

BE WHAT YOU WANT TO BE

Assessing community impacts from new mine developments in the Bowen Basin

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Snapshot of where we are

- Better understanding of what types of impacts are generated by development
- New tools for assessment and monitoring
- Improvements in planning processes
- Government becoming more systematic
- Research supported through ACARP with particular focus on housing and labour force issues
- Co:researchers: Stewart Lockie, Galina Ivanova, Delwar Akbar, Lindsay Greer, Vanessa Timmer



Understanding the labour force and economic drivers

- Impacts of mining on region driven through more employment and business spending
- About 8 – 12 jobs created nationally for each direct mining job
- At regional level, up to 60% of jobs created are in the business supply chain
- Local and regional multipliers tending to fall over time
- 2 – 4 extra jobs in region



Improved understanding of impacts on communities

- Many issues are common
 - Workforce location issues
 - Housing shortages
 - Impacts on labour markets
 - Changing community profiles
 - Pressure on services and resources
 - Traffic, fatigue and safety issues
 - Lack of diversification and business base

Understanding the causal chain

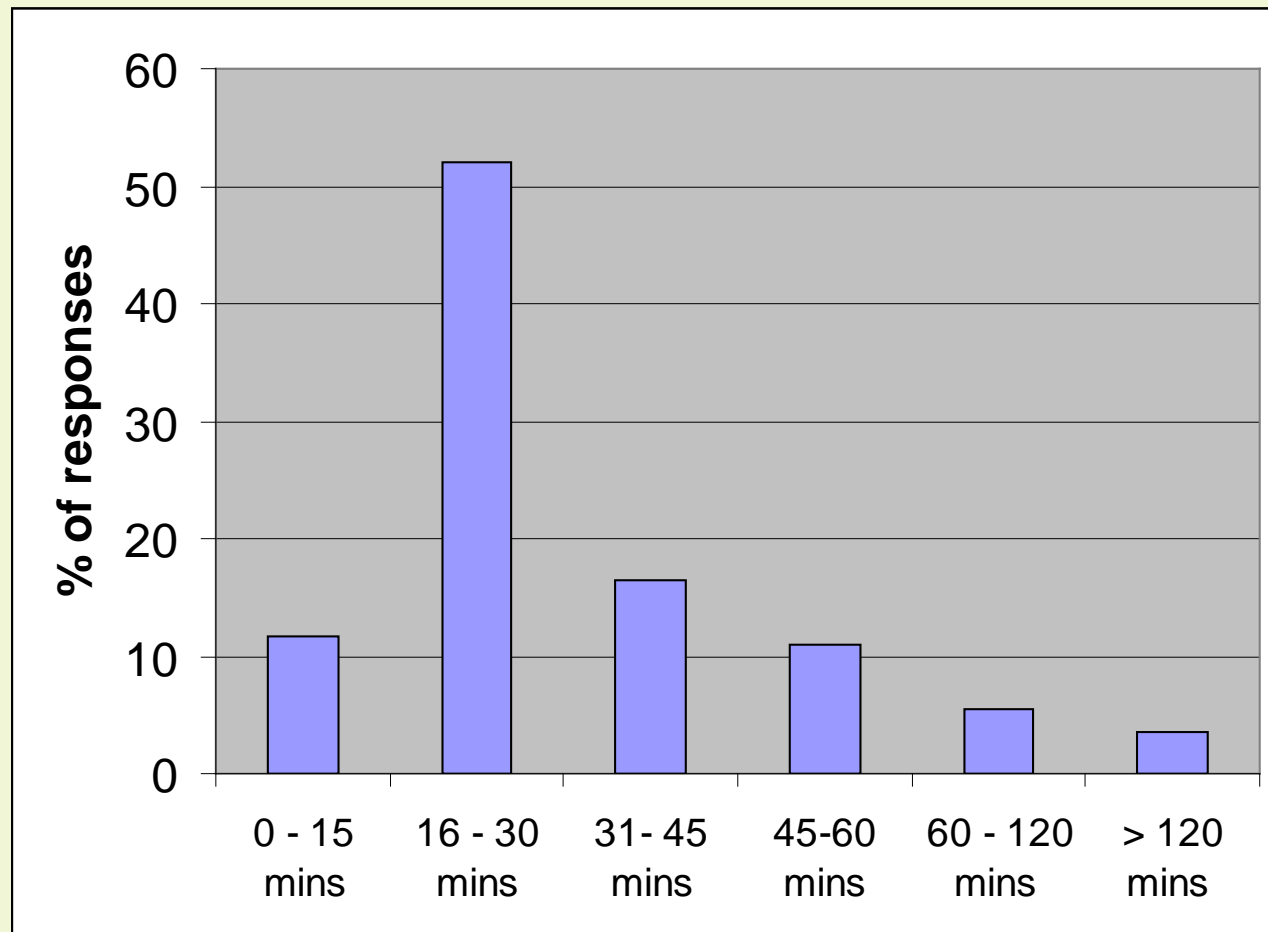
- Workforce location is a major driver of local and regional economies
- Number of factors influence where people choose to live
 - Services, facilities, lifestyle, convenience, atmosphere, jobs
- Housing shortages limit community growth, labour market adjustment and economic growth

Moving beyond simple identification and assessment

- Identify transmission mechanisms for pressures
 - E.g. housing transfers economic pressures into social ones
- Assess the size of transmission factors
 - E.g. how do different factors attract and retain people in mining communities
- Better mechanisms to deal with impacts
 - Planning and funding processes
- Mechanisms for ongoing management
 - E.g. social impact management plans in Qld

Understanding key drivers in communities

The low tolerance to long travel times to work suggest there will always be a core of people who will live in the local mining towns



Improving assessment with specialist techniques

- Applied choice modelling and choice behaviour experiments to key issues

Attribute	Worst case	Change in years in Moranbah	Value of change
Housing and Rental prices	25% increase	-0.294	\$559
Water Restrictions	None for households, town parks and gardens are drier than now	0.123	\$415
No Buffer for Mine Impacts	Moderate impacts from noise, vibration (base)	-0.501*	\$494
More Population in Work Camps	No more housing, 5,000 in workcamps	-1.198***	\$3,154

Making policy recommendations: workcamp issues

- Probably 70 – 85% of new workforce will use workcamp accommodation
- Integrate workcamps into communities where possible
 - Perhaps construction workcamps and distant operational workcamps remain separate to towns
 - Put long term operational workcamps in towns where possible
 - Develop greater mixture of workforce characteristics and backgrounds
- Vary the accommodation options to give continuum between housing types
 - encourage graduation from one type to another

Need for planning and analysis framework

- Need more consistent process to identify and predict impacts
- Need rigorous analytical and modelling techniques to predict impacts accurately
- Need on-going policy and engagement mechanisms to address impacts as they develop

Making the linkages between issues and policy solutions

PHASE 1: IDENTIFICATION

- Step 1.1 Identify workforce needs for new project
- Step 1.2 Identify available labour in local area
- Step 1.3 Identify labour force to be imported
- Step 1.4 Identify housing characteristics in local community

PHASE 2: MODELLING AND PREDICTION

- Step 2.1 Estimate direct local population impacts
- Step 2.2 Estimate indirect local population impacts
- Step 2.3 Identify other demographic trends and labour force impacts on local community
- Step 2.4 Model housing requirements for new labour force and demographic requirements

PHASE 3: POLICY AND MANAGEMENT

- Step 3.1 Identify issues and strategies that can address labour force impacts
- Step 3.2 Identify issues associated with non-resident workforce
- Step 3.3 Identify potential negative impacts of housing shortfalls
- Step 3.4 Identify issues and strategies that can address housing issues

Approach is needed that makes a clearer link between the **current state**, the **pressures of development**, and the **policy tools** to address those pressures