NSW Mining Industry Economic Impact Assessment 2014/15

Prepared for NSW Minerals Council

November 2015

lawrence consulting

EXECUTIVE SUMMARY

The New South Wales Minerals Council (NSWMC) analysed the expenditure paterns of 23 NSW exploration and mining companies to determine the economic contribution of the industry throughout NSW in 2014/15. The spending data, which included employee salaries and wages, business purchases, community contributions and local and state government payments, was collected by postcode where it was spent to allow local, regional and state-wide economic benefits to be assessed. This report is an extension of previous surveys completed in 2011/12, 2012/13 and 2013/14 and includes one additional company from the previous year.

Direct expenditure

The 23 companies surveyed **directly spent an estimated $11.3 billion** in the NSW economy in 2014/15, comprised of:

- **$2.7 billion in wages and salaries** to approximately **21,265 full-time equivalent residing employees** (including contractors); representing an average salary level of $128,214 per annum across the sector;
- **$7.3 billion** in purchases of goods and services from approximately 7,694 local businesses (including contract payments), community contributions and payments to local government (including rates, developer contributions and other payments); and
- **$1.3 billion** in state government payments (including royalties, stamp duty, payroll tax and land tax).

The Hunter region recorded the highest direct expenditure in 2014/15, with $4.8 billion (or 42% of the total spend across NSW), followed by Sydney ($2.8 billion, or 25%) and Illawarra ($0.9 billion, or 8%).

Direct Stimulus by Region of Companies Surveyed

New South Wales, 2014/15

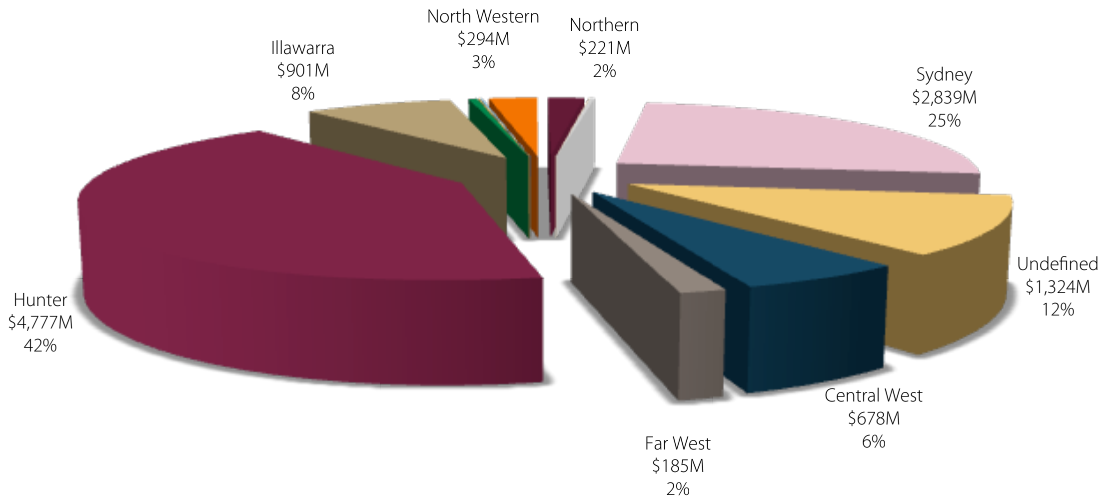


Table E1: Direct Impact of Surveyed Companies by Region, 2014/15

Region	Residing employees	Associated salaries	Business purchases & community contributions	No. of businesses	Total direct spending	% of total direct spend, NSW
	(FTEs)	($M)	($M)		($M)	
Central West	3,724	465.3	213.2	770	678.5	6.0%
Far West	578	64.7	120.2	196	184.9	1.6%
Hunter	11,189	1,418.7	3,358.4	3,417	4,777.1	42.2%
Illawarra	1,794	241.2	660.0	625	901.2	8.0%
Mid-North Coast	60	6.7	43.8	53	50.5	0.4%
Murray	20	1.7	6.7	30	8.5	0.1%
Murrumbidgee	51	5.0	9.4	61	14.4	0.1%
North Western	1,398	181.5	112.1	449	293.6	2.6%
Northern	780	100.2	120.7	472	221.0	2.0%
Richmond-Tweed	6	0.6	1.9	25	2.5	0.0%
South Eastern	59	6.7	22.5	47	29.2	0.3%
Sydney	1,605	234.2	2,605.2	2,737	2,839.3	25.1%
State govt payments	n.a.	n.a.	n.a.	n.a.	1,323.6	11.7%
Total NSW	**21,265**	**2,726.4**	**7,274.3**	**7,694**	**11,324.3**	**100.0%**
Balance of Australia	1,912	241.6	3,043.4	2,244	3,285.0	-
Total Australia	23,177	2,968.0	10,317.7	9,938	14,609.3	-

Indirect and Total Economic Impacts

Economic modelling of the flow-on effects of the surveyed companies' direct expenditure allowed the indirect and total economic impact to be estimated. Across NSW, the total economic impact of the surveyed companies in 2014/15, based on Type II multipliers (i.e. including both indirect industry and consumption-induced effects), amounted to:

- $28.0 billion in output/turnover (a measure of direct and supply chain purchases from businesses);
- **$24.9 billion in value added (contribution to Gross State Product), amounting to 4.8% of GSP for NSW** in 2014/15 through $11.3 billion in direct effects and $13.5 billion in supply chain and consumption-induced effects;
- $10.2 billion in income (wages and salaries) paid to direct and indirect workers; and
- **135,443 full time equivalent jobs supported, or 3.7% of total employment in NSW during 2014/15.**

Table E2: Economic Impact of Companies Surveyed, 2014/15

	New South Wales	Rest of Australia	Total Australia
Value Added ($M)			
Direct	11,324	3,285	14,609
% of GSP/GDP	2.2%	0.3%	0.9%
Indirect	7,628	2,854	10,482
Total value added (Type I)	18,953	6,139	25,092
% of GSP/GDP	3.9%	0.6%	1.6%
Consumption-induced	5,902	1,693	7,595
Total value added (Type II)	24,854	7,832	32,686
% of GSP/GDP	4.8%	0.7%	2.0%
Employment (FTEs)			
Direct	21,283	1,912	23,194
% of total state/national employment	0.6%	0.0%	0.2%
Indirect	65,292	17,139	82,432
Total employment (Type I)	86,575	19,051	105,626
% of total state/national employment	2.5%	0.2%	1.0%
Consumption-induced	48,868	10,737	59,604
Total employment (Type II)	135,443	29,788	165,230
% of total state/national employment	3.7%	0.4%	1.4%
Business spend (incl. community contributions and govt payments) ($M)			
Direct	8,599	3,043	11,643
Indirect	6,379	2,992	9,371
Total business spend (Type I)	14,978	6,036	21,014
Consumption-induced	10,277	3,183	13,459
Total business spend (Type II)	25,255	9,218	34,473
Wages & salaries ($M)			
Direct	2,731	242	2,972
Indirect	4,053	1,472	5,526
Total wages & salaries (Type I)	6,784	1,714	8,498
Consumption-induced	3,372	779	4,151
Total wages & salaries (Type II)	10,156	2,493	12,649

Note: Consumption-induced impacts seek to measure the change in consumption for all goods and services that arise from an increase in final output from the industry in question.

The direct expenditure of the 23 companies surveyed has the highest overall impact in the Hunter region, with estimated total value added of $10.2 billion, meaning these companies contributed 22.9% to gross regional product ($44.4 billion) in 2014/15. The impact in the Hunter region was significantly higher than other regional economies, the next highest of which was Sydney ($6.8 billion in value added) and Illawarra ($1.9 billion).

Table E3: Total Economic Impact of Companies Surveyed by Region, 2014/15 (Type II)

Region	Total output ($M)	Total estimated value added ($M)	Gross regional product ($M)	Total value added as % of GRP
Central West	1,400	1,372	12,904	10.6%
Far West	386	364	1,125	32.4%
Hunter	11,202	10,168	44,374	22.9%
Illawarra	2,012	1,881	22,562	8.3%
Mid-North Coast	98	97	15,183	0.6%
Murray	16	15	6,107	0.2%
Murrumbidgee	29	28	10,084	0.3%
North Western	601	590	7,208	8.2%
Northern	444	436	10,410	4.2%
Richmond-Tweed	6	5	11,524	0.05%
South Eastern	57	57	9,868	0.6%
Sydney	8,176	6,769	362,066	1.9%
Total NSW	**27,980**	**24,854**	**513,309**	**4.8%**

Note: Regions are based on 12 Statistical Divisions in NSW

Number of Businesses Directly Supported by the Mining Industry

Supplier business details were analysed to determine the total number of businesses supported by survey respondents. Duplicates were removed to the best extent practicable to ensure an accurate estimation of the number of individual businesses supported.

An estimated 7,694 businesses in New South Wales received payments for goods and services supplied to survey respondents during 2014/15. The highest number of businesses was recorded in the Hunter (3,417 businesses) and Sydney (2,737 businesses) regions.

Table E4: Number of Businesses Supported by Region

Region	Number of businesses supported
Central West	770
Far West	196
Hunter	3,417
Illawarra	625
Mid-North Coast	53
Murray	30
Murrumbidgee	61
North Western	449
Northern	472
Richmond-Tweed	25
South Eastern	47
Sydney	2,737
Total NSW	**7,694**

Note: The total number of businesses supported for New South Wales is less than the aggregate for all regions due to the removal of duplicates.

Community Contributions

During 2014/15, survey respondents directly contributed $12.3 million to 1,298 community groups in a wide range of areas including health, education, environment and the arts.

The largest category of expenditure was education, with $3.3 million in contributions by survey respondents, followed by social ($3.2 million), health ($1.6 million) and environment ($1.1 million).

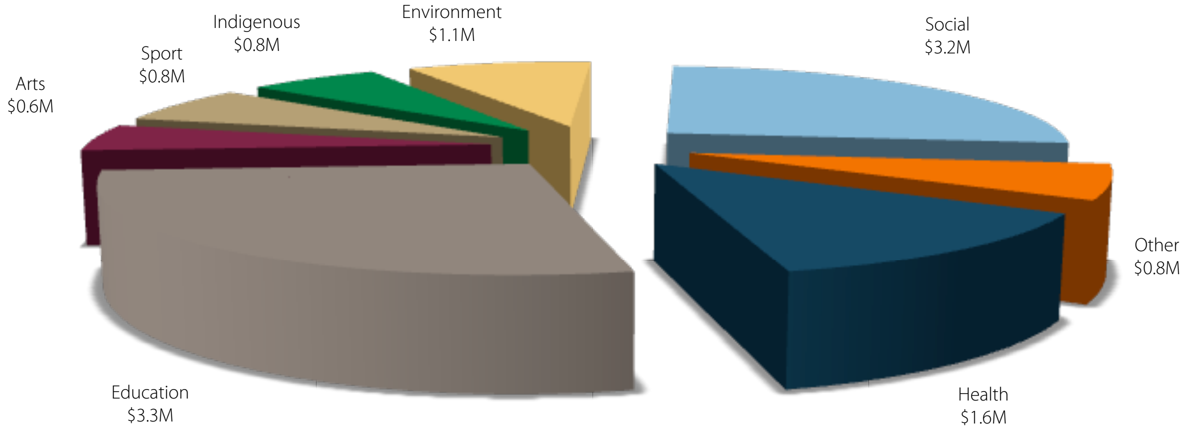
Table E5: Number of Community Groups Supported by Region

Region	Number of community groups	Total contributions ($)
Central West	407	1,794,126
Far West	13	5,452
Hunter	586	5,862,597
Illawarra	35	1,574,905
Mid-North Coast	0	642
Murray	19	17,999
Murrumbidgee	1	9,977
North Western	101	1,160,996
Northern	96	768,553
Richmond-Tweed	0	0
South Eastern	1	5,661
Sydney	89	1,125,710
Total NSW	**1,298**	**12,326,618**

Note: The total number of community organisations supported for New South Wales is less than the aggregate for all regions due to the removal of duplicates.

Community Contributions by Category of Expenditure

New South Wales ($ million), 2014/15



Local Council Contributions

Mining companies contribute to local councils through the payment of rates, developer contributions agreed as a condition of planning approval, and through other payments such as water rates and payments for specific infrastructure upgrades.

During 2014/15, survey respondents reported direct contributions to local councils totalling $60.6 million, with rates ($45.9 million) comprising the largest proportion of local council payments, followed by other ($7.5 million) and Voluntary Planning Agreements (VPA)/developer contributions ($7.1 million).

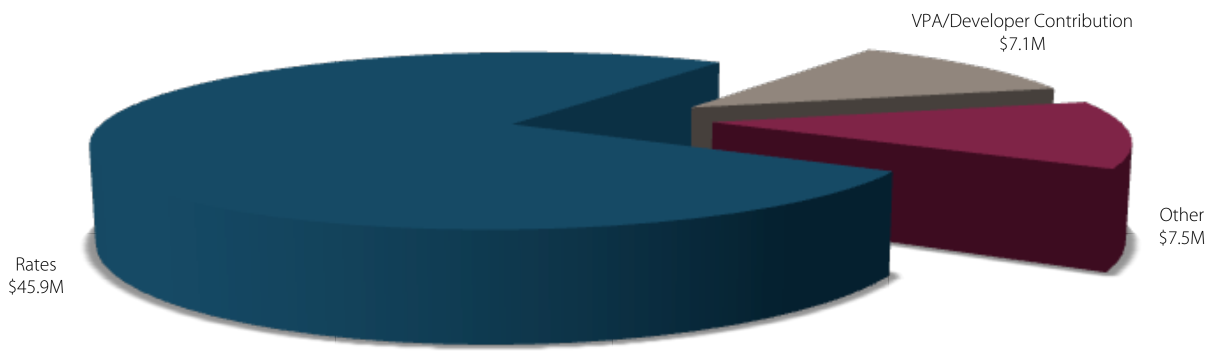
Table E6: Local Council Contributions by Region

Region	Rates ($)	VPA/Developer ($)	Other ($)	Total contributions ($)
Central West	12,678,521	20,915	347,502	13,046,938
Far West	1,902,224	0	0	1,902,224
Hunter	18,825,577	788,335	4,799,094	24,413,005
Illawarra	719,756	1,024	1,000,000	1,721,172
Mid-North Coast	9,074	3,768	0	12,842
Murray	1,843,264	0	0	1,843,264
Murrumbidgee	0	0	0	0
North Western	5,331,954	891,485	1,325,218	7,568,182
Northern	3,248,219	5,377,327	0	8,751,374
Richmond-Tweed	0	0	0	0
South Eastern	0	0	0	0
Sydney	1,355,388	23,976	0	1,379,364
Total NSW	**45,913,976**	**7,106,830**	**7,471,814**	**60,638,365**

Note: The total local government payments for each region may be less than the aggregate of contribution type due to unstated amounts and statistical or rounding errors from the original source.

Local Council Contributions by Category

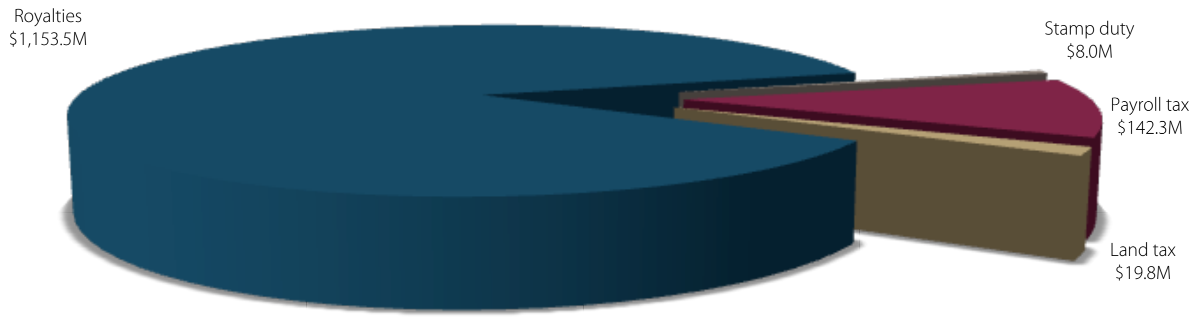
New South Wales ($ million), 2014/15



State Government Payments

During 2014/15, the direct contribution made by companies surveyed in state government payments was approximately $1.3 billion, comprised of royalties ($1.2 billion), payroll tax ($142.3 million), land tax ($19.8 million) and stamp duty ($8.0 million).

State Government Contributions by Category
New South Wales ($ million), 2014/15



Comparison to Previous Survey Results

Comparison with results from previous surveys is difficult due to a slight difference in the number of participating companies. Based on whole-of-survey totals, the direct expenditure in NSW of the companies surveyed in 2014/15 decreased by approximately $2.3 billion, or 17.0% compared to 2013/14. The total number of employees, both direct and contract workers, fell slightly by 251 FTEs, or 1.2%.

Table E7: Comparison of Survey Results

	Level 2014/15	**Level 2013/14**	**Level 2012/13**	**Level 2011/12**	**Annual % change 2013/14-2014/15**
No. of companies surveyed	23	22	26	21	4.5%
DIRECT EMPLOYEES					
No. of direct employees (FTEs)	17,566	17,517	19,280	13,418	0.3%
No. of apprenticeships and traineeships (FTEs)	284	227	418	241	25.1%
Total wages/salaries paid ($M)	2,254.1	2,351.6	2,567.5	1,627.8	-4.1%
BUSINESS PURCHASES					
No. of suppliers	7,694	8,202	10,547	n.a.	-6.2%
OPEX					
No. of contractors (FTEs)	2,931	2,907	3,515	7,524	0.8%
Payments to contractors ($M)	1,308.7	1,919.6	1,477.0	1,822.8	-31.8%
Other goods and services purchases ($M)	5,462.3	7,058.6	6,950.3	6,067.5	-22.6%
Total opex spend ($M)	6,771.0	8,978.2	8,427.3	7,890.2	-24.6%
CAPEX					
No. of contractors (FTEs)	768	1,108	687	1,116	-30.7%
Payments to contractors ($M)	464.4	537.4	351.8	227	-13.6%
Other goods and services purchases ($M)	438.3	560.8	1,424.7	764.1	-21.8%
Total capex spend ($M)	902.6	1,098.2	1,776.5	991.2	-17.8%
Total business purchases ($M)	7,673.6	10,076.0	10,204.0	8,881.0	-23.8%
COMMUNITY CONTRIBUTIONS					
No. of community organisations supported	1,298	1,014	912	n.a.	28.0%
Total community contributions ($M)	12.3	11.2	16.1	8.3	9.8%
LOCAL COUNCIL PAYMENTS					
Total local government payments ($M)	60.6	59.1	41.4	19.1	2.5%
STATE GOVERNMENT PAYMENTS					
Total state government payments ($M)	1,323.6	1,141.6	n.a.	n.a.	15.9%
TOTAL SPEND ($M)	**11,324.3**	**13,639.9**	**12,828.8**	**10,536.6**	**-17.0%**
TOTAL EMPLOYMENT (FTEs)	**21,265**	**21,516**	**23,483**	**22,058**	**-1.2%**

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INTRODUCTION

The NSW Minerals Council (NSWMC) commissioned Lawrence Consulting to determine the total direct, indirect and consumption-induced economic benefit to the state economy based on expenditure data provided by 23 exploration and mining companies operating in NSW. This report provides a detailed summary of the level of expenditure into the New South Wales economy by these companies in 2014/15 and the multiplier and consumption-induced effects that are generated by that initial stimulus. The analysis is an update of previous studies completed in 2011/12, 2012/13 and 2013/14, available to dpwnload at www.nswmining.com.au.

While the mining sector[1] makes a significant contribution to the New South Wales and Australian economies, information about the impacts of the sector on regional and metropolitan economies within New South Wales is limited. Impacts on regional and metropolitan areas of New South Wales occur through direct, indirect and consumption-induced effects. There are two key types of direct impacts:

- Wages for direct employment of workforce; and
- Expenditure on business goods and services in local and regional economies.

Business expenditure generates both upstream and downstream ripple effects through the supply chain as local businesses purchase goods and services from other businesses, often through several links in the supply chain. The net effect of subsequent rounds of economic activity in the business supply chain can be categorised as indirect effects. The increased employment generated through the direct effects (resources sector employment) and the indirect effects (business supply chain) generates a number of final consumption-induced effects to support the increased population base.

The focus of this report is to identify the geographical spread of impacts (direct, indirect and consumption-induced) from the mining industry across New South Wales at five geographic scales:

- State (the whole area of New South Wales);
- Regional (represented by 12 Statistical Divisions in NSW);
- Local (represented by 152 Local Government Areas in NSW);
- State electoral divisions (represented by 93 SEDs in NSW); and
- Commonwealth electoral divisions (represented by 48 CEDs in NSW).

[1] For these purposes, mining is defined broadly as the ANZSIC industry division and includes mine operation (i.e. operating mines, quarries, or oil and gas wells, as well as mining sites under development) and mining support activities (i.e. businesses that perform mining services on a contract or fee basis, and exploration (except geophysical surveying)).

METHODOLOGY

Data Collection

The process was initiated in July 2015 when NSWMC distributed an expenditure survey form to 29 exploration and mining companies, which were asked to disclose total operational spending in 2014/15 in the following categories:

- Employee salaries and wages (by place of residence) for full-time direct employees, along with the number of apprenticeships and traineeships;

- Goods and services expenditure, including payments made to contractors (including identification of the number of contract FTEs employed on-site) as well as other goods and services providers;

- Voluntary community contributions;

- Local government payments, including council rates and infrastructure charges; and

- State government payments, including royalties, stamp duty, payroll tax and land tax.

Of the 29 companies surveyed, 23 returned the survey, representing the majority of the New South Wales mining sector based on current value of production. The data includes both operational expenditure (OPEX) data for current projects and capital expenditure (CAPEX) data from proposed investments currently under development. This data was supplied by the location where the salary was paid (residence of the worker or contractor) and where the community contributions and business expenditures were made by Australia postcode. The companies that provided expenditure data as part of the study are listed in Table 1.

Table 1: Companies Supplying Expenditure Data	
Alkane Resources Ltd	Malabar Coal Limited
Anglo American Metallurgical Coal Pty Ltd	Newcrest Mining Ltd Cadia Valley Operations
BHP Billiton Hunter Valley Energy Coal	Peabody Energy Australia
Bloomfield Collieries Pty Ltd	Perilya Limited
Centennial Coal Company Limited	Rio Tinto Coal & Allied Australia
Cristal Mining Australia	Northparkes (Rio Tinto/CMOC)
Evolution Cowal Gold	South 32 Illawarra Coal
Glencore Xstrata Coal New South Wales	Shenhua Watermark Coal Pty Ltd
Gloucester Resources Limited	Whitehaven Coal Limited
Hume Coal Pty Ltd	Wyong Areas Coal Joint Venture
Idemitsu Australia Resources Pty Ltd	Yancoal Australia
Iluka Resources	

The postcode spend data was then aggregated using geographical concordance files[2] from the Australian Bureau of Statistics and the economic impacts (direct, indirect and consumption-induced impacts) of the survey respondents were analysed at five geographic levels:

- State (the whole area of New South Wales);
- Regional (represented by 12 Statistical Divisions in NSW);
- Local (represented by 152 Local Government Areas in NSW);
- State electoral divisions (represented by 93 SEDs in NSW); and
- Commonwealth electoral divisions (represented by 48 CEDs in NSW).

[2] http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/1259.0.30.001Main+Features1July%202010?OpenDocument

Input-Output Modelling

Background

For this study, input-output (I-O) modelling has been used to estimate the sum of direct, indirect and consumption-induced effects of the companies surveyed on different regions of New South Wales. I-O techniques provide a solid approach for taking account of the inter-relationships between the various sectors of the economy in the short-term and hence are an appropriate tool for determining the direct, indirect and induced economic impact of economic stimuli.

Development of I-O Modelling

The I-O technique was developed by Wassily Leontief in the 1930s to describe how impacts in one sector of an economy interacted with other sectors to generate economic changes, with matrix algebra used to perform the complex calculations. More advanced forms of I-O models are computable general equilibrium models, which are used for analysis of larger national economies, but are generally not as applicable for smaller areas. The standard I-O model approach is particularly useful for predicting the impacts of events or projects in an economy, or analysing local or regional level economies (Loveridge 2004).

Outside of the previous analysis of the impact of mining in New South Wales completed in 2011/12, 2012/13 and 2013/14 – and similar studies undertaken by Lawrence Consulting and Central Queensland University in Queensland in recent years on behalf of the Queensland Resources Council and in Western Australia on behalf of the Chamber of Minerals and Energy of Western Australia based on the same underlying methodology – there have been several studies applying input-output modelling techniques to analyse the contribution of resources industries to economic growth in different countries and regions. Previous modelling directly relevant to this study was carried out by ACIL Tasman in 2007, and reported by the State of Queensland (Department of Mines and Energy) (2007). In that report, the contribution of the mining and minerals processing sector to the Queensland economy, using 2004-05 data, was estimated with the use of I-O analysis and general equilibrium modelling.

Rubin and Solomon (1983) used economic base and regional multiplier analysis to estimate the impacts of coal liquification projects on 27 counties in Indiana and Kentucky in the United States. Stilwell et al. (2000) used the technique to estimate the contribution of the mining industry to South Africa over a 22-year period. Bangsund and Leistritz (2007) estimated the economic contribution of the petroleum industry to the state economy of North Dakota in the United States. Fannin et al. (2008) used community impact models to estimate the economic effects of oil and gas production from deepwater leases on growth on a regional area of Louisiana in the United States. Finally, Leaming (2010) estimated the economic impacts fro the copper industry to the Arizona economy in 2009.

I-O models can be used to capture only the indirect impacts that occur through other industry sectors (Type I models), or the indirect plus the consumption-induced effects (Type II models), which have been adopted for the current study. Further, the I-O models used in this study were based on the ABS model of the Australian economy generated from general equilibrium models.

A concept underlying I-O modelling is that an initial economic shock or stimulus can have multiplier effects through a series of successive spending rounds. The size of the economic multiplier in a local or regional area can be summarised in the following way (Jensen and West 2002):

- The extent to which project operators purchase inputs from the local or regional economy. Examples of inputs include wages for labour supplied from the local or regional area, and purchases of goods and services. The more that a project operator sources from the local or regional economy, the more money that is directly injected into the economy; and

- The extent to which money spent in a local or regional economy is retained within that economy. If there is not much opportunity for people receiving income to spend it on goods and services in their local or regional area, then not as much money will be kept in the local or regional area. Larger and more diverse regional economies tend to be better at keeping expenditures in their economy and not 'losing' it to other regions.

To generate predictions, the economic contribution of an industry is applied to the relevant industry sectors of the input-output model of a regional economy. The stimulus from economic activity can be traced through the economy in several different ways:

- The first round effects, or direct effects, are those from the expenditure in purchasing goods and services from other industries;
- The second round effects are those from supplying industries increasing their purchases to meet the additional demand. The second and subsequent rounds of purchasing are termed the indirect effects; and
- The consumption-induced effects identify the increase in economic activity generated to service the additional employment (and population) generated or sustained through the direct and indirect effects.

Advantages and Assumptions in I-O Models

Key advantages of using input-output models are the fineness of detail available at a disaggregated industry level, the relative ease of application, particularly for sub-regional levels, and the ability to model effects in a timely manner (Loveridge 2004). However, care has to be taken in its application and interpretation of results. Key assumptions that underpin the application of I-O models are (Stilwell et al. 2000, Department of Mines and Energy 2007):

- The inputs purchased by each industry are a function of the level of output of that industry. The input function is generally assumed linear and homogenous of degree one (which implies constant returns to scale and no substitution between inputs);
- Each commodity (or group of commodities) is supplied by a single industry or sector of production. This implies that there is only one method used to produce each commodity and that each sector has only a single primary output;
- The total effect of carrying on several types of production is the sum of the separate effects. This rules out external economies and diseconomies and is known simply as the additivity assumption;
- The system is in equilibrium at given prices. This would not be the case in an economic system subject to external influences;
- In the static input-output model, there are no capacity constraints so that the supply of each good is perfectly elastic. Each industry can supply whatever quantity is demanded of it and there are no capital restrictions. This assumption would come into play depending upon the magnitude of the changes in quantities demanded, brought about through changes in taxation levels; and
- The input-output model is an optimisation model that allocates resources between sectors to their most efficient use.

Type II models involve additional assumptions about fixed relationships between income and consumption patterns. These factors mean that the results of I-O models should generally be treated as the upper bound of estimates, and that care has to be taken in interpreting the results of very large changes in demand or production.

I-O Model Outcomes

Predictions from I-O models are summarised in terms of multipliers and changes in four key variables:

Output

The output impact measures the increase in gross sales throughout the whole economy by summing all the individual transactions resulting, directly and indirectly, from the economic stimulus.

Income

The income impact measures the additional amount of wages and salaries paid to employees of the industry under consideration and to other industries benefiting from the stimulus to the economy.

Employment

The employment impact measures the combined number of existing jobs sustained and new jobs generated by the stimulus, both directly and indirectly, although allocation between these forms of employment is not separately identified.

Value Added

The value added or Gross Regional Product (GRP) impact measures only the net activity at each stage of production. GRP is defined as the addition of consumption, investment and government expenditure, plus exports of goods and services, minus imports of goods and services for a region. The GRP impacts are the preferred measure for the assessment and contribution of a stimulus to the economy.

I-O techniques provide a solid approach for taking account of the inter-relationships between the various sectors of the economy in the short-term – particularly at the small area and regional level – and hence are an appropriate tool for determining the direct, indirect and induced economic impacts of the NSW mining sector.

Construction of the NSW Regional I-O Models

For the derivation of the regional I-O tables based on the Statistical Divisions (SDs) in New South Wales, a variable interference non-survey technique was applied, involving a formalised non-survey method compilation. This allowed data on direct effects of the companies surveyed to be inserted at any stage of the compilation procedure. This approach is based primarily on the Generation of Regional Input-Output Tables (GRIT) technique as developed by Associate Professor Guy West and Professor Rod Jensen of the University of Queensland (Jensen *et.al.*, 1979), a widely used method of constructing local and regional input-output tables in Australia, America and Europe. The procedure utilises cross-industry location quotients (Flegg and Webber 2000) as well as superior data (including expenditure patterns of within the primary company data) for the regionalisation of the national direct requirements matrix (DRM) or at the elements of other final payments and demand, which are at the core of any I-O table.

In summary, the construction of the local and regional I-O models employed the following steps:

- Adjustment to the latest available national I-O table;
- Computation of the regional direct requirement matrix;
- Aggregation of regional sectors (if necessary); and
- Computation of the complete regional I-O table.

All the necessary data for the regionalisation procedure were collected from the Australian Bureau of Statistics as well as other reliable sources for secondary data such as regional household expenditure patterns, income and productivity measures. The latest available national I-O tables was 2012-13, which consisted of 114 sectors of economic activity, at the 4-digit level, compiled following the industry-technology assumption, product-by-product, with total flows and valued at basic values in current prices.

For estimating the regional I-O tables, and especially in the interpretation of results, relevant limitations of the I-O approach (static, linear production function, no substitution or scale economy effects, infinite elasticity of supply) were taken into consideration. Once the I-O models were generated, predictions of impact were estimated for each regional area of interest in New South Wales using the available data on salary and business expenditure.

The predictions of the I-O models for each SD and LGA were estimated in two separate groups. The first group involved the economic impacts of expenditure on business goods and services (business suppliers), while the second involved economic expenditure of the labour force. Each stimulus group was modelled using expenditure coefficients and household consumption patterns applicable for each region, also taking into account the nature of the expenditure (i.e. operating or capital expenditure). The outputs of the models can be classified into First Round and Indirect Effects, representing industry impacts through the business chain, and Final Consumption-Induced effects, which represent the economic activity needed to support the increased workforce from Direct, First Round and Indirect Effects.

The data collection and the methodology applied in this study are notable in three key aspects:

- First, the data collected on actual spending by the resources industry allowed an assessment of impacts by spending in the economy in comparison to the more traditional approach of predicting economic impacts from total revenue changes;

- Second, the collection of primary data by local area allowed a much more accurate assessment of the direct impacts by geographic area than had previously been available; and

- Third, the application of the I-O modelling framework down to the LGA level, when combined with the accuracy of the primary data, meant that relatively accurate models of local impacts from the 23 NSWMC full-member companies surveyed could be generated.

The outcomes of the data collection and modelling approach meant that the assessment of direct, indirect and consumption-induced effects could be expected to be more detailed and accurate at the LGA level than could be achieved with standard applications of general equilibrium models.

Economic Benefits

State Impact

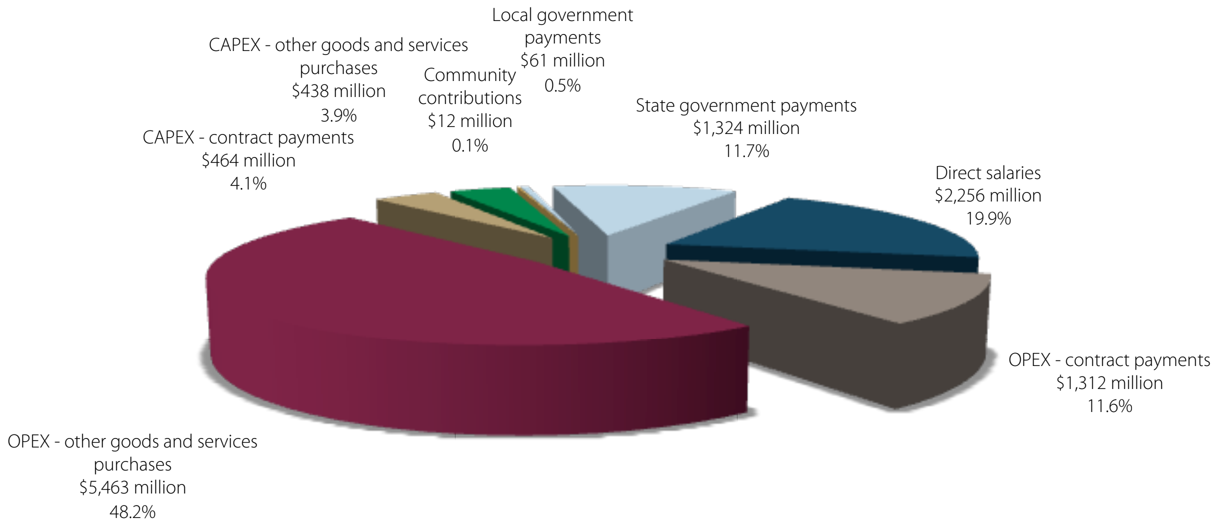
Direct Spending

Expenditure data provided by the 23 companies surveyed indicated that these companies **contributed an estimated $11.3 billion** in direct spending to the NSW economy in 2014/15, comprised of:

- **$2.7 billion in wages and salaries** to approximately **21,265 full-time equivalent residing employees** (including contractors); representing an average salary level of $128,214 per annum across the sector;
- **$7.3 billion** in purchases of goods and services from approximately 7,694 local businesses (including contract payments), community contributions and payments to local government (including rates, developer contributions and other payments); and
- **$1.3 billion** in state government payments (including royalties, stamp duty, payroll tax and land tax).

Direct Expenditure by Type for Companies Surveyed

New South Wales ($ million), 2014/15



Further analysis of the workforce employed by the 23 companies surveyed shows that there were 17,566 direct full-time employees, or 82.6% of the total workforce, with another 2,931 contract workers (13.8%) employed for mining operations and 768 contract FTEs (3.6%) engaged on capital projects.

The economic stimulus provided by the 23 mining companies in 2014/15 also extended to other states, with an additional $3.3 billion in direct spending, which combined with the impact in New South Wales for a total impact of $14.6 billion for the whole of Australia, comprised of:

- $3.0 billion in wages and salaries to approximately 23,194 full-time residing employees; and
- $11.6 billion in purchases of goods and services from local businesses, government (state and local) and community contributions.

The total direct spending stimulus to the New South Wales economy by the companies surveyed in 2014/15 can be disaggregated into the following areas:

- $2,256.0 million in wages and salaries to 17,582 direct employees;

- $6,774.8 million in operating expenditure (OPEX), comprised of:
  - $1,311.6 million in contract payments (including 2,933 contract workers);
  - $5,463.2 million in purchases of other goods and services;

- $902.7 million in capital expenditure (CAPEX), comprised of:
  - $464.4 million in contract payments (including 768 contract workers);
  - $438.3 million in purchases of other goods and services;

- $12.3 million in community contributions;

- $60.7 million in local government payments; and

- $1.3 billion in state government payments.

The 23 companies surveyed made payments to 7,694 separate businesses in New South Wales in 2014/15 and a further 2,244 businesses across the rest of Australia for a total number of businesses supported of 9,938.

The companies surveyed supported 1,298 community organisations across New South Wales through voluntary contributions across a number of categories, including:

- Health – 147;
- Education – 276;
- Arts – 64;
- Sport – 188;
- Indigenous – 31;
- Environment – 47;
- Social – 501; and
- Other – 70.

Comparison with results from previous surveys is difficult due to a slight difference in the number of participating companies. Based on whole-of-survey totals, the direct expenditure in NSW of the companies surveyed in 2014/15 decreased by approximately $2.3 billion, or 17.0% compared to 2013/14. The total number of employees, both direct and contract workers, fell slightly by 251 FTEs, or 1.2%.

Table 2: Comparison of Survey Results	Level 2014/15	Level 2013/14	Level 2012/13	Level 2011/12	Annual % change 2013/14-2014/15
No. of companies surveyed	23	22	26	21	4.5%
DIRECT EMPLOYEES					
No. of direct employees (FTEs)	17,566	17,517	19,280	13,418	0.3%
No. of apprenticeships and traineeships (FTEs)	284	227	418	241	25.1%
Total wages/salaries paid ($M)	2,254.1	2,351.6	2,567.5	1,627.8	-4.1%
BUSINESS PURCHASES					
No. of suppliers	7,694	8,202	10,547	n.a.	-6.2%
OPEX					
No. of contractors (FTEs)	2,931	2,907	3,515	7,524	0.8%
Payments to contractors ($M)	1,308.7	1,919.6	1,477.0	1,822.8	-31.8%
Other goods and services purchases ($M)	5,462.3	7,058.6	6,950.3	6,067.5	-22.6%
Total opex spend ($M)	6,771.0	8,978.2	8,427.3	7,890.2	-24.6%
CAPEX					
No. of contractors (FTEs)	768	1,108	687	1,116	-30.7%
Payments to contractors ($M)	464.4	537.4	351.8	227	-13.6%
Other goods and services purchases ($M)	438.3	560.8	1,424.7	764.1	-21.8%
Total capex spend ($M)	902.6	1,098.2	1,776.5	991.2	-17.8%
Total business purchases ($M)	7,673.6	10,076.0	10,204.0	8,881.0	-23.8%
COMMUNITY CONTRIBUTIONS					
No. of community organisations supported	1,298	1,014	912	n.a.	28.0%
Total community contributions ($M)	12.3	11.2	16.1	8.3	9.8%
LOCAL COUNCIL PAYMENTS					
Total local government payments ($M)	60.6	59.1	41.4	19.1	2.5%
STATE GOVERNMENT PAYMENTS					
Total state government payments ($M)	1,323.6	1,141.6	n.a.	n.a.	15.9%
TOTAL SPEND ($M)	**11,324.3**	**13,639.9**	**12,828.8**	**10,536.6**	**-17.0%**
TOTAL EMPLOYMENT (FTEs)	**21,265**	**21,516**	**23,483**	**22,058**	**-1.2%**

Indirect and Consumption-Induced Spending

The I-O modelling conducted for this project has estimated the direct and indirect (Type I) and consumption-induced (Type II) effects flowing from the business expenditure, community and government contributions of $9.1 billion, and the employment expenditure of $2.7 billion. These impacts have been modelled separately and then aggregated to identify the level of impacts on output, incomes, employment and industry value added in New South Wales. In 2014/15, the $11.3 billion in direct spending in New South Wales by the 23 companies surveyed supported additional combined supply chain and consumption-induced effects of **114,160 full-time jobs** and **$24.1 billion in aggregate spending** ($7.4 billion in wages and salaries and $16.7 billion in purchases of goods and services).

Table 3: Economic Impact of Companies Surveyed, 2014/15

	New South Wales	Rest of Australia	Total Australia
Value Added ($M)			
Direct	11,324	3,285	14,609
% of GSP/GDP	2.2%	0.3%	0.9%
Indirect	7,628	2,854	10,482
Total value added (Type I)	18,953	6,139	25,092
% of GSP/GDP	3.9%	0.6%	1.6%
Consumption-induced	5,902	1,693	7,595
Total value added (Type II)	24,854	7,832	32,686
% of GSP/GDP	4.8%	0.7%	2.0%
Employment (FTEs)			
Direct	21,283	1,912	23,194
% of total state/national employment	0.6%	0.0%	0.2%
Indirect	65,292	17,139	82,432
Total employment (Type I)	86,575	19,051	105,626
% of total state/national employment	2.5%	0.2%	1.0%
Consumption-induced	48,868	10,737	59,604
Total employment (Type II)	135,443	29,788	165,230
% of total state/national employment	3.7%	0.4%	1.4%
Business spend (incl. community contributions and govt payments) ($M)			
Direct	8,599	3,043	11,643
Indirect	6,379	2,992	9,371
Total business spend (Type I)	14,978	6,036	21,014
Consumption-induced	10,277	3,183	13,459
Total business spend (Type II)	25,255	9,218	34,473
Wages & salaries ($M)			
Direct	2,731	242	2,972
Indirect	4,053	1,472	5,526
Total wages & salaries (Type I)	6,784	1,714	8,498
Consumption-induced	3,372	779	4,151
Total wages & salaries (Type II)	10,156	2,493	12,649

Note: Consumption-induced impacts seek to measure the change in consumption for all goods and services that arise from an increase in final output from the industry in question.

The results of the I-O modelling allow predictions to be made about the total size of impacts from the surveyed companies' direct expenditure on both the New South Wales and Australian economies. For each key measure, the total impact on the economy is the sum of the direct effects from industry, the indirect effects through the business chain, and the consumption-induced effects. The total economic impact (i.e. direct, indirect and induced, or Type II impact) from the surveyed companies to the New South Wales economy in 2014/15 amounted to:

- $28.0 billion in output/turnover (or purchases from supplying businesses);
- $24.9 billion in value added (contribution to gross state product);
- $10.2 billion in income (wages and salaries); and
- 135,443 full-time equivalent jobs.

Estimates of the contribution to Gross State Product (GSP) require an estimate of the initial contribution of the industry in terms of direct value added – defined as compensation of employees plus gross operating surplus plus other taxes less subsidies on production – plus the value added effects generated through the business chain and consumption-induced effects. A precise measure of direct value added for the companies surveyed is not available from the data; an estimated value added of $11.3 billion – equivalent to the sum of input and labour costs, or total direct spending – has instead been adopted.

When business supply and employment effects are considered, the 23 companies surveyed **generated approximately $24.9 billion in value added** ($11.3 billion in direct effects, and $13.5 billion in supply chain and consumption-induced effects) in 2014/15, and **sustained approximately 135,425 jobs** (of which 21,283 were in direct employment and 114,160 in additional employment). This means that the activity generated by these companies **contributed 4.8% of Gross State Product** ($513.3 billion) **and 3.7% of total employment** (3,630,298 persons) in New South Wales in 2014/15. Under the more conservative Type I scenario (i.e. excluding consumption-induced effects), direct spending by the companies surveyed and flow-on impacts contributed 3.9% to GSP and 2.5% of total state employment.

Regional Impact

As specified earlier, the postcode expenditure data provided by companies was aggregated using geographical concordances at the regional (SD) and local (LGA) levels. Surveyed companies' direct expenditure, split across salaries, supplier, local government and community contribution spend, varied considerably across regional areas. The level of employment, and direct expenditure on employees and business purchases in 2014/15 is summarised for the 12 major regions in New South Wales in Table 4.

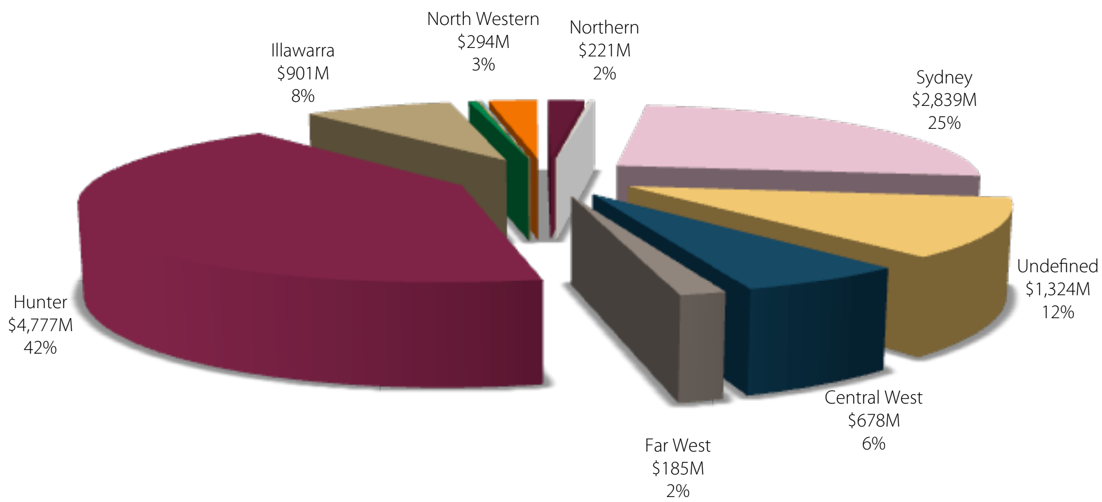
The data illustrates that the largest proportion of direct expenditure from the 23 companies surveyed in New South Wales in 2014/15 was in the Hunter region ($4.8 billion), followed by the Sydney ($2.8 billion), Illawarra ($901.2 million) and Central West ($678.5 million) regions. With regard to employment, the largest share of direct full-time resident employees across New South Wales was also recorded in the Hunter region (11,189 FTEs, or 52.6%), followed by the Central West (3,724 FTEs, or 17.5%), Illawarra (1,794 FTEs, or 8.4%) and Sydney (1,605 FTEs, or 7.5%) regions.

Table 4: Direct Impact of Surveyed Companies by Region, 2014/15

Region	Residing employees	Associated salaries	Business purchases & community contributions	No. of businesses	Total direct spending	% of total direct spend, NSW
	(FTEs)	($M)	($M)		($M)	
Central West	3,724	465.3	213.2	770	678.5	6.0%
Far West	578	64.7	120.2	196	184.9	1.6%
Hunter	11,189	1,418.7	3,358.4	3,417	4,777.1	42.2%
Illawarra	1,794	241.2	660.0	625	901.2	8.0%
Mid-North Coast	60	6.7	43.8	53	50.5	0.4%
Murray	20	1.7	6.7	30	8.5	0.1%
Murrumbidgee	51	5.0	9.4	61	14.4	0.1%
North Western	1,398	181.5	112.1	449	293.6	2.6%
Northern	780	100.2	120.7	472	221.0	2.0%
Richmond-Tweed	6	0.6	1.9	25	2.5	0.0%
South Eastern	59	6.7	22.5	47	29.2	0.3%
Sydney	1,605	234.2	2,605.2	2,737	2,839.3	25.1%
State govt payments	0	0.0	0.0	0	1,323.6	11.7%
Total NSW	**21,265**	**2,726.4**	**7,274.3**	**7,694**	**11,324.3**	**100.0%**

Direct Stimulus by Region of Companies Surveyed

New South Wales, 2014/15



The economic modelling conducted for this project has estimated the indirect and consumption-induced effects flowing from the two key direct impacts on the economy, i.e. those generated by business supply chain expenditure in each SD and those generated by consumption-induced spending in each region. These impacts have been modelled separately and then aggregated to identify the level of impacts on output, incomes, employment and industry value added for each region, and the results are outlined in Table 5.

Table 5: Type II Indirect and Consumption-Induced Impacts of Companies Surveyed by Region, 2014/15

Region	Indirect full-time employees (FTEs)	Associated salaries ($M)	Supply of goods and services ($M)	Total indirect value added ($M)
Central West	8,565	330.3	721.9	693.7
Far West	2,213	96.0	201.3	179.4
Hunter	52,225	3,089.0	6,425.3	5,390.8
Illawarra	10,934	564.6	1,110.8	979.5
Mid-North Coast	578	21.0	47.1	46.3
Murray	78	3.4	7.2	6.4
Murrumbidgee	151	6.3	14.2	13.4
North Western	3,662	140.4	307.8	296.4
Northern	2,647	100.9	223.3	215.4
Richmond-Tweed	30	1.5	3.0	2.7
South Eastern	341	12.5	27.9	27.3
Sydney	24,153	1,946.3	5,337.0	3,930.1
State govt payments	8,584	1,113.4	2,229.1	1,748.5
Total NSW	**114,160**	**7,425.6**	**16,655.8**	**13,529.9**

Table 6 shows that the direct expenditure of the 23 companies surveyed has the highest overall impact in the Hunter region, with estimated total value added of $10.2 billion, meaning these companies contributed 22.9% to gross regional product ($44.4 billion) in 2014/15. The impact in the Hunter region was significantly higher than other regional economies, the next highest of which was Sydney ($6.8 billion in value added) and Illawarra ($1.9 billion). The Far West region recorded the highest proportion of GRP contributed by the companies surveyed (32.4%), followed by the Hunter (22.9%), Central West (10.6%), Illawarra (8.3%) and North Western (8.2%)regions.

Table 6: Total Economic Impact of Companies Surveyed by Region, 2014/15 (Type II)

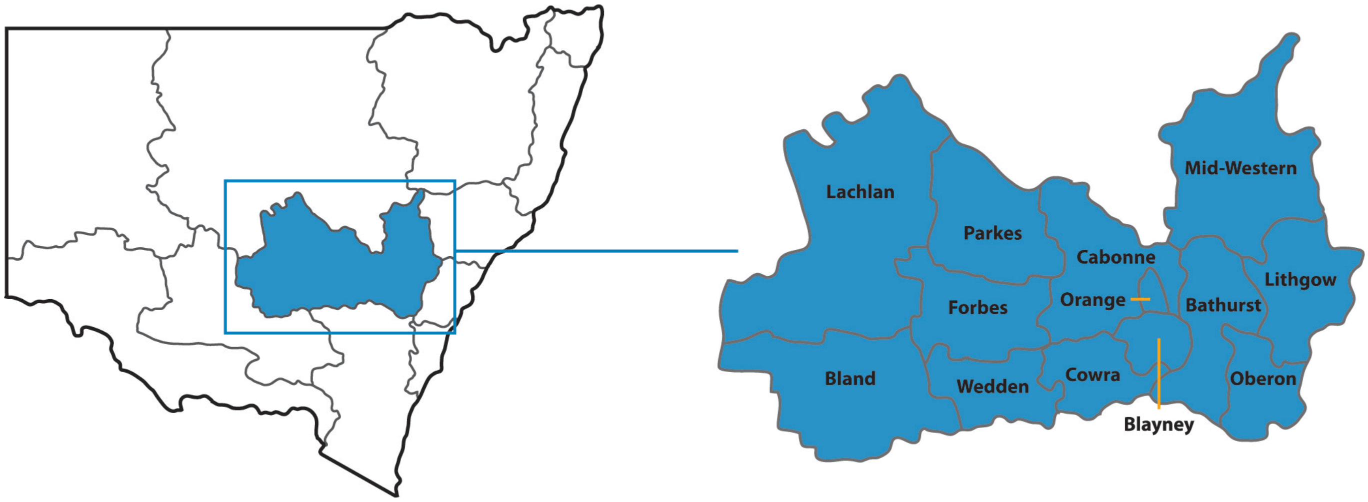
Region	Total output ($M)	Total estimated value added ($M)	Gross regional product ($M)	Total value added as % of GRP
Central West	1,400	1,372.1	12,904	10.6%
Far West	386	364.3	1,125	32.4%
Hunter	11,202	10,167.9	44,374	22.9%
Illawarra	2,012	1,880.7	22,562	8.3%
Mid-North Coast	98	96.8	15,183	0.6%
Murray	16	14.9	6,107	0.2%
Murrumbidgee	29	27.8	10,084	0.3%
North Western	601	590.1	7,208	8.2%
Northern	444	436.4	10,410	4.2%
Richmond-Tweed	6	5.2	11,524	0.05%
South Eastern	57	56.5	9,868	0.6%
Sydney	8,176	6,769.4	362,066	1.9%
Total NSW	**27,980**	**24,854.2**	**513,309**	**4.8%**

With regard to employment, the companies surveyed again had the greatest impact on jobs in the Hunter region, supporting 63,414 FTEs, comprising 20.9% of the total regional workforce. The Sydney (25,758 FTEs), Illawarra (12,729 FTEs) and Central West (12,289 FTEs) regions recorded the next highest number of employees.

Table 7: Total Employment Impact of Surveyed Companies by Region, 2014/15 (Type II Impact)

Region	Total direct, indirect and induced employees (FTEs)	Total regional employment (FTEs)	% of total employment
Central West	12,289	88,557	13.9%
Far West	2,791	8,645	32.3%
Hunter	63,414	303,370	20.9%
Illawarra	12,729	193,214	6.6%
Mid-North Coast	638	130,108	0.5%
Murray	99	45,464	0.2%
Murrumbidgee	202	83,524	0.2%
North Western	5,060	54,817	9.2%
Northern	3,427	80,034	4.3%
Richmond-Tweed	36	93,515	0.0%
South Eastern	399	105,344	0.4%
Sydney	25,758	2,443,706	1.1%
Total NSW	**135,425**	**3,630,298**	**3.7%**

Central West



Direct contribution

In this region during 2014/15, the 23 companies surveyed contributed $678 million in direct spending through:

- $465 million in wages and salaries to 3,724 direct full-time employees (including contractors);
- $198 million in purchases of goods and services from 770 local businesses (includes contractors);
- $1.8 million in contributions to 407 community organisations; and
- $13.0 million in local government payments.

Indirect contribution

This $678 million in direct spending generated:

- $722 million in additional supply chain goods and services purchases; and
- $330 million in wages and salaries associated with 8,565 additional jobs supported in this region.

Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2014/15 from the 23 companies surveyed amounted to:

- $920 million in supplying business purchases;
- $796 million in total wages and salaries paid to workers;
- $1,372 million in value added, or 10.6% of total GRP in this region ($12.9 billion); and
- 12,289 full-time equivalent jobs, or 13.9% of the entire workforce in this region.

Far West

Direct contribution

In this region during 2014/15, the 23 companies surveyed contributed $185 million in direct spending through:

- $65 million in wages and salaries to 578 direct full-time employees (including contractors);
- $118 million in purchases of goods and services from 196 local businesses (includes contractors) and contributions to community organisations; and
- $1.9 million in local government payments.

Indirect contribution

This $185 million in direct spending generated:

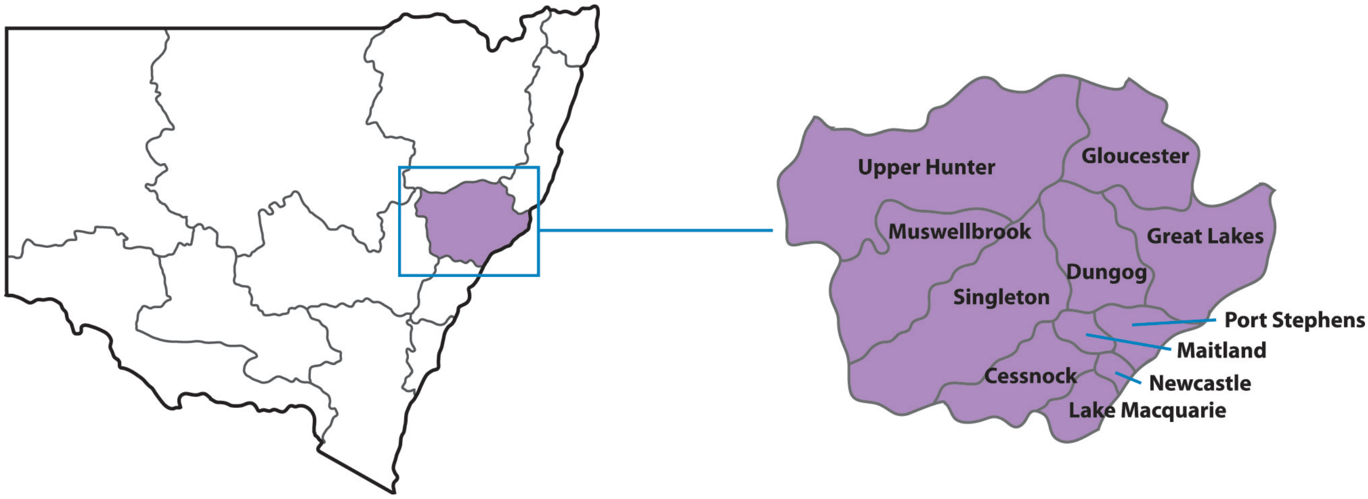
- $201 million in additional supply chain goods and services purchases; and
- $96 million in wages and salaries associated with 2,213 additional jobs supported in this region.

Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2014/15 from the 23 companies surveyed amounted to:

- $320 million in supplying business purchases;
- $161 million in total wages and salaries paid to workers;
- $364 million in value added, or 32.4% of total GRP in this region ($1.1 billion); and
- 2,791 full-time equivalent jobs, or 32.3% of the entire workforce in this region.

Hunter



Direct contribution

In this region during 2014/15, the 23 companies surveyed contributed $4.8 billion in direct spending through:

- $1.4 billion in wages and salaries to 11,189 direct full-time employees (including contractors);
- $3.3 billion in purchases of goods and services from 3,417 local businesses (includes contractors);
- $5.9 million in contributions to 586 community organisations; and
- $24.4 million in local government payments.

Indirect contribution

This $4.8 billion in direct spending generated:

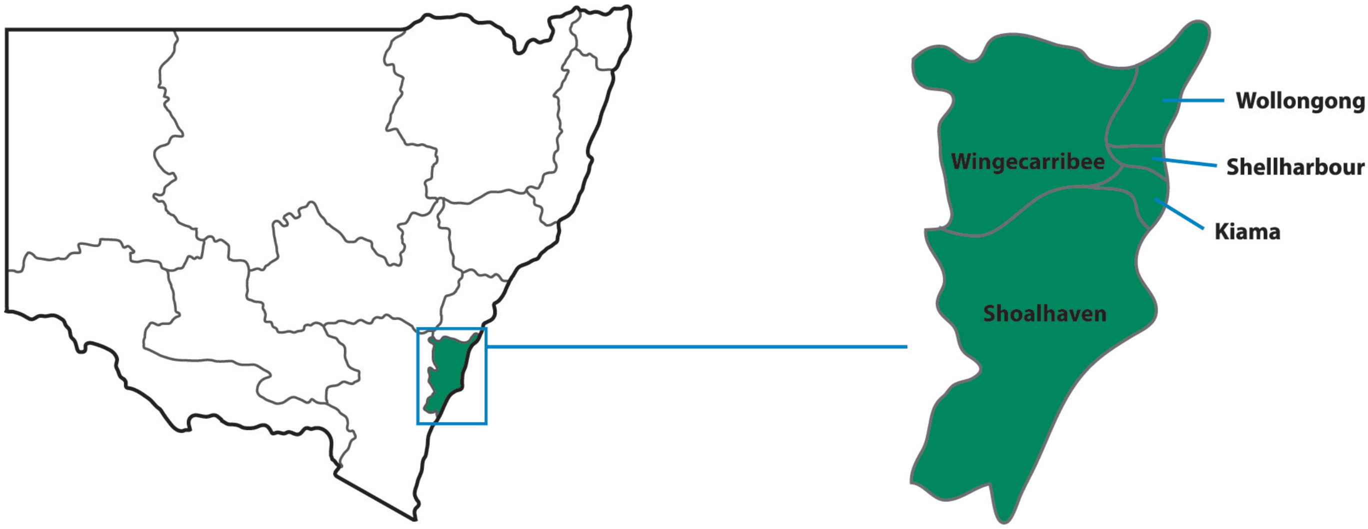
- $6.4 billion in additional supply chain goods and services purchases; and
- $3.1 billion in wages and salaries associated with 52,225 additional jobs supported in this region.

Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2014/15 from the 23 companies surveyed amounted to:

- $9.6 billion in supplying business purchases;
- $4.5 billion in total wages and salaries paid to workers;
- $10.2 billion in value added, or 22.9% of total GRP in this region ($44.4 billion); and
- 63,414 full-time equivalent jobs, or 20.9% of the entire workforce in this region.

Illawarra



Direct contribution

In this region during 2014/15, the 23 companies surveyed contributed $901 million in direct spending through:

- $241 million in wages and salaries to 1,794 direct full-time employees (including contractors);
- $657 million in purchases of goods and services from 625 local businesses (includes contractors);
- $1.6 million in contributions to 35 community organisations; and
- $1.7 million in local government payments.

Indirect contribution

This $901 million in direct spending generated:

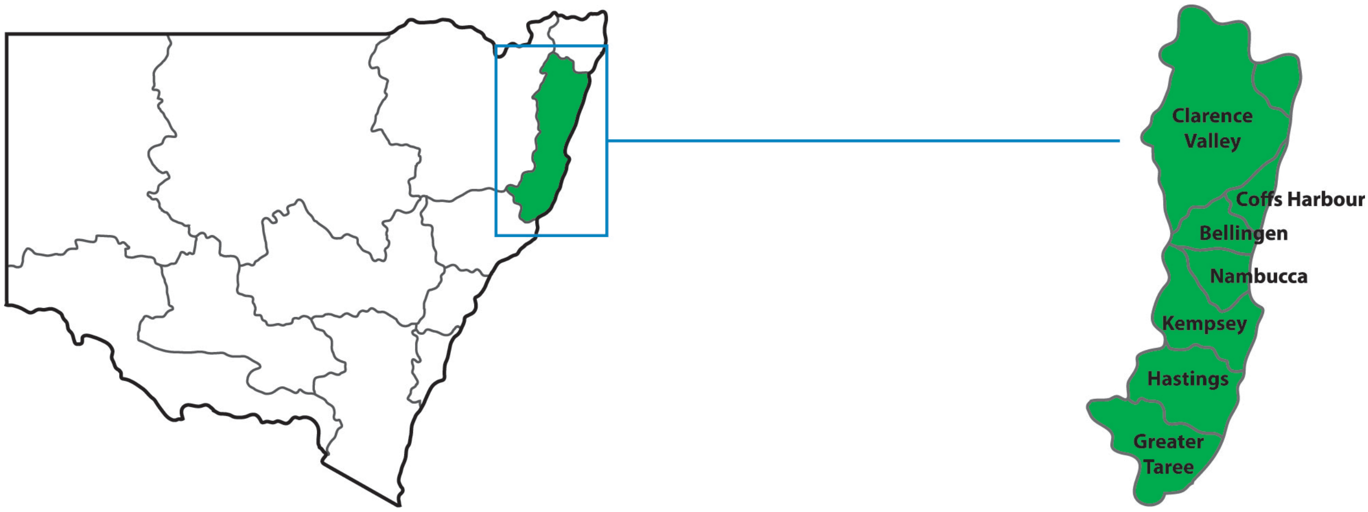
- $1,111 million in additional supply chain goods and services purchases; and
- $565 million in wages and salaries associated with 10,934 additional jobs supported in this region.

Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2014/15 from the 23 companies surveyed amounted to:

- $1,767 million in supplying business purchases;
- $806 million in total wages and salaries paid to workers;
- $1,881 million in value added, or 8.3% of total GRP in this region ($22.6 billion); and
- 12,729 full-time equivalent jobs, or 6.6% of the entire workforce in this region.

Mid-North Coast



Direct contribution

In this region during 2014/15, the 23 companies surveyed contributed $51 million in direct spending through:

- $7 million in wages and salaries to 60 direct full-time employees (including contractors); and
- $44 million in purchases of goods and services from 53 local businesses (includes contractors), community contributions and local government payments.

Indirect contribution

This $51 million in direct spending generated:

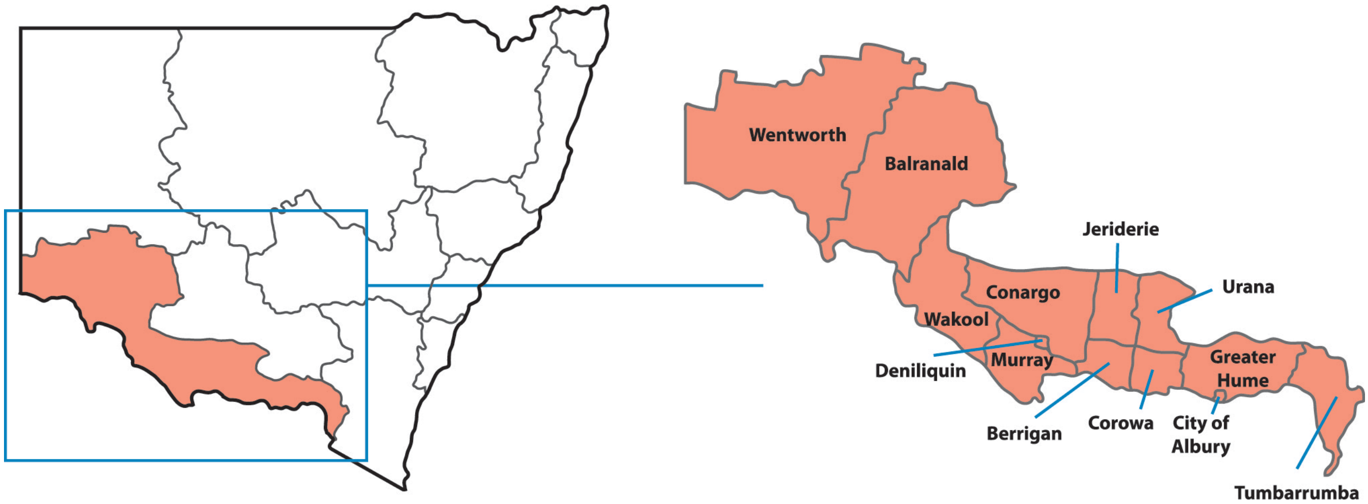
- $47 million in additional supply chain goods and services purchases; and
- $21 million in wages and salaries associated with 578 additional jobs supported in this region.

Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2014/15 from the 23 companies surveyed amounted to:

- $91 million in supplying business purchases;
- $28 million in total wages and salaries paid to workers;
- $97 million in value added, or 0.6% of total GRP in this region ($15.2 billion); and
- 638 full-time equivalent jobs, or 0.5% of the entire workforce in this region.

Murray



Direct contribution

In this region during 2014/15, the 23 companies surveyed contributed $8 million in direct spending through:

- $1.7 million in wages and salaries to 20 direct full-time employees (including contractors); and
- $6.7 million in purchases of goods and services from 30 local businesses (includes contractors), community contributions and local government payments.

Indirect contribution

This $8 million in direct spending generated:

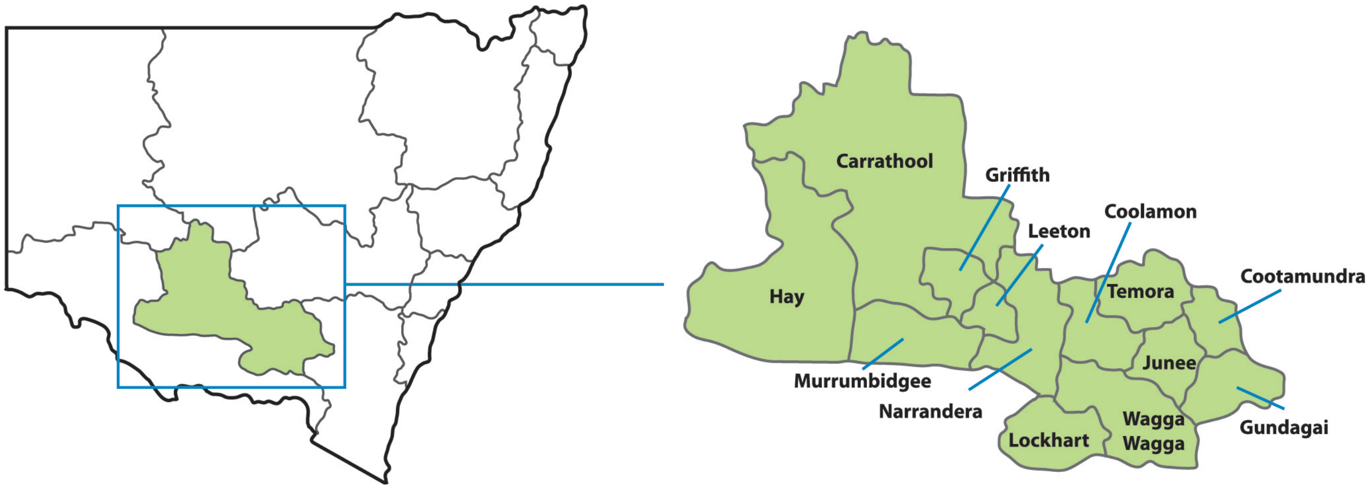
- $7 million in additional supply chain goods and services purchases; and
- $3 million in wages and salaries associated with 78 additional jobs supported in this region.

Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2014/15 from the 23 companies surveyed amounted to:

- $14 million in supplying business purchases;
- $5 million in total wages and salaries paid to workers;
- $15 million in value added, or 0.2% of total GRP in this region ($6.1 billion); and
- 99 full-time equivalent jobs, or 0.2% of the entire workforce in this region.

Murrumbidgee



Direct contribution

In this region during 2014/15, the 23 companies surveyed contributed $14 million in direct spending through:

- $5 million in wages and salaries to 51 direct full-time employees (including contractors); and
- $9 million in purchases of goods and services from 61 local businesses (includes contractors), community contributions and local government payments.

Indirect contribution

This $14 million in direct spending generated:

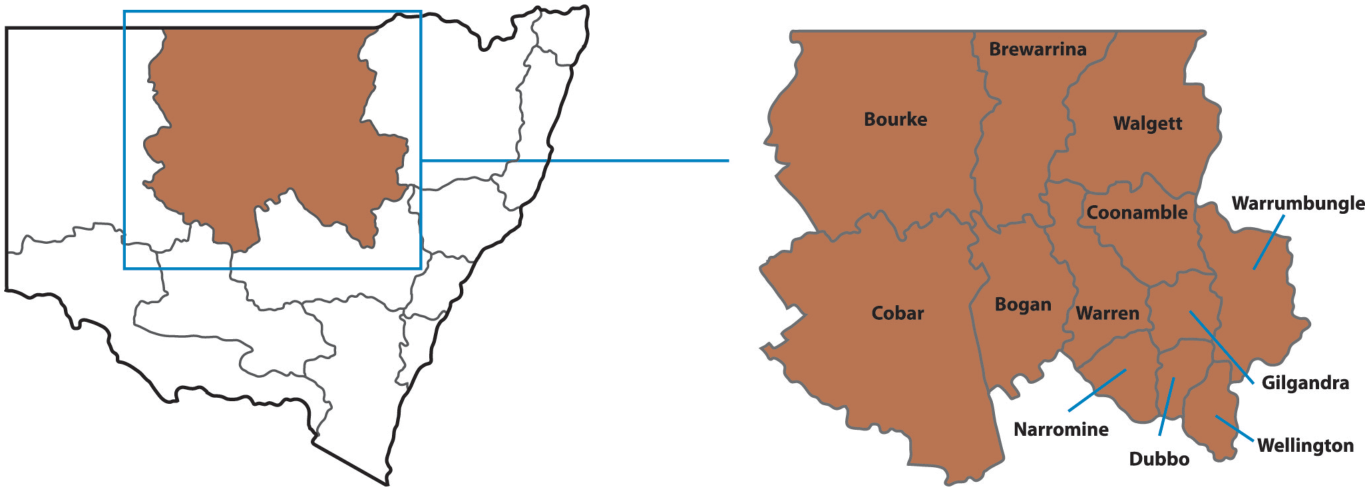
- $14 million in additional supply chain goods and services purchases; and
- $6 million in wages and salaries associated with 151 additional jobs supported in this region.

Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2014/15 from the 23 companies surveyed amounted to:

- $24 million in supplying business purchases;
- $11 million in total wages and salaries paid to workers;
- $28 million in value added, or 0.3% of total GRP in this region ($10.1 billion); and
- 202 full-time equivalent jobs, or 0.2% of the entire workforce in this region.

North Western



Direct contribution

In this region during 2014/15, the 23 companies surveyed contributed $294 million in direct spending through:

- $182 million in wages and salaries to 1,398 direct full-time employees (including contractors);
- $103 million in purchases of goods and services from 449 local businesses (includes contractors);
- $1.2 million in contributions to 101 community organisations; and
- $7.6 million in local government payments.

Indirect contribution

This $294 million in direct spending generated:

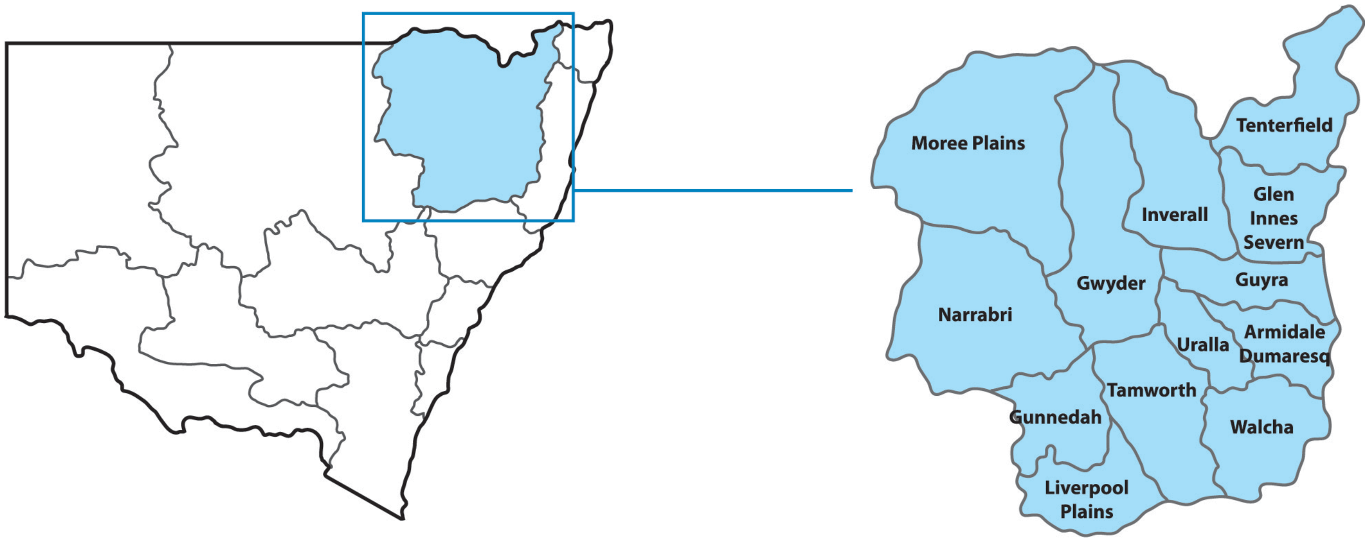
- $308 million in additional supply chain goods and services purchases; and
- $140 million in wages and salaries associated with 3,662 additional jobs supported in this region.

Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2014/15 from the 23 companies surveyed amounted to:

- $411 million in supplying business purchases;
- $322 million in total wages and salaries paid to workers;
- $590 million in value added, or 8.2% of total GRP in this region ($7.2 billion); and
- 5,060 full-time equivalent jobs, or 9.2% of the entire workforce in this region.

Northern



Direct contribution

In this region during 2014/15, the 23 companies surveyed contributed $221 million in direct spending through:

- $100 million in wages and salaries to 780 direct full-time employees (including contractors);
- $112 million in purchases of goods and services from 472 local businesses (includes contractors) and community contributions; and
- $8.8 million in local government payments.

Indirect contribution

This $221 million in direct spending generated:

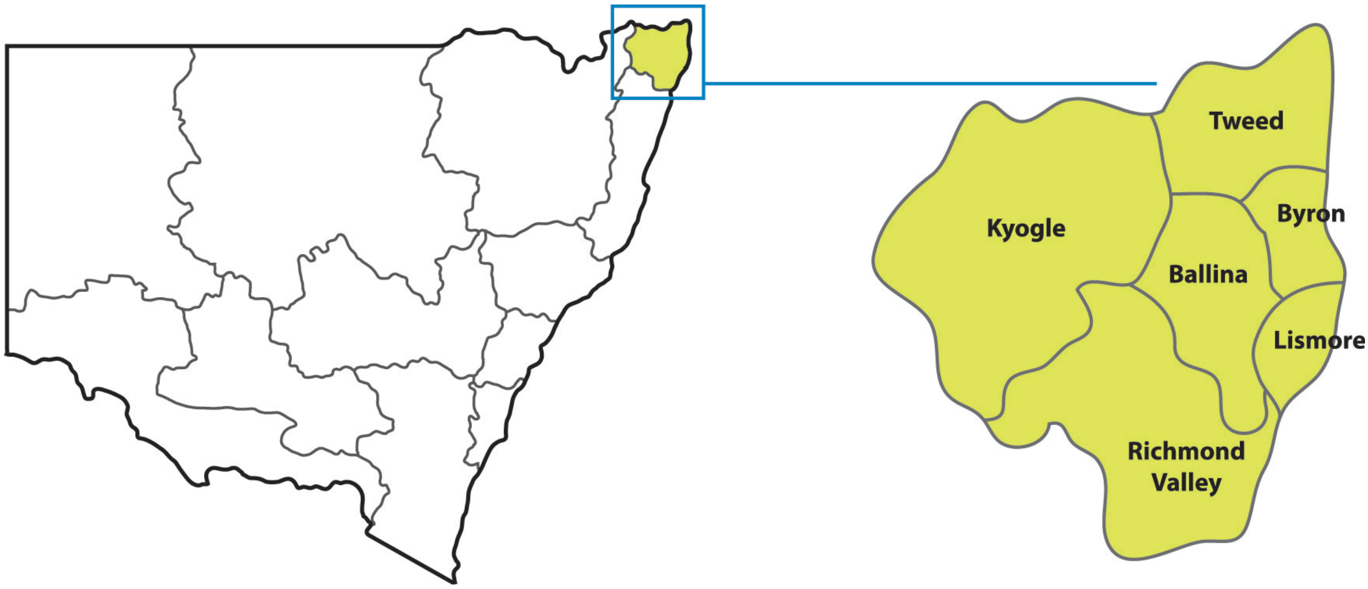
- $223 million in additional supply chain goods and services purchases; and
- $101 million in wages and salaries associated with 2,647 additional jobs supported in this region.

Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2014/15 from the 23 companies surveyed amounted to:

- $334 million in supplying business purchases;
- $201 million in total wages and salaries paid to workers;
- $436 million in value added, or 4.2% of total GRP in this region ($10.4 billion); and
- 3,427 full-time equivalent jobs, or 4.3% of the entire workforce in this region.

Richmond-Tweed



Direct contribution

In this region during 2014/15, the 23 companies surveyed contributed $3 million in direct spending through:

- $1 million in wages and salaries to 6 direct full-time employees (including contractors);
- $2 million in purchases of goods and services from 25 local businesses (includes contractors), community contributions and local government payments.

Indirect contribution

This $3 million in direct spending generated:

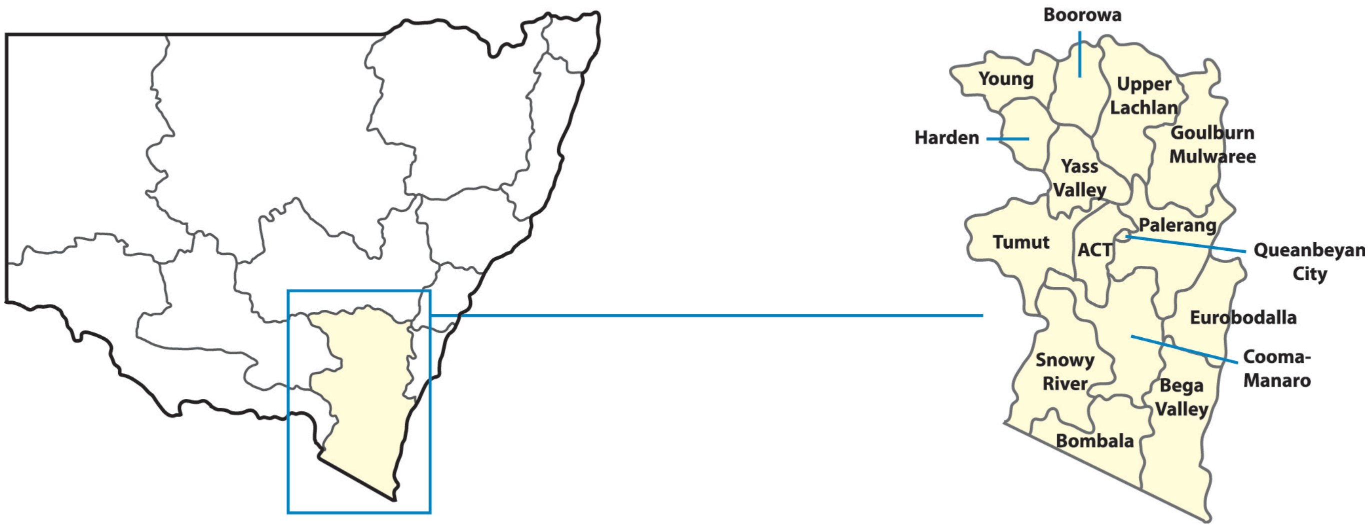
- $3 million in additional supply chain goods and services purchases; and
- $2 million in wages and salaries associated with 30 additional jobs supported in this region.

Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2014/15 from the 23 companies surveyed amounted to:

- $5 million in supplying business purchases;
- $2 million in total wages and salaries paid to workers;
- $5 million in value added, or 0.05% of total GRP in this region ($11.5 billion); and
- 36 full-time equivalent jobs, or 0.04% of the entire workforce in this region.

South Eastern



Direct contribution

In this region during 2014/15, the 23 companies surveyed contributed $29 million in direct spending through:

- $6.7 million in wages and salaries to 59 direct full-time employees (including contractors);
- $22.5 million in purchases of goods and services from 47 local businesses (includes contractors), community contributions and local government payments.

Indirect contribution

This $29 million in direct spending generated:

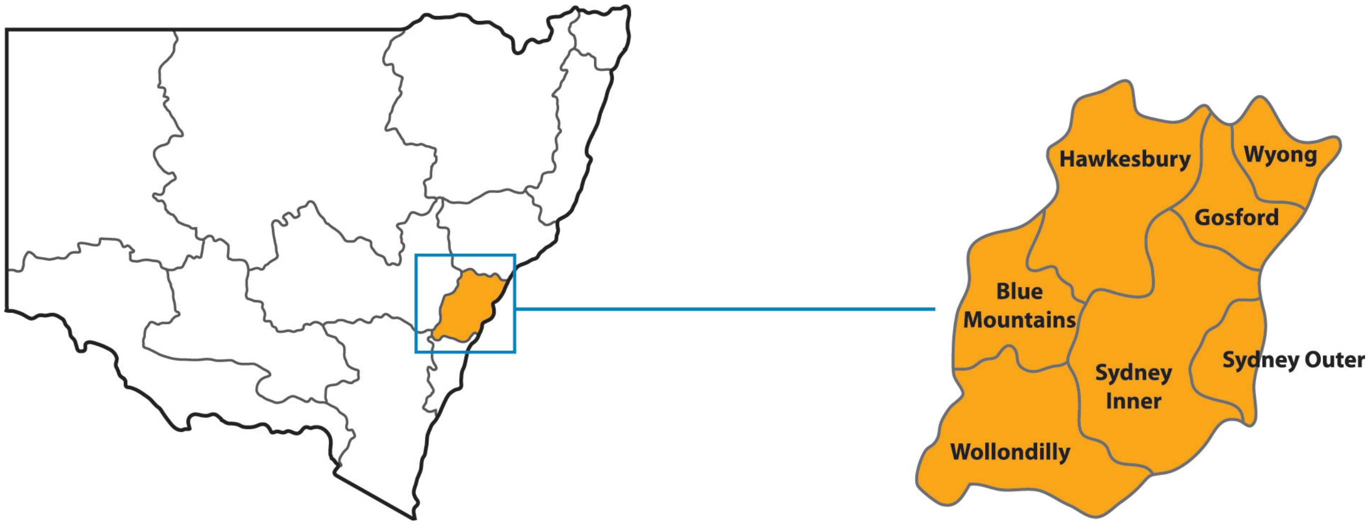
- $28 million in additional supply chain goods and services purchases; and
- $13 million in wages and salaries associated with 341 additional jobs supported in this region.

Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2014/15 from the 23 companies surveyed amounted to:

- $51 million in supplying business purchases;
- $19 million in total wages and salaries paid to workers;
- $57 million in value added, or 0.6% of total GRP in this region ($9.9 billion); and
- 399 full-time equivalent jobs, or 0.4% of the entire workforce in this region.

Sydney



Direct contribution

In this region during 2014/15, the 23 companies surveyed contributed $2.8 billion in direct spending through:

- $234 million in wages and salaries to 1,605 direct full-time employees (including contractors);
- $2.6 billion in purchases of goods and services from 2,737 local businesses (includes contractors);
- $1.1 million in contributions to 89 community organisations; and
- $1.4 million in local government payments.

Indirect contribution

This $2.8 billion in direct spending generated:

- $5.3 billion in additional supply chain goods and services purchases; and
- $1.9 billion in wages and salaries associated with 24,153 additional jobs supported in this region.

Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2014/15 from the 23 companies surveyed amounted to:

- $7.9 billion in supplying business purchases;
- $2.2 billion in total wages and salaries paid to workers;
- $6.8 billion in value added, or 1.9% of total GRP in this region ($362.1 billion); and
- 25,758 full-time equivalent jobs, or 1.1% of the entire workforce in this region.

Local Impact

Direct Spending

Similar to SDs or regions, the expenditure data provided by the 23 companies surveyed was aggregated using geographical concordances at the local government area (LGA) level. As expected, companies' expenditures, split across salaries supplier and community contribution expenditure, varied considerably across LGAs. The level of employment, direct expenditure on employees and business supply chain purchases and community and local government contributions is summarised for the 152 LGAs in New South Wales in Appendix A.

Table 8 shows the distribution of total direct spending (i.e. salaries, business purchases, local council and community contributions) from the surveyed companies across New South Wales to the top 20 expenditure LGAs. Newcastle LGA recorded the largest share of direct expenditure in 2014/15 ($1,447 million), followed by Sydney ($901 million), Singleton ($700 million), Muswellbrook ($672 million) and Maitland ($666 million).

Direct resident employment and associated salary expenditures were greatest in the Hunter Valley region, specifically Singleton LGA ($266 million and 2,125 FTEs), followed by the Maitland ($225 million and 1,747 FTEs), Lake Macquarie ($220 million and 1,619 FTEs), Cessnock ($192 million and 1,560 FTEs) and Muswellbrook ($191 million and 1,534 FTEs) LGAs.

Table 8: Direct Impact of Surveyed Companies, Top 20 LGAs by Expenditure, 2014/15

Local government area	Residing employees (FTEs)	Associated salaries ($M)	Business purchases and community contributions ($M)	Total direct spending ($M)
Newcastle	1,297	167.1	1,279.6	1,446.7
Sydney	105	14.9	886.3	901.2
Singleton	2,125	266.4	433.4	699.8
Muswellbrook	1,534	191.2	481.0	672.2
Maitland	1,747	224.6	441.2	665.8
Lake Macquarie	1,619	220.0	316.9	536.9
Cessnock	1,560	191.8	284.8	476.7
Wollongong	1,256	169.9	305.9	475.8
Parramatta	288	39.5	392.5	432.1
Wingecarribee	91	11.1	311.5	322.7
Mid-Western Regional	1,326	179.1	102.0	281.1
Orange	1,069	139.1	87.1	226.2
Broken Hill	576	64.5	120.2	184.7
Lithgow	891	126.1	57.6	183.7
Ryde	14	2.4	175.7	178.1
North Sydney	41	10.8	161.3	172.0
Gunnedah	414	56.0	70.0	126.0
Camden	106	15.1	106.6	121.7
Upper Hunter Shire	657	79.7	12.6	92.2
Great Lakes	158	18.0	68.7	86.7

Indirect and Consumption-Induced Spending

The I-O modelling estimated the indirect and consumption-induced effects flowing from business supply chain expenditure and consumption spending in each LGA. These impacts have been modelled separately and then aggregated to identify the level of Type II impacts on output, incomes, employment and industry value added for each region. The I-O model allowed for spending leakages to imports in both the first and subsequent rounds of economic activity.

Modelling consumption-induced impacts is problematic for smaller shires with limited economic structures because only a subset of goods and services are available. Smaller and specialised mining LGAs tend to have larger expenditure leakages, typically to the nearest large regional centre. To incorporate this into the modelling, a further correction factor has been applied for LGAs, as shown in Table 9.

The rates were further reduced for the mining-focused Singleton and Muswellbrook LGAs to account for the tendency of residents of this community to travel to major centres for consumption spending, the increased level of contract workers in associated industry in each region and to alleviate any constrained consumption capacity.

Table 9: Rates of Adjustment for Local Consumption Expenditure by LGA Population Size

Population of LGA	Rate of consumption expenditure in LGA
0 – 2,000	40%
2,000 – 5,000	46.7%
5,000 – 10,000	53.3%
10,000 – 30,000	73.3%
30,000 – 50,000	80%
50,000 – 100,000	86.7%
Over 100,000	100%

The total economic impact (i.e. both Type I and Type II model scenarios) of the 23 companies' direct spending for each LGA across New South Wales in 2014/15 is contained in Appendix B, with a summary of the top 20 LGAs by Type II value added provided in Table 10. The results show that the 23 surveyed companies' expenditure again has the highest overall impact in the Newcastle LGA, with total estimated value added of $3.0 billion, followed by Sydney ($2.1 billion), Singleton ($1.5 billion), Maitland ($1.4 billion) and Muswellbrook ($1.2 billion).

With regard to employment, the surveyed companies again had the greatest impact on jobs in the Newcastle LGA, with 16,026 FTEs, followed by the Singleton (10,014 FTEs) and Maitland (9,134 FTEs) LGAs, whilst the regions where the impact of the 23 companies' direct spending accounted for the largest share of employment were Muswellbrook (87.1%), Singleton (82.2%) and Mid-Western Regional (44.7%).

Table 10: Total Economic Impact of Surveyed Companies, Top 20 LGAs by Value Added, 2014/15 (Type II Impact)

Local government area	Total estimated value added ($M)	% of gross regional product (GRP)	Total employees (FTEs)	% of total employment
Newcastle	3,037.6	20.4%	16,026	20.5%
Sydney	2,146.8	2.0%	7,677	6.0%
Singleton	1,500.1	35.4%	10,014	82.2%
Maitland	1,420.9	33.3%	9,134	26.2%
Muswellbrook	1,241.9	43.0%	7,021	87.1%
Lake Macquarie	1,152.5	13.2%	7,733	8.4%
Parramatta	1,029.4	5.9%	3,936	4.3%
Cessnock	1,023.0	42.8%	6,974	31.5%
Wollongong	1,005.7	8.2%	7,250	7.8%
Wingecarribee	652.3	24.0%	3,643	16.9%
Mid-Western Regional	565.9	28.5%	4,843	44.7%
Orange	453.9	15.7%	3,875	19.3%
Ryde	424.8	3.0%	1,524	2.5%
North Sydney	411.6	2.6%	1,546	3.3%
Lithgow	371.9	22.0%	3,227	35.7%
Broken Hill	363.9	35.9%	2,786	36.1%
Camden	290.0	10.1%	1,136	3.2%
Gunnedah	248.2	32.1%	1,912	34.7%
Upper Hunter Shire	204.2	27.8%	1,882	26.8%
Willoughby	202.9	2.3%	788	2.0%

CONCLUSION

This report contains the outcomes of two key pieces of analysis. The first is the collection of primary data by the NSW Minerals Council (NSWMC) that identifies the direct impact of 23 exploration and mining companies by local and regional areas in New South Wales. The second is the conduct of I-O modelling that identifies the flow-on effects through the economy at a State, Regional (Statistical Division), Local Government Authority and State and Federal electoral boundary levels.

The results of the analysis demonstrate that incomes and expenditures from the 23 companies surveyed are widely distributed across the state generating significant flow-on effects, and that traditional economic techniques understate the true contribution of the mining sector as they do not attribute the output from related sectors such as construction, rail transport, utilities, professional services, manufacturing and contract workers.

The analysis identifies that the 23 companies surveyed contributed an estimated $11.3 billion in direct spending to the state economy in 2014/15, comprised of:

- $2.7 billion in wages and salaries to approximately 21,265 full-time equivalent residing employees (including contractors);

- $7.3 billion in purchases of goods and services from approximately 7,694 local businesses, community contributions and payments to local government (including rates, developer contributions and other payments); and

- $1.3 billion in state government payments (including royalties, stamp duty, payroll tax and land tax).

The economic stimulus provided by the 23 mining companies in 2014/15 also extended to other states, with an additional $3.3 billion in direct spending, which combined with the impact in New South Wales for a total impact of $14.6 billion for the whole of Australia, comprised of:

- $3.0 billion in wages and salaries to approximately 23,177 full-time residing employees; and

- $11.6 billion in purchases of goods and services from local businesses, government (state and local) and community contributions.

The total impact of the $11.3 billion in direct spending by companies surveyed, measured through supply chain and consumption spending effects, amounted to an estimated 4.8% of Gross State Product and 3.7% of employment in New South Wales. If a more conservative approach excluding consumption-induced effects is adopted, direct spending by the companies surveyed and flow-on impacts would still contributed 3.9% to GSP and 2.5% of total state employment.

Expenditure from the mining industry in New South Wales has indirect benefits on the business environment in many areas, and generates substantial levels of production in the Sydney, Hunter, Illawarra and Central West regions in particular.

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APPENDIX A: DIRECT IMPACTS BY LGA

Table A1: Direct Impacts of Spending by Companies Surveyed by LGA, 2014/15

Local government area	Residing employees (FTEs)	Associated salaries ($M)	Business purchases and community contributions ($M)	Total direct spending ($M)	No. of businesses directly supported
Albury	2	0.2	0.8	0.9	13
Armidale Dumaresq	4	0.3	0.8	1.2	8
Ashfield	2	0.4	1.8	2.2	5
Auburn	6	0.4	52.4	52.8	89
Ballina	2	0.2	0.6	0.7	6
Balranald	0	0.0	0.0	0.0	1
Bankstown	13	1.5	71.3	72.9	90
Bathurst Regional	282	34.8	10.3	45.1	73
Bega Valley	0	0.0	0.1	0.1	2
Bellingen	3	0.4	0.0	0.4	1
Berrigan	3	0.1	0.0	0.1	0
Blacktown	18	2.2	78.1	80.3	144
Bland	173	18.4	11.6	30.0	81
Blayney	142	17.4	8.3	25.7	15
Blue Mountains	86	12.7	3.2	15.9	28
Bogan	1	0.1	0.0	0.1	0
Bombala	0	0.0	0.0	0.0	0
Boorowa	2	0.2	0.0	0.2	0
Botany Bay	17	2.6	62.3	64.8	60
Bourke	0	0.0	0.0	0.0	0
Brewarrina	0	0.0	0.0	0.0	0
Broken Hill	576	64.5	120.2	184.7	196
Burwood	1	0.2	0.4	0.6	6
Byron	1	0.1	0.3	0.5	5
Cabonne	129	16.4	11.9	28.3	29
Camden	106	15.1	106.6	121.7	39
Campbelltown	59	7.7	54.7	62.4	73
Canada Bay	1	0.0	4.4	4.4	19
Canterbury	1	0.2	0.9	1.1	15
Carrathool	2	0.2	0.1	0.3	0
Central Darling	2	0.2	0.0	0.2	0
Cessnock	1,560	191.8	284.8	476.7	202
Clarence Valley	1	0.2	1.6	1.9	8
Cobar	6	0.4	0.3	0.7	7
Coffs Harbour	11	1.0	6.8	7.8	5
Conargo	0	0.0	0.0	0.0	0
Coolamon	8	0.7	0.1	0.8	3
Cooma-Monaro	1	0.2	0.4	0.6	1
Coonamble	0	0.0	0.1	0.1	1
Cootamundra	3	0.2	0.0	0.3	3
Corowa Shire	0	0.0	0.0	0.0	0
Cowra	8	0.9	0.7	1.6	8
Deniliquin	0	0.0	0.0	0.0	0
Dubbo	124	9.9	12.8	22.7	118
Dungog	133	16.7	4.4	21.1	36
Eurobodalla	7	0.8	0.4	1.2	3
Fairfield	34	3.0	65.4	68.5	112
Forbes	93	9.5	14.3	23.8	41
Gilgandra	1	0.1	0.0	0.1	1

Table A1: Direct Impacts of Spending by Companies Surveyed by LGA, 2014/15

Local government area	Residing employees (FTEs)	Associated salaries ($M)	Business purchases and community contributions ($M)	Total direct spending ($M)	No. of businesses directly supported
Glen Innes Severn	1	0.1	0.0	0.1	0
Gloucester	27	3.3	3.2	6.5	48
Gosford	69	8.3	41.8	50.1	71
Goulburn Mulwaree	7	0.7	0.7	1.5	20
Great Lakes	158	18.0	68.7	86.7	47
Greater Hume Shire	1	0.0	0.0	0.0	0
Greater Taree	33	3.9	3.1	6.9	18
Griffith	9	0.9	0.9	1.7	6
Gundagai	0	0.0	0.0	0.0	0
Gunnedah	414	56.0	70.0	126.0	179
Guyra	2	0.1	0.0	0.2	1
Gwydir	6	0.7	0.1	0.8	1
Harden	1	0.1	0.0	0.2	0
Hawkesbury	7	0.6	3.2	3.8	25
Hay	0	0.0	0.0	0.0	0
Holroyd	13	1.8	48.0	49.8	31
Hornsby	8	1.3	9.5	10.8	78
Hunters Hill	2	2.3	3.0	5.3	6
Hurstville	2	0.1	2.0	2.1	21
Inverell	11	0.8	0.9	1.7	6
Jerilderie	0	0.0	0.0	0.0	0
Junee	1	0.1	0.1	0.2	2
Kempsey	4	0.4	0.9	1.3	2
Kiama	86	11.3	4.1	15.4	15
Kogarah	3	0.2	1.5	1.8	9
Ku-ring-gai	21	4.9	61.3	66.2	35
Kyogle	1	0.1	0.0	0.2	1
Lachlan	25	2.5	2.6	5.1	18
Lake Macquarie	1,619	220.0	316.9	536.9	593
Lane Cove	20	5.2	35.9	41.2	36
Leeton	2	0.2	2.4	2.6	5
Leichhardt	3	0.7	0.8	1.5	15
Lismore	0	0.0	0.3	0.3	6
Lithgow	891	126.1	57.6	183.7	171
Liverpool	22	1.2	15.1	16.2	42
Liverpool Plains	60	6.7	4.8	11.4	40
Lockhart	0	0.0	0.0	0.0	0
Maitland	1,747	224.6	441.2	665.8	532
Manly	6	0.9	0.2	1.1	7
Marrickville	1	0.1	4.2	4.3	21
Mid-Western Regional	1,326	179.1	102.0	281.1	326
Moree Plains	4	0.2	0.9	1.1	3
Mosman	2	0.0	2.7	2.7	9
Murray	0	0.0	0.0	0.0	0
Murrumbidgee	1	0.0	0.0	0.0	0
Muswellbrook	1,534	191.2	481.0	672.2	287
Nambucca	2	0.2	0.1	0.3	2
Narrabri	153	20.2	29.7	50.0	106
Narrandera	6	0.5	0.1	0.6	1
Narromine	21	1.4	0.5	1.9	11
Newcastle	1,297	167.1	1,279.6	1,446.7	919
North Sydney	41	10.8	161.3	172.0	129
Oberon	36	4.7	14.8	19.5	5

Table A1: Direct Impacts of Spending by Companies Surveyed by LGA, 2014/15

Local government area	Residing employees (FTEs)	Associated salaries ($M)	Business purchases and community contributions ($M)	Total direct spending ($M)	No. of businesses directly supported
Orange	1,069	139.1	87.1	226.2	183
Palerang	23	2.1	3.9	6.0	4
Parkes	746	47.9	21.8	69.7	111
Parramatta	288	39.5	392.5	432.1	154
Penrith	15	2.0	16.8	18.8	46
Pittwater	6	0.4	5.4	5.8	62
Port Macquarie-Hastings	6	0.6	31.3	31.9	17
Port Stephens	332	39.0	33.5	72.5	97
Queanbeyan	1	0.0	13.7	13.7	8
Randwick	11	2.2	6.0	8.2	25
Richmond Valley	0	0.0	0.5	0.5	3
Rockdale	1	0.2	2.5	2.7	13
Ryde	14	2.4	175.7	178.1	120
Shellharbour	324	44.1	6.9	51.0	34
Shoalhaven	38	4.6	31.7	36.3	27
Singleton	2,125	266.4	433.4	699.8	561
Snowy River	0	0.0	0.3	0.3	1
Strathfield	8	0.2	2.6	2.8	15
Sutherland Shire	45	5.6	50.6	56.2	88
Sydney	105	14.9	886.3	901.2	539
Tamworth Regional	124	14.0	13.8	27.8	124
Temora	11	1.3	0.1	1.4	4
Tenterfield	0	0.0	0.0	0.0	0
The Hills Shire	8	2.5	19.5	21.9	95
Tumbarumba	0	0.0	0.0	0.0	0
Tumut Shire	0	0.0	0.3	0.3	4
Tweed	2	0.1	0.2	0.4	4
Upper Hunter Shire	657	79.7	12.6	92.2	95
Upper Lachlan Shire	1	0.2	0.1	0.3	3
Uralla	0	0.0	0.3	0.3	3
Urana	0	0.0	0.0	0.0	0
Wagga Wagga	6	0.5	5.6	6.1	33
Wakool	0	0.0	0.0	0.0	0
Walcha	3	0.3	0.1	0.3	2
Walgett	5	0.8	0.0	0.8	0
Warren	1	0.2	0.0	0.2	0
Warringah	37	2.8	12.2	15.0	66
Warrumbungle Shire	23	2.6	1.5	4.1	13
Waverley	5	0.8	2.2	3.0	20
Weddin	5	0.2	0.0	0.3	0
Wellington	13	1.1	0.4	1.4	4
Wentworth	14	1.5	5.9	7.4	16
Willoughby	41	9.0	75.7	84.7	87
Wingecarribee	91	11.1	311.5	322.7	134
Wollondilly	251	36.9	28.3	65.2	83
Wollongong	1,256	169.9	305.9	475.8	415
Woollahra	1	0.0	3.1	3.1	14
Wyong	205	27.5	36.2	63.7	95
Yass Valley	3	0.4	0.8	1.2	1
Young	12	1.0	3.0	4.0	4

APPENDIX B: TOTAL ECONOMIC IMPACTS BY LGA

Table B1: Estimated Total Economic Impacts of Spending by Companies Surveyed by LGA (Type II Impact)

Local government area	Total estimated value added ($M)	% of gross regional product (GRP)	Total employees (FTEs)	% of total regional employment
Albury	1.8	0.1%	13	0.1%
Armidale Dumaresq	2.3	0.2%	17	0.2%
Ashfield	5.3	0.3%	21	0.1%
Auburn	126.1	1.3%	463	1.2%
Ballina	1.5	0.1%	11	0.1%
Balranald	0.0	0.0%	0	0.0%
Bankstown	173.9	1.9%	633	0.8%
Bathurst Regional	92.0	3.6%	863	4.2%
Bega Valley	0.2	0.0%	1	0.0%
Bellingen	0.8	0.2%	8	0.1%
Berrigan	0.1	0.0%	4	0.1%
Blacktown	192.2	1.4%	718	0.4%
Bland	60.2	11.5%	549	19.0%
Blayney	52.1	7.8%	467	13.2%
Blue Mountains	37.8	1.5%	225	0.6%
Bogan	0.2	0.1%	3	0.2%
Bombala	0.0	0.0%	0	0.0%
Boorowa	0.4	0.4%	4	0.4%
Botany Bay	154.3	1.7%	560	2.6%
Bourke	0.0	0.0%	0	0.0%
Brewarrina	0.1	0.1%	1	0.1%
Broken Hill	363.9	35.9%	2,786	36.1%
Burwood	1.5	0.1%	6	0.0%
Byron	1.0	0.1%	7	0.1%
Cabonne	56.7	4.8%	478	6.9%
Camden	290.0	10.1%	1,136	3.2%
Campbelltown	148.9	2.3%	595	0.8%
Canada Bay	10.6	0.2%	38	0.1%
Canterbury	2.6	0.1%	11	0.0%
Carrathool	0.6	0.3%	6	0.4%
Central Darling	0.4	0.3%	4	0.5%
Cessnock	1,023.0	42.8%	6,974	31.5%
Clarence Valley	3.6	0.1%	22	0.1%
Cobar	1.3	0.2%	14	0.5%
Coffs Harbour	15.0	0.3%	101	0.3%
Conargo	0.0	0.0%	0	0.0%
Coolamon	1.6	0.9%	17	0.7%
Cooma-Monaro	1.2	0.2%	9	0.2%
Coonamble	0.2	0.1%	1	0.1%
Cootamundra	0.5	0.1%	6	0.2%
Corowa Shire	0.0	0.0%	0	0.0%
Cowra	3.2	0.5%	27	0.5%
Deniliquin	0.0	0.0%	0	0.0%
Dubbo	44.9	1.8%	400	1.9%
Dungog	46.5	13.6%	407	9.9%
Eurobodalla	2.5	0.1%	22	0.2%
Fairfield	163.7	2.2%	627	0.9%
Forbes	46.8	8.4%	380	8.6%
Gilgandra	0.2	0.1%	2	0.1%
Glen Innes Severn	0.2	0.1%	2	0.1%
Gloucester	14.1	4.7%	105	4.9%

Table B1: Estimated Total Economic Impacts of Spending by Companies Surveyed by LGA (Type II Impact)

Local government area	Total estimated value added ($M)	% of gross regional product (GRP)	Total employees (FTEs)	% of total regional employment
Gosford	119.7	1.5%	501	0.6%
Goulburn Mulwaree	2.9	0.2%	25	0.2%
Great Lakes	180.0	12.1%	1,090	8.6%
Greater Hume Shire	0.1	0.0%	1	0.0%
Greater Taree	13.9	0.7%	119	0.6%
Griffith	3.4	0.2%	28	0.2%
Gundagai	0.0	0.0%	0	0.0%
Gunnedah	248.2	32.1%	1,912	34.7%
Guyra	0.3	0.1%	4	0.2%
Gwydir	1.7	0.7%	16	0.8%
Harden	0.3	0.2%	3	0.2%
Hawkesbury	9.1	0.3%	39	0.1%
Hay	0.0	0.0%	0	0.0%
Holroyd	118.8	2.7%	435	0.8%
Hornsby	25.7	0.4%	99	0.1%
Hunters Hill	12.7	2.1%	50	0.7%
Hurstville	5.1	0.2%	20	0.0%
Inverell	3.4	0.4%	32	0.5%
Jerilderie	0.0	0.0%	0	0.0%
Junee	0.4	0.2%	4	0.1%
Kempsey	2.6	0.2%	20	0.2%
Kiama	34.1	4.7%	305	3.0%
Kogarah	4.2	0.2%	18	0.1%
Ku-ring-gai	157.7	3.5%	576	1.0%
Kyogle	0.3	0.1%	3	0.1%
Lachlan	10.1	2.4%	88	2.8%
Lake Macquarie	1,152.5	13.2%	7,733	8.4%
Lane Cove	98.9	3.5%	394	2.1%
Leeton	4.9	0.7%	28	0.5%
Leichhardt	3.5	0.1%	16	0.0%
Lismore	0.5	0.0%	3	0.0%
Lithgow	371.9	22.0%	3,227	35.7%
Liverpool	38.7	0.4%	159	0.2%
Liverpool Plains	23.0	5.4%	203	6.4%
Lockhart	0.0	0.0%	0	0.0%
Maitland	1,420.9	33.3%	9,134	26.2%
Manly	2.7	0.1%	15	0.1%
Marrickville	10.3	0.3%	39	0.1%
Mid-Western Regional	565.9	28.5%	4,843	44.7%
Moree Plains	2.1	0.2%	16	0.3%
Mosman	6.4	0.4%	24	0.2%
Murray	0.0	0.0%	0	0.0%
Murrumbidgee	0.1	0.0%	1	0.1%
Muswellbrook	1,241.9	43.0%	7,021	87.1%
Nambucca	0.5	0.1%	5	0.1%
Narrabri	98.4	10.5%	745	11.9%
Narrandera	1.2	0.4%	13	0.5%
Narromine	3.8	1.3%	45	1.4%
Newcastle	3,037.6	20.4%	16,026	20.5%
North Sydney	411.6	2.6%	1,546	3.3%
Oberon	37.2	10.9%	241	9.3%
Orange	453.9	15.7%	3,875	19.3%
Palerang	11.7	2.3%	95	1.1%
Parkes	141.0	14.6%	1,626	24.0%
Parramatta	1,029.4	5.9%	3,936	4.3%

Table B1: Estimated Total Economic Impacts of Spending by Companies Surveyed by LGA (Type II Impact)				
Local government area	**Total estimated value added ($M)**	**% of gross regional product (GRP)**	**Total employees (FTEs)**	**% of total regional employment**
Penrith	45.0	0.5%	181	0.2%
Pittwater	13.9	0.4%	55	0.2%
Port Macquarie-Hastings	60.4	1.6%	363	1.1%
Port Stephens	157.0	3.8%	1,197	4.1%
Queanbeyan	25.8	1.7%	153	0.6%
Randwick	19.6	0.3%	81	0.1%
Richmond Valley	1.0	0.1%	5	0.1%
Rockdale	6.4	0.2%	24	0.0%
Ryde	424.8	3.0%	1,524	2.5%
Shellharbour	114.3	5.4%	1,076	3.5%
Shoalhaven	74.3	1.6%	453	1.2%
Singleton	1,500.1	35.4%	10,014	82.2%
Snowy River	0.6	0.1%	3	0.1%
Strathfield	6.7	0.2%	33	0.2%
Sutherland Shire	133.8	1.5%	518	0.4%
Sydney	2,146.8	2.0%	7,677	6.0%
Tamworth Regional	55.3	1.6%	466	1.7%
Temora	2.8	0.8%	28	1.0%
Tenterfield	0.0	0.0%	0	0.0%
The Hills Shire	52.3	0.5%	195	0.2%
Tumbarumba	0.1	0.0%	1	0.0%
Tumut Shire	0.6	0.1%	4	0.1%
Tweed	0.8	0.0%	7	0.0%
Upper Hunter Shire	204.2	27.8%	1,882	26.8%
Upper Lachlan Shire	0.5	0.2%	5	0.1%
Uralla	0.7	0.3%	4	0.1%
Urana	0.1	0.1%	0	0.1%
Wagga Wagga	11.6	0.3%	67	0.2%
Wakool	0.0	0.0%	0	0.0%
Walcha	0.7	0.3%	7	0.5%
Walgett	1.6	0.6%	16	0.6%
Warren	0.4	0.3%	4	0.3%
Warringah	35.6	0.4%	163	0.2%
Warrumbungle Shire	8.2	1.9%	74	1.8%
Waverley	7.2	0.2%	31	0.1%
Weddin	0.6	0.4%	9	0.6%
Wellington	2.9	0.9%	31	0.9%
Wentworth	12.7	3.1%	80	3.2%
Willoughby	202.9	2.3%	788	2.0%
Wingecarribee	652.3	24.0%	3,643	16.9%
Wollondilly	153.8	8.1%	802	3.2%
Wollongong	1,005.7	8.2%	7,250	7.8%
Woollahra	7.4	0.2%	26	0.1%
Wyong	151.6	2.4%	750	1.1%
Yass Valley	2.4	0.5%	18	0.2%
Young	7.8	1.2%	59	1.1%

APPENDIX C: DIRECT IMPACTS BY STATE ELECTORATE

Table C1: Direct Impacts of Spending by Companies Surveyed by SED (Type II Impact)

State electoral division	Residing employees (FTEs)	Associated salaries ($M)	Business purchases and community contributions ($M)	Total direct spending ($M)	No. of businesses directly supported
Albury	3	0.2	0.9	1.1	13
Auburn	6	0.4	47.6	47.9	93
Ballina	2	0.2	0.9	1.1	10
Balmain	7	0.9	1.5	2.4	25
Bankstown	5	0.6	56.0	56.6	32
Barwon	819	94.7	157.7	252.4	352
Bathurst	1,510	206.5	90.3	296.8	311
Baulkham Hills	5	0.9	12.0	12.9	56
Bega	7	0.8	0.4	1.2	4
Blacktown	7	0.6	36.6	37.2	48
Blue Mountains	86	12.6	2.4	14.9	25
Cabramatta	1	0.0	1.1	1.1	4
Camden	67	9.5	106.4	115.9	32
Campbelltown	29	3.9	23.9	27.8	14
Canterbury	0	0.0	0.4	0.4	10
Castle Hill	3	0.8	6.9	7.7	33
Cessnock	2,889	362.4	582.1	944.5	636
Charlestown	591	76.7	135.0	211.7	214
Clarence	4	0.5	3.2	3.7	12
Coffs Harbour	9	0.8	5.6	6.5	4
Coogee	6	1.1	1.4	2.5	27
Cootamundra	231	24.1	16.7	40.9	114
Cronulla	14	1.6	4.1	5.7	40
Davidson	20	2.6	14.5	17.0	38
Drummoyne	1	0.0	3.8	3.8	18
Dubbo	1,095	141.1	87.1	228.2	359
East Hills	8	1.0	22.3	23.3	57
Epping	2	0.3	2.2	2.5	22
Fairfield	5	0.5	26.7	27.2	24
Gosford	39	4.4	33.8	38.1	48
Goulburn	80	9.6	269.7	279.3	129
Granville	20	2.9	40.3	43.3	20
Hawkesbury	5	1.0	4.3	5.2	31
Heathcote	118	13.0	47.3	60.3	50
Heffron	21	2.3	19.5	21.8	74
Holsworthy	16	0.6	11.8	12.4	33
Hornsby	5	0.9	7.1	8.0	52
Keira	629	86.3	62.1	148.4	134
Kiama	314	41.3	76.2	117.5	65
Kogarah	2	0.1	1.2	1.3	15
Ku-ring-gai	16	4.1	51.3	55.4	24
Lake Macquarie	706	97.0	140.1	237.1	248
Lakemba	1	0.1	0.6	0.7	9
Lane Cove	46	21.3	145.9	167.2	116
Lismore	1	0.1	0.4	0.5	7
Liverpool	5	0.2	2.8	3.0	8
Londonderry	7	1.0	10.4	11.4	22
Macquarie Fields	8	0.9	11.2	12.1	53
Maitland	756	96.0	159.1	255.2	201

Table C1: Direct Impacts of Spending by Companies Surveyed by SED (Type II Impact)					
State electoral division	**Residing employees (FTEs)**	**Associated salaries ($M)**	**Business purchases and community contributions ($M)**	**Total direct spending ($M)**	**No. of businesses directly supported**
Manly	11	1.8	0.7	2.5	12
Maroubra	8	1.4	54.3	55.7	37
Miranda	7	1.1	2.7	3.9	21
Monaro	16	1.9	6.8	8.6	8
Mount Druitt	1	0.2	6.0	6.2	19
Mulgoa	7	0.7	2.6	3.4	12
Murray	36	3.3	9.3	12.7	29
Myall Lakes	137	15.1	66.3	81.4	28
Newcastle	818	110.7	1,147.2	1,257.9	719
Newtown	3	0.5	2.2	2.6	25
North Shore	26	5.9	135.3	141.3	123
Northern Tablelands	27	2.3	2.8	5.1	20
Oatley	3	0.2	2.0	2.2	17
Orange	2,037	220.0	129.1	349.0	363
Oxley	9	1.0	29.8	30.8	12
Parramatta	271	22.8	374.4	397.2	122
Penrith	7	0.8	7.0	7.8	26
Pittwater	6	0.5	5.6	6.1	66
Port Macquarie	15	1.6	3.2	4.9	13
Port Stephens	447	55.2	126.4	181.6	187
Prospect	37	4.5	83.5	88.0	123
Riverstone	0	0.0	0.9	1.0	2
Rockdale	2	0.3	2.8	3.0	10
Ryde	8	0.5	92.9	93.4	68
Seven Hills	5	0.6	23.4	23.9	61
Shellharbour	339	46.2	50.5	96.7	70
South Coast	24	3.2	1.3	4.5	7
Strathfield	10	1.0	3.2	4.2	23
Summer Hill	3	0.3	2.7	3.0	12
Swansea	344	50.0	8.5	58.5	70
Sydney	95	26.9	867.9	894.8	482
Tamworth	546	70.6	83.9	154.6	309
Terrigal	26	3.2	3.9	7.0	17
The Entrance	38	4.7	16.5	21.3	26
Tweed	3	0.2	0.3	0.5	5
Upper Hunter	4,436	553.8	837.1	1,390.9	985
Vaucluse	3	0.5	4.7	5.2	17
Wagga Wagga	6	0.5	5.0	5.4	32
Wakehurst	17	0.9	6.6	7.5	32
Wallsend	387	46.7	180.0	226.8	237
Willoughby	40	9.9	71.9	81.8	79
Wollondilly	348	50.5	65.1	115.6	126
Wollongong	315	44.3	192.7	237.0	197
Wyong	128	17.2	21.4	38.6	63

APPENDIX D: DIRECT IMPACTS BY FEDERAL ELECTORATE

Table D1: Direct Impacts of Spending by Companies Surveyed by CED (Type II Impact)

Commonwealth electoral division	Residing employees (FTEs)	Associated salaries ($M)	Business purchases and community contributions ($M)	Total direct spending ($M)	No. of businesses directly supported
Banks	8	0.5	14.3	14.8	50
Barton	2	0.3	3.6	4.0	20
Bennelong	18	3.0	227.7	230.7	168
Berowra	7	2.1	9.5	11.5	67
Blaxland	10	1.2	83.1	84.4	75
Bradfield	24	5.5	63.7	69.2	53
Calare	3,389	423.4	199.2	622.6	630
Charlton	1,139	150.7	264.6	415.3	443
Chifley	11	1.7	37.7	39.4	63
Cook	23	3.1	7.7	10.8	66
Cowper	20	2.0	8.1	10.0	11
Cunningham	1,016	138.1	243.9	382.1	367
Dobell	148	19.6	41.3	60.9	88
Eden-Monaro	33	4.1	16.9	20.9	19
Farrer	615	68.2	130.6	198.8	232
Fowler	5	0.3	3.4	3.7	11
Gilmore	231	30.7	40.4	71.1	54
Grayndler	5	0.7	6.0	6.7	35
Greenway	9	1.1	46.9	48.0	85
Hughes	30	3.4	46.1	49.5	60
Hume	291	41.3	59.5	100.8	133
Hunter	6,964	868.4	1,387.6	2,256.0	1,402
Kingsford Smith	28	5.3	67.7	72.9	82
Lindsay	13	1.8	16.3	18.0	43
Lyne	66	7.8	37.7	45.5	83
Macarthur	171	23.7	151.6	175.3	72
Mackellar	32	2.6	14.1	16.7	101
Macquarie	93	13.3	6.3	19.6	53
McMahon	36	3.6	81.1	84.6	113
Mitchell	7	0.9	20.0	20.9	92
Newcastle	1,280	169.1	1,381.2	1,550.3	1,023
New England	618	78.6	90.4	169.0	361
North Sydney	100	35.3	264.6	299.9	248
Page	3	0.4	2.4	2.8	20
Parkes	1,611	209.0	146.4	355.4	583
Parramatta	291	38.1	408.3	446.5	137
Paterson	1,222	153.8	192.9	346.7	315
Reid	14	1.2	34.9	36.1	104
Richmond	4	0.3	0.9	1.2	12
Riverina	222	23.3	20.9	44.3	139
Robertson	53	6.2	30.3	36.5	52
Shortland	728	99.4	133.5	232.9	237
Sydney	106	17.2	884.4	901.6	530
Throsby	535	70.5	358.0	428.5	187
Warringah	21	3.0	5.9	8.8	47
Watson	2	0.4	1.0	1.3	19
Wentworth	7	1.0	6.2	7.2	54
Werriwa	22	2.6	19.4	22.0	72