

REGIONAL DEVELOPMENT AUSTRALIA ORANA

PROFILE AND OPPORTUNITIES



Prepared for Regional Development
Australia Orana

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13010 RDA Orana/Report



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Photo source: RDA Orana

CONTENTS

EXECUTIVE SUMMARY	4
INTRODUCTION	13
METHODOLOGY	14
REPORT STRUCTURE	18
PROFILES	19
OPPORTUNITIES	145
RECOMMENDATIONS	198
APPENDICES	203
WESTERN RESEARCH INSTITUTE	220

EXECUTIVE SUMMARY

INTRODUCTION

Regional Development Australia Orana's (RDA Orana) region covers approximately 25% of the land mass of NSW and 13 local government areas (LGAs). The socio-economic character of the region is diverse, with some areas strong and growing and others facing significant challenges to maintain sustainable communities and economies.

In planning for the region, RDA Orana sought to develop a comprehensive socio-economic profile for the region and its LGAs. RDA Orana engaged the Western Research Institute (WRI) to develop the regional profile. The purpose of the profile is to provide a unitary source of relevant statistics and economic and population analyses which highlight the region's strengths, challenges and opportunities for development.

In conjunction with RDA Orana's comprehensive regional consultation efforts, the profile will inform regional plans being developed out to 2016.



METHODOLOGY

To develop this profile WRI undertook the following research tasks:

- Construction of regional socio-economic profiles for LGAs constituting the Orana region, clusters of LGAs and mining versus non-mining regions;
- Shift-share analysis to examine the relative strength of industries in Orana;
- Cluster and principal component analysis to identify commonalities between LGAs;
- Identification of key sectors for further examination based on a scoring methodology;
- Interviews with key representatives and stakeholders from the sectors selected; and
- Quantification of economic opportunities based on economic impact analysis.

PROFILE

In 2012, the Orana region's Gross Regional Product (GRP) was estimated at \$4.946 billion.

- 40% of GRP was generated in Dubbo LGA
- Agriculture, Mining and Health & Community were the dominant sectors

2011 Census data revealed that:

- Unemployment in the Orana region was slightly higher than state and national averages
- Educational attainment was slightly lower in the Orana region than the NSW state averages in Year 12 completion, Certificate III and IV and in Bachelor Degree qualifications.

Population challenges identified across the region were:

- Decreasing population in all LGAs except Dubbo
- Declining projected working age population
- Severe unemployment in Bourke, Brewarrina and Walgett

EXECUTIVE SUMMARY

The following tables present by LGA:

- the key sectors and most recent unemployment rate;
- the educational profile; and
- age and population projections.

Orana and LGAs: Gross Regional Product (GRP), key industries and unemployment

LGA	Contribution to Orana region GRP (\$million) (% of Orana)		Key industry sectors			Unemployment
Bogan	\$131.33	3%	Other Mining	Agriculture	Health & Community	5.1%
Bourke	\$111.00	2%	Public Admin	Health & Community	Agriculture	13.1%
Brewarrina	\$52.60	1%	Agriculture	Education	Public Admin	17.3%
Cobar	\$283.80	6%	Other mining	Agriculture	Public Admin	3.5%
Coonamble	\$140.99	3%	Agriculture	Education	Health & Community	8.2%
Dubbo	\$1,900.56	40%	Health & Community	Finance & Insurance	Education	4.7%
Gilgandra	\$137.03	3%	Agriculture	Health & Community	Education	5.2%
Mid-Western	\$869.78	18%	Coal mining	Agriculture	Health & Community	5.5%
Narromine	\$221.65	5%	Agriculture	Health & Community	Education	5.6%
Walgett	\$226.43	5%	Agriculture	Health & Community	Education	13.1%
Warren	\$108.63	2%	Agriculture	Public Admin	Education	6.0%
Warrumbungle	\$301.70	6%	Agriculture	Education	Health & Community	6.4%
Wellington	\$262.21	6%	Agriculture	Public Admin	Health & Community	9.2%
Orana	\$4.946 billion		Other mining	Agriculture	Health & Community	6.3%

Orana and LGAs: Educational Profile

LGA	Educational Profile (2011 Census): completions			
	Year 10	Year 12	Bachelor Degree	Cert III or IV
Bogan	26%	21%	5%	11%
Bourke	19%	22%	7%	10%
Brewarrina	22%	17%	5%	9%
Cobar	27%	21%	5%	16%
Coonamble	25%	21%	4%	10%
Dubbo	26%	27%	7%	15%
Gilgandra	28%	21%	5%	13%
Mid-Western	27%	25%	6%	16%
Narromine	25%	23%	5%	12%
Walgett	22%	22%	5%	11%
Warren	25%	28%	6%	10%
Warrumbungle	26%	22%	5%	12%
Wellington	24%	21%	5%	12%
Orana	26%	24%	6%	14%
Rest of NSW	26%	28%	7%	15%

Orana and LGAs: Age and population projections

LGA	Age structure (Census 2011)		Population projections	
	Largest age group	Largest change since 2001	Total population growth	Working age population growth
Bogan	0-14 years (24%)	25-34 years (down 5 percentage points) 65+ years age group (up 5 percentage points)	projected to fall by 41% by 2036	projected to fall to 57% of total population
Bourke	0-14 years (26%)	25-34 years (down 5 percentage points)	projected to fall by 14% by 2036	projected to fall to 63% of total population
Brewarrina	0-14 years (25%)	25-34 years (down 7 percentage points)	projected to fall by 18% by 2036	projected to fall to 65% of total population
Cobar	0-14 years (22%)	0-14 years (down 4 percentage points)	projected to fall by 18% by 2036	projected to fall to 61% of total population
Coonamble	0-14 years (21%)	0-14 years (down 5 percentage points)	projected to fall by 24% by 2036	projected to fall to 57% of total population
Dubbo	0-14 years (22%)	65+ years age group (up 3 percentage points)	projected to rise by 11% by 2036	projected to fall to 56% of total population
Gilgandra	65+ years (21%)	65+ years age group (up 5 percentage points)	projected to fall by 17% by 2036	projected to fall to 53% of total population
Mid-Western	0-14 years (20%)	65+ years age group (up 2 percentage points between 2006 and 2011)	projected to fall by 2% by 2036	projected to fall to 53% of total population
Narromine	0-14 years (24%)	65+ years age group (up 5 percentage points)	projected to fall by 10% by 2036	projected to fall to 53% of total population
Walgett	0-14 years (21%)	65+ years age group (up 6 percentage points)	projected to fall by 17% by 2036	projected to fall to 64% of total population
Warren	0-14 years (21%)	65+ years age group (up 6 percentage points)	projected to fall by 36% by 2036	projected to fall to 56% of total population
Warrumbungle	65+ years (22%)	65+ years age group (up 5 percentage points)	projected to fall by 20% by 2036	projected to fall to 52% of total population
Wellington	0-14 years (20%)	0-14 years (down 3 percentage points)	projected to fall by 16% by 2036	projected to fall to 57% of total population
Orana	0-14 years (22%)	65+ years age group (up 4 percentage points)	projected to fall by 6% by 2036	projected to fall to 56% of total population
NSW	0-14 years (18%)		Projected to increase by 30%	Projected to increase by 18% by 2036

CLUSTERS

WRI used cluster and principal component analyses to identify commonalities in the industrial structure in the Orana region LGAs. Five clusters were identified as follows:

- Cluster 1: Bogan and Cobar LGAs, dominated by Mining;
- Cluster 2: Bourke and Brewarrina LGAs, dominated by Public Administration, Education and Agriculture;
- Cluster 3: Coonamble, Gilgandra, Narromine, Walgett, Warren, Warrumbungle Shire and Wellington LGAs, predominantly agricultural;
- Dubbo LGA, dominated by Health & Community, Finance & Insurance; and Education; and
- Mid-Western LGA, dominated by Coal Mining.

The identification of opportunities for development within the region was undertaken at this cluster level. In order to identify key sectors as opportunities for development, WRI considered the following factors:

- Shift share analysis outcomes;
- Sectoral growth strength;
- Economic contribution to the regional economy;
- Multiplier effects and linkages to other sectors; and
- Diversification opportunities arising from linkages to key economic sectors.

Additionally, WRI's experience and corporate knowledge of western NSW regional economic and social trends informed the decisions as to which sectors should be investigated.

The key sectors identified for each cluster were:

Cluster 1: Bogan and Cobar LGAs

- Mining
- Food & Beverage Manufacturing

Cluster 2: Bourke and Brewarrina LGAs

- Food & Beverage Manufacturing
- Tourism / Hospitality

Cluster 3: Coonamble, Gilgandra, Narromine, Walgett, Warren, Warrumbungle and Wellington LGAs

- Agriculture
- Food & Beverage Manufacturing
- Tourism / Hospitality

Dubbo LGA

- Food & Beverage Manufacturing
- Tourism / Hospitality
- Transport

Mid-Western LGA

- Food & Beverage Manufacturing
- Tourism / Hospitality

OPPORTUNITIES

Agriculture

Despite a decline in employment within the sector, agriculture continues to play a key role in the regional economy, contributing an estimated 8.9% to industry value added and 15.3% of employment for the entire region in 2012.

Identified opportunities were:

- Further development of grain and other broad-acre cropping
- Further development of sheep farming for meat and wool

Indicative quantification of opportunities has been undertaken for:

- Wheat yields and expansion of wheat production
- Switch from wheat cropping to legume growing
(refer to opportunities section of report)

Food & Beverage Manufacturing

Despite its small role in the regional economy currently, Food & Beverage Manufacturing has been identified as an opportunity sector because of its ability to build on, and support, the historically strong agricultural sector. Additionally, key sector analysis undertaken at the cluster level identified this sector as one with strong linkages both to upstream and downstream industries and strong multipliers.

Identified opportunities were:

- Development of large scale food processing operations
- Low level value adding of agricultural product
- Niche and integrated developments

Indicative quantification of opportunities has been undertaken for integrated food and wine based tourism developments yields.

(refer to opportunities section of report)

Mining

In 2012, the mining sector (comprised of the sectors Coal Mining and Other Mining) contributed an estimated 16.3% to industry value added and 7.5% to employment in the Orana region. Current developments in Narromine LGA and future developments proposed for Dubbo LGA will expand the influence of the mining sector in the Orana region further. In order to cater for the increasing demand for mining skills in the region, RDA Orana is progressing an initiative to develop a regional mining skills training facility.

Current opportunities were:

- Tomingley Gold Project (Narromine LGA)
- Dubbo Zirconia project (Dubbo LGA)
- Orana Skills Mining Centre of Excellence (SMCE)

Indicative quantification of the two mining developments has been provided.

Hospitality / Tourism

The Hospitality sector is currently a solid contributor to the Orana region economy, particularly in terms of employment. In 2012, the sector's estimated contribution to total regional value added was only 2.3%, however, it provided 4.7% of the region's employment.

The sector has been identified as a significant opportunity for four major reasons:

- because of its solid contribution to the region currently;
- because of its ability to build on, and support, the historically strong agricultural sector;
- because of its strong linkages to both upstream and downstream industries as well as strong multipliers; and
- because of its ability to promote the region's natural environment as a desirable tourism product (one of the region's major competitive advantages).

Identified opportunities involved:

- Embracing a cooperative approach
- Expanding and enhancing the Corporate group market
- Developing the Compatriots and Wanderers market
- Developing nature based and Indigenous cultural experiences
- Developing Agri-tourism

Transport & Storage

The Transport & Storage sector plays a vital role in the regional economy, supporting agriculture, mining and many other key sectors with logistical needs. For Dubbo LGA, key sector analysis identified the sector as one with strong linkages both to upstream and downstream industries and strong multipliers. It is likely this hinges on Dubbo's growing role as a distribution hub for the entire Orana region with co-located wholesale businesses growing strongly in the region.

Identified opportunities were:

- Growing transport task: Bell's Line of Road and Golden Highway
- Dubbo as a distribution hub for the region

Some quantification of opportunities has been drawn from previous studies conducted (refer to opportunities section of report).

RECOMMENDATIONS

This study has examined the social and economic character of the RDA Orana region, its local government areas and economic clusters. From it a range of developments with significant potential to leverage the existing strengths of the region, and to meet the varied challenges facing communities have been identified.

The RDA Orana region sits wholly within the Murray Darling Basin and therefore one of the critical challenges facing the community is a water constrained future. This study serves to inform diversification strategies for the Basin Plan affected communities. Furthermore, having established a benchmark, ongoing iterations of the study will inform an annual State of the Region report.

The recommendations emerging from the study are outlined in terms of critical enablers for the region and industry specific actions.

Critical Enablers

Infrastructure

A critical issue facing the region is the state of the infrastructure servicing its broadly distributed population. Whilst deficiencies in transport infrastructure and related services for both goods and people are well recognised, the state of infrastructure supporting the delivery of water, sewer, electricity and gas across the region is also critical to the sustainability of many communities. Building an evidence base around the need for key infrastructure developments will be necessary in developing advocacy towards these projects.

As an example, a study scoping the potential of the Golden Highway as a transport corridor between Orana and the Port of Newcastle has been commissioned by RDA Orana and RDA Hunter. WRI suggests that this study holds great value for the Orana region and the outcomes of that study may provide the basis for an increased strategic priority for the region.

National Broadband Network

The Orana region is well placed to benefit from the early rollout of the National Broadband Network in Dubbo by the end of 2014. RDA Orana, Dubbo City Council and the NBN should evaluate the effectiveness of the rollout and seek to promote opportunities to optimise this early advantage for the region, its small, medium and large enterprises and educational institutions.

Human Capital

The establishment of a Skills Mining Centre of Excellence in partnership with key educational institutions in the region will increase the human capital of the region in relevant employment skills. This type of development is critical to the development of human capital within a region. It is well documented that regional populations are less likely to achieve the levels of tertiary education than that of metropolitan populations. Tertiary Education institutions such as TAFE Western and Charles Sturt University and their operations within the Orana region should be leveraged upon as critical enabling components of future developments. Expansion of the institutional presence of these bodies in the region will increase the human capital within the region.

This study noted that Aboriginal people face challenges finding work, even if well trained. There is a need for organisations to be more mindful and conscious of the needs of the Aboriginal workforce, with a focus on engagement and retention.

Industry Sectors

WRI proposes specific recommendations in the following sectors:

Agriculture and value-adding to agricultural produce through Food & Beverage Manufacturing

WRI recommends that RDA Orana progress the discussion and explores the regional benefits of:

- a cooperative grain handling system; and
- the extension of NSW Regional Industries Investment Funds to support start-up businesses, especially through a regional development bank.

From a “value-adding” perspective, the following opportunities were identified:

- Development of large-scale food processing operations
- Low-level value adding of agricultural product
- Niche and integrated developments spanning agriculture, food and beverage manufacturing, wholesale, retail and tourism operations.

WRI recommends that:

- a best practice case study to operating a viable regional manufacturing operation would assist regional operators. For example, Mars Incorporated successfully operates a number of manufacturing facilities in regional NSW and Victoria; whilst
- National and State policy responses be sought to address the issues of:
 - perceived competition from existing large corporates impeding the entry of new, smaller players (national policy intervention); and
 - higher tariffs being applied to exported processed products in many countries (national response to potential markets).

Tourism and Hospitality

WRI recommends that RDA Orana assist in efforts to coordinate a Regional Tourism Action Plan based on evidence:

- Consumer based research should be undertaken to quantify the supply and demand in each market segment for the region.
- Capital developments such as that at Western Plains Zoo could be modelled and evaluated to determine the impacts they have on regional tourism.
- TAFE and other registered training organisations would benefit from a demand analysis of hospitality studies in order to address concerns about the under-supply of skilled labour in the region's hospitality sector.

Alongside this, tourism market development will be strengthened through coordinated regional promotion with economic development managers collaborating with tourism promotion agencies.

Mining

The Orana Skills Mining Centre of Excellence is a valuable component to the regional mining profile that will increase human capital in the regional population and offer opportunities for training to those outside of the region. A regional plan to capitalise on the mining sector developments should be coordinated by the RDA. That should seek to leverage further regional outcomes in:

- advances in human capital development;
- Royalties for Regions funding; and
- associated infrastructure improvements.

INTRODUCTION

Regional Development Australia Orana's (RDA Orana) region covers approximately 25% of the land mass of NSW and 13 local government areas (LGAs). The socio-economic character of the region is diverse, with some areas strong and growing and others facing significant challenges to maintain sustainable communities and economies. In planning for the region, RDA Orana sought to develop a comprehensive socio-economic profile for the region and its LGAs. RDA Orana engaged the Western Research Institute (WRI) to develop the regional profile. The purpose of the profile is to provide a unitary source of relevant statistics and economic and population analyses which highlight the region's strengths, challenges and opportunities for development. In conjunction with RDA Orana's comprehensive regional consultation efforts, the profile will inform regional plans being developed out to 2016.

METHODOLOGY

In order to develop a socio-economic profile of the Orana region and its constituent local government areas (LGAs), WRI undertook the following research tasks:

- Construction of regional socio-economic profiles for LGAs constituting the Orana region, clusters of LGAs and mining versus non-mining regions;
- Cluster and principal component analysis to identify commonalities between LGAs;
- Shift-share analysis to examine relative strength of industries in Orana;
- Identification of key sectors for further examination based on a scoring methodology;
- Interviews with key representatives and stakeholders from the sectors selected; and
- Quantification of economic opportunities based on economic impact analysis.

Sources of information

WRI used the following sources of information in constructing LGA and other regional profiles:

- Input-Output tables for Orana region and constituent LGAs
- Australian Bureau of Statistics (ABS) Census of Population and Housing 2001, 2006 and 2011
- Department of Education, Employment and Workforce Relations (DEEWR), Small Area Labour Markets, December 2006 – December 2012
- ABS National Regional Profile 2006 and 2011
- NSW Government, Department of Planning and Infrastructure. New South Wales Local Government Area Population Projections: 2010 Interim Revision
- NSW Government, Family & Community Services, Housing NSW. Rent and Sales Reports (September 2006, September 2011)
- ABS Census of Population and Housing 2006 and 2011, Time Series DataPack, Catalogue no. 2069.0.30.003
- ABS, Building Approvals, Catalogue no. 8731.0, 2010-11 & 2011-12
- NSW Bureau of Crime Statistics & Research (BOCSAR), NSW Recorder Crime Statistics, 2008-2012

A detailed list of source information for each table / chart that appears in the LGA and other regional profiles appears in Appendix 1.

Input output modelling

The Input-Output tables developed for this project were derived from the latest national table produced by the Australian Bureau of Statistics (ABS). That table provides a detailed picture of the structure of the economy of Australia for the year 2008-09. A series of steps were undertaken to update the table to 2011-12. Further information from the State Accounts (ABS Cat. No. 5220.0), labour force data from the 2011 Census and the quarterly labour force survey (ABS Cat. No. 6291.0.55.003) were used to develop a state table for New South Wales. This was then regionalised to reflect the economy of the Orana region and individually for its constituent LGAs. Further details of the procedures used in the development of a regional Input-Output table are provided in Appendix 2.

Cluster and principal component analysis

WRI has used cluster and principal component analyses to identify commonalities in the industrial structure in the Orana region

LGAs and thereby address the following issues:

- Orana is a diverse region with multiple industries that are concentrated in certain localities. Knowledge of which industries dominate specific parts of the Orana region would enable policy makers to tailor economic and social policies to the specific conditions of the locality; to identify sectors with the highest growth potential (key sectors); and to address common challenges;
- From a methodological viewpoint, cluster and principal component analyses are rigorous statistical tools that are superior to mere observation of the large volumes of raw data. Thus, in this study both types of analysis have been used as simplification and pattern discovery techniques.

Cluster and principal component analyses were based on the value added and employment data for the 32 industries (ANZSIC classification) extracted from the Input-Output tables for each of the 13 LGAs in the Orana region. A detailed explanation of cluster and principal component analyses is provided in Appendix 3.

Mining versus non-mining LGAs

Similarly to cluster and principal component analyses, WRI at the request of RDA Orana, sought to establish commonalities between LGAs in terms of the role that mining plays in their economies. In consultation with RDA Orana, it was determined that three mining LGAs should be included in the “mining” cluster – Bogan, Cobar and Mid-Western LGAs. These LGAs have an established mining sector which is currently contributing significantly to each economy. A comparison of this mining group of LGAs with the remaining non-mining LGAs was then undertaken and relevant socio-economic profiles were constructed.

Shift-share analysis

A shift-share analysis:

- Separates employment growth between the state economy, industry mix and local components; and
- Identifies industries that have grown at a faster or slower rate than state and industry averages.

Shift-share analysis was performed to determine the relative strengths of the regional economies at LGA, cluster and Orana region levels, based on the past and current employment growth performance of the respective regions.

The shift-share analysis has been conducted by place of employment for the RDA Orana region, its LGAs and regional clusters. It is based on the industry sub-division level code. Specifically, industries with a two digit ANZSIC code were examined, i.e. 109 industries for each region.

The shift-share analysis divided the change in industry employment in the respective Orana regions into three components:

- State economy. The share of local job growth attributable to growth of the state economy;
- Industry mix. The share of local job growth that can be attributed to the region's mix of industries; and
- Local component. The share of local job growth that describes the extent to which factors unique to the local area have caused growth or decline in regional employment of an industrial group.

The shift-share analysis resulted in the classification of the industries into four major types, which would allow identification of key industries for further analysis:

- Type I. Local firms outperforming in a high growth industry;
- Type II. Local firms underperforming in a high growth industry;
- Type III. Local firms underperforming in a low growth industry; and
- Type IV. Local firms outperforming in a low growth industry.

Further details regarding shift-share analysis are provided in Appendix 4.

Identification of opportunities

In order to select key sectors in regional clusters, WRI adopted a scoring methodology. Scores were assigned for each of the 32 industries (ANZSIC industrial classification) in the following areas:

- Shift-share analysis outcomes;
- Growth strength;
- Economic contribution to the regional economy;
- Multiplier effects and linkages to other sectors; and
- Diversification opportunities arising from linkages to key economic sectors.

The assignment of scores was based on quantitative information, as well as on subjective judgement and knowledge of regional economic realities. The results of the scoring process were discussed with the RDA Orana executive before finalising sectors for further examination.

Interviews with key representatives and stakeholders

WRI conducted interviews with representatives of businesses and organisations in each selected industry sector as well as a representative of a major training provider in the region and local government representatives. Key contacts were provided by RDA Orana.

The purpose of the interviews was to further examine the potential opportunities within each sector, the challenges and barriers facing development and ways these challenges and barriers might be addressed. The industry assessments developed through these interviews are based on qualitative information. Where possible, metrics around potential developments were provided and this formed the basis of quantification work (modelling) undertaken.

Quantification of opportunities

Sectoral opportunities in the Orana region and its parts were modelled using economic impact analysis. Economic impact analysis was conducted using the 2012 Simulating Impacts on Regional Economies (SIRE) Input-Output models of the Orana region, clusters of LGAs and individual LGAs developed by WRI where appropriate. See Appendix 5 for a description of the SIRE Input-Output model.

WRI has used two alternative methods for economic impact analysis – final demand and industry significance analyses:

- The final demand impact analysis calculates the impacts (measured by output, value added, household income and employment) across all sectors in response to changes in industry final demands.
- Industry significance analysis estimates changes in output, value added, household income and jobs that would take place if the industry ceases to exist and is shut down.

The relevant economic impacts have been provided in terms of:

- Output which is the value of goods and services that are produced within an establishment that become available for use outside that establishment, plus any goods and services produced for the organisation's own final use. Output is equal to total revenue plus any internal consumption.
- Value added which is equal to gross output minus intermediate inputs. Value added is equivalent to the contribution to gross regional product (the local equivalent of gross domestic product).
- Household Income which measures the benefit received by regional households from economic activity. It typically refers to compensation of employees but can also include income in return for other forms of productive activity.

- Employment, which refers to full-time equivalent (FTE) employment, is a measure of the total level of staff resources used. The FTE of a full-time staff member is equal to 1.0. The FTE of a part-time worker will be a fraction of this depending on the relative number of hours worked.

REPORT STRUCTURE

The remainder of the report is structured as follows:

Profiles

- Orana region profile
- Local Government Area profiles
- Mining versus Non-Mining region profile

Opportunities

- Development of Clusters
- Cluster profiles
- Identification of opportunity sectors
- Opportunity sector analysis including quantification of opportunities

Recommendations

Appendices



Photo source: RDA Orana

PROFILES

RDA ORANA REGION:

KEY FACTS:

Population

- Population as at the 2011 Census was 115,643.

Gross Regional Product as at 2012

- The GRP for the RDA Orana region was estimated at \$4,940 million.

Key sectors in 2012:

- Other Mining (10% of value added and 4% of FTE employment)
- Agriculture (9% of value added and 15% of FTE employment)
- Health & Community (9% of value added and 13% of FTE employment)

Top earning occupations in 2011:

- Professionals; and
- Machinery Operators & Drivers.

Unemployment:

- Unemployment rate of 6.3% (December 2012)
- Youth unemployment rate of 12.4% (2011 Census)
- Indigenous unemployment rate of 19.9% (2011 Census)

Opportunities:

- Mining
- Agriculture
- Food & Beverage Manufacturing
- Tourism/Hospitality
- Transport

ECONOMY

The GRP for the RDA Orana region in 2012 was estimated at \$4,946 million.

Key sectors in 2012

- Other Mining contributed 10% to value added and 4% of FTE employment
- Agriculture contributed 9% to value added and 15% of FTE employment
- Health & Community contributed 9% to value added and 13% of FTE employment
- Education contributed 7% to value added and 10% of FTE employment
- Public Administration contributed 6% to value added and 7% of FTE employment

The top sectors in terms of numbers of employees were:

- Agriculture;
- Health & Community; and
- Retail.

The largest 15 sectors are shown in Figure 1. The contributions of each LGA to the overall regional economy are shown in Figure 2.

Refer to Appendix 6 for a detailed composition of the economy of each LGA comprising the Orana region.

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Agriculture, where employment decreased by 2 percentage points;
- in Coal Mining, where employment increased by 2 percentage points;
- in Health & Community, where employment increased by 1 percentage point; and
- in Retail, where employment decreased by 1 percentage point.

Figure 1. Key contributors - sectors

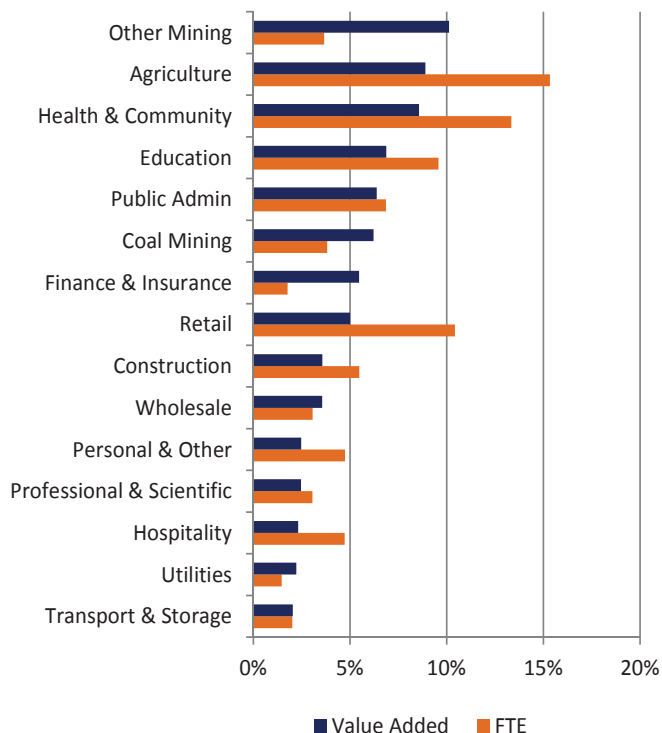


Figure 2. Contribution by LGA

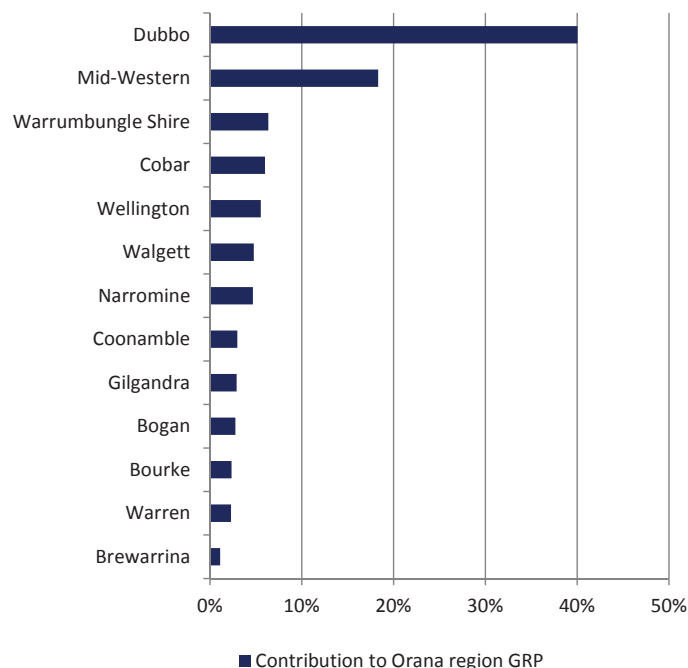


Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Other Transport	431%
Health Care & Social Assistance, nfd	172%
Coal Mining	158%
Heritage Activities	59%
Public Order, Safety & Regulatory Services	30%
Type IV – Outperforming in low growth industry	
Fabricated Metal Product Manufacturing	34%
Basic Metal Wholesaling	12%
Type II – Underperforming in high growth industry	
Food & Beverage Services	1%
Professional, Scientific & Technical Services	4%
Social Assistance Services	28%
Medical & Other Health Care Services	2%
Residential Care Services	24%
Road Transport	-4%
Repair & Maintenance	11%
Metal Ore Mining	20%
Administrative Services	35%
Tertiary Education	6%
Type III – Underperforming in low growth industry	
Agriculture	-15%
Preschool & School Education	6%
Public Administration	2%
Other Store-Based Retailing	-9%
Food Retailing	1%
Hospitals	-9%
Construction Services	7%
Accommodation	0%
Food Product Manufacturing	-9%
Personal & Other Services	7%

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Agriculture (13% of employment);
- Pre-school & School Education (8%);
- Public Administration (6%);
- Other Store Based Retailing (5%);
- Food & Beverage Services (5%);
- Food Retailing (4%);
- Hospitals (4%);
- Professional, Scientific & Technical Services (3%);
- Social Assistance Services (3%); and
- Construction Services (3%).

Key Shift Share results between 2006 and 2011

In 2011:

- Type I industries (outperforming in high growth sector) provided 6% of regional employment;
- Type IV industries (outperforming in low growth sector) provided 2% of regional employment;
- Type II industries (underperforming in high growth sector) provided 33% of regional employment;
- Type III industries (underperforming in low growth sector) provided 59% of regional employment.

Based on an analysis of industries at the subdivision level, strong local factors for employment growth were experienced in the following key sectors:

- Coal Mining
- Heritage Activities
- Other Transport
- Fabricated Metal Product Manufacturing
- Basic Material Wholesaling

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added.

Results for other sectors are shown in the adjacent table. Only the top 10 sectors are shown for Type II and III industries.

Average income by occupation

In 2011, the top earning occupations across the Orana region were Professionals and Machinery Operators & Drivers.

The largest increases in incomes were reported for those working as:

- Machinery Operators & Drivers;
- Technicians & Trades Workers; and
- Community & Personal Service Workers.

When compared to average incomes across the RDA Northern Inland region, average incomes were higher in the Orana region for all occupation categories except for labouring.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. As at the 2011 Census, the most common occupations in the Orana region sourced from LGAs outside Orana were:

- Machinery & Stationary Plant Operators;
- Design, Engineering, Science & Transport Professionals; and
- Construction & Mining Labourers.

The top 20 occupations that were in part sourced from outside the Orana region are shown in the adjacent table.

Count of businesses

ABS Count of Australian Businesses data, including Entries and Exits between June 2008 and June 2011 is available at Statistical Area Level 2. Statistical Areas comprising the Orana region were aggregated to determine business growth between 2008 and 2011. The most significant growth in businesses occurred for:

- Administrative & Support Services (up 20% to 277 businesses);
- Health Care & Social Assistance (up 19% to 409 businesses);
- Wholesale Trade (up 17% to 317 businesses); and
- Retail Trade (up 14% to 772 businesses).

The most significant decline in businesses occurred for:

- Arts & Recreation Services (down 12% to 85 businesses);
- Mining (down 18% to 121 businesses).

Table 2. Average income by occupation

Occupation	RDA Orana	% change from 2006	Northern Inland
Managers	\$48,072	20%	\$47,697
Professionals	\$63,823	19%	\$63,508
Technicians & Trades Workers	\$48,450	26%	\$43,002
Community & Personal Service Workers	\$39,605	24%	\$36,748
Clerical & Administrative Workers	\$42,082	22%	\$41,133
Sales Workers	\$30,335	18%	\$28,623
Machinery Operators & Drivers	\$58,111	31%	\$48,785
Labourers	\$30,636	22%	\$31,390

Table 3. Employment mapping

Occupations - sourced from:	Outside Orana region	% of sector
Machinery & Stationary Plant Operators	204	14%
Farmers & Farm Managers	152	3%
Health Professionals	102	5%
Education Professionals	73	3%
Construction & Mining Labourers	71	13%
Automotive & Engineering Trades Workers	67	4%
Design, Engineering, Science & Transport Professionals	65	8%
Road & Rail Drivers	64	5%
Specialist Managers	52	3%
Hospitality, Retail & Service Managers	48	2%
Sales Assistants & Salespersons	37	1%
Engineering, ICT & Science Technicians	36	6%
Mobile Plant Operators	31	5%
Farm, Forestry & Garden Workers	29	3%
Carers & Aides	22	1%
Protective Service Workers	22	3%
Factory Process Workers	22	3%
Storepersons	21	9%
Other Labourers	21	3%
Food Preparation Assistants	20	3%

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWR for Dec Qtr 2012 reported:

- A labour force of 62,045 persons
- An unemployment rate of 6.3%

The unemployment trend since December 2006 is shown in Figure 3 opposite, revealing that unemployment in the Orana region has trended slightly above that of the Rest of NSW since December 2009. Orana's unemployment has trended around 0.6% below that for the RDA Northern Inland region since June 2008.

In recent times the unemployment rate for the Rest of NSW has fallen slightly, however, Orana's unemployment rate has remained steady.

At the 2011 census, the Orana region reported:

- A youth labour force of 8,143 persons, with the youth unemployment rate at 12.4%, lower than that for RDA Northern Inland (13.4%).
- An Indigenous Labour force of 4,934 persons, with the Indigenous unemployment rate at 19.9%, lower than that for RDA Northern Inland (33.3%).

Educational profile

As at the 2011 Census, the highest year of school education completed amongst residents of the Orana region was most commonly:

- Year 10 or equivalent (26%)
- Year 12 or equivalent (24%)

(30% not stated or not applicable)

The level of Year 10 completion is similar to that reported for RDA Northern Inland and the Rest of NSW, however, the level of Year 12 completion is slightly lower than that for the comparison regions.

Figure 3. Recent unemployment trend

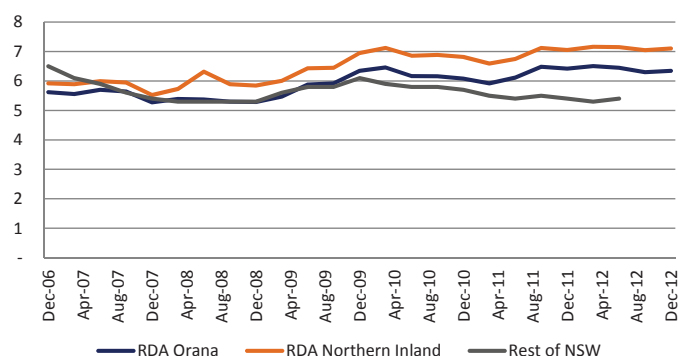
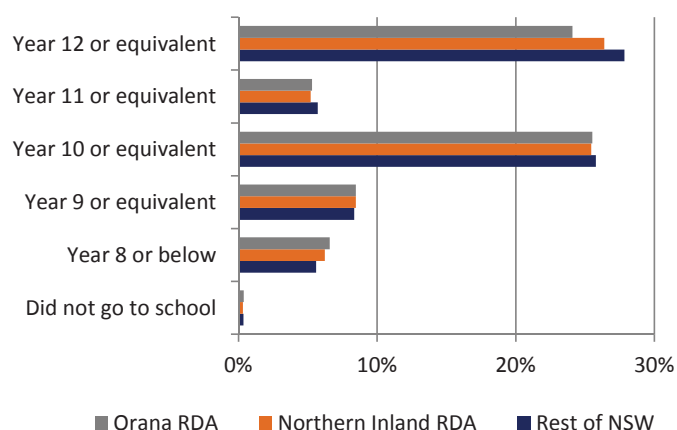


Figure 4. Highest year of school completed



Post school qualifications

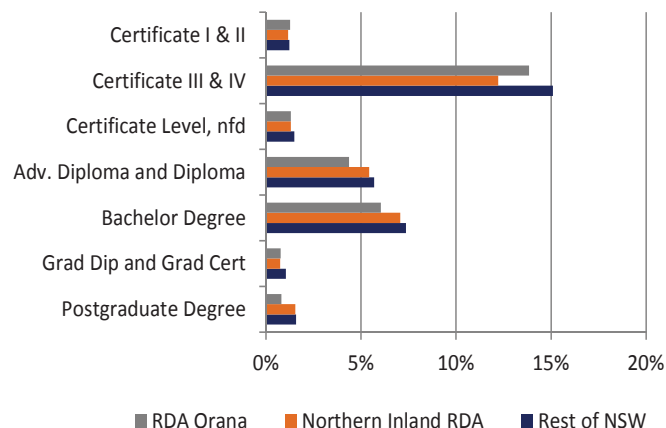
As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (14%)
- Bachelor Degree (6%)

The level of Certificate III / IV completion is similar to that reported for the Rest of NSW (15%), however is slightly higher than that reported for RDA Northern Inland (12%).

The level of Bachelor Degree completion is slightly higher in the Rest of NSW and RDA Northern Inland (both 7%) compared to RDA Orana.

Figure 5. Post school qualifications



Growth in qualifications

In the Orana region between 2006 and 2011, those holding:

- Postgraduate Degree qualifications increased by 39% (to 941 people);
- Bachelor Degree qualifications increased by 19% (to 6,987 people);
- Certificate III and IV qualifications increased by 19% (to 16,013 people);
- Advanced Diploma and Diploma qualifications increased by 17% (to 5,051 people).

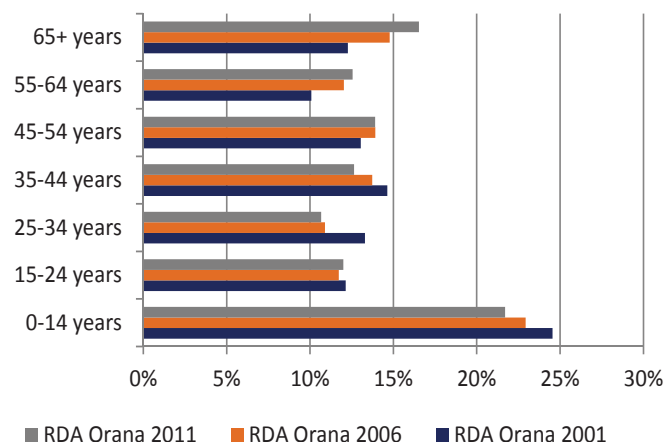
Current study patterns

- The proportion of residents aged 15-24 years from the Orana region attending university is significantly lower than for the Rest of NSW and the RDA Northern Inland region (which is on a par with the Rest of NSW).
- Results for other tertiary attendance for those aged 15-24 years is slightly higher for the Orana region compared to the RDA Northern Inland region, and only slightly lower than for the Rest of NSW.

Table 4. Current study patterns (Census 2011)

	RDA Orana	RDA Northern Inland	Rest of NSW
Attending University			
15-24 years	5.2%	12.3%	12.5%
25 years and over	1.3%	2.0%	2.0%
Attending other tertiary (TAFE)			
15-24 years	8.7%	7.6%	9.0%
25 years and over	2.2%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure

AGE AND POPULATION

The population as at 2011 census was 115,643.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 22% of the population.
- The next largest age group was those aged 65 years and over. Between 2001 and 2011 there has been a considerable increase in this age group (from 12% to 17%).
- The younger working age population (25-44 years) has contracted by approximately 5% between 2001 and 2011.
- As at 2011, the age structure of the Orana region was very similar to that of the RDA Northern Inland region.

Age dependency

- The Orana region's Child Dependency ratio is higher than that for the Rest of NSW. However, the Aged Dependency ratio is slightly lower, thus resulting in a Total Dependency ratio which is only slightly higher than for the Rest of NSW.
- Dependency ratios are similar to those for the RDA Northern Inland region, though the Child Dependency ratio is again, slightly higher.

Indigenous population

- In 2011, Aboriginal and Torres Strait Islander people made up 14.3% of the population of the Orana region compared to 12.5% of the population in 2006.

Population projections

- The population of Orana is projected to fall by 5.63% between 2011 and 2036, while its working age population is projected to fall by 16.5% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 63% to 56%.

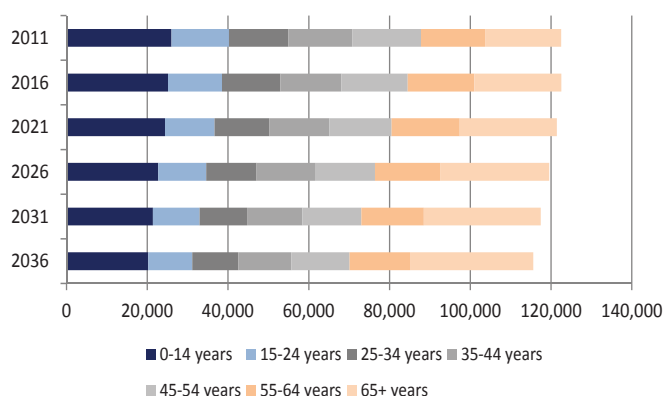
Table 5. Age dependency ratios (Census 2011)

	RDA Orana	RDA Northern Inland	Rest of NSW
Child	0.35	0.33	0.31
Aged	0.27	0.28	0.29
Total	0.62	0.61	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

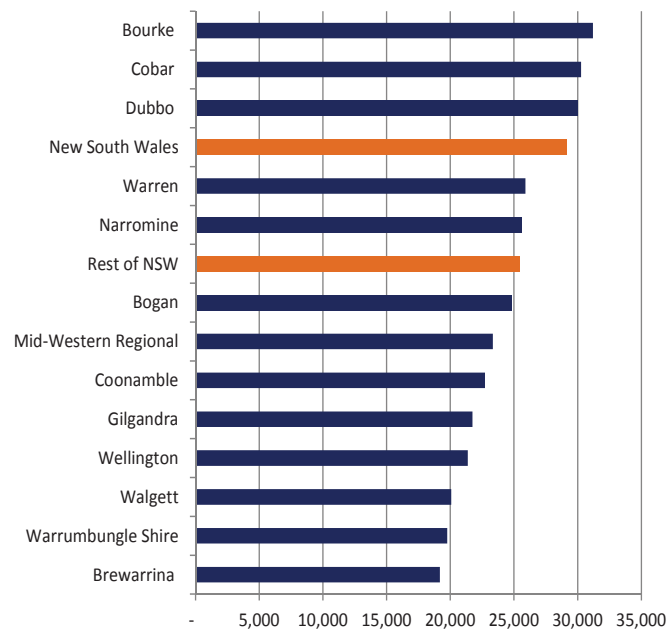
Figure 7. Population projections

HOUSEHOLD DATA

Personal income

- As at the 2011 Census, the median personal incomes across the Orana region ranged from \$31,200 per annum in Bourke Shire to \$19,188 in Brewarrina Shire.
- Bourke, Cobar and Dubbo LGAs reported higher median incomes than that reported for NSW as a whole.
- Warren and Narromine LGAs reported median incomes marginally higher than that reported for the Rest of NSW.
- The remaining eight LGAs reported median incomes lower than that reported for the Rest of NSW and NSW.
- Between 2006 and 2011, growth in median personal income was greatest in Bourke LGA (up 45%), Bogan LGA (up 31%) and Cobar LGA (up 28%).
- By comparison, median personal incomes across the RDA Northern Inland region ranged from \$29,016 per annum in Moree Plains Shire to \$19,604 in Tenterfield Shire.
- In the RDA Northern Inland region, no LGAs reported median personal incomes greater than the NSW median, whilst four LGAs reported median incomes greater than that reported for the Rest of NSW.

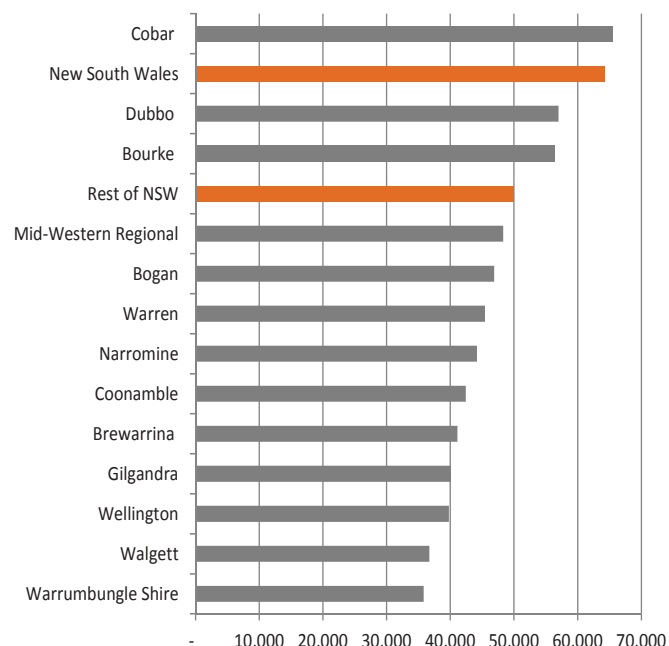
Figure 8. Personal income by LGA



Household income

- As at the 2011 Census, the median household incomes across the Orana region ranged from \$65,468 per annum in Cobar Shire to \$35,828 in Warrumbungle Shire.
- Between 2006 and 2011, growth in median household income was greatest in Mid-Western LGA (up 33%), followed by Bourke LGA (up 32%).

Figure 9. Household income by LGA



HOUSING

Housing affordability

The affordability of housing was examined using a ratio of median house prices to median taxable income and median weekly rental as a percentage of median weekly taxable income.

- House prices were highest relative to median income in Mid-Western LGA. House prices in Narromine and Dubbo LGAs were also relatively high, though no LGAs recorded housing costs higher than those for NSW as a whole.
- Despite the high cost of housing in Mid-Western LGA, housing costs there have actually fallen (relative to median income) substantially since 2006. Housing costs have fallen in nine out of the thirteen LGAs since 2006.
- In 2011, the Gilgandra, Mid-Western and Narromine LGAs were the most expensive LGAs in which to rent, relative to median weekly incomes, with costs having risen substantially since 2006.
- Rental costs decreased relative to median weekly income in Bogan, Cobar and Wellington LGAs since 2006.

Home ownership vs. rental

- Ownership status in the Orana region and NSW as a whole appears to have been quite stable between 2006 and 2011.
- The proportion of dwellings owner-occupied in the Orana region in 2011 was 62% compared to 63% in 2006 (63% in RDA Northern Inland region).
- The proportion of dwellings rented in the Orana region in 2011 was 29% compared to 28% in 2006.

Figure 10. Median weekly rental as percentage of median household weekly taxable income by LGA

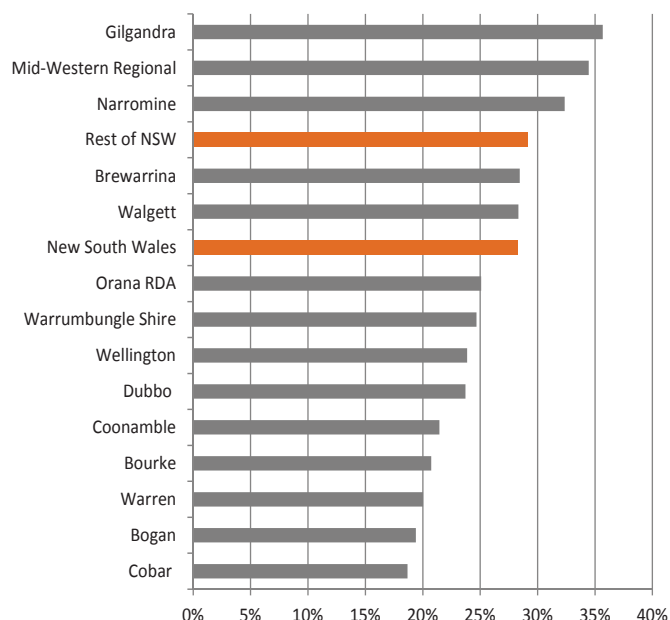
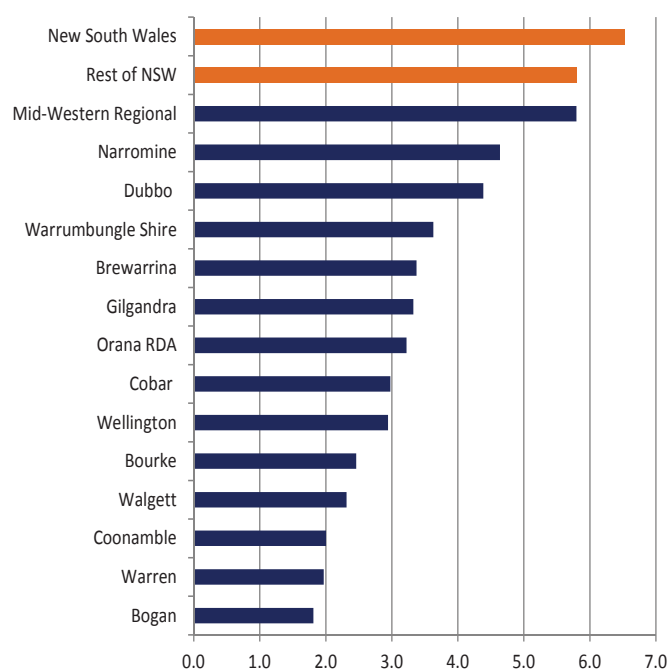


Figure 11. Ratio of median house price to median household taxable income by LGA



VALUE OF CONSTRUCTION

Table 6 shows that for the overall Orana region:

- Residential construction decreased between 2010 and 2012 by approximately 10%, whilst non-residential construction fell sharply by approximately 73%.
- Total construction fell by 51% during this period.
- In comparison, over the same period total construction in the RDA Northern Inland region fell by 43%. In contrast to the Orana region, both residential construction and non-residential construction fell sharply during the period (39% and 46% respectively).

Table 6. Value of construction

	Residential \$000	Non- residential \$000	Total
2010	109,305	200,136	309,441
2011	98,001	82,606	180,607
2012	97,922	54,424	152,346
% change 2010 to 2011	-10%	-59%	-42%
% change 2011 to 2012	0%	-34%	-16%
% change 2010 to 2012	-10%	-73%	-51%

CRIME STATISTICS

Crime rates are normally reported in terms of rate per 100,000 head of population. The top reported offences in the Orana region in 2012 were:

- Malicious damage to property;
- Break and enter dwelling;
- Breach bail conditions.

The top ten most regularly occurring offence categories in the Orana region recorded higher rates of incidence than in NSW overall. The rate of crime incidences per 100,000 along with the percentage change in these offences between 2008 and 2012 are shown in Table 7 below.

Table 7. Top 10 offence categories

	RDA Orana			NSW		
	2008	2012	% Change	2008	2012	% Change
Malicious damage to property	2830	2289	-19%	1,560	1,129	-28%
Break and enter dwelling	875	1151	32%	327	222	-32%
Breach bail conditions	652	1081	66%	338	417	19%
Steal from motor vehicle	787	1003	27%	825	645	-22%
Assault - non-domestic violence related	1101	995	-10%	610	482	-21%
Assault - domestic violence related	872	966	11%	365	375	3%
Harassment, threatening behaviour and private nuisance	771	891	16%	376	410	9%
Steal from dwelling	558	556	0%	305	299	-2%
Trespass	557	550	-1%	132	123	-7%
Other theft	678	546	-20%	537	476	-11%

BOGAN SHIRE

KEY FACTS:

Population

Population as at the 2011 Census was 2,900 (3% of the Orana region's population).

Gross Regional Product as at 2012

Bogan Shire contributed an estimated \$131.33 million to the Orana region GRP (3%).

Key sectors in 2012:

- Other Mining (35% of value added and 21% of FTE employment)
- Agriculture (12% of value added and 26% of FTE employment)
- Health & Community (6% of value added and 9% of FTE employment)

Top earning occupations in 2011:

- Professionals; and
- Machinery Operators & Drivers.

Unemployment:

- Unemployment rate of 5.1% (December 2012)
- Youth unemployment rate of 14.1% (2011 Census)
- Indigenous unemployment rate of 21.2% (2011 Census)

Opportunities:

- Continued development of mining and agriculture
- Value-adding to agricultural output through the Food & Beverage Manufacturing sector.

ECONOMY

The GRP for Bogan Shire in 2012 was estimated at \$131.33 million.

Key sectors in 2012

- Other mining contributed 35% to value added and 21% of FTE employment
- Agriculture contributed 12% to value added and 26% of FTE employment
- Health & community contributed 6% to value added and 9% of FTE employment

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Agriculture, where employment fell by 7 percentage points;
- in Other Mining, where employment increased by 6 percentage points; and
- Administrative Services, where employment increased by 2 percentage points.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Agriculture (23% of employment);
- Metal Ore Mining (15%);
- Pre-school & School Education (7%);
- Public Administration (6%); and
- Food Retailing (5%).

Key Shift Share results between 2006 and 2011

Based on an analysis of industries at the subdivision level, strong local factors for employment growth were experienced in the following key sectors:

- Metal Ore Mining
- Accommodation
- Construction Services

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Figure 1. Key contributors - sectors

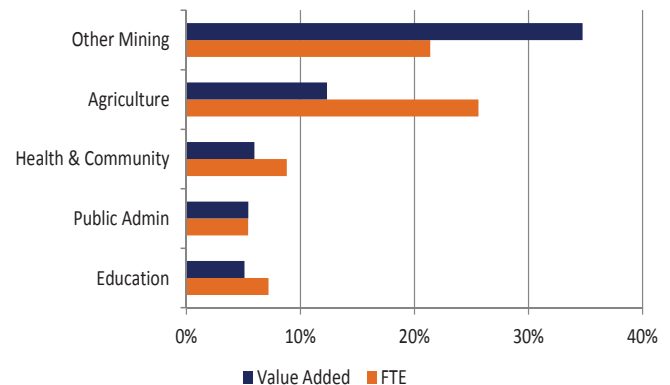


Figure 2. Changes in employment for top 5 sectors

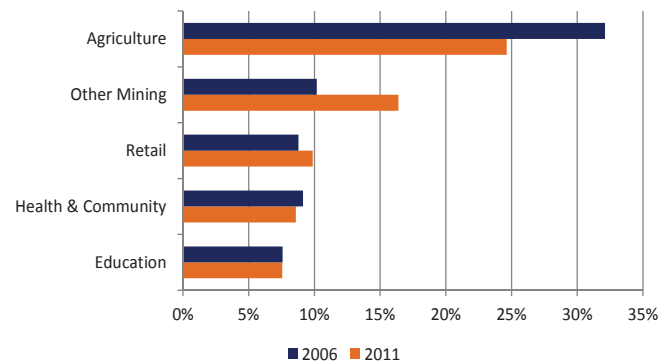


Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Metal Ore Mining	133%
Administrative Services	235%
Health Care & Social Assistance, nfd	396%
Type IV – Outperforming in low growth industry	
Accommodation	49%
Construction Services	44%
Food Retailing	28%
Type II – Underperforming in high growth industry	
Exploration & Other Mining Support Services	-72%
Food Beverage Services	-3%
Road Transport	-11%
Professional, Scientific & Technical Services	8%
Type III – Underperforming in low growth industry	
Agriculture	-23%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$33,728	\$44,447	32%
Professionals	\$59,033	\$66,339	12%
Technicians & Trades Workers	\$42,410	\$51,760	22%
Community & Personal Service Workers	\$27,700	\$41,879	51%
Clerical & Administrative Workers	\$28,811	\$44,561	55%
Sales Workers	\$26,167	\$29,591	13%
Machinery Operators & Drivers	\$48,075	\$61,525	28%
Labourers	\$24,244	\$31,114	28%

Table 3. Employment mapping

Occupation	Bogan LGA	Nearby LGAs	Other LGAs
Farmers & Farm Managers	199	19	6
Specialist Managers	34	7	0
Hospitality, Retail & Service Managers	41	5	0
Business, Human Resource & Marketing Professionals	12	7	0
Design, Engineering, Science & Transport Professionals	16	0	7
Education Professionals	49	7	0
Automotive & Engineering Trades Workers	36	6	7
Carers & Aides	43	8	0
Hospitality Workers	18	0	7
Machinery & Stationary Plant Operators	55	6	23
Mobile Plant Operators	20	0	5
Road & Rail Drivers	30	4	9
Construction & Mining Labourers	14	0	7
Farm, Forestry & Garden Workers	30	7	0

Average income by occupation

In 2011, the top earning occupations were Professionals and Machinery Operators & Drivers. The largest increases in incomes were reported for those working as:

- Clerical & Administrative Workers;
- Community & Personal Service Workers; and
- Managers.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. As at the 2011 Census, the most common occupations in Bogan Shire sourced from LGAs not adjacent to Bogan Shire were:

- Machinery & Stationary Plant Operators;
- Road & Rail Drivers;
- Design, Engineering, Science & Transport Professionals;
- Automotive & Engineering Trades Workers;
- Hospitality Workers.

Results for all occupations that were in part sourced from outside Bogan LGA are shown in Table 3.

Count of businesses

ABS Count of Australian Businesses data, including Entries and Exits between June 2008 and June 2011 is available at Statistical Area Level 2: Nyngan-Warren. Between 2008 and 2011, the most significant growth in businesses occurred for:

- Financial & Insurance Services (160%, to 26 businesses);
- Administrative & Support Services (67%, to 20 businesses); and
- Retail Trade (33%, to 40 businesses).

The most significant decline in businesses occurred for:

- Public Administration & Safety (100%, to 0 businesses);
- Manufacturing (40%, to 9 businesses); and
- Professional, Scientific & Technical Services (30%, to 23 businesses).

Businesses in Agriculture, Forestry & Fishing grew by 3% (to 494 businesses).

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWR for Dec Qtr 2012 reported:

- A labour force of 1,669 persons
- An unemployment rate of 5.1%

The unemployment trend since December 2006 is shown in Figure 3 opposite. The unemployment rate in Bogan Shire has tracked closely to that of the overall Orana region and the Rest of NSW over this period, dipping below that of Orana more recently.

At the 2011 census, Bogan reported

- A youth labour force of 184 persons, with the youth unemployment rate at 14.1%, higher than that for Orana overall (12.4%).
- An Indigenous Labour force of 137 persons, with the Indigenous unemployment rate at 21.2%, higher than that for Orana overall (19.9%).

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of Bogan Shire was most commonly:

- Year 10 or equivalent (26%)
- Year 12 or equivalent (21%)

(32% not stated or not applicable)

The level of completion at Year 12 level or equivalent is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (11%)
- Bachelor Degree (5%)

The level of completion of Certificate III or IV is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Figure 3. Recent unemployment trend

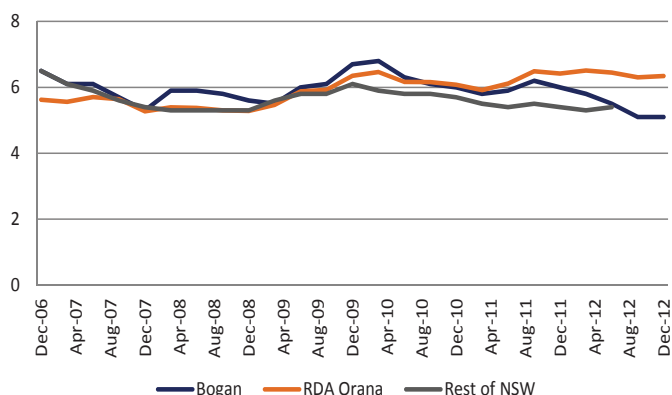


Figure 4. Highest year of school completed

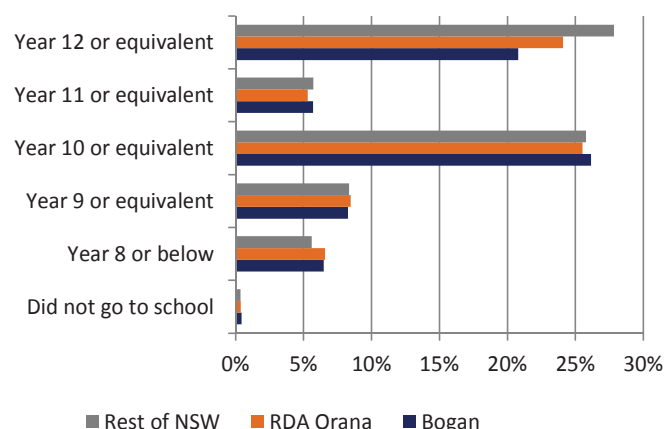


Figure 5. Post school qualifications

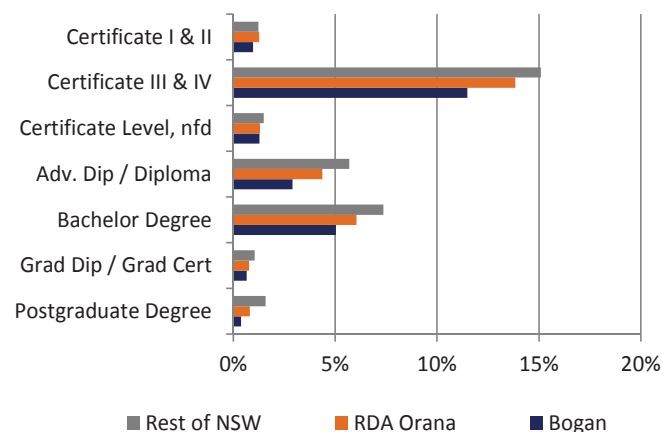


Table 4. Current study patterns (Census 2011)

	Bogan LGA	RDA Orana	Rest of NSW
Attending University			
15-24 years	5.2%	5.2%	12.5%
25 years and over	0.8%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	8.8%	8.7%	9.0%
25 years and over	1.4%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure



Table 5. Age dependency ratios (Census 2011)

	Bogan LGA	RDA Orana	Rest of NSW
Child	0.40	0.35	0.31
Aged	0.31	0.27	0.29
Total	0.71	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Certificate level (not defined) qualifications increased by 61% (to 37 people);
- Bachelor Degree qualifications increased by 24% (to 146 people);
- Graduate Diploma and Graduate Certificate qualifications increased by 19% (to 19 people);
- Certificate III and IV qualifications increased by 13% (to 333 people).

Current study patterns

- Study patterns amongst those aged 15-24 years were similar for Bogan Shire in comparison to the overall Orana region. The rate of attendance of 15-24 year olds at other tertiary institutes was also similar to that for the Rest of NSW.
- However, the proportion of those aged 25 years and over who are studying at either a university or other tertiary institute is lower than in Orana overall and when compared to the Rest of NSW.

AGE AND POPULATION

The population as at 2011 Census was 2,900.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 24% of the population (compared to 22% for the Orana region as a whole).
- The next largest age group was those aged 65 years and over (18% of the population compared to 17% for Orana as a whole).
- Between 2006 and 2011 there was a considerable drop in the number of people aged 55-64 years in Bogan Shire (from 13% to 10%). This age group comprised 13% of the Orana region as a whole in 2011.

Age dependency

- The Child Dependency and therefore Total Dependency ratios are quite high compared to both the overall Orana region and the Rest of NSW.

Indigenous population

In 2011, Aboriginal and Torres Strait Islander people made up 14.4% of the population compared to 11.7% of the population in 2006. This is higher than that of the Orana region (14.3% in 2011).

Population projections

- The population of Bogan is projected to fall by 40.7% between 2011 and 2036, while its working age population is projected to fall by 45.9% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 63% to 57%.

HOUSEHOLD DATA

Personal income

- As at the 2011 Census, the median personal income in Bogan Shire was only slightly lower than that for the Rest of NSW as a whole, and lower than that for NSW.
- Between 2006 and 2011, median personal income grew by 31%.

Household income

- As at the 2011 Census, the median household income in Bogan Shire was slightly lower than that for the Rest of NSW, and lower than that for NSW.
- Between 2006 and 2011, median household income grew by 27%.

Figure 7. Population projections

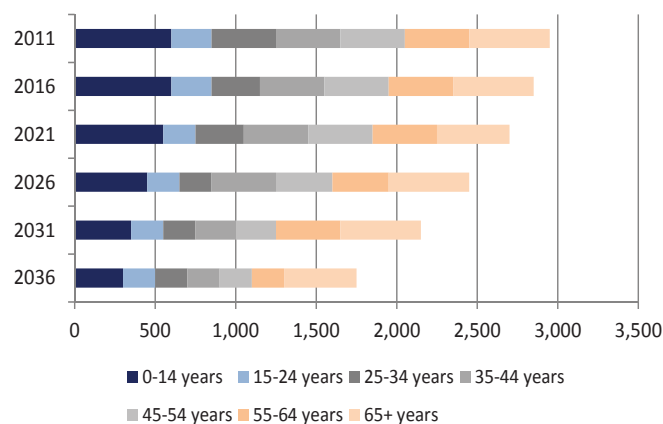


Figure 8. Personal income

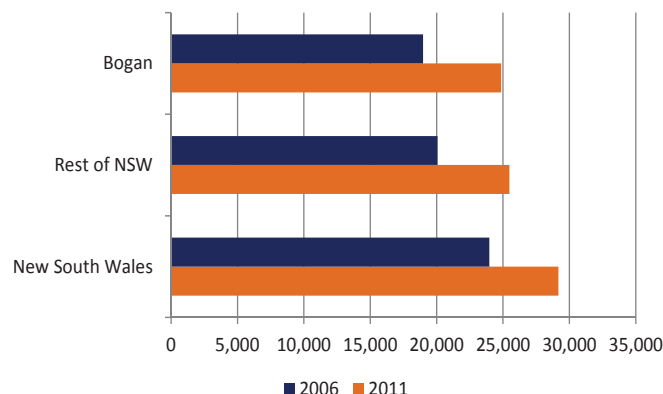
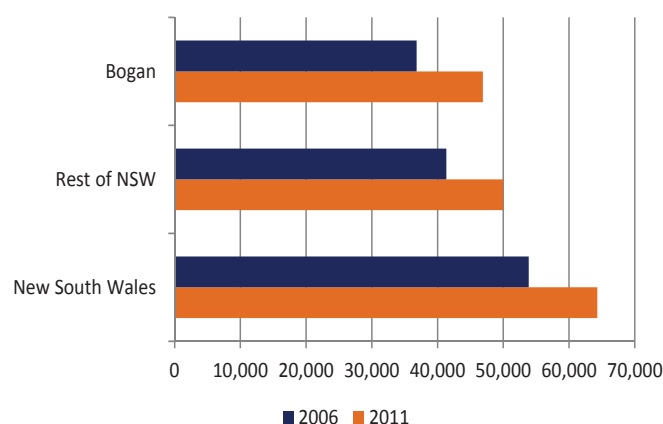


Figure 9. Household income



HOUSING

Housing affordability

The affordability of housing was examined using a ratio of median house prices to average taxable income and median weekly rental as a percentage of average weekly taxable income. Housing data was not available for Bogan Shire, therefore the larger region of Macquarie-Barwon was used.

- Figure 10 opposite highlights that in 2011, on average, the Macquarie-Barwon region rental market is considerably more affordable compared to the Rest of NSW and NSW. Affordability has improved since 2006.
- The affordability of home ownership in the Macquarie-Barwon region (with respect to household income in Bogan Shire) has improved slightly since 2006. Housing affordability in the sales market is around three times better than in the Rest of NSW and NSW.

Home ownership vs. rental

- There have been some shifts in ownership status in the Bogan Shire compared with relative stability across Orana and NSW as a whole.
- The proportion of dwellings owner-occupied in Bogan Shire has decreased from 67% in 2006 to 59% in 2011.
- The proportion of dwellings rented has remained similar (30% in 2011); whilst the proportion of other tenure types has increased from 4% to 10% over the same period.

Figure 10. Median weekly rental as percentage of median household weekly taxable income

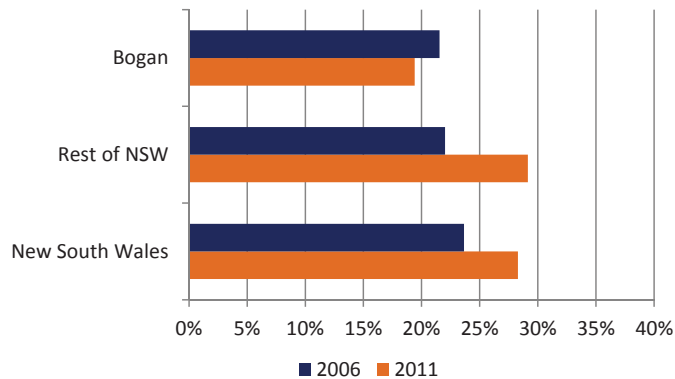


Figure 11. Ratio of median house price to median household taxable income

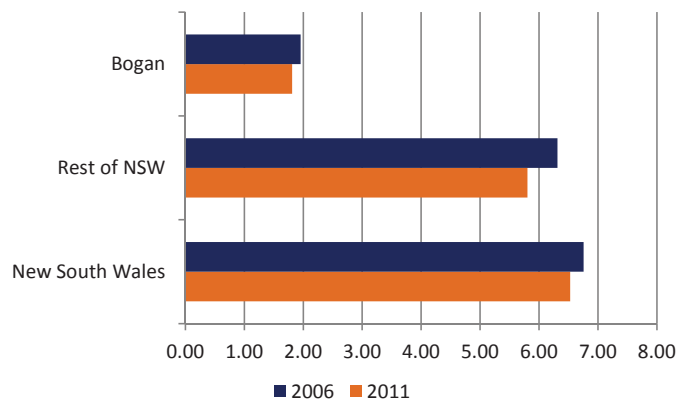


Figure 12. Home ownership vs. rental



VALUE OF CONSTRUCTION

Table 6 shows that:

- Non-residential construction boomed between 2010 and 2011, whilst residential construction was stagnant.
- Residential construction grew by 201% between 2011 and 2012.

Table 6. Value of construction

	Residential \$000	Non-residential \$000	Total
2010	1,157	6,749	7,907
2011	1,169	18,352	19,520
2012	3,523	200	3,723
% change 2010-2011	1%	172%	147%
% change 2011-2012	201%	-99%	-81%
% change 2010-2012	204%	-97%	-53%

CRIME STATISTICS

The NSW Bureau of Crime Statistics and Research does not publish the rate of crime for populations less than 3,000 people. Therefore, the following tables present raw offence numbers and cannot be compared with the rest of the Orana region. Any comparisons drawn should be treated with caution.

The top reported offences in Bogan Shire in 2012 were:

- Malicious damage to property;
- Steal from motor vehicle;
- Assault – non domestic violence related.

The top ten offences along with the percentage change in these offences between 2008 and 2012 are shown in Table 7 below.

Table 7. Top 10 offence categories

Offence category	2008	2009	2010	2011	2012	% Change
Malicious damage to property	98	41	41	44	48	-51.02%
Steal from motor vehicle	17	16	19	18	37	117.65%
Assault - non-domestic violence related	39	44	23	27	35	-10.26%
Trespass	20	26	8	12	28	40.00%
Assault - domestic violence related	22	20	25	21	22	0.00%
Harassment, threatening behaviour and private nuisance	24	24	8	17	22	-8.33%
Breach bail conditions	7	17	27	10	20	185.71%
Break and enter dwelling	12	16	10	11	19	58.33%
Steal from dwelling	18	19	7	14	17	-5.56%
Break and enter non-dwelling	18	10	9	8	16	-11.11%

BOURKE SHIRE

KEY FACTS:

Population

Population as at the 2011 Census was 2,868 (2% of the Orana region's population).

Gross Regional Product as at 2012

Bourke Shire contributed an estimated \$111 million to the Orana region GRP (2%).

Key sectors in 2012:

- Public Administration (15% of value added and 14% of FTE employment)
- Health & Community (14% of value added and 17% of FTE employment)
- Agriculture (13% of value added and 22% of FTE employment)

Top earning occupations in 2011:

- Professionals; and
- Community & Personal Service Workers.

Unemployment:

- Unemployment rate of 13.1% (December 2012)
- Youth unemployment rate of 10.7% (2011 Census)
- Indigenous unemployment rate of 18.1% (2011 Census)

Opportunities:

- Continued development of agriculture
- Value-adding to agricultural output through the Food & Beverage Manufacturing sector
- Value-adding to tourism through the Arts & Recreation and Hospitality sectors

ECONOMY

The GRP for Bourke Shire in 2012 was estimated at \$111 million.

Key sectors in 2012

- Public Administration contributed 15% to value added and 14% of FTE employment
- Health & Community contributed 14% to value added and 17% of FTE employment
- Agriculture contributed 13% to value added and 22% of FTE employment

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Agriculture, where employment fell by 5 percentage points;
- in Health & Community, where employment increased by 2 percentage points; and
- Public Administration, where employment increased by 2 percentage points.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Agriculture (18% of employment);
- Pre-school & School Education (12%);
- Public Administration (10%);
- Public Order, Safety & Regulatory Services (5%); and
- Hospitals (5%).

Key Shift Share results between 2006 and 2011

Based on an analysis of industries at the subdivision level, strong local factors for employment growth were experienced in the following key sectors:

- Professional, Scientific & Technical services
- Electricity Supply
- Food Product Manufacturing

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Figure 1. Key contributors - sectors

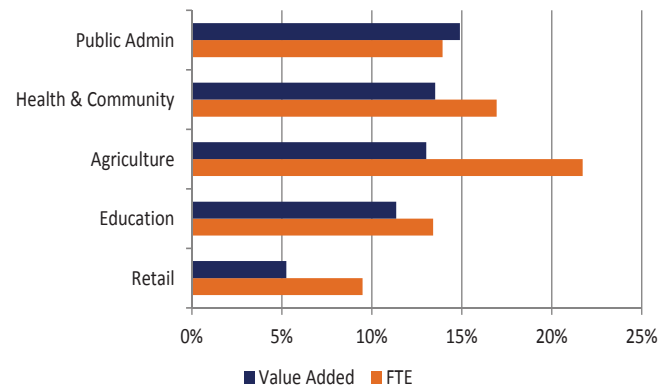


Figure 2. Changes in employment for top 5 sectors

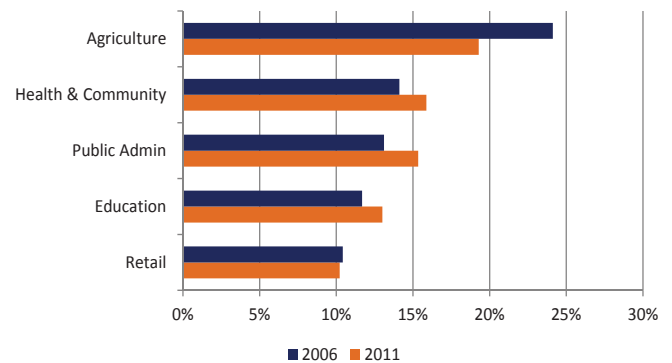


Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Professional, Scientific & Technical Services	33%
Electricity Supply	49%
Administrative Services	45%
Residential Care Services	298%
Type IV – Outperforming in low growth industry	
Food Product Manufacturing	42%
Accommodation	32%
Type II – Underperforming in high growth industry	
Food & Beverage Services	-37%
Road Transport	-31%
Medical & Other Health Services	12%
Type III – Underperforming in low growth industry	
Agriculture	-24%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$40,487	\$51,179	26%
Professionals	\$48,058	\$68,060	42%
Technicians & Trades Workers	\$39,642	\$46,414	17%
Community & Personal Service Workers	\$46,749	\$52,074	11%
Clerical & Administrative Workers	\$34,771	\$46,120	33%
Sales Workers	\$24,145	\$31,003	28%
Machinery Operators & Drivers	\$40,065	\$49,289	23%
Labourers	\$22,671	\$35,533	57%

Table 3. Employment mapping

Occupation	Bourke LGA	Nearby LGAs	Other LGAs
Farmers & Farm Managers	133	7	0
Education Professionals	77	0	6
Legal, Social & Welfare Professionals	28	6	0
Office Managers & Program Administrators	25	0	3
Sales Assistants & Salespersons	49	7	0
Farm, Forestry & Garden Workers	27	0	7

Average income by occupation

In 2011, the top earning occupations were Professionals and Community & Personal Service Workers. The largest increases in incomes were reported for those working as:

- Labourers;
- Professionals; and
- Clerical & Administrative workers.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. As at the 2011 Census, the most common occupations in Bourke Shire sourced from LGAs not adjacent to Bourke Shire were:

- Farm, Forestry & Garden Workers;
- Education Professionals; and
- Office Managers & Program Administrators.

Results for all occupations that were in part sourced from outside Bourke LGA are shown in Table 3.

Count of businesses

ABS Count of Australian Businesses data, including Entries and Exits between June 2008 and June 2011 is available at Statistical Area Level 2: Bourke-Brewarrina. Between 2008 and 2011, the most significant growth in businesses occurred for:

- Other Services (400%, to 15 businesses);
- Wholesale Trade (50%, to 9 businesses); and
- Rental, Hiring & Real Estate Services (27%, to 19 businesses).

The most significant decline in businesses occurred for:

- Public Administration & Safety (100%, to 0 businesses);
- Financial & Insurance Services (75%, to 3 businesses); and
- Health Care & Social Assistance Services (53%, to 7 businesses).

Businesses in Agriculture, Forestry & Fishing declined by 16% (to 228 businesses).

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWR for Dec Qtr 2012 reported:

- A labour force of 1,713 persons
- An unemployment rate of 13.1%

The unemployment trend since December 2006 is shown in the chart opposite. The unemployment rate in Bourke Shire was considerably higher than that of the overall Orana region and Rest of NSW over this period, with an upward trend of 1.9% per quarter experienced since December 2006.

At the 2011 census, Bourke reported

- A youth labour force of 149 persons, with the youth unemployment rate of 10.7%, lower than that for Orana overall (12.4%).
- An Indigenous Labour force of 271 persons, with the Indigenous unemployment rate at 18.1%, lower than that for Orana overall (19.9%).

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of Bourke Shire was most commonly:

- Year 12 or equivalent (22%)
- Year 10 or equivalent (19%)

(39% not stated or not applicable)

The level of completion at Year 12 level or equivalent is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (10%)
- Bachelor Degree (7%)

The level of completion of Certificate III and IV is lower than that reported for the RDA Orana region as a whole and for non-metropolitan (Rest of NSW).

Figure 3. Recent unemployment trend

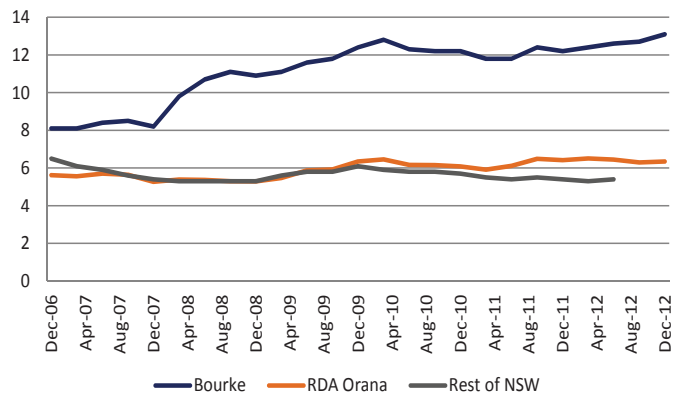


Figure 4. Highest year of school completed

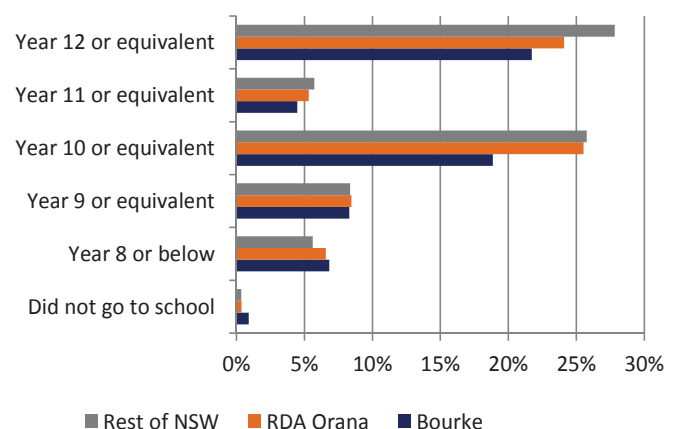


Figure 5. Post school qualifications

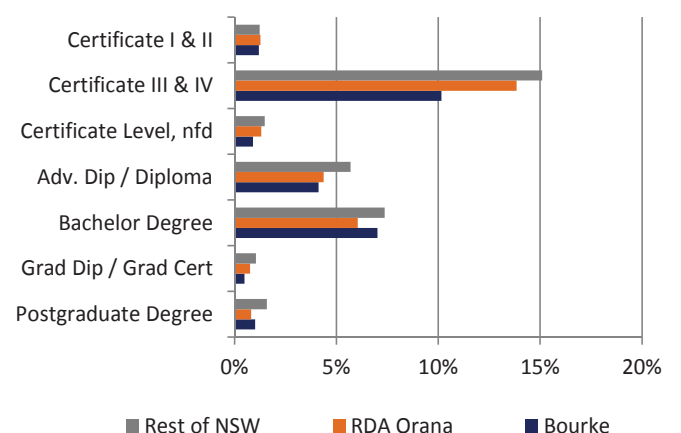


Table 4. Current study patterns (Census 2011)

	Bourke LGA	RDA Orana	Rest of NSW
Attending University			
15-24 years	3.3%	5.2%	12.5%
25 years and over	1.3%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	4.5%	8.7%	9.0%
25 years and over	2.1%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure



Table 5. Age dependency ratios

	Bourke LGA	RDA Orana	Rest of NSW
Child	0.41	0.35	0.31
Aged	0.19	0.27	0.29
Total	0.59	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Postgraduate Degree qualifications increased by 71% (to 29 people);
- Certificate III and IV qualifications increased by 25% (to 291 people);
- Certificate I and II qualifications contracted by 23% (to 34 people);
- Graduate Diploma and Graduate Certificate qualifications contracted by 30% (to 14 people).

Current study patterns

- The proportion of those aged 15-24 years who are studying at either a university or other tertiary institute is lower in Bourke than in Orana overall and in the Rest of NSW.
- The attendance rate at other tertiary institutes for those aged 25 years and over is similar to that reported for Orana overall and the Rest of NSW.

AGE AND POPULATION

The population as at 2011 Census was 2,868.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 26% of the population (compared to 22% for the Orana region as a whole).
- The next largest age group was those aged 35-44 years (15% of the population compared to 13% for Orana as a whole).
- Between 2001 and 2011 there was a considerable drop in the number of people aged 25-34 years in Bourke Shire (from 17% to 12%). This age group comprised 11% of the Orana region as a whole in 2011.

Age dependency

- The Child Dependency ratio is quite high when compared to both the overall Orana region and the Rest of NSW. However, the Aged Dependency and therefore the Total Dependency ratios are much lower.

Indigenous population

In 2011, Aboriginal and Torres Strait Islander people made up 30.2% of the population compared to 29.4% of the population in 2006. This is higher than that of the Orana region (14.3% in 2011).

Population projections

- The population of Bourke is projected to fall by 14.3% between 2011 and 2036, while its working age population is projected to fall by 17.1% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 65% to 63%.

HOUSEHOLD DATA

Personal income

- As at the 2011 Census, the median personal income in Bourke Shire was higher than that for the Rest of NSW region and for New South Wales as a whole.
- Between 2006 and 2011, median personal income grew by 45%.

Household income

- As at the 2011 Census, the median household income in Bourke Shire was higher than that for the Rest of NSW region.
- Between 2006 and 2011, median household income grew by 32%.

Figure 7. Population projections

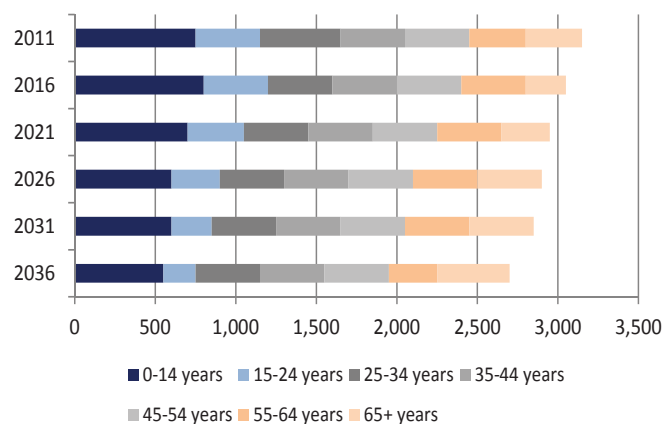


Figure 8. Personal income

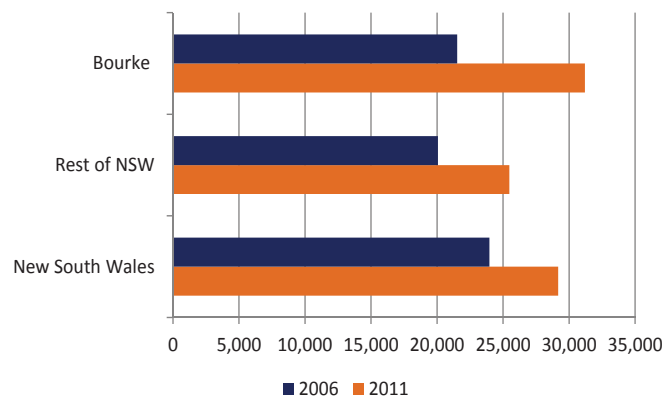
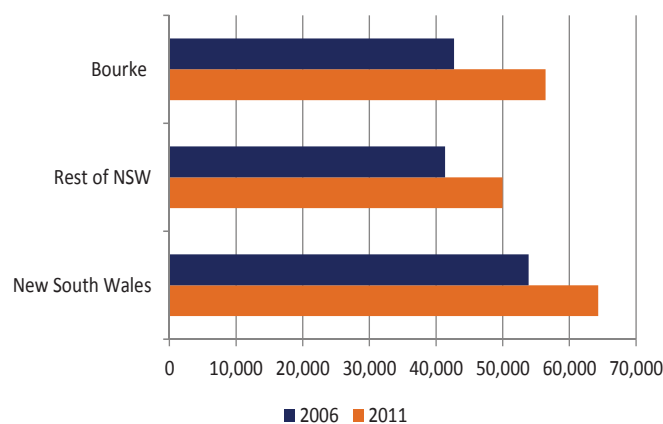


Figure 9. Household income



HOUSING

Housing affordability

The affordability of housing was examined using a ratio of median house prices to average taxable income and median weekly rental as a percentage of average weekly taxable income. Housing data was not available for Bourke Shire; therefore the larger region of Upper Darling was used.

- Figure 10 opposite highlights that in 2011, on average, the Upper Darling region rental market is considerably more affordable compared to the Rest of NSW and NSW.
- The affordability of home ownership in the Upper Darling region (with respect to household income in Bourke Shire) has improved since 2006. Housing affordability in the sales market is over two times better than in the Rest of NSW and NSW.

Home ownership vs. rental

- There have been some shifts in ownership status in Bourke Shire compared with relative stability across Orana and NSW as a whole.
- The proportion of dwellings owned in Bourke Shire has decreased from 49% in 2006 to 43% in 2011.
- The proportion of dwellings rented in Bourke has decreased from 37% in 2006 to 33% in 2011; whilst the proportion of other tenure types has increased from 14% to 23% over the same period.

Figure 10. Median weekly rental as percentage of median household weekly taxable income

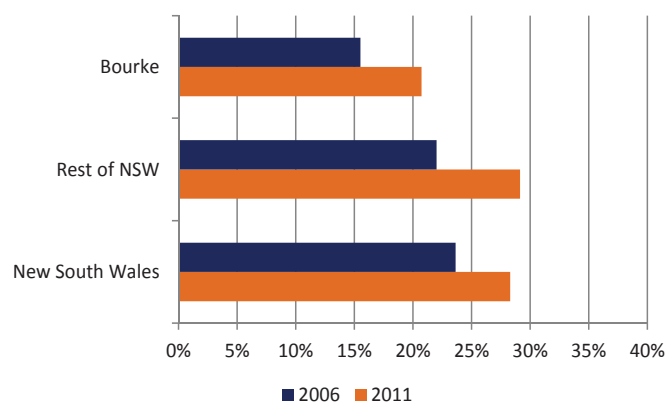


Figure 11. Ratio of median house price to median household taxable income

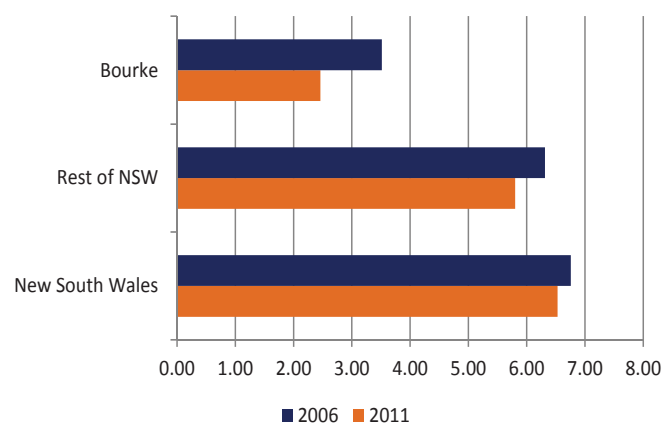


Figure 12. Home ownership vs. rental



VALUE OF CONSTRUCTION

Table 6 shows that:

- Residential construction increased between 2010 and 2012, whilst non-residential construction fluctuated in value.
- Non-residential construction grew by 197% between 2011 and 2012.

Table 6. Value of construction

	Residential \$000	Non-residential \$000	Total
2010	2,964	7,363	10,327
2011	4,147	1,745	5,892
2012	7,978	5,189	13,166
% change 2010-2011	40%	-76%	-43%
% change 2011-2012	92%	197%	123%
% change 2010-2012	169%	-30%	27%

CRIME STATISTICS

Crime rates are normally reported in terms of rate per 100,000 head of population. The top reported offences in Bourke Shire in 2012 were:

- Breach of bail conditions;
- Malicious damage to property;
- Assault – domestic violence related.

The ten most regularly occurring offence categories in Bourke Shire recorded higher rates of incidence than in Orana overall and NSW overall.

The rate of crime incidences per 100,000 along with the percentage change in these offences between 2008 and 2012 are shown in table 7 below.

Table 7. Top 10 offence categories

	Bourke LGA			RDA Orana			NSW		
	2008	2012	% Change	2008	2012	% Change	2008	2012	% Change
Breach bail conditions	4,509	5,297	17%	652	1,081	66%	338	417	24%
Malicious damage to property	7,987	4,328	-46%	2,830	2,289	-19%	1,560	1,129	-28%
Assault - domestic violence related	3,671	4,296	17%	872	966	11%	365	375	3%
Break and enter dwelling	2,319	3,327	43%	875	1,151	32%	632	554	-12%
Assault - non-domestic violence related	2,899	2,649	-9%	1,101	995	-10%	610	482	-21%
Steal from motor vehicle	1,578	2,326	47%	787	1,003	27%	825	645	-22%
Breach Apprehended Violence Order	1,610	2,196	36%	416	498	20%	165	175	6%
Arson	998	2,132	114%	237	289	22%	104	96	-8%
Trespass	1,610	1,712	6%	557	550	-1%	132	123	-7%
Steal from dwelling	1,256	1,583	26%	558	556	0%	305	299	-2%

BREWARRINA SHIRE

KEY FACTS:

Population

Population as at the 2011 Census was 1,766 (2% of the Orana region's population).

Gross Regional Product as at 2012

Brewarrina Shire contributed an estimated \$52.6 million to the Orana region GRP (1%).

Key sectors in 2012:

- Agriculture (17% of value added and 27% of FTE employment)
- Education (16% of value added and 18% of FTE employment)
- Public Administration (16% of value added and 14% of FTE employment)

Top earning occupations in 2011:

- Professionals; and
- Managers.

Unemployment:

- Unemployment rate of 17.3% (December 2012)
- Youth unemployment rate of 24.2% (2011 Census)
- Indigenous unemployment rate of 22.9% (2011 Census)

Opportunities:

- Continued development of agriculture
- Value-adding to agricultural output through the Food & Beverage Manufacturing sector
- Value-adding to tourism through the Arts & Recreation and Hospitality sectors

ECONOMY

The GRP for Brewarrina Shire in 2012 was estimated at \$52.6 million.

Key sectors in 2012

- Agriculture contributed 17% to value added and 27% of FTE employment
- Education contributed 16% to value added and 18% of FTE employment
- Public Administration contributed 16% to value added and 14% of FTE employment

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Agriculture, where employment increased by 3 percentage points;
- in Public Administration, where employment fell by 3 percentage points; and
- Health & Community, where employment fell by 3 percentage points.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Agriculture (21% of employment);
- Pre-school & School Education (17%);
- Public Administration (12%);
- Social Assistance Services (6%); and
- Hospitals (6%).

Key Shift Share results between 2006 and 2011

Based on an analysis of industries at the subdivision level, strong local factors for employment growth were experienced in the following key sectors:

- Construction Services; and
- Pre-school & School Education.

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Figure 1. Key contributors - sectors

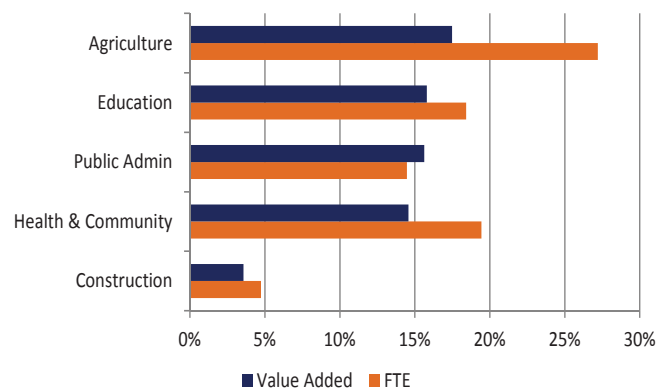


Figure 2. Changes in employment for top 5 sectors

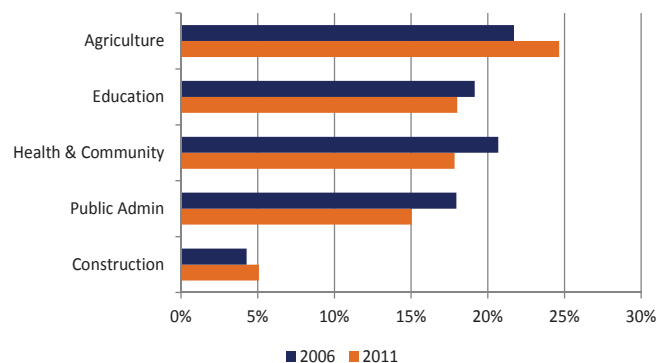


Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
No type I industries	
Type IV – Outperforming in low growth industry	
Agriculture	-7%
Construction Services	315%
Pre-school and School Education	17%
Personal and Other Services	210%
Type II – Underperforming in high growth industry	
Food and Beverage Services	14%
Road Transport	-62%
Medical and Other Health Care Services	18%
Type III – Underperforming in low growth industry	
Building Construction	-60%
Public Administration	-10%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$40,181	\$50,755	26%
Professionals	\$53,907	\$57,865	7%
Technicians & Trades Workers	\$30,298	\$33,951	12%
Community & Personal Service Workers	\$33,451	\$42,962	28%
Clerical & Administrative Workers	\$32,744	\$41,013	25%
Sales Workers	\$30,280	\$26,000	14%
Machinery Operators & Drivers	\$28,280	\$39,371	39%
Labourers	\$22,016	\$22,951	4%

Table 3. Employment mapping

Occupation	Brewarrina LGA	Nearby LGAs	Other LGAs
Farmers & Farm Managers	77	10	11
Construction Trades Workers	11	0	7
Food Trades Workers	9	0	3
Skilled Animal & Horticultural Workers	15	7	7

Average income by occupation

In 2011, the top earning occupations were Professionals and Managers. The largest increases in incomes were reported for those working as:

- Machinery Operators & Drivers;
- Community & Personal Service Workers; and
- Managers.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. As at the 2011 Census, the most common occupations in Brewarrina Shire sourced from LGAs not adjacent to Brewarrina Shire were:

- Farmers & Farm Managers;
- Construction Trade Workers;
- Skilled Animal & Horticultural Workers; and
- Food Trade Workers.

Results for all occupations that were in part sourced from outside Brewarrina LGA are shown in Table 3.

Count of businesses

ABS Count of Australian Businesses data, including Entries and Exits between June 2008 and June 2011 is available at Statistical Area Level 2: Bourke-Brewarrina. Between 2008 and 2011, the most significant growth in businesses occurred for:

- Other Services (400%, to 15 businesses);
- Wholesale Trade (50%, to 9 businesses); and
- Rental, Hiring & Real Estate Services (27%, to 19 businesses).

The most significant decline in businesses occurred for:

- Public Administration & Safety (100%, to 0 businesses);
- Financial & Insurance Services (75%, to 3 businesses); and
- Health Care & Social Assistance Services (53%, to 7 businesses).

Businesses in Agriculture, Forestry & Fishing declined by 16% (to 228 businesses).

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWLR for Dec Qtr 2012 reported:

- A labour force of 902 persons
- An unemployment rate of 17.3%

The unemployment trend since December 2006 is shown in Figure 3 opposite. The unemployment rate in Brewarrina Shire has been at least double that of the overall Orana region and the Rest of NSW over the reported period. An upward trend of 1.3% per quarter has been experienced since December 2006.

At the 2011 census, Bourke reported

- A Youth labour force of 120 persons, with the youth unemployment rate at 24.2%, considerably higher than that for Orana overall (12.4%).
- An Indigenous Labour force of 310 persons, with the Indigenous unemployment rate at 22.9%, higher than that for Orana overall (19.9%).

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of Brewarrina Shire was most commonly:

- Year 10 or equivalent (22%)
- Year 12 or equivalent (17%)

(32% not stated or not applicable)

The level of completion at Year 12 level or equivalent is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (9%)
- Bachelor Degree (5%)

The level of completion of Certificate III and IV is lower than reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Figure 3. Recent unemployment trend

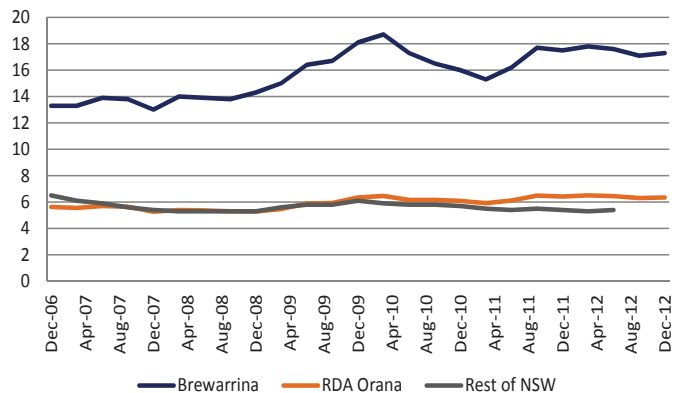


Figure 4. Highest year of school completed

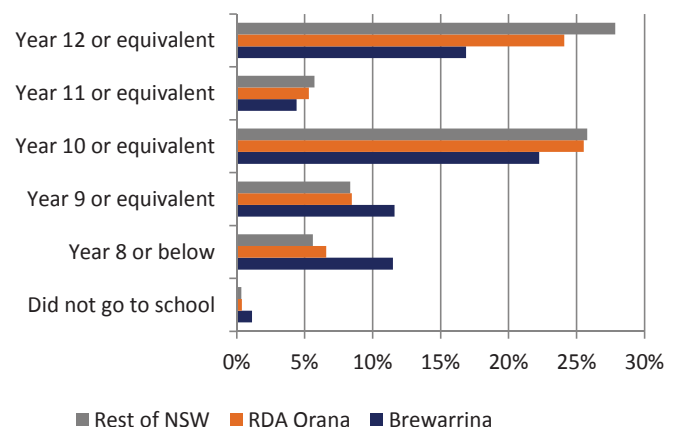


Figure 5. Post school qualifications

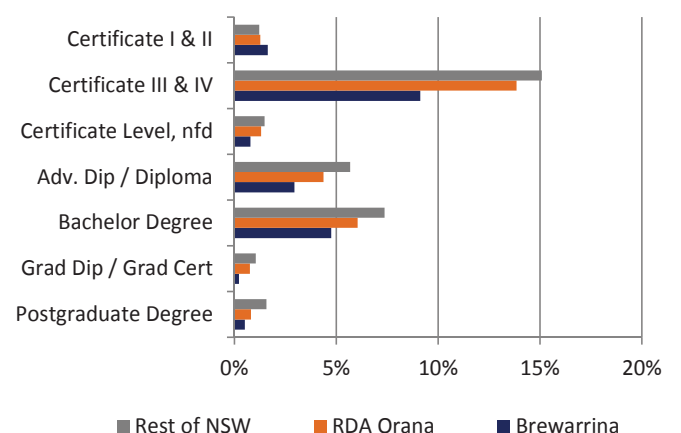


Table 4. Current study patterns (Census 2011)

	Brewarrina LGA	RDA Orana	Rest of NSW
Attending University			
15-24 years	1.9%	5.2%	12.5%
25 years and over	1.0%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	2.7%	8.7%	9.0%
25 years and over	1.3%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure

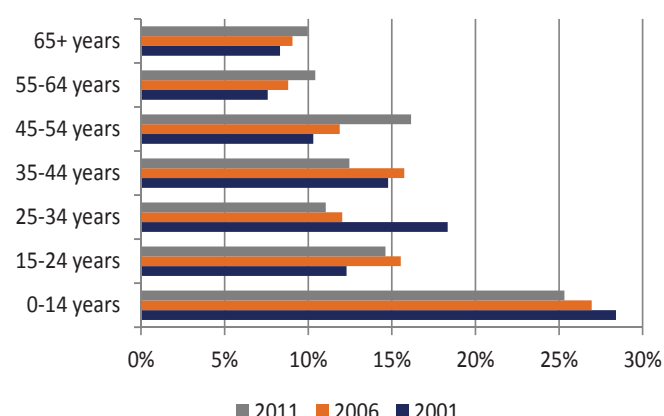


Table 5. Age dependency ratios (Census 2011)

	Brewarrina LGA	RDA Orana	Rest of NSW
Child	0.39	0.35	0.31
Aged	0.15	0.27	0.29
Total	0.55	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Certificate I and II qualifications increased by 263% (to 29 people);
- Certificate III and IV qualifications increased by 38% (to 161 people);
- Certificate level (not defined) qualifications contracted by 18% (to 14 people);
- Graduate Diploma and Graduate Certificate qualifications contracted by 64% (to 4 people).

Current study patterns

- General attendance rates were lower for Brewarrina Shire in comparison to the overall Orana region and Rest of NSW.
- However, results for university attendance for those aged 25 years and over are only slightly lower than those for the Orana region overall.

AGE AND POPULATION

The population as at 2011 Census was 1,766.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 25% of the population (compared to 22% for the Orana region as a whole).
- The next largest age group was those aged 45-54 years (16% of the population compared to 14% for Orana as a whole).
- Between 2001 and 2011 there was a considerable drop in the number of people aged 25-34 years in Brewarrina Shire (from 18% to 11%). This age group comprised 11% of the Orana region as a whole in 2011.

Age dependency

- The Child Dependency ratio is quite high compared to both the overall Orana region and Rest of NSW. However, the Aged Dependency ratio and therefore Total Dependency ratio is much lower.

Indigenous population

In 2011, Aboriginal and Torres Strait Islander people made up 59.1% of the population compared to 59.5% of the population in 2006. This is higher than that of the Orana region (14.3% in 2011).

Population projections

- The population of Brewarrina is projected to fall by 18.4% between 2011 and 2036, while its working age population is projected to fall by 23.1% in the same period.
- The share of working age population in the total population of the region is projected to fall from 68% to 65%.

HOUSEHOLD DATA

Personal income

- As at the 2011 Census, the median personal income in Brewarrina Shire was lower than that for the Rest of NSW and New South Wales as a whole.
- Between 2006 and 2011, median personal income grew by 17%.

Household income

- As at the 2011 Census, the median household income in Brewarrina Shire was lower than that for the Rest of NSW and New South Wales as a whole.
- Between 2006 and 2011, median household income grew by 11%.

Figure 7. Population projections

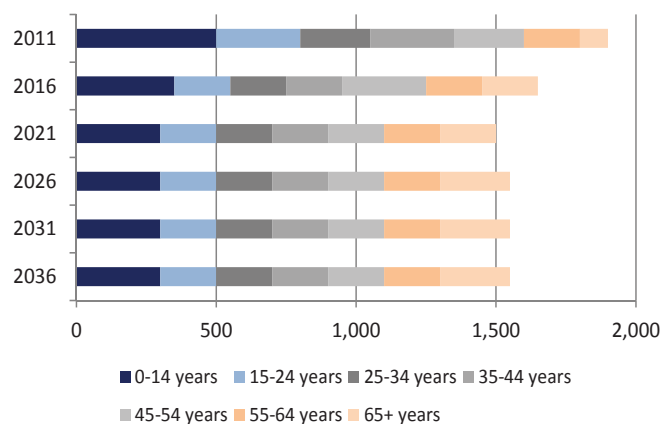


Figure 8. Personal income

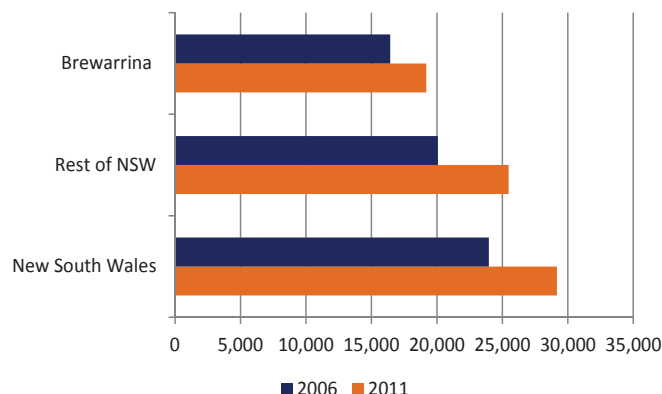
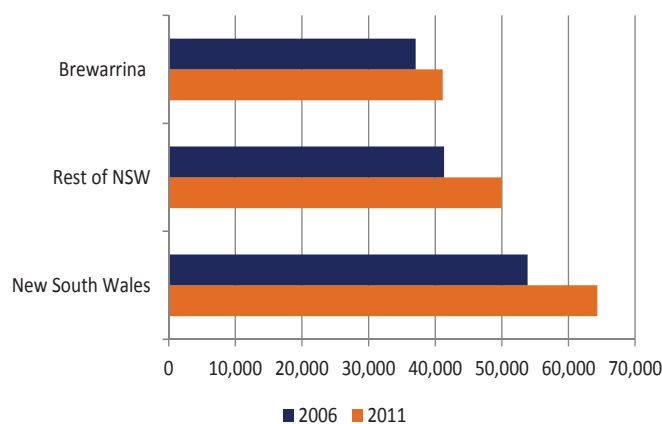


Figure 9. Household income



HOUSING

Housing affordability

The affordability of housing was examined using a ratio of median house prices to average taxable income and median weekly rental as a percentage of average weekly taxable income. Sales data was not available for Brewarrina Shire; therefore the larger region of Upper Darling was used.

- Figure 10 opposite highlights that in 2011, on average, the Upper Darling region rental market is slightly more affordable compared to the Rest of NSW and NSW.
- The affordability of home ownership in the Upper Darling region (with respect to household income in Brewarrina Shire) has also improved since 2006. Housing affordability in the sales market is around two times better than in the Rest of NSW and New South Wales as a whole.

Home ownership vs. rental

- Ownership status in the Brewarrina Shire, Orana RDA and New South Wales has been relatively stable between 2006 and 2011, though the proportion of houses owner-occupied is considerably lower in Brewarrina Shire at 36% compared to 62% in the overall Orana region and 64% in NSW.
- The proportion of dwellings owner-occupied in Brewarrina Shire has decreased from 37% in 2006 to 36% in 2011.
- The proportion of dwellings rented has increased from 51% in 2006 to 55% in 2011; whilst the proportion of other tenure types has decreased from 11 to 10% over the same period.

Figure 10. Median weekly rental as percentage of median household weekly taxable income

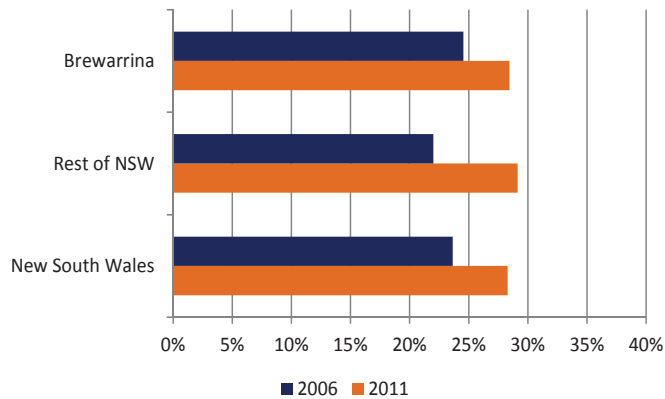


Figure 11. Ratio of median house price to median household taxable income

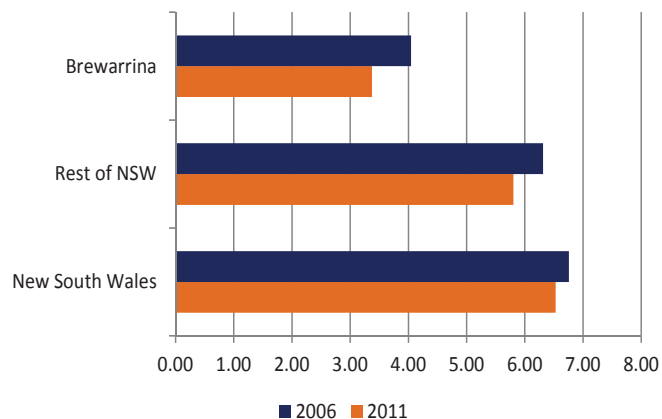


Figure 12. Home ownership vs. rental



VALUE OF CONSTRUCTION

Table 6 shows that:

- Non-residential construction boomed in 2010 and 2012, whilst residential construction boomed in 2011.
- Residential construction contracted by 81% between 2011 and 2012.

Table 6. Value of construction

	Residential \$000	Non-residential \$000	Total
2010	264	5,517	5,781
2011	3,883	0	3,883
2012	736	3,556	4,293
% change 2010-2011	1374%	-100%	-33%
% change 2011-2012	-81%	-	11%
% change 2010-2012	179%	-36%	-26%

CRIME STATISTICS

The NSW Bureau of Crime Statistics and Research does not publish the rate of crime for populations less than 3,000 people. Therefore, the following tables present raw offence numbers and cannot be compared with the rest of the Orana region. Any comparisons drawn should be treated with caution.

The top reported offences in Brewarrina Shire in 2012 were:

- Assault – domestic violence related;
- Assault – non domestic violence related;
- Malicious damage to property.

The top ten offences along with the percentage change in these offences between 2008 and 2012 are shown in Table 7 below.

Table 7. Top 10 offence categories

Offence category	2008	2009	2010	2011	2012	% Change
Assault - domestic violence related	64	59	58	51	68	6%
Assault - non-domestic violence related	68	51	42	58	63	-7%
Malicious damage to property	77	98	79	71	63	-18%
Break and enter dwelling	48	55	60	54	58	21%
Breach bail conditions	75	43	59	26	55	-27%
Steal from motor vehicle	16	22	42	40	43	169%
Harassment, threatening behaviour and private nuisance	28	23	43	25	36	29%
Breach Apprehended Violence Order	36	23	23	22	35	-3%
Liquor offences	41	32	48	30	32	-22%
Break and enter non-dwelling	18	14	30	53	29	61%

COBAR SHIRE

KEY FACTS:

Population

Population as at the 2011 Census was 4,710 (4% of the Orana region's population).

Gross Regional Product as at 2012

Cobar Shire contributed an estimated \$283.8 million to the Orana region GRP (6%).

Key sectors in 2012:

- Other mining (51% of value added and 42% of FTE employment)
- Agriculture (5% of value added and 9% of FTE employment)
- Public administration (5% of value added and 6% of FTE employment)

Top earning occupations in 2011:

- Machinery Operators & Drivers; and
- Professionals.

Unemployment:

- Unemployment rate of 3.5% (December 2012)
- Youth unemployment rate of 6.8% (2011 Census)
- Indigenous unemployment rate of 11.7% (2011 Census)

Opportunities:

- Continued development of mining and agriculture
- Value-adding to agricultural output through the Food & Beverage Manufacturing sector

ECONOMY

The GRP for Cobar Shire in 2012 was estimated at \$283.8 million.

Key sectors in 2012

- Other Mining contributed 51% to value added and 42% of FTE employment
- Agriculture contributed 5% to value added and 9% of FTE employment
- Public Administration contributed 5% to value added and 6% of FTE employment

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Public Administration, where employment increased by 1 percentage points;
- in Agriculture, where employment increased by 1 percentage point; and
- Machinery & Equipment Manufacturing, where employment increased by 1 percentage points.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Metal Ore Mining (29% of employment);
- Agriculture (9%);
- Public Administration (6%);
- Pre-school & School Education (5%); and
- Food & Beverage Services (4%).

Key Shift Share results between 2006 and 2011

Based on an analysis of industries at the subdivision level, strong local factors for employment growth were experienced in the following key sectors:

- Machinery & Equipment Manufacturing;
- Electricity Supply;
- Basic Metal Wholesaling; and
- Fabricated Metal Product Manufacturing.

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Figure 1. Key contributors - sectors

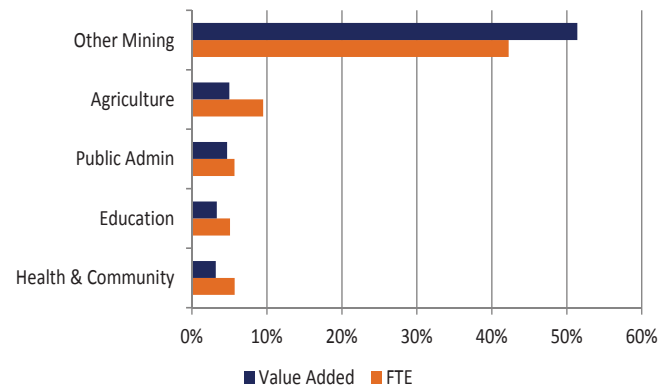


Figure 2. Changes in employment for top 5 sectors

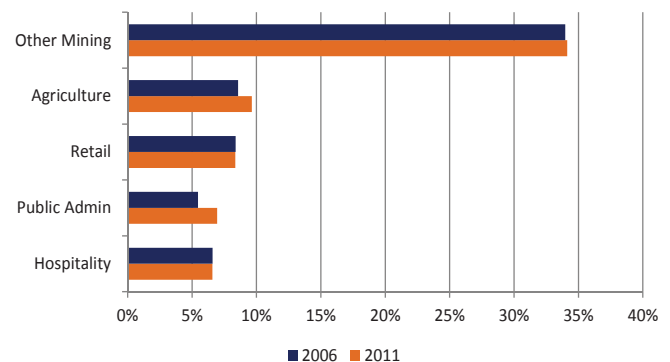


Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Machinery & Equipment Manufacturing	170%
Electricity Supply	74%
Type IV – Outperforming in low growth industry	
Agriculture	11%
Basic Metal Wholesaling	111%
Fabricated Metal Product Manufacturing	99%
Building Construction	33%
Type II – Underperforming in high growth industry	
Metal Ore Mining	4%
Machinery & Equipment Wholesaling	-49%
Food & Beverage Services	4%
Type III – Underperforming in low growth industry	
Food Retailing	-6%
Construction Services	-15%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$43,729	\$47,069	8%
Professionals	\$59,345	\$72,998	23%
Technicians & Trades Workers	\$58,331	\$70,931	22%
Community & Personal Service Workers	\$30,323	\$37,553	24%
Clerical & Administrative Workers	\$36,882	\$43,188	17%
Sales Workers	\$23,490	\$31,023	32%
Machinery Operators & Drivers	\$64,842	\$76,949	19%
Labourers	\$ 27,763	\$29,766	7%

Table 3. Employment mapping

Occupation	Cobar LGA	Nearby LGAs	Other LGAs
Machinery & Stationary Plant Operators	271	9	67
Design, Engineering, Science & Transport Professionals	62	0	22
Automotive & Engineering Trades Workers	178	0	20
Construction & Mining Labourers	24	0	15
Engineering, ICT & Science Technicians	80	0	14
Hospitality, Retail & Service Managers	64	0	12
Other Labourers	39	0	7
Mobile Plant Operators	33	0	6
Specialist Managers	58	0	5
Road & Rail Drivers	45	0	5
Electrotechnology & Telecommunications Trades Workers	66	0	3
Hospitality Workers	36	0	3
Food Trades Workers	23	0	3
Other Clerical & Administrative Workers	22	0	3
Construction Trades Workers	17	0	3

Average income by occupation

In 2011, the top earning occupations were Machinery Operators & Drivers, and Professionals. The largest increases in incomes were reported for those working as:

- Sales Workers;
- Community & Personal Service Workers; and
- Professionals.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. As at the 2011 Census, the most common occupations in Cobar Shire sourced from LGAs not adjacent to Cobar Shire were:

- Machinery & Stationary Plant Operators;
- Design, Engineering, Science & Transport Professionals; and
- Automotive & Engineering Trade Workers.

Results for the top 15 occupations that were in part sourced from outside Cobar LGA are shown in Table 3.

Count of businesses

ABS Count of Australian Businesses data, including Entries and Exits between June 2008 and June 2011 is available at Statistical Area Level 2: Cobar. Between 2008 and 2011, the most significant growth in businesses occurred for:

- Administrative & Support Services (250%, to 21 businesses);
- Other Services (122%, to 20 businesses); and
- Health Care & Social Assistance (100%, to 12 businesses).

The most significant decline in businesses occurred for:

- Electricity, Gas, Water & Waste Services (100%, to 0 businesses);
- Wholesale Trade (68%, to 6 businesses); and
- Mining (67%, to 9 businesses).

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWLR for Dec Qtr 2012 reported:

- A labour force of 2,850 persons
- An unemployment rate of 3.5%

The unemployment trend since December 2006 is shown in Figure 3 opposite. The unemployment rate in Cobar Shire has been considerably lower in comparison to the overall Orana region and the Rest of NSW over this period, with the rate further decreasing in recent months.

At the 2011 census, Cobar reported:

- A Youth labour force of 395 persons, with the youth unemployment rate at 6.8%, considerably lower than that for Orana overall (12.4%)
- An Indigenous Labour force of 213 persons, with the Indigenous unemployment rate at 11.7%, lower than that for Orana overall (19.9%).

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of Cobar Shire was most commonly:

- Year 10 or equivalent (27%)
- Year 12 or equivalent (21%)

(31% not stated or not applicable)

The level of completion at Year 12 level or equivalent is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (16%)
- Bachelor Degree (5%)

The level of completion of Certificate III and IV is higher than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Figure 3. Recent unemployment trend

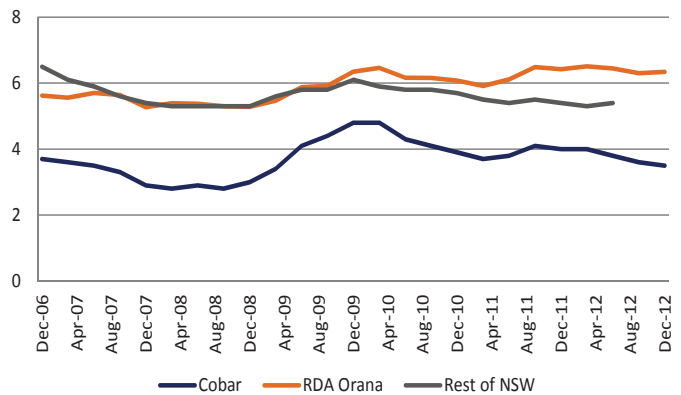


Figure 4. Highest year of school completed

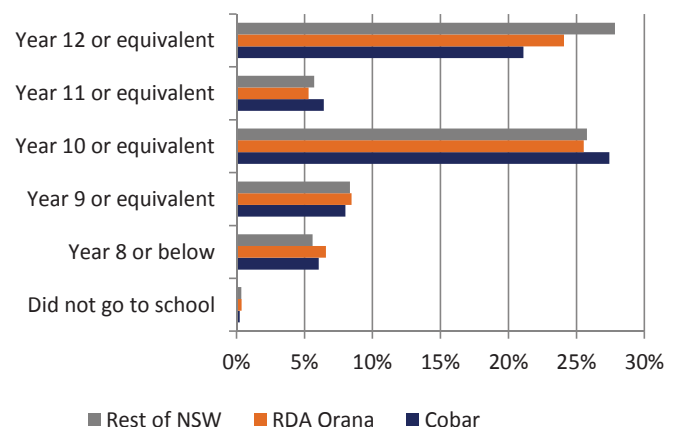


Figure 5. Post school qualifications

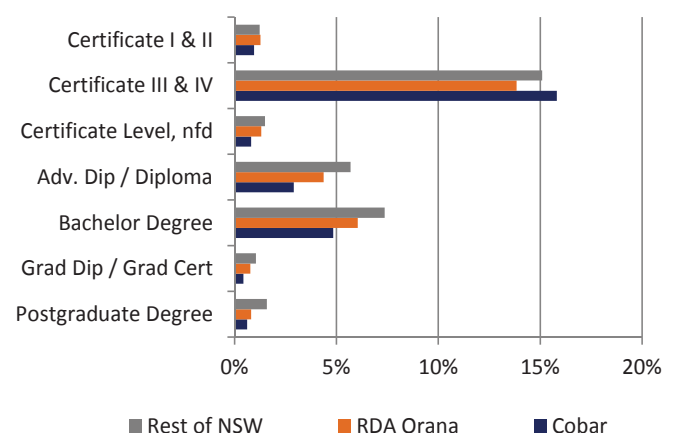
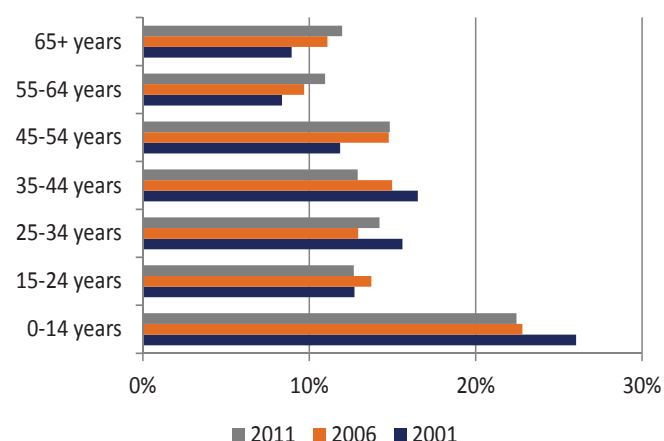


Table 4. Current study patterns (Census 2011)

	Cobar LGA	RDA Orana	Rest of NSW
Attending University			
15-24 years	4.2%	5.2%	12.5%
25 years and over	1.1%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	9.5%	8.7%	9.0%
25 years and over	2.1%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure**Table 5. Age dependency ratios (Census 2011)**

	Cobar LGA	RDA Orana	Rest of NSW
Child	0.34	0.35	0.31
Aged	0.18	0.27	0.29
Total	0.52	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Postgraduate Degree qualifications increased by 45% (to 29 people);
- Graduate Diploma and Graduate Certificate qualifications increased by 18% (to 20 people);
- Advanced Diploma and Diploma qualifications increased by 18% (to 137 people);
- Certificate III and IV qualifications increased by 10% (to 745 people).

Current study patterns

- Attendance rates at university and other tertiary institutions for those aged 25 years and over were similar for Cobar Shire in comparison to the overall Orana region.
- Results for other tertiary attendance for those aged 15-24 years is higher for Cobar compared to the Orana region and the Rest of NSW.

AGE AND POPULATION

The population as at 2011 Census was 4,710.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 22% of the population (compared to 22% for the Orana region as a whole).
- The next largest age group was those aged 45-54 years (15% of the population compared to 14% for Orana as a whole).
- Between 2001 and 2011 there was a considerable drop in the number of people aged 35-44 years in Cobar Shire (from 17% to 13%). This age group comprised 13% of the Orana region as a whole in 2011.

Age dependency

- The Child Dependency ratio is similar to that of the overall Orana region. However, the Aged Dependency and thus the Total Dependency ratios are much lower for Cobar compared to the other regions.

Indigenous population

In 2011, Aboriginal and Torres Strait Islander people made up 12.9% of the population compared to 10.5% of the population in 2006. This is lower than that of the Orana region (14.3% in 2011).

Population projections

- The population of Cobar is projected to fall by 18.4% between 2011 and 2036, while its working age population is projected to fall by 25% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 66% to 61%.

HOUSEHOLD DATA

Personal income

- As at the 2011 Census, the median personal income in Cobar Shire was higher than that for the Rest of NSW and slightly higher than that reported for New South Wales as a whole.
- Between 2006 and 2011, median personal income grew by 28%.

Household income

- As at the 2011 Census, the median household income in Bourke Shire was higher than that for the Rest of NSW and New South Wales as a whole.
- Between 2006 and 2011, median household income grew by 19%.

Figure 7. Population projections

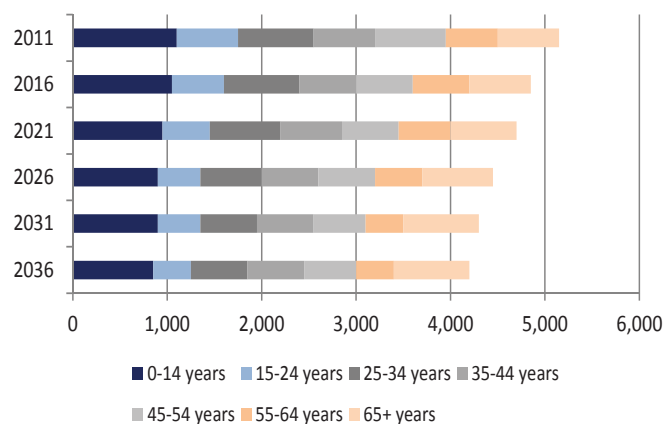


Figure 8. Personal income

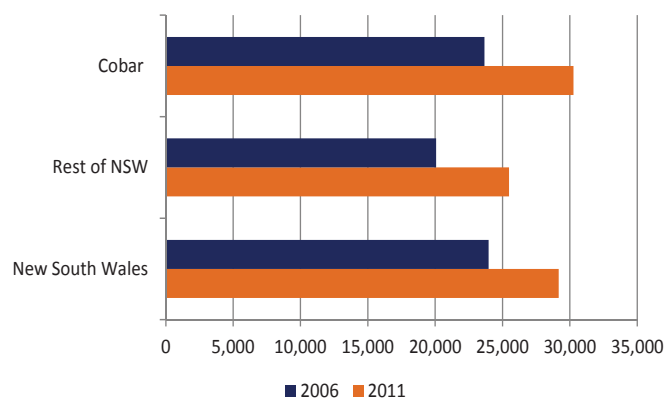
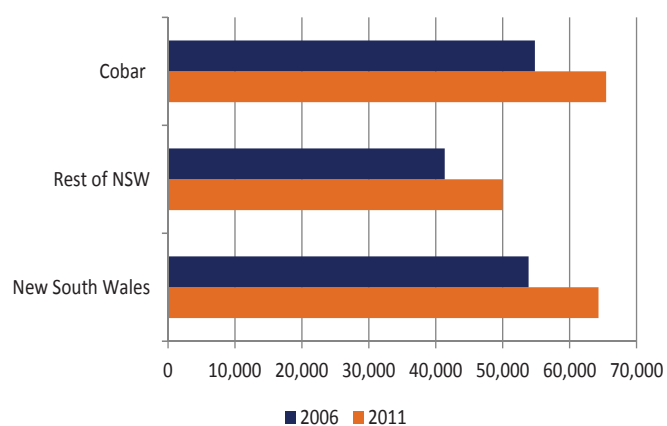


Figure 9. Household income



HOUSING

Housing affordability

The affordability of housing was examined using a ratio of median house prices to average taxable income and median weekly rental as a percentage of average weekly taxable income.

- Figure 10 opposite highlights that in 2011, on average, the Cobar rental market was considerably more affordable compared to the Rest of NSW and NSW.
- The affordability of home ownership has deteriorated in Cobar since 2006. Housing affordability in the sales market is around two times better than in the Rest of NSW and NSW.

Home ownership vs. rental

- Ownership status in the Cobar Shire, Orana region and NSW as a whole appears quite stable, though the proportion of owner-occupied homes is slightly lower in Cobar at 54%.
- The proportion of dwellings owner-occupied in Cobar Shire has increased from 52% in 2006 to 54% in 2011.
- The proportion of dwellings rented in Cobar has increased from 36% in 2006 to 37% in 2011; whilst the proportion of other tenure types has decreased from 12% to 9% over the same period.

Figure 10. Median weekly rental as percentage of median household weekly taxable income

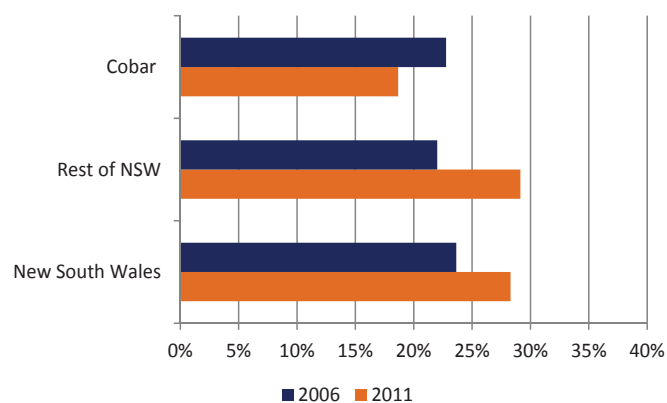


Figure 11. Ratio of median house price to median household taxable income

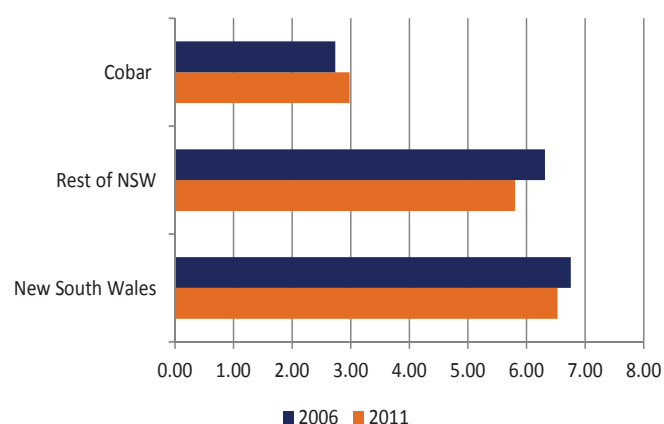


Figure 12. Home ownership vs. rental



VALUE OF CONSTRUCTION

Table 6 shows that:

- Residential construction decreased between 2010 and 2012, whilst non-residential construction fluctuated in value.
- Total construction grew by 69% between 2011 and 2012.

Table 6. Value of construction

	Residential \$000	Non-residential \$000	Total
2010	2,090	5,045	7,135
2011	1,368	0	1,368
2012	1,825	488	2,313
% change 2010-2011	-35%	-100%	-81%
% change 2011-2012	33%	-	69%
% change 2010-2012	-13%	-90%	-68%

CRIME STATISTICS

Crime rates are normally reported in terms of rate per 100,000 head of population. The top reported offences in the Cobar Shire in 2012 were:

The top reported offences in Brewarrina Shire in 2012 were:

- Malicious damage to property;
- Assault – non domestic violence related;
- Trespass.

Seven of the ten most regularly reported offence categories in Cobar Shire recorded a higher rate of incidence than in Orana overall, whilst all ten categories recorded a higher rate of incidence than in NSW overall.

The rate of crime incidences per 100,000 along with the percentage change in these offences between 2008 and 2012 are shown in table 7 below.

Table 7. Top 10 offence categories

	Cobar LGA			RDA Orana			NSW		
	2008	2012	% Change	2008	2012	% Change	2008	2012	% Change
Malicious damage to property	2,314	3,401	47%	2,830	2,289	-19%	1,560	1,129	-28%
Assault - non-domestic violence related	1,031	1,535	49%	1,101	995	-10%	610	482	-21%
Trespass	1,381	1,088	-21%	557	550	-1%	132	123	-7%
Break and enter non-dwelling	622	952	53%	585	485	-17%	327	222	-32%
Liquor offences	3,597	797	-78%	840	393	-53%	258	197	-24%
Steal from dwelling	389	777	100%	558	556	0%	305	299	-2%
Harassment, threatening behaviour and private nuisance	467	680	46%	771	891	16%	376	410	9%
Other theft	719	680	-5%	678	546	-20%	537	476	-11%
Break and enter dwelling	544	661	21%	875	1,151	32%	632	554	-12%
Assault - domestic violence related	719	603	-16%	872	966	11%	365	375	3%

COONAMBLE SHIRE

KEY FACTS:

Population

Population as at the 2011 Census was 4,030 (3% of the Orana region's population).

Gross Regional Product as at 2012

Coonamble Shire contributed an estimated \$140.99 million to the Orana region GRP (3%).

Key sectors in 2012:

- Agriculture (21% of value added and 35% of FTE employment)
- Education (11% of value added and 13% of FTE employment)
- Health & Community (10% of value added and 13% of FTE employment)

Top earning occupations in 2011:

- Professionals; and
- Managers.

Unemployment:

- Unemployment rate of 8.2% (December 2012)
- Youth unemployment rate of 18.9% (2011 Census)
- Indigenous unemployment rate of 24.5% (2011 Census)

Opportunities:

- Continued development of agriculture
- Value-adding to agricultural output through the Food & Beverage Manufacturing sector
- Value-adding to tourism through the Hospitality sector

ECONOMY

The GRP for Coonamble Shire in 2012 was estimated at \$140.99 million.

Key sectors in 2012

- Agriculture contributed 21% to value added and 35% of FTE employment
- Education contributed 11% to value added and 13% of FTE employment
- Health and Community contributed 10% to value added and 13% of FTE employment

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Agriculture, where employment fell by 2 percentage points;
- in Health & Community, where employment increased by 2 percentage points; and
- Education, where employment increased by 1 percentage points.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Agriculture (30% of employment);
- Pre-school & School Education (11%);
- Public Administration (6%);
- Food Retailing (4%); and
- Social Assistance Services (4%).

Key Shift Share results between 2006 and 2011

Based on an analysis of industries at the subdivision level, strong local factors for employment growth were experienced in the following key sectors:

- Electricity Supply;
- Warehousing & Storage Services;
- Textile, Leather, Clothing & Footwear Manufacturing.

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Figure 1. Key contributors - sectors

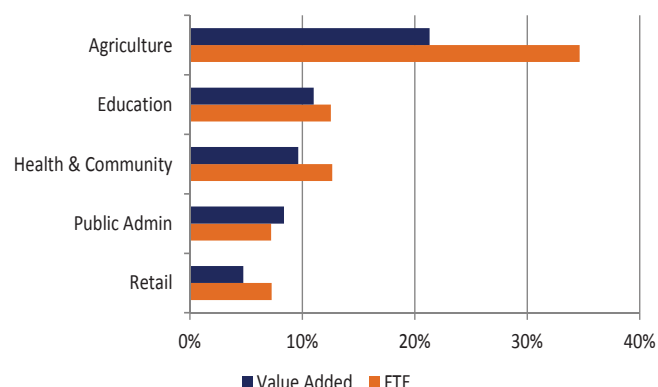


Figure 2. Changes in employment for top 5 sectors

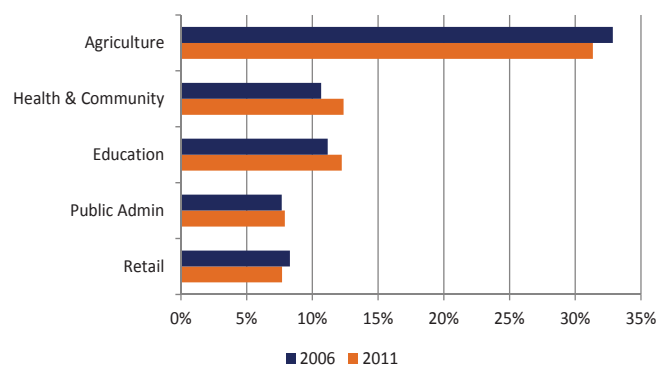


Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Electricity Supply	44%
Medical & Other Health Care Services	29%
Warehousing & Storage Services	49%
Type IV – Outperforming in low growth industry	
Building Construction	46%
Textile, Leather, Clothing & Footwear Manufacturing	99%
Type II – Underperforming in high growth industry	
Food & Beverage Services	-37%
Road Transport	-31%
Medical & Other Health Care Services	12%
Type III – Underperforming in low growth industry	
Agriculture	-24%
Construction	14%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$38,179	\$46,380	21%
Professionals	\$49,965	\$62,122	24%
Technicians & Trades Workers	\$32,203	\$38,751	20%
Community & Personal Service Workers	\$32,715	\$36,874	13%
Clerical & Administrative Workers	\$27,815	\$39,750	43%
Sales Workers	\$29,061	\$35,313	22%
Machinery Operators & Drivers	\$31,045	\$46,170	49%
Labourers	\$23,761	\$33,669	42%

Table 3. Employment mapping

Occupation	Coonamble LGA	Nearby LGAs	Other LGAs
Farmers & Farm Managers	320	32	0
Hospitality, Retail & Service Managers	60	0	4
Education Professionals	73	7	3
Health Professionals	42	16	0
Legal, Social & Welfare Professionals	15	0	3
Construction Trades Workers	21	3	0
Food Trade Workers	18	0	3
Carers & Aides	86	7	0
Cleaners & Laundry Workers	22	7	0
Construction & Mining Labourers	15	0	7
Farm, Forestry & Garden Workers	80	8	0

Average income by occupation

In 2011, the top earning occupations were Professionals and Managers. The largest increases in incomes were reported for those working as:

- Machinery Operators & Drivers;
- Clerical & Administrative Services; and
- Labourers.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. As at the 2011 Census, the most common occupations in Coonamble Shire sourced from LGAs not adjacent to Coonamble Shire were:

- Construction & Mining Labourers;
- Education Professionals;
- Legal, Social & Welfare Professionals; and
- Food Trade Workers.

Results for all occupations that were in part sourced from outside Coonamble LGA are shown in Table 3.

Count of businesses

ABS Count of Australian Businesses data, including Entries and Exits between June 2008 and June 2011 is available at Statistical Area Level 2: Coonamble. Between 2008 and 2011, the most significant growth in businesses occurred for:

- Wholesale Trade (200%, to 18 businesses);
- Art & Recreation Services (100%, to 6 businesses); and
- Professional, Scientific & Technical Services (67%, to 20 businesses).

The most significant decline in businesses occurred for:

- Education & Training (100%, to 0 businesses);
- Administrative & Support Services (50%, to 3 businesses); and
- Manufacturing (40%, to 9 businesses).

Businesses in Agriculture, Forestry & Fishing declined by 11% (to 389 businesses).

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWR for Dec Qtr 2012 reported:

- A labour force of 2,262 persons
- An unemployment rate of 8.2%

The unemployment trend since December 2006 is shown in Figure 3 opposite. Since early 2010 the unemployment rate in Coonamble has exceeded that of the overall Orana region and Rest of NSW. An upward trend of 2.5% per quarter has been experienced since December 2006 (the highest growth rate amongst all LGAs).

At the 2011 census, Coonamble reported

- A Youth labour force of 244 persons, with the youth unemployment rate of 18.9%, higher than that for Orana overall (12.4%)
- An Indigenous Labour force of 355 persons, with the Indigenous unemployment rate at 24.5%, higher than that for Orana overall (19.9%).

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of Coonamble Shire was most commonly:

- Year 10 or equivalent (25%)
- Year 12 or equivalent (21%)

(30% not stated or not applicable)

The level of completion at Year 12 level or equivalent is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (10%)
- Bachelor Degree (4%)

The level of completion of Certificate III and IV is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Figure 3. Recent unemployment trend

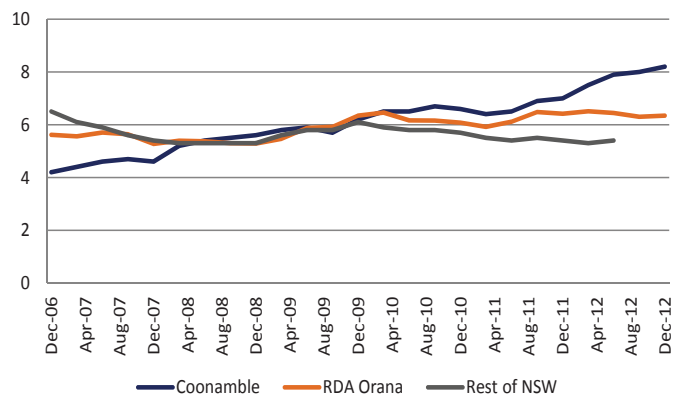


Figure 4. Highest year of school completed

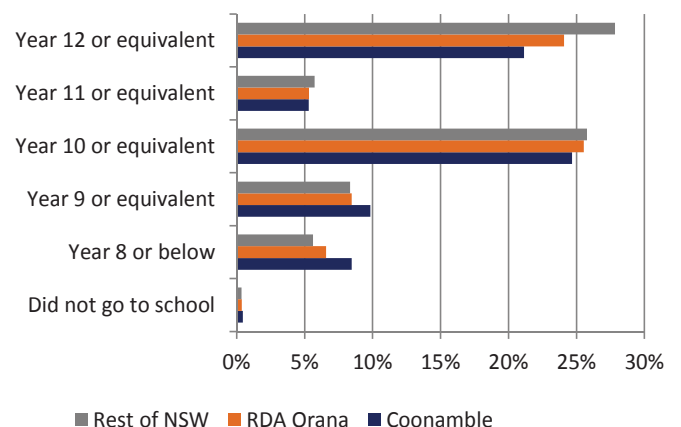


Figure 5. Post school qualifications

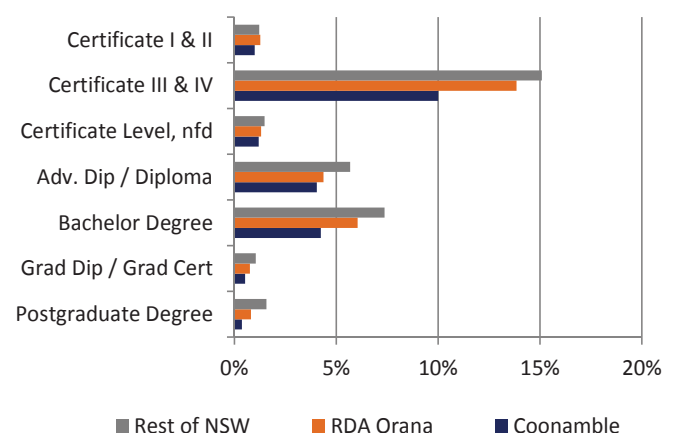
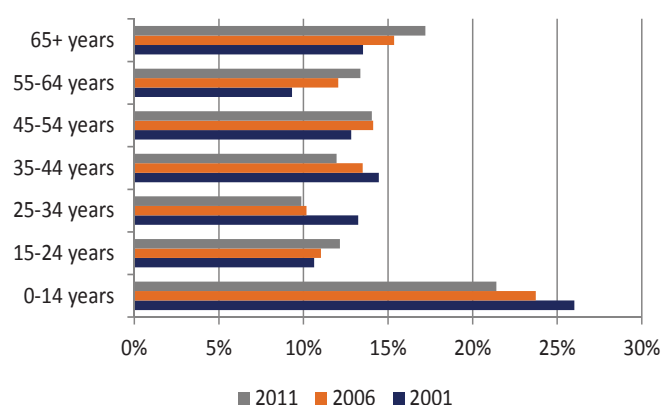


Table 4. Current study patterns (Census 2011)

	Coonamble LGA	RDA Orana	Rest of NSW
Attending University			
15-24 years	4.1%	5.2%	12.5%
25 years and over	0.4%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	7.2%	8.7%	9.0%
25 years and over	1.8%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure**Table 5. Age dependency ratios (Census 2011)**

	Coonamble LGA	RDA Orana	Rest of NSW
Child	0.35	0.35	0.31
Aged	0.28	0.27	0.29
Total	0.63	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Certificate III and IV qualifications increased by 12% (to 403 people);
- Advanced Diploma and Diploma qualifications increased by 10% (to 163 people);
- Graduate Diploma and Graduate Certificates contracted by 16% (to 21 people);
- Certificate I and II qualifications contracted by 18% (to 40 people).

Current study patterns

- Overall attendance rates for Coonamble Shire were lower in comparison to the overall Orana region and the Rest of NSW.
- However, the attendance rate at other tertiary institutes for those aged 25 years and over was only slightly lower than in the comparison regions.

AGE AND POPULATION

The population as at 2011 Census was 4,030.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 21% of the population (compared to 22% for the Orana region as a whole).
- The next largest age group was those aged 65 years and over (17% of the population compared to 17% for Orana as a whole).
- Between 2001 and 2011 there was a considerable drop in the number of people aged 0-14 years in Coonamble Shire (from 26% to 21%). This age group comprised 22% of the Orana region as a whole in 2011.

Age dependency

- The Child Dependency and Aged Dependency ratios are similar to those for both the overall Orana region and the Rest of NSW.

Indigenous population

In 2011, Aboriginal and Torres Strait Islander people made up 29.2% of the population compared to 25.4% of the population in 2006. This is higher than that of the Orana region (14.3% in 2011).

Population projections

- The population of Coonamble is projected to fall by 24.1% between 2011 and 2036, while its working age population is projected to fall by 32.1% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 64% to 57%.

HOUSEHOLD DATA

Personal income

- As at the 2011 Census, the median personal income in Coonamble Shire was less than that for the Rest of NSW region and New South Wales.
- Between 2006 and 2011, median personal income grew by 21%.

Household income

- As at the 2011 Census, the median household income in Coonamble Shire was less than that for the Rest of NSW and New South Wales region as a whole.
- Between 2006 and 2011, median household income grew by 21%.

Figure 7. Population projections

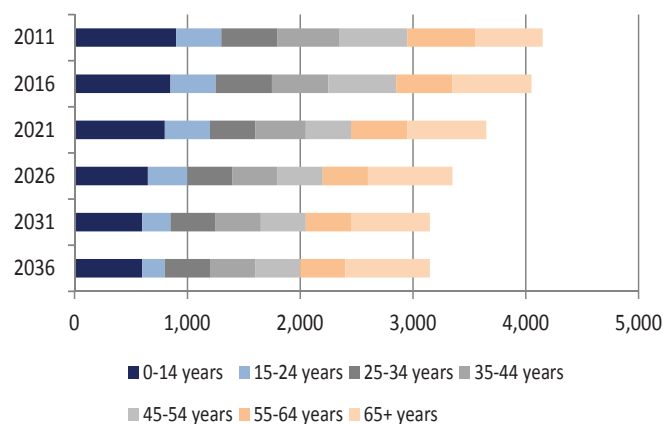


Figure 8. Personal income

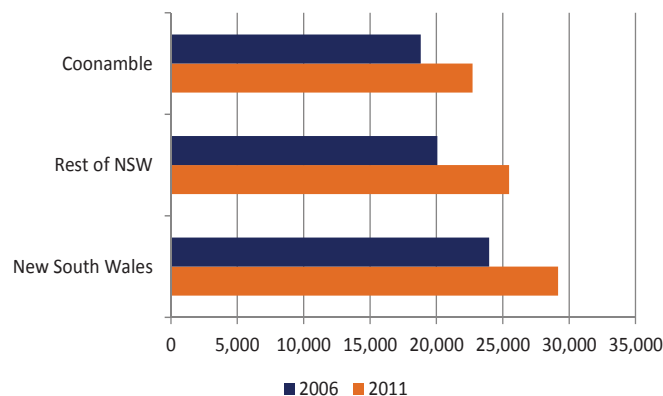
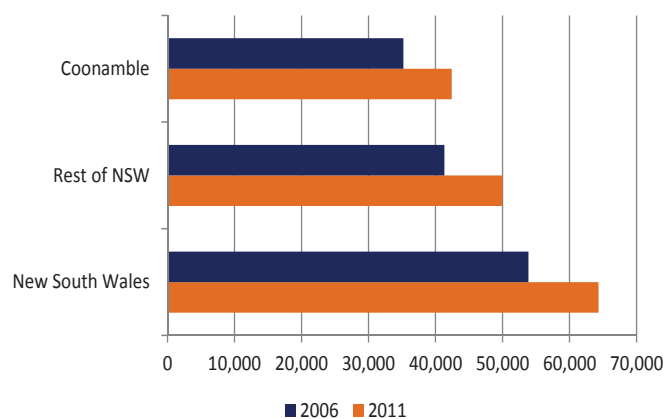


Figure 9. Household income



HOUSING

Housing affordability

The affordability of housing was examined using a ratio of median house prices to average taxable income and median weekly rental as a percentage of average weekly taxable income. Data was not available for Coonamble Shire; therefore the larger region of Macquarie-Barwon was used.

- Figure 10 opposite highlights that in 2011, on average, the Macquarie-Barwon region rental market is considerably more affordable compared to the Rest of NSW and NSW.
- The affordability of home ownership in the Macquarie-Barwon region (with respect to household income in Coonamble Shire) has remained stable since 2006. Housing affordability in the sales market is around three times better than in the Rest of NSW and NSW.

Home ownership vs. rental

- There have been minor shifts in ownership status in Coonamble Shire compared with relative stability across Orana and NSW as a whole.
- The proportion of dwellings owner-occupied in Coonamble Shire has decreased from 64% in 2006 to 61% in 2011.
- The proportion of dwellings rented in Coonamble has remained similar (30% in 2011); whilst the proportion of other tenure types has increased from 6% to 9% over the same period.

Figure 10. Median weekly rental as percentage of median household weekly taxable income

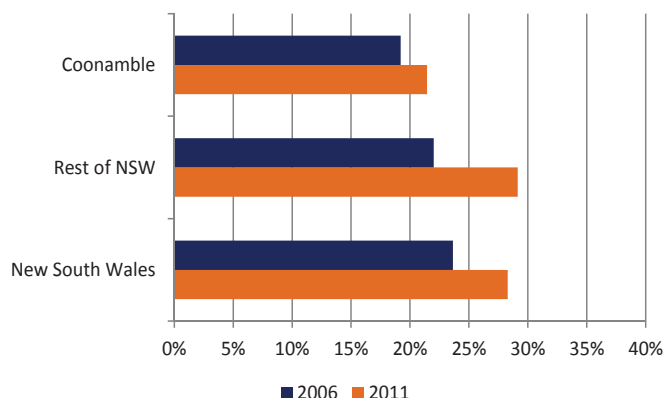


Figure 11. Ratio of median house price to median household taxable income

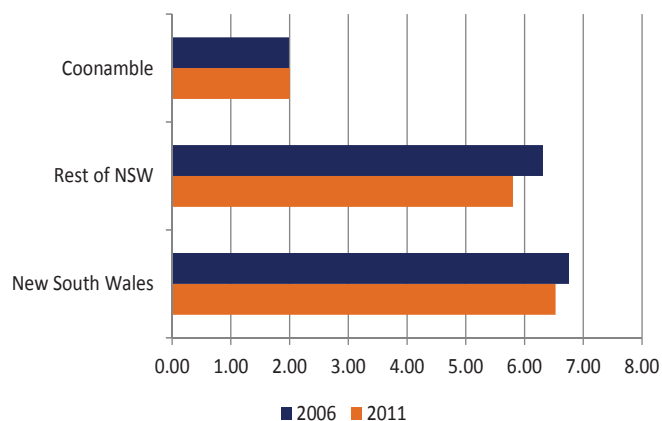


Figure 12. Home ownership vs. rental



VALUE OF CONSTRUCTION

Table 6 shows that:

- Residential and non-residential construction fluctuated in value between 2010 and 2012.
- Non-residential construction grew by 22% between 2011 and 2012, whilst residential construction contracted by 88%.

Table 6. Value of construction

	Residential \$000	Non-residential \$000	Total
2010	361	5,245	5,607
2011	1,463	2,465	3,928
2012	174	3,016	3,190
% change 2010-2011	305%	-53%	-30%
% change 2011-2012	-88%	22%	-19%
% change 2010-2012	-52%	-43%	-43%

CRIME STATISTICS

Crime rates are normally reported in terms of rate per 100,000 head of population. The top reported offences in Coonamble Shire in 2012 were:

- Malicious damage to property;
- Break and enter dwelling;
- Breach bail conditions.

Nine of the ten most regularly occurring offence categories in Coonamble Shire recorded a higher rate of incidence than in Orana overall, whilst all ten categories recorded a higher rate of incidence than in NSW overall.

The rate of crime incidences per 100,000 along with the percentage change in these offences between 2008 and 2012 are shown in table 7 below.

Table 7. Top 10 offence categories

	Coonamble LGA			RDA Orana			NSW		
	2008	2012	% Change	2008	2012	% Change	2008	2012	% Change
Malicious damage to property	4366	3053	-30%	2830	2289	-19%	1560	1129	-28%
Break and enter dwelling	1997	1771	-11%	875	1151	32%	632	554	-12%
Breach bail conditions	1254	1491	19%	652	1081	66%	338	417	24%
Assault - domestic violence related	743	1258	69%	872	966	11%	365	375	3%
Assault - non-domestic violence related	1719	1142	-34%	1101	995	-10%	610	482	-21%
Trespass	952	1025	8%	557	550	-1%	132	123	-7%
Steal from motor vehicle	1301	979	-25%	787	1003	27%	825	645	-22%
Steal from dwelling	372	792	113%	558	556	0%	305	299	-2%
Other offences	604	746	24%	545	397	-27%	225	211	-6%
Break and enter non-dwelling	1254	699	-44%	585	485	-17%	327	222	-32%

DUBBO CITY

KEY FACTS:

Population

Population as at the 2011 Census was 38,805 (34% of the Orana region's population).

Gross Regional Product as at 2012

Dubbo City contributed an estimated \$1.9 billion to the Orana region GRP (40%).

Key sectors in 2012:

- Health & Community (11% of value added and 17% of FTE employment)
- Finance & Insurance (10% of value added and 3% of FTE employment)
- Education (7% of value added and 10% of FTE employment)

Top earning occupations in 2011:

- Professionals; and
- Managers.

Unemployment:

- Unemployment rate of 4.7% (December 2012)
- Youth unemployment rate of 10.9% (2011 Census)
- Indigenous unemployment rate of 18.6% (2011 Census)

Opportunities:

- Continued development of Food & Beverage Manufacturing
- Integration of the Food & Beverage Manufacturing and Transport & Storage sectors
- Value-adding to tourism through the Hospitality and Arts & Recreation sectors
- Mining developments

ECONOMY

The GRP for Dubbo City in 2012 was estimated at \$1.9 billion.

Key sectors in 2012

- Health & Community contributed 11% to value added and 17% of FTE employment
- Finance & Insurance contributed 10% to value added and 3% of FTE employment
- Education contributed 7% to value added and 10% of FTE employment.

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Health & Community, where employment increased by 2 percentage points;
- in Retail, where employment contracted by 1 percentage points; and
- Wholesale, where employment contracted by 1 percentage points.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Other Store Based Retailing (7% of employment);
- Pre-school & School Education (7%);
- Public Administration (6%);
- Food & Beverage Services (6%); and
- Hospitals (5%).

Key Shift Share results between 2006 and 2011

Based on an analysis of industries at the subdivision level, strong local factors for employment growth were experienced in the following key sectors:

- Mining, nfd;
- Fabricated Metal Product Manufacturing; and
- Electricity Supply.

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Figure 1. Key contributors - sectors

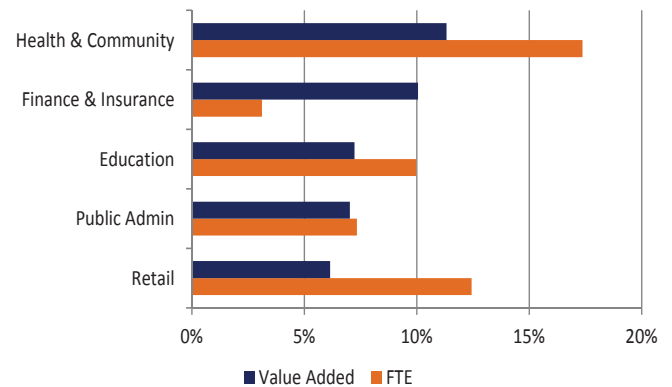


Figure 2. Changes in employment for top 5 sectors

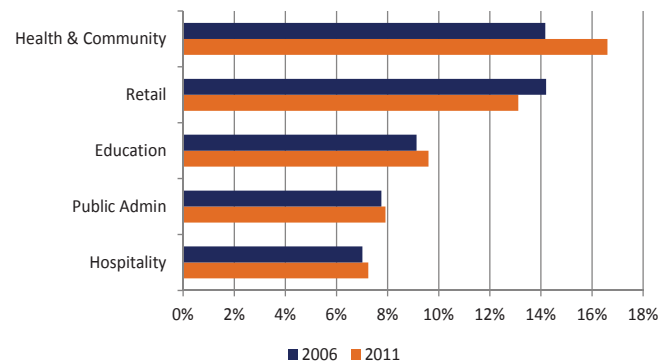


Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Exploration & Other Mining Support Services	460%
Electricity Supply	26%
Mining, nfd	265%
Type IV – Outperforming in low growth industry	
Fabricated Metal Product Manufacturing	66%
Water Supply, Sewerage & Drainage Services	39%
Wood Product Manufacturing	25%
Beverage & Tobacco Product Manufacturing	49%
Type II – Underperforming in high growth industry	
Food & Beverage Services	8%
Road Transport	4%
Medical & Other Health Services	10%
Type III – Underperforming in low growth industry	
Agriculture	-28%
Food Product Manufacturing	-7%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$49,818	\$60,456	21%
Professionals	\$55,277	\$65,861	19%
Technicians & Trades Workers	\$36,736	\$44,984	22%
Community & Personal Service Workers	\$33,833	\$40,108	19%
Clerical & Administrative Workers	\$36,740	\$45,170	23%
Sales Workers	\$27,216	\$31,685	16%
Machinery Operators & Drivers	\$39,485	\$45,703	16%
Labourers	\$26,819	\$31,270	17%

Table 3. Employment mapping

Occupation	Dubbo LGA	Nearby LGAs	Other LGAs
Health Professionals	808	91	73
Education Professionals	911	86	27
Health & Welfare Support Workers	290	30	23
Storepersons	111	6	21
Mobile Plant Operators	101	24	16
Sales Assistants & Salespersons	1240	84	15
Automotive & Engineering Trades Workers	545	50	15
Road & Rail Drivers	425	63	15
Factory Process Workers	352	53	15
Hospitality, Retail & Service Managers	802	36	14
Construction & Mining Labourers	145	18	14
Legal, Social & Welfare Professionals	272	44	10
Other Clerical & Administrative Workers	266	30	10
Chief Executives, General Managers & Legislators	108	0	9
Specialist Managers	679	76	8

Average income by occupation

In 2011, the top earning occupations were Professionals & Managers. The largest increases in incomes were reported for those working as:

- Clerical & Administrative Services;
- Technicians & Trade Workers; and
- Managers.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. As at the 2011 Census, the most common occupations in Dubbo City sourced from LGAs not adjacent to Dubbo City were:

- Health Professionals;
- Education Professionals;
- Health & Welfare Support Workers; and
- Storepersons.

Results for the top 15 occupations that were in part sourced from outside Dubbo LGA are shown in Table 3.

Count of businesses

ABS Count of Australian Businesses data, including Entries and Exits between June 2008 and June 2011 is available at Statistical Area Level 2: Dubbo. Between 2008 and 2011, the most significant growth in businesses occurred for:

- Public Administration & Safety (133%, to 21 businesses);
- Information Media & Telecommunications (50%, to 9 businesses); and
- Electricity, Gas, Water & Waste Services (33%, to 12 businesses).

The most significant decline in businesses occurred for:

- Arts & Recreation Services (39%, to 31 businesses);
- Accommodation & Food Services (9%, to 156 businesses); and
- Manufacturing (9%, to 18 businesses).

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWLR for Dec Qtr 2012 reported:

- A labour force of 21,649 persons
- An unemployment rate of 4.7%

The unemployment trend since December 2006 is shown in Figure 3 opposite. The unemployment rate in Dubbo is lower than that for the overall Orana region and the Rest of NSW over this period. In recent months the rate has decreased slightly.

At the 2011 census, Dubbo reported:

- A youth labour force of 3,527 persons, with the youth unemployment rate of 10.9%, lower than that for Orana overall (12.4%).
- An Indigenous Labour force of 1,623 persons, with unemployment rate of 18.6%, slightly lower than that for Orana overall (19.9%).

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of Dubbo City was most commonly:

- Year 12 or equivalent (27%)
- Year 10 or equivalent (26%)

(29% not stated or not applicable)

The level of completion at Year 12 level or equivalent is higher than that reported for the RDA Orana region as a whole. However, it is lower than for non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (15%)
- Bachelor Degree (7%)

The level of completion of Certificate III or IV is slightly higher than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Figure 3. Recent unemployment trend

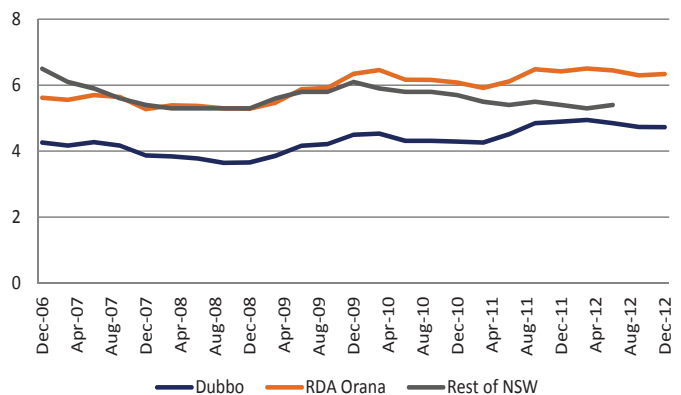


Figure 4. Highest year of school completed

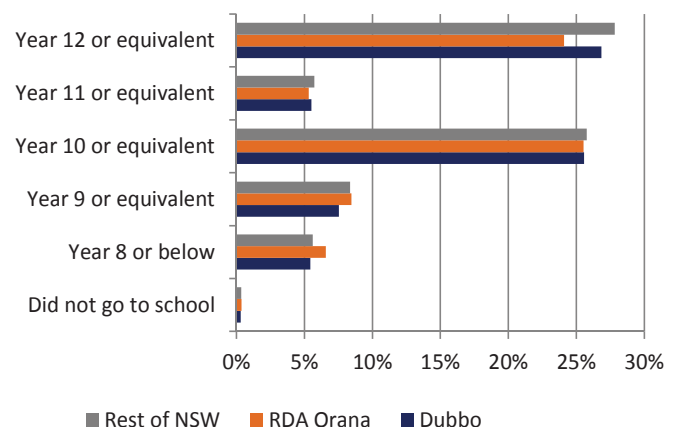


Figure 5. Post school qualifications

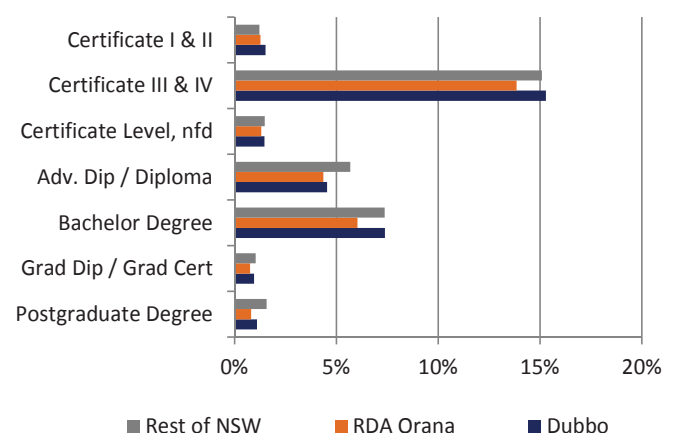


Table 4. Current study patterns (Census 2011)

	Dubbo City LGA	RDA Orana	Rest of NSW
Attending University			
15-24 years	5.9%	5.2%	12.5%
25 years and over	1.9%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	10.2%	8.7%	9.0%
25 years and over	2.6%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure

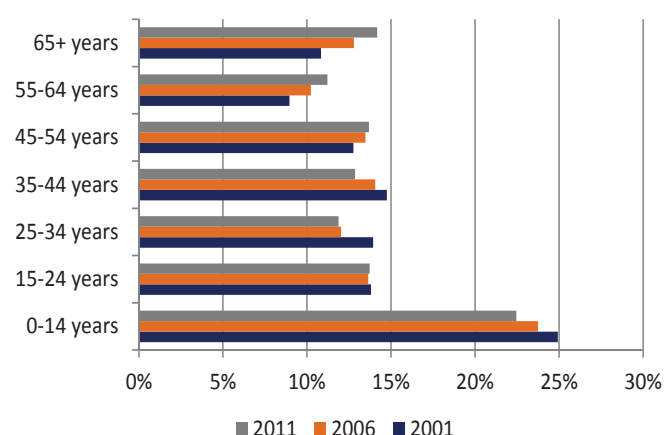


Table 5. Age dependency ratios (Census 2011)

	Dubbo City LGA	RDA Orana	Rest of NSW
Child	0.35	0.35	0.31
Aged	0.22	0.27	0.29
Total	0.58	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Postgraduate Degree qualifications increased by 42% (to 428 people);
- Bachelor Degree qualifications increased by 27% (to 2,864 people);
- Certificate III and IV qualifications increased by 24% (to 5,931 people);
- Advanced Diploma and Diploma qualifications increased by 21% (to 1,764 people).

Current study patterns

- Attendance rates for Dubbo City were higher in comparison to the overall Orana region for all four categories.
- Attendance rates at other tertiary institutes for Dubbo City were also higher in comparison to those for the Rest of NSW.

AGE AND POPULATION

The population as at 2011 Census was 38,805.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 22% of the population (compared to 22% for the Orana region as a whole).
- The next largest age group was those aged 65 years and over (14% of the population compared to 17% for Orana as a whole).
- Between 2001 and 2011 there was a considerable increase in the number of people aged 65 years and over in Dubbo City (from 11% to 14%). This age group comprised 17% of the Orana region as a whole in 2011.

Age dependency

- The Child Dependency ratio is similar to that of the overall Orana region, but slightly higher than that for the Rest of NSW.
- In contrast, the Aged Dependency ratio is slightly lower in Dubbo than in Orana and the Rest of NSW, therefore the Total Dependency ratio is slightly lower.

Indigenous population

In 2011, Aboriginal and Torres Strait Islander people made up 12.8% of the population compared to 10.3% of the population in 2006. This is lower than that of the Orana region (14.3% in 2011).

Population projections

- The population of Dubbo is projected to rise by 11.2% between 2011 and 2036, while its working age population is projected to fall by 2.9% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 64% to 56%.

HOUSEHOLD DATA

Personal income

- As at the 2011 Census, the median personal income in Dubbo City was higher than that for the Rest of NSW region and New South Wales.
- Between 2006 and 2011, median personal income grew by 25%.

Household income

- As at the 2011 Census, the median household income in Dubbo City was greater than that for the Rest of NSW but less than that for New South Wales as a whole.
- Between 2006 and 2011, median household income grew by 13%.

Figure 7. Population projections

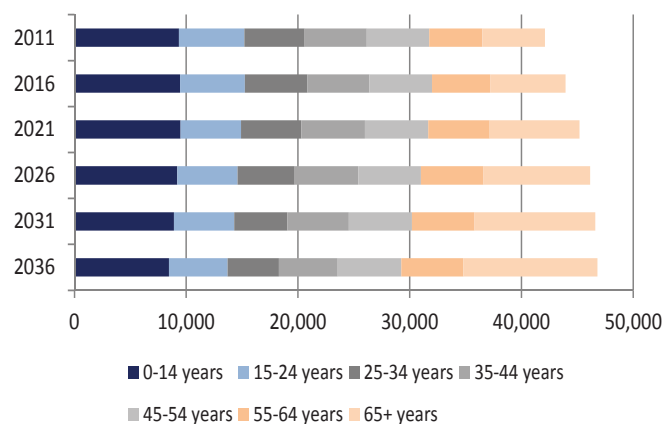


Figure 8. Personal income

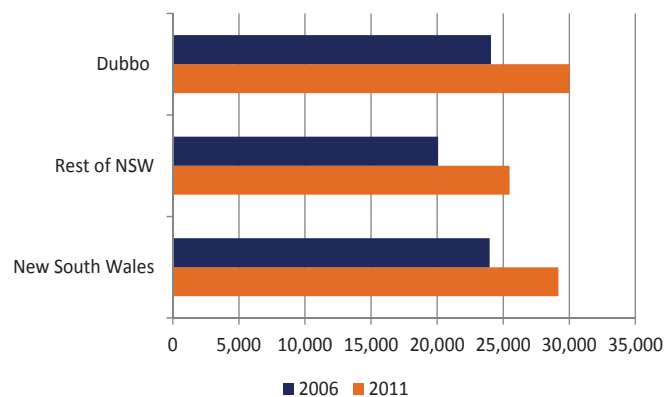
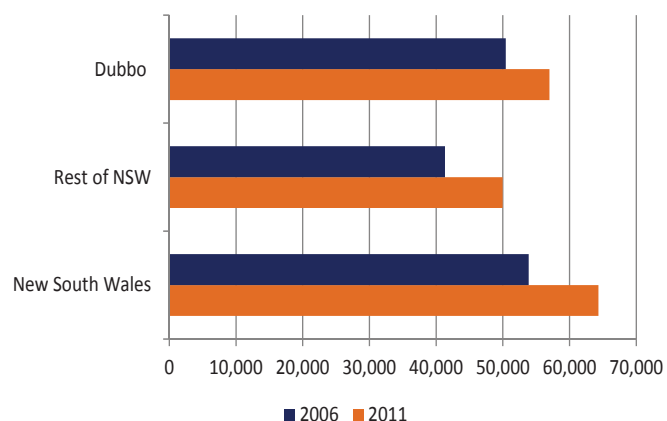


Figure 9. Household income



HOUSING

Housing affordability

The affordability of housing was examined using a ratio of median house prices to average taxable income and median weekly rental as a percentage of average weekly taxable income.

- Figure 10 opposite highlights that in 2011, on average, the Dubbo region rental market is more affordable compared to the Rest of NSW and NSW.
- The affordability of home ownership has remained stable in the Dubbo region since 2006, with affordability in Dubbo better than that reported for the Rest of NSW and NSW.

Home ownership vs. rental

- There has been relative stability across Dubbo, Orana and NSW as a whole.
- The proportion of dwellings owned in Dubbo City has remained similar (64% in 2011).
- The proportion of dwellings rented in Dubbo City has increased slightly from 28% in 2006 to 29% in 2011; whilst the proportion of other tenure types has decreased from 9% to 7% over the same period.

Figure 10. Median weekly rental as percentage of median household weekly taxable income

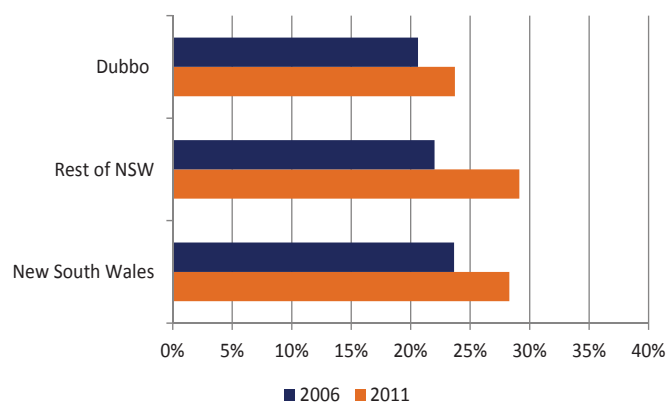


Figure 11. Ratio of median house price to median household taxable income

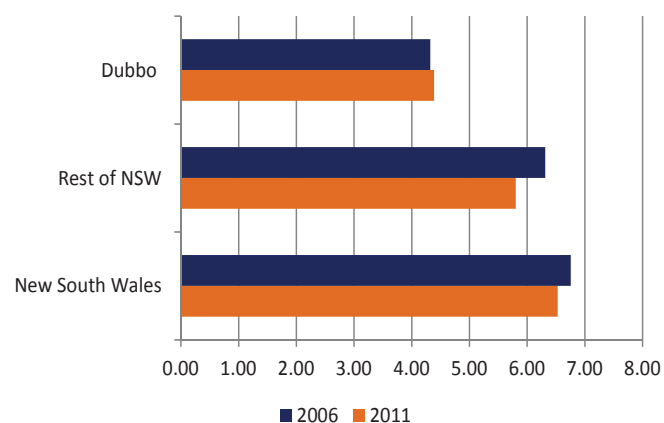
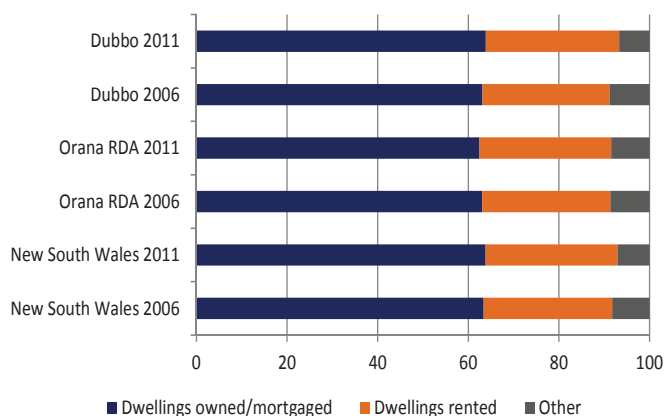


Figure 12. Home ownership vs. rental



VALUE OF CONSTRUCTION

Table 6 shows that:

- Non-residential construction boomed between 2010 and 2011, whilst residential construction boomed in 2010.
- Non-residential construction contracted by 52% between 2011 and 2012.

Table 6. Value of construction

	Residential \$000	Non-residential \$000	Total
2010	69,100	85,680	154,780
2011	48,149	42,341	90,490
2012	48,500	20,285	68,785
% change 2010-2011	-30%	-51%	-42%
% change 2011-2012	1%	-52%	-24%
% change 2010-2012	-30%	-76%	-56%

CRIME STATISTICS

Crime rates are normally reported in terms of rate per 100,000 head of population. The top reported offences in Dubbo City in 2012 were:

- Malicious damage to property;
- Steal from motor vehicle;
- Break and enter dwelling.

Four of the ten most regularly occurring offence categories in Dubbo City recorded a higher rate of incidence than in Orana overall, whilst all ten categories recorded a higher rate of incidence than in NSW overall.

The rate of crime incidences per 100,000 along with the percentage change in these offences between 2008 and 2012 are shown in table 7 below.

Table 7. Top 10 offence categories

	Dubbo City LGA			RDA Orana			NSW		
	2008	2012	% Change	2008	2012	% Change	2008	2012	% Change
Malicious damage to property	2692	2076	-23%	2830	2289	-19%	1560	1129	-28%
Steal from motor vehicle	1117	1501	34%	787	1003	27%	825	645	-22%
Break and enter dwelling	892	1325	49%	875	1151	32%	632	554	-12%
Breach bail conditions	403	1228	205%	652	1081	66%	338	417	24%
Harassment, threatening behaviour and private nuisance	753	879	17%	771	891	16%	376	410	9%
Assault - non-domestic violence related	1005	845	-16%	1101	995	-10%	610	482	-21%
Assault - domestic violence related	699	731	5%	872	966	11%	365	375	3%
Steal from retail store	467	682	46%	328	414	26%	284	300	6%
Other theft	677	537	-21%	678	546	-20%	537	476	-11%
Trespass	388	465	20%	557	550	-1%	132	123	-7%

GILGANDRA SHIRE

KEY FACTS:

Population

Population as at the 2011 Census was 4,368 (4% of the Orana region's population).

Gross Regional Product as at 2012

Gilgandra Shire contributed an estimated \$137.03 million to the Orana region GRP (3%).

Key sectors in 2012:

- Agriculture (20% of value added and 34% of FTE employment)
- Health & Community (10% of value added and 13% of FTE employment)
- Education (9% of value added and 10% of FTE employment)

Top earning occupations in 2011:

- Professionals; and
- Machinery Operators & Drivers.

Unemployment:

- Unemployment rate of 5.2% (December 2012)
- Youth unemployment rate of 15.9% (2011 Census)
- Indigenous unemployment rate of 25.0% (2011 Census)

Opportunities:

- Continued development of agriculture
- Value-adding to agricultural output through the Food & Beverage Manufacturing sector
- Value-adding to tourism through the Hospitality sector.

ECONOMY

The GRP for Gilgandra Shire in 2012 was estimated at \$137.03 million.

Key sectors in 2012

- Agriculture contributed 20% to value added and 34% of FTE employment
- Health & Community contributed 10% to value added and 13% of FTE employment
- Education contributed 9% to value added and 10% of FTE employment

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Agriculture, where employment increased by 2 percentage points;
- in Health & Community, where employment increased by 1 percentage point; and
- Retail, where employment fell by 2 percentage points.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Agriculture (29% of employment);
- Pre-school & School Education (9%);
- Public Administration (7%);
- Food Retailing (5%); and
- Food & Beverage Services (5%).

Key Shift Share results between 2006 and 2011

Based on an analysis of industries at the subdivision level, strong local factors for employment growth were experienced in the following key sectors:

- Machinery & Equipment Wholesaling; and
- Manufacturing, nfd.

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Figure 1. Key contributors - sectors

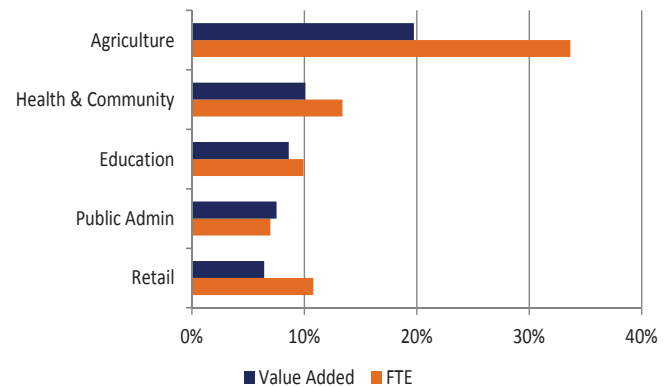


Figure 2. Changes in employment for top 5 sectors

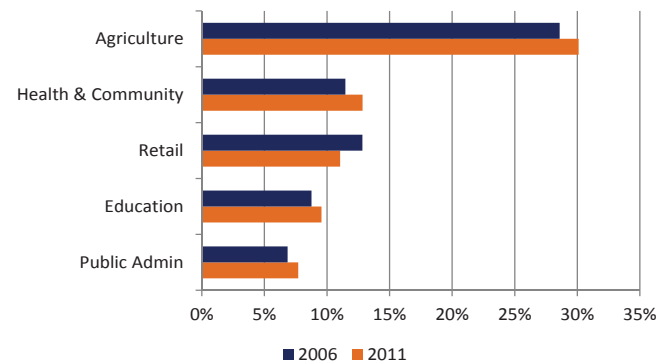


Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Administrative Services	165%
Machinery & Equipment Wholesaling	79%
Repair & Maintenance	41%
Type IV – Outperforming in low growth industry	
Manufacturing, nfd	173%
Water Supply, Sewerage & Drainage Services	99%
Agriculture, Forestry & Fishing Support Services	24%
Type II – Underperforming in high growth industry	
Food & Beverage Services	-6%
Residential Care Services	15%
Road Transport	-37%
Type III – Underperforming in low growth industry	
Construction	-21%
Accommodation	-13%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$33,657	\$39,042	16%
Professionals	\$49,586	\$56,345	14%
Technicians & Trades Workers	\$31,452	\$36,239	15%
Community & Personal Service Workers	\$29,877	\$33,620	13%
Clerical & Administrative Workers	\$32,768	\$38,894	19%
Sales Workers	\$19,511	\$27,324	40%
Machinery Operators & Drivers	\$39,183	\$46,774	19%
Labourers	\$23,362	\$27,587	18%

Table 3. Employment mapping

Occupation	Gilgandra LGA	Nearby LGAs	Other LGAs
Farmers & Farm Managers	348	15	6
Specialist Managers	26	6	0
Hospitality, Retail & Service Managers	65	4	0
Education Professionals	66	17	0
Health Professionals	54	4	0
Health & Welfare Support Workers	22	6	0
Carers & Aides	104	9	0
Sales Assistants & Salespersons	81	12	0

Average income by occupation

In 2011, the top earning occupations were Professionals and Machinery Operators and Drivers. The largest increases in incomes were reported for those working as:

- Sales Workers;
- Machinery Operators & Drivers; and
- Clerical & Administrative Workers.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. As at the 2011 Census, the only occupation in Gilgandra Shire sourced from LGAs not adjacent to Gilgandra Shire was:

- Farmers & Farm Managers.

Results for all occupations that were in part sourced from outside Gilgandra LGA are shown in Table 3.

Count of businesses

ABS Count of Australian Businesses data, including Entries and Exits between June 2008 and June 2011 is available at Statistical Area Level 2: Gilgandra. Between 2008 and 2011, the most significant growth in businesses occurred for:

- Manufacturing (333%, to 13 businesses);
- Retail Trade (117%, to 26 businesses); and
- Professional, Scientific & Technical Services (44%, to 13 businesses).

The most significant decline in businesses occurred for:

- Public Administration & Safety (100%, to 0 businesses);
- Electricity, Gas, Water & Waste Services (100%, to 0 businesses); and
- Mining (100%, to 0 businesses).

Businesses in Agriculture, Forestry & Fishing grew by 2% (to 400 businesses).

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWR for Dec Qtr 2012 reported:

- A labour force of 2,453 persons
- An unemployment rate of 5.2%

The unemployment trend since December 2006 is shown in Figure 3 opposite. The unemployment rate in Gilgandra Shire is lower than that of the overall Orana region and the Rest of NSW over this period. An upward trend of 1.3% per quarter has been experienced since December 2006.

At the 2011 census, Gilgandra reported:

- A youth labour force of 258 persons, with the youth unemployment rate at 15.9%, higher than that for Orana overall (12.4%).
- An Indigenous Labour force of 160 persons, with the Indigenous unemployment rate at 25.0% higher than that for Orana overall (19.9%).

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of Gilgandra Shire was most commonly:

- Year 12 or equivalent (21%)
- Year 10 or equivalent (28%)

(28% not stated or not applicable)

The level of completion at Year 12 level or equivalent is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (13%)
- Bachelor Degree (5%)

The level of completion of Certificate III or IV is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Figure 3. Recent unemployment trend

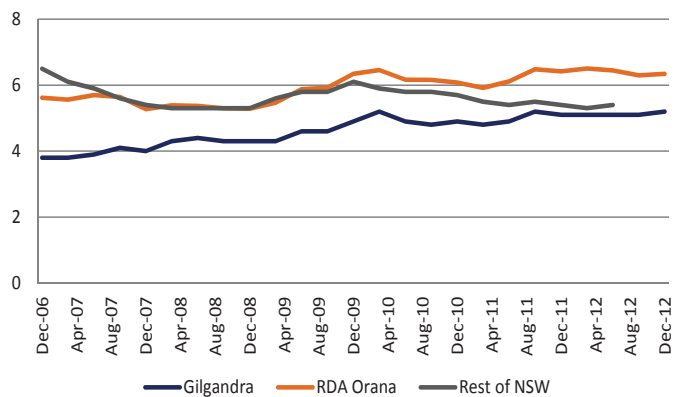


Figure 4. Highest year of school completed

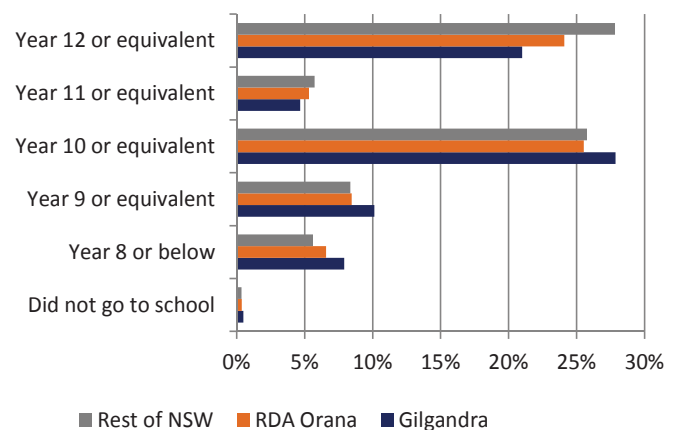


Figure 5. Post school qualifications

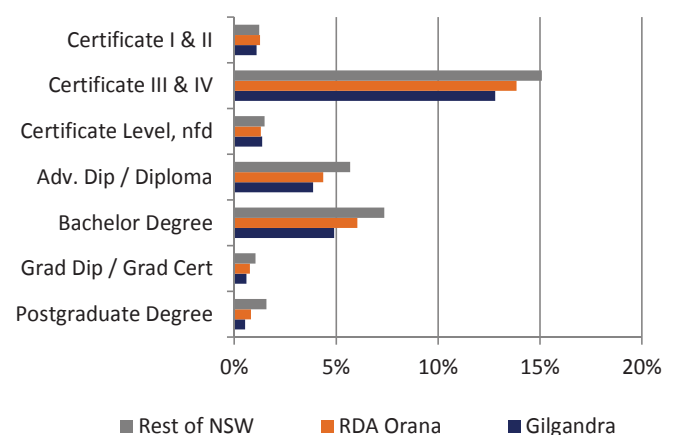


Table 4. Current study patterns (Census 2011)

	Gilgandra LGA	RDA Orana	Rest of NSW
Attending University			
15-24 years	6.9%	5.2%	12.5%
25 years and over	1.1%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	6.9%	8.7%	9.0%
25 years and over	2.2%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure

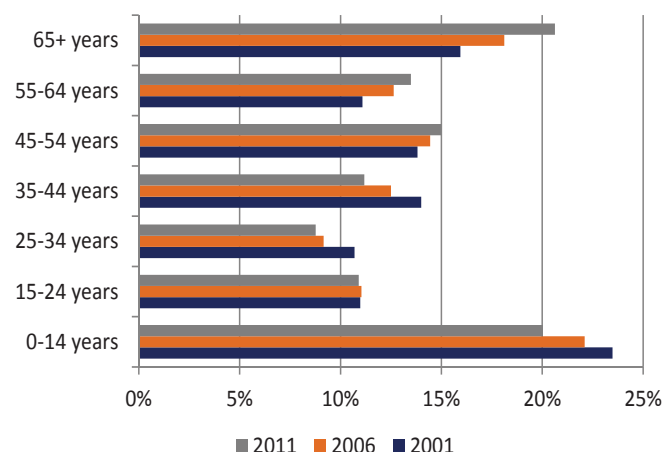


Table 5. Age dependency ratios (Census 2011)

	Gilgandra LGA	RDA Orana	Rest of NSW
Child	0.34	0.35	0.31
Aged	0.35	0.27	0.29
Total	0.69	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Postgraduate Degree qualifications increased by 92% (to 23 people);
- Graduate Diploma and Graduate Certificate qualifications increased by 24% (to 26 people);
- Certificate III and IV qualifications increased by 19% (to 559 people);
- Certificate Advanced Diploma and Diploma qualifications increased by 16% (to 169 people).

Current study patterns

- A slightly higher attendance at university by those aged 15-24 years was reported for Gilgandra Shire when compared to Orana overall.
- Results for those aged over 25 years was similar in Gilgandra to Orana overall.

AGE AND POPULATION

The population as at Census 2011 was 4,368.

Age profile

- As at the 2011 Census, those aged 65 years and over comprised 21% of the population (compared to 17% for the Orana region as a whole).
- The next largest age group was those aged 0-14 years (20% of the population compared to 22% for Orana as a whole).
- Between 2001 and 2011 there was a considerable increase in the number of people aged 65 years and over in Gilgandra Shire (from 18% to 21%).

Age dependency

- The Aged Dependency ratio is quite high in comparison to both the overall Orana region and the Rest of NSW. Therefore, the Total Dependency ratio is also higher.

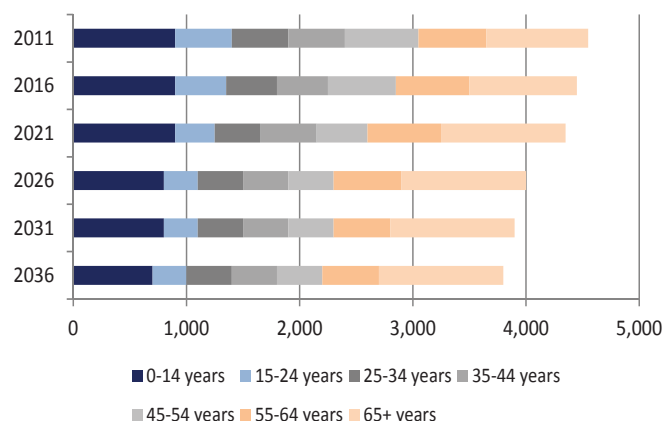
Indigenous population

In 2011, Aboriginal and Torres Strait Islander people made up 12.2% of the population compared to 12.5% of the population in 2006. This is lower than that of the Orana region (14.3% in 2011).

Population projections

- The population of Gilgandra is projected to fall by 16.5% between 2011 and 2036, while its working age population is projected to fall by 27.3% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 60% to 53%.

Figure 7. Population projections

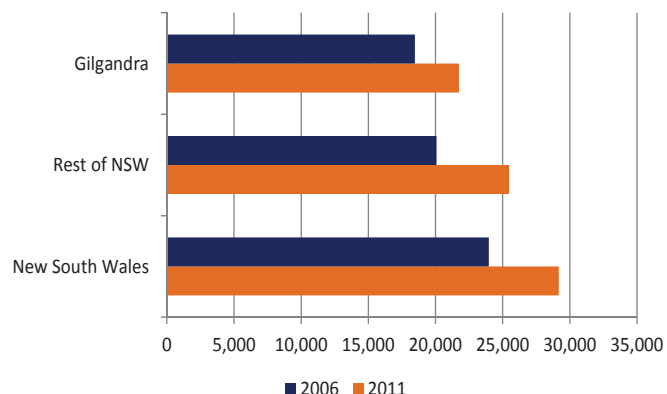


HOUSEHOLD DATA

Personal income

- As at the 2011 Census, the median personal income in Gilgandra Shire was lower than that for the Rest of NSW and New South Wales.
- Between 2006 and 2011, median personal income grew by 18%.

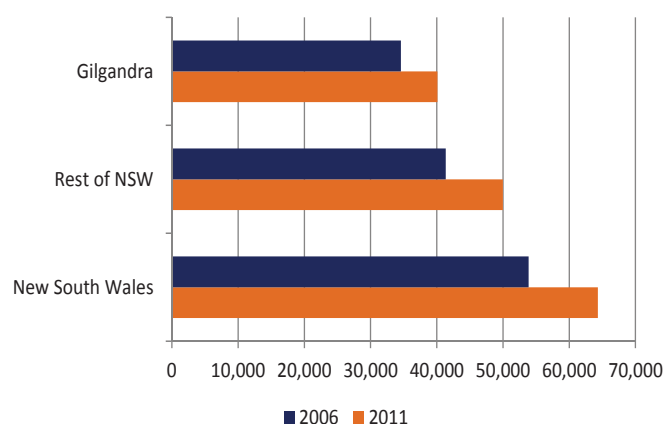
Figure 8. Personal income



Household income

- As at the 2011 Census, the median household income in Gilgandra Shire was lower than that for the Rest of NSW and New South Wales as a whole.
- Between 2006 and 2011, median household income grew by 16%.

Figure 9. Household income



HOUSING

Housing affordability

The affordability of housing was examined using a ratio of median house prices to average taxable income and median weekly rental as a percentage of average weekly taxable income. In some instances, data was not available for Gilgandra Shire; therefore the larger region of Central Macquarie was used.

- Figure 10 opposite highlights that in 2011, on average, the Central Macquarie region rental market was considerably more expensive compared to the Rest of NSW and NSW. This represents a significant decrease in housing affordability since 2006.
- The affordability of home ownership in Central Macquarie (with respect to household income in Gilgandra) has improved slightly since 2006, being almost two times as affordable than in the Rest of NSW and NSW.

Home ownership vs. rental

- There has been little change in ownership status in Gilgandra Shire between 2006 and 2011.
- The proportion of dwellings owner-occupied in Gilgandra Shire has fallen by approximately 2% between 2006 and 2011, however, home ownership remains reasonably high at 65% compared to 62% for Orana as a whole.
- The proportion of dwellings rented in Gilgandra Shire has increased by around 2% since 2006.

Figure 10. Median weekly rental as percentage of median household weekly taxable income

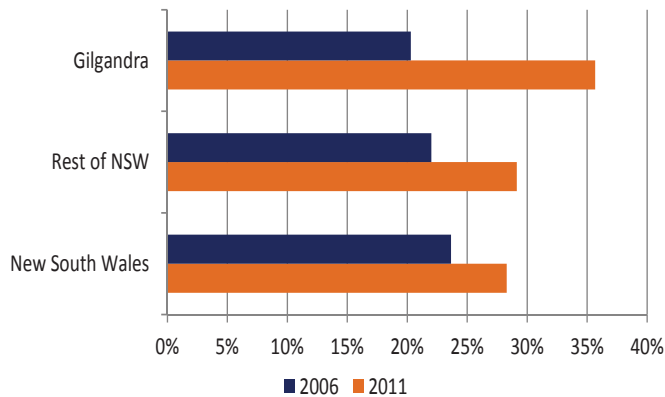


Figure 11. Ratio of median house price to median household taxable income



Figure 12. Home ownership vs. rental



VALUE OF CONSTRUCTION

Table 6 shows that:

- Residential construction increased slightly between 2010 and 2012, whilst non-residential construction dropped considerably.
- Non-residential construction fell by 74% between 2010 and 2012.

Table 6. Value of construction

	Residential \$000	Non-residential \$000	Total
2010	1,177	6,450	7,627
2011	1,493	1,150	2,643
2012	1,299	1,695	2,993
% change 2010-2011	27%	-82%	-65%
% change 2011-2012	-13%	47%	13%
% change 2010-2012	10%	-74%	-61%

CRIME STATISTICS

Crime rates are normally reported in terms of rate per 100,000 head of population. The top reported offences in Gilgandra Shire in 2012 were:

- Malicious damage to property;
- Other offences; and
- Harassment, threatening behaviour and private nuisance.

Four out of the ten most regularly occurring offence categories in Gilgandra recorded a higher rate of incidence than in Orana overall, whilst six categories recorded a higher rate of incidence than in NSW overall.

The rate of crime incidences per 100,000 along with the percentage change in these offences between 2008 and 2012 are shown in table 7 below.

Table 7. Top 10 offence categories

	Gilgandra LGA			RDA Orana			NSW		
	2008	2012	% Change	2008	2012	% Change	2008	2012	% Change
Malicious damage to property	2509	1560	-38%	2,830	2,289	-19%	1,560	1,129	-28%
Other offences	960	855	-11%	545	397	-27%	225	211	-6%
Harassment, threatening behaviour and private nuisance	916	1004	10%	771	891	16%	376	410	9%
Assault - non-domestic violence related	807	705	-13%	1,101	995	-10%	610	482	-21%
Steal from dwelling	785	299	-62%	558	556	0%	305	299	-2%
Other theft	785	449	-43%	678	546	-20%	537	476	-11%
Assault - domestic violence related	545	556	2%	872	966	11%	365	375	3%
Break and enter non-dwelling	502	556	11%	585	485	-17%	327	222	-32%
Steal from motor vehicle	502	449	-11%	787	1,003	27%	825	645	-22%
Fraud	502	534	6%	341	340	0%	560	584	4%

MID-WESTERN REGION

KEY FACTS:

Population

Population as at the 2011 Census was 22,318 (19% of the Orana region's population).

Gross Regional Product as at 2012

The Mid-Western Region contributed an estimated \$869.78 million to the Orana region GRP (18%).

Key sectors in 2012:

- Coal Mining (22% of value added and 19% of FTE employment)
- Agriculture (6% of value added and 11% of FTE employment)
- Health & Community (6% of value added and 9% of FTE employment)

Top earning occupations in 2011:

- Machinery Operators & Drivers; and
- Professionals.

Unemployment:

- Unemployment rate of 5.5% (December 2012)
- Youth unemployment rate of 11.6% (2011 Census)
- Indigenous unemployment rate of 14.9% (2011 Census)

Opportunities:

- Continued development of mining
- Value-adding to tourism through the Hospitality sector.

ECONOMY

The GRP for the Mid-Western Region in 2012 was estimated at \$869.78 million.

Key sectors in 2012

- Coal Mining contributed 23% to value added and 19% of FTE employment
- Agriculture contributed 6% to value added and 11% of FTE employment
- Health & Community contributed 6% to value added and 9% of FTE employment

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Coal Mining, where employment increased by 8 percentage points;
- in Agriculture, where employment fell by 3 percentage points; and
- Retail, where employment fell by 3 percentage points.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Coal Mining (14% of employment);
- Agriculture (10%);
- Pre-school & School Education (6%);
- Food & Beverage Services (6%); and
- Other Store Based Retail (5%).

Key Shift Share results between 2006 and 2011

Based on an analysis of industries at the subdivision level, strong local factors for employment growth were experienced in the following key sectors:

- Coal Mining;
- Wood Product Manufacturing; and
- Construction Services.

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Figure 1. Key contributors - sectors

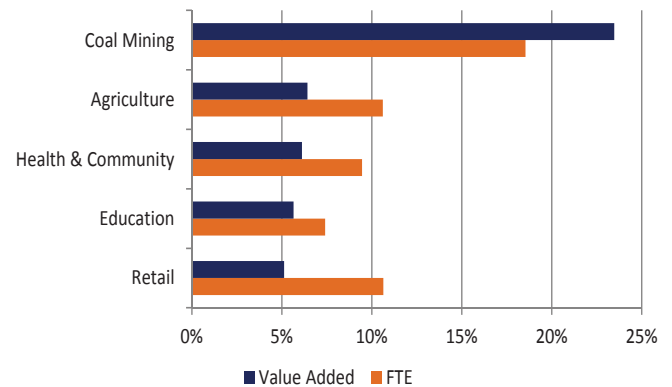


Figure 2. Changes in employment for top 5 sectors

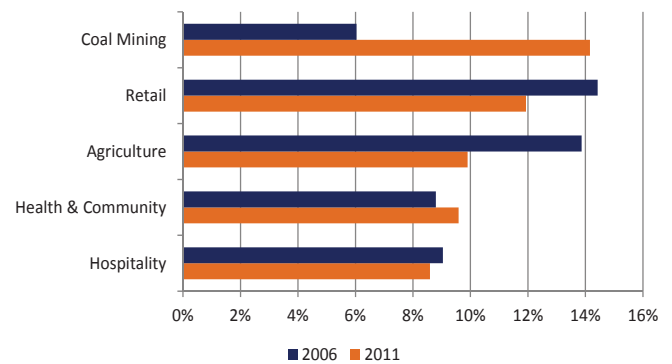


Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Coal Mining	158%
Administrative Services	73%
Health Care & Social Assistance	105%
Type IV – Outperforming in low growth industry	
Wood Product Manufacturing	61%
Construction Services	34%
Basic Material Wholesaling	32%
Type II – Underperforming in high growth industry	
Residential Care Services	35%
Building, Cleaning, Pest Control & Other Support Services	15%
Food & Beverage Services	5%
Type III – Underperforming in low growth industry	
Non-metallic Mineral Product Manufacturing	-44%
Agriculture	-19%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$39,274	\$47,694	21%
Professionals	\$52,358	\$61,974	18%
Technicians & Trades Workers	\$39,924	\$54,779	37%
Community & Personal Service Workers	\$27,735	\$34,751	25%
Clerical & Administrative Workers	\$32,265	\$37,680	17%
Sales Workers	\$23,808	\$27,680	16%
Machinery Operators & Drivers	\$53,915	\$72,805	35%
Labourers	\$23,939	\$30,331	27%

Table 3. Employment mapping

Occupation	Mid-Western LGA	Nearby LGAs	Other LGAs
Machinery & Stationary Plant Operators	632	44	71
Construction & Mining Labourers	113	0	41
Automotive & Engineering Trades Workers	433	26	38
Farmers & Farm Managers	623	19	34
Electrotechnology & Telecommunications Trades Workers	203	0	23
Engineering, ICT & Science Technicians	153	14	21
Road & Rail Drivers	227	17	18
Hospitality, Retail & Service Managers	394	5	16
Design, Engineering, Science & Transport Professionals	170	14	14
Health Professionals	279	13	11
Specialist Managers	276	18	10
Mobile Plant Operators	82	0	10
Farm, Forestry & Garden Workers	195	0	10
Sales Support Workers	116	0	8
Construction Trades Workers	140	8	7

Average income by occupation

In 2011, the top earning occupations were Machinery Operators and Drivers and Professionals. The largest increases in incomes were reported for those working as:

- Technicians & Trade Workers;
- Machinery Operators & Drivers; and
- Labourers.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. As at the 2011 Census, the most common occupations in the Mid-Western Region sourced from LGAs not adjacent to Mid-Western LGA were:

- Machinery & Stationary Plant Operators;
- Construction & Mining Labourers; and
- Automotive & Engineering Trade Workers.

Results for the top 15 occupations that were in part sourced from outside Mid-Western LGA are shown in Table 3.

Count of businesses

ABS Count of Australian Businesses data, including Entries and Exits between June 2008 and June 2011 is available at Statistical Area Level 2: Mudgee. Between 2008 and 2011, the most significant growth in businesses occurred for:

- Public Administration & Safety (200%, to 9 businesses);
- Arts & Recreation (75%, to 21 businesses); and
- Health Care & Social Assistance (28%, to 73 businesses).

The most significant decline in businesses occurred for:

- Information Media & Telecommunications (25%, to 9 businesses);
- Education & Training (13%, to 21 businesses); and
- Manufacturing (11%, to 96 businesses).

Businesses in Mining grew by 10% (to 23 businesses).

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWR for Dec Qtr 2012 reported:

- A labour force of 11,099 persons
- An unemployment rate of 5.5%

The unemployment trend since December 2006 is shown in Figure 3 opposite. The unemployment rate for the Mid-Western Region has tracked closely to that of the overall Orana region and the Rest of NSW over this period, dipping below that of Orana more recently.

At the 2011 census, the Mid-Western Region reported:

- A Youth labour force of 1,485 persons, with the youth unemployment rate at 11.6%, lower than that for Orana overall (12.4%).
- An Indigenous Labour force of 308 persons, with the Indigenous unemployment rate at 14.9%, lower than that for overall Orana (19.9%).

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of the Mid-Western Region was most commonly:

- Year 10 or equivalent (27%)
- Year 12 or equivalent (25%)

(27% not stated or not applicable)

The level of completion at Year 12 level or equivalent is higher than that reported for the RDA Orana region as a whole and less than non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (16%)
- Bachelor Degree (6%)

The level of completion of Certificate III or IV is greater than that reported for RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Figure 3. Recent unemployment trend

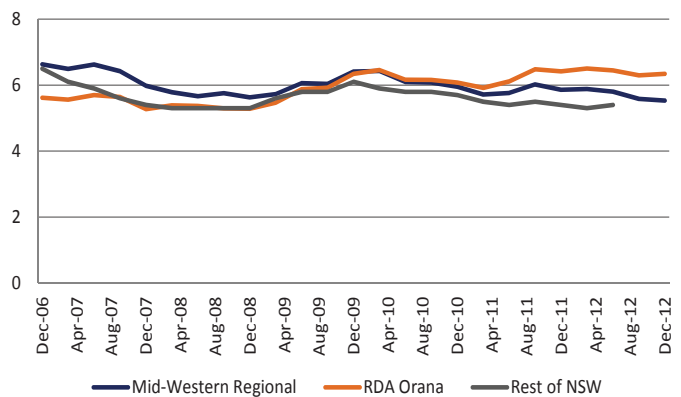


Figure 4. Highest year of school completed

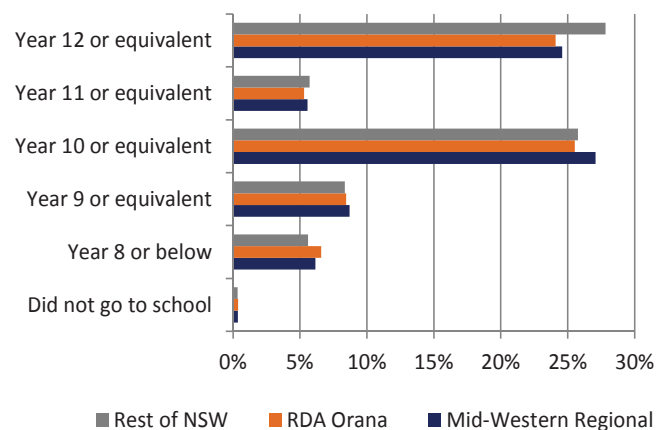


Figure 5. Post school qualifications

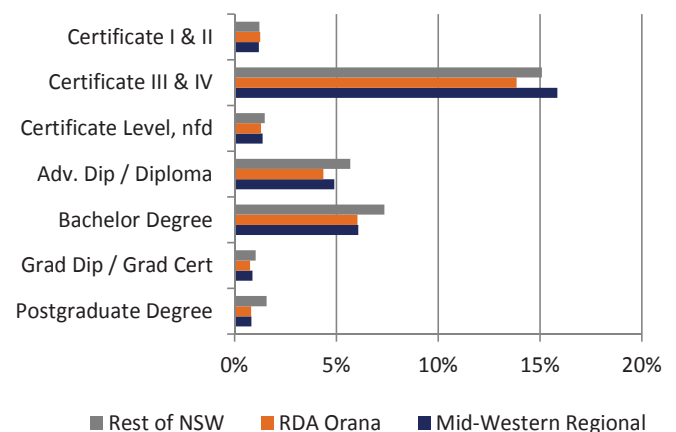


Table 4. Current study patterns (Census 2011)

	Mid-Western LGA	RDA Orana	Rest of NSW
Attending University			
15-24 years	4.3%	5.2%	12.5%
25 years and over	1.3%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	9.4%	8.7%	9.0%
25 years and over	2.2%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Growth in qualifications

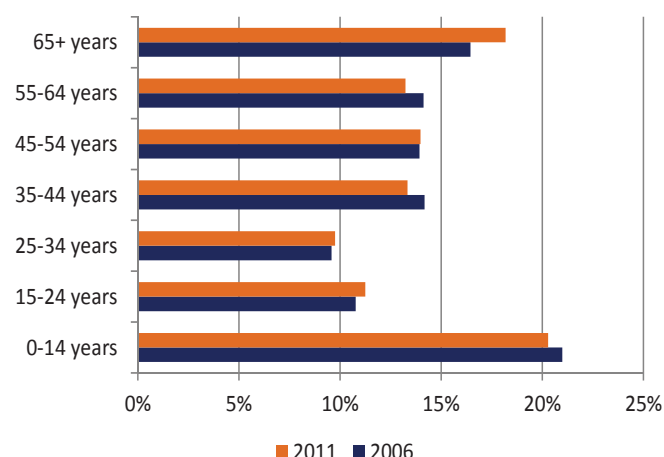
Between 2006 and 2011, those holding:

- Graduate Diploma and Graduate Certificate qualifications increased by 26% (to 196 people);
- Bachelor Degree qualifications increased by 25% (to 1,355 people);
- Advanced Diploma and Diploma qualifications increased by 23% (to 1,095 people);
- Certificate III and IV qualifications increased by 22% (to 3,539 people).

Current study patterns

- Attendance rates at university for those aged 25 years and over were similar for the Mid-Western Region in comparison to the overall Orana region.
- Attendance rates at other tertiary institutes in the Mid-Western Region were at least as high as those in the Orana region overall and the Rest of NSW.

Figure 6. Age structure



AGE AND POPULATION

The population as at 2011 Census was 22,318.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 20% of the population (compared to 22% for the Orana region as a whole).
- The next largest age group was those aged 65 years and over (18% of the population compared to 17% for Orana as a whole).
- Between 2006 and 2011 there was an increase in the number of people aged 65 years and over in the Mid-Western Region (from 16% to 18%). This age group comprised 17% of the Orana region as a whole in 2011.

Age dependency

- The Child Dependency ratio is slightly lower than that for the overall Orana region. However, the Aged Dependency and thus the Total Dependency ratios are slightly higher.

Table 5. Age dependency ratios (Census 2011)

	Mid-Western LGA	RDA Orana	Rest of NSW
Child	0.33	0.35	0.31
Aged	0.30	0.27	0.29
Total	0.63	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

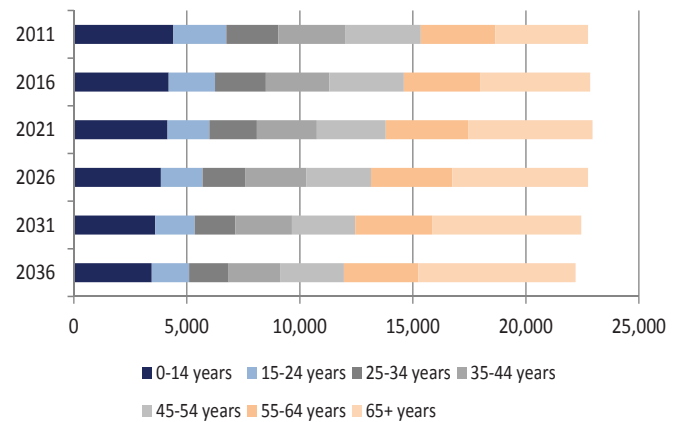
Indigenous population

In 2011, Aboriginal and Torres Strait Islander people made up 3.9% of the population compared to 2.7% of the population in 2006. This is lower than that of the Orana region (14.3% in 2011).

Population projections

- The population of Mid-Western LGA is projected to fall by 2.4% between 2011 and 2036, while its working age population is projected to fall by 17.2% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 63% to 53%.

Figure 7. Population projections

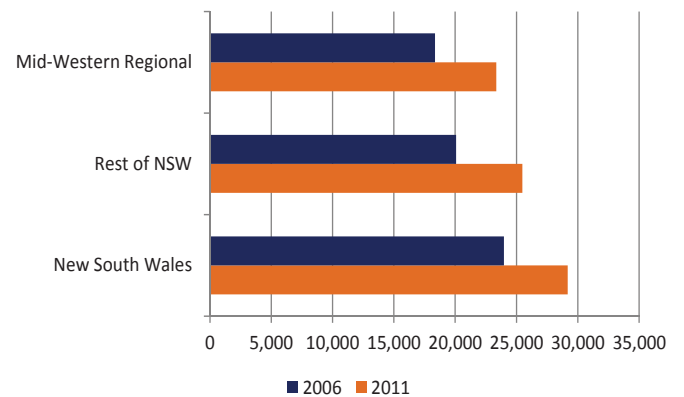


HOUSEHOLD DATA

Personal income

- As at the 2011 Census, the median personal income in the Mid-Western Region was lower than that for the Rest of NSW and New South Wales as a whole.
- Between 2006 and 2011, median personal income grew by 27%.

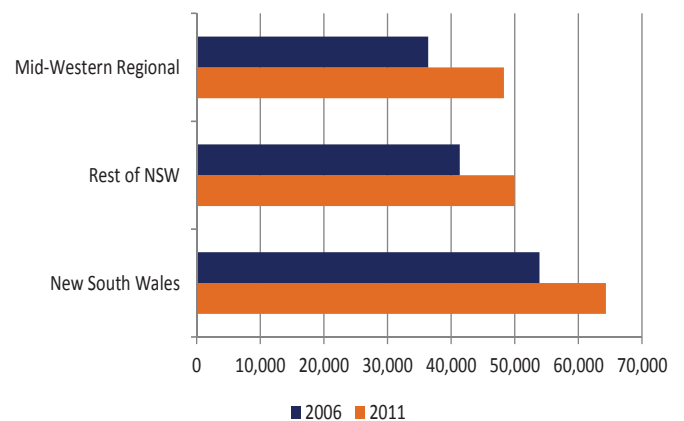
Figure 8. Personal income



Household income

- As at the 2011 Census, the median household income in the Mid-Western Region was lower than that for the Rest of NSW and New South Wales as a whole.
- Between 2006 and 2011, median household income grew by 33%.

Figure 9. Household income



HOUSING

Housing affordability

The affordability of housing was examined using a ratio of median house prices to average taxable income and median weekly rental as a percentage of average weekly taxable income.

- Figure 10 opposite highlights that in 2011, on average, the Mid-Western Region's rental market is less affordable compared to the Rest of NSW and NSW, with rent as a proportion of income having increased considerably since 2006.
- The affordability of home ownership has improved in the Mid-Western Region since 2006. Housing affordability in the sales market is similar to the Rest of NSW.

Home ownership vs. rental

- Ownership status in the Mid-Western Region, Orana region and NSW as a whole appears quite stable.
- The proportion of dwellings owner-occupied in Mid-Western LGA has declined slightly from 68% in 2006 to 66% in 2011.
- The proportion of dwellings rented in Mid-Western LGA has increased from 25% in 2006 to 26% in 2011; whilst the proportion of other tenure types has remained at 8%.

Figure 10. Median weekly rental as percentage of median household weekly taxable income

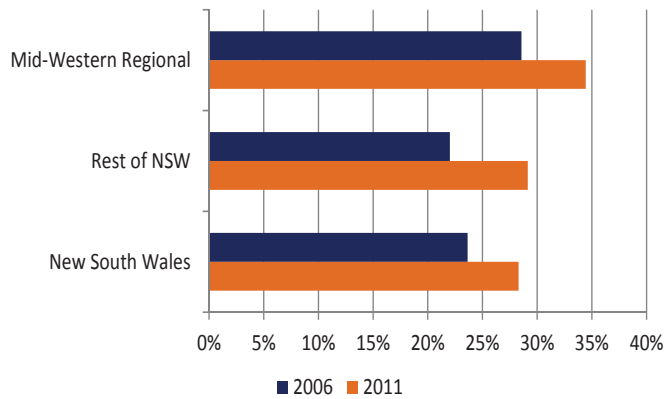


Figure 11. Ratio of median house price to median household taxable income



Figure 12. Home ownership vs. rental



VALUE OF CONSTRUCTION

Table 6 shows that:

- Residential construction increased between 2010 and 2012, whilst non-residential construction declined.
- Residential construction grew by 14% between 2011 and 2012.

Table 6. Value of construction

	Residential \$000	Non-residential \$000	Total
2010	17,919	30,314	48,233
2011	16,820	7,646	24,466
2012	19,257	7,908	27,164
% change 2010-2011	-6%	-75%	-49%
% change 2011-2012	14%	3%	11%
% change 2010-2012	7%	-74%	-44%

CRIME STATISTICS

Crime rates are normally reported in terms of rate per 100,000 head of population. The top reported offences in the Mid-Western Region in 2012 were:

- Malicious damage to property;
- Harassment, threatening behaviour and private nuisance;
- Assault – non domestic violence related.

Two out of ten most commonly occurring offence categories in Mid-Western recorded a higher rate of incidence than in Orana overall, whilst seven categories recorded a higher rate of incidence than in NSW overall.

The rate of crime incidences per 100,000 along with the percentage change in these offences between 2008 and 2012 are shown in table 7 below.

Table 7. Top 10 offence categories

	Mid-Western LGA			RDA Orana			NSW		
	2008	2012	% Change	2008	2012	% Change	2008	2012	% Change
Malicious damage to property	2088	1856	-11%	2,830	2,289	-19%	1,560	1,129	-28%
Harassment, threatening behaviour and private nuisance	712	839	18%	771	891	16%	376	410	9%
Assault - non-domestic violence related	699	769	10%	1,101	995	-10%	610	482	-21%
Steal from motor vehicle	427	587	37%	787	1,003	27%	825	645	-22%
Assault - domestic violence related	557	526	-6%	872	966	11%	365	375	3%
Break and enter dwelling	436	448	3%	875	1,151	32%	632	554	-12%
Steal from dwelling	387	443	14%	558	556	0%	305	299	-2%
Liquor offences	481	430	-11%	840	393	-53%	258	197	-24%
Other theft	557	409	-27%	678	546	-20%	537	476	-11%
Possession and/or use of cannabis	392	382	-2%	261	330	26%	175	298	70%

NARROMINE SHIRE

KEY FACTS:

Population

Population as at the 2011 Census was 6,585 (6% of the Orana region's population).

Gross Regional Product as at 2012

Narromine Shire contributed an estimated \$221.65 million to the Orana region GRP (5%).

Key sectors in 2012:

- Agriculture (20% of value added and 35% of FTE employment)
- Health & Community (8% of value added and 11% of FTE employment)
- Education (7% of value added and 10% of FTE employment)

Top earning occupations in 2011:

- Professionals; and
- Machinery Operators & Drivers.

Unemployment:

- Unemployment rate of 5.6% (December 2012)
- Youth unemployment rate of 14.9% (2011 Census)
- Indigenous unemployment rate of 20.4% (2011 Census)

Opportunities:

- Continued development of agriculture
- Value-adding to agricultural output through the Food & Beverage Manufacturing sector
- Value-adding to tourism through the Hospitality sector
- New developments in mining

ECONOMY

The GRP for Narromine Shire in 2012 was estimated at \$221.65 million.

Key sectors in 2012

- Agriculture contributed 20% to value added and 35% of FTE employment
- Health & Community contributed 8% to value added and 11% of FTE employment
- Education contributed 7% to value added and 10% of FTE employment

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Agriculture, where employment decreased by 4 percentage points;
- in Hospitality, where employment decreased by 2 percentage points; and
- Professional & Scientific Services, where employment increased by 2 percentage points.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Agriculture (29% of employment);
- Pre-school & School Education (9%);
- Food Retailing (5%);
- Public Administration (5%); and
- Basic Material Wholesaling (4%).

Key Shift Share results between 2006 and 2011

Based on an analysis of industries at the subdivision level, strong local factors for employment growth were experienced in the following key sectors:

- Heavy & Civil Engineering Construction;
- Professional, Scientific & Technical Services; and
- Electricity Supply

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Figure 1. Key contributors - sectors

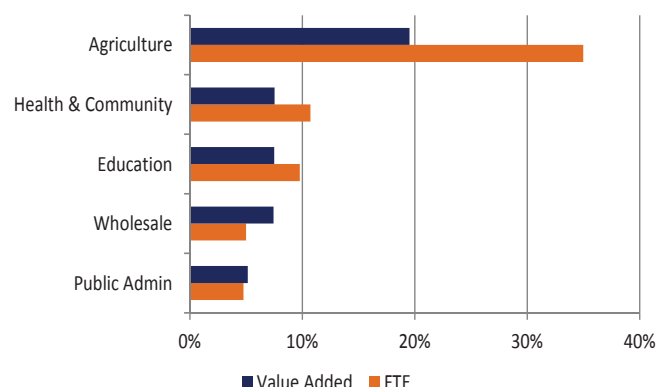


Figure 2. Changes in employment for top 5 sectors

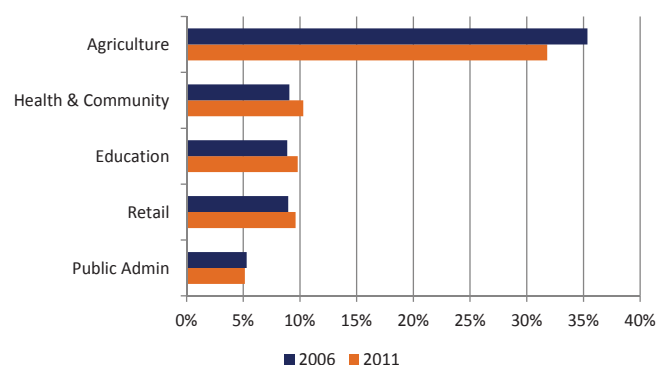


Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Heavy & Civil Engineering Construction	111%
Professional, Scientific & Technical Services	69%
Electricity Supply	34%
Type IV – Outperforming in low growth industry	
Food Retailing	23%
Basic Material Wholesaling	107%
Building Construction	68%
Agriculture, Forestry & Fishing Support Services	29%
Type II – Underperforming in high growth industry	
Food & Beverage Services	-36%
Residential Care Services	18%
Road Transport	-16%
Type III – Underperforming in low growth industry	
Agriculture	-16%
Construction Services	-16%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$36,455	\$42,816	17%
Professionals	\$50,779	\$62,081	22%
Technicians & Trades Workers	\$34,587	\$41,870	21%
Community & Personal Service Workers	\$29,891	\$34,126	14%
Clerical & Administrative Workers	\$29,097	\$34,791	20%
Sales Workers	\$22,520	\$30,477	35%
Machinery Operators & Drivers	\$31,867	\$43,804	37%
Labourers	\$23,542	\$35,707	52%

Table 3. Employment mapping

Occupation	Narromine LGA	Nearby LGAs	Other LGAs
Farmers & Farm Managers	401	46	0
Education Professionals	86	31	0
Design, Engineering, Science & Transport Professionals	33	17	0
Automotive & Engineering Trades Workers	65	16	0
Specialist Managers	50	15	0
Farm, Forestry & Garden Workers	91	12	0
Sales Assistants & Salespersons	86	11	0
Road & Rail Drivers	56	11	0
Hospitality, Retail & Service Managers	71	10	0
Food Trades Workers	30	8	0
Office Managers & Program Administrators	28	8	0
Skilled Animal & Horticultural Workers	22	7	0
Machinery & Stationary Plant Operators	31	6	0
Carers & Aides	116	5	0
Other Clerical & Administrative Workers	14	5	0

Average income by occupation

In 2011, the top earning occupations were Professionals and Machinery Operators and Drivers. The largest increases in incomes were reported for those working as:

- Labourers;
- Machinery Operators & Drivers; and
- Sales Workers.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. As at the 2011 Census, the most common occupations in Narromine Shire sourced from LGAs adjacent to Narromine Shire were:

- Farmers & Farm Managers;
- Education Professionals;
- Design, Engineering, Science & Transport Professionals;
- Automotive & Engineering Trade Workers;
- Specialist Managers.

Results for the top 15 occupations that were in part sourced from outside Narromine LGA are shown in Table 3.

Count of businesses

ABS Count of Australian Businesses data, including Entries and Exits between June 2008 and June 2011 is available at Statistical Area Level 2: Narromine. Between 2008 and 2011, the most significant growth in businesses occurred for:

- Administrative & Support Services (200%, to 9 businesses);
- Professional, Scientific & Technical Services (156%, to 23 businesses); and
- Manufacturing (61%, to 29 businesses).

The most significant decline in businesses occurred for:

- Public Administration & Safety (100%, to 0 businesses);
- Arts & Recreation Services (100%, to 0 businesses); and
- Health Care & Social Assistance (22%, to 21 businesses).

Businesses in Agriculture, Forestry & Fishing grew by 3% (to 486 businesses).

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWR for Dec Qtr 2012 reported:

- A labour force of 3,585 persons
- An unemployment rate of 5.6%

The unemployment trend since December 2006 is shown in the chart opposite. The unemployment rate in Narromine Shire is lower than that of the overall Orana region, having tracked closely with that of the Rest of NSW over the last two years. An upward trend of 1.4% per quarter has been experienced since December 2006.

At the 2011 census, Narromine reported:

- A Youth labour force of 382 persons, with the youth unemployment rate at 14.9%, higher than that for Orana overall (12.4%).
- An Indigenous Labour force of 378 persons, with the Indigenous unemployment rate at 20.4%, slightly higher than that for Orana overall (19.9%).

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of Narromine Shire was most commonly:

- Year 10 or equivalent (25%)
- Year 12 or equivalent (23%)

(31% not stated or not applicable)

The level of completion at Year 12 level or equivalent is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (12%)
- Bachelor Degree (5%)

The level of completion of Certificate III or IV is lower than that reported for RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Figure 3. Recent unemployment trend

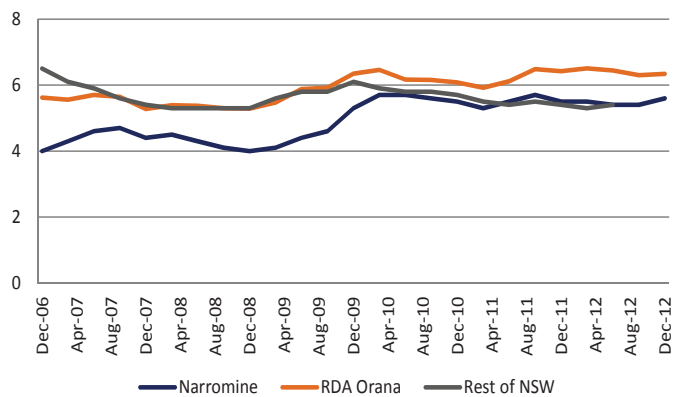


Figure 4. Highest year of school completed

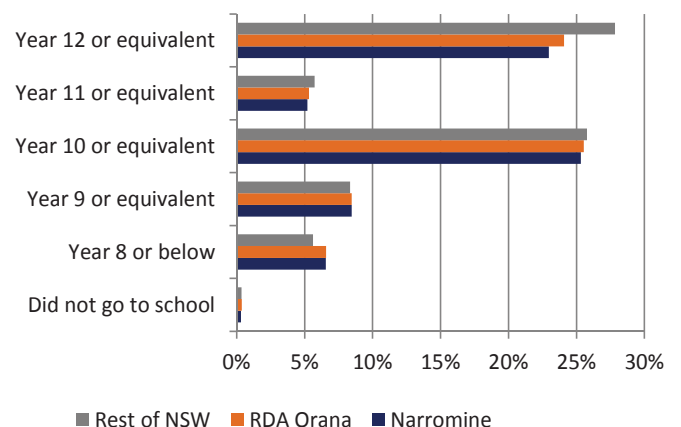


Figure 5. Post school qualifications

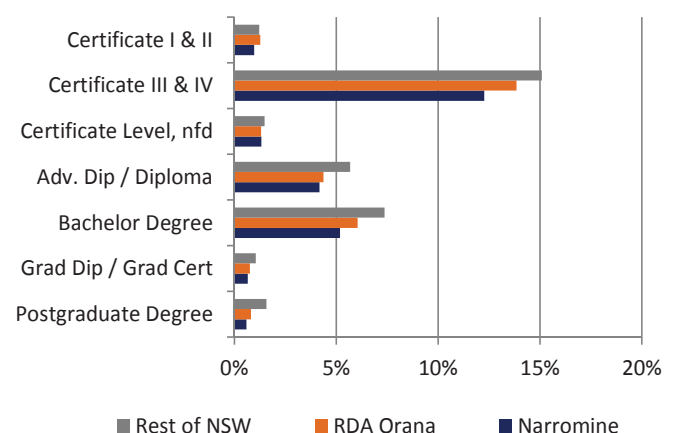


Table 4. Current study patterns (Census 2011)

	Narrromine LGA	RDA Orana	Rest of NSW
Attending University			
15-24 years	5.0%	5.2%	12.5%
25 years and over	1.0%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	8.4%	8.7%	9.0%
25 years and over	1.7%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure



Table 5. Age dependency ratios (Census 2011)

	Narrromine LGA	RDA Orana	Rest of NSW
Child	0.40	0.35	0.31
Aged	0.29	0.27	0.29
Total	0.69	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Graduate Diploma and Graduate Certificate qualifications increased by 19% (to 43 people);
- Advanced Diploma and Diploma qualifications increased by 14% (to 275 people);
- Certificate III and IV qualifications increased by 14% (to 807 people);
- Bachelor Degree qualifications increased by 10% (to 341 people).

Current study patterns

- Attendance rates at university were similar for Narromine Shire in comparison to the overall Orana region.
- Attendance rates at other tertiary institutes were lower for Narromine compared to the Orana region and the Rest of NSW.

AGE AND POPULATION

The population as at 2011 Census was 6,585.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 24% of the population (compared to 22% for the Orana region as a whole).
- The next largest age group was those aged 65 years and over (17% of the population compared to 17% for Orana as a whole).
- Between 2001 and 2011 there was a considerable increase in the number of people aged 65 years in Narromine Shire (from 13% to 17%).

Age dependency

- The Child Dependency ratio is considerably higher in comparison to both the overall Orana region and the Rest of NSW, whilst the Aged Dependency ratio is similar. Thus the Total Dependency ratios are much higher for Narromine compared to the other regions.

Indigenous population

In 2011, Aboriginal and Torres Strait Islander people made up 19.6% of the population compared to 15.8% of the population in 2006. This is higher than that of the Orana region (14.3% in 2011).

Population projections

- The population of Narromine is projected to fall by 10.4% between 2011 and 2036, while its working age population is projected to fall by 20.9% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 60% to 53%.

HOUSEHOLD DATA

Personal income

- As at the 2011 Census, the median personal income in Narromine Shire was slightly higher than that for the Rest of NSW.
- Between 2006 and 2011, median personal income grew by 25%.

Household income

- As at the 2011 Census, the median household income in Narromine Shire was lower than that for the Rest of NSW and New South Wales as a whole.
- Between 2006 and 2011, median household income grew by 17%.

Figure 7. Population projections

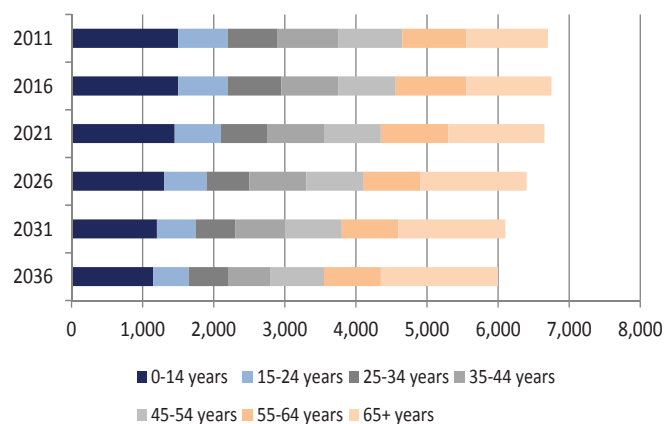


Figure 8. Personal income

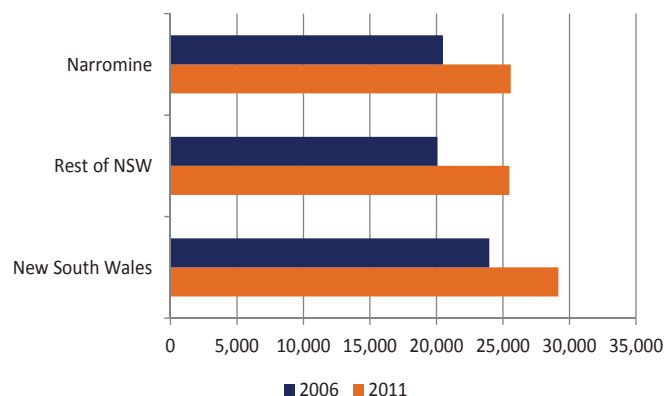
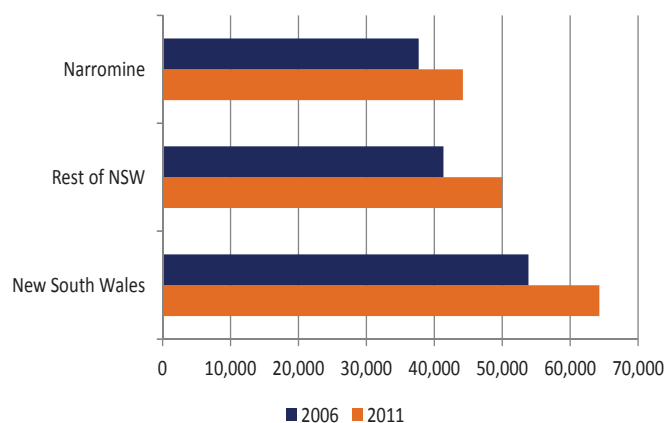


Figure 9. Household income



HOUSING

Housing affordability

The affordability of housing was examined using a ratio of median house prices to average taxable income and median weekly rental as a percentage of average weekly taxable income. In some instances, data was not available for Narromine Shire; therefore the larger region of Central Macquarie was used.

- Figure 10 opposite highlights that in 2011, on average, the Central Macquarie rental market is less affordable compared to the Rest of NSW and NSW.
- The affordability of home ownership in the Central Macquarie region (with respect to household income in Narromine) has declined since 2006. However, housing affordability in the sales market has remained better than in the Rest of NSW and NSW.

Home ownership vs. rental

- Ownership status in the Narromine Shire, Orana region and NSW as a whole appears quite stable.
- The proportion of dwellings owner-occupied in Narromine Shire has slightly decreased from 66% in 2006 to 65% in 2011.
- The proportion of dwellings rented in Narromine has remained steady (28%); whilst the proportion of other tenure types has increased from 6% to 7% over the same period.

Figure 10. Median weekly rental as percentage of median household weekly taxable income

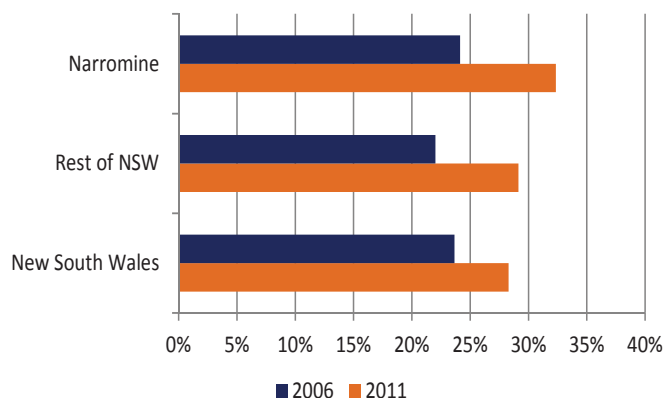


Figure 11. Ratio of median house price to median household taxable income

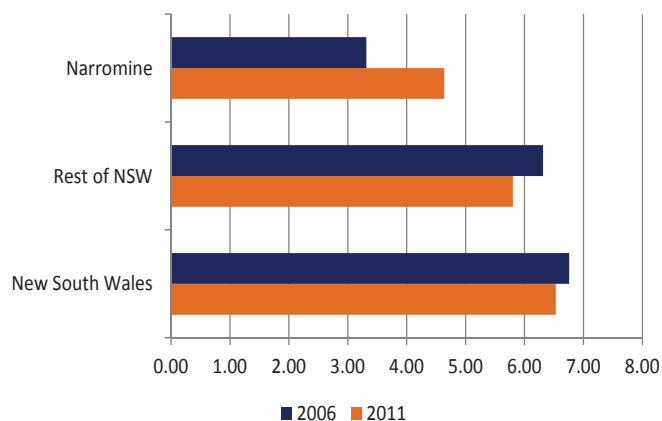


Figure 12. Home ownership vs. rental



VALUE OF CONSTRUCTION

Table 6 shows that:

- Residential construction increased between 2010 and 2012, whilst non-residential construction decreased.
- Total construction grew by 166% between 2011 and 2012.

Table 6. Value of construction

	Residential \$000	Non-residential \$000	Total
2010	3,393	8,662	12,054
2011	3,074	50	3,124
2012	4,217	4,089	8,306
% change 2010-2011	-9%	-99%	-74%
% change 2011-2012	37%	8078%	166%
% change 2010-2012	24%	-53%	-31%

CRIME STATISTICS

Crime rates are normally reported in terms of rate per 100,000 head of population. The top reported offences in the Narromine Shire in 2012 were:

- Malicious damage to property;
- Harassment, threatening behaviour and private nuisance;
- Break and enter dwelling.

Four out of the ten most regularly occurring offence categories in Narromine recorded a higher rate of incidence than in Orana overall, whilst all categories recorded a higher rate of incidence than in NSW overall.

The rate of crime incidences per 100,000 along with the percentage change in these offences between 2008 and 2012 are shown in table 7 below.

Table 7. Top 10 offence categories

	Narromine LGA			RDA Orana			NSW		
	2008	2012	% Change	2008	2012	% Change	2008	2012	% Change
Malicious damage to property	2069	2196	6%	2,830	2,289	-19%	1,560	1,129	-28%
Harassment, threatening behaviour and private nuisance	660	1054	60%	771	891	16%	376	410	9%
Break and enter dwelling	426	922	117%	875	1,151	32%	632	554	-12%
Steal from motor vehicle	631	717	14%	787	1,003	27%	825	645	-22%
Breach bail conditions	176	688	291%	652	1,081	66%	338	417	24%
Assault - non-domestic violence related	1042	644	-38%	1,101	995	-10%	610	482	-21%
Break and enter non-dwelling	308	644	109%	585	485	-17%	327	222	-32%
Steal from dwelling	484	600	24%	558	556	0%	305	299	-2%
Assault - domestic violence related	616	586	-5%	872	966	11%	365	375	3%
Other theft	704	556	-21%	678	546	-20%	537	476	-11%

WALGETT SHIRE

KEY FACTS:

Population

Population as at the 2011 Census was 6,454 (6% of the Orana region's population).

Gross Regional Product as at 2012

Walgett Shire contributed an estimated \$226.43 million to the Orana region GRP (5%).

Key sectors in 2012:

- Agriculture (18% of value added and 32% of FTE employment)
- Health & Community (10% of value added and 13% of FTE employment)
- Education (9% of value added and 12% of FTE employment)

Top earning occupations in 2011:

- Professionals; and
- Managers.

Unemployment:

- Unemployment rate of 13.1% (December 2012)
- Youth unemployment rate of 15.3% (2011 Census)
- Indigenous unemployment rate of 15.2% (2011 Census)

Opportunities:

- Continued development of agriculture
- Value-adding to agricultural output through the Food & Beverage Manufacturing sector
- Value-adding to tourism through the Hospitality sector.

ECONOMY

The GRP for Walgett Shire in 2012 was estimated at \$226.43 million.

Key sectors in 2012

- Agriculture contributed 18% to value added and 32% of FTE employment
- Health & Community contributed 10% to value added and 13% of FTE employment
- Education contributed 9% to value added and 12% of FTE employment

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Health & Community, where employment increased by 2 percentage points;
- in Education, where employment increased by 1 percentage point; and
- Retail, where employment fell by 2 percentage points.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Agriculture (28% of employment);
- Pre-school & School Education (11%);
- Public Administration (6%);
- Food & Beverage (5%); and
- Medical & Other Services (5%).

Key Shift Share results between 2006 and 2011

Based on an analysis of industries at the subdivision level, strong local factors for employment growth were experienced in the following key sectors:

- Heavy & Civil Engineering Construction;
- Electricity Supply; and
- Food Product Manufacturing.

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Figure 1. Key contributors - sectors

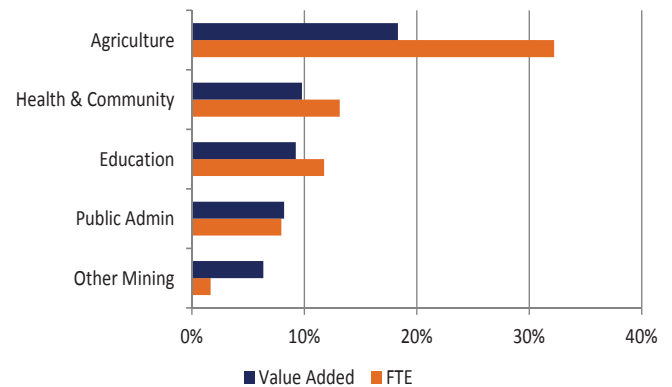


Figure 2. Changes in employment for top 5 sectors

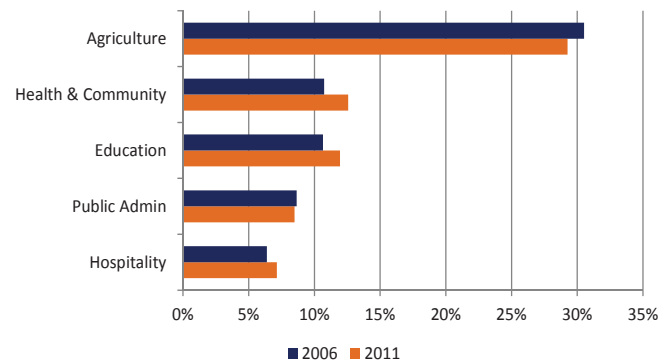


Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Heavy & Civil Engineering Construction	99%
Electricity Supply	41%
Residential Care Services	126%
Type IV – Outperforming in low growth industry	
Food Product Manufacturing	156%
Construction Services	23%
Accommodation	23%
Type II – Underperforming in high growth industry	
Non-metallic Mineral Mining & Quarrying	-57%
Professional & Scientific Services	15%
Medical & Other Health Care Services	-13%
Type III – Underperforming in low growth industry	
Agriculture, Forestry & Fishing Support Services	-69%
Building Construction	-47%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$40,336	\$46,193	15%
Professionals	\$50,757	\$60,660	20%
Technicians & Trades Workers	\$31,105	\$43,784	41%
Community & Personal Service Workers	\$34,136	\$45,874	34%
Clerical & Administrative Workers	\$34,902	\$38,933	12%
Sales Workers	\$27,979	\$38,116	36%
Machinery Operators & Drivers	\$30,016	\$39,179	31%
Labourers	\$25,360	\$31,617	25%

Table 3. Employment mapping

Occupation	Walgett LGA	Nearby LGAs	Other LGAs
Farmers & Farm Managers	377	29	11
Specialist Managers	47	7	0
Hospitality, Retail & Service Managers	86	0	7
Business, Human Resource & Marketing Professionals	32	0	6
Education Professionals	120	16	0
Health Professionals	56	0	18
Electrotechnology & Telecommunications Trades Workers	23	7	0
Health & Welfare Support Workers	51	3	3
General Clerical Workers	55	7	0
Machinery & Stationary Plant Operators	28	8	7
Mobile Plant Operators	43	7	0
Road & Rail Drivers	44	7	0
Construction & Mining Labourers	23	0	3
Farm, Forestry & Garden Workers	96	8	8

Average income by occupation

In 2011, the top earning occupations were Professionals & Managers. The largest increases in incomes were reported for those working as:

- Technician & Trade Workers;
- Sales Workers; and
- Community & Personal Service Workers.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. As at the 2011 Census, the most common occupations in Walgett Shire sourced from LGAs not adjacent to Walgett Shire were:

- Health Professionals;
- Farmers & Farm Managers;
- Farm, Forestry & Garden Workers.

Results for all occupations that were in part sourced from outside Walgett LGA are shown in Table 3.

Count of businesses

ABS Count of Australian Businesses data, including Entries and Exits between June 2008 and June 2011 is available at Statistical Area Level 2: Walgett-Lightening Ridge. Between 2008 and 2011, the most significant growth in businesses occurred for:

- Electricity, Gas, Water & Waste Services (60%, to 8 businesses);
- Construction (40%, to 67 businesses); and
- Retail Trade (21%, to 51 businesses).

The most significant decline in businesses occurred for:

- Information Media & Telecommunications (100%, to 0 businesses);
- Arts & Recreation (67%, to 3 businesses); and
- Other Services (50%, to 6 businesses).

Businesses in Agriculture, Forestry & Fishing declined by 25% (to 317 businesses).

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWR for Dec Qtr 2012 reported:

- A labour force of 3,404 persons
- An unemployment rate of 13.1%

The unemployment trend since December 2006 is shown in the chart opposite. The unemployment rate for Walgett Shire is significantly higher than that of the overall Orana region and Rest of NSW over this period and has trended upwards over the period (by 1.8 % per quarter).

At the 2011 census, Walgett reported

- A Youth labour force of 308 persons, with the youth unemployment rate at 15.3%, higher than that for Orana overall (12.4%).
- An Indigenous Labour force of 479 persons, with the Indigenous unemployment rate at 15.2%, lower than that for Orana overall (19.9%).

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of Walgett Shire was most commonly:

- Year 12 or equivalent (22%)
- Year 10 or equivalent (22%)

(32% not stated or not applicable)

The level of completion at Year 12 level or equivalent is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (11%)
- Bachelor Degree (5%)

Completions of Certificate III or IV is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Figure 3. Recent unemployment trend

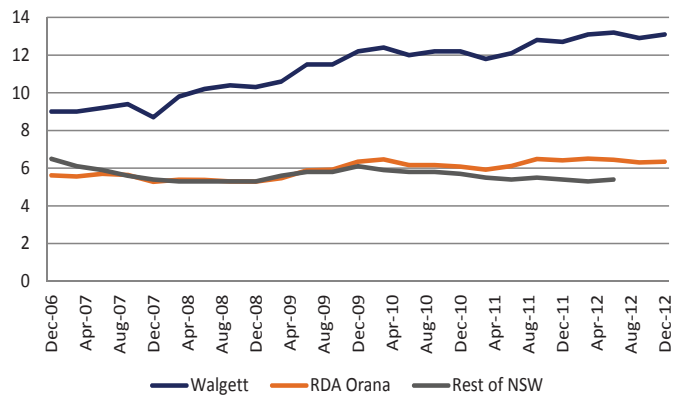


Figure 4. Highest year of school completed

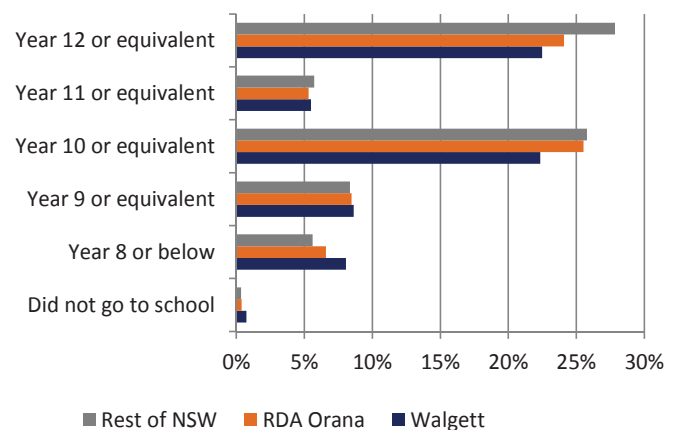


Figure 5. Post school qualifications

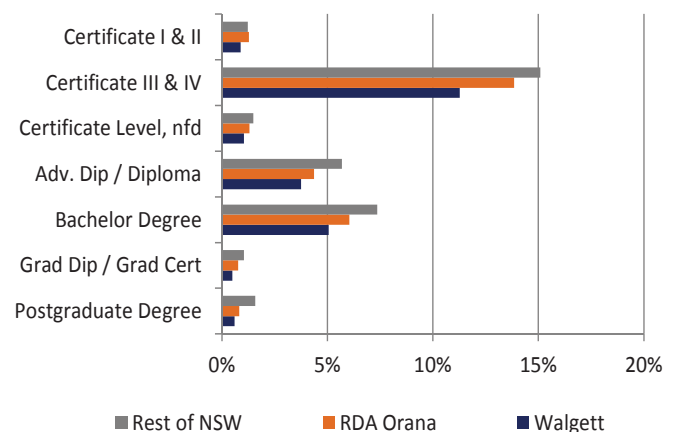


Table 4. Current study patterns (Census 2011)

	Walgett LGA	RDA Orana	Rest of NSW
Attending University			
15-24 years	4.7%	5.2%	12.5%
25 years and over	1.2%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	4.7%	8.7%	9.0%
25 years and over	1.7%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure

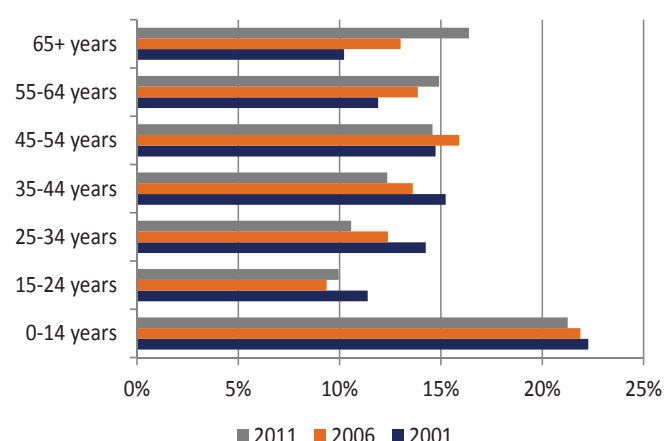


Table 5. Age dependency ratios (Census 2011)

	Walgett LGA	RDA Orana	Rest of NSW
Child	0.34	0.35	0.31
Aged	0.26	0.27	0.29
Total	0.60	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Postgraduate Degree qualifications increased by 138% (to 38 people);
- Graduate Diploma and Graduate Certificate qualifications increased by 19% (to 32 people);
- Certificate I and II qualifications increased by 10% (to 57 people);
- Certificate level (not defined) qualifications contracted by 7% (to 67 people).

Current study patterns

- Attendance rates at university and other tertiary institutes by those aged 15-24 years were lower for Walgett Shire in comparison to the overall Orana region and Rest of NSW. This was particularly noticeable for attendance at other tertiary institutes.
- Attendance rates for those aged 25 years and over were only slightly lower than in the comparison regions.

AGE AND POPULATION

The population as at Census 2011 was 6,454.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 21% of the population (compared to 22% for the Orana region as a whole).
- The next largest age group was those aged 65 years and over (16% of the population compared to 17% for Orana as a whole).
- Between 2001 and 2011 there was a considerable increase in the number of people aged 65 years and over in Walgett Shire (from 10% to 16%).

Age dependency

- The Child and Aged Dependency ratios are similar compared to both the overall Orana region and the Rest of NSW. Thus the Total Dependency ratios are also similar.

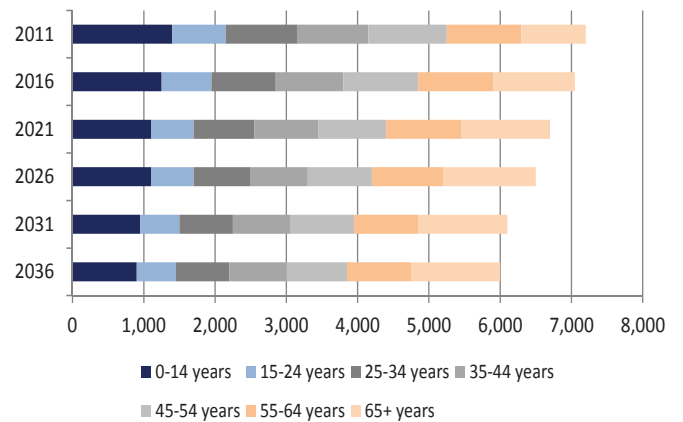
Indigenous population

In 2011, Aboriginal and Torres Strait Islander people made up 28.1% of the population compared to 28.2% of the population in 2006. This is higher than that for the Orana region (14.3% in 2011).

Population projections

- The population of Walgett is projected to fall by 16.7% between 2011 and 2036, while its working age population is projected to fall by 21.4% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 68% to 64%.

Figure 7. Population projections

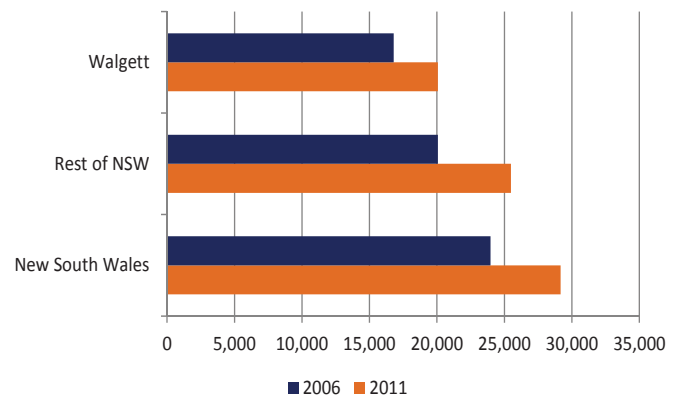


HOUSEHOLD DATA

Personal income

- As at the 2011 Census, the median personal income in Walgett Shire was lower than that for the Rest of NSW region and New South Wales.
- Between 2006 and 2011, median personal income grew by 20%.

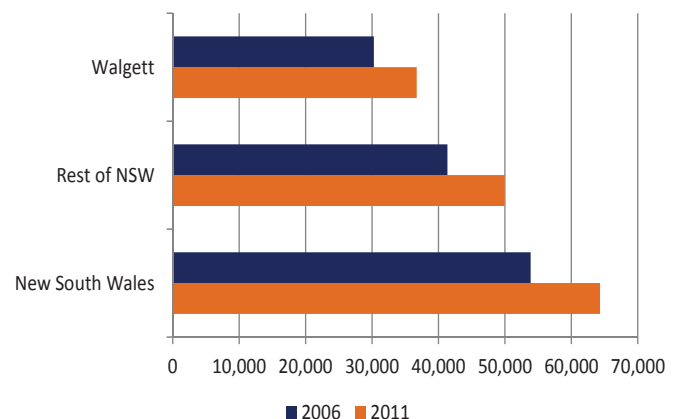
Figure 8. Personal income



Household income

- As at the 2011 Census, the median household income in Walgett Shire was lower than that for the Rest of NSW region as a whole.
- Between 2006 and 2011, median household income grew by 21%.

Figure 9. Household income



HOUSING

Housing affordability

The affordability of housing was examined using a ratio of median house prices to average taxable income and median weekly rental as a percentage of average weekly taxable income.

- Figure 10 opposite highlights that in 2011, on average, the Walgett Shire rental market is similar in affordability compared to the Rest of NSW and NSW.
- The affordability of home ownership has improved marginally in Walgett Shire since 2006. Housing affordability in the sales market is at least two times better than in the Rest of NSW and NSW.

Home ownership vs. rental

- There is relative stability in ownership status across Walgett Shire, Orana and NSW as a whole, though the proportion of owner-occupied homes is lower in Walgett at 53% compared to 62% in the overall Orana region.
- The proportion of dwellings owner-occupied in Walgett Shire has increased from 51% in 2006 to 53% in 2011.
- The proportion of dwellings rented in Walgett has decreased from 34% in 2006 to 33% in 2011. The proportion of other tenure types has also decreased from 15% to 14% over the same period.

Figure 10. Median weekly rental as percentage of median household weekly taxable income

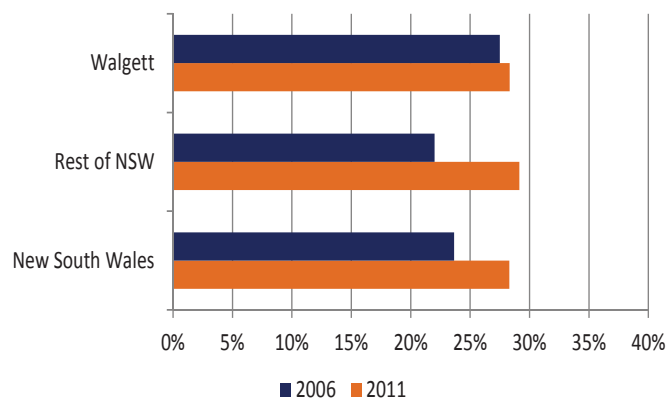


Figure 11. Ratio of median house price to median household taxable income

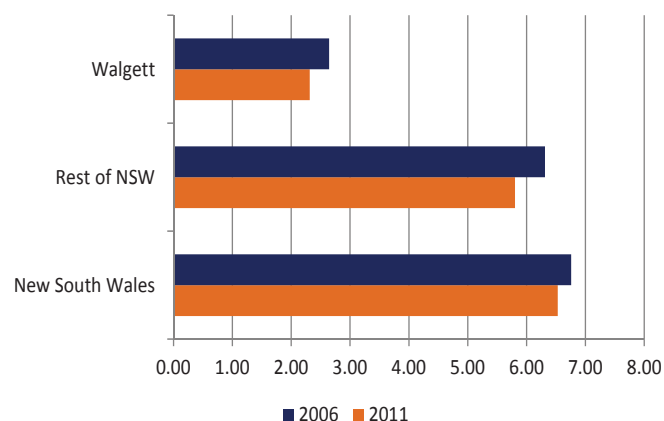
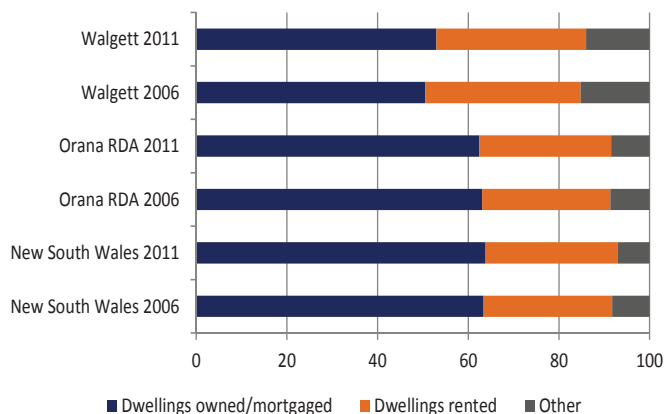


Figure 12. Home ownership vs. rental



VALUE OF CONSTRUCTION

Table 6 shows that:

- Residential construction fluctuated between 2010 and 2012, whilst non-residential construction decreased.
- Non-residential construction grew by 34% between 2011 and 2012.

Table 6. Value of construction

	Residential \$'000	Non-residential \$'000	Total
2010	3,905	8,399	12,303
2011	8,246	1,508	9,754
2012	1,917	2,016	3,932
% change 2010-2011	111%	-82%	-21%
% change 2011-2012	-77%	34%	-60%
% change 2010-2012	-51%	-76%	-68%

CRIME STATISTICS

Crime rates are normally reported in terms of rate per 100,000 head of population. The top reported offences in Walgett Shire in 2012 were:

- Malicious damage to property;
- Assault – domestic violence related; and
- Assault - non-domestic violence related.

Nine out of the ten most regularly occurring offence categories in Walgett recorded a higher rate of incidence than in Orana overall, whilst all categories recorded a higher rate of incidence than in NSW overall.

The rate of crime incidences per 100,000 along with the percentage change in these offences between 2008 and 2012 are shown in table 7 below.

Table 7. Top 10 offence categories

	Walgett LGA			RDA Orana			NSW		
	2008	2012	% Change	2008	2012	% Change	2008	2012	% Change
Malicious damage to property	4225	2915	-31%	2,830	2,289	-19%	1,560	1,129	-28%
Assault - domestic violence related	2316	2705	17%	872	966	11%	365	375	3%
Assault - non-domestic violence related	2077	1771	-15%	1,101	995	-10%	610	482	-21%
Break and enter dwelling	2302	1715	-25%	875	1,151	32%	632	554	-12%
Breach bail conditions	1670	1367	-18%	652	1,081	66%	338	417	24%
Harassment, threatening behaviour and private nuisance	1404	1171	-17%	771	891	16%	376	410	9%
Break and enter non-dwelling	1123	990	-12%	585	485	-17%	327	222	-32%
Breach Apprehended Violence Order	1081	934	-14%	416	498	20%	165	175	6%
Steal from motor vehicle	983	753	-23%	787	1,003	27%	825	645	-22%
Steal from dwelling	730	697	-4%	558	556	0%	305	299	-2%

WARREN SHIRE

KEY FACTS:

Population

Population as at the 2011 Census was 2,758 (2% of the Orana region's population).

Gross Regional Product as at 2012

Warren Shire contributed an estimated \$108.63 million to the Orana region GRP (2%).

Key sectors in 2012:

- Agriculture (27% of value added and 46% of FTE employment)
- Public Administration (8% of value added and 7% of FTE employment)
- Education (6% of value added and 7% of FTE employment)

Top earning occupations in 2011:

- Professionals; and
- Machinery Operators & Drivers.

Unemployment:

- Unemployment rate of 6.0% (December 2012)
- Youth unemployment rate of 8.7% (2011 Census)
- Indigenous unemployment rate of 25.7% (2011 Census)

Opportunities:

- Continued development of agriculture
- Value-adding to agricultural output through the Food & Beverage Manufacturing sector
- Value-adding to tourism through the Hospitality sector.

ECONOMY

The GRP for Warren Shire in 2012 was estimated at \$108.63 million.

Key sectors in 2012

- Agriculture contributed 27% to value added and 46% of FTE employment
- Public Administration contributed 8% to value added and 7% of FTE employment
- Education contributed 6% to value added and 7% of FTE employment

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Administrative Services, where employment increased by 2 percentage points;
- in Wholesale, where employment increased by 2 percentage points; and
- Health & Community, where employment fell by 2 percentage points.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Agriculture (40% of employment);
- Public Administration (7%);
- Pre-school & School Education (7%);
- Food Retailing (4%); and
- Professional, Scientific & Technical Services (5%).

Key Shift Share results between 2006 and 2011

Based on an analysis of industries at the subdivision level, strong local factors for employment growth were experienced in the following key sectors:

- Machinery & Equipment Wholesaling;
- Heavy & Civil Engineer Construction; and
- Basic Material Wholesaling.

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Figure 1. Key contributors - sectors

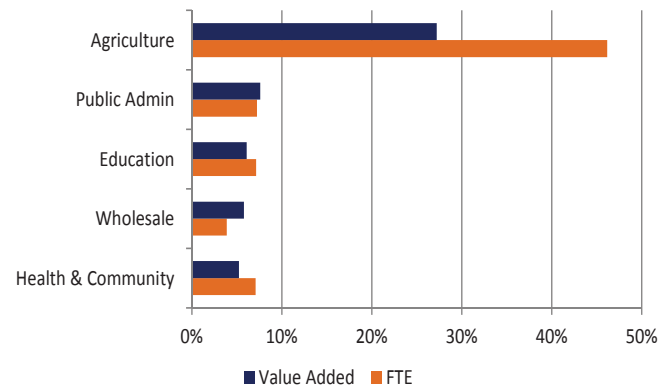


Figure 2. Changes in employment for top 5 sectors

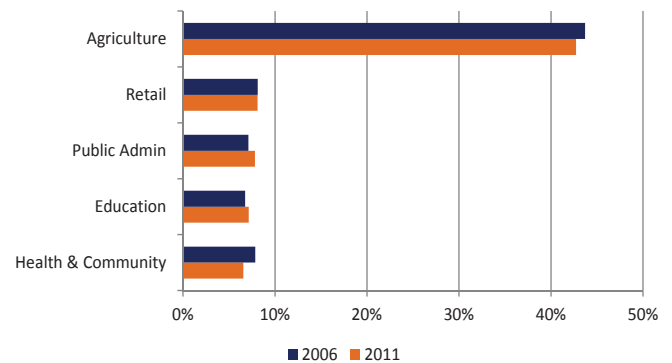


Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Machinery & Equipment Wholesaling	78%
Heavy & Civil Engineer Construction	134%
Type IV – Outperforming in low growth industry	
Basic Material Wholesaling	58%
Type II – Underperforming in high growth industry	
Road Transport	-21%
Medical & Other Health Care Services	10%
Professional, Scientific & Technical Services	-4%
Type III – Underperforming in low growth industry	
Food Retailing	-2%
Pre-school & School Education	2%
Hospitals	-62%
Construction Services	-39%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$37,730	\$45,401	20%
Professionals	\$57,543	\$55,288	-4%
Technicians & Trades Workers	\$33,906	\$44,443	31%
Community & Personal Service Workers	\$27,944	\$36,367	30%
Clerical & Administrative Workers	\$30,461	\$38,178	25%
Sales Workers	\$22,053	\$40,456	83%
Machinery Operators & Drivers	\$34,301	\$48,492	41%
Labourers	\$24,398	\$28,226	16%

Table 3. Employment mapping

Occupation	Warren LGA	Nearby LGAs	Other LGAs
Farmers & Farm Managers	260	23	4
Specialist Managers	23	0	6
Health Professionals	24	0	3
Carers & Aides	37	7	0
Inquiry Clerks & Receptionists	8	5	0
Machinery & Stationary Plant Operators	12	9	0
Mobile Plant Operators	42	0	5
Farm, Forestry & Garden Workers	47	21	3

Average income by occupation

In 2011, the top earning occupations were Professionals and Machinery Operators & Drivers. The largest increases in incomes were reported for those working as:

- Sales Workers;
- Machinery Operators & Drivers; and
- Technicians and Trade Workers.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. As at the 2011 Census, the most common occupations in Warren Shire sourced from LGAs not adjacent to Warren Shire were:

- Specialist Managers;
- Mobile Plant Operators; and
- Farmers & Farm Managers.

Results for all occupations that were in part sourced from outside Warren LGA are shown in Table 3.

Count of businesses

ABS Count of Australian Businesses data, including Entries and Exits between June 2008 and June 2011 is available at Statistical Area Level 2: Nyngan-Warren. Between 2008 and 2011, the most significant growth in businesses occurred for:

- Financial & Insurance Services (160%, to 26 businesses);
- Administrative & Support Services (67%, to 20 businesses); and
- Retail Trade (33%, to 40 businesses).

The most significant decline in businesses occurred for:

- Public Administration & Safety (100%, to 0 businesses);
- Manufacturing (40%, to 9 businesses); and
- Professional, Scientific & Technical Services (30%, to 23 businesses).

Businesses in Agriculture, Forestry & Fishing grew by 3%.

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWR for Dec Qtr 2012 reported:

- A labour force of 1,642 persons
- An unemployment rate of 6%

The unemployment trend since December 2006 is shown in the chart opposite. An upward trend of 2% per quarter has been experienced since December 2006. Walgett's unemployment rate has increased by 1.99% per quarter over the period.

At the 2011 census, Warren reported:

- A Youth labour force of 161 persons, with the youth unemployment rate of 8.7%, lower than that for Orana overall (12.4%).
- An Indigenous Labour force of 105 persons, with the Indigenous unemployment rate at 25.7%, higher than that for Orana overall (19.9%).

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of Warren Shire was most commonly:

- Year 12 or equivalent (28%)
- Year 10 or equivalent (25%)

(27% not stated or not applicable)

The level of completion at Year 12 level or equivalent is higher than that reported for the RDA Orana region as a whole and similar for non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (10%)
- Bachelor Degree (6%)

The level of completion of Certificate III or IV is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Figure 3. Recent unemployment trend

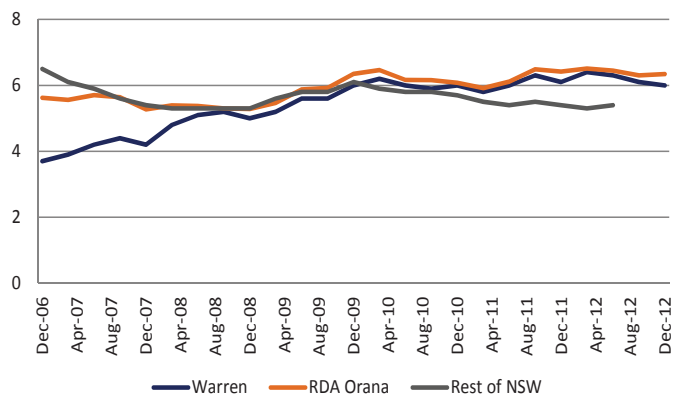


Figure 4. Highest year of school completed

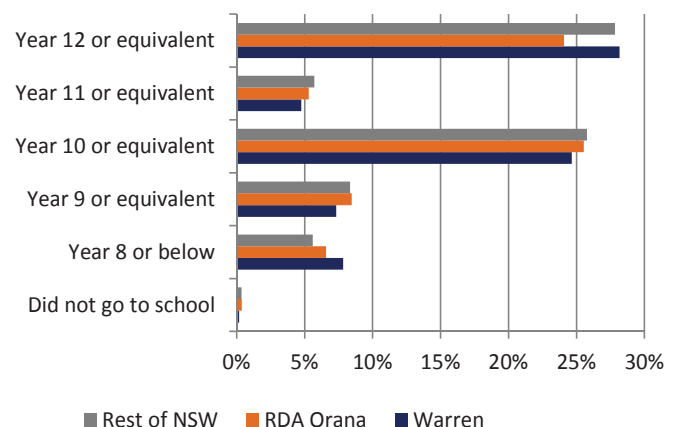


Figure 5. Post school qualifications

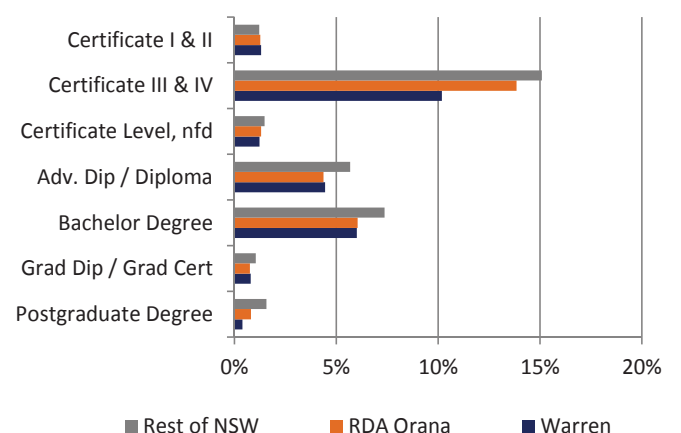


Table 4. Current study patterns (Census 2011)

	Warren LGA	RDA Orana	Rest of NSW
Attending University			
15-24 years	7.4%	5.2%	12.5%
25 years and over	0.8%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	9.9%	8.7%	9.0%
25 years and over	1.9%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure



Table 5. Age dependency ratios (Census 2011)

	Warren LGA	RDA Orana	Rest of NSW
Child	0.34	0.35	0.31
Aged	0.28	0.27	0.29
Total	0.61	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Graduate Diploma and Graduate Certificate qualifications increased by 47% (to 22 people);
- Certificate I and II qualifications increased by 38% (to 36 people);
- Bachelor Degree qualifications increased by 28% (to 166 people);
- Certificate level (not defined) qualifications contracted by 15% (to 34 people).

Current study patterns

- Attendance rates at university and other tertiary institutes for those aged 15-24 years were higher for Warren Shire in comparison to the overall Orana region. For attendance at other tertiary institutes the rate was also higher than that for the Rest of NSW.
- Attendance at other tertiary institutes by those aged 25 years and over is similar to that recorded for Orana and the Rest of NSW.

AGE AND POPULATION

The population as at Census 2011 was 2,758.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 21% of the population (compared to 22% for the Orana region as a whole).
- The next largest age group was those aged 65 years and over (17% of the population compared to 17% for Orana as a whole).
- Between 2001 and 2011 there was a considerable drop in the number of people aged 25-34 years in Warren Shire (from 15% to 11%). This age group comprised 11% of the Orana region as a whole in 2011.

Age dependency

- The Child and Aged Dependency ratios are similar to both the overall Orana region and the Rest of NSW. Thus the Total Dependency ratios are alike.

Indigenous population

In 2011, Aboriginal and Torres Strait Islander people made up 13.3% of the population compared to 12.1% of the population in 2006. This is lower than that of the Orana region (14.3% in 2011).

Population projections

- The population of Warren is projected to fall by 35.7% between 2011 and 2036, while its working age population is projected to fall by 44.4% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 64% to 56%.

HOUSEHOLD DATA

Personal income

- As at the 2011 Census, the median personal income in Warren Shire was slightly higher than that for the Rest of NSW and lower compared to New South Wales as a whole.
- Between 2006 and 2011, median personal income grew by 21%.

Household income

- As at the 2011 Census, the median household income in Warren Shire was lower than that for the Rest of NSW region and New South Wales as a whole.
- Between 2006 and 2011, median household income grew by 26%.

Figure 7. Population projections

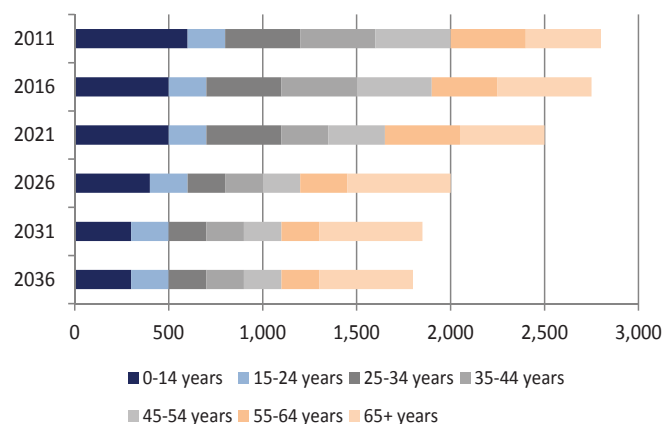


Figure 8. Personal income

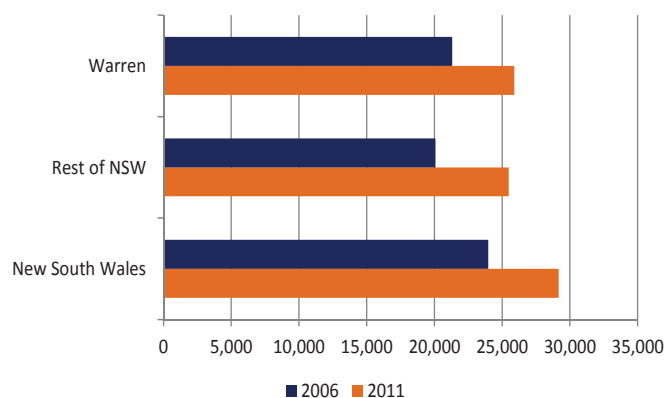
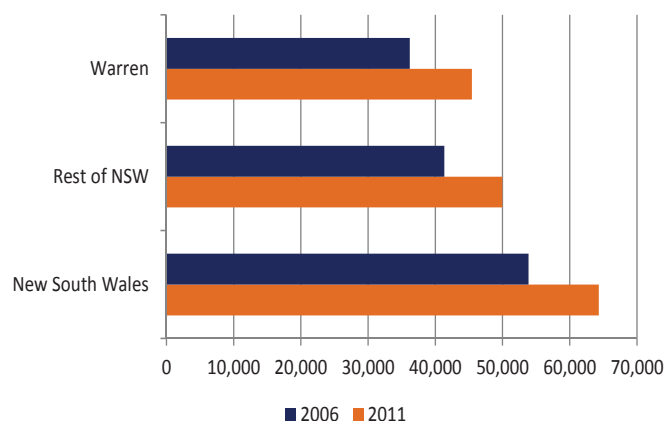


Figure 9. Household income



HOUSING

Housing affordability

The affordability of housing was examined using a ratio of median house prices to average taxable income and median weekly rental as a percentage of average weekly taxable income. Housing data was not available for Warren Shire; therefore the larger region of Macquarie-Barwon was used.

- Figure 10 opposite highlights that in 2011, on average, the Macquarie-Barwon region rental market is considerably more affordable compared to the Rest of NSW and NSW.
- The affordability of home ownership in Macquarie-Barwon (with respect to household income in Warren Shire) has remained stable since 2006. Housing affordability in the sales market is around three times better than in the Rest of NSW and NSW.

Home ownership vs. rental

- There has been relative stability in ownership status across Warren, Orana and NSW as a whole.
- The proportion of dwellings owner-occupied in Warren Shire has decreased from 63% in 2006 to 61% in 2011.
- The proportion of dwellings rented in Warren has increased from 31% in 2006 to 32% in 2011. The proportion of other tenure types has also increased, from 6% to 7% over the same period.

Figure 10. Median weekly rental as percentage of median household weekly taxable income

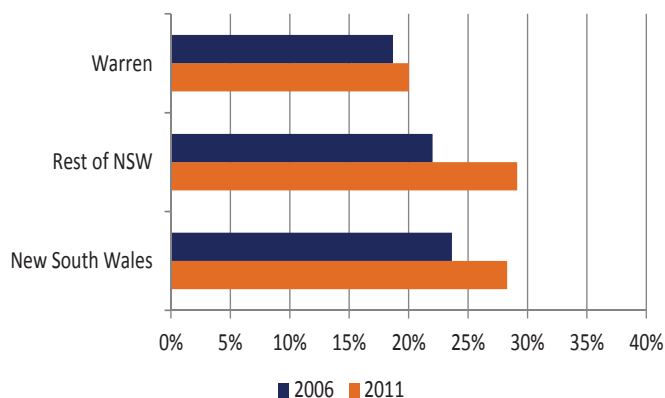


Figure 11. Ratio of median house price to median household taxable income

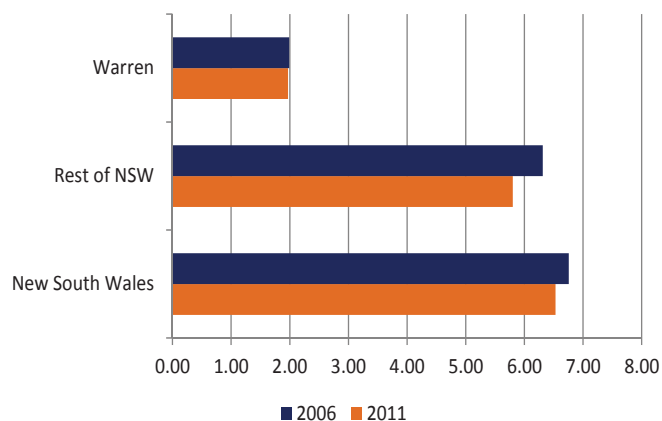


Figure 12. Home ownership vs. rental



VALUE OF CONSTRUCTION

Table 6 shows that:

- Residential and non-residential construction decreased between 2010 and 2012.
- Total construction contracted by 66% between 2011 and 2012.

Table 6. Value of construction

	Residential \$000	Non-residential \$000	Total
2010	2,008	4,673	6,681
2011	1,354	4,070	5,424
2012	797	1,045	1,842
% change 2010-2011	-33%	-13%	-19%
% change 2011-2012	-41%	-74%	-66%
% change 2010-2012	-60%	-78%	-72%

CRIME STATISTICS

The NSW Bureau of Crime Statistics and Research does not publish the rate of crime for populations less than 3,000 people. Therefore, the following tables present raw offence numbers and cannot be compared with the rest of the Orana region. Any comparison drawn should be treated with caution.

The top reported offences in Warren Shire in 2012 were:

- Malicious damage to property;
- Breach bail conditions; and
- Assault –domestic violence related.

The top ten offences along with the percentage change in these offences between 2008 and 2012 are shown in table 7 below.

Table 7. Top 10 offence categories

Offence category	2008	2009	2010	2011	2012	% Change
Malicious damage to property	135	121	79	69	78	-42%
Breach bail conditions	11	18	13	41	72	555%
Assault - domestic violence related	29	35	34	49	38	31%
Assault - non-domestic violence related	38	38	52	70	38	0%
Harassment, threatening behaviour and private nuisance	16	31	34	68	28	75%
Trespass	30	35	30	20	28	-7%
Break and enter dwelling	13	24	26	29	24	85%
Liquor offences	68	47	32	19	22	-68%
Breach Apprehended Violence Order	5	19	18	26	22	340%
Break and enter non-dwelling	22	27	12	22	21	-5%

WARRUMBUNGLE SHIRE

KEY FACTS:

Population

Population as at the 2011 Census was 9,588 (8% of the Orana region's population).

Gross Regional Product as at 2012

Warrumbungle Shire contributed an estimated \$301.7 million to the Orana region GRP (6%).

Key sectors in 2012:

- Agriculture (19% of value added and 31% of FTE employment)
- Education (10% of value added and 12% of FTE employment)
- Health & Community (10% of value added and 13% of FTE employment)

Top earning occupations in 2011:

- Professionals; and
- Technicians & Trade Workers.

Unemployment:

- Unemployment rate of 6.4% (December 2012)
- Youth unemployment rate of 13.0% (2011 Census)
- Indigenous unemployment rate of 26.4% (2011 Census)

Opportunities:

- Continued development of agriculture
- Value-adding to agricultural output through the Food & Beverage Manufacturing sector
- Value-adding to tourism through the Hospitality sector

ECONOMY

The GRP for Warrumbungle Shire in 2012 was estimated at \$301.7 million.

Key sectors in 2012

- Agriculture contributed 19% to value added and 31% of FTE employment
- Education contributed 10% to value added and 12% of FTE employment
- Health & Community contributed 10% to value added and 13% of FTE employment

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Agriculture, where employment fell by 4 percentage points;
- in Health & Community, where employment increased by 2 percentage points; and
- Public Administration, where employment increased by 1 percentage points.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Agriculture (27% of employment);
- Pre-school & School Education (11%);
- Public Administration (6%);
- Food & Beverage Services (5%);
- Food Retailing (5%); and
- Other Store Based Retailing (5%).

Key Shift Share results between 2006 and 2011

Based on an analysis of industries at the subdivision level, strong local factors for employment growth were experienced in the following key sector:

- Textile, Leather, Clothing & Footwear Manufacturing

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Figure 1. Key contributors - sectors

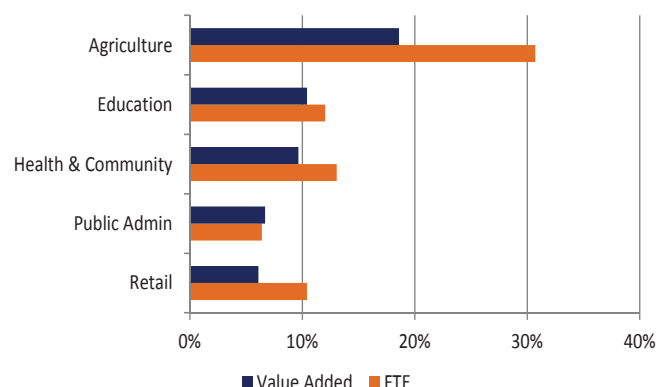


Figure 2. Changes in employment for top 5 sectors

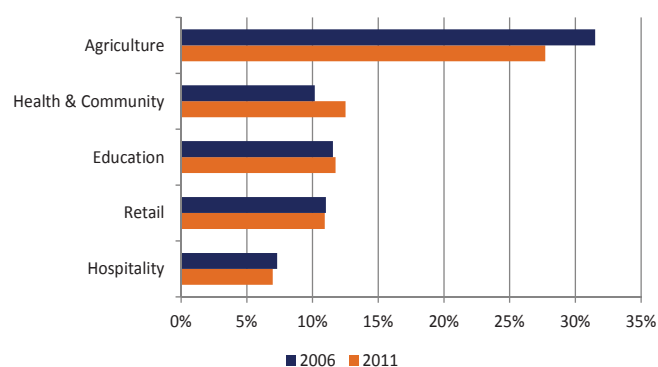


Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Building Cleaning, Pest Control & Other Support Services	55%
Type IV – Outperforming in low growth industry	
Textile, Leather, Clothing & Footwear Manufacturing	59%
Type II – Underperforming in high growth industry	
Food & Beverage Services	-2%
Residential Care Services	37%
Medical and Other Health Care Services	-26%
Professional, Scientific & Technical Services	-5%
Road Transport	-30%
Type III – Underperforming in low growth industry	
Agriculture	-16%
Pre-school Education	Unchanged
Food Retailing	1%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$32,318	\$36,586	13%
Professionals	\$52,047	\$59,157	14%
Technicians & Trades Workers	\$32,492	\$38,279	18%
Community & Personal Service Workers	\$28,321	\$35,367	25%
Clerical & Administrative Workers	\$30,024	\$34,024	13%
Sales Workers	\$25,267	\$26,546	5%
Machinery Operators & Drivers	\$32,022	\$36,793	15%
Labourers	\$23,041	\$27,864	21%

Table 3. Employment mapping

Occupation	Warrumbungle LGA	Nearby LGAs	Other LGAs
Farmers and Farm Managers	657	23	6
Specialist Managers	48	3	0
Hospitality, Retail & Service Managers	128	7	0
Design, Engineering, Science & Transport Professionals	39	3	0
Education Professionals	190	28	0
Health Professionals	110	13	0
Carers & Aides	144	29	0
Numerical Clerks	59	0	8
Sales Representatives & Agents	26	7	0
Mobile Plant Operators	44	19	0
Factory Process Workers	29	7	0

Average income by occupation

In 2011, the top earning occupations were Professionals and Technicians and Trade Workers. The largest increases in incomes were reported for those working as:

- Community & Personal Service Workers;
- Labourers; and
- Technicians & Trade Workers.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. As at the 2011 Census, the most common occupations in Warrumbungle Shire sourced from LGAs not adjacent to Warrumbungle Shire were:

- Numerical Clerks; and
- Farmers & Farm Managers.

Results for all occupations that were in part sourced from outside Warrumbungle LGA are shown in Table 3.

Count of businesses

ABS Count of Australian Businesses data, including Entries and Exits between June 2008 and June 2011 is available at Statistical Area Level 2: Coonabarabran. Between 2008 and 2011, the most significant growth in businesses occurred for:

- Rental, Hiring & Real Estate (44%, to 39 businesses);
- Financial & Insurance Services (38%, to 22 businesses); and
- Administrative & Support Services (33%, to 12 businesses).

The most significant decline in businesses occurred for:

- Electricity, Gas & Water Services (100%, to 0 businesses);
- Public Administration (50%, to 3 businesses); and
- Wholesale Trade (46%, to 21 businesses).

Businesses in Agriculture, Forestry & Fishing declined by 18% (to 547 businesses).

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWR for Dec Qtr 2012 reported:

- A labour force of 4,902 persons
- An unemployment rate of 6.4%

The unemployment trend since December 2006 is shown in the chart opposite. The unemployment rate in Warrumbungle Shire has tracked closely to that of the overall Orana region since late 2008.

At the 2011 census, Warrumbungle Shire reported:

- A youth labour force of 453 persons, with the youth unemployment rate at 13.0%, higher than that for Orana overall (12.4%).
- An Indigenous Labour force of 197 persons, with the Indigenous unemployment rate at 26.4%, considerably higher than that for Orana overall (19.9%).

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of Warrumbungle Shire was most commonly:

- Year 10 or equivalent (26%)
- Year 12 or equivalent (22%)

(29% not stated or not applicable)

The level of completion at Year 12 level or equivalent is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (12%)
- Bachelor Degree (5%)

The level of completion of Certificate III or IV is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Figure 3. Recent unemployment trend

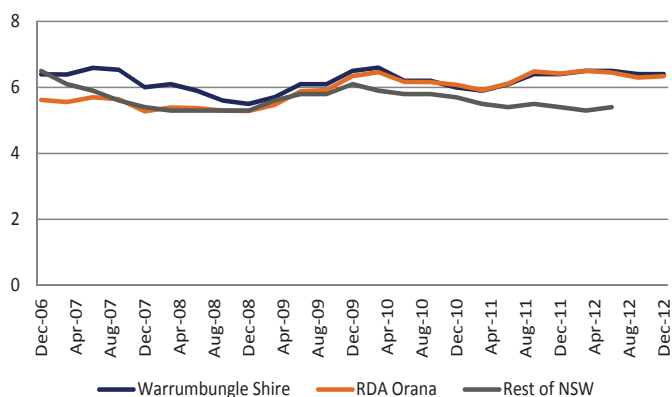


Figure 4. Highest year of school completed

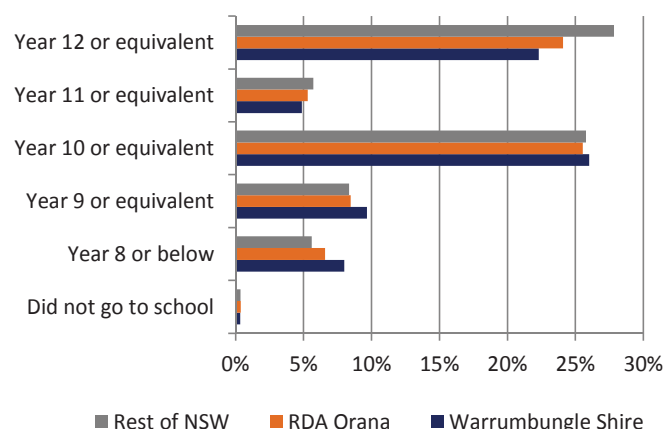


Figure 5. Post school qualifications

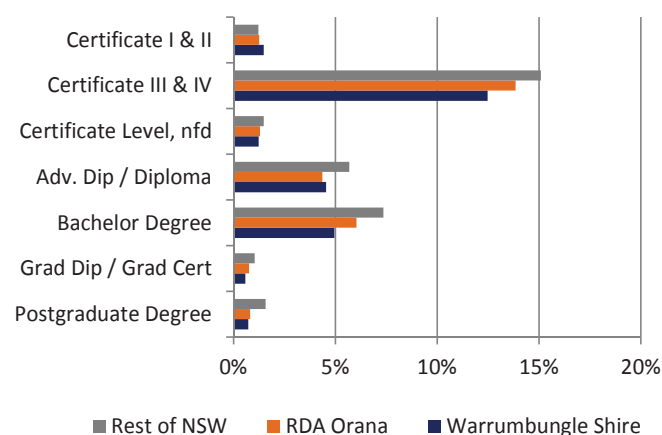


Table 4. Current study patterns (Census 2011)

	Warrumbungle LGA	RDA Orana	Rest of NSW
Attending University			
15-24 years	5.2%	5.2%	12.5%
25 years and over	1.2%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	6.6%	8.7%	9.0%
25 years and over	2.9%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure

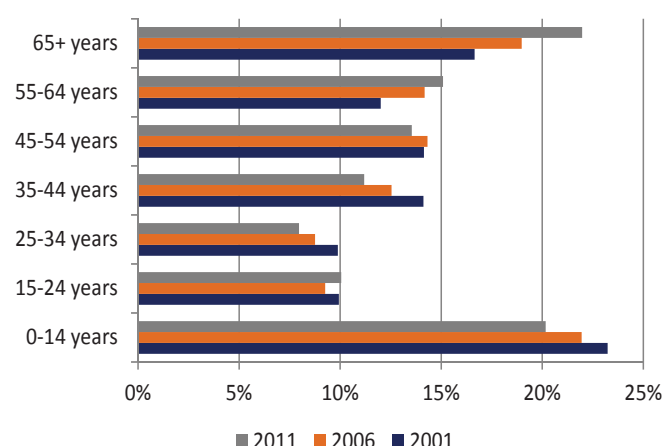


Table 5. Age dependency ratios (Census 2011)

	Warrumbungle LGA	RDA Orana	Rest of NSW
Child	0.35	0.35	0.31
Aged	0.38	0.27	0.29
Total	0.73	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Postgraduate Degree qualifications increased by 46% (to 70 people);
- Certificate I and II qualifications increased by 15% (to 142 people);
- Certificate III and IV qualifications increased by 12% (to 1,196 people);
- Graduate Diploma and Graduate Certificate qualifications contracted by 10% (to 56 people).

Current study patterns

- For those attending university, results for Warrumbungle Shire were similar to those for the overall Orana region.
- Attendance rates at other tertiary institutes for those aged 15-24 years were lower in comparison to that for the Orana region and Rest of NSW. However, for those aged 25 years and over the attendance rate was higher than in the comparison regions.

AGE AND POPULATION

The population as at Census 2011 was 9,588.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 20% of the population (compared to 22% for the Orana region as a whole).
- The largest age group was those aged 65 years and over (22% of the population compared to 17% for Orana as a whole).
- Between 2001 and 2011 there was a considerable increase in the number of people aged 65 years and over in Warrumbungle Shire (from 17% to 22%).

Age dependency

- The Aged Dependency and therefore Total Dependency ratios are quite high compared to both the overall Orana region and the Rest of NSW.

Indigenous population

In 2011, Aboriginal and Torres Strait Islander people made up 9.3% of the population compared to 7.6% of the population in 2006. This is lower than that of the Orana region (14.3% in 2011).

Population projections

- The population of Warrumbungle Shire is projected to fall by 19.7% between 2011 and 2036, while its working age population is projected to fall by 28.6% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 59% to 52%.

Figure 7. Population projections

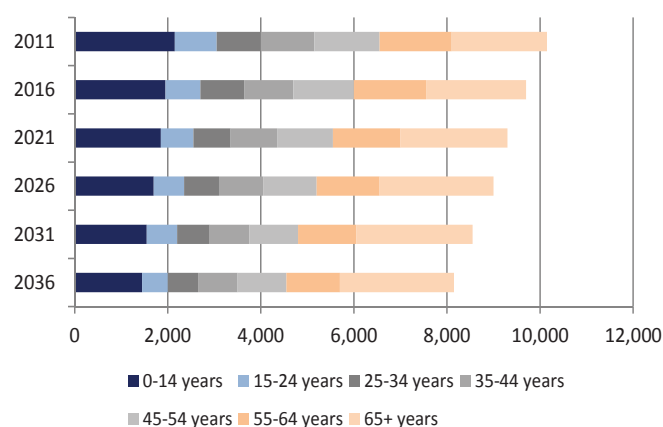
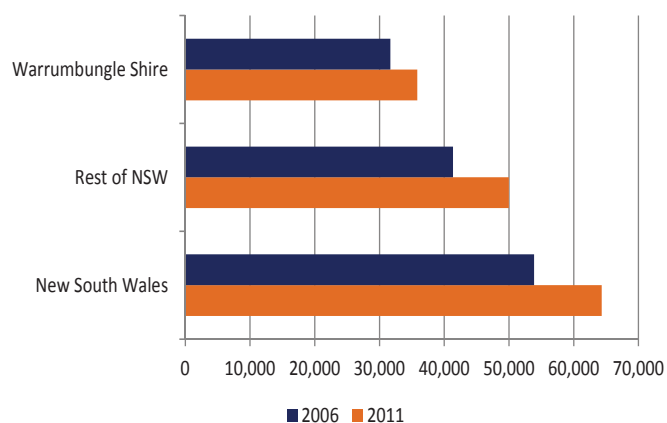


Figure 8. Personal income



Figure 9. Household income



HOUSING

Housing affordability

The affordability of housing was examined using a ratio of median house prices to average taxable income and median weekly rental as a percentage of average weekly taxable income.

- Figure 10 opposite highlights that in 2011, on average, the Warrumbungle region rental market was considerably more affordable compared to the Rest of NSW and NSW. Affordability has remained stable since 2006.
- The affordability of home ownership has improved in the Warrumbungle region since 2006.

Home ownership vs. rental

- There have been some small shifts in ownership status in the Warrumbungle Shire compared with relative stability across Orana and NSW as a whole.
- The proportion of dwellings owner-occupied in Warrumbungle Shire has decreased from 69% in 2006 to 67% in 2011.
- The proportion of dwellings rented has remained similar (24% in 2011); whilst the proportion of other tenure types has increased from 7% to 9% over the same period.

Figure 10. Median weekly rental as percentage of median household weekly taxable income

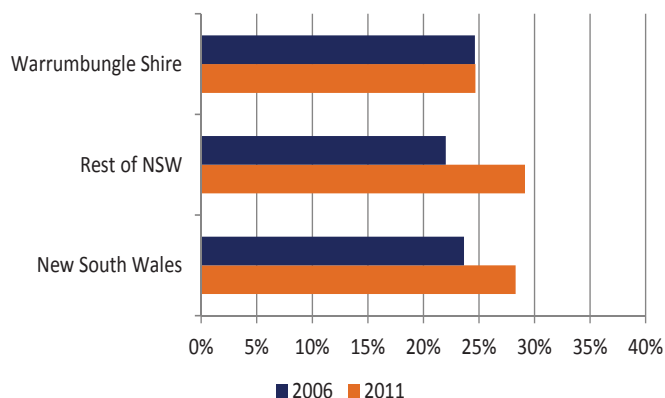
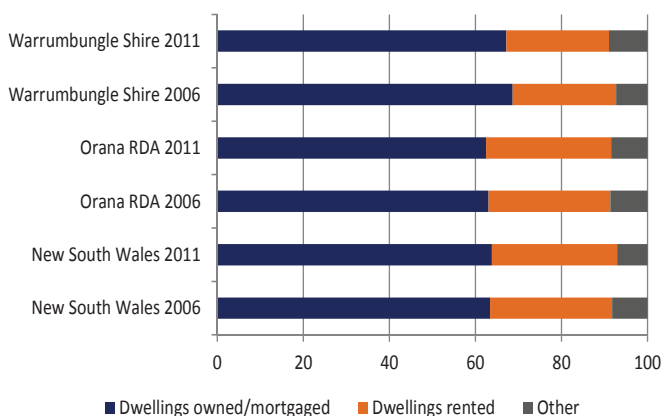


Figure 11. Ratio of median house price to median household taxable income



Figure 12. Home ownership vs. rental



VALUE OF CONSTRUCTION

Table 6 shows that:

- Non-residential construction contracted between 2010 and 2012, whilst residential construction was stagnant.
- Non-residential construction grew by 127% between 2011 and 2012.

Table 6. Value of construction

	Residential \$000	Non-residential \$000	Total
2010	3,453	19,453	22,905
2011	4,109	1,743	5,852
2012	2,518	3,952	6,470
% change 2010-2011	19%	-91%	-74%
% change 2011-2012	-39%	127%	11%
% change 2010-2012	-27%	-80%	-72%

CRIME STATISTICS

Crime rates are normally reported in terms of rate per 100,000 head of population. The top reported offences in Warrumbungle Shire in 2012 were:

- Malicious damage to property;
- Harassment, threatening behaviour and private nuisance; and
- Assault - non-domestic violence related.

Of the ten most regularly occurring offence categories in Warrumbungle Shire, nine recorded a lower rate of incidence than in Orana overall. Eight categories recorded a higher rate of incidence than in NSW overall.

The rate of crime incidences per 100,000 along with the percentage change in these offences between 2008 and 2012 are shown in table 7 below.

Table 7. Top 10 offence categories

	Warrumbungle LGA			RDA Orana			NSW		
	2008	2012	% Change	2008	2012	% Change	2008	2012	% Change
Malicious damage to property	1777	1146	-35%	2,830	2,289	-19%	1,560	1,129	-28%
Harassment, threatening behaviour and private nuisance	469	826	76%	771	891	16%	376	410	9%
Assault - non-domestic violence related	635	534	-16%	1,101	995	-10%	610	482	-21%
Assault - domestic violence related	498	525	5%	872	966	11%	365	375	3%
Other offences	332	505	52%	545	397	-27%	225	211	-6%
Break and enter dwelling	439	486	11%	875	1,151	32%	632	554	-12%
Steal from dwelling	381	486	28%	558	556	0%	305	299	-2%
Break and enter non-dwelling	586	457	-22%	585	485	-17%	327	222	-32%
Trespass	488	437	-10%	557	550	-1%	132	123	-7%
Other theft	605	369	-39%	678	546	-20%	537	476	-11%

WELLINGTON SHIRE

KEY FACTS:

Population

Population as at the 2011 Census was 8,493 (7% of the Orana region's population).

Gross Regional Product as at 2012

Wellington Shire contributed an estimated \$262.21 million to the Orana region GRP (6%).

Key sectors in 2012:

- Agriculture (14% of value added and 25% of FTE employment)
- Public Administration (14% of value added and 15% of FTE employment)
- Health & Community (8% of value added and 13% of FTE employment)

Top earning occupations in 2011:

- Professionals; and
- Community & Personal Service Workers.

Unemployment:

- Unemployment rate of 9.2% (December 2012)
- Youth unemployment rate of 18.9% (2011 Census)
- Indigenous unemployment rate of 26.1% (2011 Census)

Opportunities:

- Continued development of agriculture
- Value-adding to agricultural output through the Food & Beverage Manufacturing sector
- Value-adding to tourism through the Hospitality sector

ECONOMY

The GRP for Wellington Shire in 2012 was estimated at \$262.21 million.

Key sectors in 2012

- Agriculture contributed 14% to value added and 25% of FTE employment
- Public Administration contributed 14% to value added and 15% of FTE employment
- Health & Community contributed 8% to value added and 13% of FTE employment

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Public Administration, where employment increased by 8 percentage points;
- in Agriculture, where employment fell by 3 percentage points; and
- Construction, where employment fell by 3 percentage points.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Agriculture (21% of employment);
- Pre-school & School Education (9%);
- Public Order, Safety & Regulatory Services (9%);
- Public Administration (7%); and
- Food & Beverage Services (6%).

Key Shift Share results between 2006 and 2011

Based on an analysis of industries at the subdivision level, strong local factors for employment growth were experienced in the following key sectors:

- Road Transport
- Electricity Supply
- Heavy & Civil Engineering Construction

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Figure 1. Key contributors - sectors

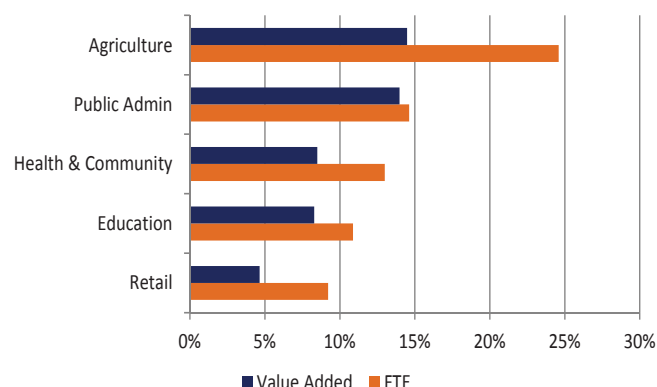


Figure 2. Changes in employment for top 5 sectors

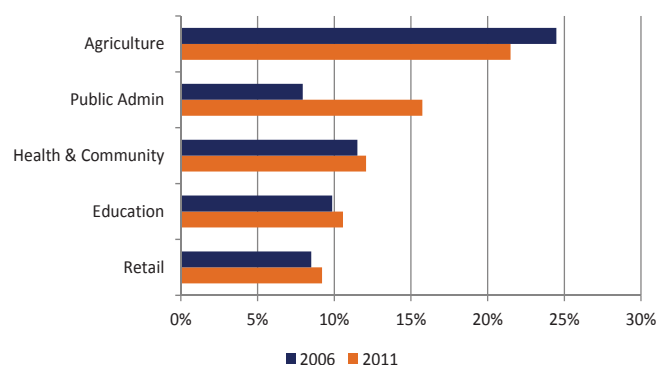


Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Road Transport	50%
Electricity Supply	75%
Heavy & Civil Engineering Construction	75%
Type IV – Outperforming in low growth industry	
Agriculture, Forestry & Fishing Support Services	66%
Water Supply, Sewerage & Drainage Services	50%
Food Retailing	46%
Type II – Underperforming in high growth industry	
Machinery & Equipment Manufacturing	-71%
Food & Beverage Services	-10%
Residential Care Services	-3%
Type III – Underperforming in low growth industry	
Construction Services	-43%
Building Construction	-71%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$32,456	\$38,995	20%
Professionals	\$52,880	\$60,358	14%
Technicians & Trades Workers	\$36,923	\$40,287	9%
Community & Personal Service Workers	\$30,055	\$47,318	57%
Clerical & Administrative Workers	\$32,315	\$41,830	29%
Sales Workers	\$22,294	\$24,564	10%
Machinery Operators & Drivers	\$33,026	\$46,859	42%
Labourers	\$26,391	\$27,023	2%

Table 3. Employment mapping

Occupation	Wellington LGA	Nearby LGAs	Other LGAs
Protective Service Workers	73	72	20
Machinery & Stationary Plant Operators	3	0	20
Farmers & Farm Managers	369	20	13
Specialist Managers	44	5	9
Education Professionals	111	36	9
Automotive & Engineering Trades Workers	48	5	9
Health & Welfare Support Workers	40	6	7
Technicians & Trades Workers nfd	0	0	6
Food Preparation Assistants	41	0	6
Business, Human Resource & Marketing Professionals	36	0	3
Health Professionals	77	13	3
Road & Rail Drivers	47	6	3
Chief Executives, General Managers & Legislators	9	4	0
Hospitality, Retail & Service Managers	86	14	0
Design, Engineering, Science & Transport Professionals	23	4	0

Average income by occupation

In 2011, the top earning occupations were Professionals and Community & Personal Service Workers. The largest increases in incomes were reported for those working as:

- Community & Personal Service Workers;
- Machinery Operators & Drivers;
- Clerical & Administrative Workers.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. As at the 2011 Census, the most common occupations in Wellington Shire sourced from LGAs not adjacent to Wellington Shire were:

- Protective Service Workers;
- Machinery & Stationary Plant Operators; and
- Farmers & Farm Managers.

Results for the top 15 occupations that were in part sourced from outside Wellington LGA are shown in Table 3.

Count of businesses

ABS Count of Australian Businesses data, including Entries and Exits between June 2008 and June 2011 is available at Statistical Area Level 2: Wellington. Between 2008 and 2011, the most significant growth in businesses occurred for:

- Manufacturing (53%, to 23 businesses);
- Health Care & Social Assistance (43%, to 30 businesses); and
- Administrative & Support Services (33%, to 20 businesses).

The most significant decline in businesses occurred for:

- Electricity, Gas, Water & Waste Services (100%, to 0 businesses);
- Professional Scientific & Technical Services (33%, to 28 businesses); and
- Wholesale Trade (28%, to 13 businesses).

Businesses in Agriculture, Forestry & Fishing declined by 16% (to 228 businesses).

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWR for Dec Qtr 2012 reported:

- A labour force of 3,915 persons
- An unemployment rate of 9.2%

The unemployment trend since December 2006 is shown in the chart opposite. The unemployment rate in Wellington Shire is considerably higher than that of the overall Orana region and the Rest of NSW over this period.

At the 2011 census, Wellington reported:

- A youth labour force of 477 persons, with the youth unemployment rate at 18.9%, higher than that for Orana overall (12.4%).
- An Indigenous Labour force of 418 persons, with the Indigenous unemployment rate at 26.1%, considerably higher than that for Orana overall (19.9%).

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of Wellington Shire was most commonly:

- Year 10 or equivalent (24%)
- Year 12 or equivalent (21%)

(33% not stated or not applicable)

The level of completion at Year 12 level or equivalent is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (12%)
- Bachelor Degree (5%)

The level of completion of Certificate III or IV is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Figure 3. Recent unemployment trend

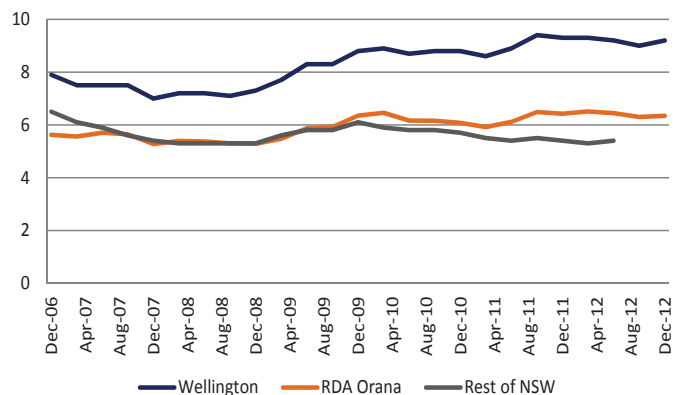


Figure 4. Highest year of school completed

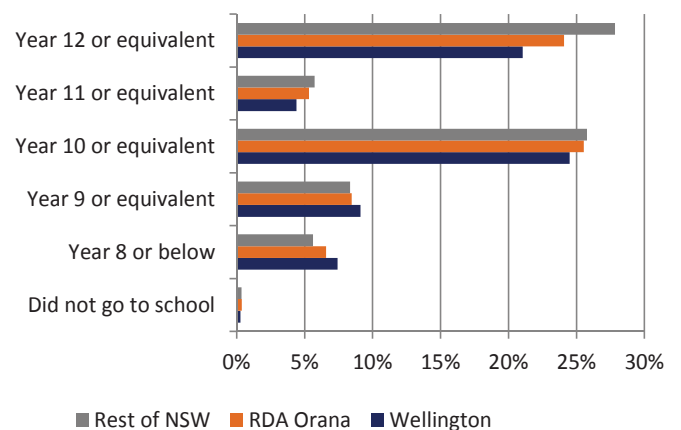


Figure 5. Post school qualifications

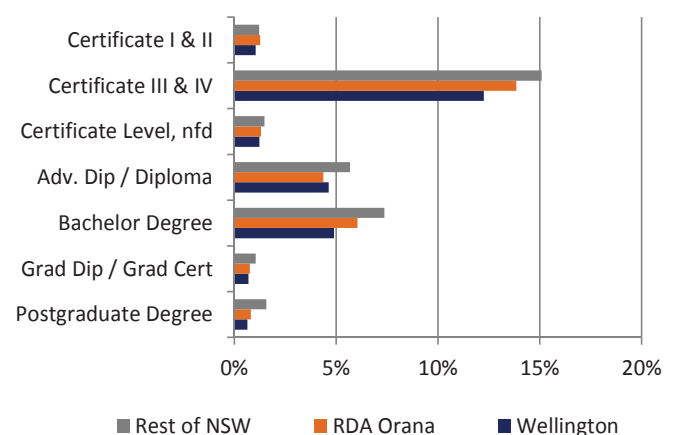


Table 4. Current study patterns (Census 2011)

	Wellington LGA	RDA Orana	Rest of NSW
Attending University			
15-24 years	4.8%	5.2%	12.5%
25 years and over	0.7%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	7.9%	8.7%	9.0%
25 years and over	1.7%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure

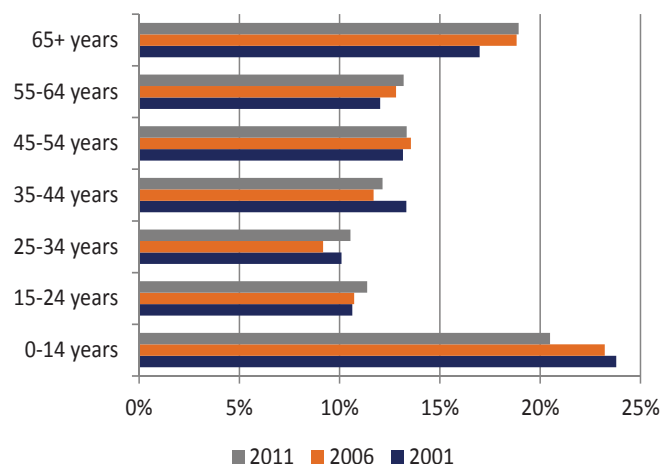


Table 5. Age dependency ratios (Census 2011)

	Wellington LGA	RDA Orana	Rest of NSW
Child	0.34	0.35	0.31
Aged	0.31	0.27	0.29
Total	0.65	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Advanced Diploma and Diploma qualifications increased by 23% (to 393 people);
- Bachelor Degree qualifications increased by 16% (to 416 people);
- Certificate III and IV qualifications increased by 15% (to 1,040 people); and
- Certificate level (not defined) qualifications increased by 11% (to 105 people).

Current study patterns

- Overall attendance rates for Wellington Shire were lower in comparison to the overall Orana region. However the proportion of those aged 15-24 years who are studying at a university is only slightly lower than in Orana overall.
- The attendance rate at other tertiary institutes for those aged 25 years and over is only slightly lower than that for the overall Orana region.

AGE AND POPULATION

The population as at Census 2011 was 8,493.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 20% of the population (compared to 22% for the Orana region as a whole).
- The next largest age group was those aged 65 years and over (19% of the population compared to 17% for Orana as a whole).
- Between 2001 and 2011 there was a considerable drop in the number of people aged 0-14 years in Wellington Shire (from 24% to 20%).

Age dependency

- The Aged Dependency and therefore Total Dependency ratios are higher in comparison to both the overall Orana region and the Rest of NSW.

Indigenous population

In 2011, Aboriginal and Torres Strait Islander people made up 20% of the population compared to 15.2% of the population in 2006. This is higher than that of the Orana region (14.3% in 2011).

Population projections

- The population of Wellington is projected to fall by 16.2% between 2011 and 2036, while its working age population is projected to fall by 22.5% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 62% to 57%.

HOUSEHOLD DATA

Personal income

- As at the 2011 Census, the median personal income in Wellington Shire was lower than that for the Rest of NSW and for New South Wales as a whole.
- Between 2006 and 2011, median personal income grew by 21%.

Household income

- As at the 2011 Census, the median household income in Wellington Shire was lower than the Rest of NSW and New South Wales as a whole.
- Between 2006 and 2011, median household income grew by 23%.

Figure 7. Population projections

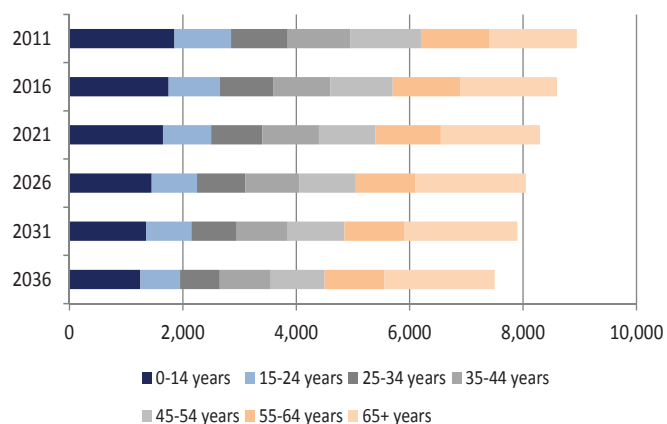


Figure 8. Personal income

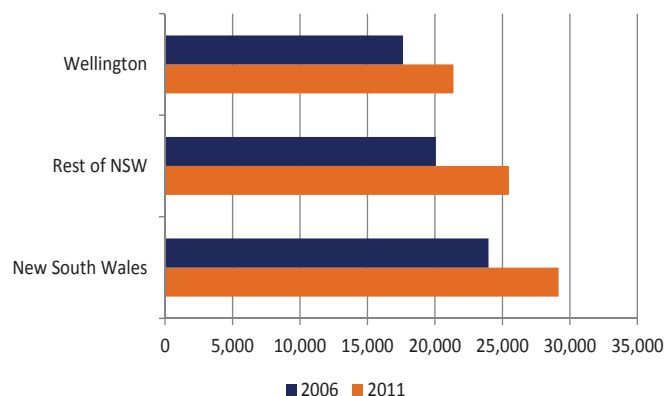
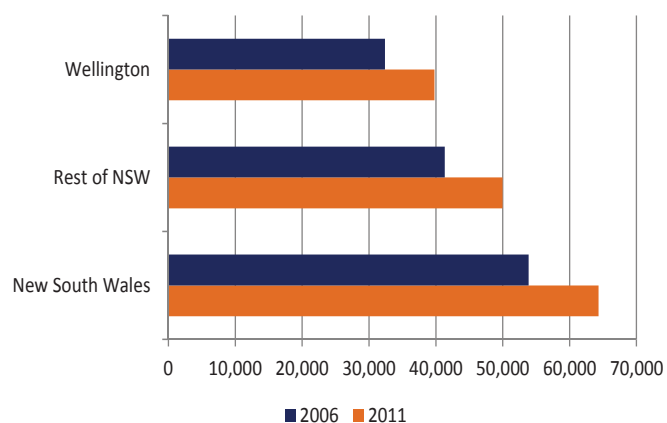


Figure 9. Household income



HOUSING

Housing affordability

The affordability of housing was examined using a ratio of median house prices to average taxable income and median weekly rental as a percentage of average weekly taxable income.

- Figure 10 opposite highlights that in 2011, on average, the Wellington rental market is slightly more affordable compared to the Rest of NSW. Affordability has improved slightly since 2006.
- The affordability of home ownership has also improved in Wellington since 2006. Housing affordability in the sales market is around two times better than in the Rest of NSW and NSW.

Figure 10. Median weekly rental as percentage of median household weekly taxable income

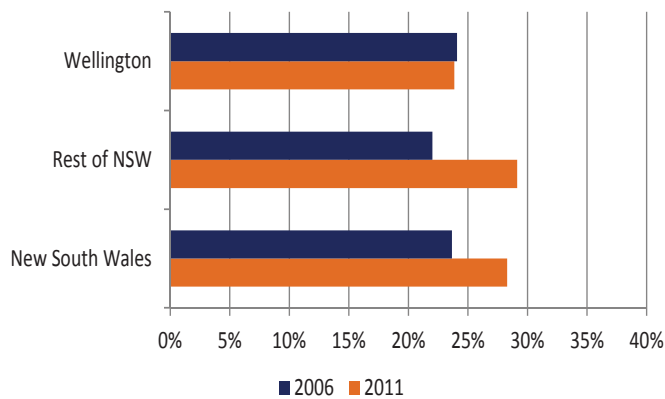
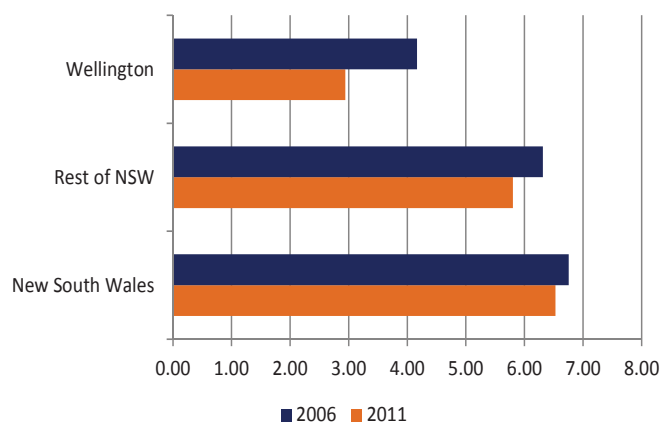


Figure 11. Ratio of median house price to median household taxable income



Home ownership vs. rental

- There has been stability in ownership status in the Wellington Shire, Orana and NSW as a whole.
- The proportion of dwellings owner-occupied in Wellington Shire has decreased from 66% in 2006 to 65% in 2011.
- The proportion of dwellings rented has increased slightly from 26% in 2006 to 28% in 2011; whilst the proportion of other tenure types has decreased from 8% to 7% over the same period.

Figure 12. Home ownership vs. rental



VALUE OF CONSTRUCTION

Table 6 shows that:

- Residential construction increased between 2010 and 2012, whilst non-residential construction declined.
- Residential construction grew by 90% between 2011 and 2012.

Table 6. Value of construction

	Residential \$000	Non-residential \$000	Total
2010	1,515	6,586	8,101
2011	2,727	1,536	4,263
2012	5,183	985	6,168
% change 2010-2011	80%	-77%	-47%
% change 2011-2012	90%	-36%	45%
% change 2010-2012	242%	-85%	-24%

CRIME STATISTICS

Crime rates are normally reported in terms of rate per 100,000 head of population. The top reported offences in Warrumbungle Shire in 2012 were:

- Malicious damage to property;
- Break and enter dwelling; and
- Breach bail conditions.

Four of the ten most regularly occurring offence categories in Wellington Shire recorded a higher rate of incidence than in Orana overall, whilst eight categories recorded a higher rate of incidence than in NSW overall.

The rate of crime incidences per 100,000 along with the percentage change in these offences between 2008 and 2012 are shown in table 7 below.

Table 7. Top 10 offence categories

	Wellington LGA			RDA Orana			NSW		
	2008	2012	% Change	2008	2012	% Change	2008	2012	% Change
Malicious damage to property	2629	3255	24%	2,830	2,289	-19%	1,560	1,129	-28%
Break and enter dwelling	834	1593	91%	875	1,151	32%	632	554	-12%
Breach bail conditions	617	1077	75%	652	1,081	66%	338	417	24%
Assault - domestic violence related	640	894	40%	872	966	11%	365	375	3%
Assault - non-domestic violence related	834	734	-12%	1,101	995	-10%	610	482	-21%
Steal from dwelling	526	734	40%	558	556	0%	305	299	-2%
Other offences	754	585	-23%	545	397	-27%	225	211	-6%
Harassment, threatening behaviour and private nuisance	526	527	0%	771	891	16%	376	410	9%
Steal from motor vehicle	457	493	8%	787	1,003	27%	825	645	-22%
Other theft	377	436	15%	678	546	-20%	537	476	-11%

COMPARISON OF MINING AND NON-MINING LGAs

KEY FACTS:

Population as at 2011 Census

- 29,928 for the Mining LGAs (26% of the Orana region's population); and
- 85,715 for Non-mining LGAs (74% of the Orana region's population).

Gross Regional Product as at 2012

- Mining LGAs contributed an estimated \$1,284.91 million to the Orana region GRP (27%); whilst
- Non-mining LGAs contributed \$3,462.8 million (73%).

Key sectors in 2012:

- For Mining LGAs were Other Mining; Coal Mining; and Agriculture.
- For Non-mining LGAs were Health & Community; Agriculture; and Education.

Top earning occupations in 2011:

- For Mining LGAs were Machinery Operators & Drivers and Professionals.
- For Non-mining LGAs were Professionals and Managers.

Unemployment:

- Unemployment rate of 5.1% for Mining LGAs and 6.8% for Non-mining LGAs (December 2012)
- Youth unemployment rate of 10.9% for Mining LGAs and 12.9% for Non-mining LGAs (2011 Census)
- Indigenous unemployment rate of 15.2% for Mining LGAs and 20.6% for Non-mining LGAs (2011 Census)

ECONOMY

To assess the impact of mining on the regional economies, those LGAs with a significant mining presence were compared to those without. For the purposes of this comparison, Mining LGAs included: Bogan, Cobar and Mid-Western LGAs. The remaining ten LGAs comprised the Non-mining LGAs.

Key sectors in 2012

Key sectors in Mining LGAs:

- Other Mining contributed 18% to value added and 12% of FTE employment
- Coal Mining contributed 16% to value added and 13% of FTE employment
- Agriculture contributed 7% to value added and 12% of FTE employment

Key sectors in Non-mining LGAs:

- Health & Community contributed 10% to value added and 15% of FTE employment
- Agriculture contributed 10% to value added and 17% of FTE employment
- Education contributed 8% to value added and 11% of FTE employment

Changes in sectoral employment between 2006 and 2011

Mining LGAs:

The most significant changes were experienced:

- in Coal Mining, where employment increased by 6 percentage points;
- in Agriculture, where employment fell by 3 percentage points; and
- Retail, where employment fell by 1 percentage points.

Non-mining LGAs:

The most significant changes were experienced:

- in Agriculture, where employment fell by 2 percentage points;
- in Health & Community, where employment increased by 2 percentage points; and
- Public Administration, where employment increased by 1 percentage points.

Figure 1. Key contributors - Mining

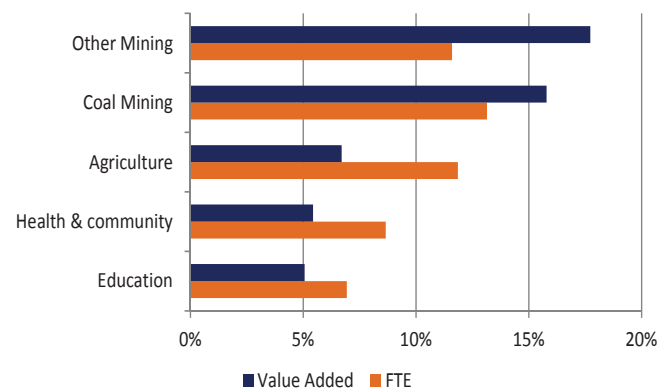


Figure 1. Key contributors - Non-mining

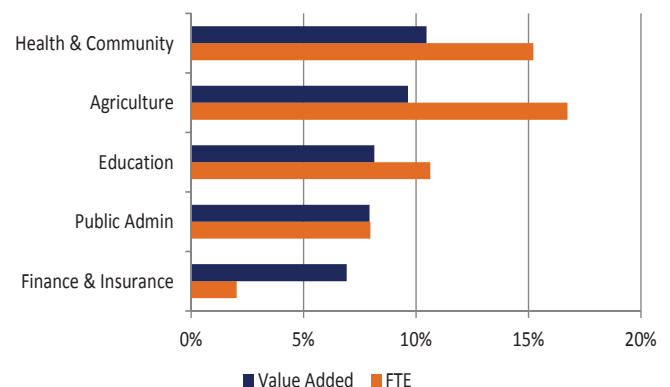


Figure 2. Changes in employment for top 5 sectors - Mining

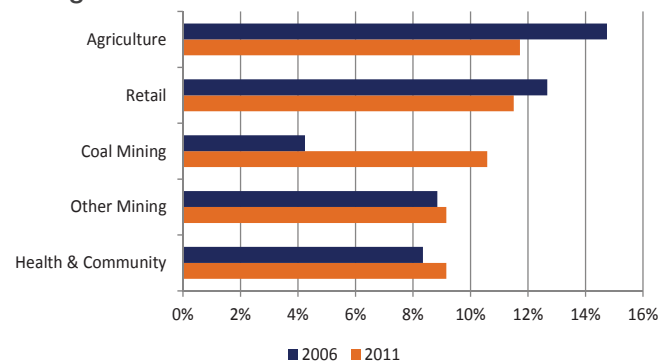
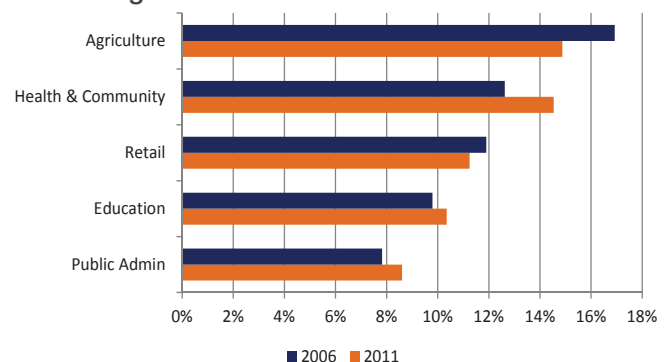


Figure 2. Changes in employment for top 5 sectors - Non-mining



COMPARISON OF MINING AND NON-MINING LGAs

Table 1. Average income by occupation - 2011

Occupation	Mining	Non-mining	Orana
Managers	\$47,108	\$48,386	\$48,072
Professionals	\$64,058	\$ 63,756	\$63,823
Technicians & Trades Workers	\$58,209	\$43,233	\$48,450
Community & Personal Service Workers	\$35,959	\$ 40,608	\$39,605
Clerical & Administrative Workers	\$39,215	\$ 42,879	\$42,082
Sales Workers	\$28,230	\$31,040	\$30,335
Machinery Operators & Drivers	\$72,830	\$44,463	\$58,111
Labourers	\$30,312	\$ 30,764	\$30,636

Table 2. Employment mapping - Mining

Occupation	Outside Orana region	% of total sector
Machinery & Stationary Plant Operators	163	14%
Farmers & Farm Managers	65	6%
Design, Engineering, Science & Transport Professionals	57	19%
Automotive & Engineering Trades Workers	50	7%
Construction & Mining Labourers	50	23%

Table 3. Employment mapping - Non-mining

Occupation	Outside Orana region	% of total sector
Health Professionals	89	6%
Farmers & Farm Managers	87	2%
Education Professionals	46	2%
Machinery & Stationary Plant Operators	41	13%
Hospitality, Retail & Service Managers	35	2%

Average income by occupation

In 2011, the top earning occupations in Mining LGAs were Machinery Operators & Drivers and Professionals. The largest increases in income in Mining LGAs between 2006 and 2011 were reported for those working as:

- Technicians & Trade Workers (30%);
- Machinery Operators & Drivers (28%); and
- Community & Personal Service Workers (27%).

In comparison, the top earning occupations in Non-mining LGAs in 2011 were Professionals and Managers. The largest increases in income in Non-mining LGAs between 2006 and 2011 were reported for those working as:

- Clerical & Administrative Workers (23%);
- Machinery Operators & Drivers (23%); and
- Community & Personal Service Workers (23%).

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. As at the 2011 Census, the most common occupations in the Mining LGAs sourced from LGAs outside of the Orana region were:

- Machinery & Stationary Plant Operators;
- Farmers & Farm Managers; and
- Design, Engineering, Science & Transport Professionals.

In comparison, the most common occupations in the Non-mining LGAs sourced from LGAs outside the Orana region were:

- Health Professionals;
- Farmers & Farm Managers; and
- Education Professionals.

Results for the top 5 occupations that were in part sourced from outside the Orana region for the Mining LGAs and Non-mining LGAs are shown in the adjacent table.

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWR for Dec Qtr 2012 reported:

- A labour force of 15,618 persons, with an unemployment rate of 5.1% for Mining LGAs; and
- A labour force of 46,427, with an unemployment rate of 6.8% for Non-mining LGAs.

The unemployment trend since December 2006 is shown in the chart opposite. The unemployment rate in Mining LGAs has been steadily declining over the past year whilst the unemployment rate in Non-mining LGAs has been increasing over the same time period.

At the 2011 census:

- Mining LGAs reported a youth unemployment rate of 10.9%, compared to 12.9% for Non-mining LGAs.
- Mining LGAs reported an Indigenous unemployment rate of 15.2%, compared to 20.6% for Non-mining LGAs.

Educational profile

School education

At the 2011 census:

- The level of completion at Year 12 level or equivalent is slightly lower for Mining LGAs (23.7%) than that reported for the Non-mining LGAs (24.2%).
- However, the level of completion at Year 10 level or equivalent is higher for Mining LGAs (27%) than that reported for Non-mining LGAs (25%).

(28% not stated or not applicable for Mining LGAs and 30% for Non-mining LGAs)

Post school qualifications

At the 2011 census:

- The level of completion of Certificates III or IV for Mining LGAs (15.4%) is higher than that reported for the Non-mining LGAs (13.3%).
- However, the level of completion of Bachelor Degrees is slightly higher for Non-mining LGAs (6.1%) compared to that reported by the Mining LGAs (5.8%).

Figure 5. Recent unemployment trend

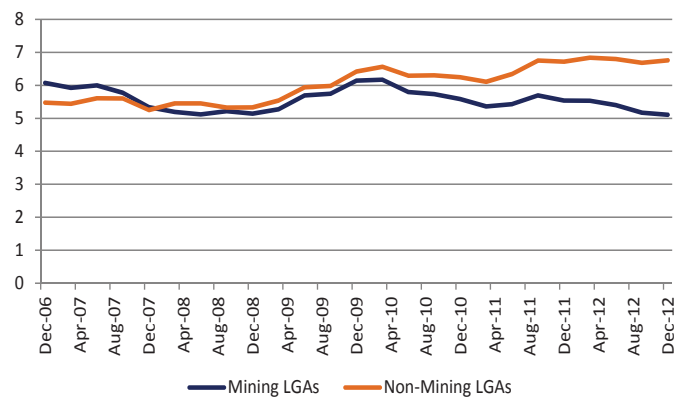


Figure 6. Highest year of school completed

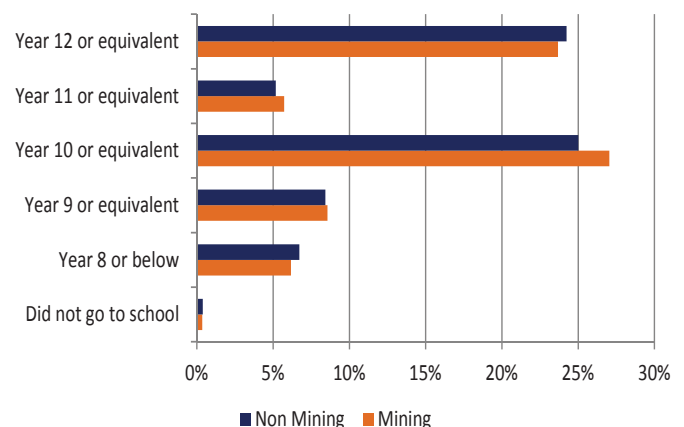
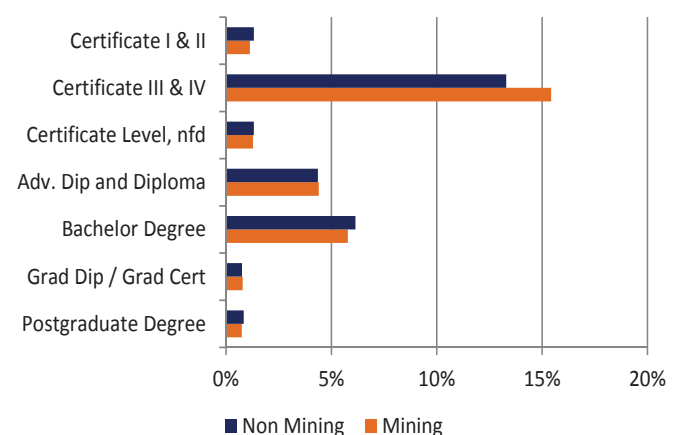


Figure 7. Post school qualifications



COMPARISON OF MINING AND NON-MINING LGAs

Table 4. Current study patterns (Census 2011)

	Mining	Non-mining	RDA Orana
Attending University			
15-24 years	4.4%	5.4%	5.2%
25 years and over	1.2%	1.4%	1.3%
Attending other tertiary (TAFE)			
15-24 years	9.4%	8.5%	8.7%
25 years and over	2.1%	2.3%	2.2%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure

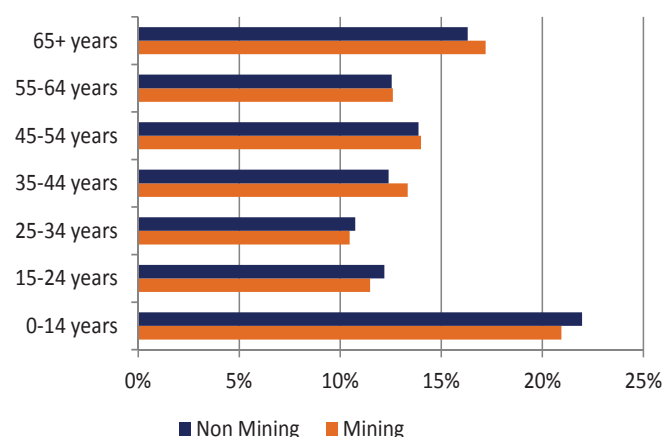


Table 5. Age dependency ratios (Census 2011)

	Mining	Non-mining	RDA Orana
Child	0.34	0.36	0.35
Aged	0.28	0.26	0.27
Total	0.62	0.62	0.62

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Postgraduate Degree qualifications in Mining LGAs increased by 34% (to 224 people), while in Non-mining LGAs the proportion holding this qualification increased by 40% (to 717 people)
- Graduate Diploma qualifications in Mining LGAs increased by 25% (to 235 people), while in Non-mining LGAs the qualification increased by only 6% (to 648 people).
- Bachelor Degree qualifications in Mining LGAs increased by 22% (to 1,729 people), while the qualification in Non-mining LGAs increased by 19% (to 5,258 people).

Current study patterns

- The proportion of those attending University is higher for Non-mining LGAs in comparison to mining LGAs.
- Results for other tertiary institute attendance for those aged 15-24 years are higher for Mining LGAs in comparison to Non-mining LGAs.

AGE AND POPULATION

The population as at Census 2011 was 8,493.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 21% of the population for Mining LGAs and 22% of the population for Non-mining LGAs.
- The next largest age group was those aged 65 years and over (17% of the population for Mining LGAs compared to 16% for Non-mining LGAs).
- As at the 2011 Census, the proportion of those aged between 15 and 34 years was slightly lower in Mining LGAs than in Non-mining LGAs, whilst the proportion of those aged 35-44 years was slightly higher.

Age dependency

- The Child Dependency for Non-mining LGAs is higher than that reported for Mining LGAs. However, Aged Dependency in Mining LGAs is higher in comparison to the Non-mining LGAs.

Population projections

Of the three Mining LGAs, the populations between 2006 and 2036 are projected to:

- fall by 40.7% in Bogan Shire;
- fall by 18.4% in Cobar Shire; and
- fall by 2.4% in the Mid-Western Region.

Of the ten Non-mining LGAs, the populations between 2006 and 2036 are projected to decline with the exception of Dubbo City. Populations are projected to:

- increase by 11.2% in Dubbo City;
- fall by 24.1% in Coonamble Shire; and
- fall by 35.7% in Warren Shire.

HOUSEHOLD DATA

Personal income

- As at the 2011 Census, median personal incomes across the Mining LGAs ranged from \$30,264 per annum in Cobar Shire to \$23,348 in the Mid-Western Region.
- Median personal incomes across the Non-mining LGAs ranged from \$31,200 per annum in Bourke Shire to \$19,188 in Brewarrina Shire.
- Cobar Shire was the only Mining LGA to be ranked in the top 5 median incomes for 2011.

Household income

- As at the 2011 Census, median household incomes across the Mining LGAs ranged from \$65,468 per annum in Cobar Shire to \$46,904 in Bogan Shire.
- Median personal incomes across the Non-mining LGAs ranged from \$56,992 per annum in Dubbo City to \$35,828 in Warrumbungle Shire.
- All three Mining LGAs were ranked in the top 5 median incomes for 2011, while the Non-mining LGAs of Dubbo City and Bourke Shire made up the top five.

Figure 9. Personal income

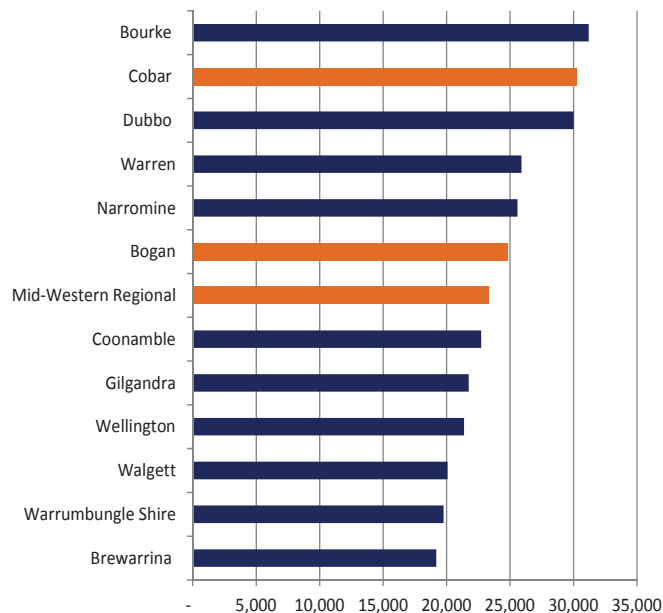
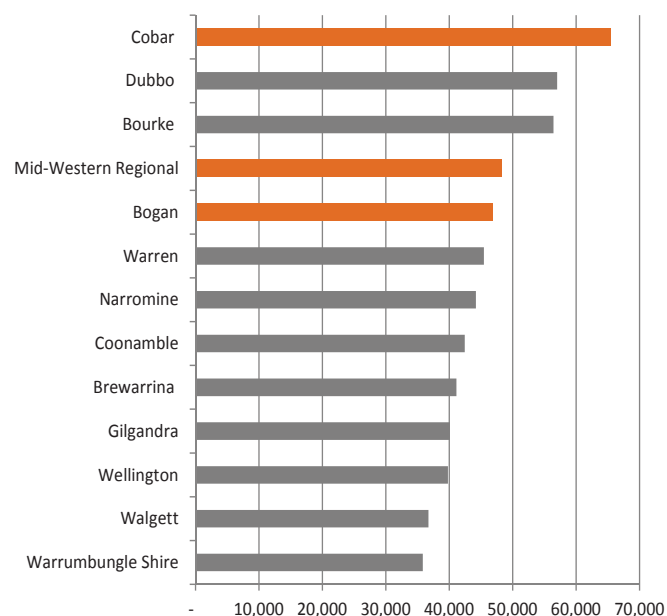


Figure 10. Household income



HOUSING

Housing affordability

The affordability of housing was examined using a ratio of median house prices to median taxable income and median weekly rental as a percentage of median weekly taxable income.

- Only one Mining LGA, Mid-Western LGA, was ranked in the top five most expensive LGAs to rent, relative to median weekly income, in 2011. Of the Non-mining LGAs, Gilgandra Shire was the most expensive LGA for rentals followed by Narromine, Brewarrina and Walgett.
- Again only one Mining LGA, Mid-Western LGA, was ranked in the top five most expensive LGAs to own a house, relative to median income. This LGA was followed by the four Non-mining LGAs of Narromine, Dubbo City, Warrumbungle Shire and Brewarrina.
- Bogan Shire, a Mining LGA, recorded the lowest house price relative to median income in 2011.

Home ownership vs. rental

- The proportion of dwellings owner-occupied in Mining LGAs has decreased marginally from 65% in 2006 to 64% in 2011. In Non-mining LGAs the proportion has also decreased slightly from 62% in 2006 to 61% in 2011.
- The proportion of dwellings rented has increased slightly for Mining LGAs from 27% in 2006 to 28% in 2011; whilst the proportion in Non-mining has remained the same (29% in 2011).
- The proportion of other tenure types has increased from 9% to 10% over the same period for Non-mining LGAs; whilst the proportion in Mining LGAs has remained similar (8% in 2011).

Figure 10. Median weekly rental as percentage of median household weekly taxable income

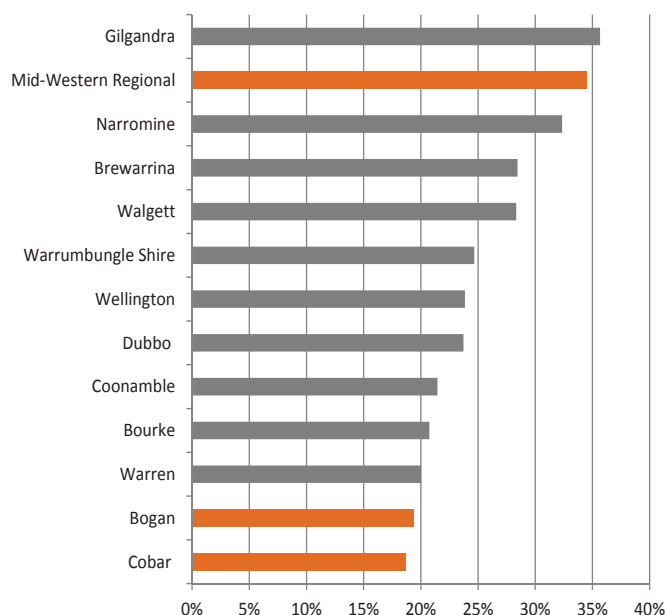
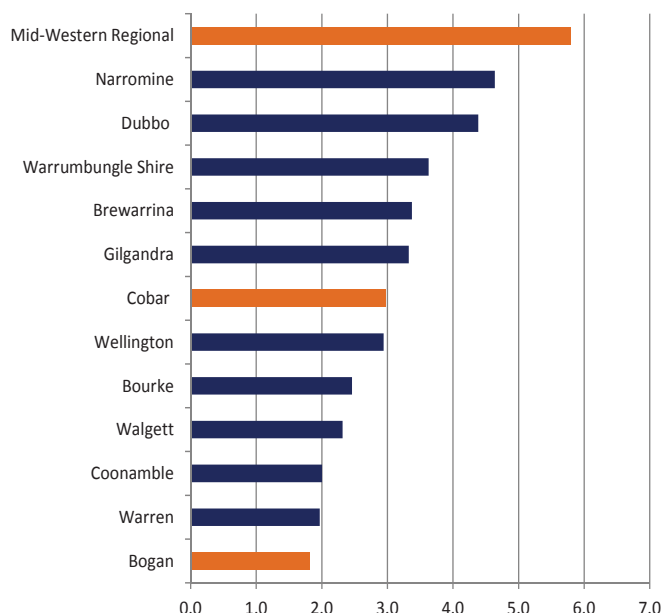


Figure 11. Ratio of median house price to median household taxable income



VALUE OF CONSTRUCTION

Table 6 shows that between 2010 and 2012:

- Of the Mining LGAs, construction boomed for Mid-Western LGA (total construction of \$99,863,000); whilst Cobar Shire's construction was relatively smaller (\$10,816,000).
- Of the Non-mining LGAs construction boomed for Dubbo City at \$314,055,000; whilst Coonamble LGAs total construction was \$12,724,000.

Table 6. Value of construction 2010 to 2012

Mining LGAs	Total \$'000
Mid-Western	99,863
Bogan	31,150
Cobar	10,816
Non-mining LGAs	
Dubbo	314,055
Warrumbungle	35,227
Bourke	29,386
Walgett	25,990
Narromine	23,484
Wellington	18,533
Brewarrina	13,957
Warren	13,947
Gilgandra	13,263
Coonamble	12,724

COMPARISON OF MINING AND NON-MINING LGAs

CRIME STATISTICS

According to the rate of crime incidences per 100,000 the top reported offences in Mining LGAs in 2012 were Malicious damage to property and Assault – non-domestic violence related. In Non-mining LGAs the top reported crime offences were Malicious damage to Property and Break and enter dwelling. Only two of the top five incidences for Mining and Non-mining LGAs are the same, Malicious damage to property and Steal from Motor Vehicle.

Four of the top five offence categories in Mining LGAs recorded a higher rate of incidence than in NSW overall. All five offence categories in Non-mining LGAs recorded a higher rate of incidence compared to Orana overall and NSW overall.

Table 7. Top 5 offence categories

	Mining			RDA Orana			NSW		
	2008	2012	% Change	2008	2012	% Change	2008	2012	% Change
Malicious damage to property	2247	2100	-7%	2,830	2,289	-19%	1,560	1,129	-28%
Assault - non-domestic violence related	815	940	15%	1,101	995	-10%	610	482	-21%
Harassment, threatening behaviour and private nuisance	681	808	19%	771	891	16%	376	410	9%
Steal from motor vehicle	452	640	42%	787	1,003	27%	825	645	-22%
Assault - domestic violence related	603	562	-7%	872	966	11%	365	375	3%
	Non-mining			RDA Orana			NSW		
	2008	2012	% Change	2008	2012	% Change	2008	2012	% Change
Malicious damage to property	3029	2354	-22%	2,830	2,289	-19%	1,560	1,129	-28%
Break and enter dwelling	1019	1374	35%	875	1,151	32%	632	554	-12%
Breach bail conditions	743	1319	78%	652	1,081	66%	338	417	24%
Steal from motor vehicle	902	1128	25%	787	1,003	27%	825	645	-22%
Assault - domestic violence related	963	1106	15%	872	966	11%	365	375	3%



OPPORTUNITIES

DEVELOPMENT OF CLUSTERS

WRI has used cluster and principal component analyses to identify commonalities in the industrial structure in the Orana region LGAs and thereby address the following issues:

- Orana is a diverse region with multiple industries that are concentrated in certain localities. Knowledge of which industries dominate specific parts of the Orana region would enable policy makers to tailor economic and social policies to the specific conditions of the locality and to identify sectors with the highest growth potential (key sectors) and common challenges that respective parts of the Orana region face;
- From a methodological viewpoint, cluster and principal component analyses are rigorous statistical tools that are superior to mere observation of the large volumes of raw data. Thus, in this study both types of analysis have been used as simplification and pattern discovery techniques.

Cluster and principal component analyses were based on the value added and employment data for the 32 industries (ANZSIC classification) extracted from the Input-Output tables for each of the 13 LGAs in the Orana region. The data was expressed as percentage of total value added and employment for each LGA. Clusters (principal components) were then identified by running the data through statistical software and following prescribed statistical procedures. While identifying the clusters, due consideration was given to the proximity and location of LGAs, i.e. in the event commonalities in industrial structure were identified for LGAs located in the opposite parts of the Orana region, the LGAs in question were put into separate clusters. A detailed explanation of cluster and principal component analyses is provided in Appendix 2.

Overall the following clusters were defined:

- Cluster 1 – Bogan and Cobar LGAs;
- Cluster 2 – Bourke and Brewarrina LGAs; and
- Cluster 3 – Coonamble, Gilgandra, Narromine, Walgett, Warren, Warrumbungle Shire and Wellington LGAs.

The remaining two LGAs – Dubbo and Mid-Western are distinctive in their own right and were left as stand-alone LGAs.

The composition of the clusters can also be justified through an examination of economic structure:

- Bogan and Cobar LGAs are dominated by Mining;
- Bourke and Brewarrina LGAs are dominated by Public Administration, Education and Agriculture;
- Coonamble, Gilgandra, Narromine, Walgett, Warren, Warrumbungle Shire and Wellington LGAs are predominantly agricultural (through Wellington is less so and in this respect shares similarities with Bourke and Brewarrina);
- Dubbo LGA is dominated by Health & Community, Finance & Insurance; and Education; and
- Mid-Western LGA is dominated by Coal Mining.

For each cluster, an analysis of industry sector contribution in terms of industry value added and employment is presented in Appendix 5.

CLUSTER PROFILES

Profiles are presented for:

- Cluster 1 – Bogan and Cobar LGAs;
- Cluster 2 – Bourke and Brewarrina LGAs; and
- Cluster 3 – Coonamble, Gilgandra, Narromine, Walgett, Warren, Warrumbungle Shire and Wellington LGAs.

CLUSTER ONE BOGAN AND COBAR

KEY FACTS:

Population

Population as at the 2011 Census was 7,610 (7% of the Orana region's population).

Gross Regional Product as at 2012

Cluster 1 contributed an estimated \$415.01 million to the Orana region GRP (9%).

Key sectors in 2012:

- Other Mining (46% of value added and 35% of FTE employment)
- Agriculture (7% of value added and 15% of FTE employment)
- Public Administration (5% of value added and 6% of FTE employment)

Top earning occupations in 2011:

- Machinery Operators & Drivers; and
- Professionals.

Unemployment:

- Unemployment rate of 4.1% (December 2012)
- Youth unemployment rate of 9.2% (2011 Census)
- Indigenous unemployment rate of 15.4% (2011 Census)

Opportunities:

- Continued development of mining and agriculture
- Value-adding to agricultural output through the Food & Beverage Manufacturing sector.

ECONOMY

The GRP for Cluster 1 in 2012 was estimated at \$415.01 million.

Key sectors in 2012

- Other Mining contributed 46% to value added and 35% of FTE employment
- Agriculture contributed 7% to value added and 15% of FTE employment
- Public Administration contributed 5% to value added and 6% of FTE employment

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Other Mining, where employment increased by 2 percentage points;
- in Agriculture, where employment fell by 2 percentage points; and
- Public Administration, where employment increased by 1 percentage point.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Metal Ore Mining (24% of employment);
- Agriculture (14%);
- Public Administration (6%);
- Pre-school & School Education (6%); and
- Food Retailing (4%).

Key Shift Share results between 2006 and 2011

In 2011:

- Type I industries provided 5% of regional employment;
- Type IV industries provided 45% of regional employment;
- Type II industries provided 44% of regional employment;
- Type III industries provided 4% of regional employment.

Note: results may not add to 100% due to rounding.

Figure 1. Key contributors - sectors

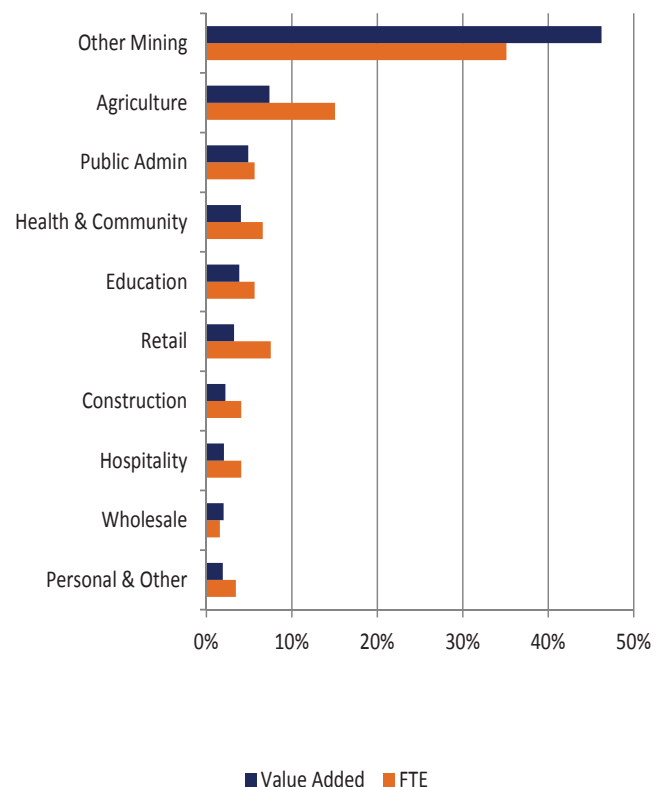


Figure 2. Changes in employment for top 10 sectors

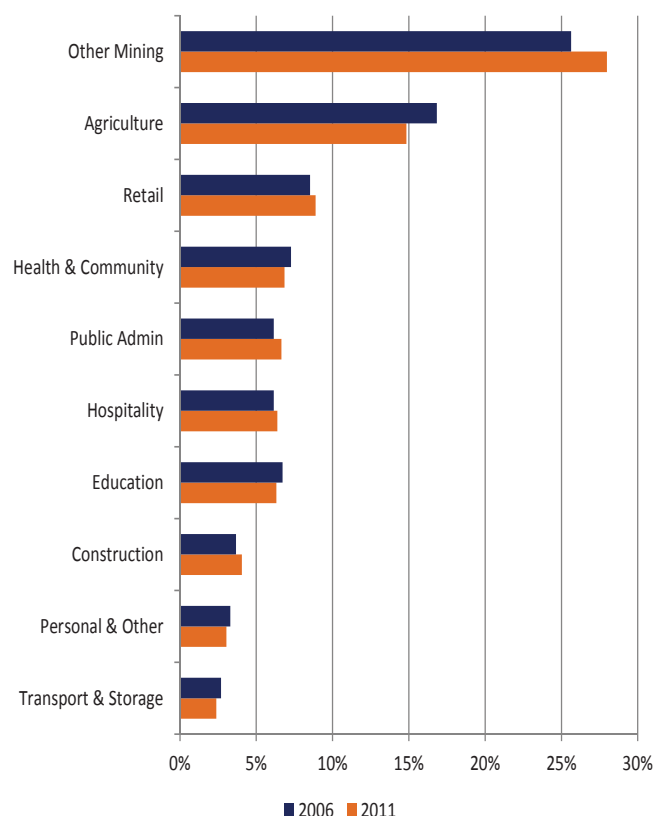


Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Machinery & Equipment Manufacturing	89%
Heavy & Civil Engineering Construction	92%
Administrative Services	41%
Health Care & Social Assistance, nfd	168%
Electricity Supply	46%
Type IV – Outperforming in low growth industry	
Agriculture, Forestry & Fishing Support Services	149%
Manufacturing, nfd	66%
Fabricated Metal Product Manufacturing	99%
Retail Trade, nfd	165%
Agriculture, Forestry & Fishing nfd	49%
Type II – Underperforming in high growth industry	
Metal Ore Mining	18%
Machinery & equipment manufacturing	-49%
Professional, Scientific & Technical Services	-4%
Repair & Maintenance	-7%
Exploration & Other Mining Support Services	-30%
Type III – Underperforming in low growth industry	
Agriculture	-12%
Public Administration	15%
Pre-school & School Education	-4%
Accommodation	14%
Hospitals	-19%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$38,054	\$45,796	20%
Professionals	\$59,234	\$70,642	19%
Technicians & Trades Workers	\$54,851	\$66,566	21%
Community & Personal Service Workers	\$29,390	\$39,236	34%
Clerical & Administrative Workers	\$34,104	\$43,730	28%
Sales Workers	\$24,359	\$30,564	25%
Machinery Operators & Drivers	\$61,035	\$72,875	19%
Labourers	\$26,508	\$30,262	14%

Based on an analysis of industries at the 2-digit industry level, strong local factors for employment growth were experienced in the following key sectors:

- Machinery & Equipment Manufacturing;
- Heavy & Civil Engineering Construction;
- Agriculture, Forestry & Fishing;
- Retail Trade nfd; and
- Manufacturing nfd.

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Average income by occupation

In 2011, the top earning occupations were Machinery Operators & Drivers and Professionals. The largest increases in incomes were reported for those working as:

- Community & Personal Service Workers;
- Clerical & Administrative Workers; and
- Sales Workers.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level.

As at the 2011 Census:

- The most common occupations sourced from LGAs not adjacent to Bogan Shire were Machinery & Stationary Plant Operators; Road & Rail Drivers; and Design, Engineering, Science & Transport Professionals.
- The most common occupations sourced from LGAs not adjacent to Cobar Shire were Machinery & Stationary Plant Operators; Design, Engineering, Science & Transport Professionals; and Automotive & Engineering Trade Workers.

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWR for Dec Qtr 2012 reported:

- A labour force of 4,519 persons
- An unemployment rate of 4.1%

The unemployment trend since December 2006 is shown in the chart opposite. The unemployment rate in Cluster 1 has been lower in comparison to that of the overall Orana region and the Rest of NSW over this period. Over recent months the unemployment rate for Cluster 1 has been falling slightly; whilst Orana's unemployment rate has remained steady.

At the 2011 census, Cluster 1 reported:

- A youth labour force of 579 persons, with the youth unemployment rate at 9.2%, compared to 12.4% for Orana overall.
- An Indigenous Labour force of 350 persons, with the Indigenous unemployment rate at 15.4% compared to 19.9% for Orana overall.

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of Cluster 1 was most commonly:

- Year 10 or equivalent (27%)
- Year 12 or equivalent (21%)

(31% not stated or not applicable)

The level of completion at Year 12 level or equivalent is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (14%)
- Bachelor Degree (5%)

The level of completion of Certificate III or IV is slightly higher than that reported for the RDA Orana region as a whole. However, the level of completion is lower in comparison to the Rest of NSW.

Figure 3. Recent unemployment trend

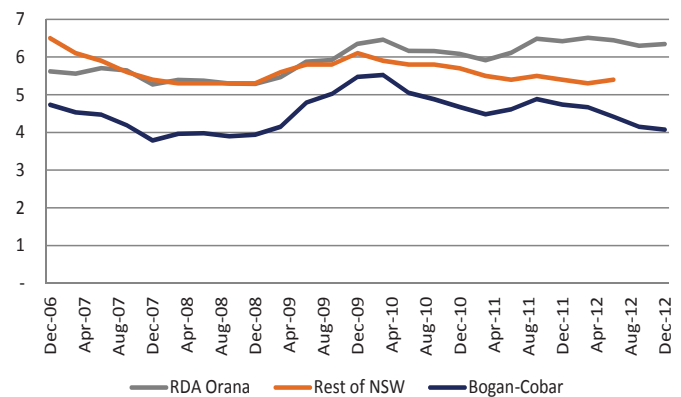


Figure 4. Highest year of school completed

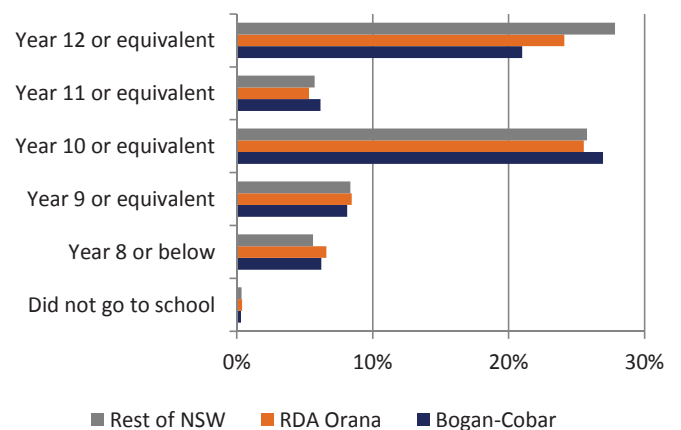


Figure 5. Post school qualifications

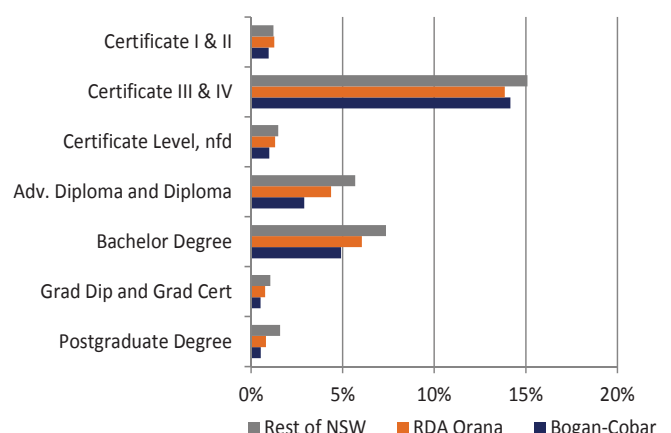


Table 3. Current study patterns (Census 2011)

	Cluster 1	RDA Orana	Rest of NSW
Attending University			
15-24 years	4.5%	5.2%	12.5%
25 years and over	1.0%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	9.3%	8.7%	9.0%
25 years and over	1.8%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure

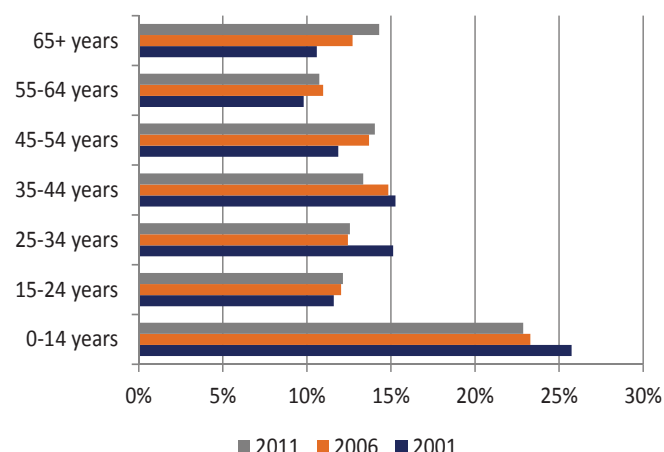


Table 4. Age dependency ratios (Census 2011)

	Cluster 1	RDA Orana	Rest of NSW
Child	0.36	0.35	0.31
Aged	0.23	0.27	0.29
Total	0.59	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Postgraduate Degree qualifications increased by 67% (to 40 people);
- Bachelor Degree qualifications increased by 12% (to 374 people);
- Advanced Diploma and Diploma qualifications increased by 12% (to 221 people);
- Certificate III and IV qualifications increased by 10% (to 1,078 people).

Current study patterns

- The proportion of students attending university (aged 15-24 years) was lower in Cluster 1 compared to the overall Orana region. However, the proportion of students attending an other tertiary institute (aged 15-24 years) was higher than that for the overall Orana region.
- The proportion of those aged 25 years and over who are studying at either a university or other tertiary institute is lower than in Orana overall.

AGE AND POPULATION

The population as at Census 2011 was 7,610.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 23% of the population (compared to 22% for the Orana region as a whole).
- The next largest age group was those aged 45-54 years (14% of the population compared to 14% for Orana as a whole).
- Between 2001 and 2011 there was a considerable increase in the number of people aged 65 years and over in Cluster 1 (from 11% to 14%). This age group comprised 17% of the Orana region as a whole in 2011.

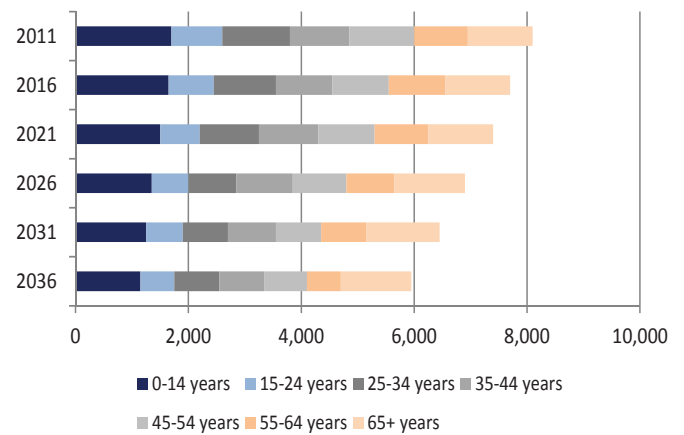
Age dependency

- The Aged Dependency ratio is considerably lower in Cluster 1 compared to the Orana region overall and Rest of NSW, whilst Child Dependency ratios are similar.
- As a result, the Total Dependency ratio is lower in comparison to both the overall Orana region and the Rest of NSW.

Population projections

- The population of Cluster 1 is projected to fall by 26.5% between 2011 and 2036, while its working age population is projected to fall by 32.4% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 65% to 60%.

Figure 7. Population projections



CLUSTER TWO BOURKE AND BREWARRINA

KEY FACTS:

Population

Population as at the 2011 Census was 4,634 (4% of the Orana region's population).

Gross Regional Product as at 2012

Cluster 2 contributed an estimated \$164.52 million to the Orana region GRP (3%).

Key sectors in 2012:

- Public Administration (15% of value added and 14% of FTE employment)
- Agriculture (14% of value added and 24% of FTE employment)
- Health & Community (14% of value added and 18% of FTE employment)

Top earning occupations in 2011:

- Professionals; and
- Managers.

Unemployment:

- Unemployment rate of 14.5% (December 2012)
- Youth unemployment rate of 16.7% (2011 Census)
- Indigenous unemployment rate of 20.7% (2011 Census)

Opportunities:

- Continued development of agriculture
- Value-adding to agricultural output through the Food & Beverage Manufacturing sector
- Value-adding to tourism through the Arts & Recreation and Hospitality sectors

ECONOMY

The GRP for Cluster 2 in 2012 was estimated at \$164.52 million.

Key sectors in 2012

- Public Administration contributed 15% to value added and 14% of FTE employment
- Agriculture contributed 14% to value added and 24% of FTE employment
- Health & Community contributed 14% to value added and 18% of FTE employment

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Agriculture, where employment fell by 2 percentage points;
- in Personal & Other Services, where employment increased by 2 percentage points; and
- Transport & Storage, where employment fell by 1 percentage point.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Agriculture (19% of employment);
- Pre-school & School Education (14%);
- Public Administration (10%);
- Social Assistance Services (5%); and
- Hospitals (5%).

Key Shift Share results between 2006 and 2011

In 2011:

- Type I industries provided 6% of regional employment;
- Type IV industries provided 22% of regional employment;
- Type II industries provided 61% of regional employment;
- Type III industries provided 10% of regional employment.

Note: results may not add to 100% due to rounding.

Figure 1. Key contributors - sectors

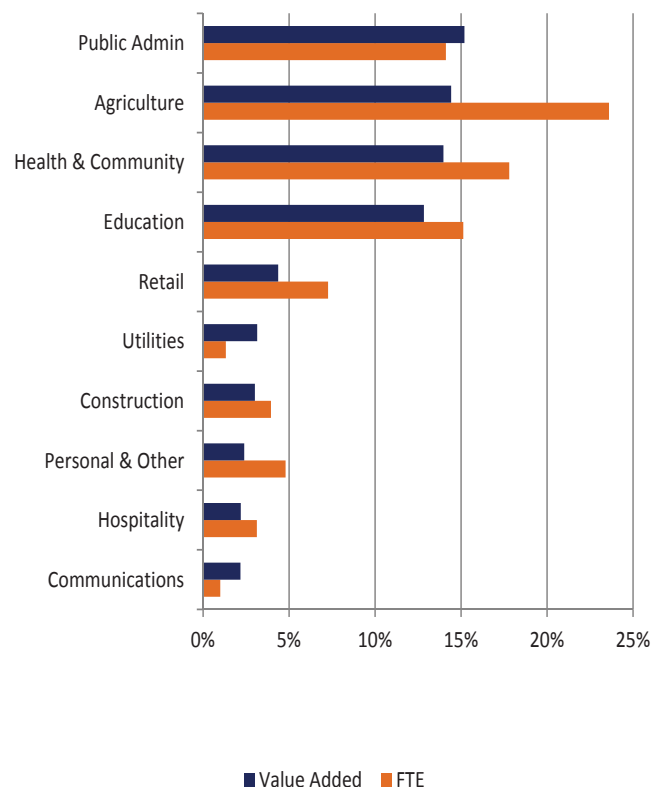
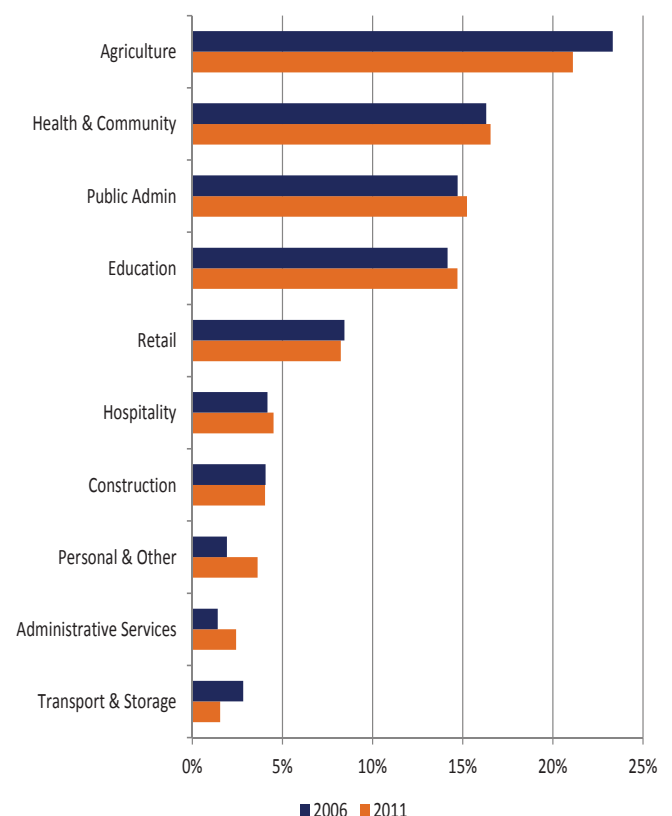


Figure 2. Changes in employment for top 10 sectors



CLUSTER 2 - BOURKE AND BREWARRINA

Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Administrative Services	122%
Professional, Scientific & Technical Services	27%
Electricity Supply	83%
Repair & Maintenance	79%
Heritage Activities	49%
Type IV – Outperforming in low growth industry	
Construction Services	64%
Accommodation	28%
Personal & Other Services	78%
Agriculture, Forestry & Fishing Support Services	52%
Commission-Based Wholesaling	-1%
Type II – Underperforming in high growth industry	
Social Assistance Services	-11%
Public Order, Safety & Regulatory Services	-11%
Medical & Other Health Care Services	14%
Food & Beverage Services	-21%
Road Transport	-47%
Type III – Underperforming in low growth industry	
Agriculture	-18%
Hospitals	-18%
Fuel Retailing	-22%
Building Construction	-58%
Postal and Courier Pick-up & Delivery Services	-50%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$40,383	\$51,019	26%
Professionals	\$50,063	\$65,088	30%
Technicians & Trades Workers	\$36,850	\$42,213	15%
Community & Personal Service Workers	\$41,812	\$48,457	16%
Clerical & Administrative Workers	\$34,217	\$44,712	31%
Sales Workers	\$25,420	\$30,179	19%
Machinery Operators & Drivers	\$35,866	\$46,686	30%
Labourers	\$22,414	\$30,113	34%

Based on an analysis of industries at the 2-digit industry level, strong local factors for employment growth were experienced in the following key sectors:

- Electricity Supply;
- Construction Services;
- Heritage Services; and
- Professional, Scientific & Technical Services (except Computer System Design and Related Services).

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Average income by occupation

In 2011, the top earning occupations were Professionals and Managers. The largest increases in incomes were reported for those working as:

- Labourers;
- Clerical & Administrative Services; and
- Professionals.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level.

As at the 2011 Census:

- The most common occupations in Brewarrina Shire sourced from LGAs not adjacent to Brewarrina Shire were Farmers & Farm Managers; Construction Trade Workers and Skilled Animal & Horticultural Workers.
- The most common occupations sourced from LGAs not adjacent to Bourke Shire were Farm, Forestry & Garden Workers; Education Professionals; and Office Managers & Program Administrators.

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWDR for Dec Qtr 2012 reported:

- A labour force of 2,615 persons
- An unemployment rate of 14.5%

The unemployment trend since December 2006 is shown in the chart opposite. The unemployment rate in Cluster 2 has been significantly higher in comparison to that of the overall Orana region and the Rest of NSW over this period. Over recent months the unemployment rate for Cluster 2 has increased slightly; whilst Orana's unemployment rate has remained steady.

At the 2011 census, Cluster 2 reported:

- A youth labour force of 269 persons, with the youth unemployment rate at 16.7%, compared to 12.4% for Orana overall.
- An Indigenous Labour force of 581 persons, with the Indigenous unemployment rate at 20.7% compared to 19.9% for Orana overall.

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of Cluster 2 was most commonly:

- Year 10 or equivalent (20%)
- Year 12 or equivalent (20%)

(36% not stated or not applicable)

The level of completion at Year 12 level or equivalent is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (10%)
- Bachelor Degree (6%)

The level of completion of Certificate III or IV is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Figure 3. Recent unemployment trend

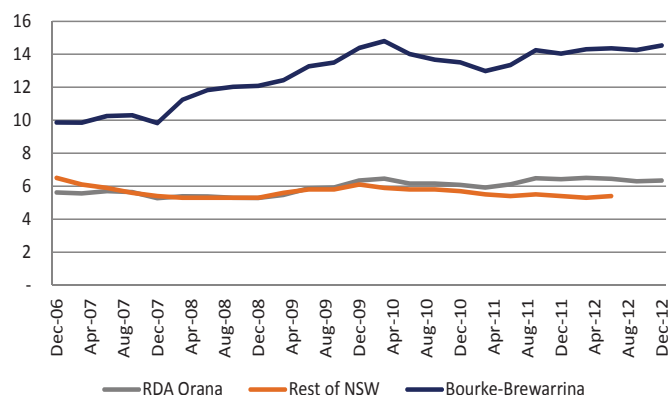


Figure 4. Highest year of school completed

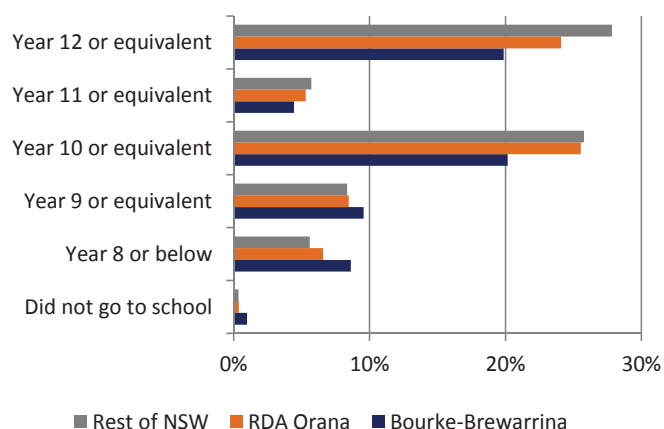
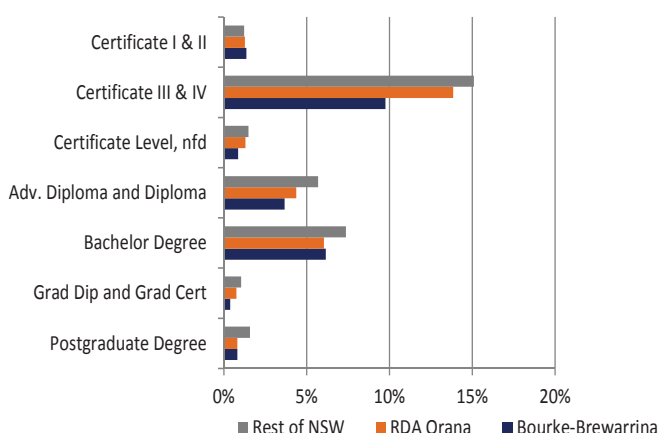


Figure 5. Post school qualifications



CLUSTER 2 - BOURKE AND BREWARRINA

Table 3. Current study patterns (Census 2011)

	Cluster 2	RDA Orana	Rest of NSW
Attending University			
15-24 years	2.7%	5.2%	12.5%
25 years and over	1.2%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	3.7%	8.7%	9.0%
25 years and over	1.8%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure

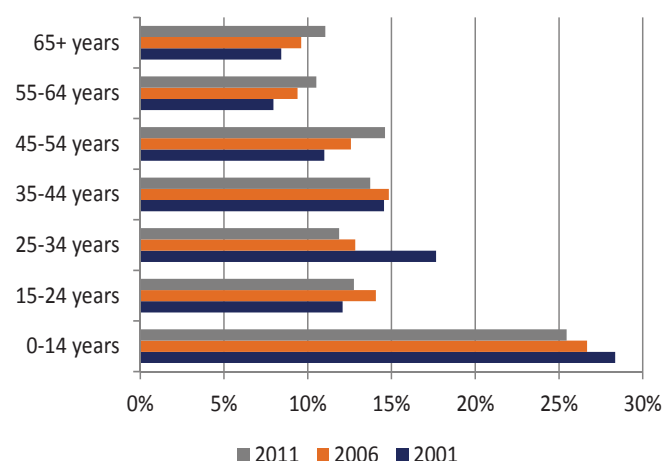


Table 4. Age dependency ratios (Census 2011)

	Cluster 2	RDA Orana	Rest of NSW
Child	0.40	0.35	0.31
Aged	0.17	0.27	0.29
Total	0.57	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Postgraduate Degree qualifications increased by 58% (to 38 people);
- Certificate III and IV qualifications increased by 30% (to 452 people);
- Bachelor Degree qualifications increased by 17% (to 285 people);
- Graduate Diploma and Graduate Certificate qualifications contracted by 42% (to 18 people).

Current study patterns

- For those aged 15-24 years in Cluster 2, current attendance at tertiary institutes generally is lower in comparison to the overall Orana region and to the Rest of NSW.
- However, the results for those aged 25 years and over attending other tertiary institutions are similar to RDA Orana and Rest of NSW.

AGE AND POPULATION

The population as at Census 2011 was 4,634.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 25% of the population (compared to 22% for the Orana region as a whole).
- The next largest age group was those aged 45-54 years (15% of the population compared to 14% for Orana as a whole).
- Between 2001 and 2011 there was a considerable decrease in the number of people aged 25-34 years in Cluster 2 (from 18% to 12%).

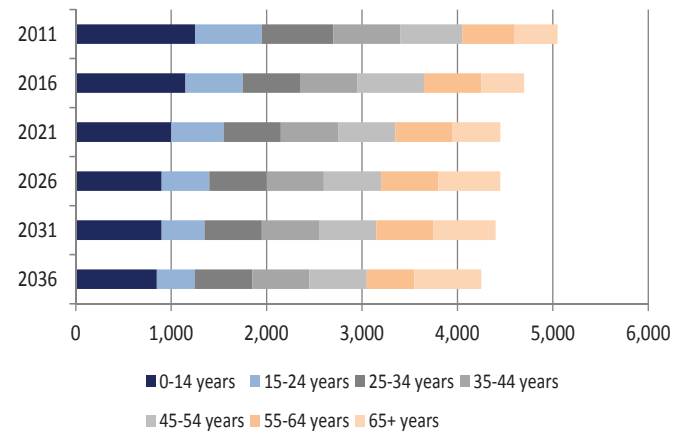
Age dependency

- The Child Dependency ratio is considerably higher in Cluster 2 compared to the Orana region overall and Rest of NSW, whilst the Aged Dependency ratio is considerably lower.
- As a result, the Total Dependency ratio is slightly lower in comparison to both the overall Orana region and the Rest of NSW.

Population projections

- The population of Cluster 2 is projected to fall by 15.8% between 2011 and 2036, while its working age population is projected to fall by 19.4% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 66% to 64%.

Figure 7. Population projections



CLUSTER THREE AGRICULTURAL CLUSTER

KEY FACTS:

COONAMBLE, DUBBO, GILGANDRA, MID-WESTERN, NARROMINE, WALGETT, WARREN, WARRUMBUNGLE, WELLINGTON

POPULATION

Population as at the 2011 Census was 42,276 (37% of the Orana region's population).

Gross Regional Product as at 2012

Cluster 3 contributed an estimated \$1,382.93 million to the Orana region GRP (29%).

Key sectors in 2012:

- Agriculture (19% of value added and 33% of FTE employment)
- Education (9% of value added and 11% of FTE employment)
- Health & Community (9% of value added and 12% of FTE employment)

Top earning occupations in 2011:

- Professionals; and
- Machinery Operators & Drivers.

Unemployment:

- Unemployment rate of 7.8% (December 2012)
- Youth unemployment rate of 15.5% (2011 Census)
- Indigenous unemployment rate of 22.2% (2011 Census)

Opportunities:

- Continued development of agriculture
- Value-adding to agricultural output through the Food & Beverage Manufacturing sector
- Value-adding to tourism through the Hospitality sector

ECONOMY

The GRP for Cluster 3 in 2012 was estimated at \$1,382.93 million.

Key sectors in 2012

- Agriculture contributed 19% to value added and 33% of FTE employment
- Education contributed 9% to value added and 11% of FTE employment
- Health & Community contributed 9% to value added and 12% of FTE employment

Changes in sectoral employment between 2006 and 2011

The most significant changes were experienced:

- in Agriculture, where employment fell by 2 percentage points;
- in Health & Community, where employment increased by 1 percentage point; and
- Public Administration, where employment increased by 2 percentage points.

Based on an analysis of industries at the subdivision (2-digit industry) level, the top employment sectors in 2011 were:

- Agriculture (28% of employment);
- Pre-school & School Education (10%);
- Public Administration (6%);
- Food Retailing (4%); and
- Food & Beverage Services (4%).

Key Shift Share results between 2006 and 2011

In 2011:

- Type I industries provided 5% of regional employment;
- Type IV industries provided 25% of regional employment;
- Type II industries provided 67% of regional employment;
- Type III industries provided 3% of regional employment.

Note: results may not add to 100% due to rounding.

Figure 1. Key contributors - sectors

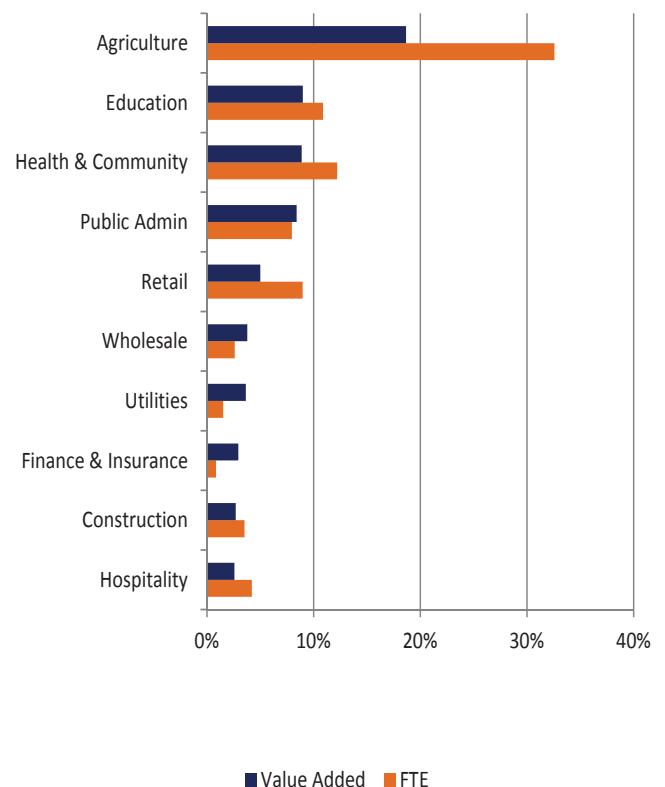
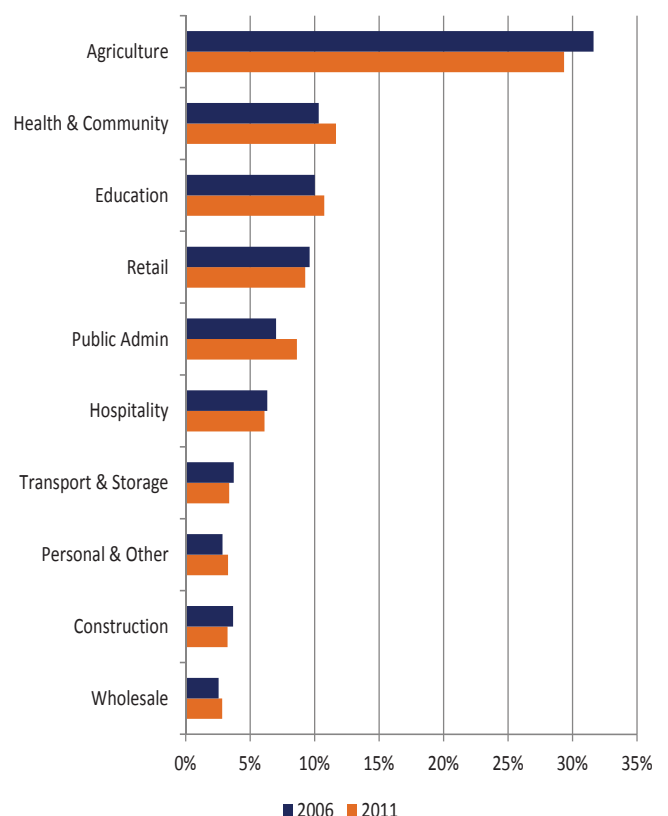


Figure 2. Changes in employment for top 10 sectors



CLUSTER 3 - AGRICULTURAL CLUSTER

Table 1. Key shift share results

Industry	Growth
Type I – Outperforming in high growth industry	
Public Order, Safety & Regulatory Services	119%
Health Care & Social Assistance, nfd	202%
Heritage Activities	77%
Coal Mining	130%
Insurance & Superannuation Funds	178%
Type IV – Outperforming in low growth industry	
Property Operators & Real Estate Services	30%
Fabricated Metal Product Manufacturing	298%
Wholesale Trade, nfd	198%
Printing (incl. Reproduction of Recorded Media)	22%
Transport, Postal & Warehousing, nfd	33%
Type II – Underperforming in high growth industry	
Food & Beverage Services	-9%
Social Assistance Services	18%
Professional, Scientific & Technical Services	4%
Medical & Other Health Care Services	-11%
Residential Care Services	16%
Type III – Underperforming in low growth industry	
Agriculture	-11%
Preschool & School Education	3%
Public Administration	-2%
Food Retailing	8%
Other Store-Based Retailing	-9%

Table 2. Average income by occupation

Occupation	2006	2011	% Change
Managers	\$35,505	\$41,527	17%
Professionals	\$51,639	\$59,811	16%
Technicians & Trades Workers	\$33,462	\$40,285	20%
Community & Personal Service Workers	\$30,633	\$39,900	30%
Clerical & Administrative Workers	\$31,115	\$37,751	21%
Sales Workers	\$23,964	\$29,745	24%
Machinery Operators & Drivers	\$32,407	\$42,904	32%
Labourers	\$24,238	\$30,277	25%

Based on an analysis of industries at the 2-digit industry level, strong local factors for employment growth were experienced in the following key sectors:

- Heritage Activities;
- Coal Mining;
- Fabricated Metal Product Manufacturing;
- Wholesale Trade; and
- Transport, Postal & Warehousing.

Note: key sectors are those that generate value added directly, rather than those that facilitate or support the generation of value added. Results for other sectors are shown in Table 1.

Average income by occupation

In 2011, the top earning occupations were Professionals and Machinery Operators & Drivers. The largest increases in incomes were reported for those working as:

- Machinery Operators & Drivers;
- Community & Personal Service Workers; and
- Labourers.

Employment mapping by occupation

Employment mapping was conducted at the sub-major group level. A sample of employment mapping by occupation for LGAs that comprise Cluster 3, as at the 2011 Census follows:

- The most common occupations in Coonamble Shire sourced from LGAs not adjacent to Coonamble Shire were Construction & Mining Labourers; Education Professionals; and Legal, Social & Welfare Professionals.
- The most common occupations in Narromine Shire sourced from LGAs not adjacent to Narromine Shire were Farmers & Farm Managers; Education Professionals; and Design, Engineering, Science & Transport Professionals.
- The most common occupations in Wellington Shire sourced from LGAs not adjacent to Wellington Shire were Protective Service Workers; Machinery & Stationary Plant Operators; and Farmers & Farm Managers.

LABOUR FORCE CHARACTERISTICS

Key employment data

Small Area Labour Market data from DEEWR for Dec Qtr 2012 reported:

- A labour force of 22,163 persons
- An unemployment rate of 7.8%

The unemployment trend since December 2006 is shown in the chart opposite. The unemployment rate in Cluster 3 has been higher in comparison to that of the overall Orana region and the Rest of NSW over this period. Over recent months the unemployment rate for Cluster 3 has increased slightly; whilst Orana's unemployment rate has remained steady.

At the 2011 census, Cluster 3 reported:

- A youth labour force of 2,283 persons, with the youth unemployment rate at 15.5%, compared to 12.4% for Orana overall.
- An Indigenous Labour force of 2,072 persons, with the Indigenous unemployment rate at 22.2% compared to 19.9% for Orana overall.

Educational profile

School education

As at the 2011 Census, the highest year of school education completed amongst residents of Cluster 3 was most commonly:

- Year 10 or equivalent (25%)
- Year 12 or equivalent (22%)

(30% not stated or not applicable)

The level of completion at Year 12 level or equivalent is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Post school qualifications

As at the 2011 Census, the highest post school qualification completed was most commonly:

- Certificate III or IV (12%)
- Bachelor Degree (5%)

The level of completion of Certificate III or IV is lower than that reported for the RDA Orana region as a whole and for non-metropolitan NSW (Rest of NSW).

Figure 3. Recent unemployment trend

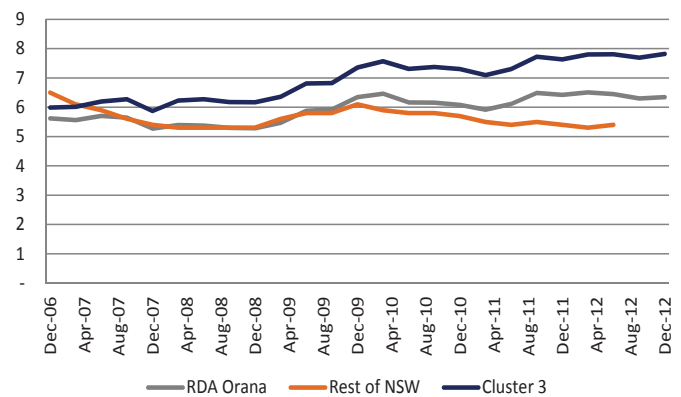


Figure 4. Highest year of school completed

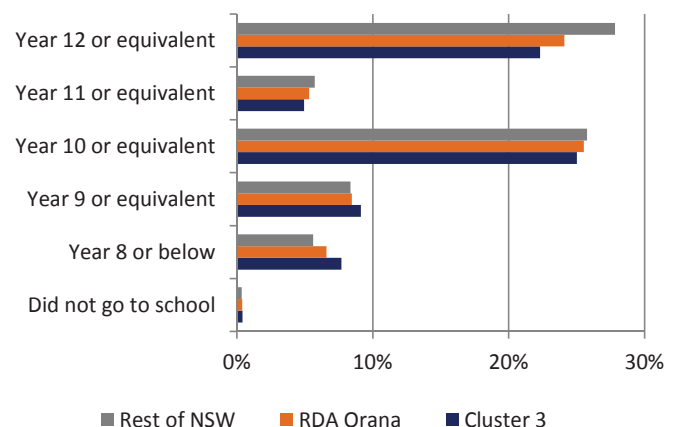
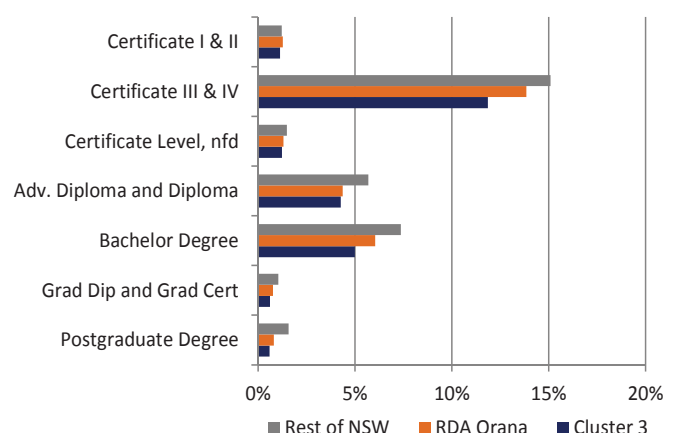


Figure 5. Post school qualifications



CLUSTER 3 - AGRICULTURAL CLUSTER

Table 3. Current study patterns (Census 2011)

	Cluster 3	RDA Orana	Rest of NSW
Attending University			
15-24 years	5.2%	5.2%	12.5%
25 years and over	1.0%	1.3%	2.0%
Attending other tertiary (TAFE)			
15-24 years	7.2%	8.7%	9.0%
25 years and over	2.1%	2.2%	2.0%

Results are as a proportion of the total population for the age bracket.

Figure 6. Age structure

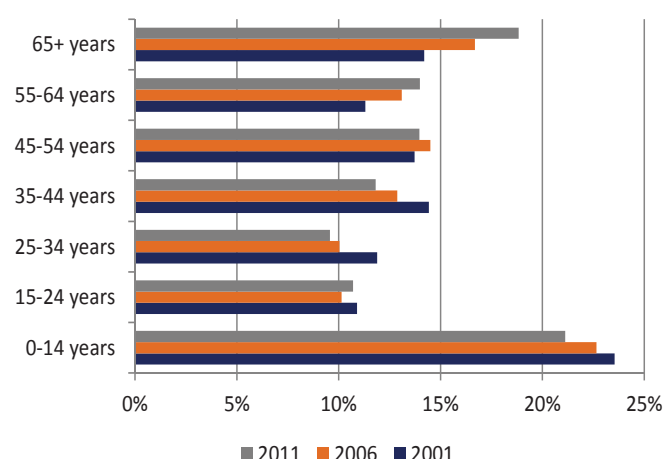


Table 4. Age dependency ratios (Census 2011)

	Cluster 3	RDA Orana	Rest of NSW
Child	0.35	0.35	0.31
Aged	0.31	0.27	0.29
Total	0.67	0.62	0.60

Note:

The child dependency ratio is an indication of the number of children (aged under 15) in a region supported by the working age population (15-64 years).

The aged dependency ratio is an indication of the number of aged people (aged over 64 years) in a region supported by the working age population (15-64 years).

Growth in qualifications

Between 2006 and 2011, those holding:

- Postgraduate Degree qualifications increased by 36% (to 251 people);
- Advanced Diploma and Diploma qualifications increased by 12% (to 1,801 people);
- Certificate III and IV qualifications increased by 12% (to 5,013 people);
- Bachelor Degree qualifications increased by 9% (to 2,109 people).

Current study patterns

- The proportion of the population attending university in Cluster 3 and the Orana region overall was comparable.
- The proportion of those attending an other tertiary institute (aged 15-24 years) was slightly lower in Cluster 3 than in the Orana region overall and the Rest of NSW.

AGE AND POPULATION

The population as at Census 2011 was 42,276.

Age profile

- As at the 2011 Census, children aged 0-14 years comprised 21% of the population (compared to 22% for the Orana region as a whole).
- The next largest age group was those aged 65 years and over (19% of the population compared to 17% for Orana as a whole).
- Between 2001 and 2011 there was a considerable increase in the number of people aged 65 years and over in Cluster 3 (from 14% to 19%). Alongside this, there was a considerable decrease in the proportion of the population aged between 25 and 44 years (from 26% to 21%).

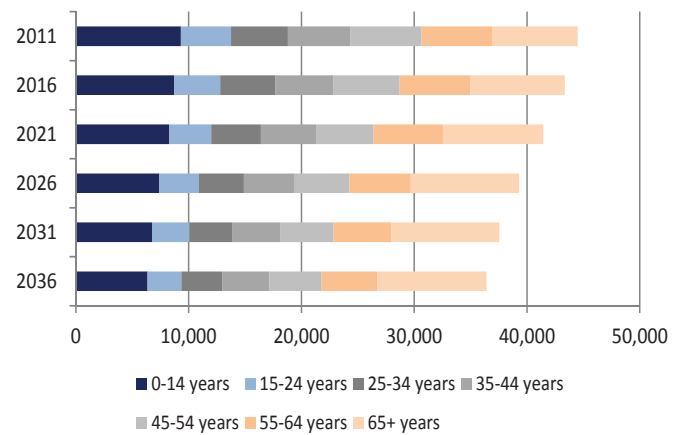
Age dependency

- The Aged Dependency ratio and thus the Total Dependency ratio is higher in comparison to both overall Orana region and Rest of NSW.

Population projections

- The population of Cluster 3 is projected to fall by 18.2% between 2011 and 2036, while its working age population is projected to fall by 26.2% in the same period.
- The share of working age population in the total population of the region is therefore projected to fall from 62% to 56%.

Figure 7. Population projections



IDENTIFICATION OF OPPORTUNITY SECTORS AT THE CLUSTER LEVEL

Introduction

WRI adopted a scoring methodology to select key sectors in regional clusters. The scores were assigned in the following areas:

- Shift-share analysis outcomes
- Growth strength
- Economic contribution to the regional economy
- Multiplier effects and linkages to other sectors, and
- Diversification opportunities arising from linkages to key economic sectors.

The assignment of scores was based on quantitative information, as well as on subjective judgement and knowledge of regional economic realities.

Shift-share analysis and growth strength

For the purpose of selection of key sectors, WRI has examined the local components for relevant industries in the region.

A positive local component for an industry indicates that firms from that industry in the RDA Orana region performed better than the combined state average in that industry, in terms of employment growth.

WRI examined the changes in employment local component for 109 industries in each of the regional clusters, as well as absolute changes in employment between 2006 and 2011. If the change in local component was positive and greater or equal to 4 (i.e. 4 persons), a score of 1 was given; in all other cases (negative local component or positive but smaller than 4), a zero score was assigned.

In terms of the 5 year employment growth rate, for the sectors that grew by more than 40% or grew by less than 40% but substantially in absolute terms (e.g. added more jobs than any other industry), a score of 1 was given, otherwise a zero score was assigned.

Economic contribution to the regional economy

For each of the clusters, WRI examined the contribution of industries in terms of value added and full time employment. The industry data was obtained from the respective regional Input-Output tables built to represent the economies in 2012. The top 10 industries with the highest value added and full time employment (as a percentage of total in the cluster) were selected and assigned a score of 1. All other industries with a smaller relative contribution were given a score of zero.

Multiplier effects and linkages to other sectors

These come to the forefront of the analysis, when the structural interdependencies in the regional economy and linkages across industries are examined.

Multipliers measure the relationship between the direct and indirect contributions of each industry in a respective region and indicate the relative magnitude of the flow-on effects of each industry compared to the direct effect of that industry (i.e. a multiplier of 1.5 indicates that for every \$1 of direct impact there will be \$0.50 in flow-on effects).

A sector is considered to be a key sector if its multipliers are greater than the average multipliers across industries, and the

multiplier effects are spread over a large number of industries. WRI examined multipliers for major economic variables: value added, household income and full time employment.

For the purpose of multiplier calculation and key sectors identification, two types of linkages are examined – linkages to upstream industries (i.e. industries that supply inputs to industry in question) and to downstream industries (i.e. industries to which the industry in question sells its output). The scores were assigned as follows:

If the industry had above average multipliers, a score equal to 1 was given; for below average multipliers a zero score was given. Also, if the industry was a key sector relative to both upstream and downstream industries (i.e. had strong and well spread linkages to both of them), a score equal to 2 was given. If the industry was key sector relative to only upstream or downstream industries, a score of 1 was given. If the strength and spread of linkages were small, a score of zero was given.

Diversification opportunities

The detection of diversification opportunities involved the assessment of whether the sectors are linked to the key contributing sectors in the regional economies or sectors that experienced strong growth. Also, a consideration was given as to whether the development of these support and adjacent sectors will generate strong synergistic benefits in the regional economies. For identified sectors a score of 1 was assigned.

Selection of key sectors

The ultimate selection of key sectors for further consideration was in most instances based on the highest scores given to industries. However, in certain cases when the score was low (e.g. Agriculture in cluster 1), but the overall contribution of the sector was known to be substantial, a decision was made to include this sector for further analysis. Likewise, some sectors, such as Public Administration and Health & Community, had a high overall score. However decisions as to the development of these sectors are typically made at a higher level of governance, the opportunities in these sectors available for businesses and entrepreneurs are not high, or the capture of financial benefits therein is not straightforward. Hence, these sectors were not included for further consideration.

OPPORTUNITY SECTORS

The key sectors identified for each cluster were:

Cluster 1 – Bogan and Cobar LGAs

- Mining
- Food & Beverage Manufacturing

Cluster 2 – Bourke and Brewarrina LGAs

- Food & Beverage Manufacturing
- Tourism / Hospitality

Cluster 3 – Coonamble, Gilgandra, Narromine, Walgett, Warren, Warrumbungle and Wellington LGAs.

- Agriculture
- Food & Beverage Manufacturing
- Tourism / Hospitality

Dubbo LGA

- Food & Beverage Manufacturing
- Tourism / Hospitality
- Transport

Mid-Western LGA

- Food & Beverage Manufacturing
- Tourism / Hospitality

WRI conducted interviews with representatives of businesses and organisations in each industry sector as well as a representative of a major training provider in the region and local government representatives. Key contacts were provided by RDA Orana. The industry assessments developed through these interviews are based on qualitative information. The quantitative data available for identified opportunities was limited and therefore any quantification of opportunities presented is indicative only. However the quantitative data and qualitative research combined provide a robust regional profile and detailed examination of key opportunity sectors. This provides a platform for the further exploration of specific opportunities and potential policy responses.

The following report sections outline opportunities in:

- Agriculture
- Food & Beverage Manufacturing
- Mining
- Tourism / Hospitality
- Transport

AGRICULTURE

In 2012, Agriculture was the dominant sector in nine out of thirteen LGAs in the RDA Orana region. However, across the Orana region, employment in the sector fell by 14.7% between 2006 and 2011, compared to a 9.5% fall in employment in Agriculture across NSW.

In the LGAs where Agriculture remains the key contributor, employment in the sector grew only in Brewarrina (up 7.1%). Employment fell in:

- Bourke (down 25.5%)
- Coonamble (down 12.8%)
- Gilgandra (down 1.4%)
- Narromine (down 12.7%)
- Walgett (down 15.7%)
- Warren (down 8.4%)
- Warrumbungle Shire (down 16.1%)
- Wellington (down 9.0%)

Despite the overall decline in employment within the sector, Agriculture continues to play a key role in the regional economy, contributing an estimated 8.9% to industry value added and 15.3% of employment for the entire region in 2012.

A diverse range of agricultural activities are undertaken across the region:

- Dry land winter crops such as wheat, canola and grain legumes throughout the plains in the central and northern parts of the region;
- Irrigated viticulture and horticulture in the Mid-Western, Narromine and Wellington LGAs;
- Cotton (irrigated and dryland) in Narromine, Warren, Bourke, Brewarrina and Walgett LGAs;
- Beef cattle and sheep for meat and wool across the region.¹

In order to develop a picture of the opportunities for the Agricultural sector, interviews were conducted with four representatives of agricultural based enterprises:

- Bill Burnheim – proprietor of a broad-acre cropping, sheep and cattle farming enterprise in Coonamble Shire;
- David Kinsey - proprietor of a sheep and wheat farming enterprise in Narromine Shire;
- James Hamilton - proprietor of a broad-acre cropping and sheep farming enterprise in Narromine Shire; and
- Roger Fletcher – Managing Director of Fletcher International Exports - exporting sheep meats, wool and grain, and farming sheep, wheat and cotton.²

Following is a summary of the main opportunities identified by the sector representatives. For each opportunity, the main challenges or barriers to realising the opportunities are presented along with suggestions to address these challenges.

Please note that commentary should not be attributed to any individual interviewed. Overall themes arising from interviews have been collectively presented below.

1 RDA Orana, Regional Plan 2012-2020

2 <http://www.infrastructure.nsw.gov.au/about-insw/our-board/roger-fletcher.aspx>, retrieved June 2013

Further development of grain and other broad-acre cropping

Grain and other broad-acre cropping was seen as a potential growth opportunity, extending into areas once considered marginal for this type of activity. This has largely been a result of research which has improved the yield available from different varieties. The ability to reclaim land for farming through the removal of invasive native scrub and the development of transport infrastructure throughout the region would be essential for the feasibility of this opportunity.

The importance of flexibility in crops planted was also noted. Investing in crops which produced the highest gross margin is a strategy that has seen some shift from planting wheat to legumes (for instance chickpeas) in recent times and even lower quality wheat instead of higher quality wheat. Planting crops which are in demand in the Asian market was another strategy identified.

Interviewees noted that the region's competitive advantage stems from the ability to produce high quality and sustainable product, however this is also high cost.

Challenges / Barriers and Suggestions:

Main challenges / barriers	Suggestions for addressing the barriers
Restrictions around the removal of native vegetation including invasive native scrub (INS) which have limited the development of more farming land.	Reduce some of the government restrictions around the removal of INS. Review Native Vegetation Act.
Recent withdrawal of funding for research into grains has seen yields plateau in recent years after a long period in which a 2-3% per annum increase in yields was experienced.	The cotton industry has been cited as a good example of an industry that has invested in research and has utilised GM technology.
A resistance to genetic modification research which has demonstrated results in industries such as cotton.	One interviewee suggested that "the verdict is still out on GMO – need to have a mature debate about this". Encourage better sharing of knowledge and advocacy in the sector.
A foreign owned grain handling system directing profits away from Australia.	The need for effective competition in grain handling. Investigate the establishment of a cooperative grain handling system.

Further development of sheep farming for meat and wool

Like broad-acre cropping, it was suggested that reclaiming land for grazing would be feasible if restrictions around the removal of INS were reduced. One interviewee suggested that the Orana region should present good opportunities for developing the sheep farming industry because:

- It is relatively predator free (no dingoes);
- It does not rely on irrigation, relying on rainfall and pastures that aren't irrigated;
- Lamb that is predominantly grass fed (versus grain fed) is considered a healthy diet alternative and marketing of the product should emphasize these benefits;
- Wool is a more sustainable product than synthetics.

Challenges / Barriers and Suggestions:

Main challenges / barriers	Suggestions for addressing the barriers
Loss of competition in the abattoir industry and concentration of power with the large supermarkets forcing down prices received by farmers.	It was suggested that Dubbo City Council should maintain control of the Dubbo Regional Livestock Markets or allow a growers' cooperative to operate it.
Regional livestock markets (saleyards) may be owned by listed companies with the income diverted away from the region.	
Possible misconceptions about lamb from a dietary health perspective.	Better marketing of the product.
Possible misconceptions about livestock farming in general in terms of the amount of irrigation required.	Better marketing of the product.
Whilst wool is a more sustainable product, it is more expensive than synthetics.	Some degree of trade protection (tariffs) may be necessary to balance the cost of products (imported versus domestic) at the border.

General challenges and barriers facing the agricultural sector:

Main challenges / barriers	Suggestions for addressing the barriers
Funding required to improve transport infrastructure across the region and to the ports. Both road and rail infrastructure require significant upgrade with bottlenecks at the Port of Newcastle and the Bells Line of Road upgrade mentioned specifically. The Golden Highway upgrade was also considered important.	It was suggested that upgrading the Bells Line of Road is key and that the spin offs would be across many sectors including agriculture and tourism.
Red tape around transport.	Streamline transport, storage and handling systems to improve competitiveness.
Overall high cost base driven by compliance, taxes, fuel excise and freight rates, and high energy prices. One interviewee noted that such costs make it less feasible for the farmer to invest in innovation. Alongside this, there was mention of the need to work on reducing the tariffs incurred by Australian product.	Local use of local gas supplies. Consider the use of coal seam gas.
Overall high start-up cost of farming businesses which is a considerable impediment to entry.	Consider a regional development bank offering lower interest rates.
Despite a massive investment in improving irrigation infrastructure, the loss of irrigation water through the Murray Darling Basin Plan water buy-backs has resulted in a reduction in productivity, the results of which are being borne by regional communities.	In times where irrigation water is abundant, one interviewee suggested that the government should consider a system whereby they can sell environmental water back into agriculture.
Furthermore, one interviewee indicated that the recent considerable release of water from Burrendong Dam (meant to replicate the natural environment) has been detrimental to the natural environment. In effect the environment has been kept too wet.	
Climate variability and drought.	One interviewee suggested that farm management deposits, whilst offering some kind of drought insurance, tend only to be held by the more successful farmers. Those struggling often can't get far enough ahead to use this facility. It was suggested that drought insurance needs to be matched dollar for dollar by government.

Notably, securing a skilled workforce was not seen as a key issue with many farming enterprises. The transient backpacker workforce was seen as essential due to the seasonal nature of the work, with this group providing a diversified and mobile workforce. Contractors in the agricultural support services were also heavily used.

The comment was made that despite relatively high unemployment across the region, the short term work available on farms was not attractive to locals receiving unemployment benefits because of the delays experienced in receiving benefits again once they had re-applied after their period of work had finished. The Federal Government could examine ways to overcome this.

Biofuels

The production of biofuels was not raised as an opportunity for the sector. When prompted, one interviewee suggested that “biofuels are a distraction” and that much larger gains can be made in grain production. He went further to suggest that unless biofuels production was subsidised, this is an area unlikely to succeed.

Quantification

Based on the interviews with major stakeholders in the Orana region, the following potential developments warranted preliminary quantification:

- Potential for higher wheat yields and expansion of wheat growing in the region with renewed funding for research into wheat;
- Potential for greater revenue and value added generation through a switch from wheat cropping to legume growing.

Overall, the modelling results presented are based on appropriate assumptions and represent an accurate reflection of the data provided. The estimates of economic impacts, however, are indicative only due to limits on data and the scope of the current study. WRI recommends that these analyses are not comprehensive assessments of individual opportunities. Before proceeding with developments discussed in the report, detailed analysis should be undertaken.

Wheat yields and expansion of wheat production

WRI has modelled the economic impact of an increase in wheat yield on the agricultural cluster - Cluster 3 (as defined earlier in the report), which is the most likely to be affected by an increase in yield, as well as the Orana region as a whole. The modelling was based on the following data and assumptions:

- Interviews with representatives of the agricultural sector revealed that wheat yields have been growing steadily over the longer term at 2-3% per annum; however the growth has slowed down recently. Respondents attributed this to the withdrawal of research funding;
- Data obtained from the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) suggests that wheat yields in NSW grew at 1.86% per annum over the 2002-2012 period, thereby largely confirming the statements by stakeholders. WRI has modelled two growth scenarios, assuming 1.86% and 3% growth in wheat yields respectively;³
- It was assumed that both area planted and the employment in wheat cropping farms remain constant. The area planted may increase, particularly if changes to the Native Vegetation Act of 2003 (NSW) are made and various invasive native scrub species and “woody weeds” are cleared. Current estimates of woody weed infested farm land in the Central West Catchment Management Authority Region stand at 12 million hectares;⁴
- To model the economic impact WRI added a new sector representing the wheat cropping industry to the Orana regional Input-Output tables, with employment numbers in the total agricultural industry and horticultural industry adjusted accordingly;
- The industry significance of this new sector was modelled in SIRE prior and after a wheat yield increase (using the two scenarios described above), with the difference between the two representing the impact of the yield increase on the industry and broader economy.

³ Department of Agriculture, Fishery and Forestry, ABARES. Agricultural Commodity Statistics 2012, Table 200.

⁴ Delta Electricity. Viable Biomass Fuel Sources in NSW, Fact Sheet 3.

The impacts of a wheat yield increase on the industry and broader economy of Cluster 3 and the Orana region under both scenarios are presented in Tables 1 and 2 below.

Table 1: Economic impact of yield increase in Cluster 3

Variable/Scenario	Current yield	1.86% increase	3% increase	Economic impact (scenario 1)	Economic impact (scenario 2)
Output (\$mIn)	399.42	406.82	411.35	7.40	11.93
Value added (\$mIn)	119.06	121.21	122.52	2.15	3.46
Household income (\$mIn)	35.89	36.54	36.93	0.65	1.04

Table 2: Economic impact of yield increase in Orana region

Variable/Scenario	Current yield	1.86% increase	3% increase	Economic impact (scenario 1)	Economic impact (scenario 2)
Output (\$mIn)	485.82	500.76	504.91	14.93	19.09
Value added (\$mIn)	166.96	171.94	173.31	4.98	6.35
Household income (\$mIn)	44.88	46.22	46.62	1.34	1.74

When flow-on effects are taken into account, a 1.86% and a 3% wheat yield increase is estimated to generate the following in the Cluster 3 regional economy:

- Approximately \$2.15 million and \$3.46 million in value added respectively, contributing 0.18% and 0.29% of regional value added; and
- Approximately \$0.65 million and \$1.04 million in household income respectively, representing 0.13% and 0.21% of household income.

When flow-on effects are taken into account, a 1.86% and a 3% wheat yield increase is estimated to generate the following in the Orana regional economy:

- Approximately \$4.98 million and \$6.35 million in value added, contributing 0.11% and 0.14% of regional value added; and
- Approximately \$1.34 million and \$1.74 million in household income, representing 0.06% and 0.08% of household income.

Switch from wheat cropping to legume growing

WRI has modelled the economic impacts associated with a commodity production switch from wheat cropping to legume growing based on the following data and assumptions:

- Interviews with representatives of the agricultural sector in the Orana region suggested that legume growing was, at the time of interview, returning higher profit margins than wheat production. Specifically, chickpeas could be a major profit opportunity, taking into account the vibrant demand for this commodity in international export markets to Asia;
- Data obtained from ABARES indicates that the profit increase due to this commodity switch can be substantial. In 2012, the wheat and chickpea yields in NSW were 2.18 t/ha and 1.5 t/ha, while the unit values of these commodities were \$252/t and \$553.60/t respectively. The unit value per area planted were thus \$549.40/ha and \$830.40/ha for wheat and chickpeas, meaning that for a given plantation area and costs, switching from wheat to chickpeas would increase revenue by 51%.⁵ The relative profitability will then be determined by the cost structures;

5 Department of Agriculture, Fishery and Forestry, ABARES. Agricultural Commodity Statistics 2012, Tables 177 and 178

- Similarly to the wheat yield case, two regions were chosen for modelling – Cluster 3 and Orana;
- WRI considered that a complete switch from wheat to legume growing would be unlikely and that instead a more conservative assumption of a 10% and a 20% switch (based on the area planted) should be made;
- To model the economic impact WRI has added two new sectors representing the wheat cropping and legume growing industries to the respective regional Input-Output tables, with employment numbers in the total agricultural industry and horticultural industry adjusted accordingly. Under the two production switch scenarios, the value of wheat growing (and associated purchases and sales from/to other industries) was then decreased by 10% and 20%, with the difference being added to the value of the legume growing industry;
- The economic benefits from the production switch were then modelled as the sum of values of wheat and legume growing industries after the switch, minus the initial value of the wheat industry prior to the switch. The benefits were modelled using the industry significance method in the SIRE model.

The impacts of an agricultural production switch on the economies of Cluster 3 and the Orana region under both scenarios are presented in Tables 3 and 4.

Table 3: Economic impact of production switch on Cluster 3

Variable/Scenario (10% switch)	Legumes (10% area planted)	Wheat (90% area planted)	Total production	Wheat (100% area planted)	Positive Economic impact
Output (\$mIn)	68.59	368.31	436.90	399.42	37.48
Value added (\$mIn)	20.55	108.46	129.01	119.06	9.95
Household income (\$mIn)	6.24	32.69	38.93	35.89	3.04
Variable/Scenario (20% switch)	Legumes (20% area planted)	Wheat (80% area planted)	Total production	Wheat (100% area planted)	Positive Economic impact
Output (\$mIn)	135.66	335.70	471.36	399.42	71.94
Value added (\$mIn)	40.51	97.62	138.13	119.06	19.07
Household income (\$mIn)	12.30	29.43	41.73	35.89	5.84

Table 4: Economic impact of production switch on the Orana region

Variable/Scenario (10% switch)	Legumes (10% area planted)	Wheat (90% area planted)	Total production	Wheat (100% area planted)	Positive Economic impact
Output (\$mIn)	80.81	443.95	524.76	485.82	38.93
Value added (\$mIn)	27.92	151.49	179.41	166.96	12.45
Household income (\$mIn)	7.66	40.77	48.43	44.88	3.55
Variable/Scenario (20% switch)	Legumes (20% area planted)	Wheat (80% area planted)	Total production	Wheat (100% area planted)	Positive Economic impact
Output (\$mIn)	160.51	400.11	560.62	485.82	74.80
Value added (\$mIn)	55.39	135.55	190.94	166.96	23.98
Household income (\$mIn)	15.19	36.49	51.68	44.88	6.80

When flow-on effects are taken into account, a 10% and a 20% production switch are estimated to generate the following in the Cluster 3 regional economy:

- Approximately \$9.95 million and \$19.07 million in value added, contributing 0.84% and 1.6% of regional value added; and
- Approximately \$3.04 million and \$5.84 million in household income, representing 0.61% and 1.18% of household income.

When flow-on effects are taken into account, a 10% and a 20% production switch are estimated to generate the following in the Orana regional economy:

- Approximately \$12.45 million and \$23.98 million in value added, contributing 0.27% and 0.53% of regional value added; and
- Approximately \$3.55 million and \$6.80 million in household income, representing 0.17% and 0.32% of household income.

Further recommendations

- WRI recommends that a cost benefit analysis of a cooperative grain handling system be undertaken to initially determine the merit of such a facility.
- That start up business be supported through the extension of NSW Regional Industries Investment Funds.

FOOD & BEVERAGE MANUFACTURING

The Food & Beverage Manufacturing sector is currently not a significant contributor to the Orana region economy. In 2012, the sector's estimated contribution to total regional value added was only 1.8%, despite there being pockets of activity in Dubbo LGA and Mid-Western LGA where it contributed an estimated 4.5% and 2.1% respectively to each LGA's industry value added. Similarly, employment in the sector was low at an estimated 2.6% for the entire region.

A range of activities are currently being undertaken across the region:

- Abattoirs in many parts of Orana including Fletcher International Exports in Dubbo City who export sheep meat to many parts of the world and is Australia's largest sheep abattoir.¹ K J Halal Meats in Bogan Shire processes a range of meats and is the predominant goat abattoir in NSW²;
- The blending of wheat and milling at Ben Furney Flour Mill in Dubbo City;
- Juice production in Narromine Shire including Lime Grove Australia; and
- Viticulture in the Mid-Western region.

Despite its small role in the regional economy currently, the sector has been identified as an opportunity sector because of its ability to build on, and support, the historically strong agricultural sector. Additionally, key sector analysis undertaken at the cluster level identified the Food & Beverage Manufacturing sector as one with strong linkages both to upstream and downstream industries and strong multipliers.

In order to develop a picture of the opportunities for the Food & Beverage Manufacturing sector going forward, interviews were conducted with five representatives of relevant enterprises – agricultural producers, food processors and wholesaler / distributors:

- David Kinsey - proprietor of a sheep and wheat farming enterprise in Narromine Shire;
- James Hamilton - proprietor of a broad-acre cropping and sheep farming enterprise in Narromine Shire;
- Roger Fletcher – Managing Director of Fletcher International Exports - exporting sheep meats, wool and grain, and farming sheep, wheat and cotton³;
- David Lowe, Proprietor – Lowe Wines, Mudgee;
- Fred Griffiths, Proprietor – GH Cole, alcoholic beverage and soft drink distributor across the Orana region.

Following is a summary of the main opportunities identified by the sector representatives. For each opportunity, the main challenges or barriers to realising the opportunities are presented along with suggestions to address these challenges.

Please note that commentary should not be attributed to any individual interviewed. Overall themes arising from interviews have been collectively presented below.

Development of large scale food processing operations

Whilst it was acknowledged that there may be opportunity in developing large scale food processing operations that target growing demand from the Asian market (for instance, milling specific varieties of wheat sought by the Asian market), the costs of production in Australia were seen as a major barrier to this kind of development.

The region's competitive advantage was seen to stem from the ability to produce high quality and sustainable product, though at high cost. Threats to local food manufacturing facilities operated by Simplot were cited as examples of the risk in such ventures.

1 RDA Orana, Regional Plan 2012-2020 pg 32

2 <http://www.dailyliberal.com.au/story/871106/eight-new-jobs-500k-upgrade/>

3 <http://www.infrastructure.nsw.gov.au/about-insw/our-board/roger-fletcher.aspx>

Challenges / Barriers and Suggestions:

Main challenges / barriers	Suggestions for addressing the barriers
Need for large scale operations which require large capital outlays. One interviewee suggested that small scale production facilities struggle to produce product at an economically viable cost.	Existing operators like The Manildra Group and Ben Furneys Flour Mill may be best positioned to investigate these opportunities.
Perceived competition from existing large corporates is an impediment to entry for smaller players.	
High cost base for manufacturing: <ul style="list-style-type: none"> • Energy costs • Compliance costs • Wages costs • Food safety / hygiene costs 	<p>Some degree of trade protection (tariffs) may be necessary to balance the cost of products (imported versus domestic) at the border.</p> <p>A review of anti-dumping laws was also suggested.</p> <p>Examining the operations, by way of a case study, of the Mars organisation which appears to run a viable local manufacturing operation.</p>
The volatility of the Australian dollar which is a risk for any manufacturing / exporting business.	
Higher tariffs applied to processed products on entering other countries.	

Low level value adding of agricultural product

Commentary on the potential for large scale value-adding to agricultural product was cautionary, however, some large-scale but low level value-adding has been successful. An example of this type of value adding is the processing of sheep meat whereby a specific part of the sheep carcass is required by the customer and this is packaged as simply as possible for use on arrival at the end destination. The main characteristics of this type of value-adding were:

- Identification of a specific market need;
- Determination of how the customer needs to receive the product in order to be able to use it quickly.

Challenges / Barriers and Suggestions:

Main challenges / barriers	Suggestions for addressing the barriers
Red tape around transport, driving higher costs.	Streamline transport, storage and handling systems to improve competitiveness.
Funding required to improve transport infrastructure across the region and to the ports. Both road and rail infrastructure require significant upgrade with bottlenecks at the Port of Newcastle and the Bells Line of Road upgrade mentioned specifically. The Golden Highway upgrade was also considered important.	It was suggested that upgrading the Bells Line of Road is key and that the spin offs would be across many sectors including agriculture, tourism and resources.

Niche and integrated developments

A more positive outlook was presented for the development of niche and integrated businesses where food processing was at the core. Describing potential developments in Mid-Western LGA, one interviewee suggested that the forecast shrinkage of areas planted to vineyards in the next ten years of between 30-40% would open up opportunities to develop associated agricultural products using the established infrastructure (land and processing facilities) and a technically skilled workforce.

The emphasis was on integrated developments spanning Agriculture, Food & Beverage Manufacturing, Wholesale / Retail operations and Tourism operations. Through such development it is expected that the value add as measured by dollar output will be greater for a smaller level of production.

The types of developments described rely on smaller farming enterprises as a source of spare capacity in the coming years as people retire and / or move off the land. Such developments may not be feasible across the broader Orana region, where farm enterprises are typically larger scale, however, the opportunity to use the produce coming out of the broader Orana region within this type of development was noted.

The key characteristics of Mid-Western LGA supporting this type of development were:

- A good level of infrastructure in terms of land and water;
- Connection to the National Broadband Network which will enable the development of sophisticated online selling and distribution systems;
- The geographic location of the region that could potentially act as a distribution hub, sourcing product from the western region, processing locally, then transporting to Sydney either through Mudgee or Dubbo.

Challenges / Barriers and Suggestions:

Main challenges / barriers	Suggestions for addressing the barriers
Lack of skilled labour in the hospitality sector.	Some organisations are conducting their own training.
Suggestions were made that current training in food services and hospitality is not delivering quality people with the required skills.	
Market development, whereby there is a need for better regional promotion.	
General improvements needed to road and rail infrastructure.	

Quantification

Based on the interviews with major stakeholders in the Orana region, the following potential development warranted preliminary quantification.

- Economic impact of smaller niche and integrated business opportunities, such as those at the intersection of Tourism, Agriculture and Food & Beverage Manufacturing sectors (e.g. organic food gardens)

Overall, the modelling results presented are based on appropriate assumptions and represent an accurate reflection of the data provided. The estimates of economic impacts, however, are indicative only due to limits on data and the scope of the current study. WRI recommends that these analyses are not comprehensive assessments of individual opportunities. Before proceeding with developments discussed in the report, detailed analysis should be undertaken.

Integrated food and wine based tourism developments

WRI has modelled the economic impacts of integrated food and wine based tourism businesses based on the following assumptions, data and procedures:

- WRI has estimated three separate impacts associated with food and wine based tourism developments – impacts due to construction activity, operational impacts (once the new integrated food and wine based tourism facility is established) and the impacts due to increased tourist visitation (specifically wine tourism).
- Metrics around a potential development were provided by a stakeholder in the Food & Beverage Manufacturing sector. This included data pertaining to construction (upgrade) of existing facilities, additional employment and revenues. WRI has also obtained data relating to the distribution of construction (upgrade) costs from the Commonwealth Department of Infrastructure and Transport.
- An assumption was made that the establishment of a sufficient number of integrated food and wine based tourism businesses could warrant large scale food and wine based tourism marketing and promotions which could lead to a

10% increase in tourist visitations to Mid-Western LGA. The most recent tourist visitation data available from Destination NSW was used as a base for calculating the increase.

- The impacts were modelled as final demand impact (facility construction and change in tourist visitation numbers) and also using disaggregated multipliers for the relevant sectors (grape growing, cafes and restaurants, and beverage production). The use of disaggregated multipliers was justified by the small size of revenue and employment for individual businesses, making it impossible to model the operational impacts using the industry significance method.
- The economic impacts were estimated for one individual food and wine based tourism business in Mid-Western LGA that provided the data for the analysis. The results were then multiplied by 10 in order to approximate the impact of the establishment of a number of similar businesses in the area.

The economic impacts of integrated food and wine based tourism in Mid-Western LGA are presented in Tables 1 and 2 below.

Table 1: Economic impact of integrated agricultural tourism developments

Economic impacts	Construction		Operations	
	Single development	10 developments	Single development	10 developments
Output (\$mIn)	2.30	23.01		
Value added (\$mIn)	0.57	5.68	3.03	30.3
Household income (\$mIn)	0.32	3.18	0.48	4.76
FTE Employment	6	60	14	140

Table 2: Economic impact due to a 10% increase in tourist visitation

Economic impacts	
Output (\$mIn)	2.10
Value added (\$mIn)	0.60
Household income (\$mIn)	0.32
FTE Employment	7

When flow-on effects are taken into account, the construction of one and 10 integrated food and wine based tourism developments are estimated to generate the following in the Mid-Western region's economy:

- Approximately \$0.57 million and \$5.68 million in value added;
- Approximately \$0.32 million and \$3.18 million in household income; and
- Approximately 6 and 60 full-time equivalent jobs respectively.

When flow-on effects are taken into account, the operation of one and 10 integrated food and wine based tourism developments are estimated to generate the following in the Mid-Western region's economy:

- Approximately \$3.03 million and \$30.3 million in value added, representing 0.37% and 3.69% of the regional value added;
- Approximately \$0.48 million and \$4.76 million in household income, representing 0.11% and 1.05% of the regional household income; and
- Approximately 14 and 140 full-time equivalent jobs, representing 0.18% and 1.80% of the regional full time equivalent employment respectively.

Provided there is a sufficient number of new integrated food and wine based businesses established in the region which is supported by a large scale promotion and marketing effort, a 10% increase in tourist visitation could result, generating the following estimated impacts:

- Approximately \$0.6 million in value added;
- Approximately \$0.32 million in household income; and
- Approximately 7 full-time equivalent jobs.

Further recommendations

- A best practice case study to operating a viable regional manufacturing operation would assist regional operators. For example, Mars Incorporated successfully operates a number of manufacturing facilities in regional NSW and Victoria.
- National and State policy responses should be sought to address the issues of:
 - Perceived competition from existing large corporates impeding the entry of new, smaller players (national policy intervention); and
 - Higher tariffs being applied to exported processed products in many countries (national response to potential markets).

MINING

In 2012, the mining sector (comprised of the sectors coal mining and other mining) contributed an estimated 16.3% to industry value added and 7.5% to employment in the Orana region. The sector is concentrated in a few key LGAs rather than more broadly across the region. Mining currently plays a key role in the following LGAs:

- Bogan where it contributes 34.7% to industry value added and 21.4% to employment and is based on copper mining;
- Cobar where it contributes 51.4% to industry value added and 42.3% to employment and is based on copper, zinc, lead, silver and gold mining; and
- Mid-Western where it contributes 27.3% to industry value added and 20.4% to employment and is based on coal mining.

Current developments in Narromine LGA and future developments proposed for Dubbo LGA will expand the influence of the mining sector in the Orana region further. Other mining developments are also at advanced planning stages including one silver mine proposal in the Mid-Western Region and significant exploration for coal seam gas in the northern section of the region.¹ In order to cater for the increasing demand for mining skills in the region, RDA Orana is progressing an initiative to develop a regional mining skills training facility.

A shift share analysis of the changes in employment between 2006 and 2011 show that employment in the total mining sector grew by 57% across the entire Orana region, compared to a 67% increase in employment across NSW. In the Orana region, mining related employment growth was greatest in coal mining (up by 159%) whilst metal ore mining grew by 20%. At the LGA level, employment in mining grew by 58% in Bogan LGA, by 3% in Cobar LGA, and by 120% in Mid-Western LGA between 2006 and 2011.

In order to develop a picture of the opportunities for the mining sector going forward, interviews were conducted with representatives of a mining company and a registered training organisation:

- Mike Sutherland – General Manager NSW, Alkane Resources Ltd – Dubbo²; and
- Susan Carey - Director Educational Delivery, Dubbo Area, TAFE Western.

Attempts were made to contact an additional representative of the mining sector without success.

Following is a summary of the main opportunities identified by the sector representatives. For each opportunity, the main challenges or barriers to realising the opportunities are presented along with suggestions to address these challenges.

Tomingley Gold Project (Narromine LGA)

The Tomingley Gold Mine, operated by Alkane Resources is currently under construction. Mine construction (currently into its sixth month) is expected to require a workforce of approximately 100 full time equivalent (FTE) staff.

Preliminary estimates are that approximately 40% of the construction workforce will be sourced from outside the Orana region.³

Mining operations are expected to require a workforce of approximately 90 FTE staff with a peak operational staff of 125-130 staff during the second year of operation.⁴ It is expected that the operational life of the mine will be 10-12 years.⁵ Gold production is expected to start in late 2013.⁶

1 RDA Orana, Regional Plan 2012-2020 pg 29, 88

2 Around 95% of the operations of Alkane Resources are concentrated in Central West NSW, focussing on the Lachlan Fold belt.

3 Mike Sutherland, personal communication, July 2013

4 TPG Environmental Assessment, retrieved from <http://www.alkane.com.au/index.php/projects/current-projects/tomingley>

5 <http://www.alkane.com.au/index.php/projects/current-projects/tomingley>

6 <http://www.alkane.com.au/pdf/presentations/20130322.pdf>

Challenges / Barriers and Suggestions:¹

Main challenges / barriers	Suggestions for addressing the barriers
A lengthy and unwieldy approval process through the NSW Government planning system characterised by process and document duplication including multiple reviews of the Environmental Impact Statement. The approval process was expected to take 9 months, but was only completed in 23 months.	Alkane has made recommendations for the review of process to achieve a "clear simple process". Positive responses have been received from the State Government.
A shortage of rental properties in Dubbo which is where the management team of around 10 families (coming from outside the region) are expected to reside.	

Sourcing an operational workforce for the project was not considered to be a significant issue. A local employment and training initiative is a major part of the employment strategy. All training will be provided internally in conjunction with TAFE Western and one other registered training organisation (RTO). The expected employment profile is:

- 30% of operators to be experienced miners;
- 30% to know what a mine is;
- 40% to be novices (greenhorns) who are then trained.

Specific efforts will be made to attract Aboriginal people to the sector and this will be supported by the TAFE "Indigenous introduction to mining" course.

Dubbo Zirconia project (Dubbo LGA)

An Environmental Impact Statement is currently being prepared for the Dubbo Zirconia project which, if approved, will extract rare metals and rare earths from Toongi in the Dubbo LGA. With mine approval, construction is expected to commence mid 2014. It is anticipated construction will require a workforce of approximately 400 full time equivalent (FTE) staff. Preliminary estimates are that approximately 40% of the construction workforce will be sourced from outside the Orana region.²

Mine operation is expected to require a workforce of approximately 250 FTE staff.³ Alkane Resources is applying for a twenty year license though it is expected that the operational life of the mine will be 80 years.

Other investments required to support this mine include:

- An increase in truck-based transport for chemicals for processing;
- A limestone mine at Geurie;
- An upgrade to rail infrastructure (approximately \$30 million);
- An upgrade to road infrastructure around the mine.

Once the full rate of production is achieved, the mine is expected to contribute 23% to the Dubbo LGA GRP (end 2017).

¹ <http://www.alkane.com.au/pdf/presentations/20130322.pdf>

² Mike Sutherland, personal communication, July 2013

³ TPG Environmental Assessment, retrieved from <http://www.alkane.com.au/index.php/projects/current-projects/tomingley>

Challenges / Barriers and Suggestions:

Main challenges / barriers	Suggestions for addressing the barriers
A shortage of rental properties in Dubbo to house the expected imported workforce of around 35 specialist technical staff and their families.	
Access to capital / finance.	Memoranda of Understanding have been signed with Japanese companies for the purchase of minerals extracted from the Dubbo operation, thus reducing the risk around the operation.
Potential community objection due to increased road traffic and the re-opening of the rail line.	Road upgrades to be carried out.
Uncertainty around the source of gas required for industrial use.	Imported gas is the likely option. Review of options for local coal seam gas extraction is a strategic question.
The operation will require 4,000 ML of water to the operation per year.	Water supply is being addressed through the purchase of high security licenses on the market from vineyards and irrigators in the Macquarie Valley.
An increased level of regulation around the mining industry which has resulted in additional up-front costs.	

As with Tomingley, sourcing an operational workforce for the project was not considered to be a significant issue with local employment and training a priority.

Orana Skills Mining Centre of Excellence (SMCE)

In order to meet the growing needs of the resources sector in the Orana region, and to better enable the local labour force to take advantage of opportunities in this sector, the development of a mining skills training facility is being progressed by RDA Orana. The vision for the centre is:

*"to establish a virtual training centre that is accessible to all and that will meet the current and future needs of the initial skill requirements for the resources sector within the Orana region and throughout NSW."*⁴

Much consultation with key stakeholders from the resources sector including peak bodies, and the education and training sector has been undertaken in formulating the operational characteristics of the centre. The establishment of the facility as a "virtual" learning centre is supported by TAFE Western's experience with enrolments and preferred training modes in recent times:

- TAFE Western has dramatically increased the amount of flexible delivery⁵ being offered because of the impact of travel, including limiting block study requirements.
- TAFE Western Connect had over 3000 enrolments last year with people now able to access training they couldn't before.
- For more specialist courses (with smaller cohorts), an online offering makes the course viable.

Interviews conducted for this study revealed enthusiastic support for the development, especially with regard to:

- the targeting of Indigenous people;
- engaging with secondary school students in the region to develop aspirations for working in mining;

⁴ RDA Orana (2012), Orana SMCE Framework proposal

⁵ Flexible delivery includes some completely online courses, some using interactive classroom technology, some part online and part conducted in a workshop, and some use of mobile units that travel across the region.

- establishing a career path for people working in mining (encouraging people to think beyond their current job towards a career path in the sector);
- having application to sectors other than mining (for instance the utilities sector);
- the collaborative and neutral nature of the venture supported by industry, which should facilitate the coordination of businesses looking for training to create viable cohorts of students across the region and across businesses. This was seen as extremely beneficial as the Vocational Education and Training sector moves to an entitlement model of funding training.

Quantification

Based on the interviews with major stakeholders in the Orana region, the following potential developments warranted preliminary quantification:

- Economy-wide effects of the construction of the Tomingley Gold project (Narromine LGA) and mine operation;
- Economy-wide effects of the construction of the Dubbo Zirconia project and mine operation.

Overall, the modelling results presented are based on appropriate assumptions and represent an accurate reflection of the data provided. The estimates of economic impacts, however, are indicative only due to limits on data and the scope of the current study. WRI recommends that these analyses are not comprehensive assessments of individual opportunities. Before proceeding with developments discussed in the report, detailed analysis should be undertaken.

Construction and operation of Dubbo Zirconia Project

WRI has modelled the economic impacts of the Dubbo Zirconia Project (DZP) based on the following assumptions and data:

- Data on the capital expenditure and operating costs of the Dubbo Zirconia Project was provided by Alkane Resources⁶ and data on the distribution of construction costs across sectors was obtained from the R2 Mining (mining consultancy)⁷, Commonwealth Department of Infrastructure and Transport, and from previous projects completed by WRI. In addition, Alkane Resources provided WRI with the expected employment numbers during the construction and operational phases of the project;
- Alkane Resources has provided preliminary estimates that approximately 40% of the construction labour force will be sourced from outside the Orana region;
- Economic impacts were estimated using a combination of final demand and industry significance analysis.

The impacts due to DZP construction and operational activities on the economies of Dubbo LGA and the Orana region are outlined in the Table 1 below.

Table 1. Economic impacts of DZP on Dubbo LGA and the Orana region.

Economic impacts	Construction		Operations	
	Dubbo LGA	Orana region	Dubbo LGA	Orana region
Output (\$mIn)	909.19	1,321.77	253.47	254.88
Value added (\$mIn)	387.77	473.61	73.14	72.58
Household income (\$mIn)	186.71	224.58	22.93	23.20
FTE Employment	530	590	290	290

⁶ PhillipCapital, Alkane Resources Equity research report, 17th May 2013; and Mike Sutherland, personal communication, July 2013.

⁷ R2 Mining. Australian Metal Cost Guide.

When flow-on effects are taken into account, the construction of DZP is estimated to contribute the following to the regional economies:

- In Dubbo LGA - \$387.77 million in value added, \$186.71 million in household income and 530 FTE jobs, representing respectively 22.22%, 20.96% and 3.70% of regional value added, household income and FTE employment;
- In Orana - \$473.61 million in value added, \$224.58 million in household income and 590 FTE jobs, representing respectively 10.45%, 10.55% and 1.54% of regional value added, household income and FTE employment.

Overall, when flow-on effects are taken into account, the operation of DZP is estimated to contribute the following to the regional economies in question:

- In Dubbo LGA - \$73.14 million in value added, \$22.93 million in household income and 290 FTE jobs, representing respectively 4.19%, 2.58% and 2.02% of regional value added, household income and FTE employment;
- In Orana - \$72.58 million in value added⁸, \$23.20 million in household income and 290 FTE jobs, representing respectively 1.60%, 1.09% and 0.75% of regional value added, household income and FTE employment.

Construction and operation of Tomingley Gold Project

The modelling of the economic impact of construction and operation (including peak operation) of the Tomingley Gold Project (TGP) was based on the following assumptions and data:

- Alkane Resources has provided WRI with the data on construction expenditure and operating costs pertaining to the gold mine project. Similarly to DZP, the distribution of construction costs was obtained from R2 Mining and from previous WRI projects. Employment data was obtained from Alkane Resources;
- WRI noted that construction of the gold mine was underway as at the time of reporting;
- The economic impacts were modelled using final demand and industry significance analysis, similarly to DZP modelling.

The economic impacts of construction and operation of TGP on the economies of Narromine LGA and the Orana region are presented in Table 2 below.

Table 2. Economic impacts of TGP on Narromine LGA and the Orana region.

Economic impacts on Narromine LGA	Construction activity	Operational activity	Peak operational activity
Output (\$mIn)	74.38	90.05	129.17
Value added (\$mIn)	30.60	20.16	28.52
Household income (\$mIn)	12.92	7.57	10.68
FTE Employment	80	130	180
Economic impacts on Orana region	Construction activity	Operational activity	Peak operational activity
Output (\$mIn)	121.86	145.31	209.85
Value added (\$mIn)	45.78	34.93	50.36
Household income (\$mIn)	22.42	12.68	18.28
FTE Employment	90	180	260

⁸ Due to the size of the Dubbo economy relative to the size of Orana economy and associated interregional effects, the value added generated in Dubbo LGA is larger than value added generated in the Orana region. This discrepancy does not affect the overall economic impacts stemming from Zirconia operations in the respective regions.

When flow-on effects are taken into account, the construction of TGP is estimated to contribute the following to the regional economies in question:

- In Narramine LGA - \$30.60 million in value added, \$12.92 million in household income and 80 FTE jobs, representing respectively 16.03%, 16.92% and 4.44% of regional value added, household income and FTE employment;
- In Orana - \$45.78 million in value added, \$22.42 million in household income and 90 FTE jobs, representing respectively 1.01%, 1.05% and 0.23% of regional value added, household income and FTE employment.

When flow-on effects are taken into account, the operation of TGP is estimated to contribute the following to the regional economies in question:

- In Narramine LGA - \$20.16 million in value added, \$7.57 million in household income and 130 FTE jobs, representing respectively 10.56%, 9.91% and 7.22% of regional value added, household income and FTE employment;
- In Orana - \$34.93 million in value added, \$12.68 million in household income and 180 FTE jobs, representing respectively 0.77%, 0.59% and 0.47% of regional value added, household income and FTE employment.

When flow-on effects are taken into account, peak operations are estimated to contribute the following to the regional economies in question:

- In Narramine LGA - \$28.52 million in value added, \$10.68 million in household income and 180 FTE jobs, representing respectively 14.94%, 13.99% and 10.00% of regional value added, household income and FTE employment;
- In Orana - \$50.36 million in value added, \$18.28 million in household income and 260 FTE jobs, representing respectively 1.11%, 0.86% and 0.67% of regional value added, household income and FTE employment.

Further recommendations

The Orana region is already well placed with multiple existing mines and mining developments. The Orana Mining Skills Centre of Excellence is a valuable component to the regional mining profile that will increase human capital in the regional population and offer opportunities for training to those outside of the region. A regional plan to capitalise on the mining sector developments should be coordinated by the RDA. That should seek to leverage further regional outcomes in:

- Advances in human capital development
- Royalty for regions funding
- Associated infrastructure improvements

TOURISM / HOSPITALITY

Note about the “Tourism” sector

The Australian Bureau of Statistics notes that:

“Tourism is not an industry in the conventional sense. In the Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 (1292.0), industries are defined on the basis of the primary goods and services that they produce. However, tourism is defined according to the status of the consumer, that is, the characteristics of the consumer determine whether the production is included within the scope of tourism. For example, expenditure on a restaurant meal by a visitor contributes to tourism’s share of the economy, whereas expenditure by a local resident does not.”¹

For the purpose of this analysis, WRI has interpreted the Hospitality sector as being broadly indicative of opportunities in the “Tourism” sector. WRI acknowledges however, that Tourism sector activities occur across a range of industry sectors beyond the Hospitality sector.

The Hospitality sector is currently a solid contributor to the Orana region economy, particularly in terms of employment. In 2012, the sector’s estimated contribution to total regional value added was only 2.3%, however, it provided 4.7% of the region’s employment. As a proportion of total industry value added, the hospitality sector was most valuable in:

- Mid-Western and Wellington LGAs – 5.6%;
- Gilgandra LGA – 5.4%; and
- Dubbo LGA – 5%.

A diverse range of tourist attractions are located across the region, including:

- Western Plains Zoo in Dubbo LGA;
- Warrumbungle National Park;
- Macquarie Marshes in Walgett LGA;
- Narromine Aviation Museum;
- Brewarrina Fish Traps;
- Lightning Ridge in Walgett LGA;
- Wineries in Mid-Western LGA; and
- Jandra Paddleboat in Bourke LGA.

The sector has been identified as a significant opportunity for four major reasons:

- because of its solid contribution to the region currently;
- because of its ability to build on, and support, the historically strong agricultural sector;
- because of its strong linkages to both upstream and downstream industries as well as strong multipliers; and
- because of its ability to promote the region’s natural environment as a desirable tourism product (one of the region’s major competitive advantages).

In order to develop a picture of the opportunities for the Hospitality / Tourism sector going forward, an interview was conducted with Matthew Fuller, General Manager of the region’s pre-eminent tourist destination – the Taronga Western Plains Zoo. Attempts were made to contact two other accommodation providers, however, neither was available for interview.

¹ Australian Bureau of Statistics, <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1301.0~2012~Main%20Features~Tourism%20Industry~135>

Following is a summary of the main opportunities identified through WRI's analysis. For each opportunity, the main challenges or barriers to realising the opportunities are presented along with suggestions to address these challenges.

Competitive advantages

Competitive advantages identified across the region were:

- Food and wine based tourism – Mid-Western LGA;
- Taronga Western Plains Zoo – Dubbo LGA;
- Nature-based tourism – across entire region;
- Agri-tourism or farm based tourism – potentially across the entire region.

Embracing a cooperative approach

The Hospitality / Tourism sector is already a solid contributor to the region, however, a cooperative approach to marketing and developing tourism products was seen as vital in order for the sector to realise its full potential. Specifically this included:

- The development of packaged products.
- The pooling of resources to achieve marketing campaigns of significant size and scope. Sizeable campaigns could be achieved in the current funding environment whereby the NSW Government is providing opportunities on a matched funding basis.
- Membership in regional tourism bodies that coordinate campaigns and educate their members.

Challenges / Barriers and Suggestions

Main challenges / barriers	Suggestions for addressing the barriers
Lack of sizeable and unified marketing campaigns.	Pooling of resources / participation in regional tourism.
Scepticism about the value of participating in regional tourism bodies.	
A lack of understanding of the market segmentation and the particular segments that can be targeted.	Participating in regional tourism bodies will help educate members about target markets.

Expand and enhance the Corporate group market

The Corporate group market refers to those travelling for business often in small to medium groups attending functions such as:

- Conferences;
- Training;
- Retreats.

It was noted that the Corporate group market is one which could be expanded in the region, particularly in Dubbo LGA. Quality accommodation that caters for more than one person per room (twin share, quad share, apartments) was seen as an attractive option for budget conscious businesses.

Challenges / Barriers and Suggestions

Main challenges / barriers	Suggestions for addressing the barriers
Currently, a gap in quality accommodation has been identified and many older motels in the Dubbo region are in need of upgrade.	Undertake upgrades and develop suitable room / apartment configurations.

Develop the Compatriots and Wanderers market

The compatriots and wanderers¹ market (including “grey nomads”) was seen as a market segment not adequately catered for in the region. Given the large number of recreational vehicles travelling the continent in recent times (compared to estimates from 2000, trips by active caravan and camping seniors were up 90%)², specific facilities should be developed such as:

- Mobile home service points;
- Recreation areas along major highways;
- Drinking water re-fill facilities.

Challenges / Barriers and Suggestions

Main challenges / barriers	Suggestions for addressing the barriers
Currently, a lack of recreational vehicle (RV) facilities in the region.	Every town in the region should seek the RV friendly classification.

Develop nature based and Indigenous cultural experiences

Given the region's rural and “wilderness” character, the potential for nature based tourism was seen as positive but under-utilised. Likewise, the region's Indigenous heritage was also considered a major opportunity. Both of these areas have been identified as gaps in the tourism offering across NSW. As an example, areas such as the Macquarie Marshes are currently under-utilised from an eco-tourism perspective. It was acknowledged that any developments in sensitive areas would need to meet stringent environmental guidelines.

Challenges / Barriers and Suggestions

Main challenges / barriers	Suggestions for addressing the barriers
Lack of high quality commercial tourism operators. It was noted that NSW is not as well developed as Queensland and Tasmania in this market segment.	Work with National Parks to secure operators' licenses to access parks.

Develop Agri-tourism

Agri-tourism ranges from passive farm stays to active involvement in a working farm. There was a suggestion that the reputation of this kind of tourism product may have been damaged by the highly variable quality of operators in the sector.

General challenges and barriers facing the Tourism / Hospitality sector:

Main challenges / barriers	Suggestions for addressing the barriers
Lack of skilled labour in the hospitality sector, mainly trained chefs. This is exacerbated by the transient nature of the sector / workforce.	Focus attention on growing skills in the region and developing the local workforce.
High cost base for business operators.	Relieve payroll tax and other government impediments to help businesses.
Make meeting the needs of the consumer the top priority.	Develop a more consumer centric approach, including enhanced use of online services.
A general lack of understanding and knowledge about market segmentation and what consumers want.	Need to develop an evidence based understanding of the consumer's needs. This will require consumer based research and the quantification of supply / demand in the sector.

- 1 Compatriots - Quintessentially middle market, female skew, want DFY (do-it-for-you) but forced to compromise, family-focused, role-driven, good shoulder market, activities focused, budget conscious, like resorts and don't like camping, favour 3-star but aspire to 5-star, self-contained an advantage. Wanderers - Adult couples, empty nesters, frequent tourists, DIY, great off-peak market, keen observers, wide range of preferences in transport, favour difference, continue 'Darby & Joan' lifestyle when travelling, like to potter.
- 2 Tourism Research Australia (2012). Snapshots 2012 – Caravan or Camping in Australia. Retrieved from http://www.ret.gov.au/tourism/Documents/tra/Snapshots%20and%20Factsheets/2012/CC_Snapshot_2012.pdf

Quantification

Based on the interviews with major stakeholders in the Orana region, the following potential development warranted preliminary quantification.

- Economic impact of smaller niche and integrated business opportunities, such as those at the intersection of Tourism, Agriculture and Food & Beverage Manufacturing sectors (e.g. organic food gardens)

Please refer to section on Food & Beverage Manufacturing for an assessment of this opportunity.

Further recommendations

- RDA Orana can assist in the efforts to coordinate a Regional Tourism Action Plan based on evidence.
- Tourism market development will be strengthened through coordinated regional promotion with economic development managers collaborating with tourism promotion agencies.
- Consumer based research should be undertaken to quantify the supply and demand in each market segment for the region.
- Capital developments at Western Plains Zoo could be modelled and evaluated to determine the impacts they have on regional tourism.
- TAFE and other registered training organisations would benefit from a demand analysis of hospitality studies in order to address concerns about the under-supply of skilled labour in the region's hospitality sector.

TRANSPORT AND STORAGE

In 2012, the Transport and Storage sector contributed an estimated 2.04% to GRP (industry value added) and 2.02% to employment across the Orana region, which placed it outside the top ten contributing industry sectors. Greater relative contributions were made in the individual LGAs of Coonamble, Dubbo, Narromine, Walgett and Warrumbungle Shire.

The sector is dominated by road transport which comprised 81% of the total sector in the region in 2011. Employment across the sector fell between 2006 and 2011, with many of the transport related industries underperforming compared to their state counterparts.

Despite this, the Transport and Storage sector plays a vital role in the regional economy, supporting agriculture, mining and many other key sectors with logistical needs. For Dubbo LGA, key sector analysis identified the sector as one with strong linkages both to upstream and downstream industries and strong multipliers. It is likely this hinges on Dubbo's growing role as a distribution hub for the entire Orana region with co-located wholesale businesses growing strongly in the region.

Transport infrastructure in the region includes:

- Major interstate north/south and east/west railway lines intersect many parts of the region¹,
- Major interstate highways intersect the region including Newell, Mitchell, Golden, Castlereagh, Oxley, Kamilaroi and Barrier highways²;
- Countrylink offers a daily passenger rail service between Sydney and Dubbo;
- Coach services are also provided to other areas in the region;
- Dubbo City Regional Airport, operated by Dubbo City Council and RPT Airlines, provides commercial air services by Rex Airlines and QantasLink³; and
- Commercial air services are also provided from Mudgee Airport from Mudgee to Sydney.

The sector has been explored as an opportunity because of its vital role in underpinning regional economic activity and economic expansion in the future.

In order to build an evidence based picture of the opportunities going forward and the challenges facing the transport and storage sector, interviews were conducted with two representatives from the relevant enterprises (in the transport and storage and wholesale sectors) and one local government representative:

- Fred Griffiths, Proprietor – GH Cole, alcoholic beverage and soft drink distributor across the Orana region;
- Peter Pritchard, Manager Rod Pilon Transport, Dubbo (trucking and storage);
- Steve Loan, General Manager – Warrumbungle Shire.

It should be noted that whilst the focus of interviews with the contacts listed above was the transport sector, transport was a key issue raised in many other interviews conducted.

Following is a summary of the main opportunities identified by the sector representatives. General challenges or barriers to realising the opportunities are presented along with suggestions to address these challenges.

Please note that commentary should not be attributed to any individual interviewed. Overall themes arising from interviews have been collectively presented below.

1 RDA Orana, Regional Plan 2012-2020 pg 30
 2 RDA Orana, Regional Plan 2012-2020 pg 30
 3 <http://www.business.nsw.gov.au/invest-in-nsw/regional-nsw/nsw-regions/orana>

Growing transport task

All respondents identified that the demand for transport is expected to increase and that quality infrastructure will be essential for the efficient transport of product to and from the larger metropolitan centres and ports. Upgrades to road infrastructure (in particular, Bell's Line and Golden Highway) and rail infrastructure were considered crucial to facilitating the transport challenge.

The Bell's Line of Road is considered a crucial corridor for transporting produce from the Orana region into Sydney and to the Sydney and Port Kembla ports. Better access to this large market and its export distribution points (through the use of higher capacity trucks) is seen as vital for the development of industry in the Orana region and elsewhere in Western NSW.

The Golden Highway is a major transport corridor into the Port of Newcastle for grain exports leaving the Orana region and for in-bound fertilisers. Bottlenecks at the Port of Newcastle were considered a factor in transport routes chosen with some opting to transport produce via Sydney or Port Kembla rather than Newcastle.

The main challenges and barriers related to infrastructure are outlined below.

Challenges / Barriers and Suggestions

Main challenges / barriers	Suggestions for addressing the barriers
State of major road infrastructure	Upgrade the Bell's Line to cater for B-Doubles
Upgrade the Golden Highway to cater for B-Triples	Relieve payroll tax and other government impediments to help businesses
State of rail infrastructure which is forcing more to be transported via road.	

Dubbo as a distribution hub for the region

Dubbo's competitive advantage as a distribution hub for the Orana region stems from its location in the South East of the region at the intersection of the Mitchell, Newell and Golden Highways, and the level of established transport infrastructure in the LGA including intermodal facilities. Dubbo was seen to be a point from which local distribution companies could take over the distribution task from Sydney based companies, who typically deliver to Dubbo but go no further. Knowledge of, and linkages into the Orana region, were seen as vital for transporting goods efficiently to remote communities. Comment was made that developments in food and beverage manufacturing in Mid-Western LGA would also benefit from the further development of Dubbo as a distribution hub for product destined for Sydney.

Other developments:

Other suggestions included:

- The development of a road transport hub integrated with other facilities such as accommodation / hospitality services, mechanical workshops, Recreational Vehicle friendly facilities.
- The development of bio-security truck wash facilities, which are well established in Queensland. This initiative is supported by the Queensland Government which has established procedures for the clean-down of trucks.

General challenges and barriers facing the Transport & Storage sector:

Main challenges / barriers	Suggestions for addressing the barriers
Cost of fuel including changes to the subsidy for diesel fuel which, in the near future, is expected to be lowered from 18c/litre to around 6c/litre under the current government.	Government to review proposed changes.
The falling Australian dollar is also impacting on fuel prices.	
A shrinking sector whereby many local freight companies are closing down. In some cases this is likely to be due to a lack of succession planning.	
Growth appears to be coming from within the current operators through amalgamations of businesses.	
Difficulty attracting people to the road transport industry due to:	Promotion of improvements in the sector.
<ul style="list-style-type: none"> Lifestyle issues (long periods on the road away from home); Poor perception about the industry despite concerted efforts to improving safety, improving conditions and generally attracting professional drivers who prioritise safety; Competition with the mining industry which is attracting labour away from the transport sector. 	
Regulation of the vehicles allowed on rural and national roads that often does not keep pace with advances in truck models. Some newer styles of trucks are not approved for travel along certain major routes.	<p>In conjunction with NATROAD (National Road Transport Operators Association), some transport companies are testing roads to see how the newer trucks handle the road conditions. This should guide plans for upgrading these roads.</p> <p>In general, the industry needs to work collaboratively with regulatory bodies to ensure that the bulk movement of cargo on roads happens in a safe and orderly fashion.</p> <p>Lobby groups such as the Livestock and Bulk Carriers Association will be crucial in advocating for the transport sector.</p>

Quantification

Based on the interviews with major stakeholders in the Orana region, the following potential developments warranted preliminary quantification.

- Benefits and economic impacts stemming from transport infrastructure expansion and upgrade in the Orana region, as well as in the regions adjacent to Orana.

Transport infrastructure expansion and upgrade

The analysis of benefits and impacts of a transport infrastructure upgrade in the Orana region and adjacent regions was based on previous research conducted by WRI and data/estimates provided by industry representatives and transport consultants.

The analyses concerned the two routes – the Golden Highway (Orana and Hunter regions) and the Bells Line Expressway (Blue Mountains region).

Golden Highway

Transport operators and consultants put forward the following arguments:¹

- The Golden Highway (and the Dubbo-Newcastle transport corridor in general) provide connectivity to a number of critical markets – movement of grain and other agricultural products from western NSW for processing and packing for supply to domestic and export markets (in particular from the Coonamble region); movement of non-coal minerals from north-western NSW to Newcastle and Sydney; distribution of consumer and industrial goods and agricultural inputs in the north-west of NSW; long distance movements to other states.
- With regard to east-west transport movements from Orana to Newcastle, the present freight demand is estimated to be up to 1 million tonnes per annum (800,000 tonnes taking into account products not suitable for B-triple operations), with the tonnage forecast expected to increase to 1.069 million tonnes for B-triples.
- The expansion and upgrade of the Golden Highway (that connects Orana region and Newcastle) has broader relevance beyond the Orana-Newcastle transportation issue. The Golden Highway may have a wider appeal for freight moving from Sydney to the NSW North West in lieu of the Great Western Highway. An expanded (upgraded) Golden Highway will see the transportation needs of Orana region addressed more readily.
- With regards to price effects and the impact of an upgraded Golden Highway on the freight rates and profit margins of transport operators, it is acknowledged that transport sectors have difficulties in keeping extra price margins coming from efficiency gains (e.g. from a transport infrastructure upgrade). The recent estimates of transport operation benefits suggest that if the Golden Highway is upgraded to allow the use of B-triples, benefits of up to \$21 per tonne may be realised for north-south road freight flows to North Queensland (if assembly/disassembly areas for B-triples are moved from Dubbo to Newcastle). However, only marginal benefits would exist for east-west flows through Dubbo to the Coonamble and Narromine regions (where the distance travelled is less than 500 kilometres).²

Bells Expressway

In 2005 WRI was engaged by Bells Line Expressway Group (BLEG) to estimate the impact of a Bells Line Expressway on the economies of the Central West and North West of NSW. WRI interviewed a range of business representatives in the industries most likely to be affected by the Expressway (transport, manufacturing, agriculture, tourism, retail) that sought estimates of the likely impact on their business of the Expressway. This was then used to estimate an economic impact.³ WRI estimated that in the five years from completion of the Expressway total economic growth in the region is expected to be an additional:

- \$530 million in GRP (4.5 % of Central West and North West gross regional product);
- \$264 million in household income (3.7% of regional household income); and
- 4,520 full time equivalent jobs (3.9% of regional FTE employment number).

In addition, the average annual savings on vehicle operating costs and travel time was determined to be \$9.9 million per annum.

1 Strategic Design + Development. Demand for Freight and B-triple Access in the Dubbo-Newcastle Port Corridor. NSW Road and Traffic Authority, October 2008.
 2 Strategic Design + Development. Demand for Freight and B-triple Access in the Dubbo-Newcastle Port Corridor. NSW Road and Traffic Authority, October 2008.
 3 Western Research Institute. Socio-Economic Impact of the Bells Line Expressway, 2005.

Further recommendations

- WRI recommends that a study similar to that undertaken for the Bells Line Expressway Group (BLEG) in 2005 be undertaken to estimate the impact of upgrading the Golden Highway.
- A study developing a narrative around the need for an upgrade to the Golden Highway has been commissioned collaboratively by RDA Orana and RDA Hunter and is currently underway. The consultant Hyder Consulting Pty Ltd, has been commissioned previously to assess the benefits of allowing B-triple trucks on the highway. Such a study could be a source of demand data for use in modelling the impacts of such a development on the economies of both RDA regions. The results from this study are presented in the previous section.
- A study examining the economic impact of proposed changes to the diesel fuel subsidy may be useful as a lobbying tool.

RECOMMENDATIONS

This study has examined the social and economic character of the RDA Orana region, its local government areas and economic clusters. An analysis of key opportunity sectors identified a range of developments with significant potential to leverage the existing strengths of the region and to meet the varied challenges facing communities. The RDA Orana region sits wholly within the Murray Darling Basin and therefore one of the critical challenges facing the community is a water constrained future. This study serves to inform diversification strategies for the Basin Plan affected communities.

The recommendations emerging from the study are outlined in terms of critical enablers for the region and industry specific actions.

Critical Enablers

Infrastructure

A critical issue facing the region is the state of the infrastructure servicing its broadly distributed population. Whilst deficiencies in transport infrastructure and related services for both goods and people are well recognised, the state of infrastructure supporting the delivery of water, sewer, electricity and gas across the region is also critical to the sustainability of many communities. Building an evidence base around the need for key infrastructure developments will be necessary in developing advocacy towards these projects.

As an example, a study scoping the potential of the Golden Highway as a transport corridor between Orana and the port of Newcastle has been commissioned by RDA Orana and RDA Hunter. WRI suggests that this study holds great value for the Orana region and the outcomes of that study may provide the basis for an increased strategic priority for the region.

National Broadband Network

The Orana region is well placed to benefit from the early rollout of the National Broadband Network in Dubbo by the end of 2014. RDA Orana, Dubbo City Council and the NBN should evaluate the effectiveness of the rollout and seek to promote opportunities to optimise this early advantage for the region, its small, medium and large enterprises and educational institutions.

Human Capital

The establishment of a Skills Mining Centre of Excellence in partnership with key educational institutions in the region will increase the human capital of the region in relevant employment skills. This type of development is critical to the development of human capital within a region. It is well documented that regional populations are less likely to achieve the levels of tertiary education than that of metropolitan populations. Tertiary Education institutions such as TAFE Western and Charles Sturt University and their operations within the Orana region should be leveraged upon as critical enabling components of future developments. Expansion of the institutional presence of these bodies in the region will increase the human capital within the region.

This study noted that Aboriginal people face challenges finding work, even if well trained. There is a need for organisations to be more mindful and conscious of the needs of the Aboriginal workforce, with a focus on engagement and retention.

Industry Sectors

WRI proposes specific recommendations in the following sectors:

Agriculture and value-adding to agricultural produce through Food & Beverage Manufacturing

The following opportunities were identified for the agricultural sector:

- Further development of grain and other broad-acre cropping

- Further development of sheep farming for meat and wool

WRI recommends that RDA Orana progresses the discussion and explores the regional benefits of:

- a cooperative grain handling system; and
- the extension of NSW Regional Industries Investment Funds to support start-up businesses, especially through a regional development bank.

From a “value-adding” perspective, the following opportunities were identified:

- Development of large-scale food processing operations
- Low-level value adding of agricultural product
- Niche and integrated developments spanning agriculture, food and beverage manufacturing, wholesale, retail and tourism operations.

WRI recommends that:

- a best practice case study to operating a viable regional manufacturing operation would assist regional operators. For example, Mars Incorporated successfully operates a number of manufacturing facilities in regional NSW and Victoria; whilst
- National and State policy responses be sought to address the issues of:
 - perceived competition from existing large corporates impeding the entry of new, smaller players (national policy intervention); and
 - higher tariffs being applied to exported processed products in many countries (national response to potential markets).

Tourism and Hospitality

The following opportunities to grow the tourism economy were identified:

- Embracing a cooperative approach to tourism product development and marketing
- Expanding and enhancing facilities for the Corporate group market
- Further developing the Compatriots and Wanderers market
- Developing nature-based and Indigenous cultural experiences
- Developing agri-tourism

WRI recommends that RDA Orana assist in efforts to coordinate a Regional Tourism Action Plan based on evidence:

- Consumer based research should be undertaken to quantify the supply and demand in each market segment for the region.
- Capital developments such as that at Western Plains Zoo could be modelled and evaluated to determine the impacts they have on regional tourism.
- TAFE and other registered training organisations would benefit from a demand analysis of hospitality studies in order to address concerns about the under-supply of skilled labour in the region's hospitality sector.

Alongside this, tourism market development will be strengthened through coordinated regional promotion with economic development managers collaborating with tourism promotion agencies.

Mining

The Orana region is already well placed with multiple existing mines and mining developments. Current and potential mining developments include:

- Tomingley Gold Project (Narromine LGA)
- Dubbo Zirconia Project (Dubbo LGA)

The Orana Mining Skills Centre of Excellence is a valuable component to the regional mining profile that will increase human capital in the regional population and offer opportunities for training to those outside of the region. A regional plan to capitalise on the mining sector developments should be coordinated by the RDA. That should seek to leverage further regional outcomes in:

- advances in human capital development;
- Royalties for Regions funding; and
- associated infrastructure improvements.

APPENDICES

Appendix 1 – Sources of information for profiles

Appendix 2 – Construction of Input-Output Tables

Appendix 3 – Cluster and principal component analysis

Appendix 4 – Shift-share analysis

Appendix 5 – Simulating Impacts on Regional Economies (SIRE)

Appendix 6 – Detailed composition of economies

APPENDIX 1. SOURCES OF INFORMATION FOR PROFILES

WRI has used the following sources of information in constructing LGA profiles:

- Key contributing sectors (Figure 1) – employment and value added data from Input-Output tables for Orana region and constituent LGAs
- Changes in sectoral employment (Figure 2) – ABS Census of Population and Housing 2006 and 2011, Place of employment
- Key shift-share results & industries' employment growth (Table 1) – Calculations are based on ABS Census of Population and Housing 2006 and 2011, Place of employment
- Average income by occupation (Table 2) – ABS Census of Population and Housing 2006 and 2011
- Employment mapping (Table 3) – ABS Census of Population and Housing 2006 and 2011
- Trends in unemployment (Figure 3) at the Statistical Local Area level - Department of Education, Employment and Workforce Relations, Small Area Labour Markets, December 2006 – December 2012
- Educational profile, highest year of school completed (Figure 4) – ABS Census of Population and Housing 2011
- Post-school qualifications (Figure 5) – ABS Census of Population and Housing 2011
- Current study patterns (Table 4) – ABS Census of Population and Housing 2011
- Age structure (Figure 6) – ABS Census of Population and Housing 2001, 2006 and 2011
- Age dependency ratios (Table 5) – ABS Census of Population and Housing 2011
- Indigenous population – ABS National Regional Profile 2006 and 2011
- Population projections (Figure 7) – NSW Government, Department of Planning and Infrastructure. New South Wales Local Government Area Population Projections: 2010 Interim Revision
- Personal and personal income (Figures 8 and 9) – ABS Census of Population and Housing 2006 and 2011; ABS National Regional Profile 2006 and 2011
- Housing affordability (median weekly rental as percentage of median household weekly taxable income & ratio of median house price to median household taxable income), Figures 10 and 11 – NSW Government, Family & Community Services, Housing NSW. Rent and Sales Reports (September 2006, September 2011)¹
- Home ownership versus rental (Figure 12) – ABS Census of Population and Housing 2006 and 2011, Time Series DataPack, Catalogue no. 2069.0.30.003
- Value of construction (Table 6) – ABS, Building Approvals, Catalogue no. 8731.0, 2010-11 & 2011-12
- Crime statistics (top 10 offence categories), Table 7 – NSW Bureau of Crime Statistics & Research (BOCSAR), NSW Recorder Crime Statistics, 2008-2012²

The same sources of information were used for constructing the Orana region profile, profiles of regional clusters and mining/non-mining LGA profiles. The sequence of figures and tables was however different in these instances.

1 For certain LGAs no rental and median house price data were provided. In this instance, the data for broader region was used (e.g. Macquarie-Barwon data was used for Bogan Shire LGA). The ratios were calculated based on household taxable income data (ABS Census).

2 For Bogan, Warren and Brewarrina LGAs no offense rate per 100,000 population was provided. To ensure consistence the absolute number of offenses in the top 10 categories was reported for all LGAs. For Orana region as a whole, offense rate per 100,000 population was reported based on BOCSAR methodology: rate per 100,000 population = (number of criminal incidents / resident population) *100,000. The total population for Orana and the sum of criminal incidents in all constituent LGAs were used for calculation.

APPENDIX 2. CONSTRUCTION OF INPUT-OUTPUT TABLES

The tables for this project have been constructed using the GRIT technique developed by Professor Guy West and Professor Rod Jensen of the University of Queensland. The GRIT technique, which uses both national Australian Bureau of Statistics data and local superior data concerning the industry in question, is the most reputable method of Input-Output table construction in Australia and indeed elsewhere in the world.

GRIT uses a series of non-survey steps to produce a prototype regional table from the national table, but provides the opportunity at various stages for the insertion of superior data. The system is “variable interference” in that the analyst is able to determine the extent to which they interfere with the mechanical processes by introducing primary or other superior data.

The GRIT system is designed to produce regional tables that are:

- Consistent in accounting terms with each other and with the national table;
- Capable of calculations to a reasonable degree of holistic accuracy; and
- Capable of being updated with minimum effort as new data becomes available.

The GRIT technique is basically a hybrid method of deriving state and regional Input-Output tables from the national Input-Output table while at the same time allowing for the insertion of superior data at various stages in the construction of the tables.

APPENDIX 3. CLUSTER AND PRINCIPAL COMPONENT ANALYSIS

In order to identify clusters in the Orana region, WRI has performed the following analysis (based on value added and employment data for each of the 13 LGAs extracted from Input-Output tables). The data was expressed as a percentage of total value added and employment for each LGA. Clusters (principal components) were then identified by running the data through statistical software and following prescribed statistical procedures. While identifying the clusters, due consideration was given to the proximity and location of LGAs, i.e. in the event commonalities in industrial structure were identified for LGAs located in the opposite parts of the Orana region, the LGAs in question were put into separate clusters.

Principal component analysis

A maximum number of potential principal components (clusters) was set to 5. This was based on a subjective judgement about the likely number of clusters for 13 variables (LGAs), as well as principal component selection procedures. The correlation coefficient between variables (LGAs) and the component were observed. As shown in Table 1, if the correlation coefficient exceeded 0.5, this indicated that the variable (LGA) belongs to the specific component. If several variables (LGAs) belong to the same component, a cluster was formed (e.g. Bogan and Cobar LGAs had correlation coefficients of 0.734 and 0.996 in component 3, thereby forming a cluster). If for some of the components, only one variable had correlation coefficient of greater than 0.5, this variable (LGA) was assumed to be a stand-alone LGA, not belonging to any cluster (e.g. Dubbo and Mid-Western). Table 1 also indicates that no variable (LGA) had correlation coefficient greater than 0.5 in component 5.

Table 1. Rotated component matrix

Variable / LGA	Component 1	Component 2	Component 3	Component 4	Component 5
Bogan	0.651	0.107	0.734	0.146	-0.004
Bourke	0.780	0.505	0.149	0.181	0.270
Brewarrina	0.807	0.395	0.122	0.149	0.376
Cobar	0.048	0.048	0.996	0.030	0.029
Coonamble	0.947	0.199	0.134	0.178	0.070
Dubbo	0.253	0.939	0.065	0.221	0.013
Gilgandra	0.934	0.239	0.143	0.199	0.012
Mid-Western	0.321	0.251	0.085	0.909	0.030
Narromine	0.958	0.154	0.129	0.181	-0.058
Walgett	0.932	0.230	0.180	0.179	0.090
Warren	0.975	-0.026	0.132	0.151	-0.029
Warrumbungle Shire	0.926	0.279	0.134	0.200	0.021
Wellington	0.850	0.380	0.130	0.200	0.221

Notes:

- Extraction method: Principal Component Analysis
- Rotation Method: Varimax with Kaiser Normalization
- Rotation converged in 5 iterations
- Correlation coefficients >0.5 are indicated in bold

Cluster analysis

In order to confirm the results of principal component analysis, a hierarchical cluster analysis was carried out, i.e. 13 LGAs were successively fused into groups (clusters) until there is only one cluster containing all LGAs. The selection of “optimal” number of clusters and identification of cluster composition were based on both formal statistical rules, as well as on visual observation of hierarchical cluster formation (“cluster tree”). The selection largely confirmed the results of the principal component analysis. However, Wellington LGA was put in the same cluster with Bourke and Brewarrina, notwithstanding the fact that the former is located in the opposite part of the Orana region. In this case a decision was made to rely on the principal component analysis and place Wellington in a different cluster.

Overall the following clusters were defined:

- Cluster 1 – Bourke and Brewarrina LGAs;
- Cluster 2 – Bogan and Cobar LGAs; and
- Cluster 3 – Coonamble, Gilgandra, Narromine, Walgett, Warren, Warrumbungle Shire, Wellington.

The remaining two LGAs – Dubbo and Mid-Western Region are distinctive in their own right and were left as stand-alone LGAs.

The composition of the clusters can also be justified through an examination of economic structure. Bogan and Cobar LGAs, belonging to the same cluster, are dominated by mining. The predominant sectors in Bourke and Brewarrina LGAs are public administration, education, and agriculture. Coonamble, Gilgandra, Narromine, Walgett, Warren, Warrumbungle Shire and Wellington LGAs are predominantly agricultural (through Wellington is less so and in this respect shares similarities with Bourke and Brewarrina).

APPENDIX 4. SHIFT-SHARE ANALYSIS

Shift-share analysis is one way to account for the competitiveness of a region's industries and to analyse the local economic base. This analysis is primarily used to decompose employment changes within an economy over a specific period of time into mutually exclusive factors. It paints a picture of how well the region's current industries are performing by systematically examining the national, local, and industrial components of employment change. A shift-share analysis will provide a dynamic account of total regional employment growth that is attributable to growth of the national economy, a mix of faster or slower than average growing industries, and the competitive nature of the local industries.

Being a mathematical technique, shift-share analysis:

- Separates employment growth between the state economy, industry mix and local components; and
- Identifies industries that have grown at a faster rate than state and industry averages.

For each component of the shift-share analysis (state economy, industry mix and local factors) the result is either shown as a positive or negative change in employment.

State Economy

The Orana region is part of the larger NSW economy and is affected by state wide economic conditions such as changes in State government policy and levels of economic activity. It is therefore reasonable to expect that part of the employment growth in the region could be attributable to the overall growth of the NSW economy. This has been assessed as growth in the State regional economies i.e. excluding growth in the Sydney statistical division.

Calculated as average regional employment growth for NSW multiplied by the 2006 employment in the Orana region

Industry mix

Industries grow at different rates to the average for the economy as a whole. Growth may be rapid in some industries and slow or stable in others. Thus, the mix of industries in the Orana region will affect the overall level of employment growth in the region.

Calculated as the average growth of each industry at the combined regional state level less the average growth of regional NSW overall, multiplied by the 2006 employment in the Orana region

Local component

It could be expected that each industry in the Orana region will reflect the characteristics of that industry at the state level, however there will also be differences in the growth rates compared to the average rate of growth for that industry in regional NSW. Such differences can occur for a range of reasons, including: the competitive advantage of local industry; an attractive economic environment; or access to resources and infrastructure. The local component of employment growth is attributable to the relative performance of firms in the region compared to the state average.

A positive local component for an industry indicates that firms from that industry in the Orana region performed better than the combined state average in that industry, in terms of employment growth. Conversely, if the Orana region shows a negative local component for an industry, the firms in that industry are performing relatively poorly in comparison to the state average for that industry.

Calculated as the growth of each industry in the Orana region less the average growth of each industry at the regional state level, multiplied by the 2006 employment in the Orana region

Shift-share analysis, like all analytical techniques has some limitations. The main limitations of shift-share analysis include:

- It does not offer a definitive explanation of why the various effects were positive or negative (i.e. is only a descriptive tool that should be used in combination with other types of analysis);
- In some cases the use of averages is not representative of the employment performance of individual industries or regions; and
- It may not be a reliable indicator of future employment performance.

Shift-share analysis allows the classification of all industries into one of four types as outlined in the table below.

Industry Type	Regional NSW Growth	Industry Growth	Local Component
I	Positive	Positive	Positive
II	Positive	Positive	Negative
III	Positive	Negative	Negative
IV	Positive	Negative	Positive

- Type I – Local firms outperforming in a high growth industry - growing at a faster rate than state and industry averages. Type I industries are likely to encounter problems of rapid growth such as bottlenecks in production, skill shortages, inadequate infrastructure and lack of support services. Risk management strategies to protect the industry should be investigated and attempts made to attract regional investment into this industry.
- Type II - Local firms underperforming in a high growth industry - growing at a faster rate than the overall average growth for regional NSW but experiencing slower growth in the Orana region than the average for the industry across regional NSW. Type II industries may need additional support to improve their performance such as sourcing required skill areas, assistance with the commercialisation of new products, management advice and initiatives to strengthen the local industry as a whole (i.e. networking, clustering, etc).
- Type III - Local firms underperforming in a low growth industry - growing at a slower rate than the overall average growth for regional NSW and also experiencing slower growth in the Orana region than the average for the industry across NSW. Type III industries may be mature or declining industries and there may be few opportunities for growth. Firms should focus on the development of new growth opportunities such as development of new products or accessing new markets.
- Type IV - Local firms outperforming in a low growth industry - growing at a slower rate than the overall average growth for NSW but experiencing faster growth in the Orana region than the average for the industry across NSW. Type IV industries are likely to be mature or declining industries, however there may be relatively better opportunities in the Orana region. Efforts should be made to attract more investment in that industry.

In this report shift-share analysis was based on the employment growth over 2006-2011 period and was applied to 109 industries (industries at level two ANSZIC code) in the Orana, its constituent LGAs and regional clusters.

APPENDIX 5. SIMULATING IMPACTS ON REGIONAL ECONOMIES (SIRE) METHODOLOGY

Introduction

Economic modelling at the regional and small area level is restricted by model and data availability. Often, resource and time limitations preclude the construction of complex models such as computable general equilibrium (CGE) models, and in fact there are arguments to suggest that building a CGE model for a small region, while not invalid, may not be a very efficient use of resources in the context of the trade-off between increased complexity and increased data 'fuzziness'.

Input-Output modelling is usually used in such cases since it really provides the only practical option to planners. The assumptions of the input output model are concerned almost entirely with the nature of production. Inter-industry models are based on the premise that it is possible to divide all productive activities in an economy into sectors or industries whose inter-relations can be meaningfully expressed as a set of equations. The crucial assumption in the Input-Output model is that the money value of goods and services delivered by an industry to other producing sectors is a linear and homogeneous function of the output level of the purchasing industry with supply being infinitely elastic.

This linearity assumption clearly lays simple Input-Output models open to valid criticism. It implies a strict proportional relationship between input coefficients and output; for example, income coefficients are average propensities and employment coefficients reflect average labour productivity rates. In impact studies, this property can lead to an overestimation of the flow-on (multiplier) effects, particularly if the initial impacts are relatively modest. For example, many industries can increase output in the short term without corresponding proportional increases in wage costs and employment, particularly if there is slack capacity.

In the following section, a more general structural form of a model for simulating impacts on regional economies (SIRE) is suggested which provides for non-linearities in production in both primary and intermediate inputs.

The SIRE model shares much of the structure of the conventional Input-Output model. Total inputs are equal to intermediate inputs plus primary inputs (labour and capital). In the conventional input-Output model, the inputs purchased by each sector are a function only of the level of output of that sector. The input function is assumed linear and homogeneous of degree one, which implies constant returns to scale and no substitution between inputs.

The SIRE model departs here from the conventional Input-Output model by a number of steps that a) replace sets of average propensities with corresponding marginal propensities (elasticities) within the model's major linkages, and b) provide for changes in intermediate input coefficients as a function of relative price changes. There is room for variation between models and applications in the implementation and specifications of these linkages.

Primary Inputs

The first step is to allow for non-constant returns to scale and substitution between primary input factors. Value added at factor cost is calculated based on marginal changes in output by industry. The value added elasticities are estimated econometrically for industry using time-series data assuming a long-run equilibrium relationship between real value added at factor cost and total production.

The shares of wage (compensation of employees) and non-wage (gross operating surplus and mixed income) contributions to factor costs are assumed to be based on the same long-run relationship as that for total value added. The change in wage cost is then calculated from the marginal change in the share of wage costs in total factor costs. Gross operating surplus plus mixed income is calculated as the residual. The change in employment is calculated based on the average wage rate in each industry times the change in wages.

Household Consumption Expenditure

In a similar manner to primary inputs, total household consumption expenditure is assumed to follow a long-run equilibrium

relationship between real consumption and income. Ideally, consumption expenditure should be a function of disposable income and the function should also include variables such as wealth, etc. In this simplified version of the model, income is taken as wage income.

To ensure consistency between the long-run and short-run relationships, the constraint should be satisfied which gives a long-run elasticity equal to unity. The estimated short-run elasticity of consumption with respect to wage income is 0.926. Individual commodity expenditures are expressed in terms of total expenditure and are assumed to be based on the same long-run relationship as that for total expenditure. The budget shares for each commodity should remain constant in the long-run but that the short-term fluctuations are possible as income changes. Industry sourced non-wage household income is included in the other value added component of primary inputs.

Intermediate Inputs

Intermediate input coefficients can vary because of substitution effects caused by relative price changes, or through changes in technology. Technology change is generally regarded as a long run phenomenon. Hence, in short run impact situations, price effects will be the major source of change.

The regional technology coefficient is the sum of the regional purchase coefficient and the regional import coefficient and industry output prices are a weighted average of industry local and import prices. Note that the regional direct requirements coefficients can change, even when industry technology is fixed, as a result of relative price changes.

Import Substitution

The price model can also be used to adjust the regional purchase coefficients by calculating the substitution effect between locally produced and imported purchases. In most impact situations at the regional level, it can be assumed that changes in local production will have no or negligible effect on import prices. The Trade Weighted Index provides the base level differential between the local and import price levels. In addition, when adjusting the regional purchase coefficients, a penalty function is applied as a surrogate for capacity limitations in the case where the local price decreases relative to the import price thus resulting in increased demand for the local product.

Model Solution

The structural equations in this type of model cannot be solved analytically, because the input coefficients vary with the endogenous variables and thus also become endogenous. Hence, the solution procedure requires the use of an iterative recursive algorithm, such as the Gauss-Seidel method.

The operational performance of the model, compared to the conventional Input-Output model, is determined in part by the productivity gains, both labour and capital, experienced by industries as they expand. This results in reduced unit factor costs and local product prices. If import prices are assumed to be unaffected by local production, then the reduction in local prices relative to import prices will see a shift towards locally produced inputs, thus further stimulating local production. The extent of these additional flow-on effects will not only depend on the relative shifts in local and import prices, but also the elasticity of substitution between local and imported inputs.

This has implications for the results of this type of model, particularly if compared with those from the conventional Input-Output model. If price effects are ignored, then we would expect that, while the output multipliers and impacts may not be significantly different, income and employment impacts should be smaller because of the marginal coefficients associated with labour productivity. This is because many industries, especially those that are more capital intensive and can implement further productivity gains, can increase output, particularly in the short run, without corresponding proportional increases in employment and hence income payments. However, when price effects are incorporated into the model, the direction of change becomes less clear, since these potentially can generate compounding or offsetting changes. If the import substitution elasticities are inelastic, then this will reinforce the downward effects on multipliers, but if the elasticities are large (elastic) then the price effects offset the productivity gains and the multipliers and impacts could exceed those from the conventional Input-Output model.

APPENDIX 6. DETAILED COMPOSITION OF ECONOMIES

This appendix includes the following tables:

Table 1 shows each industry sector's contribution to each LGA (and to the RDA Orana region overall) in terms of industry value added.

Table 2 shows each industry sector's contribution to each LGA (and to the RDA Orana region overall) in terms of employment.

Table 3 shows each industry sector's contribution to each cluster in terms of industry value added.

Table 4 shows each industry sector's contribution to each cluster in terms of employment.

Table 1. Industry sector contribution by LGA in terms of industry value added

Percent of Value Added	Bogan	Bourke	Brewarrina	Cobar	Coonamble	Dubbo	Gilgandra	Mid-Western	Narromine	Walgett	Warren	Warumbungle	Wellington	Orana
Agriculture	12.32%	13.02%	17.48%	4.98%	21.31%	2.73%	19.73%	6.42%	19.53%	18.31%	27.21%	18.60%	14.49%	8.90%
Coal Mining	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	23.47%	0.00%	0.00%	2.63%	0.00%	2.68%	6.21%
Other Mining	34.74%	2.90%	0.00%	51.41%	0.00%	2.55%	0.00%	3.84%	0.00%	6.34%	0.00%	0.00%	0.00%	10.12%
Food & Beverage Mfg	0.49%	1.00%	0.00%	0.14%	0.00%	4.50%	0.14%	2.10%	0.77%	0.66%	0.36%	1.06%	0.62%	1.82%
Textile Mfg	0.00%	0.00%	0.00%	0.00%	0.36%	0.10%	0.00%	0.03%	0.30%	0.18%	0.48%	0.26%	0.00%	0.09%
Wood Product Mfg	0.00%	0.00%	0.00%	0.00%	0.00%	0.51%	0.00%	0.24%	0.00%	0.00%	0.00%	0.50%	0.00%	0.24%
Paper Product Mfg	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Printing	0.00%	0.00%	0.00%	0.00%	0.00%	0.11%	0.89%	0.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.08%
Chemical Product Mfg	0.00%	0.00%	0.00%	0.94%	0.00%	0.32%	0.00%	0.34%	0.00%	0.00%	0.00%	0.00%	0.00%	0.21%
Non-Metallic Mineral	0.00%	0.00%	0.00%	0.24%	0.00%	0.39%	0.00%	1.37%	0.20%	0.00%	0.00%	0.59%	0.00%	0.47%
Primary Metal Product	0.37%	0.00%	0.00%	0.75%	0.00%	0.41%	0.00%	0.32%	0.25%	0.37%	0.00%	0.00%	0.41%	0.27%
Fab Metal Product Mfg	0.00%	0.00%	0.00%	0.36%	0.00%	1.30%	1.04%	0.85%	0.66%	0.00%	0.71%	0.23%	0.00%	0.76%
Transport Equip Mfg	0.00%	0.00%	0.00%	0.00%	0.00%	0.21%	0.00%	0.12%	0.45%	0.00%	0.00%	0.00%	0.22%	0.13%
Machinery & Equip Mfg	0.00%	0.00%	0.00%	1.16%	0.00%	0.35%	0.00%	0.44%	0.35%	0.26%	0.28%	0.11%	0.39%	0.35%
Other Mfg	0.00%	0.00%	0.53%	0.00%	0.00%	0.09%	0.00%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.04%
Utilities	1.66%	3.94%	1.50%	1.40%	2.33%	3.17%	4.02%	1.10%	4.97%	1.88%	4.23%	3.23%	4.17%	2.22%
Construction	2.64%	2.93%	3.56%	2.06%	4.42%	4.27%	2.41%	4.43%	3.41%	3.24%	1.61%	2.06%	2.15%	3.57%
Wholesale	0.71%	0.21%	1.11%	2.59%	4.19%	5.40%	2.47%	2.51%	7.43%	2.70%	5.78%	3.09%	2.12%	3.55%
Retail	4.12%	5.24%	2.33%	2.84%	4.74%	6.14%	6.43%	5.12%	4.69%	3.84%	4.43%	6.08%	4.65%	5.00%
Hospitality	2.24%	2.25%	1.88%	1.98%	1.47%	2.38%	3.30%	2.72%	1.59%	3.05%	1.65%	2.90%	3.18%	2.32%
Transport & Storage	1.42%	0.73%	0.51%	0.94%	2.83%	2.75%	1.85%	1.51%	2.93%	2.54%	1.67%	2.50%	1.82%	2.04%
Communications	1.86%	3.12%	0.00%	1.28%	0.00%	2.90%	0.00%	1.58%	1.40%	0.39%	0.00%	0.72%	0.33%	1.77%
Finance & insurance	2.05%	2.77%	0.00%	1.66%	2.71%	10.05%	3.95%	4.22%	3.25%	2.76%	3.24%	3.11%	2.46%	5.47%
Real Estate & Rental	0.50%	0.00%	0.00%	0.35%	0.49%	1.62%	0.58%	1.12%	0.91%	0.26%	0.00%	0.67%	1.27%	1.04%

Percent of Value Added	Bogan	Bourke	Brewarrina	Cobar	Coonamble	Dubbo	Gilgandra	Mid-Western	Narromine	Wagett	Warren	Warumbungle	Wellington	Orana
Own Dwellings	12.47%	15.33%	20.34%	9.11%	17.93%	12.14%	20.66%	13.78%	19.83%	19.07%	17.56%	20.68%	22.07%	13.88%
Professional & Scientific	1.73%	1.48%	0.00%	0.95%	2.33%	3.38%	1.12%	2.50%	3.22%	1.50%	3.65%	2.19%	2.21%	2.46%
Administrative Services	2.70%	2.28%	1.74%	1.22%	2.05%	2.40%	1.51%	1.83%	1.27%	1.92%	3.75%	1.11%	1.48%	1.90%
Public Admin	5.42%	14.89%	15.63%	4.68%	8.35%	7.02%	7.52%	3.18%	5.14%	8.19%	7.59%	6.69%	13.97%	6.37%
Education	5.09%	11.35%	15.80%	3.31%	11.00%	7.22%	8.60%	5.64%	7.48%	9.23%	6.08%	10.41%	8.28%	6.87%
Health & Community	5.96%	13.52%	14.57%	3.18%	9.62%	11.32%	10.08%	6.11%	7.52%	9.78%	5.23%	9.65%	8.49%	8.57%
Arts & Recreation	0.11%	0.93%	0.00%	0.33%	1.31%	1.20%	0.12%	0.46%	0.41%	1.37%	0.24%	1.36%	0.48%	0.80%
Personal & Other	1.40%	2.11%	3.03%	2.15%	2.55%	3.05%	3.58%	2.52%	2.03%	2.18%	1.64%	2.22%	2.06%	2.47%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 2. Industry sector contribution by LGA in terms of employment

Percent of Employment	Bogan	Bourke	Brewarrina	Cobar	Coonamble	Dubbo	Gilgandra	Mid-Western	Narromine	Walgett	Warren	Warumbungle	Wellington	Orana
Agriculture	25.60%	21.72%	27.20%	9.50%	34.65%	3.21%	33.64%	10.60%	34.98%	32.21%	46.15%	30.71%	24.59%	15.33%
Coal Mining	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	18.54%	0.00%	0.00%	0.64%	0.00%	0.86%	3.81%
Other Mining	21.39%	0.72%	0.00%	42.25%	0.00%	0.67%	0.00%	1.87%	0.00%	1.66%	0.00%	0.00%	0.00%	3.66%
Food & Beverage Mfg	0.92%	1.33%	0.00%	0.24%	0.00%	4.51%	0.24%	2.76%	1.11%	0.98%	0.65%	1.52%	0.96%	2.59%
Textile Mfg	0.00%	0.00%	0.00%	0.00%	0.78%	0.17%	0.00%	0.08%	0.46%	0.21%	0.64%	0.42%	0.00%	0.18%
Wood Product Mfg	0.00%	0.00%	0.00%	0.00%	0.00%	0.67%	0.00%	0.37%	0.00%	0.00%	0.00%	0.77%	0.00%	0.38%
Paper Product Mfg	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Printing	0.00%	0.00%	0.00%	0.00%	0.00%	0.15%	0.96%	0.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.11%
Chemical Product Mfg	0.00%	0.00%	0.00%	0.67%	0.00%	0.23%	0.00%	0.30%	0.00%	0.00%	0.00%	0.00%	0.00%	0.18%
Non-Metallic Mineral	0.00%	0.00%	0.00%	0.42%	0.00%	0.34%	0.00%	1.20%	0.19%	0.00%	0.00%	0.58%	0.00%	0.44%
Primary Metal Product	0.64%	0.00%	0.00%	1.04%	0.00%	0.49%	0.00%	0.58%	0.24%	0.43%	0.00%	0.00%	0.39%	0.43%
Fab Metal Product Mfg	0.00%	0.00%	0.00%	0.28%	0.00%	0.88%	0.49%	0.54%	0.36%	0.00%	0.31%	0.13%	0.00%	0.50%
Transport Equip Mfg	0.00%	0.00%	0.00%	0.00%	0.00%	0.24%	0.00%	0.14%	0.46%	0.00%	0.00%	0.00%	0.29%	0.15%
Machinery & Equip Mfg	0.00%	0.00%	0.00%	1.31%	0.00%	0.47%	0.00%	0.55%	0.36%	0.32%	0.31%	0.11%	0.44%	0.43%
Other Mfg	0.00%	0.00%	0.57%	0.00%	0.00%	0.21%	0.00%	0.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.10%
Utilities	0.73%	1.75%	0.49%	0.85%	0.86%	1.75%	1.76%	1.16%	2.29%	0.75%	1.58%	1.40%	1.97%	1.47%
Construction	4.41%	3.53%	4.73%	3.87%	5.39%	6.70%	2.82%	7.00%	4.32%	4.23%	1.87%	2.88%	3.02%	5.48%
Wholesale	0.49%	0.27%	0.88%	2.06%	2.67%	4.39%	1.68%	2.41%	4.99%	1.88%	3.88%	2.10%	1.67%	3.06%
Retail	8.86%	9.48%	3.03%	6.96%	7.26%	12.44%	10.79%	10.63%	9.09%	7.23%	7.52%	10.41%	9.22%	10.42%
Hospitality	4.05%	3.42%	2.56%	4.07%	2.50%	4.98%	5.38%	5.57%	2.51%	4.82%	2.61%	4.83%	5.55%	4.72%
Transport & Storage	1.35%	0.79%	0.39%	0.99%	2.19%	2.67%	1.39%	1.57%	2.40%	2.16%	1.35%	1.99%	1.66%	2.02%
Communications	0.98%	1.51%	0.00%	0.72%	0.00%	1.65%	0.00%	0.91%	0.65%	0.19%	0.00%	0.32%	0.18%	0.98%
Finance & insurance	0.65%	0.81%	0.00%	0.60%	0.69%	3.11%	1.06%	1.37%	0.93%	0.83%	0.86%	0.87%	0.78%	1.77%
Real Estate & Rental	0.22%	0.00%	0.00%	0.33%	0.23%	1.09%	0.29%	0.84%	0.56%	0.17%	0.00%	0.40%	0.77%	0.72%

Percent of Employment	Bogan	Bourke	Brewarrina	Cobar	Coonamble	Dubbo	Gilgandra	Mid-Western	Narromine	Wagett	Warren	Warumbungle	Wellington	Orana
Own Dwellings	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Professional & Scientific	1.88%	1.92%	0.00%	1.31%	2.19%	4.12%	1.27%	3.12%	3.45%	1.75%	3.55%	2.07%	2.62%	3.06%
Administrative Services	3.26%	2.77%	2.17%	1.83%	2.30%	2.68%	1.72%	2.11%	1.11%	2.06%	3.76%	1.30%	1.84%	2.27%
Public Admin	5.41%	13.93%	14.47%	5.66%	7.22%	7.33%	6.97%	3.46%	4.76%	7.94%	7.23%	6.39%	14.61%	6.86%
Education	7.19%	13.40%	18.42%	5.08%	12.53%	9.97%	9.92%	7.40%	9.76%	11.75%	7.12%	12.03%	10.88%	9.58%
Health & Community	8.79%	16.94%	19.44%	5.69%	12.66%	17.37%	13.39%	9.45%	10.71%	13.14%	7.08%	13.04%	12.99%	13.34%
Arts & Recreation	0.28%	1.36%	0.00%	0.57%	1.74%	1.82%	0.25%	0.77%	0.56%	1.96%	0.34%	1.61%	0.63%	1.24%
Personal & Other	2.89%	4.35%	5.63%	3.71%	4.15%	5.70%	5.96%	4.57%	3.74%	3.32%	2.58%	4.12%	4.08%	4.73%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 3. Industry sector contribution by cluster in terms of industry value added

Percent of Value Added	Cluster 1	Cluster 2	Cluster 3
Agriculture	7.37%	14.42%	18.67%
Coal Mining	0.00%	0.00%	0.69%
Other Mining	46.22%	2.04%	1.27%
Food & Beverage Mfg	0.25%	0.68%	0.60%
Textile Mfg	0.00%	0.00%	0.21%
Wood Product Mfg	0.00%	0.00%	0.11%
Paper Product Mfg	0.00%	0.00%	0.00%
Printing	0.00%	0.00%	0.09%
Chemical Product Mfg	0.65%	0.00%	0.00%
Non-Metallic Mineral	0.17%	0.00%	0.19%
Primary Metal Product	0.63%	0.00%	0.21%
Fab Metal Product Mfg	0.25%	0.00%	0.33%
Transport Equip Mfg	0.00%	0.00%	0.11%
Machinery & Equip Mfg	0.81%	0.00%	0.22%
Other Mfg	0.00%	0.16%	0.00%
Utilities	1.48%	3.14%	3.65%
Construction	2.22%	3.01%	2.69%
Wholesale	2.00%	0.49%	3.78%
Retail	3.23%	4.37%	5.00%
Hospitality	2.05%	2.19%	2.58%
Transport & Storage	1.09%	0.66%	2.35%
Communications	1.45%	2.17%	0.49%
Finance & insurance	1.78%	1.86%	2.94%
Real Estate & Rental	0.39%	0.00%	0.66%

Table 4. Industry sector contribution by cluster in terms of employment

Percent of Employment	Cluster 1	Cluster 2	Cluster 3
Agriculture	15.05%	23.60%	32.57%
Coal Mining	0.00%	0.00%	0.19%
Other Mining	35.11%	0.47%	0.26%
Food & Beverage Mfg	0.31%	0.87%	0.91%
Textile Mfg	0.00%	0.00%	0.34%
Wood Product Mfg	0.00%	0.00%	0.17%
Paper Product Mfg	0.00%	0.00%	0.00%
Printing	0.00%	0.00%	0.10%
Chemical Product Mfg	0.31%	0.00%	0.00%
Non-Metallic Mineral	0.31%	0.00%	0.16%
Primary Metal Product	0.94%	0.00%	0.17%
Fab Metal Product Mfg	0.31%	0.00%	0.16%
Transport Equip Mfg	0.00%	0.00%	0.12%
Machinery & Equip Mfg	0.94%	0.00%	0.23%
Other Mfg	0.00%	0.19%	0.00%
Utilities	0.94%	1.32%	1.52%
Construction	4.08%	3.94%	3.53%
Wholesale	1.57%	0.48%	2.60%
Retail	7.52%	7.27%	8.97%
Hospitality	4.08%	3.12%	4.21%
Transport & Storage	1.25%	0.65%	1.94%
Communications	0.94%	0.99%	0.23%
Finance & insurance	0.63%	0.53%	0.86%
Real Estate & Rental	0.31%	0.00%	0.39%

Percent of Value Added	Cluster 1	Cluster 2	Cluster 3
Own Dwellings	10.12%	16.64%	19.90%
Professional & Scientific	1.19%	1.02%	2.22%
Administrative Services	1.68%	2.12%	1.68%
Public Admin	4.90%	15.19%	8.40%
Education	3.85%	12.84%	8.99%
Health & Community	4.04%	13.97%	8.88%
Arts & Recreation	0.26%	0.65%	0.83%
Personal & Other	1.92%	2.39%	2.27%
Total	100.00%	100.00%	100.00%

Percent of Employment	Cluster 1	Cluster 2	Cluster 3
Own Dwellings	0.00%	0.00%	0.00%
Professional & Scientific	1.57%	1.26%	2.37%
Administrative Services	2.19%	2.57%	1.83%
Public Admin	5.64%	14.12%	7.96%
Education	5.64%	15.12%	10.88%
Health & Community	6.58%	17.80%	12.20%
Arts & Recreation	0.63%	0.89%	1.11%
Personal & Other	3.45%	4.79%	4.00%
Total	100.00%	100.00%	100.00%

WESTERN RESEARCH INSTITUTE

WRI is a regional development research organisation located in Bathurst, New South Wales. WRI holds a wealth of knowledge on employment, business development and investment issues affecting regional Australia. It has worked with Commonwealth, State and Local Governments and industry groups on numerous investment and development programs in regional areas. WRI has strong credentials in business and commercial market consulting and applied economic modelling including Input-Output analysis, shift-share, agribusiness and regional socio-economic surveys and analysis.

Dr. Andrew Johnson - Chief Executive Officer

BA(Hons I) Newcastle, PHD (UWS)

Andrew Johnson has over 20 years' experience in research leadership with a strong focus on the resources and not for profit spheres.

Andrew has recently held the position of Director of Research Development at the University of Newcastle (UoN), Australia. During his 12 years, Andrew achieved a number of substantial outcomes including raising in excess of \$30 million in research funds to support a number of collaborative research partnerships with industry and government. He led the establishment of the Research Development office at UoN and built a team of 4 Research Development staff. He was Interim CEO of the CRC for Social Inclusion bid which was shortlisted in 2010. Andrew also played a key role in the highly successful energy strategy led by Research Division UoN which included a successful \$30 million EIF application for the Newcastle Institute for Energy and Resources.

Ms Danielle Ranshaw – Research Manager

BEc&Fin NSW

Danielle's experience in project management in the information technology sector combined with qualifications in economics and finance provides a solid background for WRI projects. With skills in systems design and development, Danielle has been able to extend WRI's capability in developing robust and increasingly complex systems to support research fieldwork. Additionally, Danielle has extensive experience in business process analysis, performance planning and review, report writing and project planning.

Dr. Ivan Trofimov - Research Officer

PHD (Macquarie) MEcSt (UNE) MA (Auckland)

Ivan is an economic and public policy analyst and brings experience in macroeconomics, corporate governance and international trade to WRI projects. Prior to joining WRI, he worked in corporate advisory firms, focusing on economic research and evaluation of corporate governance practices,

and in a peak industry body, responsible for pharmaceutical policy formulation in Australia. He was also involved in consulting projects for the Commonwealth Secretariat, APEC Research Centre (New Zealand) and Pacific Islands Trade and Investment Commission. Ivan holds a PhD in Applied Economics from Macquarie University, and Masters degrees in agricultural and development economics from the University of New England and University of Auckland. He has published several papers in international economic journals.

Ms Rebecca Hood - Research Officer

BBus (Fin/Acc) With Distinction CSU

After working in the Financial Services Industry for several years coupled with a degree in Finance and Accounting from Charles Sturt University, Rebecca brings strong skills in finance, economics, business and accounting to WRI projects. Rebecca's extensive experience in the finance field and her high level understanding of current market knowledge gives Rebecca a solid understanding of the financial needs of regional and rural Australia. Having prior experience with local councils and retail, Rebecca also brings a robust understanding of the needs of regional businesses in our local economy to her role at WRI.

Katherine Bell - Research Officer

Katherine is a freelance writer whose strengths lie in research, literature review and synthesis writing. She has over 20 years experience in corporate communications, human resources and executive support across private, government, charitable and multi-national organisations. Katherine has a particular interest in psychology and social science. Katherine has assisted WRI in contract research work periodically over the last two years.

Ms Dale Curran – Executive Officer

BA ANU

Dale is responsible for all administrative processes at WRI including executive support, finance, management of the Board of Directors and maintenance of policies. She has worked in a variety of roles at WRI, including Fieldwork Supervisor and Research Assistant, and has worked on several community and business surveys. In addition to her administrative role, Dale has oversight of marketing, PR and communications activities, and brings a high level of skill to the design of WRI's reports.

Mr Tom Murphy – Associate

Tom Murphy was WRI's founding CEO and held this position from 1999 until his retirement in December 2012. Under Tom's leadership WRI completed over 300 projects for all levels of government and government departments, industry groups, businesses, financial institutions, regional development boards and community groups, and educational institutions including universities, TAFE and schools in NSW, Victoria and Queensland.

Tom previously held academic positions as senior lecturer in Economics and Director of the Regional Economics Research Unit in the Faculty of Commerce, Charles Sturt University, Bathurst and positions at the University of New England and Macquarie University. He has also held the positions of Economic Analyst with the Office of National Assessments in Canberra, with responsibility for the ASEAN economies and Senior Consultant with KPMG Peat Marwick Management Consultants.

Tom's particular expertise is in regional economics and labour markets, and he has published in a wide range of economic subject areas in refereed and non-refereed articles, books and textbooks. Tom has a high local media profile in Western NSW for economic and social commentary and also features regularly on national radio particularly in connection to the quarterly agribusiness survey conducted for Westpac Australia wide.

