



# ECONOMIC IMPACT REPORT

The Housing Alliance Operations



Prepared for Housing Alliance

22nd October 2013

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## Acknowledgements

WRI would like to acknowledge the staff at Housing Plus, Homes Out West, Homes North and North Coast Community Housing for their assistance with this study.

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## EXECUTIVE SUMMARY

The Housing Alliance is a group of four not-for-profit organisations engaged in the delivery of social housing in regional NSW. The four members are:

- Housing Plus;
- Homes Out West;
- Homes North; and
- North Coast Community Housing.

In order to inform state and local government of the economic contribution that its members provide to the regional economies and New South Wales, The Housing Alliance commissioned the Western Research Institute (WRI) to prepare an economic impact analysis of each of the four members upon their respective regions and NSW. This study has examined the operational and capital expenditure of the members in the year 2012/13. The impacts of this expenditure were estimated in terms of value added, household income and full-time equivalent (FTE) employment:

- Value added is the amount by which the value of a good is increased at each step of its production, exclusive of its initial cost. In the regional context, value added is equivalent to industry contribution to gross regional product (GRP).
- Household income is defined as salaries, wages and several other sources of income received by the population of the respective region from economic activity.
- Full time equivalent (FTE) employment is a measure of the workload of employed persons that makes workloads comparable across different types of employment (full time, part time and casual).

The economic impacts were reported as the sum of initial and flow on effects. The initial effect is the value of immediate changes in the regional economy as a result of original expenditure by Housing Alliance members. The flow on effect is the value of additional changes in the regional economy as a result of expenditure by other industries and firms linked to Housing Alliance members through purchases or sales.

**Table 1: Total impact of The Housing Alliance on their respective local economies**

Local Impact	Value Added \$m	Household Income \$m	Employment FTE
Housing Plus	7.12	3.68	54
Homes Out West	3.16	1.77	29
Homes North	5.77	3.22	50
North Coast Community Housing	11.01	4.32	70
Total impact of The Housing Alliance	27.07	12.99	203

Note: Data in this table excludes the value of property and land. Data in this table may not sum to totals due to rounding.

When flow-on effects are taken into account, the combined operational and capital expenditure attributed to The Housing Alliance in 2012/13 is estimated to generate the following regional economy impacts:

- Approximately \$27.07 million in value added,
- Approximately \$12.99 million in household income, and
- Approximately 203 FTE jobs.

**Table 2: Total impact of The Housing Alliance on New South Wales**

Local Impact	Value Added \$m	Household Income \$m	Employment FTE
Housing Plus	12.33	6.29	84
Homes Out West	5.49	3.00	41
Homes North	10.23	5.54	75
North Coast Community Housing	17.25	7.69	103
Total impact of The Housing Alliance	45.31	22.52	303

Note: Data in this table excludes the value of property and land. Data in this table may not sum to totals due to rounding.

When flow-on effects are taken into account, the combined operational and capital expenditure attributed to The Housing Alliance in 2012/13 is estimated to generate the following state economy impacts:

- Approximately \$45.31 million in value added,
- Approximately \$22.52 million in household income, and
- Approximately 303 FTE jobs.

The findings of this study demonstrate that The Housing Alliance makes an important contribution to its respective regional economies and communities through the provision of social services. The economic impacts of each member organization vary according to the size of its operations, with the "Alliance" model of service delivery effectively supporting each member to promote commonly shared visions and maintain strong links with their individual communities.

## INTRODUCTION

### Background

The Housing Alliance is a not-for-profit organisation, engaged in the delivery of social housing in regional New South Wales. The Housing Alliance is a group of four social housing providers. The four organisations are:

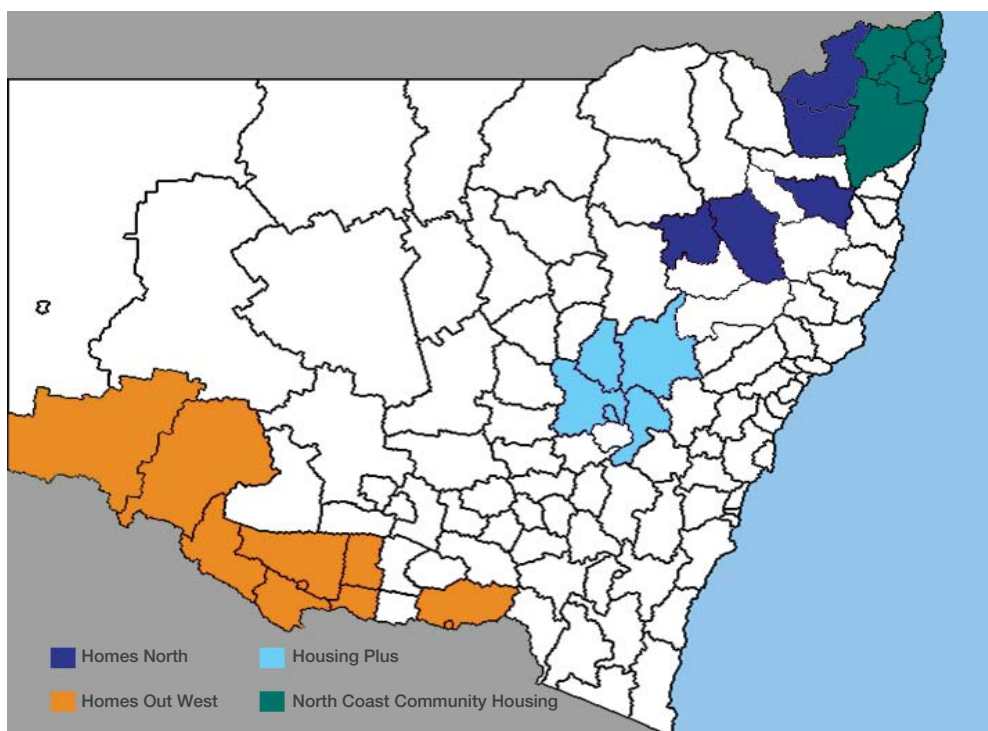
- Housing Plus;
- Homes Out West;
- Homes North; and
- North Coast Community Housing.

The Housing Alliance has commissioned the Western Research Institute (WRI) to prepare an economic impact analysis of its members' operations. The economic contribution can be assessed through an analysis of income received and expenditure made by the four social housing providers in the 2012/13 financial year.

This economic impact study will identify the direct economic effects of the four members of The Housing Alliance and the flow-on effects on upstream industries in their respective regions and NSW. The impacts are measured in terms of full-time equivalent employment, household income and value added within each of the regions.

The results of this study will inform The Housing Alliance, state and local government of the economic contribution that The Housing Alliance provides to the respective regional economies and NSW.

**Geographic footprint of The Housing Alliance organisations**



## METHODOLOGY

Input-output analysis was used in this study to determine the economic impact of the operational and capital expenditure of the four members of The Housing Alliance. Input-output analysis provides a detailed picture of the structure of a regional economy at a point in time and can be used to estimate the contribution or impact of a particular sector of the economy including flow-on effects. The specific tasks undertaken to derive the economic impact of The Housing Alliance are outlined below.

### Geographic Scope

An input-output table was developed for the state of New South Wales for 2012. The Housing Alliance is characterised by widespread regional activity; WRI recognises this and has built input-output tables for the following areas:

Housing Alliance Member	Local Government Areas
Housing Plus	Orange, Bathurst, Mid-Western, Cabonne and Wellington
Homes Out West	Albury, Deniliquin, Berrigan, Conargo, Jerilderie, Greater Hume Shire, Wakool, Murray, Wentworth and Balranald
Homes North	Armidale Dumaresq, Glen Innes Severn, Tenterfield, Tamworth and Gunnedah
North Coast Community Housing	Tweed, Byron, Ballina, Lismore, Kyogle, Richmond Valley, Clarence Valley

### Constructing the Tables

The input-output tables for this project were extracted from the Australian Bureau of Statistics (ABS) 2011-12 national input-output table using the Generation of Regional Input-Output Tables (GRIT) technique. The national table was adjusted to represent New South Wales and subsequently the respective regions using detailed data from:

- 2011 Census;
- 2011-12 National State Accounts for New South Wales (ABS Cat No 5220.0);
- Australian Demographic Statistics (ABS Cat No 3101.0);
- Quarterly data on employment by industry sector (ABS cat. no. 6291.0.55.003); and
- Australian Industry data (ABS Cat No 8155.0).

The GRIT technique derives regional input-output tables from the national input-output table using location quotients and superior data (in this case, information regarding the operations of each of the four members of The Housing Alliance as well as regional employment and income data) at various stages in the construction of the tables. The GRIT procedure was developed by Associate Professor Guy West and Professor Rod Jensen of the University of Queensland and is the most widely used method of constructing regional input-output tables in Australia. The GRIT method is also widely used in America and Europe.

# ECONOMIC IMPACT REPORT

## Data

### **The Housing Alliance Operations**

The four members of The Housing Alliance provided WRI with detailed information on each facility's expenditure, location of expenditure, employment and revenues. This information was used to construct a new sector row and column in the input-output table representing the operations of The Housing Alliance member.

### **Income**

Each of the four members of The Housing Alliance provided WRI with details of income received in the 2012/13 financial year. The income data was provided for the local region, as well as for elsewhere in NSW, other Australian states and overseas. This data was then used to derive exports from the respective regions.

### **Wages and Salaries**

The four members of The Housing Alliance supplied information on the number of full-time equivalent (FTE) employees and associated wages and salaries for the financial year 2012/13. The number of FTE employees and associated remuneration was further disaggregated by residential address of the employees. The impact of FTE employment and associated gross wages and salaries was allocated to the region of employment.

### **Other Expenditure**

The Housing Alliance members supplied information regarding other expenditure during 2012/13 by industry category and the location where the purchase was made. Local expenditure was defined as that made in the respective local regions.

### **Capital Expenditure**

Each of the four members of The Housing Alliance provided information on capital expenditure for the financial year 2012/13. This information was incorporated into the calculation of the overall economic impacts. WRI has estimated the economic impacts of capital expenditure using the final demand impact method.

When property or land is purchased it represents the transfer of ownership between two parties and not the generation of economic activity. Therefore, when estimating the economic impact of capital expenditure the value of land and property has been omitted from the calculations.

However, the legal fees associated with the purchase of land or property do contribute to economic activity and were included in the Professional, Scientific and Technical Services sector when undertaking the economic modelling process.

## Data Allocation

The expenditure data of each of the four members of The Housing Alliance was allocated to the appropriate sector for modelling purposes. The detailed ABS ANZSIC classification was used to find the closest approximation to the expenditure item. The Australian National Accounts Input-Output Product Details was used to allocate the ANZSIC class to the 2008-2009 Input-Output Industry Classification at the 111 sector level. This data was then allocated to WRI's 32 sector classification.



## Impact Analysis

### Marginal coefficients model

Having investigated the structure of the various regional economies, its economic integration pattern with the rest of NSW and the data provided by each of the four Housing Alliance members, WRI considered the marginal coefficients model as the most appropriate method to use for estimating economic impacts.

A detailed description of the marginal coefficients approach can be found in Appendix 1.

### Industry Significance

Input-output tables are frequently used to provide estimates of the significance of a particular industry or organisation in terms of its contribution to the economy. This is done by examining the effects of an organisation shutting down and ceasing all economic activities. This method provides an estimate of the level of economic activity that can be attributed to a particular organisation. The industry significance approach was used to model the operations of each of the four members of The Housing Alliance.

The Housing Alliance members are organisations that construct/renovate dwellings, but also let dwellings on a not-for-profit basis. As a result, The Housing Alliance members are most appropriately classified as organisations that belong to the "Construction" and "Ownership of Dwellings" sectors in the input-output table. When estimating the economic impacts of The Housing Alliance members' operations, WRI adopted a hybrid approach performing calculations using both sectors. This ensured that the results of the analysis are robust and conservative.

The industry significance approach was used to model operational expenditure.

### Final Demand Impacts

The final demand impact analysis calculates the impacts (measured by value added, household income and employment) across all sectors in response to changes in industry final demands.

The final demand approach was used to model capital expenditure.

## Reporting economic impacts

Modelling was undertaken for each individual member and then a combined economic impact of The Housing Alliance was completed.

The impact of The Housing Alliance members on the respective regions was estimated in terms of:

- Value added - the amount by which the value of a good is increased at each step of its production, exclusive of its initial cost. The initial costs include the costs of production inputs and exclude salaries and wages, as well as profits, taxes and imports. Value added sums the value added components of production through the supply chain. Value added is the most reliable measure of the actual value of production. In the National Accounts it is equivalent to gross domestic product, while in the regional context it is equivalent to gross regional product.
- Household income - the measure of benefits received by regional households from economic activity and typically refers to salaries and wages of employees, as well as some other types of incomes (income of unincorporated enterprises, profits on dwelling owned by persons, social assistance benefits, certain insurance claims).
- Full time equivalent (FTE) employment - a measure of the workload of employed persons in a given location that makes workloads comparable across different types of employment (full time, part time and casual).

# ECONOMIC IMPACT REPORT

## Measuring The Housing Alliance Value Added contribution to an economy

The Housing Alliance's effect on an economy's value added can be explained in two ways, using the hypothetical scenarios below:

<b>Scenario 1: Purchase of an existing property</b>		
<b>Stage 1:</b>		
	<b>Input</b>	<b>Cost</b>
Purchase of House	Existing House	\$100,000
<b>Stage 2:</b>		
	<b>Input</b>	<b>Cost</b>
Costs associated with getting the house ready for the rental market, for example:	Renovation costs	\$15,000
	Installation of appliances and equipment	\$10,000
	Property cleaning	\$3,000
	Insurance costs	\$2,000
<b>Stage 3:</b>		
	<b>Input</b>	<b>Cost</b>
Value of House ready for renting	House after renovations	\$130,000
<b>Value Added for Housing Alliance:</b>		<b>\$30,000</b>

Value added is represented by the *difference* between the value of the house when first purchased and the value of the house when it is ready for renting, i.e. value added is equivalent to house improvement costs.

<b>Scenario 2: Construction of a new house</b>		
<b>Stage 1:</b>		
	<b>Input</b>	<b>Cost</b>
Purchase of Land	Land	\$50,000
<b>Stage 2:</b>		
	<b>Input</b>	<b>Cost</b>
Costs associated with the construction of a building on the land	Laying of concrete slab	\$20,000
	Erecting walls	\$15,000
	Connection of utilities	\$10,000
	Installation of appliances and equipment	\$10,000
<b>Stage 3:</b>		
	<b>Input</b>	<b>Cost</b>
Value of House ready for renting	House and land after construction	\$110,000
<b>Value Added for Housing Alliance:</b>		<b>\$60,000</b>

Value added at each stage of construction is equal to the construction costs. Value added may be defined as the *difference* between the price of house ready for the rental market and the price of land.

The economic impacts of Housing Alliance members can be compared to the impacts made by a droplet of water falling from a leaf onto a pond surface:

- The leaf represents a particular organization/firm, the pond is the local economy;
- A droplet falling from the leaf onto the pond represents the expenditure made by the organisation in the local economy, generating initial value added, income and employment; and
- The ripples created on the surface of the pond as a result of the droplet represent the flow on effects (additional jobs, value added or income generated by other firms/organizations) through the expenditure of other firms in the economy.

In this regard, the total economic impact of Housing Alliance members is reported as the sum of:

- Initial effects. The value of immediate changes in the regional and NSW economies as a result of operations and capital expenditure of each of the four Housing Alliance members.
- Flow on effects. The value of changes in the regional and NSW economies in the course of additional spending by other firms and industries linked to Housing Alliance members through purchases or sales.

For each member the initial impacts generated by the model will differ slightly from the financial data supplied as capital expenditure has been incorporated.

## Assumptions and Limitations

It should be noted that this assessment of the economic impact of The Housing Alliance has relied solely on data supplied by each member. Updates to the supplied data were made after consultation with The Housing Alliance members. Changes to the data included, but were not limited to:

- changes to the sectors in which purchases were made;
- changes to the location of purchases;
- changes to the location of where income was received; and
- changes to the type of income received.
- No allowance has been made for the contribution of The Housing Alliance to the social and cultural base of the regional community.
- No allowance has been made to determine the benefit of service delivery through The Housing Alliance in contrast with public sector delivery.

## A general word about results

The report outlines the combined results for all Housing Alliance members and then details the results for each individual member.

The variations in impact reported across the members of The Housing Alliance are a direct consequence of the variation in the level and composition of expenditure data supplied by each member.

For example, where a larger proportion of operational expenditure was in the construction sector, a higher multiplier effect (flow on) was typically generated. The Construction sector typically produces larger multiplier effects (flow-ons) in the economy. Consequently, the impacts generated by some of the members of The Housing Alliance are substantially larger than for others.

Gross Operating Surplus (GOS) represents a savings component, not generating economic activity. Some Housing Alliance members reported a large GOS which has resulted in lower multiplier effects (flow-ons) within the local and NSW economies.

# ECONOMIC IMPACT REPORT

## EXPENDITURE PATTERNS

Each Housing Alliance member provided detailed operational and capital expenditure data for the financial year 2012/13.

**Table 3: Expenditure patterns of The Housing Alliance members in 2012/13 financial year**

Expenditure (Excl. COE)	Housing Plus \$m	Homes Out West \$m	Homes North \$m	North Coast Community Housing \$m
Operational	5.47	3.30	5.12	6.84
Capital	0.14	0.03	0.70	2.29
Total	5.62	3.33	5.19	9.13

Note: Data in this table excludes the value of property and land. Data in this table may not sum to totals due to rounding.

In the 2012/13 financial year:

- Housing Plus spent a total of \$5.62 million. The largest component of operational expenditure was made in the Rental, Hiring & Real Estate Services sector, followed by the Construction sector.
- Homes Out West spent a total of \$3.33 million. The largest component of operational expenditure was made in the Construction sector, followed by the Rental, Hiring & Real Estate Services sector.
- Homes North spent a total of \$5.19 million. The largest component of operational expenditure was made in the Rental, Hiring & Real Estate Services sector, followed by the Construction sector.
- North Coast Community Housing spent a total of \$9.13 million. The largest component of operational expenditure was made in the Rental, Hiring & Real Estate Services sector, followed by the Construction sector.

## EMPLOYMENT PATTERNS

Each Housing Alliance member provided the number of FTE employees that are directly employed by the organisation.

**Table 4: Employment patterns of The Housing Alliance members in 2012/13 financial year**

	Housing Plus	Homes Out West	Homes North	North Coast Community Housing
FTE Employees	27.4	10.8	25.0	22.0

In the 2012/13 financial year:

- Housing Plus employed 27.4 FTE employees;
- Homes Out West employed 10.8 FTE employees;
- Homes North employed 25.0 FTE employees; and
- North Coast Community Housing employed 22.0 FTE employees.

## ECONOMIC IMPACT ANALYSIS

This economic impact study has examined the operational and capital expenditure of The Housing Alliance members in the year 2012/13. The results below provide the following:

- The combined economic impact of The Housing Alliance on the respective local economies and on New South Wales; and
- The individual impacts of each of the four Housing Alliance members on their respective local economies and on New South Wales.

### 1. Economic Impact of The Housing Alliance

#### 1.1 Combined economic impact of The Housing Alliance on their respective local economies

The combined economic impact of The Housing Alliance has been reported as the aggregation of the individual local economy impacts of the members of The Housing Alliance (Housing Plus, Homes Out West, Homes North, North Coast Community Housing).

The impacts have been defined in terms of value added, household income and FTE employment.

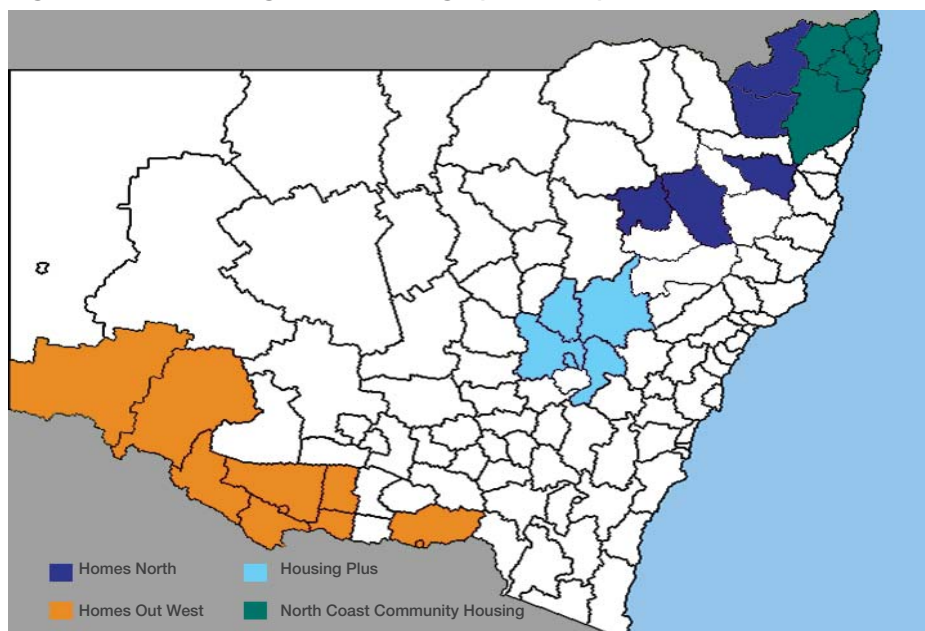
Value added is equivalent to gross regional product (GRP). Household income is defined as salaries, wages and several other sources of income received by the population of the respective region. Full time equivalent (FTE) employment is a measure of the workload of employed persons.

**Table 5: Combined Economic impact of The Housing Alliance on the respective local economies**

	Value Added \$m	Household Income \$m	Employment FTE
Initial Impact	13.26	6.14	91
Flow-on	13.81	6.85	113
<b>Total impact</b>	<b>27.07</b>	<b>12.99</b>	<b>203</b>

Note: Data in this table excludes the value of property and land. Data in this table may not sum to totals due to rounding.

**Figure 1: The Housing Alliance Geographic Footprint**



#### The Housing Alliance Economic Impact- Local Economies

When flow-on effects are taken into account, the combined operational and capital expenditure attributed to The Housing Alliance in 2012/13 is estimated to generate the following:

- Approximately \$27.07 million in value added. Across the member organisations, the contribution to Gross Regional Product (GRP) ranged from 0.08 percent to 0.13 percent;
- Approximately \$12.99 million in household income. Across the member organisations, the contribution of household income ranged from 0.10 percent to 0.17 percent; and
- Approximately 203 FTE jobs. Across the member organisations, the contribution to FTE employment ranged from 0.09 percent to 0.14 percent.

# ECONOMIC IMPACT REPORT

## 1.2 Combined economic impact of The Housing Alliance on New South Wales

The combined economic impact of The Housing Alliance has been reported as the aggregation of the state economy impacts of the members of The Housing Alliance (Housing Plus, Homes Out West, Homes North, North Coast Community Housing).

### The Housing Alliance Economic Impact - NSW

When flow-on effects are taken into account, the combined operational and capital expenditure attributed to The Housing Alliance is estimated to generate the following in the economy of New South Wales:

- Approximately \$45.31 million in value added. Across the member organisations, the contribution to Gross State Product (GSP) ranged from 0.001 percent to 0.004 percent;
- Approximately \$22.52 million in income. Across the member organisations, the contribution of household income ranged from 0.001 percent to 0.004 percent; and
- Approximately 303 FTE jobs. Across the member organisations, the contribution to FTE employment ranged from 0.001 percent to 0.003 percent.

**Table 6: Combined economic impact of The Housing Alliance on New South Wales**

	Value Added \$m	Household Income \$m	Employment FTE
Initial Impact	13.71	6.22	92
Flow-on	31.60	16.30	212
Total impact	45.31	22.52	303

Note: Data in this table excludes the value of property and land. Data in this table may not sum to totals due to rounding.

## 2. Economic Impact of Housing Plus

### 2.1 Economic impact of Housing Plus on the local economy

The local economy of Housing Plus was defined as the LGAs of Orange, Bathurst, Mid-Western, Cabonne and Wellington.

The economic impacts of Housing Plus on the local economy have been estimated based on operational and capital expenditure made by Housing Plus in Orange, Bathurst, Mid-Western, Cabonne and Wellington LGAs, **excluding** operational and capital expenditure made in the rest of NSW.

The impacts have been defined in terms of value added, household income and FTE employment.

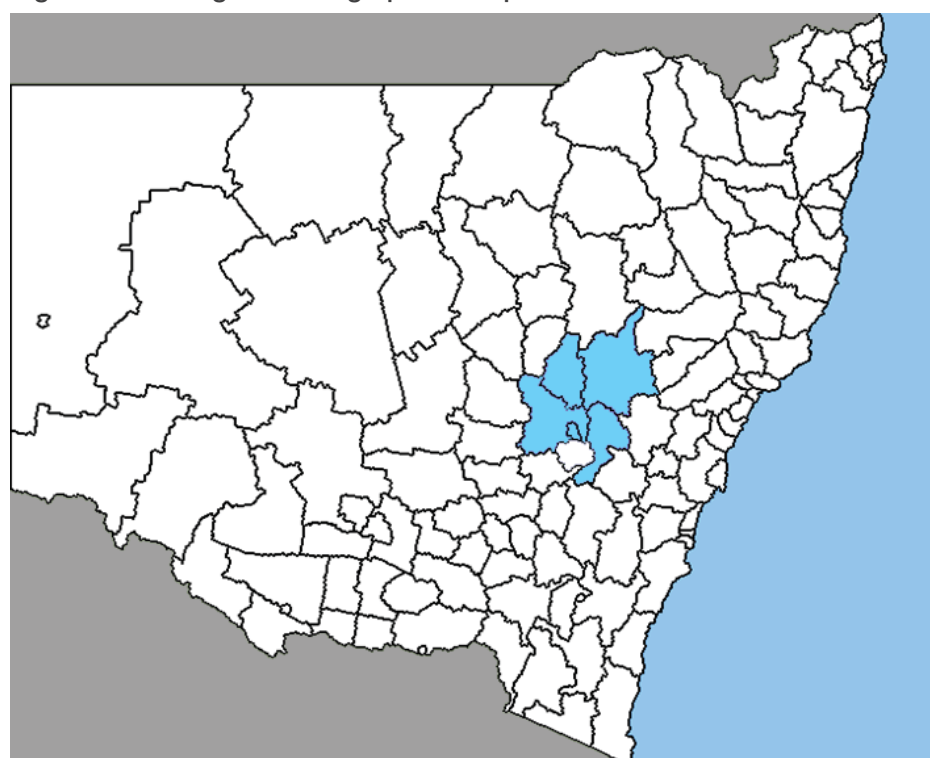
Value added is equivalent to gross regional product (GRP). Household income is defined as salaries, wages and several other sources of income received by the population of the respective region. Full time equivalent (FTE) employment is a measure of the workload of employed persons.

**Table 7: Total economic impact of Housing Plus on the local economy**

	Value Added \$m	Household Income \$m	Employment FTE
Initial Impact	3.80	1.97	28
Flow-on	3.32	1.71	26
<b>Total impact</b>	<b>7.12</b>	<b>3.68</b>	<b>54</b>

Note: Data in this table excludes the value of property and land. Data in this table may not sum to totals due to rounding.

**Figure 2: Housing Plus Geographic Footprint**



### Housing Plus Economic Impact - Local Economy

When flow-on effects are taken into account, Housing Plus is estimated to generate the following in the local economy:

- Approximately \$7.12 million in value added, contributing 0.13 percent of gross regional product;
- Approximately \$3.68 million in household income, representing 0.15 percent of household income; and
- Approximately 54 FTE jobs, representing 0.13 percent of the local economy's total full time equivalent employment.

# ECONOMIC IMPACT REPORT

## 2.2 Impact by industry sector

The sectoral impacts were examined in terms of value added and FTE employment and were reported as a sum of initial and flow on effects.

The value added and FTE employment generated in a given sector following expenditure by Housing Plus was compared to the size of the sector (Table 8) and the size of the regional economy (Figure 3).

Table 8 presents the top 5 sectors with the highest value added and FTE employment as a percentage of the sector; in other words in terms of contributions to the respective sectors. Figure 3 overleaf presents the top 5 sectors with the highest value added as a percentage of regional value added (GRP); in other words, in terms of contributions to the overall economy.

### Top 5 sector impacts based on proportion of sector value added

The largest relative economic impacts were experienced in:

#### Rental, Hiring & Real Estate:

- 0.77 percent of the total value added in the sector; and
- 0.75 percent of all employment in the sector.

#### Transport Equipment Manufacturing:

- 0.16 percent of total value added in the sector; and
- 0.16 percent of all employment in the sector.

#### Administrative Services:

- 0.15 percent of total value added in the sector; and
- 0.15 percent of all employment in the sector.

**Table 8: Top 5 sector impacts based on proportion of sector value added**

	Value Added		Employment FTE	
	\$m	% of sector in local economy	No.	% of sector in local economy
Rental, Hiring & Real Estate	0.38	0.77%	2.25	0.75%
Transport Equipment Manufacturing	0.03	0.16%	0.27	0.16%
Administrative Services	0.16	0.15%	1.56	0.15%
Public Administration	0.48	0.15%	4.34	0.15%
Printing, Publishing & Recorded Media	0.01	0.14%	0.09	0.13%

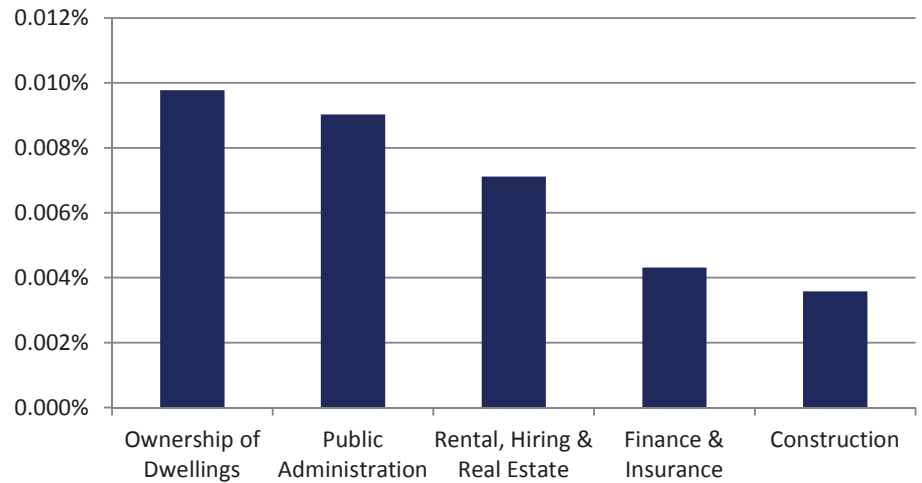


## Top 5 sector impacts based on percentage of total Gross Regional Product

The largest impacts were experienced in:

- Ownership of Dwellings (0.010 percent of total GRP);
- Public Administration (0.009 percent of GRP); and
- Rental, Hiring & Real Estate (0.007 percent of GRP).

Figure 3: Top 5 sector impacts based on value added as a percentage of Gross Regional Product



## 2.3 Economic impact of Housing Plus on New South Wales

The economic impacts of Housing Plus on the NSW economy have been estimated based on operational and capital expenditure made by Housing Plus in Orange, Bathurst, Mid-Western, Cabonne and Wellington LGAs, **as well as** operational and capital expenditure made in the rest of NSW.

Table 9: Total economic impact of Housing Plus on the New South Wales economy

	Value Added \$m	Household Income \$m	Employment FTE
Initial Impact	3.93	1.98	28
Flow-on	8.40	4.31	56
Total impact	12.33	6.29	84

Note: Data in this table excludes the value of property and land. Data in this table may not sum to totals due to rounding.

### Housing Plus Economic Impact - NSW

When flow-on effects are taken into account, Housing Plus is estimated to generate the following in the New South Wales economy:

- Approximately \$12.33 million in value added, contributing 0.003 percent of gross state product;
- Approximately \$6.29 million in household income, representing 0.003 percent of household income; and
- Approximately 84 FTE jobs, representing 0.003 percent of NSW's total full time equivalent employment.

# ECONOMIC IMPACT REPORT

## 3. Economic Impact of Homes Out West

### 3.1 Economic impact of Homes Out West on the local economy

The local economy of Homes Out West was defined as the LGAs of Albury, Deniliquin, Berrigan, Conargo, Jerilderie, Greater Hume Shire, Wakool, Murray, Wentworth and Balranald.

The economic impacts of Homes Out West on the local economy have been estimated based on operational and capital expenditure made by Homes Out West in Albury, Deniliquin, Berrigan, Conargo, Jerilderie, Greater Hume Shire, Wakool, Murray, Wentworth and Balranald LGAs, **excluding** operational and capital expenditure made in the rest of NSW.

The impacts have been defined in terms of value added, household income and FTE employment.

Value added is equivalent to gross regional product (GRP). Household income is defined as salaries, wages and several other sources of income received by the population of the respective region. Full time equivalent (FTE) employment is a measure of the workload of employed persons.

#### Homes Out West Economic Impact - Local Economy

When flow-on effects are taken into account, Homes Out West is estimated to generate the following in the local economy:

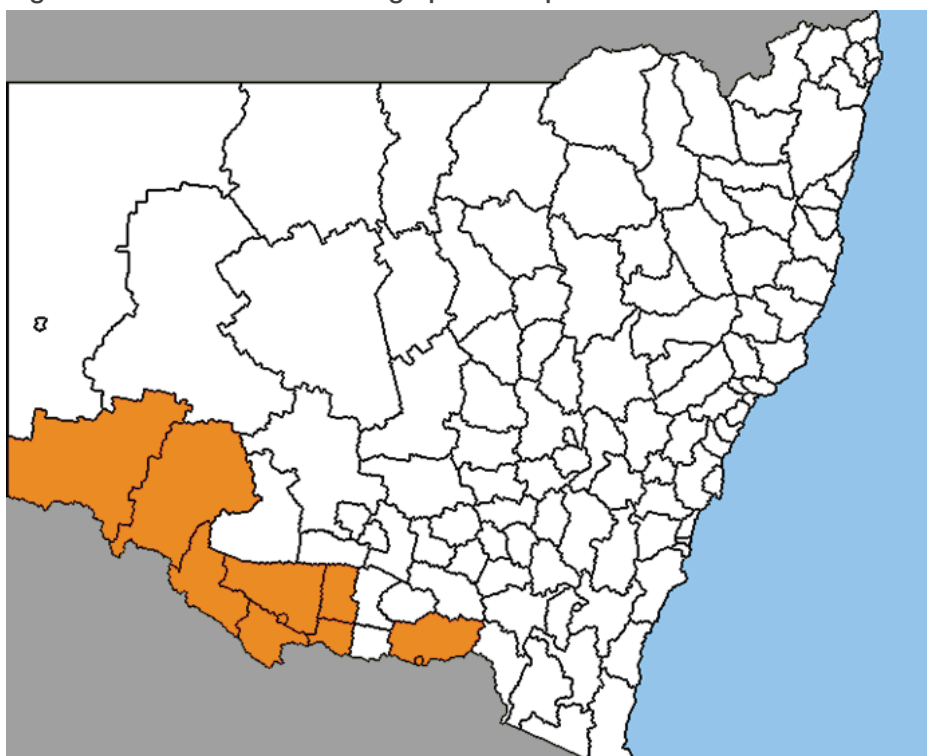
- Approximately \$3.16 million in value added, contributing 0.08 percent of gross regional product;
- Approximately \$1.77 million in household income, representing 0.10 percent of household income; and
- Approximately 29 FTE jobs, representing 0.09 percent of the local economy's total full time equivalent employment.

**Table 10: Total economic impact of Homes Out West on the local economy**

	Value Added \$m	Household Income \$m	Employment FTE
Initial Impact	1.04	0.69	11
Flow-on	2.13	1.08	18
<b>Total impact</b>	<b>3.16</b>	<b>1.77</b>	<b>29</b>

Note: Data in this table excludes the value of property and land. Data in this table may not sum to totals due to rounding.

**Figure 4: Homes Out West Geographic Footprint**



### 3.2 Impact by industry sector

The sectoral impacts were examined in terms of value added and FTE employment and were reported as a sum of initial and flow on effects.

The value added and FTE employment generated in a given sector following expenditure by Homes Out West was compared to the size of the sector (Table 11) and the size of the regional economy (Figure 5).

Table 11 presents the top 5 sectors with the highest value added and FTE employment as a percentage of the sector; in other words in terms of contributions to the respective sectors. Figure 5 overleaf presents the top 5 sectors with the highest value added as a percentage of regional value added (GRP); in other words, in terms of contributions to the overall economy.

**Table 11: Top 5 sector impacts based on proportion of sector value added**

	Value Added		Employment FTE	
	\$m	% of sector in local economy	No.	% of sector in local economy
Rental, Hiring & Real Estate	0.28	0.42%	1.73	0.42%
Non-Metallic Mineral Product Manufacturing	0.03	0.15%	0.26	0.15%
Administrative Services	0.08	0.14%	0.91	0.14%
Wood product Manufacturing	0.02	0.13%	0.21	0.13%
Public Administration	0.28	0.12%	2.75	0.12%

#### Top sector impacts based on proportion of sector value added

The largest impacts were experienced in:

##### Rental, Hiring & Real Estate:

- 0.42 percent of the total value added in the sector; and
- 0.42 percent of all employment in the sector.

##### Non-Metallic Mineral Manufacturing:

- 0.15 percent of total value added in the sector; and
- 0.15 percent of all employment in the sector.

##### Administrative Services:

- 0.14 percent of total value added in the sector; and
- 0.14 percent of all employment in the sector.

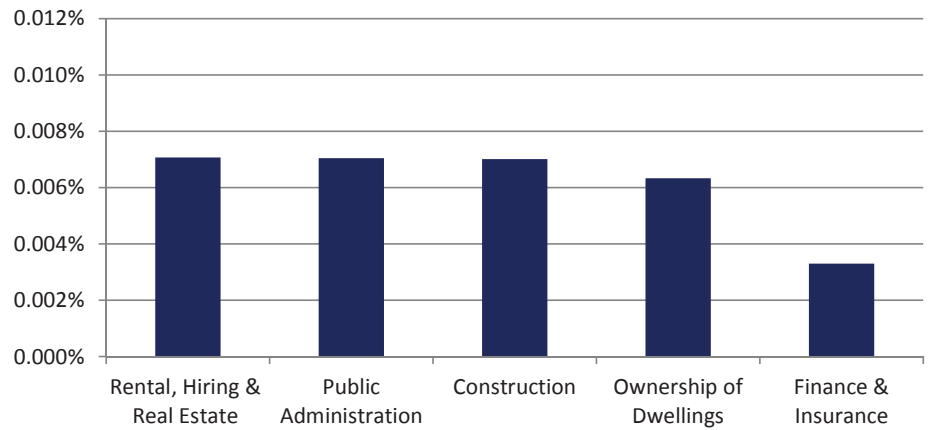
# ECONOMIC IMPACT REPORT

## Top 5 sector impacts based on percentage of total Gross Regional Product

The largest impacts were experienced in:

- Rental, Hiring & Real Estate (0.007 percent of total GRP);
- Public Administration (0.007 percent of GRP); and
- Construction (0.007 percent of GRP).

Figure 5: Top 5 sector impacts based on value added as a percentage of Gross Regional Product



### 3.3 Economic impact of Homes Out West on New South Wales

The economic impacts of Homes Out West on the NSW economy have been estimated based on operational and capital expenditure made by Homes Out West in Albury, Deniliquin, Berrigan, Conargo, Jerilderie, Greater Hume Shire, Wakool, Murray, Wentworth and Balranald LGAs, **as well as** operational and capital expenditure made in the rest of NSW.

## Homes Out West Economic Impact - NSW

When flow-on effects are taken into account, Homes Out West is estimated to generate the following in the New South Wales economy:

- Approximately \$5.49 million in value added, contributing 0.001 percent of gross state product;
- Approximately \$3.00 million in household income, representing 0.001 percent of household income; and
- Approximately 41 FTE jobs, representing 0.001 percent of NSW's total full time equivalent employment.

Table 12: Total economic impact of Homes Out West on the New South Wales economy

	Value Added \$m	Household Income \$m	Employment FTE
Initial Impact	1.06	0.69	11
Flow-on	4.43	2.31	30
Total impact	5.49	3.00	41

Note: Data in this table excludes the value of property and land. Data in this table may not sum to totals due to rounding.

## 4. Economic Impact of Homes North

### 4.1 Economic impact of Homes North on the local economy

The local economy of Homes North was defined as the LGAs of Armidale Dumaresq, Glen Innes Severn, Tenterfield, Tamworth and Gunnedah.

The economic impacts of Homes North on the local economy have been estimated based on operational and capital expenditure made by Homes North in Armidale Dumaresq, Glen Innes Severn, Tenterfield, Tamworth and Gunnedah LGAs, **excluding** operational and capital expenditure made in the rest of NSW.

The impacts have been defined in terms of value added, household income and FTE employment.

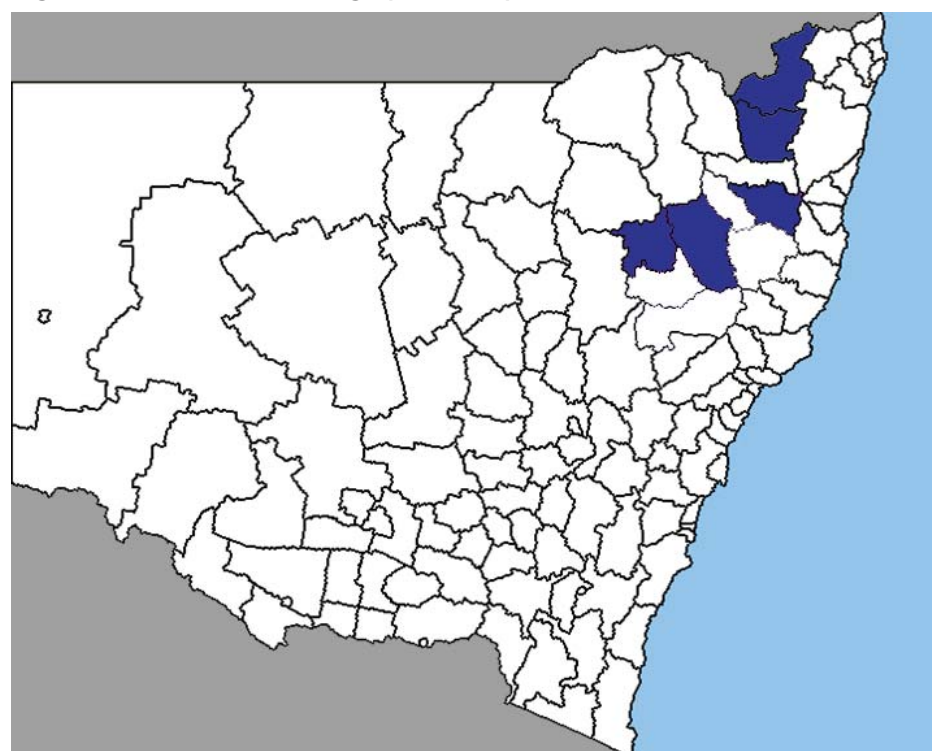
Value added is equivalent to gross regional product (GRP). Household income is defined as salaries, wages and several other sources of income received by the population of the respective region. Full time equivalent (FTE) employment is a measure of the workload of employed persons.

**Table 13: Total economic impact of Homes North on the local economy**

	Value Added \$m	Household Income \$m	Employment FTE
Initial Impact	2.54	1.64	25
Flow-on	3.23	1.58	25
<b>Total impact</b>	<b>5.77</b>	<b>3.22</b>	<b>50</b>

Note: Data in this table excludes the value of property and land. Data in this table may not sum to totals due to rounding.

**Figure 6: Homes North Geographic Footprint**



### Homes North Economic Impact - Local Economy

When flow-on effects are taken into account, Homes North is estimated to generate the following in the local economy:

- Approximately \$5.77 million in value added, contributing 0.13 percent of gross regional product;
- Approximately \$3.22 million in household income, representing 0.17 percent of household income; and
- Approximately 50 FTE jobs, representing 0.14 percent of the local economy's total full time equivalent employment.

# ECONOMIC IMPACT REPORT

## 4.2 Impact by industry sector

The sectoral impacts were examined in terms of value added and FTE employment and were reported as a sum of initial and flow on effects.

The value added and FTE employment generated in a given sector following expenditure by Homes North was compared to the size of the sector (Table 14) and the size of the regional economy (Figure 7).

Table 14 presents the top 5 sectors with the highest value added and FTE employment as a percentage of the sector; in other words in terms of contributions to the respective sectors. Figure 7 overleaf presents the top 5 sectors with the highest value added as a percentage of regional value added (GRP); in other words, in terms of contributions to the overall economy.

### Top 5 sector impacts based on proportion of sector value added

The largest relative economic impacts were experienced in:

#### Rental, Hiring & Real Estate:

- 0.71 percent of the total value added in the sector; and
- 0.69 percent of all employment in the sector.

#### Administrative Services:

- 0.19 percent of total value added in the sector; and
- 0.19 percent of all employment in the sector.

#### Public Administration:

- 0.19 percent of total value added in the sector; and
- 0.19 percent of all employment in the sector.

**Table 14: Top 5 sector impacts based on proportion of sector value added**

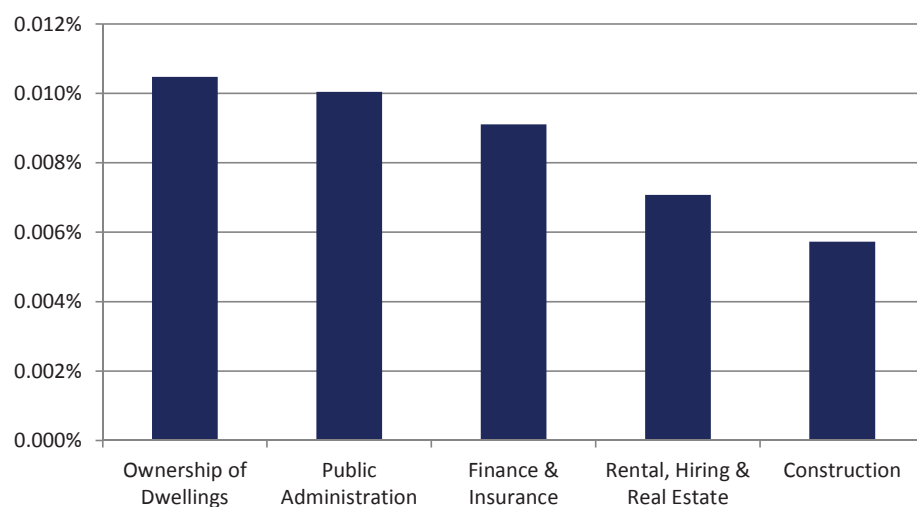
	Value Added		Employment FTE	
	\$m	% of sector in local economy	No.	% of sector in local economy
Rental, Hiring & Real Estate	0.31	0.71%	1.95	0.69%
Administrative Services	0.16	0.19%	1.65	0.19%
Public Administration	0.44	0.19%	4.06	0.19%
Non-Metallic Mineral Product Manufacturing	0.04	0.18%	0.26	0.18%
Construction	0.25	0.18%	3.18	0.16%

## Top 5 sector impacts based on percentage of total Gross Regional Product

The largest impacts were experienced in:

- Ownership of Dwellings (0.010 percent of total GRP);
- Public Administration (0.010 percent of GRP); and
- Finance & Insurance (0.009 of GRP).

Figure 7: Top 5 sector impacts based on value added as a percentage of Gross Regional Product



## 4.3 Economic impact of Homes North on New South Wales

The economic impacts of Homes North on the NSW economy have been estimated based on operational and capital expenditure made by Homes North in Armidale Dumaresq, Glen Innes Severn, Tenterfield, Tamworth and Gunnedah LGAs, **as well as** operational and capital expenditure made in the rest of NSW.

Table 15: Total economic impact of Homes North on the New South Wales economy

	Value Added \$m	Household Income \$m	Employment FTE
Initial Impact	2.67	1.64	25
Flow-on	7.57	3.89	50
Total impact	10.23	5.54	75

Note: Data in this table excludes the value of property and land. Data in this table may not sum to totals due to rounding.

## Homes North Economic Impact - NSW

When flow-on effects are taken into account, Homes North is estimated to generate the following in the New South Wales economy:

- Approximately \$10.23 million in value added, contributing 0.002 percent of gross state product;
- Approximately \$5.54 million in household income, representing 0.003 percent of household income; and
- Approximately 75 FTE jobs, representing 0.002 percent of NSW's total full time equivalent employment.

# ECONOMIC IMPACT REPORT

## 5. Economic Impact of North Coast Community Housing

### 5.1 Economic impact of North Coast Community Housing on the local economy

The local economy of North Coast Community Housing was defined as the LGAs of Tweed, Byron, Ballina, Lismore, Kyogle, Richmond Valley and Clarence Valley.

The economic impacts of North Coast Community Housing on the local economy have been estimated based on operational and capital expenditure made by North Coast Community Housing in Tweed, Byron, Ballina, Lismore, Kyogle, Richmond Valley and Clarence Valley LGAs, **excluding** operational and capital expenditure made in the rest of NSW.

The impacts have been defined in terms of value added, household income and FTE employment.

Value added is equivalent to gross regional product (GRP). Household income is defined as salaries, wages and several other sources of income received by the population of the respective region. Full time equivalent (FTE) employment is a measure of the workload of employed persons.

#### North Coast Community Housing Economic Impact - Local Economy

When flow-on effects are taken into account, North Coast Community Housing is estimated to generate the following in the local economy:

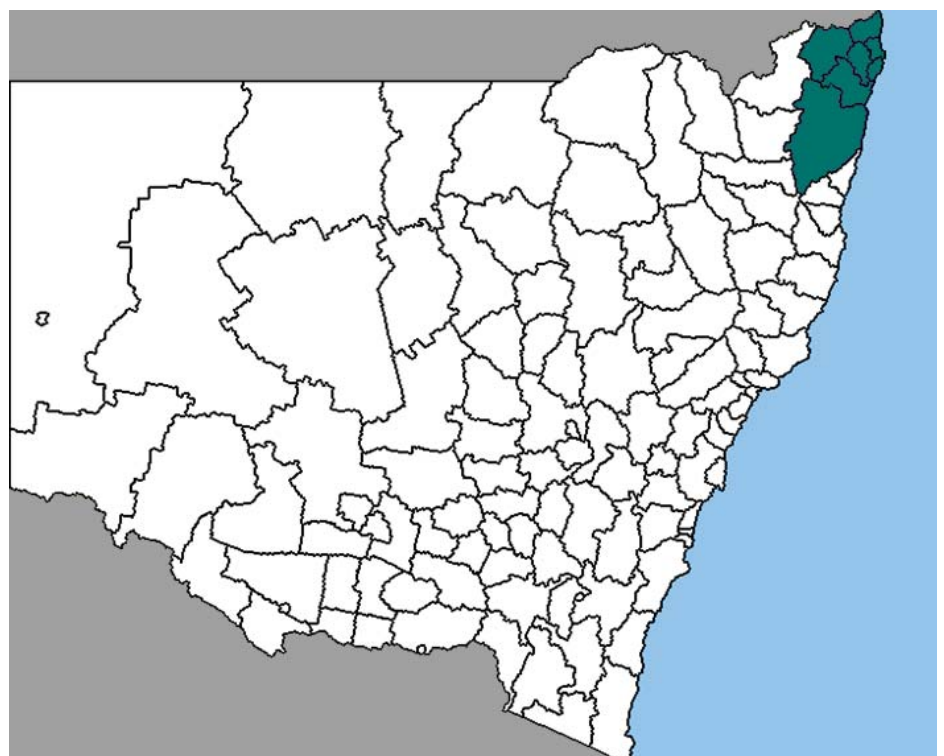
- Approximately \$11.01 million in value added, contributing 0.12 percent of gross regional product;
- Approximately \$4.32 million in household income, representing 0.11 percent of household income; and
- Approximately 70 FTE jobs, representing 0.10 percent of the local economy's total full time equivalent employment.

**Table 16: Total economic impact of North Coast Community Housing on the local economy**

	Value Added \$m	Household Income \$m	Employment FTE
Initial Impact	5.88	1.84	27
Flow-on	5.13	2.48	43
Total impact	11.01	4.32	70

Note: Data in this table excludes the value of property and land. Data in this table may not sum to totals due to rounding.

**Figure 8: North Coast Community Housing Geographic Footprint**





## 5.2 Impact by industry sector

The sectoral impacts were examined in terms of value added and FTE employment and were reported as a sum of initial and flow on effects.

The value added and FTE employment generated in a given sector following expenditure by North Coast Community Housing was compared to the size of the sector (Table 17) and the size of the regional economy (Figure 9).

Table 17 presents the top 5 sectors with the highest value added and FTE employment as a percentage of the sector; in other words in terms of contributions to the respective sectors. Figure 9 overleaf presents the top 5 sectors with the highest value added as a percentage of regional value added (GRP); in other words, in terms of contributions to the overall economy.

**Table 17: Top 5 sector impacts based on proportion of sector value added**

	Value Added		Employment FTE	
	\$m	% of sector in local economy	No.	% of sector in local economy
Rental, Hiring & Real Estate	0.87	0.50%	5.44	0.49%
Construction	0.88	0.24%	11.56	0.23%
Non-Metallic Mineral Product Manufacturing	0.09	0.24%	0.72	0.25%
Administrative Services	0.31	0.17%	3.18	0.17%
Fabricated Metal Product Manufacturing	0.07	0.13%	0.46	0.15%

### Top sector impacts based on proportion of sector value added

The largest relative economic impacts were experienced in:

#### Rental, Hiring & Real Estate:

- 0.50 percent of the total value added in the sector; and
- 0.49 percent of all employment in the sector

#### Construction:

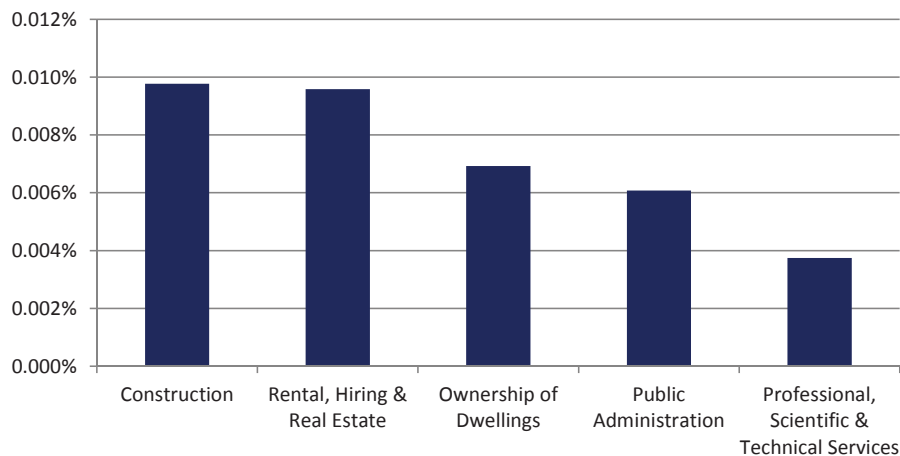
- 0.24 percent of total value added in the sector; and
- 0.23 percent of all employment in the sector

#### Non-Metallic Mineral Manufacturing:

- 0.24 percent of total value added in the sector; and
- 0.25 percent of all employment in the sector.

# ECONOMIC IMPACT REPORT

Figure 9: Top 5 sector impacts based on value added as a percentage of Gross Regional Product



## Top 5 sector impacts based on percentage of total Gross Regional Product

The largest impacts were experienced in:

- Construction (0.010 percent of total GRP);
- Rental, Hiring & Real Estate (0.010 percent of total GRP); and
- Ownership of Dwellings (0.007 percent of GRP).

### 5.3 Economic impact of North Coast Community Housing on New South Wales

The economic impacts of North Coast Community Housing on the NSW economy have been estimated based on operational and capital expenditure made by North Coast Community Housing in Tweed, Byron, Ballina, Lismore, Kyogle, Richmond Valley and Clarence Valley LGAs, **as well as** operational and capital expenditure made in the rest of NSW.

#### North Coast Community Housing Economic Impact - NSW

When flow-on effects are taken into account, North Coast Community Housing is estimated to generate the following in the New South Wales economy:

- Approximately \$17.25 million in value added, contributing 0.004 percent of gross state product;
- Approximately \$7.69 million in household income, representing 0.004 percent of household income; and
- Approximately 103 FTE jobs, representing 0.003 percent of NSW's total full time equivalent employment.

Table 18: Total economic impact of North Coast Community Housing on the New South Wales economy

	Value Added \$m	Household Income \$m	Employment FTE
Initial Impact	6.05	1.91	28
Flow-on	11.20	5.78	75
Total impact	17.25	7.69	103

Note: Data in this table excludes the value of property and land. Data in this table may not sum to totals due to rounding.

## CONCLUSION

The Housing Alliance is a group of four not-for-profit organisations that engage in the delivery of social housing in regional NSW. The four organisations that form The Housing Alliance are: Housing Plus; Homes Out West; Homes North; and North Coast Community Housing.

**Table 19: Impact of Housing Alliance on their respective local economies**

Local Impact	Value Added \$m	Household Income \$m	Employment FTE
Housing Plus	7.12	3.68	54
Homes Out West	3.16	1.77	29
Homes North	5.77	3.22	50
North Coast Community Housing	11.01	4.32	70
Total impact for The Housing Alliance	27.07	12.99	203

Note: Data in this table excludes the value of property and land. Data in this table may not sum to totals due to rounding.

When flow-on effects are taken into account, the combined operational and capital expenditure attributed to The Housing Alliance in 2012/13 is estimated to generate the following:

- Approximately \$27.07 million in value added. Across the member organisations, the contribution to Gross Regional Product (GRP) ranged from 0.08 percent to 0.13 percent.
- Approximately \$12.99 million in household income. Across the member organisations, the contribution of household income ranged from 0.10 percent to 0.17 percent; and
- Approximately 203 FTE jobs. Across the member organisations, the contribution to FTE employment ranged from 0.09 percent to 0.14 percent.

The findings of this study demonstrate that The Housing Alliance makes an important contribution to its respective regional economies and communities through the provision of social services. The economic impacts of each member organization vary according to the size of its operations, with the “Alliance” model of service delivery effectively supporting each member to promote commonly shared visions and maintain strong links with their individual communities.

## APPENDIX 1: INPUT-OUTPUT ANALYSIS

In this project WRI has used marginal coefficients analysis to estimate the economic impact of Housing Alliance on the local economies and New South Wales.

The marginal coefficients model provides a more accurate representation of the flow-on effects of expenditure than would be possible using a standard linear input-output model. That is, the marginal coefficients model largely overcomes the overestimation of impacts that can result from using the linear approach.

The level of multipliers is lower than if conventional input-output models were used and higher than if computable general equilibrium (CGE) frameworks and CGE-like input-output models were used. The size of the flow on and total effects is higher than in conventional input-output models and lower than the effects that would have been generated in the computable general equilibrium framework.

The impacts are measured in terms of industry value added, Gross Regional Product, household income and full-time equivalent jobs. All impacts are measured in either dollar terms or full-time equivalent employment terms and as a percentage of the regional economy.

Inter-industry models can be used for economic impact analysis, to estimate the benefits or costs generated by new initiatives on each and every sector of an economy. For example, if there is a change in the purchasing or sales pattern of any industry, the flow-on or multiplier effects on upstream industries can be calculated. Further details about marginal coefficients analysis are provided at the conclusion of this Appendix.

### Constructing the 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 the Australia and indeed 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.

The use of marginal coefficients analysis in the tables will result in a more accurate estimate of the significance of The Housing Alliance than would be possible with traditional input-output analysis.

## Marginal coefficients model

One of the main limitations of input-output tables is the assumption of linear coefficients. To address this problem and the associated problem of overestimation, the input-output analysis undertaken for The Housing Alliance's operational and capital expenditures incorporates the marginal coefficients model.

The marginal income coefficients model attempts to overcome the limitations of traditional input-output analysis by removing the assumption of linear coefficients for the household sector. As is well documented in the literature, the household sector is the dominant component of multiplier effects in an input-output table so using marginal income coefficients for the household sector only provides a more accurate estimate of the multiplier effects and provides results closer to those of a computable general equilibrium (CGE) model. This should result in a more accurate estimate of the economic significance of The Housing Alliance than would be possible with other types of analysis.

Note: In calculating the economic impact of The Housing Alliance it should be noted that the Australian Bureau of Statistics applies a confidentiality technique to its census data tables. The technique involves small random adjustments to the data which help prevent the disclosure of any identifiable data<sup>1</sup>.

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<sup>1</sup> For further information about the confidentiality technique adopted by the Australian Bureau of Statistics please refer to the following:  
<http://www.abs.gov.au/websitedbs/censushome.nsf/home/factsheetsccd?opendocument&navpos=450>

## 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.

### Ms Danielle Ranshaw – Chief Executive Officer 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 master 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

### Ms 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. Dale brings a high level of organisational skill to her role as Executive Officer.

## WRI ASSOCIATES

### Dr Guy West - Associate

Professor Guy West is experienced in regional economics with specialisation in applied quantitative economics. Current research interests include the theory and application of inter-industry models particularly in an integrated spatial econometric framework, the nature of economic structure at the regional and national levels, and regional economic projection, planning and growth. This revolves primarily around the study and identification of economic structure, involving concepts such as fundamental economic structure, structural change and evolution.

Dr. West has published extensively in international journals at both theoretical and empirical levels. He is an accomplished computer programmer and has developed a number of specialised economic models for analysing structural change, as well as more generalised software for inter-industry analysis. Some of this software is used extensively in universities in Australia, US, UK and Europe. He has been actively involved in consulting and advisory work in the area of economic impact analysis, planning, development and economic policy for federal, state and local government and the private sector.

### Dr. Andrew Johnson

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.

Andrew's skills are best suited to building capacity, sustaining collaborations, managing research programs and building networks and spheres of influence, both in the public sector and industry. Attracting new business and partnerships and ensuring their longevity by establishing appropriate governance mechanisms drives his approach to work.

