%	24.8%	11.9%	6.0%	2.2%	**100.0%**
NWMP (n=613)	NRW	45.5%	29.5%	10.9%	10.9%	3.2%	**100.0%**
	RW	46.8%	27.7%	14.5%	7.6%	3.3%	**100.0%**
	ALL WORKERS	46.3%	28.4%	13.2%	8.8%	3.3%	**100.0%**

Appendix C - Selected Survey Results

Q16. How important is access to your preferred accommodation arrangement (residential or non-residential) to your employment decisions?							
		Very Important	Important	Neutral	Some Importance	No Importance	Grand Total
Surat Basin (n=216)	NRW	28.0%	28.0%	29.0%	10.3%	4.7%	**100.0%**
	RW	45.9%	26.6%	14.7%	5.5%	7.3%	**100.0%**
	ALL WORKERS	37.0%	27.3%	21.8%	7.9%	6.0%	**100.0%**
Combined (n=2,008)	NRW	40.4%	30.0%	17.2%	9.2%	3.1%	**100.0%**
	RW	59.1%	22.9%	10.0%	5.3%	2.8%	**100.0%**
	ALL WORKERS	50.5%	26.1%	13.3%	7.1%	2.9%	**100.0%**

Table Appendix C-12 Availability of preferred accommodation arrangement and decision making by residential status

Q17. Would you have taken this job if your preferred accommodation arrangement was not available?				
	non-Residential Worker		Residential Worker	
	(%)	(n)	(%)	(n)
No	59.0%	581	64.6%	776
Yes	41.0%	403	35.4%	426
Grand Total	100.0%	984	100.0%	1,202

Table Appendix C-13 Availability of preferred accommodation arrangement and decision making by age

Q17. Would you have taken this job if your preferred accommodation arrangement was not available?	Less than 25 years	25 - 34 years	35 - 49 years	50+ years	25+ years
No	43.2%	60.8%	67.0%	61.9%	63.8%
Yes	56.8%	39.2%	33.0%	38.1%	36.2%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%

Appendix C - Selected Survey Results

Table Appendix C-14 Availability of preferred accommodation arrangement and decision making by children

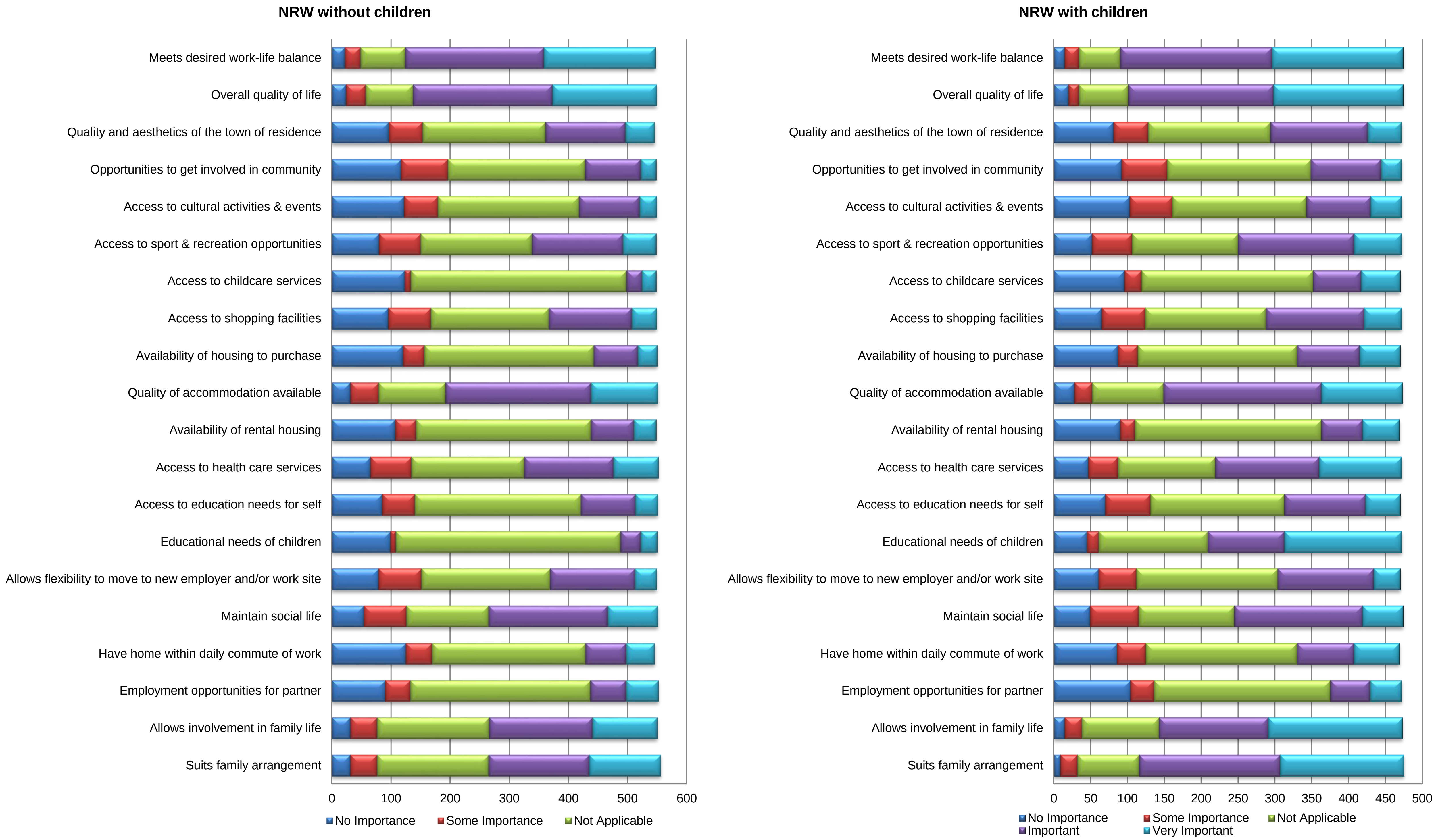
Q17 Would you have taken the job if your preferred accommodation arrangement was not available?					
Respondents with no children or non-dependent children			**With Children**		
No	732	58.4%	**No**	617	66.8%
Yes	522	41.6%	**Yes**	306	33.2%
Grand Total	**1,254**	**100.0%**	**Grand Total**	**923**	**100.0%**

Appendix D Factors in employment decision making

SEE FOLLOWING PAGE

Appendix D - Factors in employment decision making

Figure Appendix D-1 Factors affecting accommodation arrangement decision making by number of responses (non-residential respondents)



Appendix D - Factors in employment decision making

Figure Appendix D-2 Factors affecting accommodation arrangement decision making by number of responses (residential respondents)