



# BUILDING REGIONAL AUSTRALIA

Identifying business clusters & opportunities



- Measure Impact
- Quantify Benefits
- Analyse Workforce
- Evaluate Outcomes
- Understand Sentiment



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## ABOUT WRI



- WRI is a not for profit research organisation committed to the development of Regional Australia.
- Specialising in customised research services to a diverse range of industry, business, NGOs and all levels of Government.
- Bathurst based, with expertise in Regional NSW and VIC economies

### Recent research projects include:

- Economic Impact of CSU
- Economic, Social and Community Impacts: Cadia Valley Operations
- Economic Benefits of Cultural Facilities in the Evocities
- Economic Profile and Opportunities in Orana
- Economic appraisal & BCA – various Councils

# ASSESSING ECONOMIC OPPORTUNITIES



WRI specialises in customised research services for assessing economic opportunities for large regions of LGAs, as well as single LGAs

Recent projects with this focus have been conducted for:

- Orana region
- Murray Murrumbidgee region
- Blayney LGA
- Bathurst LGA

# LARGE REGION ASSESSMENTS



## To identify:

- Diversity of industry across a region
- Concentrations of particular activities
- Commonalities in industrial structure that could warrant specific attention and support

## Understanding the industrial character of larger regions allows policy makers to:

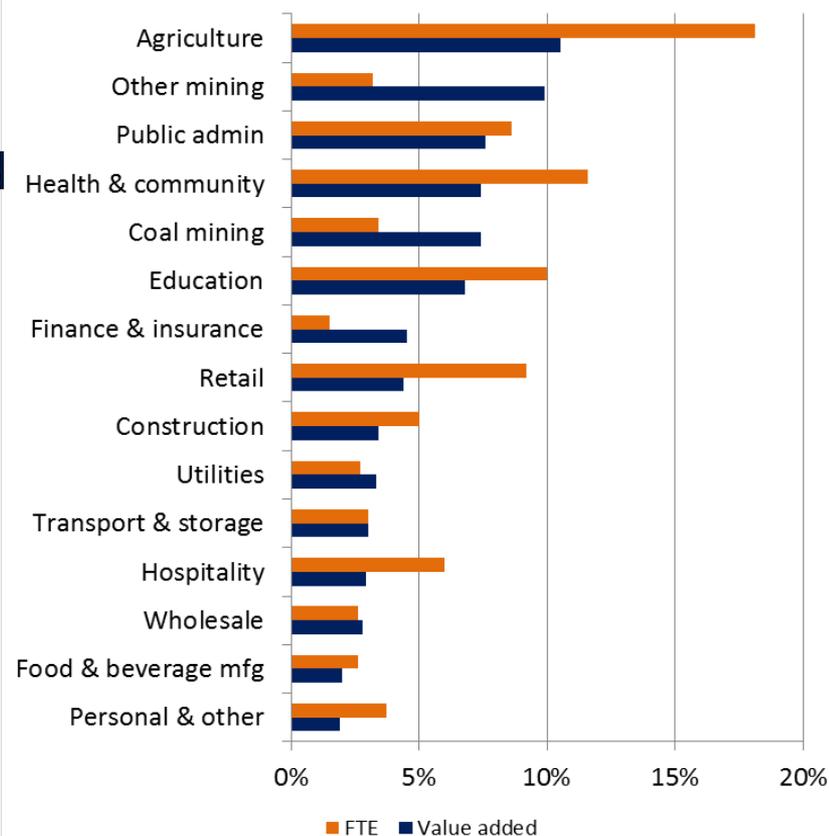
- Tailor economic and social policies
- Identify sectors with the highest growth potential
- Identify possibilities for collaboration
- Address common challenges



# CLUSTER ANALYSIS



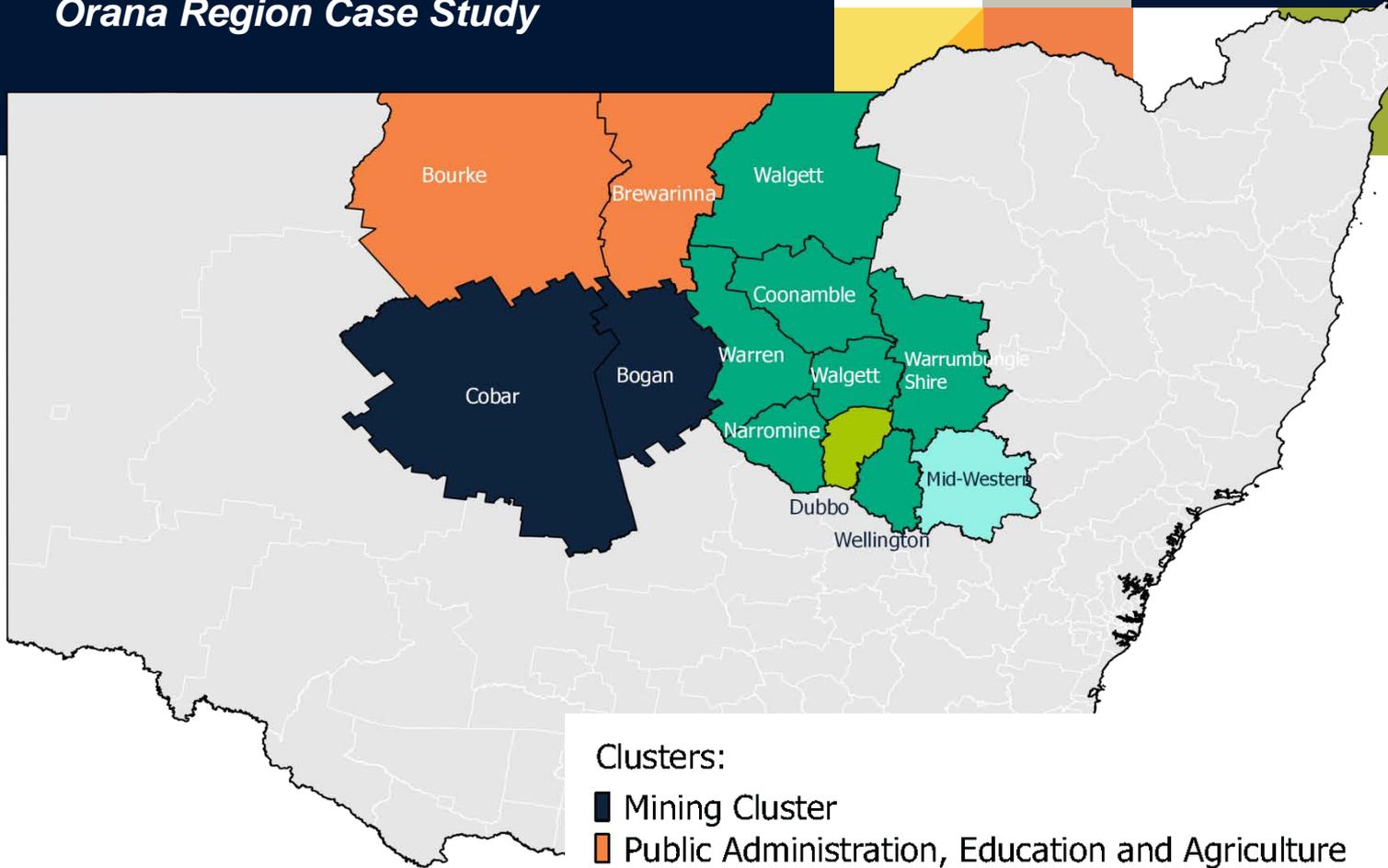
- Principal component analysis used to identify clusters.
- Analysis based on sectoral value added and employment data for each LGA.
- Clusters (principal components) are then identified by running the data through a set of statistical procedures using specialised software (SPSS).
- Consideration is given to the proximity and location of LGAs and feedback from regional stakeholders before finalising clusters.



# CLUSTER ANALYSIS



## Orana Region Case Study



### Clusters:

- Mining Cluster
- Public Administration, Education and Agriculture
- Agriculture
- Health & Community Services, Finance & Insurance and Education
- Coal Mining

# IDENTIFYING OPPORTUNITIES



*At the core of our work to identify opportunities, is the basic principle that opportunities should build on existing (and perhaps emerging) competitive advantage.*

- Factors we assess:
  - Current and historical employment data
  - Data from Input-Output tables (representing the local economy)
  - National productivity growth
  - Forecast employment data
  - Local knowledge

# EMPLOYMENT DATA



- Changes in sectoral employment within the region are compared to changes in sectoral employment at the state level and to overall changes in employment at the state level.
- Shift share analysis allows us to identify comparative performance of the sector regionally and classify sectors as shown in the table opposite.
- Where local firms are outperforming the state level industry, we assume there may be some local competitive advantage.

## Classification

### **Type I - Outperforming in high growth industry**

e.g. Other Transport; Health Care & Social Assistance; Coal Mining

### **Type IV – Outperforming in low growth industry**

e.g. Fabricated Metal Product Mfg; Basic Material Wholesaling

### **Type II – Underperforming in high growth industry**

e.g. Food & Beverage Services; Road Transport

### **Type III – Underperforming in low growth industry**

e.g. Agriculture; Other store based retailing

Orana Region key shift share results  
Orana Profile & Opportunities Report, 2013

# LOCATION QUOTIENTS

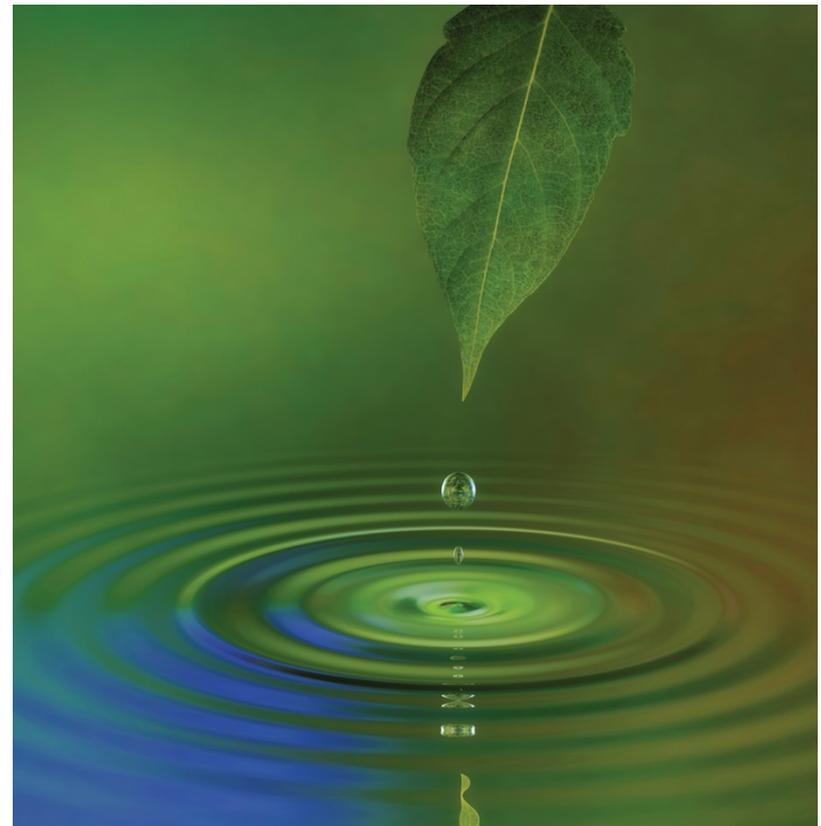


- Location Quotients are used to determine how concentrated an industry is in a region compared to a larger region, usually the state or nationally.
- Sectors with a high LQ (above 1) are often exporters of goods / services from the region and bring external revenue into the region.
- For example:
  - For instance, Dubbo's agriculture sector makes up 5% of Dubbo's employment, compared to 2% across NSW.
  - The Health Care & Social Assistance sector in Dubbo makes up 10% of Dubbo's employment, compared to 7% across NSW.

# DATA FROM ECONOMIC MODELS

## *Input-output models*

- Input-Output models provide a detailed picture of the structure of a regional economy at a point in time and can be used to estimate the contribution or impact of a particular sector of the economy
- Input-Output Models used to identify:
  - Top contributing sectors
  - Sectors with the largest economic flow-ons (multipliers)
  - Key linkage sectors



# NATIONAL PRODUCTIVITY GROWTH



- Productivity growth can be attributed to labour productivity as well as capital productivity, and both (multi-factor productivity).
- The ABS publishes national estimates of MFP:
  - latest data available is from 2014.
  - Not much regional data available, so we are left assuming that our regional productivity follows the national trend.
  - Discussions with local regional stakeholders may uncover some useful data that can be used to confirm regional trends.

## Australia's labour productivity growth for the Total economy Annual change, 2011-12 to 2012-13, GDP per hour worked

|                     |       |   |
|---------------------|-------|---|
| Labour productivity | +2.2% | ▲ |
|---------------------|-------|---|



## Australia's productivity growth for the Market sector (12 industries) Annual change, 2011-12 to 2012-13

|                          |       |   |
|--------------------------|-------|---|
| Multifactor productivity | -0.8% | ▼ |
| Labour productivity      | +2.0% | ▲ |
| Output                   | +2.2% | ▲ |
| Labour input             | +0.2% | ▲ |
| Capital input            | +6.1% | ▲ |



## Long-term, average annual growth rate, 1973-74 to 2012-13

|                          |       |   |
|--------------------------|-------|---|
| Multifactor productivity | +0.7% | ▲ |
| Labour productivity      | +2.2% | ▲ |
| Output                   | +3.0% | ▲ |
| Labour input             | +0.8% | ▲ |
| Capital input            | +4.4% | ▲ |



# EMPLOYMENT PROJECTIONS

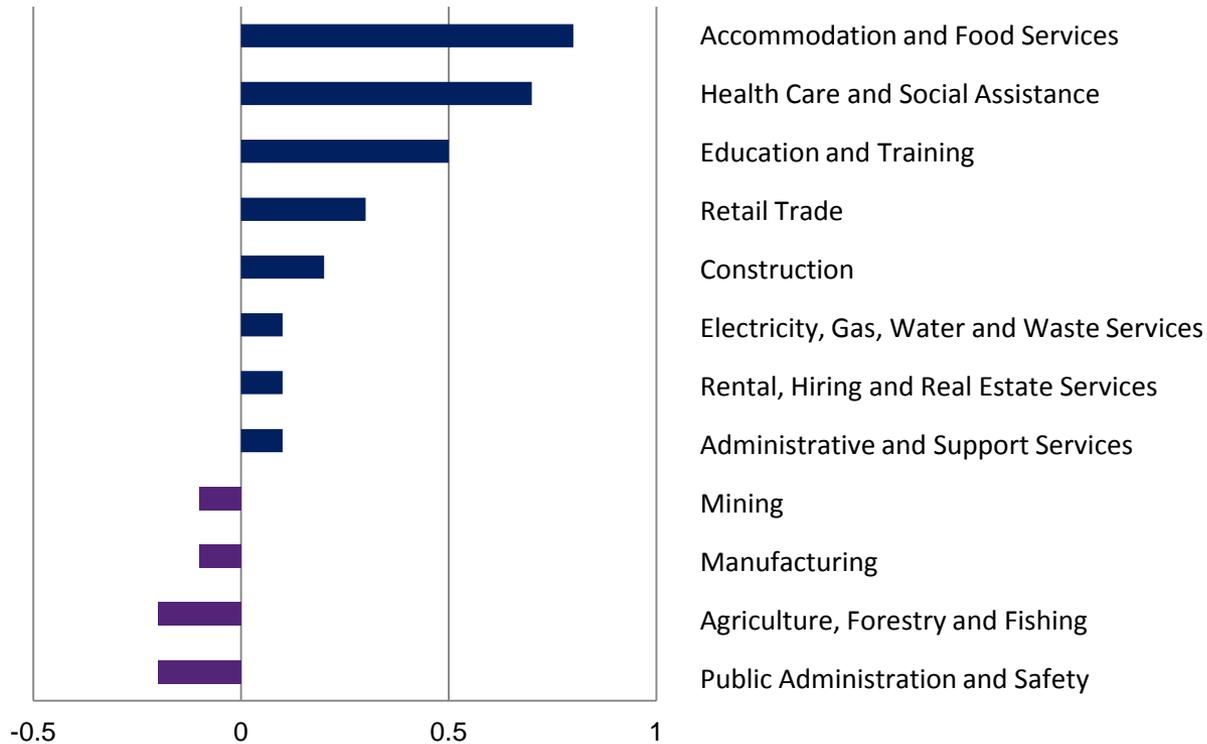


- Produced by Dept of Employment (LMIP)
- Current series forecasts till 2018
- Employment by sector at Statistical Area 4 Level (SA4)
- Identifies at a larger regional level, what the expected trends in sectoral employment are

# EMPLOYMENT PROJECTIONS



**Far West and Orana,  
Projected employment growth ('000) - five years to November 2018**



# IDENTIFYING OPPORTUNITIES



We assess all the information discussed to score each sector, hopefully resulting in a few sectors that stand out as opportunities



# NEED FOR BETTER REGIONAL DATA



- Central to our ability to provide information and advice to regions to support planning is the availability of robust and regularly reported regional data.
- More resources need to be applied to producing such data.



# LOCAL KNOWLEDGE

*'Ground truthing' the Data*



- Ask local stakeholders:
  - Does this look reasonable to you?
  - Who are the key players in this sector at the moment and what have they been doing?
  - Is there a local champion of that industry sector?
  - Are there any emerging industries or businesses?
  - Does this sector represent a potential diversification of the industrial base of the region?



# EXPLORE OPPORTUNITIES



- Revise our list of opportunity sectors according to stakeholder feedback, then.....
  - Meet with key players in the selected industries to explore their opportunities further... and to estimate what kind of impacts developments in these industries could have on the local economy
  - Make recommendations regarding the support required to maximise these opportunities





THANK YOU

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