



The changing face of rural workforces and communities

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Mineral futures collaboration cluster

Minerals Down Under National Research Flagship (CSIRO).

Minerals industry est. \$1trillion by 2030

MDU Flagship represents \$114million Federal Government research funding (Est. 2005).

The *Mineral Futures Collaboration Cluster* is one of two programmes into the sustainability of the sector (\$8.2million).

Cluster involves UQ, UTS, Curtin, CQU, and ANU and contains three technical programmes (2009-2012).

Minerals Future Cluster – technical programmes

- P1. Commodity Futures (UTS – Institute for Sustainable Futures):** explore the future of mining (Peak minerals thesis, macro scale challenges).
- P2. Technology Futures (UQ – SMI):** examine transformational exploration, extraction and processing technologies (In-situ leach mining, robotic mining).
- P3. Regions in Transition (Curtin, ANU, CQUniversity).** Understand regional sensitivities associated with exploration and resources; Identify policy and engagement mechanisms for maximising longer term benefits of resource development for regional communities.

Regional Australia



Presentation themes

- Mobile workforces.
- Dimensions of the mobile workforce.
- Reasons, advantages and disadvantages for a mobile workforce.
- Competing narratives on mining LDC, FIFO, DIDO, mobility, commuting etc.
- Mobility and investment in social and human capital.
- Relocation to mining communities and/or workcamps – liveability, separation and divorce.

Research & policy approaches to mobile workforces

- Mobile workforce is not inherently problematic.
- Advantages and disadvantages differ for different stakeholders.
- Policy intersects – employment, families and communities involves govt at the Federal, State and local level.
- Intersects at different scales; individual, family, organisation, community, religious, workplace, private domestic sphere.
- Shaped by company or employer policy - influenced by external market conditions.
- Difficult social terrain as work trends and familial arrangements/expectations shift.

What do we mean by mobility?

- Migration – long term permanent relocation
- Commuting – short term travel on regular basis
- Long distance commuting (LDC)
- Intermittent/casual workers – mining services sector?
- FIFO, DIDO, FIDO, reverse FIFO

Key issues - intensified block shift work schedules, resource community growth, and the increase in number and size of workforce camps in resource intensive locations

Broader context - work commutes

- Of estimated 8 million work commutes
- 95.4% of work commutes – less than 50km
- 2.8% - Btw 50-100km
- 1.9% (141,180) - Greater than 100km
- Estimated to be 200,000+ by 2015
- Most LDC reside in cities (51,633)
- Most work in cities (45,922) (ABS 2006, BITRE)
- Approx. 52% of 92,500 mining workers in WA are LDC (WA CofM&E, 2011)
- 10 years from 1996-2006 direct employment in mining increased 105% in Perth but only 29% in regional WA (ABS, 2007)

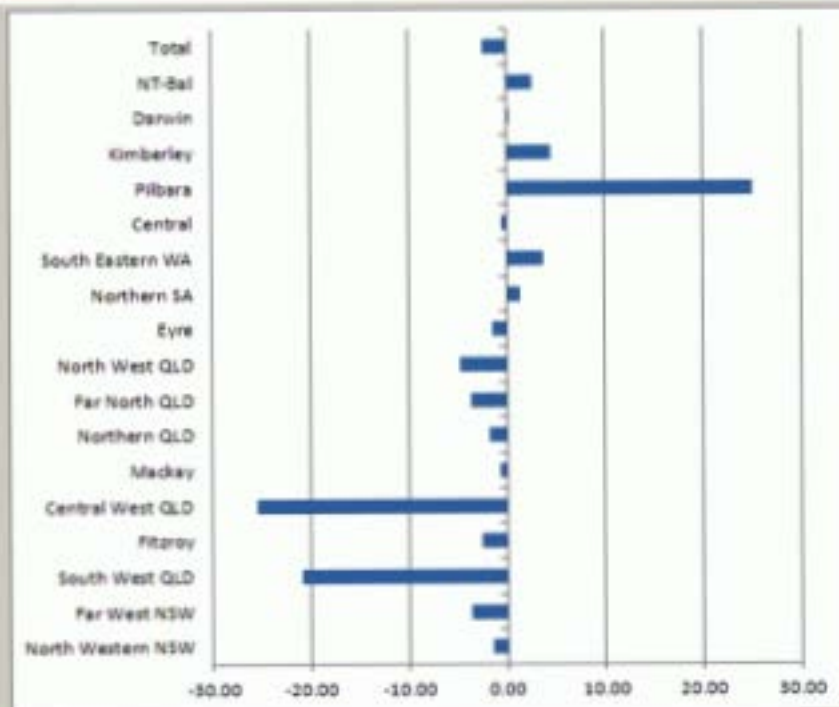
Forms of mobility

- Mobility takes many forms.
- LDC not new but scale and growth has attracted attention.
- Not just a single model of LDC from urban centres to remote mining locations (ex. WA).
- Increased movements at the inter and intra-regional scale as well as developments such as reverse FIFO.
- 30% increase passenger movements at regional airports 2005-10 (22.5m passengers) (BITRE, 2011).
- Regional traffic rates grew at a higher rate than between major cities.
- Resource-rich regions had the highest growth.
- Increase in the number of regional routes.

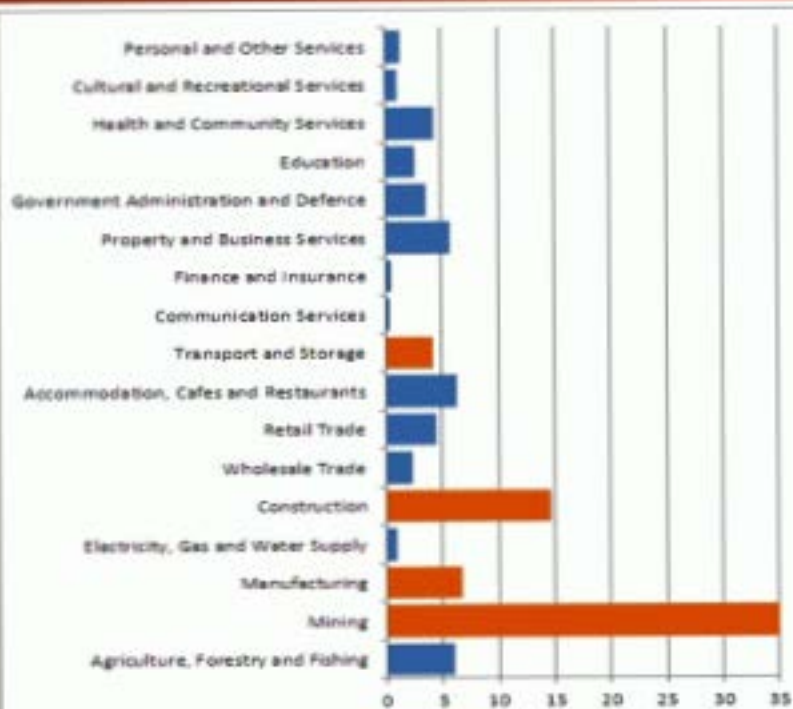
Freq & efficiency of transport facilitator of mobility

- Qantas announce new direct Sydney- Newman (1200km north of Perth) flight to meet growing demand, carrying 168 passengers.
- Qantas operates 29 round trip services a week between Perth and Newman.
- Qantas planning on adding 14 aircraft to its fleet over the next 12 months to cater to growing demand from fly-in fly-out mining workers.
- Mining geared aviation was expected to grow 50 to 70 per cent over the next few years.

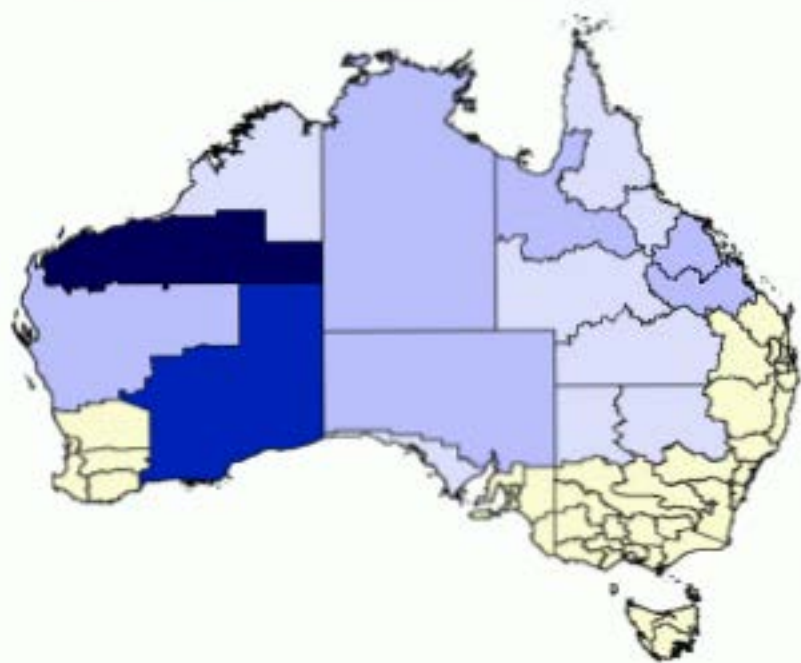
2001-2006 – Remote or Northern workforce growth (Carson, 2011)



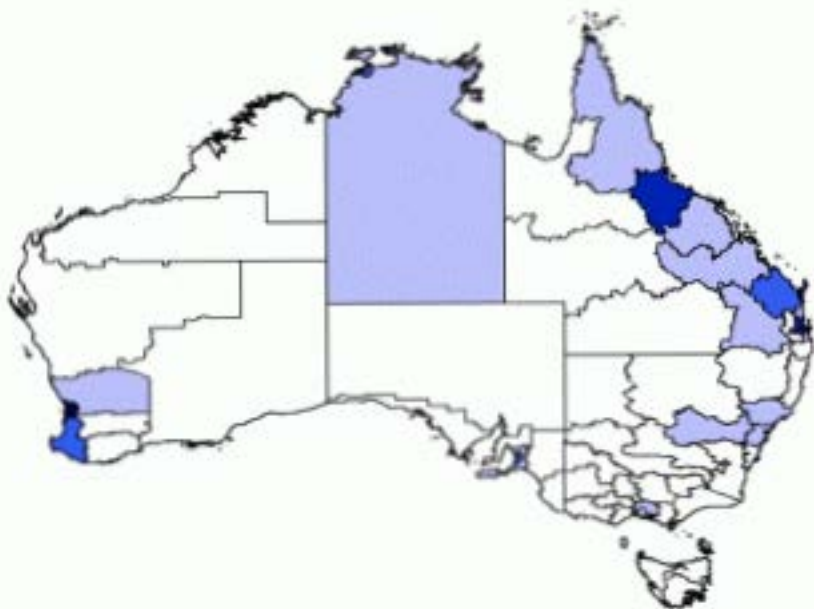
Industries of employment represented by LDC workers (Carson, 2011)



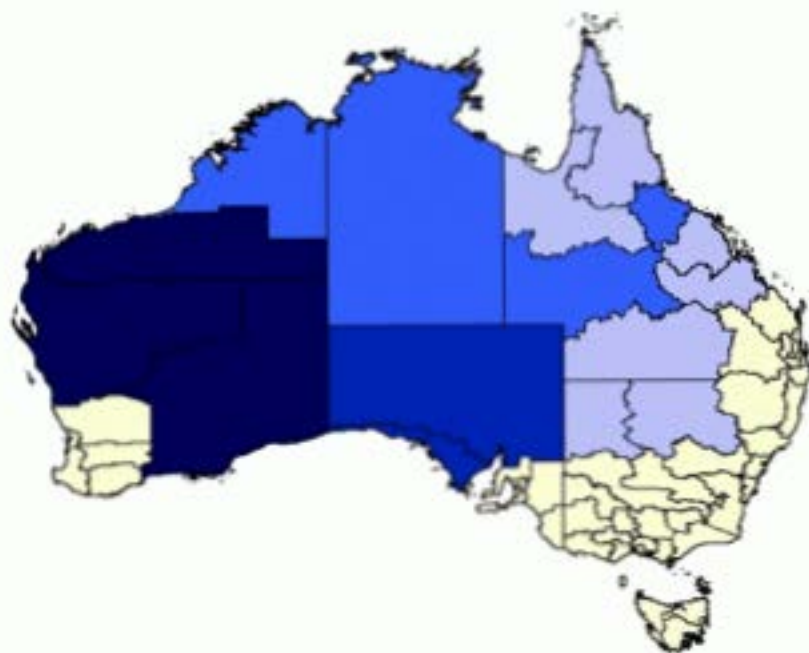
Percentage of all mining type LDC workers (Carson, 2011)



Place of residence of LDC workers (Carson 2011)



Percentage of LDC workers who reside in own capital city (Carson, 2011)



Qld regional mining impacts

- Inter and intra regional movement impacts in a number of ways.
- Increase in road traffic btw mining and dormitory townships.
- Not only mining company employees, but mining contractors and services.
- Mining workcamps with workers from 40+ companies (Greer et al. 2009).
- Shift from single company operations to consortia, private contractors, government entities and communities.

Reasons for mobile workforce - industry

- Limited or no labour and housing stocks in local areas.
- Difficulties of providing housing or developing housing in short time frames.
- Difficulties of providing services and social infrastructure in short time frames.
- Need to provide labour force in very short time frames (particularly for construction).
- Short term nature of construction periods and the short to medium term nature of some mining operations (Rolfe et al 2011).

Advantages for industry

- Can attract better skilled workers.
- Less absenteeism.
- Efficiency in high density accommodation.
- Greater control of workforce - less union interference.
- Environmental advantages – less commuting short distances, lower footprint.
- Aboriginal approval more likely with work camps located in non-sensitive areas, compared to expanding townships etc
- FIFO is more risk adverse with investment especially with boom/bust mining cycles.
- Risk/control is shifted to mining companies away from public investment.

Negative impacts - regions

- Fly over effects - hollow economy.
- Incomes repatriated to urban environs.
- Non-res pop. not in official counts – less funding.
- Lack of revenue for local government infrastructure.
- Transient pop. make planning difficult, local govt, schools, health etc

- Lack of community support from FIFO's.
- Income disparity.
- Us and them scenarios 'strangers in town'.
- Negative social impacts; family relationships.

Community concerns and future challenges

- Community image.
- Impacts on families and workers.
- Loss of engagement and participation in local communities.
- Lack of economic benefit from workcamp residents for local community businesses.
- Association (mostly unsubstantiated) of various social ills (crime, violence etc) with workcamp residents.
- Increased dependency with community expectation that mining companies will fulfil an economic and social development function

Social impacts of mining on communities

85% think the mining boom is good for Australia, inc. 73% of Greens.

52% say they've not personally benefitted "at all"

33% say they've only benefitted "a little".

12% said they'd benefitted "a lot."

Most support from resources states WA and Qld.

Tasmanians and Victorians were least supportive.

The personal benefit of mining is one of the central arguments for and against the mining industry (Nielsen Poll-Aust Financial Review, 2012).

61% of respondents supported new mining projects with 25% or less FIFO

82% opposed new mining projects with over 75% FIFO (Carrington & Pereira, 2011)

[Mining Family Matters – www.miningfm.com.au; FIFO – www.fifofamilies.com; Mining Communities United – www.miningcommunities.com]

Advantages of LDC – mining workers

- Higher incomes.
 - Career advancement
 - Opportunity to sub-contract – start own business.
 - Employment opportunities for partner and children.
 - Better services and educational facilities.
 - Block shifts giving extended time-off
-
- Economic effects are dispersed over a wider area with FIFO/DIDO

Disadvantages of LDC– mining workers

- Separation of work and family life.
- Dislocation from community.
- Access to services.
- Inappropriate behaviour from workers.
- Travel fatigue.
- Being trapped by 'big money'.

Competing narratives – community challenges

The current debate of attracting new workers (mining families as opposed to single male workers) reflects the prioritisation and to a degree romanticisation of the rural over the urban.

The notion of ideal types: (Ferdinand Tonnies)

- *Gemeinschaft* (rural communities) individuals oriented to common beliefs and practices
 - i.e. close networks families and neighbours.
 - Greater permanency – known position in community – little opportunity for mobility
- *Gesellschaft* (individualism) more impersonal and indirect - rationally constructed in the interest of efficiency, economic or political – modern industrialised society.
- Privileging agriculture over mining.
- Regional transitions embraced or denied

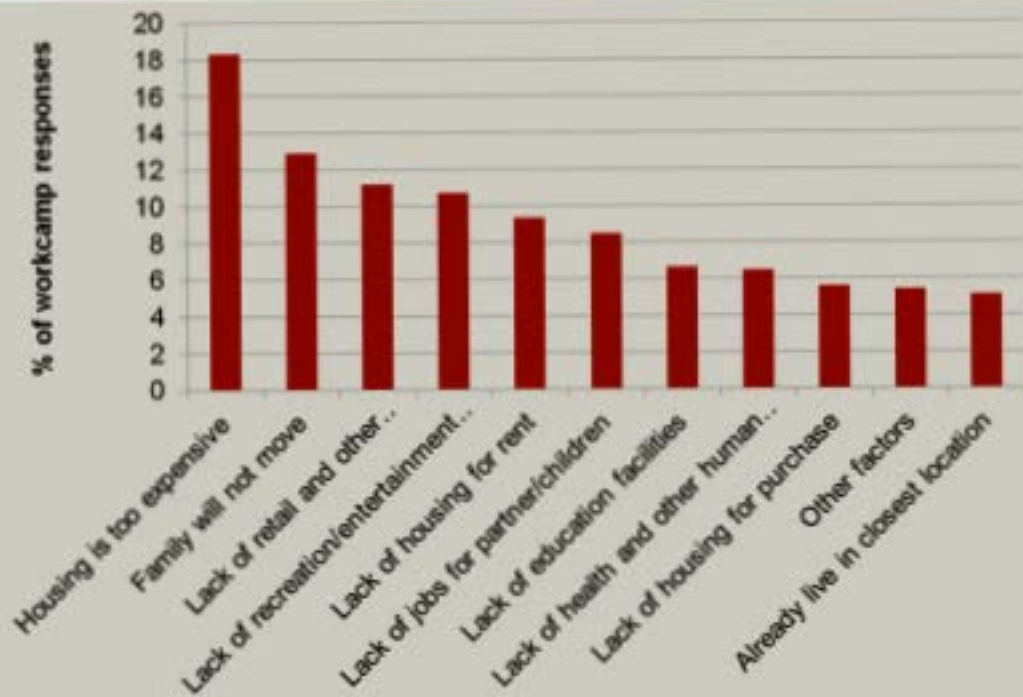
Mobility and ind. social capital – competing stories

- Attribute of mobility indication of well-performing economy.
- Mobility is seen to depreciate social capital (Glaeser et al 2002).
- Mobility costs – equates low mobility with maintaining high local social capital.
- Those who internalise mobility as a social deficit reinforce low mobility.
- However historically migration is seen to increase social capital.
- Professions that normalise mobility enhance social capital.

Experiences and Psychosocial Wellbeing of FIFO

Informants generally made purposeful and informed choices to undertake FIFO employment based on the notion that “the benefits outweigh the costs”, that the lifestyle associated with FIFO employment would considerably increase individual and family access to financial and psychosocial resources, and that the net gains in personal and family resources would outweigh any losses (Sibbel 2010).

Workcamp residents – why not living locally



Liveability of workcamp

Overall liveability of region: Resident pop. – 7.22/10

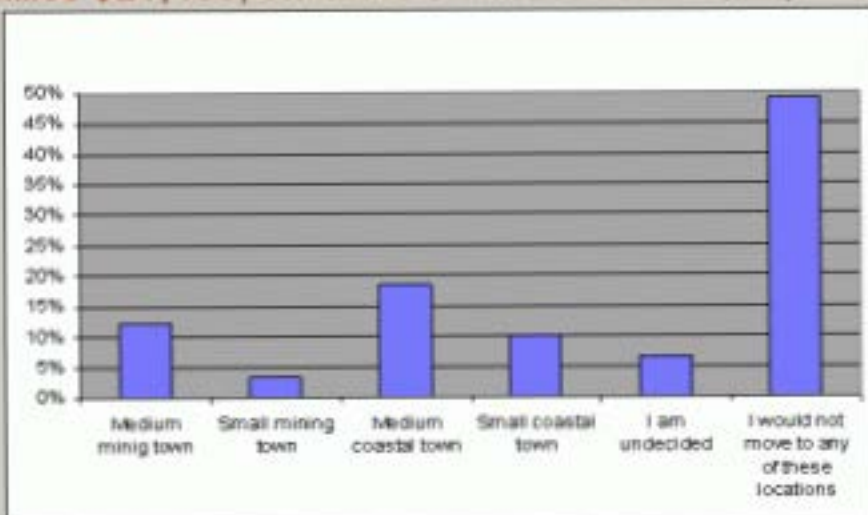
Workcamp pop. liveability of region – 6.25/10

Rating of workcamp - 6.59/10

	Mean
The regions climate	3.59 (4.22)
The management of the natural environment in your community	3.45 (3.35)
Telecommunications services such as (mobile phone coverage, internet services)	3.24 (3.16)
Availability of everyday goods	3.04(3.54)
Access to local GP/Allied health services	2.81 (3.37)
The local sport and exercise facilities	2.80 (3.58)
Local hospital services	2.79 (3.29)
Feeling part of your local community	2.68 (3.66)
The level of entertainment available in your community	2.38 (2.74)

Premium to relocate (Rolfe, 2006)

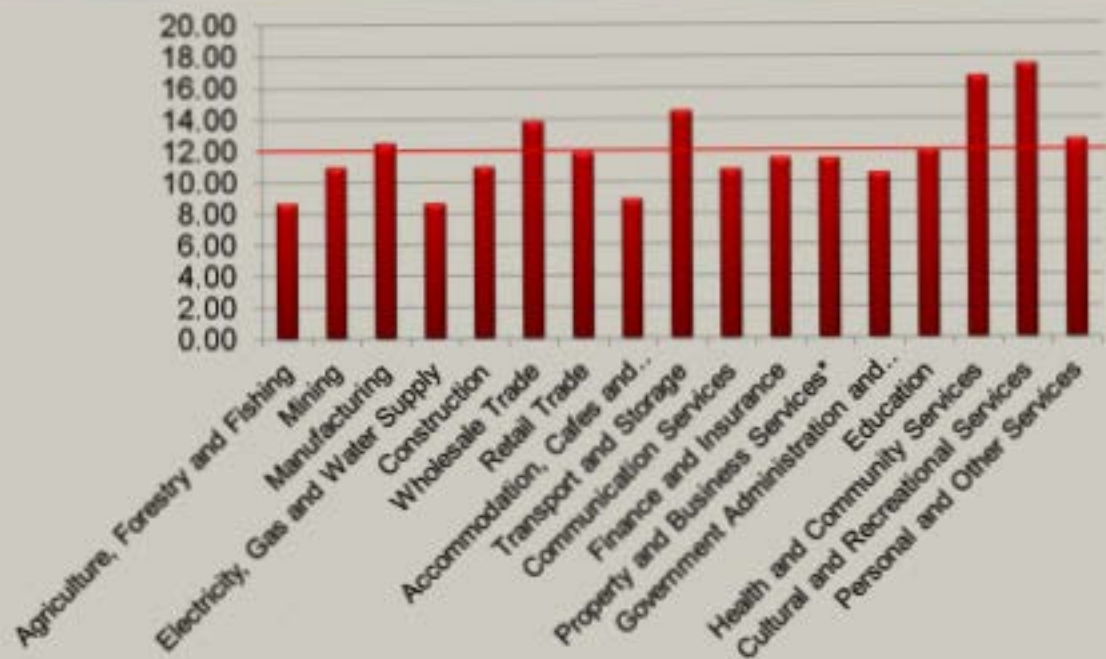
- Additional salary to relocate from city to mining town - \$55,500
- Health & education services valued at \$35,681, jobs for families \$21,469, standard of infrastructure \$14,971



LDC, FIFO, Mining and family stress - indicators

	Total divorced/ separated	Mining workforce	Percentage of mine workforce	Total divorced/ separated	Total workforce	Percentage of total workforce
	Mining Sector – Australia			All Industry sectors - Australia		
1996	8629	86,261	10.00	750675	7,636,319	9.83
2001	8283	75,178	11.02	899344	8,298,606	10.84
2006	11924	106,894	11.15	1024790	9,104,184	11.26
	Mining Sector - Queensland			All industry sectors - Queensland		
1996	2207	22,378	9.86	145770	1,420,668	10.26
2001	2024	19,286	10.49	181075	1,568,864	11.54
2006	3351	30,844	10.86	220660	1,840,887	11.99

Proportion of Queensland employees divorced/separated by industry sector, 2006



Percentage div/sep in mining sector by selected Qld LGA (1996, 2001, 2006)

LGA	Divorced or separated in Mining sector (n)			Mining sector workers (n)			% of mining sector divorced or separated			10 year change
	1996	2001	2006	1996	2001	2006	1996	2001	2006	%
Thuringowa	22	45	108	207	301	637	10.63	14.95	16.95	6.33
Rockhampton	26	68	147	316	446	1019	8.23	15.25	14.43	6.20
Gold Coast	49	46	115	462	398	717	10.61	11.56	16.04	5.43
Gladstone	16	24	56	152	207	359	10.53	11.59	15.60	5.07
Mackay	72	139	382	648	1076	3129	11.11	12.92	12.21	1.10
Brisbane	152	183	303	1605	2026	3048	9.47	9.03	9.94	0.47
Central Highlands	303	178	289	3340	2354	3564	9.07	7.56	8.11	-0.96
Townsville	54	87	153	335	513	1016	16.12	16.96	15.06	-1.06
Isaac	395	279	406	4242	3302	4973	9.31	8.45	8.16	-1.15
Western Downs	6	13	18	65	116	252	9.23	11.21	7.14	-2.09
Maranoa	19	16	22	99	142	281	19.19	11.27	7.83	-11.36
Queensland							9.86	10.49	10.86	1.00

Conclusions

- Shift length is an important determinant of incentives for FIFO and DIDO.
- Workforce location patterns may be 'path dependent'.
- A 'life cycle' hypothesis suggests that preferences to live locally may vary through a working career.
- Mobile workforce are active agents in determining employment arrangements, mining families are resilient and aware of the tradeoffs.
- Mobile workforce = LDC, FIFO, DIDO, are common place and should be planned for.
- Integrated research will give a stronger evidence base for decision making than competing claims based on vested interests.

Questions??

- **Who is being pushed out of 'boomtown' communities?**
- **How can we better research the social impacts on communities of large scale mining?**
- **What are the opportunities for agriculture and communities from the resources boom?**

For further information

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