

# **NSW Mining Industry Expenditure Impact Survey 2018/19**

Prepared for NSW Minerals Council

February 2020





# EXECUTIVE SUMMARY

The New South Wales Minerals Council (NSWMC) analysed the expenditure patterns of 28 NSW exploration and mining companies to determine the economic contribution of the industry throughout NSW in 2018/19. 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 annual surveys completed over the last seven years.

## Direct expenditure

The 28 companies surveyed **directly spent an estimated \$13.7 billion** in the NSW economy in 2018/19, comprised of:

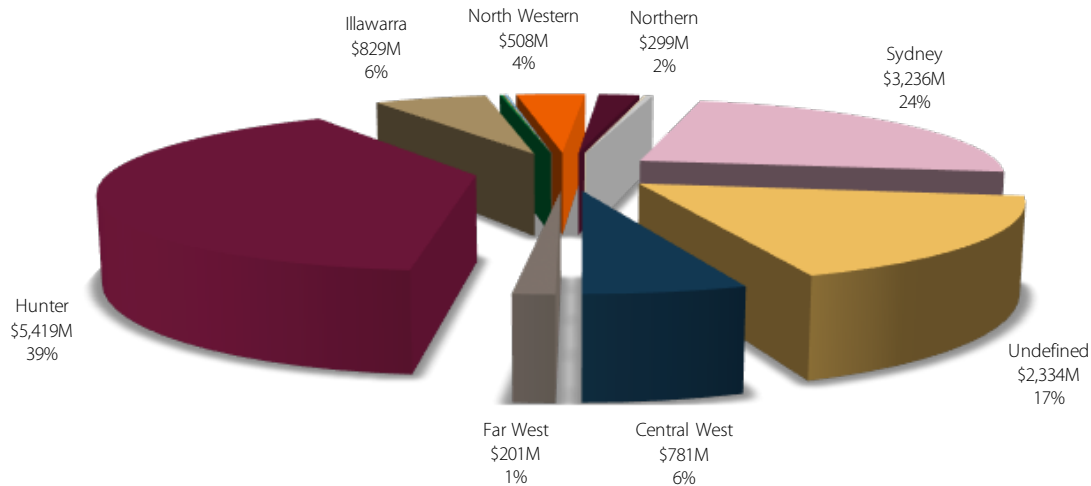
- Total workforce of 25,844 full-time equivalent workers (including direct resident employees and contract workers), which represented an annual increase of 2.0%;
- **\$2.5 billion in wages and salaries** to approximately **18,820 full-time equivalent residing direct employees** (not including contractors), representing an average salary level of \$130,374 per annum across the sector;
- **\$8.9 billion** in purchases of goods and services from approximately 7,003 local businesses, community contributions and payments to local government (including rates, developer contributions and other payments); and
- **\$2.3 billion** in state government payments (including royalties, stamp duty, payroll tax and land tax).

In terms of annual trend, total spending in NSW by companies surveyed was 27.9% higher than 2017/18. There was also significant annual growth in total direct wages (up 15.6%), contract payments (up 22.3%), contributions to community organisations (up 30.9%), local government payments (up 55.9%) and state government payments (up 17.1%).

The Hunter region recorded the highest direct expenditure in 2018/19, with \$5.4 billion (or 39.5% of the total direct spend across NSW), followed by the Sydney (\$3.2 billion, or 23.6%) and Illawarra (\$0.8 billion, or 6.0%) regions.

## Direct Stimulus by Region of Companies Surveyed

New South Wales, 2018/19



**Table E1: Direct Impact of Surveyed Companies by Region, 2018/19**

Region	Residing employees (FTEs)	Associated salaries (\$M)	Total workforce <sup>(b)</sup> (FTEs)	Business purchases & community contributions (\$M)	No. of businesses	Total direct spending (\$M)	% of total direct spend, NSW
Central West	2,619	318.1	3,266	463.2	632	781.3	5.7%
Far West	490	56.9	552	144.4	186	201.2	1.5%
Hunter	10,010	1,380.7	13,347	4,038.0	3,282	5,418.6	39.5%
Illawarra	1,384	187.1	2,107	642.2	468	829.2	6.0%
Mid-North Coast	31	3.4	31	16.8	31	20.2	0.1%
Murray	20	1.9	20	5.0	32	6.9	0.1%
Murrumbidgee	21	2.2	21	18.3	36	20.5	0.1%
North Western	2,041	242.4	2,338	265.8	468	508.2	3.7%
Northern	1,499	153.3	2,861	145.3	442	298.6	2.2%
Richmond-Tweed	12	1.2	12	5.8	18	7.0	0.1%
South Eastern	22	6.1	82	43.1	108	49.1	0.4%
Sydney	654	98.7	1,189	3,137.1	2,550	3,235.7	23.6%
Unallocated <sup>(a)</sup>	15	1.8	17	4.5		2,344.1	17.1%
<b>Total NSW</b>	<b>18,820</b>	<b>2,453.6</b>	<b>25,844</b>	<b>8,929.1</b>	<b>7,003</b>	<b>13,720.6</b>	<b>100.0%</b>
Rest of Australia	487	64.8	489	5,769.3	2,415	5,834.1	-
Total Australia	19,307	2,518.4	26,333	14,698.4	9,418	19,554.7	-

Note: (a) Includes state government payments. (b) Includes full-time resident direct employees and contract workers by place of operation.



## 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 2018/19, based on Type II multipliers (i.e. including both indirect industry and consumption-induced effects), amounted to:

- \$33.4 billion in output/turnover (a measure of direct and supply chain purchases from businesses);
- **\$29.9 billion in value added (contribution to Gross State Product), amounting to 4.8% of GSP for NSW in 2018/19**, through \$13.7 billion in direct effects and \$16.1 billion in supply chain and consumption-induced effects;
- \$11.4 billion in income (wages and salaries) paid to direct and indirect workers; and
- **156,205 full time equivalent jobs supported, or 3.9% of total employment in NSW during 2018/19.**

**Table E2: Economic Impact of Companies Surveyed, 2018/19**

	New South Wales	Rest of Australia	Total Australia
<b>Value Added (\$M)</b>			
Direct	13,721	5,834	19,555
% of GSP/GDP	2.2%	0.4%	1.0%
Indirect	10,308	3,919	14,228
Total value added (Type I)	24,029	9,753	33,782
% of GSP/GDP	3.8%	0.7%	1.7%
Consumption-induced	5,841	2,324	8,165
Total value added (Type II)	29,870	12,078	41,947
% of GSP/GDP	4.8%	0.9%	2.2%
<b>Employment (FTEs)</b>			
Direct	18,820	487	19,307
% of total state/national employment	0.5%	0.0%	0.2%
Indirect	84,442	23,514	107,956
Total employment (Type I)	103,261	24,002	127,263
% of total state/national employment	2.6%	0.3%	1.0%
Consumption-induced	52,944	14,739	67,682
Total employment (Type II)	156,205	38,740	194,945
% of total state/national employment	3.9%	0.5%	1.5%
<b>Business spend (incl. community contributions and govt payments) (\$M)</b>			
Direct	11,267	5,769	17,036
Indirect	8,263	4,106	12,369
Total business spend (Type I)	19,530	9,876	29,406
Consumption-induced	11,388	4,369	15,757
Total business spend (Type II)	30,918	14,245	45,163
<b>Wages &amp; salaries (\$M)</b>			
Direct	2,454	65	2,518
Indirect	5,608	2,021	7,629
Total wages & salaries (Type I)	8,061	2,086	10,147
Consumption-induced	3,338	1,070	4,408
Total wages & salaries (Type II)	11,399	3,155	14,555

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. Direct employment and wages relate specifically to **full-time equivalent residing direct employees** (not including contractors).



The direct expenditure of the 28 companies surveyed has the highest overall impact in the Hunter region, with estimated total value added of \$11.5 billion, meaning these companies contributed 22.8% to gross regional product (\$50.2 billion) in 2018/19, although the largest proportional impact occurred in the Far West region, where the direct and indirect effects of the 28 companies surveyed contributed approximately 37.2% to the regional economy. The impact in the Hunter region was significantly higher than other regional economies, the next highest of which was Sydney (\$6.7 billion in value added) and Illawarra (\$2.0 billion).

**Table E3: Total Economic Impact of Companies Surveyed by Region, 2018/19 (Type II)**

Region	Total output (\$M)	Total estimated value added (\$M)	Gross regional product (\$M)	Total value added as % of GRP
Central West	1,739.1	1,710.9	11,497.7	14.9%
Far West	527.1	489.4	1,314.8	37.2%
Hunter	12,623.0	11,457.4	50,229.9	22.8%
Illawarra	2,182.0	2,027.0	20,766.9	9.8%
Mid-North Coast	52.8	52.2	12,741.2	0.4%
Murray	15.7	14.6	6,644.5	0.2%
Murrumbidgee	32.5	32.0	10,890.2	0.3%
North Western	1,157.1	1,139.6	7,776.1	14.7%
Northern	686.6	676.0	12,428.5	5.4%
Richmond-Tweed	16.8	15.5	12,796.0	0.1%
South Eastern	120.6	119.3	10,440.8	1.1%
Sydney	7,937.1	6,703.0	467,877.5	1.4%
Undefined	6,281.6	5,432.7	-	-
<b>Total NSW</b>	<b>33,372.0</b>	<b>29,869.9</b>	<b>625,405.0</b>	<b>4.8%</b>

Note: Regions are based on 12 former 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 7,003 businesses in New South Wales received payments for goods and services supplied to survey respondents during 2018/19. The highest number of businesses was recorded in the Hunter (3,282 businesses) and Sydney (2,550 businesses) regions.

**Table E4: Number of Businesses Supported by Region**

<b>Region</b>	<b>Number of businesses supported</b>
Central West	632
Far West	186
Hunter	3,282
Illawarra	468
Mid-North Coast	31
Murray	32
Murrumbidgee	36
North Western	468
Northern	442
Richmond-Tweed	18
South Eastern	108
Sydney	2,550
<b>Total NSW</b>	<b>7,003</b>

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 2018/19, survey respondents directly contributed \$9.5 million to 1,137 community groups across New South Wales in a wide range of areas including health, education, environment and the arts.

The largest category of expenditure was Social and Other, both with \$1.9 million in contributions by survey respondents, followed by Education (\$1.7 million) and Health (\$1.3 million).

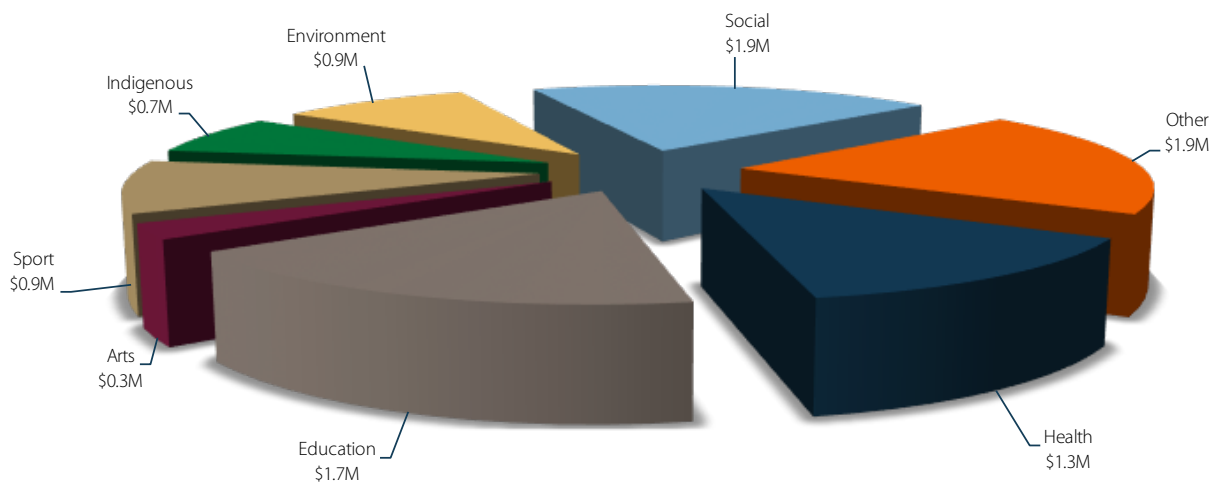
**Table E5: Number of Community Groups Supported by Region**

Region	Number of community groups	Total contributions (\$)
Central West	338	1,456,702
Far West	11	44,377
Hunter	397	3,971,458
Illawarra	24	406,207
Mid-North Coast	0	0
Murray	2	7,018
Murrumbidgee	1	1,057
North Western	145	1,038,628
Northern	110	662,140
Richmond-Tweed	0	0
South Eastern	12	66,003
Sydney	98	1,882,012
<b>Total NSW</b>	<b>1,137</b>	<b>9,536,971</b>

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), 2018/19



## 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 2018/19, survey respondents reported direct contributions to local councils totalling \$95.5 million – representing a substantial annual increase of 55.9% – with Rates (\$45.1 million) comprising the largest proportion of local council payments, followed by Other contributions (\$32.7 million) and Voluntary Planning Agreements (VPA)/developer contributions (\$11.3 million).

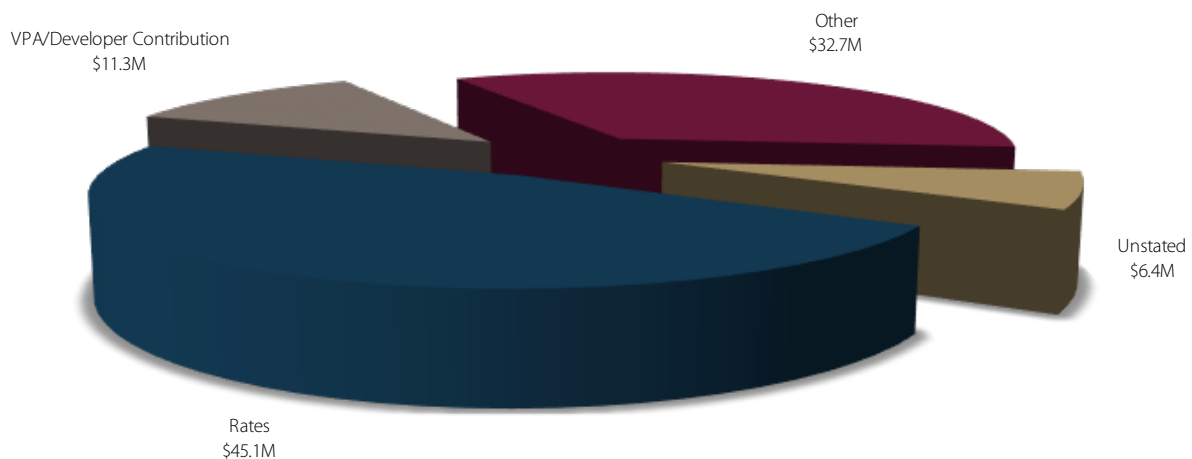
**Table E6: Local Council Contributions by Region**

Region	Rates (\$)	VPA/Developer (\$)	Other (\$)	Total contributions (\$)
Central West	12,503,285	3,249,980	193,651	16,107,851
Far West	1,949,806	0	0	1,949,806
Hunter	17,998,715	5,035,005	31,935,083	54,989,306
Illawarra	463,839	0	8	670,710
Mid-North Coast	4,809	0	0	4,809
Murray	1,500,939	0	11,874	1,512,814
Murrumbidgee	0	0	0	0
North Western	4,755,455	1,752,436	471,247	12,957,140
Northern	4,712,390	1,286,643	5,210	6,004,243
Richmond-Tweed	0	0	0	0
South Eastern	0	0	39,873	39,873
Sydney	1,111,942	223	4,096	1,165,179
<b>Total NSW</b>	<b>45,067,465</b>	<b>11,323,376</b>	<b>32,661,004</b>	<b>95,468,011</b>

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), 2018/19





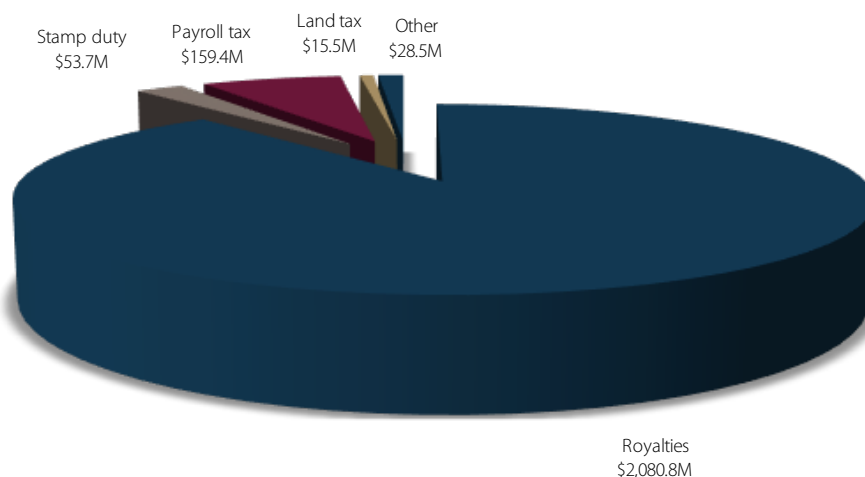


## State Government Payments

During 2018/19, the direct contribution made by companies surveyed in state government payments was approximately \$2.3 billion – representing an annual increase of 17.1% from the level recorded in 2017/18 (\$2.0 billion) – comprised of royalties (\$2.1 billion), payroll tax (\$159.4 million), stamp duty (\$53.7 million) and land tax (\$15.5 million).

### State Government Contributions by Category

New South Wales (\$ million), 2018/19





## Comparison to Previous Survey Results

Comparison with results from previous surveys is difficult due to differences in the composition of participating companies. Based on whole-of-survey totals, the direct expenditure in NSW of the companies surveyed in 2018/19 increased by approximately \$3.0 billion, or 27.9% compared to 2017/18, whilst the total number of direct employees grew annually by 2,047 FTEs, or 12.2%.

**Table E7: Comparison of Survey Results**

	Level 2018/19	Level 2017/18	Level 2016/17	Level 2015/16	Level 2014/15	Level 2013/14	Annual % change 2017/18- 2018/19
No. of companies surveyed	28	28	26	25	23	22	0.0%
<b>DIRECT EMPLOYEES</b>							
No. of direct employees (FTEs)	18,820	16,772	17,061	17,209	17,566	17,517	12.2%
No. of apprenticeships and traineeships (FTEs)	261	223	247	261	284	227	17.0%
Total wages/salaries paid (\$M)	2,453.6	2,122.4	2,222.0	2,165.4	2,254.1	2,351.6	15.6%
<b>BUSINESS PURCHASES</b>							
No. of suppliers	7,003	7,135	6,681	8,078	7,694	8,202	-1.9%
<b>OPEX</b>							
Payments to contractors (\$M)	1,194.6	942.1	797.0	1,445.2	1,308.7	1,919.6	26.8%
Other goods and services purchases (\$M)	6,670.9	4,875.5	5,150.2	4,971.5	5,462.3	7,058.6	36.8%
Total opex spend (\$M)	7,865.5	5,817.6	5,947.2	6,416.6	6,771.0	8,978.2	35.2%
<b>CAPEX</b>							
Payments to contractors (\$M)	187.6	188.1	82.0	252.6	464.4	537.4	-0.3%
Other goods and services purchases (\$M)	771.1	532.1	444.1	638.2	438.3	560.8	44.9%
Total capex spend (\$M)	958.6	720.2	526.1	890.8	902.6	1,098.2	33.1%
Total business purchases (\$M)	8,824.1	6,537.7	6,473.3	7,307.4	7,673.6	10,076.0	35.0%
<b>COMMUNITY CONTRIBUTIONS</b>							
No. of community organisations supported	1,137	980	997	991	1,298	1,014	16.0%
Total community contributions (\$M)	9.5	7.3	6.8	9.9	12.3	11.2	30.9%
<b>LOCAL COUNCIL PAYMENTS</b>							
Total local government payments (\$M)	95.5	61.2	46.5	58.6	60.6	59.1	55.9%
<b>STATE GOVERNMENT PAYMENTS</b>							
Total state government payments (\$M)	2,337.9	1,996.0	1,700.6	1,290.3	1,323.6	1,141.6	17.1%
<b>TOTAL SPEND (\$M)</b>	<b>13,720.6</b>	<b>10,724.6</b>	<b>10,449.2</b>	<b>10,831.6</b>	<b>11,324.3</b>	<b>13,639.9</b>	<b>27.9%</b>
<b>TOTAL WORKFORCE (FTEs)</b>	<b>25,844</b>	<b>25,335</b>	-	-	-	-	<b>2.0%</b>



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Prepared by:





# 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 28 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 2018/19 and the multiplier and consumption-induced effects that are generated by that initial stimulus. The analysis is an update of previous studies completed over the past seven years, available to download at [www.nswmining.com.au](http://www.nswmining.com.au).

While the mining sector<sup>1</sup> 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 former Statistical Divisions in NSW);
- Local (represented by 128 Local Government Areas in NSW);
- State electoral divisions (represented by 93 SEDs in NSW); and
- Commonwealth electoral divisions (represented by 47 CEDs in NSW).

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<sup>1</sup> 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 2019 when NSWMC distributed an expenditure survey form to 34 exploration and mining companies, which were asked to disclose total operational spending in 2018/19 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 34 companies surveyed, 28 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**

Aeris Resources	Idemitsu Australia Resources Pty Ltd
Alkane Resources Limited	Iluka Resources
Australian Pacific Coal Dartbrook	Kepco Bylong Australia
Aurelia Metals	Mach Energy Australia Pty Ltd
Bengalla Mining Company Pty Ltd	Malabar Coal Limited
BHP Billiton NSW Energy Coal	Newcrest Mining Limited Cadia Valley Operations
Bloomfield Collieries Pty Ltd	Peabody Energy Australia
Centennial Coal Company Limited	Perilya Limited
CleanTeq Holdings Pty Ltd	Silver Mines Limited
CMOC Northparkes	South 32 Illawarra Coal
Cristal Mining Australia	Thiess Pty Limited
Evolution Cowal Gold	Whitehaven Coal Limited
Glencore Coal (NSW) Pty Ltd	Wyong Areas Coal Joint Venture
Heron Resources	Yancoal Australia

The postcode spend data was then aggregated using geographical concordance files<sup>2</sup> 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 former Statistical Divisions in NSW);
- Local (represented by 128 Local Government Areas in NSW);
- State electoral divisions (represented by 93 SEDs in NSW); and
- Commonwealth electoral divisions (represented by 47 CEDs in NSW).

<sup>2</sup> <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 to 2017/18 – 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 (CMEWA) 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. More recently, the Reserve Bank of Australia completed a study in 2013 that quantified the links from demand for Australia's natural resources to activity in other domestic industries using input-output tables (Rayner and Bishop, 2013).

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 from 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 were 2016-17, 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 28 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

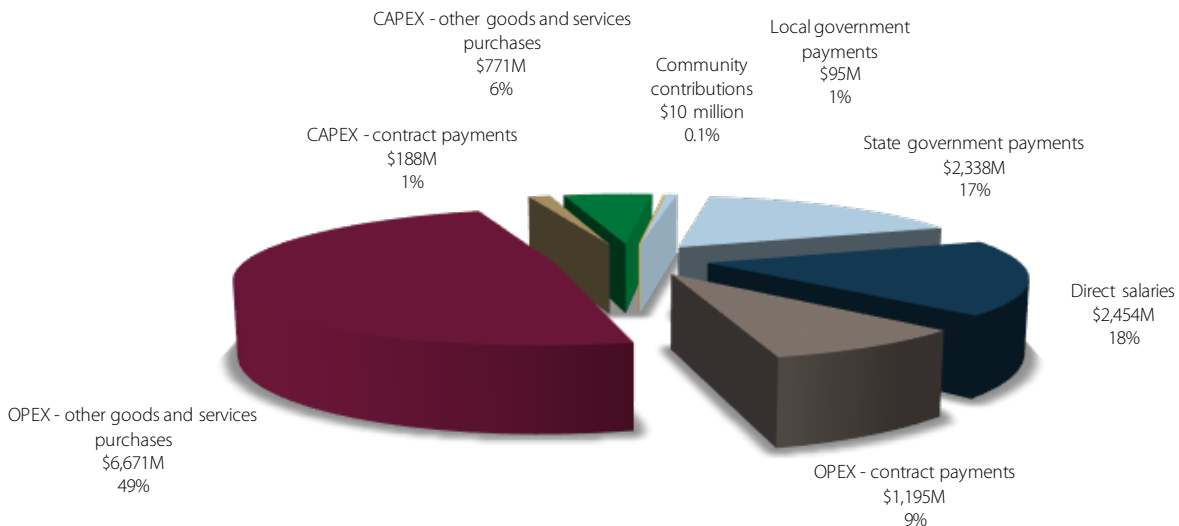
Expenditure data provided by the 28 companies surveyed indicated that these companies **contributed an estimated \$13.7 billion** in direct spending to the NSW economy in 2018/19, comprised of:

- Total workforce of 25,844 full-time equivalent workers (including direct resident employees and contract workers), which represented an annual increase of 2.0%;
- **\$2.5 billion in wages and salaries** to approximately **18,820 full-time equivalent residing direct employees** (not including contractors), representing an average salary level of \$130,374 per annum across the sector;
- **\$8.9 billion** in purchases of goods and services from approximately 7,003 local businesses, community contributions and payments to local government (including rates, developer contributions and other payments); and
- **\$2.3 billion** in state government payments (including royalties, stamp duty, payroll tax and land tax).

In terms of annual trend, total spending in NSW by companies surveyed was 27.9% higher than 2017/18. There was also significant annual growth in total direct wages (up 15.6%), contract payments (up 22.3%), community contributions (up 30.9%), local government payments (up 55.9%) and state government payments (up 17.1%).

### Direct Expenditure by Type for Companies Surveyed

New South Wales (\$ million), 2018/19



The direct economic stimulus provided by the 28 mining companies in 2018/19 also extended to other states, with an additional \$5.8 billion in direct spending, which combined with the impact in New South Wales for a total impact of \$19.6 billion for the whole of Australia, comprised of:

- \$2.5 billion in wages and salaries to approximately 19,307 full-time direct residing employees; and
- \$17.0 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 2018/19 can be disaggregated into the following areas:

- \$2.5 billion in wages and salaries to 18,820 direct employees;
- \$7.9 billion in operating expenditure (OPEX), comprised of:
  - \$1.2 billion in contract payments;
  - \$6.7 billion in purchases of other goods and services;
- \$958.6 million in capital expenditure (CAPEX), comprised of:
  - \$187.6 million in contract payments (including 677 contract workers);
  - \$771.1 million in purchases of other goods and services;
- \$9.5 million in community contributions;
- \$95.5 million in local government payments; and
- \$2.3 billion in state government payments.

The 28 companies surveyed made payments to 7,003 separate businesses in New South Wales in 2018/19 and a further 2,415 businesses across the rest of Australia for a total number of businesses supported of 9,418.

The companies surveyed supported 1,137 community organisations across New South Wales through voluntary contributions across a number of categories, including:

- Health – 93;
- Education – 271;
- Arts – 54;
- Sport – 231;
- Indigenous – 34;
- Environment – 45;
- Social – 308; and
- Other – 98.

Comparison with results from previous surveys is difficult due to differences in the composition of participating companies. Based on whole-of-survey totals, the direct expenditure in NSW of the companies surveyed in 2018/19 increased by approximately \$3.0 billion, or 27.9% compared to 2017/18, whilst the total number of direct employees grew annually by 2,047 FTEs, or 12.2%.

**Table 2: Comparison of Survey Results**

	Level 2018/19	Level 2017/18	Level 2016/17	Level 2015/16	Level 2014/15	Level 2013/14	Annual % change 2017/18- 2018/19
No. of companies surveyed	28	28	26	25	23	22	0.0%
<b>DIRECT EMPLOYEES</b>							
No. of direct employees (FTEs)	18,820	16,772	17,061	17,209	17,566	17,517	12.2%
No. of apprenticeships and traineeships (FTEs)	261	223	247	261	284	227	17.0%
Total wages/salaries paid (\$M)	2,453.6	2,122.4	2,222.0	2,165.4	2,254.1	2,351.6	15.6%
<b>BUSINESS PURCHASES</b>							
No. of suppliers	7,003	7,135	6,681	8,078	7,694	8,202	-1.9%
<b>OPEX</b>							
Payments to contractors (\$M)	1,194.6	942.1	797.0	1,445.2	1,308.7	1,919.6	26.8%
Other goods and services purchases (\$M)	6,670.9	4,875.5	5,150.2	4,971.5	5,462.3	7,058.6	36.8%
Total opex spend (\$M)	7,865.5	5,817.6	5,947.2	6,416.6	6,771.0	8,978.2	35.2%
<b>CAPEX</b>							
Payments to contractors (\$M)	187.6	188.1	82.0	252.6	464.4	537.4	-0.3%
Other goods and services purchases (\$M)	771.1	532.1	444.1	638.2	438.3	560.8	44.9%
Total capex spend (\$M)	958.6	720.2	526.1	890.8	902.6	1,098.2	33.1%
Total business purchases (\$M)	8,824.1	6,537.7	6,473.3	7,307.4	7,673.6	10,076.0	35.0%
<b>COMMUNITY CONTRIBUTIONS</b>							
No. of community organisations supported	1,137	980	997	991	1,298	1,014	16.0%
Total community contributions (\$M)	9.5	7.3	6.8	9.9	12.3	11.2	30.9%
<b>LOCAL COUNCIL PAYMENTS</b>							
Total local government payments (\$M)	95.5	61.2	46.5	58.6	60.6	59.1	55.9%
<b>STATE GOVERNMENT PAYMENTS</b>							
Total state government payments (\$M)	2,337.9	1,996.0	1,700.6	1,290.3	1,323.6	1,141.6	17.1%
<b>TOTAL SPEND (\$M)</b>	<b>13,720.6</b>	<b>10,724.6</b>	<b>10,449.2</b>	<b>10,831.6</b>	<b>11,324.3</b>	<b>13,639.9</b>	<b>27.9%</b>
<b>TOTAL WORKFORCE (FTEs)</b>	<b>25,844</b>	<b>25,335</b>	-	-	-	-	<b>2.0%</b>



## 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 \$11.4 billion, and the employment expenditure of \$2.5 billion. These impacts have been modelled separately but simultaneously for each region and then aggregated to identify the level of impacts on output, incomes, employment and industry value added in New South Wales. In 2018/19, the \$13.7 billion in direct spending in New South Wales by the 28 companies surveyed supported additional combined supply chain and consumption-induced effects of **137,386 full-time equivalent jobs** and **\$28.6 billion in aggregate spending** (\$8.9 billion in wages and salaries and \$19.7 billion in purchases of goods and services).

**Table 3: Economic Impact of Companies Surveyed, 2018/19**

	New South Wales	Rest of Australia	Total Australia
<b>Value Added (\$M)</b>			
Direct	13,721	5,834	19,555
% of GSP/GDP	2.2%	0.4%	1.0%
Indirect	10,308	3,919	14,228
Total value added (Type I)	24,029	9,753	33,782
% of GSP/GDP	3.8%	0.7%	1.7%
Consumption-induced	5,841	2,324	8,165
Total value added (Type II)	29,870	12,078	41,947
% of GSP/GDP	4.8%	0.9%	2.2%
<b>Employment (FTEs)</b>			
Direct	18,820	487	19,307
% of total state/national employment	0.5%	0.0%	0.2%
Indirect	84,442	23,514	107,956
Total employment (Type I)	103,261	24,002	127,263
% of total state/national employment	2.6%	0.3%	1.0%
Consumption-induced	52,944	14,739	67,682
Total employment (Type II)	156,205	38,740	194,945
% of total state/national employment	3.9%	0.5%	1.5%
<b>Business spend (incl. community contributions and govt payments) (\$M)</b>			
Direct	11,267	5,769	17,036
Indirect	8,263	4,106	12,369
Total business spend (Type I)	19,530	9,876	29,406
Consumption-induced	11,388	4,369	15,757
Total business spend (Type II)	30,918	14,245	45,163
<b>Wages &amp; salaries (\$M)</b>			
Direct	2,454	65	2,518
Indirect	5,608	2,021	7,629
Total wages & salaries (Type I)	8,061	2,086	10,147
Consumption-induced	3,338	1,070	4,408
Total wages & salaries (Type II)	11,399	3,155	14,555

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. Direct employment and wages relate specifically to **full-time equivalent residing direct employees** (not including contractors).

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 2018/19 amounted to:



- \$33.4 billion in output/turnover (or purchases from supplying businesses);
- \$29.9 billion in value added (contribution to gross state product);
- \$11.4 billion in income (wages and salaries); and
- 156,205 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 \$13.7 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 28 companies surveyed **generated approximately \$29.9 billion in value added** (\$13.7 billion in direct effects, and \$16.1 billion in supply chain and consumption-induced effects) in 2018/19, and **sustained approximately 156,205 jobs** (of which 18,820 were in direct employment and 137,386 in additional employment). This means that the activity generated by these companies **contributed 4.8% of Gross State Product** (\$625.4 billion) **and 3.9% of total employment** (4,027,944 persons) in New South Wales in 2018/19. Under the more conservative Type I scenario (i.e. excluding consumption-induced effects), direct spending by the companies surveyed and flow-on impacts contributed 3.8% to GSP and 2.6% of total state employment.

**Over the past eight years**, the New South Wales minerals and energy sector, as represented through the companies participating in the NSWMC survey, has **generated approximately \$198.5 billion in value added**, including \$92.8 billion in direct spending, and has supported an average workforce of approximately 141,565 jobs per annum.



## 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 2018/19 is summarised for the 12 major regions in New South Wales in Table 4.

The largest proportion of direct expenditure from the 28 companies surveyed in New South Wales in 2018/19 was in the Hunter region (\$5.4 billion), followed by the Sydney (\$3.2 billion), Illawarra (\$829.2 million) and Central West (\$781.3 million) regions. With regard to employment, the largest workforce share (i.e. number of direct full-time resident employees and contract workers by place of operation) across New South Wales was also recorded in the Hunter region (13,347 FTEs, or 51.6%), followed by the Central West (3,266 FTEs, or 12.6%), Northern (2,861 FTEs, or 11.1%), North Western (2,338 FTEs, or 9.0%) and Illawarra (2,107 FTEs, or 8.2%).

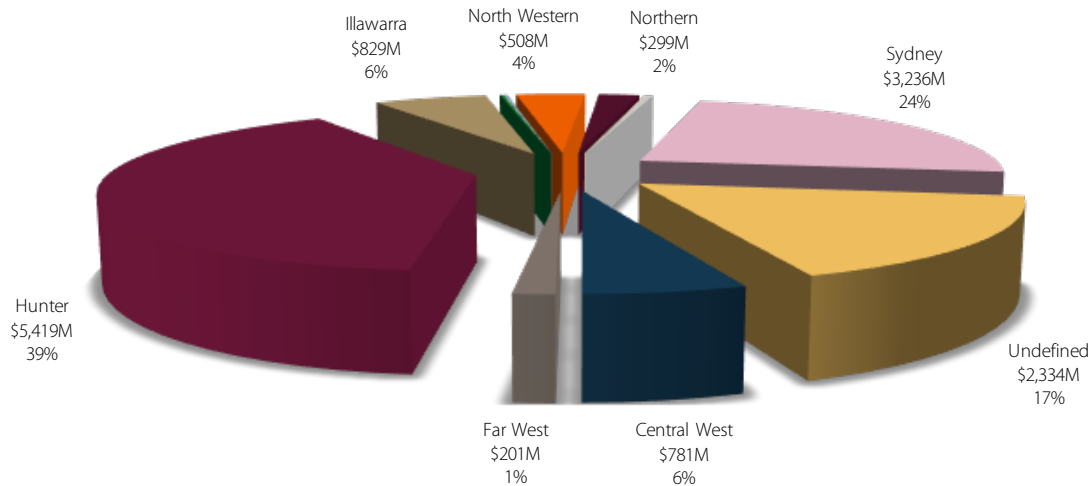
**Table 4: Direct Impact of Surveyed Companies by Region, 2018/19**

Region	Residing employees	Associated salaries	Total workforce <sup>(b)</sup>	Business purchases & community contributions	No. of businesses	Total direct spending	% of total direct spend, NSW
	(FTEs)	(\$M)	(FTEs)	(\$M)		(\$M)	
Central West	2,619	318.1	3,266	463.2	632	781.3	5.7%
Far West	490	56.9	552	144.4	186	201.2	1.5%
Hunter	10,010	1,380.7	13,347	4,038.0	3,282	5,418.6	39.5%
Illawarra	1,384	187.1	2,107	642.2	468	829.2	6.0%
Mid-North Coast	31	3.4	31	16.8	31	20.2	0.1%
Murray	20	1.9	20	5.0	32	6.9	0.1%
Murrumbidgee	21	2.2	21	18.3	36	20.5	0.1%
North Western	2,041	242.4	2,338	265.8	468	508.2	3.7%
Northern	1,499	153.3	2,861	145.3	442	298.6	2.2%
Richmond-Tweed	12	1.2	12	5.8	18	7.0	0.1%
South Eastern	22	6.1	82	43.1	108	49.1	0.4%
Sydney	654	98.7	1,189	3,137.1	2,550	3,235.7	23.6%
Unallocated <sup>(a)</sup>	15	1.8	17	4.5	-	2,344.1	17.1%
<b>Total NSW</b>	<b>18,820</b>	<b>2,453.6</b>	<b>25,844</b>	<b>8,929.1</b>	<b>7,003</b>	<b>13,720.6</b>	<b>100.0%</b>

Note: (a) Includes state government payments. (b) Includes full-time resident direct employees and contract workers by place of operation.

## Direct Stimulus by Region of Companies Surveyed

New South Wales, 2018/19



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 but simultaneously for each region and then aggregated to identify the level of impacts on output, incomes, employment and industry value added, the results of which are outlined in Table 5.

**Table 5: Type II Indirect and Consumption-Induced Impacts of Companies Surveyed by Region, 2018/19**

Region	Indirect full-time employees (FTEs)	Associated salaries (\$M)	Supply of goods and services (\$M)	Total indirect value added (\$M)
Central West	11,545	433.3	957.9	929.7
Far West	3,626	156.9	325.9	288.2
Hunter	58,288	3,455.4	7,204.4	6,038.8
Illawarra	13,418	689.4	1,352.8	1,197.8
Mid-North Coast	401	14.5	32.6	32.1
Murray	98	4.3	8.8	7.7
Murrumbidgee	130	5.4	12.1	11.6
North Western	7,850	292.7	648.9	631.5
Northern	4,697	175.3	388.1	377.5
Richmond-Tweed	94	4.9	9.8	8.5
South Eastern	875	31.8	71.5	70.2
Sydney	21,202	1,715.1	4,701.4	3,467.2
Undefined	15,162	1,966.7	3,937.5	3,088.6
<b>Total NSW</b>	<b>137,386</b>	<b>8,945.7</b>	<b>19,651.5</b>	<b>16,149.3</b>

Table 6 shows that the direct expenditure of the 28 companies surveyed has the highest overall impact in the Hunter region, with estimated total value added of \$11.5 billion, meaning these companies contributed 22.8% to gross regional product (\$50.2 billion) in 2018/19. The impact in the Hunter region was significantly higher than other regional economies, the next highest of which was Sydney (\$6.7 billion in value added) and Illawarra (\$2.0 billion). The Far West region recorded the highest proportion of GRP contributed by the companies surveyed (37.2%), followed by the Hunter (22.8%), Central West (14.9%), North Western (14.7%) and Illawarra (9.8%) regions.



**Table 6: Total Economic Impact of Companies Surveyed by Region, 2018/19 (Type II)**

Region	Total output (\$M)	Total estimated value added (\$M)	Gross regional product (\$M)	Total value added as % of GRP
Central West	1,739.1	1,710.9	11,497.7	14.9%
Far West	527.1	489.4	1,314.8	37.2%
Hunter	12,623.0	11,457.4	50,229.9	22.8%
Illawarra	2,182.0	2,027.0	20,766.9	9.8%
Mid-North Coast	52.8	52.2	12,741.2	0.4%
Murray	15.7	14.6	6,644.5	0.2%
Murrumbidgee	32.5	32.0	10,890.2	0.3%
North Western	1,157.1	1,139.6	7,776.1	14.7%
Northern	686.6	676.0	12,428.5	5.4%
Richmond-Tweed	16.8	15.5	12,796.0	0.1%
South Eastern	120.6	119.3	10,440.8	1.1%
Sydney	7,937.1	6,703.0	467,877.5	1.4%
Undefined	6,281.6	5,432.7	-	-
<b>Total NSW</b>	<b>33,372.0</b>	<b>29,869.9</b>	<b>625,405.0</b>	<b>4.8%</b>

With regard to employment, the companies surveyed again had the highest impact on jobs in the Hunter region, supporting 68,297 FTEs, comprising 17.6% of the total regional workforce. The Sydney (21,856 FTEs), Illawarra (14,802 FTEs) and Central West (14,164 FTEs) regions recorded the next highest number of employees. The Far West region recorded the greatest proportion of total jobs (44.5%) from the impact of the 28 companies surveyed.

**Table 7: Total Employment Impact of Surveyed Companies by Region, 2018/19 (Type II Impact)**

Region	Total direct, indirect and induced employees (FTEs)	Total regional employment (FTEs)	% of total employment
Central West	14,164	92,896	15.2%
Far West	4,116	9,240	44.5%
Hunter	68,297	357,725	19.1%
Illawarra	14,802	204,965	7.2%
Mid-North Coast	432	114,057	0.4%
Murray	118	53,897	0.2%
Murrumbidgee	151	82,785	0.2%
North Western	9,890	59,413	16.6%
Northern	6,196	83,122	7.5%
Richmond-Tweed	106	116,302	0.1%
South Eastern	897	108,773	0.8%
Sydney	21,856	2,744,185	0.8%
Undefined	15,177	-	-
<b>Total NSW</b>	<b>156,205</b>	<b>4,027,944</b>	<b>3.9%</b>



## Central West

### Direct contribution

In this region during 2018/19, the 28 companies surveyed contributed \$781.3 million in direct spending (representing 28.9% annual growth) through:

- Total workforce of 3,266 FTEs, including 647 contract workers whose place of work was in the region;
- \$318.1 million in wages and salaries to 2,619 direct full-time employees (not including contractors);
- \$445.6 million in purchases of goods and services from 632 local businesses (includes contractors);
- \$1.5 million in contributions to 338 community organisations; and
- \$16.1 million in local government payments.

### Indirect contribution

This \$781.3 million in direct spending generated:

- \$957.9 million in additional supply chain goods and services purchases; and
- \$433.3 million in wages and salaries associated with 11,545 additional jobs supported in this region.

### Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2018/19 from the 28 companies surveyed amounted to:

- \$1.4 billion in supplying business purchases;
- \$751.4 million in total wages and salaries paid to workers;
- \$1.7 billion in value added, or 14.9% of total GRP in this region (\$11.5 billion); and
- 14,164 full-time equivalent jobs, or 15.2% of the entire workforce in this region.



## Far West

### Direct contribution

In this region during 2018/19, the 28 companies surveyed contributed \$201.2 million in direct spending (representing 36.9% annual growth) through:

- Total workforce of 552 FTEs, including 62 contract workers whose place of work was in the region;
- \$56.9 million in wages and salaries to 490 direct full-time employees (not including contractors);
- \$142.4 million in purchases of goods and services from 136 local businesses (includes contractors) and contributions to 11 community organisations; and
- \$1.9 million in local government payments.

### Indirect contribution

This \$201.2 million in direct spending generated:

- \$325.9 million in additional supply chain goods and services purchases; and
- \$156.9 million in wages and salaries associated with 3,626 additional jobs supported in this region.

### Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2018/19 from the 28 companies surveyed amounted to:

- \$468.2 million in supplying business purchases;
- \$213.7 million in total wages and salaries paid to workers;
- \$489.4 million in value added, or 37.2% of total GRP in this region (\$1.3 billion); and
- 4,116 full-time equivalent jobs, or 44.5% of the entire workforce in this region.



## Hunter

### Direct contribution

In this region during 2018/19, the 28 companies surveyed contributed \$5.4 billion in direct spending (representing 25.9% annual growth) through:

- Total workforce of 13,347 FTEs, including 3,338 contract workers whose place of work was in the region;
- \$1.4 billion in wages and salaries to 10,010 direct full-time employees (not including contractors);
- \$4.0 billion in purchases of goods and services from 3,282 local businesses (includes contractors);
- \$4.0 million in contributions to 397 community organisations; and
- \$55.0 million in local government payments.

### Indirect contribution

This \$5.4 billion in direct spending generated:

- \$7.2 billion in additional supply chain goods and services purchases; and
- \$3.5 billion in wages and salaries associated with 58,288 additional jobs supported in this region.

### Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2018/19 from the 28 companies surveyed amounted to:

- \$11.2 billion in supplying business purchases;
- \$4.8 billion in total wages and salaries paid to workers;
- \$11.5 billion in value added, or 22.8% of total GRP in this region (\$50.2 billion); and
- 68,297 full-time equivalent jobs, or 19.1% of the entire workforce in this region.



## Illawarra

### Direct contribution

In this region during 2018/19, the 28 companies surveyed contributed \$829.2 million in direct spending (representing 24.4% annual growth) through:

- Total workforce of 2,107 FTEs, including 723 contract workers whose place of work was in the region;
- \$187.1 million in wages and salaries to 1,384 direct full-time employees (not including contractors);
- \$641.5 million in purchases of goods and services from 468 local businesses (includes contractors) and contributions to 24 community organisations; and
- \$0.7 million in local government payments.

### Indirect contribution

This \$829.2 million in direct spending generated:

- \$1.4 billion in additional supply chain goods and services purchases; and
- \$689.4 million in wages and salaries associated with 13,418 additional jobs supported in this region.

### Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2018/19 from the 28 companies surveyed amounted to:

- \$2.0 billion in supplying business purchases;
- \$876.4 million in total wages and salaries paid to workers;
- \$2.0 billion in value added, or 9.8% of total GRP in this region (\$20.8 billion); and
- 14,802 full-time equivalent jobs, or 7.2% of the entire workforce in this region.



## Mid-North Coast

### Direct contribution

In this region during 2018/19, the 28 companies surveyed contributed \$20.2 million in direct spending (representing 14.3% annual growth) through:

- \$3.4 million in wages and salaries to 31 direct full-time employees (not including contractors); and
- \$16.8 million in purchases of goods and services from 31 local businesses (includes contractors), community contributions and local government payments.

### Indirect contribution

This \$20.2 million in direct spending generated:

- \$32.6 million in additional supply chain goods and services purchases; and
- \$14.5 million in wages and salaries associated with 401 additional jobs supported in this region.

### Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2018/19 from the 28 companies surveyed amounted to:

- \$49.4 million in supplying business purchases;
- \$17.8 million in total wages and salaries paid to workers;
- \$52.2 million in value added, or 0.4% of total GRP in this region (\$12.7 billion); and
- 432 full-time equivalent jobs, or 0.4% of the entire workforce in this region.



## **Murray**

### **Direct contribution**

In this region during 2018/19, the 28 companies surveyed contributed \$6.9 million in direct spending (representing 14.3% annual growth) through:

- \$1.9 million in wages and salaries to 20 direct full-time employees (not including contractors); and
- \$5.0 million in purchases of goods and services from 32 local businesses (includes contractors), community contributions and local government payments.

### **Indirect contribution**

This \$6.9 million in direct spending generated:

- \$8.8 million in additional supply chain goods and services purchases; and
- \$4.3 million in wages and salaries associated with 98 additional jobs supported in this region.

### **Total contribution**

The total economic contribution in this region (direct, indirect and induced) during 2018/19 from the 28 companies surveyed amounted to:

- \$12.3 million in supplying business purchases;
- \$6.2 million in total wages and salaries paid to workers;
- \$14.6 million in value added, or 0.2% of total GRP in this region (\$6.6 billion); and
- 118 full-time equivalent jobs, or 0.2% of the entire workforce in this region.



## **Murrumbidgee**

### **Direct contribution**

In this region during 2018/19, the 28 companies surveyed contributed \$20.5 million in direct spending through:

- \$2.2 million in wages and salaries to 21 direct full-time employees (not including contractors); and
- \$18.3 million in purchases of goods and services from 36 local businesses (includes contractors), community contributions and local government payments.

### **Indirect contribution**

This \$20.5 million in direct spending generated:

- \$12.1 million in additional supply chain goods and services purchases; and
- \$5.4 million in wages and salaries associated with 130 additional jobs supported in this region.

### **Total contribution**

The total economic contribution in this region (direct, indirect and induced) during 2018/19 from the 28 companies surveyed amounted to:

- \$30.3 million in supplying business purchases;
- \$7.6 million in total wages and salaries paid to workers;
- \$32.0 million in value added, or 0.3% of total GRP in this region (\$10.9 billion); and
- 151 full-time equivalent jobs, or 0.2% of the entire workforce in this region.





## North Western

### Direct contribution

In this region during 2018/19, the 28 companies surveyed contributed \$508.2 million in direct spending (representing 66.7% annual growth) through:

- Total workforce of 2,338 FTEs, including 297 contract workers whose place of work was in the region;
- \$242.4 million in wages and salaries to 2,041 direct full-time employees (not including contractors);
- \$251.8 million in purchases of goods and services from 468 local businesses (includes contractors);
- \$1.0 million in contributions to 145 community organisations; and
- \$13.0 million in local government payments.

### Indirect contribution

This \$508.2 million in direct spending generated:

- \$648.9 million in additional supply chain goods and services purchases; and
- \$292.7 million in wages and salaries associated with 7,850 additional jobs supported in this region.

### Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2018/19 from the 28 companies surveyed amounted to:

- \$900.7 million in supplying business purchases;
- \$535.1 million in total wages and salaries paid to workers;
- \$1.1 billion in value added, or 14.7% of total GRP in this region (\$7.8 billion); and
- 9,890 full-time equivalent jobs, or 16.6% of the entire workforce in this region.



## Northern

### Direct contribution

In this region during 2018/19, the 28 companies surveyed contributed \$298.6 million in direct spending (representing 25.3% annual growth) through:

- Total workforce of 2,861 FTEs, including 1,362 contract workers whose place of work was in the region;
- \$153.3 million in wages and salaries to 1,499 direct full-time employees (not including contractors);
- \$138.6 million in purchases of goods and services from 442 local businesses (includes contractors);
- \$0.7 million in contributions to 110 community contributions; and
- \$6.0 million in local government payments.

### Indirect contribution

This \$298.6 million in direct spending generated:

- \$388.1 million in additional supply chain goods and services purchases; and
- \$175.3 million in wages and salaries associated with 4,697 additional jobs supported in this region.

### Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2018/19 from the 28 companies surveyed amounted to:

- \$526.7 million in supplying business purchases;
- \$328.7 million in total wages and salaries paid to workers;
- \$676.0 million in value added, or 5.4% of total GRP in this region (\$12.4 billion); and
- 6,196 full-time equivalent jobs, or 7.5% of the entire workforce in this region.



## **Richmond-Tweed**

### **Direct contribution**

In this region during 2018/19, the 28 companies surveyed contributed \$7.0 million in direct spending (representing 151.2% annual growth) through:

- \$1.2 million in wages and salaries to 12 direct full-time employees (not including contractors); and
- \$5.8 million in purchases of goods and services from 18 local businesses (includes contractors), community contributions and local government payments.

### **Indirect contribution**

This \$7.0 million in direct spending generated:

- \$9.8 million in additional supply chain goods and services purchases; and
- \$4.9 million in wages and salaries associated with 94 additional jobs supported in this region.

### **Total contribution**

The total economic contribution in this region (direct, indirect and induced) during 2018/19 from the 28 companies surveyed amounted to:

- \$15.6 million in supplying business purchases;
- \$6.1 million in total wages and salaries paid to workers;
- \$15.5 million in value added, or 0.1% of total GRP in this region (\$12.8 billion); and
- 106 full-time equivalent jobs, or 0.1% of the entire workforce in this region.



## South Eastern

### Direct contribution

In this region during 2018/19, the 28 companies surveyed contributed \$49.1 million in direct spending (representing 211.7% annual growth) through:

- Total workforce of 82 FTEs, including 60 contract workers whose place of work was in the region;
- \$6.1 million in wages and salaries to 22 direct full-time employees (not including contractors);
- \$43.1 million in purchases of goods and services from 108 local businesses (includes contractors), community contributions and local government payments.

### Indirect contribution

This \$49.1 million in direct spending generated:

- \$71.5 million in additional supply chain goods and services purchases; and
- \$31.8 million in wages and salaries associated with 875 additional jobs supported in this region.

### Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2018/19 from the 28 companies surveyed amounted to:

- \$114.5 million in supplying business purchases;
- \$37.9 million in total wages and salaries paid to workers;
- \$119.3 million in value added, or 1.1% of total GRP in this region (\$10.4 billion); and
- 897 full-time equivalent jobs, or 0.8% of the entire workforce in this region.



## Sydney

### Direct contribution

In this region during 2018/19, the 28 companies surveyed contributed \$3.2 billion in direct spending (representing 35.9% annual growth) through:

- Total workforce of 1,189 FTEs, including 534 contract workers whose place of work was in the region;
- \$98.7 million in wages and salaries to 654 direct full-time employees (not including contractors);
- \$3.1 billion in purchases of goods and services from 2,550 local businesses (includes contractors);
- \$1.9 million in contributions to 98 community organisations; and
- \$1.2 million in local government payments.

### Indirect contribution

This \$3.2 billion in direct spending generated:

- \$4.7 billion in additional supply chain goods and services purchases; and
- \$1.7 billion in wages and salaries associated with 21,202 additional jobs supported in this region.

### Total contribution

The total economic contribution in this region (direct, indirect and induced) during 2018/19 from the 28 companies surveyed amounted to:

- \$7.8 billion in supplying business purchases;
- \$1.8 billion in total wages and salaries paid to workers;
- \$6.7 billion in value added, or 1.4% of total GRP in this region (\$467.9 billion); and
- 21,856 full-time equivalent jobs, or 0.8% of the entire workforce in this region.



## Local Impact

### Direct Spending

Similar to SDs or regions, the expenditure data provided by the 28 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 128 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. Sydney LGA recorded the largest share of direct expenditure in 2018/19 (\$1.6 billion), followed by Newcastle (\$1.4 billion), Maitland (\$802.6 million), Singleton (\$889.6 million) and Cessnock (\$593.7 million).

Total workforce associated with the 28 companies surveyed were greatest in the Hunter Valley region, specifically Singleton LGA (4,427 FTEs), followed by the Muswellbrook (2,378 FTEs), Mid-Western Regional (1,857 FTEs), Maitland (1,654 FTEs) and Wollongong (1,652 FTEs) LGAs.

**Table 8: Direct Impact of Surveyed Companies, Top 20 LGAs by Expenditure, 2018/19**

Local government area	Residing employees (FTEs)	Associated salaries (\$M)	Total workforce <sup>(a)</sup> (FTEs)	Business purchases and community contributions (\$M)	Total direct spending (\$M)
Sydney (C)	33	5.7	34	1,576.0	1,581.8
Newcastle (C)	810	111.0	814	1,331.6	1,442.6
Maitland (C)	1,654	256.6	1,654	802.6	1,059.2
Singleton (A)	2,231	300.2	4,427	589.5	889.6
Cessnock (C)	1,528	196.6	1,563	397.1	593.7
Muswellbrook (A)	1,296	173.2	2,378	399.8	573.0
Parramatta (C)	6	0.5	6	547.9	548.4
Wollongong (C)	929	124.8	1,652	412.3	537.1
Lake Macquarie (C)	1,249	179.5	1,254	356.2	535.8
Mid-Western Regional (A)	1,582	195.4	1,857	180.7	376.0
Orange (C)	528	71.8	953	195.7	267.5
Lithgow (C)	674	98.6	674	126.3	224.9
Broken Hill (C)	490	56.9	552	144.4	201.2
Wingecarribee (A)	34	4.7	34	193.9	198.6
Gunnedah (A)	729	76.4	1,034	64.5	140.9
Camden (A)	36	4.6	36	115.3	119.9
Central Coast (C)	207	29.6	212	86.0	115.6
Upper Hunter Shire (A)	659	86.8	676	25.6	112.4
Port Stephens (A)	283	39.2	283	67.8	107.0
Fairfield (C)	n.a.	n.a.	34	92.1	92.3

Note: (a) Includes full-time resident direct employees and contract workers by place of operation.

### 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 based on extensive research of retail expenditure patterns in regional areas conducted by Lawrence Consulting has been applied for LGAs, as shown in Table 9.

**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 28 companies' direct spending for each LGA across New South Wales in 2018/19 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 28 surveyed companies' expenditure has the highest overall impact in the Sydney LGA, with total estimated value added of \$3.3 billion, followed by Newcastle (\$3.1 billion), Maitland (\$2.2 billion), Singleton (\$1.6 billion) and Wollongong (\$1.3 billion).

With regard to employment, the surveyed companies had the greatest impact on jobs in the Newcastle LGA, with 15,398 FTEs, followed by the Maitland (12,984 FTEs) and Sydney (10,208 FTEs) LGAs, whilst the regions where the impact of the 28 companies' direct spending accounted for the largest share of employment were Muswellbrook (75.9%), Singleton (75.3%) and Mid-Western Regional (63.2%).

**Table 10: Total Economic Impact of Surveyed Companies, Top 20 LGAs by Value Added, 2018/19 (Type II Impact)**

Local government area	Total estimated value added (\$M)	% of gross regional product (GRP)	Total employees (FTEs)	% of total employment
Sydney (C)	3,256.9	2.1%	10,208	6.2%
Newcastle (C)	3,038.3	19.0%	15,398	17.7%
Maitland (C)	2,223.4	50.8%	12,984	30.0%
Singleton (A)	1,645.4	25.3%	9,666	75.3%
Wollongong (C)	1,325.3	11.6%	9,776	9.5%
Cessnock (C)	1,263.1	56.9%	8,039	30.0%
Lake Macquarie (C)	1,132.2	13.6%	7,148	7.3%
Parramatta (C)	1,128.7	3.8%	3,526	2.7%
Muswellbrook (A)	1,053.3	32.2%	6,035	75.9%
Mid-Western Regional (A)	852.0	58.8%	7,503	63.2%
Orange (C)	553.4	19.4%	4,067	19.2%
Lithgow (C)	533.3	43.7%	4,519	48.2%
Broken Hill (C)	489.4	42.2%	4,116	49.2%
Wingecarribee (A)	452.0	20.5%	2,783	13.2%
Gunnedah (A)	314.2	44.5%	2,884	50.8%
Camden (A)	249.0	5.7%	834	1.6%
Central Coast (C) (NSW)	247.6	1.7%	1,042	0.6%
Upper Hunter Shire (A)	242.9	28.9%	2,067	27.3%
Port Stephens (A)	227.0	5.0%	1,470	4.4%
Fairfield (C)	189.8	2.0%	598	0.7%



## 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 28 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, Local Government Authority and State and Federal electoral boundary levels.

The results of the analysis demonstrate that incomes and expenditures from the 28 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 28 companies surveyed contributed an estimated \$13.7 billion in direct spending to the state economy in 2018/19, comprised of:

- Total workforce of 25,844 full-time equivalent workers (including direct resident employees and contract workers);
- **\$2.5 billion in wages and salaries** to approximately **18,820 full-time equivalent residing direct employees** (not including contractors), representing an average salary level of \$130,374 per annum across the sector;
- **\$8.9 billion** in purchases of goods and services from approximately 7,003 local businesses, community contributions and payments to local government (including rates, developer contributions and other payments); and
- **\$2.3 billion** in state government payments (including royalties, stamp duty, payroll tax and land tax).

Of the total workforce employed by the 28 companies surveyed, 18,820 were direct full-time employees, or 72.8% of the total workforce – of which 1,798 direct workers, or 9.2% were female – with another 7,024 contract workers (27.2%).

Compared to 2017/18, direct spending in NSW of the companies surveyed in 2018/19 increased by approximately \$3.0 billion, or 27.9%, whilst the total number of employees, both direct and contract workers, grew annually by 2.0%.

The economic stimulus provided by the 28 mining companies in 2018/19 also extended to other states, with an additional \$5.8 billion in direct spending, which combined with the impact in New South Wales for a total impact of \$19.6 billion for the whole of Australia, comprised of:

- \$2.5 billion in wages and salaries to approximately 19,307 full-time direct residing employees; and
- \$17.0 billion in purchases of goods and services from local businesses, government (state and local) and community contributions.

The total impact of the \$13.7 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 3.9% of employment in New South Wales in 2018/19. If a more conservative approach excluding consumption-induced effects is adopted, direct spending by the companies surveyed and flow-on impacts would still contribute 3.8% to GSP and 2.6% of total state employment.

Over the past eight years during which the annual NSWMC survey of member companies has been conducted, the New South Wales minerals and energy sector has generated approximately \$198.5 billion in value added, including \$92.8 billion in direct spending, and has supported an average workforce of approximately 141,565 jobs per annum.





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## APPENDIX A: DIRECT IMPACTS BY LGA

**Table A1: Direct Impacts of Spending by Companies Surveyed by LGA, 2018/19**

Local government area	Residing employees (FTEs)	Associated salaries (\$M)	Total workforce <sup>(a)</sup> (FTEs)	Business purchases and community contributions (\$M)	Total direct spending (\$M)	No. of businesses directly supported
Albury (C)	n.a.	n.a.	n.a.	n.a.	n.a.	8
Armidale Regional (A)	14	1.1	14	2.0	3.1	16
Ballina (A)	n.a.	n.a.	n.a.	n.a.	n.a.	6
Balranald (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Bathurst Regional (A)	201	28.1	203	35.4	63.4	65
Bayside (A)	5	0.8	5	42.4	43.2	83
Bega Valley (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Bellingen (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Berrigan (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Blacktown (C)	6	0.6	6	89.2	89.8	146
Bland (A)	278	31.6	440	5.7	37.3	12
Blayney (A)	128	16.5	129	16.3	32.8	18
Blue Mountains (C)	80	11.0	80	1.1	12.1	17
Bogan (A)	140	16.9	144	5.0	21.9	n.a.
Bourke (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Brewarrina (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Broken Hill (C)	490	56.9	552	144.4	201.2	185
Burwood (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Byron (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cabonne (A)	98	12.5	148	27.2	39.7	32
Camden (A)	36	4.6	36	115.3	119.9	44
Campbelltown (C) (NSW)	30	4.0	540	62.0	66.0	74
Canada Bay (A)	n.a.	n.a.	n.a.	8.3	8.6	19
Canterbury-Bankstown (A)	7	0.7	7	52.6	53.4	95
Carrathool (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Central Coast (C) (NSW)	207	29.6	212	86.0	115.6	122
Central Darling (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cessnock (C)	1,528	196.6	1,563	397.1	593.7	215
Clarence Valley (A)	6	0.8	6	n.a.	1.1	n.a.
Cobar (A)	120	15.9	121	38.4	54.3	32
Coffs Harbour (C)	n.a.	n.a.	n.a.	3.8	4.1	8
Coolamon (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Coonamble (A)	5	0.6	8	n.a.	n.a.	n.a.
Cootamundra-Gundagai (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cowra (A)	19	2.1	19	n.a.	2.2	n.a.
Cumberland (A)	6	0.7	6	20.1	20.8	68
Dubbo Regional (A)	181	16.5	194	47.4	63.8	117
Dungog (A)	156	19.5	156	5.2	24.7	20
Edward River (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Eurobodalla (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Fairfield (C)	n.a.	n.a.	n.a.	92.1	92.3	119
Federation (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Forbes (A)	141	10.3	141	3.3	13.6	20
Georges River (A)	6	0.4	6	4.6	5.0	21
Gilgandra (A)	9	1.0	9	n.a.	1.0	n.a.
Glen Innes Severn (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Goulburn Mulwaree (A)	5	3.1	61	3.1	6.2	56
Greater Hume Shire (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

**Table A1: Direct Impacts of Spending by Companies Surveyed by LGA, 2018/19**

Local government area	Residing employees (FTEs)	Associated salaries (\$M)	Total workforce <sup>(a)</sup> (FTEs)	Business purchases and community contributions (\$M)	Total direct spending (\$M)	No. of businesses directly supported
Griffith (C)	n.a.	n.a.	n.a.	n.a.	n.a.	5
Gunnedah (A)	729	76.4	1,034	64.5	140.9	159
Gwydir (A)	13	1.3	16	2.1	3.4	n.a.
Hawkesbury (C)	7	0.9	8	4.8	5.6	22
Hay (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Hilltops (A)	5	0.7	5	n.a.	1.1	n.a.
Hornsby (A)	7	1.1	7	4.7	5.9	55
Hunters Hill (A)	n.a.	n.a.	n.a.	1.8	4.1	9
Inner West (A)	8	1.0	8	10.9	11.9	45
Inverell (A)	9	0.9	9	6.3	7.2	5
Junee (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Kempsey (A)	n.a.	n.a.	n.a.	2.1	2.4	6
Kiama (A)	75	10.3	75	3.0	13.3	15
Ku-ring-gai (A)	11	3.8	11	11.8	15.6	31
Kyogle (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Lachlan (A)	46	4.2	49	n.a.	5.2	19
Lake Macquarie (C)	1,249	179.5	1,254	356.2	535.8	531
Lane Cove (A)	n.a.	n.a.	n.a.	9.3	10.5	23
Leeton (A)	n.a.	n.a.	n.a.	9.7	10.3	7
Lismore (C)	n.a.	n.a.	n.a.	1.1	1.4	n.a.
Lithgow (C)	674	98.6	674	126.3	224.9	171
Liverpool (C)	n.a.	n.a.	n.a.	32.1	32.5	39
Liverpool Plains (A)	86	8.9	184	3.7	12.6	31
Lockhart (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Maitland (C)	1,654	256.6	1,654	802.6	1,059.2	544
Mid-Coast (A)	142	18.0	142	62.6	80.7	100
Mid-Western Regional (A)	1,582	195.4	1,857	180.7	376.0	333
Moree Plains (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mosman (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Murray River (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Murrumbidgee (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Muswellbrook (A)	1,296	173.2	2,378	399.8	573.0	381
Nambucca (A)	7	0.7	7	n.a.	n.a.	n.a.
Narrabri (A)	399	40.0	1,351	37.7	77.7	112
Narrandera (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Narromine (A)	32	2.2	32	n.a.	3.2	5
Newcastle (C)	810	111.0	814	1,331.6	1,442.6	809
North Sydney (A)	6	1.7	6	73.3	75.0	110
Northern Beaches (A)	15	2.5	15	15.1	17.6	109
Oberon (A)	13	1.5	13	4.7	6.2	n.a.
Orange (C)	528	71.8	953	195.7	267.5	186
Parkes (A)	363	24.8	363	35.3	60.2	59
Parramatta (C)	6	0.5	6	547.9	548.4	184
Penrith (C)	13	1.3	13	36.4	37.7	48
Port Macquarie-Hastings (A)	7	0.8	7	10.3	11.1	13
Port Stephens (A)	283	39.2	283	67.8	107.0	78
Queanbeyan-Palerang Regional (A)	n.a.	n.a.	n.a.	34.6	35.4	31
Randwick (C)	10	2.0	10	77.5	79.5	23
Richmond Valley (A)	n.a.	n.a.	n.a.	3.8	3.8	n.a.
Ryde (C)	n.a.	n.a.	n.a.	68.1	69.1	133
Shellharbour (C)	308	42.2	308	15.2	57.4	25

**Table A1: Direct Impacts of Spending by Companies Surveyed by LGA, 2018/19**

Local government area	Residing employees (FTEs)	Associated salaries (\$M)	Total workforce <sup>(a)</sup> (FTEs)	Business purchases and community contributions (\$M)	Total direct spending (\$M)	No. of businesses directly supported
Shoalhaven (C)	38	5.0	38	17.7	22.7	19
Singleton (A)	2,231	300.2	4,427	589.5	889.6	503
Snowy Monaro Regional (A)	n.a.	n.a.	n.a.	n.a.	1.0	n.a.
Snowy Valleys (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Strathfield (A)	n.a.	n.a.	n.a.	7.7	7.9	15
Sutherland Shire (A)	35	4.7	35	15.6	20.2	78
Sydney (C)	33	5.7	34	1,576.0	1,581.8	563
Tamworth Regional (A)	238	23.6	238	26.7	50.3	106
Temora (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tenterfield (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
The Hills Shire (A)	7	0.9	7	17.8	18.8	82
Tweed (A)	5	0.5	5	n.a.	n.a.	n.a.
Upper Hunter Shire (A)	659	86.8	676	25.6	112.4	100
Upper Lachlan Shire (A)	n.a.	n.a.	n.a.	n.a.	n.a.	7
Uralla (A)	n.a.	n.a.	n.a.	1.6	1.8	n.a.
Wagga Wagga (C)	n.a.	n.a.	n.a.	6.4	6.9	15
Walcha (A)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Walgett (A)	13	1.5	15	n.a.	1.6	n.a.
Warren (A)	45	3.9	46	n.a.	4.0	n.a.
Warrumbungle Shire (A)	35	3.6	38	5.0	8.6	13
Waverley (A)	n.a.	n.a.	n.a.	1.1	1.8	11
Weddin (A)	7	0.6	7	n.a.	n.a.	n.a.
Wentworth (A)	17	1.7	17	2.8	4.5	15
Willoughby (C)	n.a.	n.a.	n.a.	34.8	35.5	81
Wingecarribee (A)	34	4.7	34	193.9	198.6	42
Wollondilly (A)	78	11.3	97	15.5	26.8	63
Wollongong (C)	929	124.8	1,652	412.3	537.1	367
Woollahra (A)	7	1.3	7	n.a.	1.6	9
Yass Valley (A)	n.a.	n.a.	n.a.	3.6	3.7	n.a.

Note: Data not published for LGAs with total direct spend of less than \$1 million and/or less than 5 residing employees. (a) Includes full-time resident direct employees and contract workers by place of operation.

## 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 (C)	n.a.	n.a.	n.a.	n.a.
Armidale Regional (A)	7.4	0.4%	68	0.5%
Ballina (A)	1.6	0.1%	14	0.1%
Balranald (A)	n.a.	n.a.	n.a.	n.a.
Bathurst Regional (A)	144.4	5.4%	1,209	5.5%
Bayside (A)	88.6	0.4%	284	0.3%
Bega Valley (A)	1.1	0.1%	10	0.1%
Bellingen (A)	1.1	0.2%	10	0.2%
Berrigan (A)	n.a.	n.a.	n.a.	n.a.
Blacktown (C)	183.9	0.9%	590	0.3%
Bland (A)	78.3	20.9%	787	25.8%
Blayney (A)	71.0	12.5%	600	15.8%
Blue Mountains (C)	29.9	1.3%	192	0.5%
Bogan (A)	45.5	13.9%	432	30.5%
Bourke (A)	n.a.	n.a.	7	0.5%
Brewarrina (A)	n.a.	n.a.	n.a.	n.a.
Broken Hill (C)	489.4	42.2%	4,116	49.2%
Burwood (A)	n.a.	n.a.	n.a.	n.a.
Byron (A)	n.a.	n.a.	6	0.0%
Cabonne (A)	83.5	11.7%	640	8.7%
Camden (A)	249.0	5.7%	834	1.6%
Campbelltown (C)	142.0	2.0%	501	0.6%
Canada Bay (A)	17.5	0.3%	57	0.1%
Canterbury-Bankstown (A)	109.7	0.7%	351	0.2%
Carrathool (A)	n.a.	n.a.	n.a.	n.a.
Central Coast (C)	247.6	1.7%	1,042	0.6%
Central Darling (A)	n.a.	n.a.	n.a.	n.a.
Cessnock (C)	1,263.1	56.9%	8,039	30.0%
Clarence Valley (A)	2.3	0.1%	22	0.1%
Cobar (A)	116.9	16.7%	894	35.0%
Coffs Harbour (C)	10.9	0.3%	89	0.3%
Coolamon (A)	1.2	0.6%	8	0.3%
Coonamble (A)	1.6	0.7%	16	0.8%
Cootamundra-Gundagai (A)	n.a.	n.a.	n.a.	n.a.
Cowra (A)	4.6	0.7%	48	0.9%
Cumberland (A)	43.5	0.3%	146	0.1%
Dubbo Regional (A)	148.6	4.7%	1,236	4.4%
Dungog (A)	53.2	14.2%	467	9.9%
Edward River (A)	n.a.	n.a.	n.a.	n.a.
Eurobodalla (A)	1.8	0.1%	16	0.1%
Fairfield (C)	189.8	2.0%	598	0.7%
Federation (A)	n.a.	n.a.	n.a.	n.a.
Forbes (A)	29.4	5.0%	337	7.1%
Georges River (A)	10.3	0.1%	39	0.0%
Gilgandra (A)	2.1	1.0%	22	1.0%
Glen Innes Severn (A)	n.a.	n.a.	7	0.2%
Goulburn Mulwaree (A)	10.5	0.7%	58	0.4%
Greater Hume Shire (A)	n.a.	n.a.	n.a.	n.a.
Griffith (C)	n.a.	n.a.	5	0.0%
Gunnedah (A)	314.2	44.5%	2,884	50.8%
Gwydir (A)	8.3	3.2%	74	3.2%

**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
Hawkesbury (C)	11.8	0.3%	46	0.1%
Hay (A)	n.a.	n.a.	n.a.	n.a.
Hilltops (A)	2.5	0.3%	23	0.3%
Hornsby (A)	12.5	0.2%	48	0.1%
Hunters Hill (A)	9.5	1.3%	35	0.5%
Inner West (A)	24.7	0.2%	88	0.1%
Inverell (A)	15.5	1.9%	112	1.7%
Junee (A)	n.a.	n.a.	n.a.	n.a.
Kempsey (A)	6.4	0.5%	54	0.5%
Kiama (A)	36.9	4.3%	353	3.2%
Ku-ring-gai (A)	33.6	0.7%	123	0.2%
Kyogle (A)	n.a.	n.a.	5	0.1%
Lachlan (A)	10.8	3.1%	116	4.0%
Lake Macquarie (C)	1,132.2	13.6%	7,148	7.3%
Lane Cove (A)	22.1	0.8%	75	0.3%
Leeton (A)	16.0	2.0%	69	1.2%
Lismore (C)	3.5	0.1%	26	0.1%
Lithgow (C)	533.3	43.7%	4,519	48.2%
Liverpool (C)	67.1	0.6%	214	0.2%
Liverpool Plains (A)	27.7	5.4%	273	8.2%
Lockhart (A)	n.a.	n.a.	n.a.	n.a.
Maitland (C)	2,223.4	50.8%	12,984	30.0%
Mid-Coast (A)	166.9	4.4%	981	2.7%
Mid-Western Regional (A)	852.0	58.8%	7,503	63.2%
Moree Plains (A)	1.3	0.2%	13	0.2%
Mosman (A)	1.6	0.1%	8	0.0%
Murray River (A)	n.a.	n.a.	6	0.1%
Murrumbidgee (A)	n.a.	n.a.	n.a.	n.a.
Muswellbrook (A)	1,053.3	32.2%	6,035	75.9%
Nambucca (A)	2.1	0.3%	21	0.3%
Narrabri (A)	177.5	5.7%	1,640	26.0%
Narrandera (A)	1.0	0.3%	6	0.2%
Narromine (A)	6.5	0.9%	73	2.3%
Newcastle (C)	3,038.3	19.0%	15,398	17.7%
North Sydney (A)	154.1	1.0%	490	1.0%
Northern Beaches (A)	37.3	0.3%	137	0.1%
Oberon (A)	11.4	3.1%	78	2.9%
Orange (C)	553.4	19.4%	4,067	19.2%
Parkes (A)	136.5	16.9%	1,312	18.9%
Parramatta (C)	1,128.7	3.8%	3,526	2.7%
Penrith (C)	77.9	0.8%	258	0.2%
Port Macquarie-Hastings (A)	29.6	0.7%	239	0.7%
Port Stephens (A)	227.0	5.0%	1,470	4.4%
Queanbeyan-Palerang Regional (A)	93.0	3.4%	723	2.1%
Randwick (C)	164.3	2.2%	524	0.6%
Richmond Valley (A)	7.2	0.7%	37	0.4%
Ryde (C)	141.8	0.6%	454	0.6%
Shellharbour (C)	158.2	6.7%	1,496	4.4%
Shoalhaven (C)	54.6	1.4%	394	1.1%
Singleton (A)	1,645.4	25.3%	9,666	75.3%
Snowy Monaro Regional (A)	2.6	0.2%	21	0.2%
Snowy Valleys (A)	n.a.	n.a.	n.a.	n.a.
Strathfield (A)	16.3	0.2%	54	0.2%
Sutherland Shire (A)	43.6	0.5%	181	0.1%
Sydney (C)	3,256.9	2.1%	10,208	6.2%

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

<b>Local government area</b>	<b>Total estimated value added (\$M)</b>	<b>% of gross regional product (GRP)</b>	<b>Total employees (FTEs)</b>	<b>% of total regional employment</b>
Tamworth Regional (A)	117.2	3.4%	1,072	3.8%
Temora (A)	1.1	0.3%	8	0.3%
Tenterfield (A)	n.a.	n.a.	n.a.	n.a.
The Hills Shire (A)	38.7	0.4%	132	0.1%
Tweed (A)	1.6	0.0%	18	0.0%
Upper Hunter Shire (A)	242.9	28.9%	2,067	27.3%
Upper Lachlan Shire (A)	n.a.	n.a.	n.a.	n.a.
Uralla (A)	4.8	2.0%	39	1.3%
Wagga Wagga (C)	10.5	0.2%	44	0.1%
Walcha (A)	1.3	0.6%	11	0.7%
Walgett (A)	3.3	1.1%	34	1.3%
Warren (A)	8.2	5.2%	97	7.2%
Warrumbungle Shire (A)	20.3	4.7%	181	4.3%
Waverley (A)	4.1	0.1%	18	0.0%
Weddin (A)	1.4	0.8%	15	0.9%
Wentworth (A)	11.3	2.2%	103	3.4%
Willoughby (C)	73.1	0.6%	237	0.5%
Wingecarribee (A)	452.0	20.5%	2,783	13.2%
Wollondilly (A)	58.2	0.8%	279	1.0%
Wollongong (C)	1,325.3	11.6%	9,776	9.5%
Woollahra (A)	3.9	0.1%	22	0.1%
Yass Valley (A)	7.3	1.1%	44	0.5%

Note: Data not published for LGAs with total value added of less than \$1 million and/or less than 5 total employees.

## APPENDIX C: DIRECT IMPACTS BY STATE ELECTORATE

**Table C1: Direct Impacts of Spending by Companies Surveyed by SED**

State electoral division	Residing employees (FTEs)	Associated salaries (\$M)	Total workforce <sup>(a)</sup> (FTEs)	Business purchases and community contributions (\$M)	Total direct spending (\$M)	No. of businesses directly supported
Albury	n.a.	n.a.	n.a.	n.a.	n.a.	12
Auburn	n.a.	n.a.	n.a.	33.8	34.1	86
Ballina	n.a.	n.a.	n.a.	n.a.	1.0	9
Balmain	n.a.	n.a.	n.a.	4.4	5.1	30
Bankstown	n.a.	n.a.	n.a.	30.5	30.6	27
Barwon	1,318	146.5	2,353	236.5	382.9	377
Bathurst	932	131.0	940	158.4	289.4	231
Baulkham Hills	n.a.	n.a.	n.a.	10.7	11.2	43
Bega	7	1.0	7	n.a.	1.3	n.a.
Blacktown	n.a.	n.a.	n.a.	54.2	54.2	59
Blue Mountains	80	11.1	80	n.a.	11.7	14
Cabramatta	n.a.	n.a.	n.a.	3.3	3.3	n.a.
Camden	38	4.9	38	115.5	120.4	46
Campbelltown	26	3.5	506	2.0	5.5	18
Canterbury	n.a.	n.a.	n.a.	n.a.	n.a.	8
Castle Hill	n.a.	n.a.	n.a.	7.6	8.0	39
Cessnock	1,811	234.1	1,966	476.2	710.3	325
Charlestown	364	51.7	364	132.2	183.9	186
Clarence	6	0.8	6	4.0	4.8	n.a.
Coffs Harbour	n.a.	n.a.	n.a.	3.8	4.1	8
Coogee	n.a.	n.a.	n.a.	1.4	2.2	18
Cootamundra	314	35.5	476	7.8	43.3	25
Cronulla	10	1.3	10	8.4	9.6	39
Davidson	6	1.7	6	10.4	12.1	25
Drummoyne	n.a.	n.a.	n.a.	8.2	8.5	18
Dubbo	1,614	191.5	1,883	209.1	400.6	402
East Hills	n.a.	n.a.	n.a.	16.3	16.8	46
Epping	n.a.	n.a.	n.a.	2.5	3.0	18
Fairfield	n.a.	n.a.	n.a.	67.7	67.7	54
Gosford	12	1.6	12	32.7	34.3	28
Goulburn	22	5.4	82	171.7	177.2	86
Granville	n.a.	n.a.	n.a.	38.7	38.9	25
Hawkesbury	8	0.9	8	5.5	6.4	26
Heathcote	76	7.9	217	6.2	14.1	38
Heffron	17	2.1	17	27.0	29.0	86
Holsworthy	n.a.	n.a.	n.a.	20.9	21.1	22
Hornsby	n.a.	n.a.	n.a.	2.5	3.3	36
Keira	450	62.3	483	67.0	129.4	99
Kiama	174	23.8	174	29.8	53.6	32
Kogarah	n.a.	n.a.	n.a.	3.7	3.8	17
Ku-ring-gai	6	2.3	6	5.3	7.7	23
Lake Macquarie	512	74.1	514	154.0	228.2	211
Lakemba	n.a.	n.a.	n.a.	5.7	5.8	14
Lane Cove	6	4.2	6	40.0	44.1	79
Lismore	6	0.5	6	1.3	1.8	5
Liverpool	n.a.	n.a.	n.a.	9.2	9.3	12
Londonderry	n.a.	n.a.	n.a.	3.8	4.1	17
Macquarie Fields	n.a.	n.a.	n.a.	62.0	62.4	61



**Table C1: Direct Impacts of Spending by Companies Surveyed by SED**

State electoral division	Residing employees (FTEs)	Associated salaries (\$M)	Total workforce <sup>(a)</sup> (FTEs)	Business purchases and community contributions (\$M)	Total direct spending (\$M)	No. of businesses directly supported
Maitland	1,648	255.8	1,648	802.6	1,058.4	544
Manly	6	1.1	6	1.0	2.2	17
Maroubra	n.a.	n.a.	n.a.	102.0	102.8	37
Miranda	9	1.4	9	4.3	5.7	20
Monaro	n.a.	n.a.	n.a.	35.4	36.4	33
Mount Druitt	n.a.	n.a.	n.a.	7.8	8.0	25
Mulgoa	5	0.6	5	9.7	10.3	14
Murray	29	2.9	29	14.1	16.9	33
Myall Lakes	46	6.1	46	45.7	51.8	28
Newcastle	381	56.1	385	1,059.1	1,115.2	584
Newtown	7	0.8	7	6.6	7.4	26
North Shore	6	1.4	6	69.6	71.0	107
Northern Tablelands	45	4.2	51	12.2	16.4	32
Oatley	n.a.	n.a.	n.a.	n.a.	1.2	8
Orange	1,131	119.6	1,605	261.7	381.3	297
Oxley	16	1.7	16	9.9	11.7	14
Parramatta	n.a.	n.a.	n.a.	481.2	481.2	88
Penrith	6	0.6	6	24.2	24.7	29
Pittwater	n.a.	n.a.	n.a.	5.2	5.4	36
Port Macquarie	9	1.2	9	2.9	4.0	8
Port Stephens	279	38.5	279	79.7	118.2	85
Prospect	n.a.	n.a.	n.a.	38.7	39.0	90
Riverstone	n.a.	n.a.	n.a.	3.0	3.1	n.a.
Rockdale	n.a.	n.a.	n.a.	n.a.	n.a.	5
Ryde	n.a.	n.a.	n.a.	48.7	49.0	98
Seven Hills	n.a.	n.a.	n.a.	18.6	18.9	64
Shellharbour	338	45.6	340	7.8	53.4	31
South Coast	24	3.0	24	n.a.	3.6	7
Strathfield	n.a.	n.a.	n.a.	7.8	8.3	20
Summer Hill	n.a.	n.a.	n.a.	4.3	4.6	13
Swansea	275	42.1	277	7.1	49.2	56
Sydney	22	4.3	23	1,560.9	1,565.1	506
Tamworth	997	102.0	1,400	92.4	194.3	273
Terrigal	29	3.6	29	10.6	14.2	17
The Entrance	31	4.1	31	34.1	38.2	37
Tweed	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Upper Hunter	4,433	589.4	7,622	1,005.4	1,594.8	1,078
Vaucluse	8	1.5	8	n.a.	2.3	9
Wagga Wagga	5	0.6	5	6.6	7.2	18
Wakehurst	6	1.0	6	5.6	6.6	42
Wallsend	425	53.6	425	289.4	343.0	234
Willoughby	n.a.	n.a.	n.a.	29.0	30.3	75
Wollondilly	96	13.8	115	45.3	59.1	86
Wollongong	304	41.5	851	339.1	380.6	238
Wyong	93	14.2	97	7.0	21.2	30

Note: Data not published for SEDs with total direct spend of less than \$1 million and/or less than 5 residing employees. (a) Includes full-time resident direct employees and contract workers by place of operation.



## APPENDIX D: DIRECT IMPACTS BY FEDERAL ELECTORATE

**Table D1: Direct Impacts of Spending by Companies Surveyed by CED**

Commonwealth electoral division	Residing employees (FTEs)	Associated salaries (\$M)	Total workforce <sup>(a)</sup> (FTEs)	Business purchases and community contributions (\$M)	Total direct spending (\$M)	No. of businesses directly supported
Banks	7	0.7	7	11.7	12.3	44
Barton	n.a.	n.a.	n.a.	4.4	4.7	26
Bennelong	6	1.2	6	69.1	70.2	143
Berowra	9	1.4	9	7.2	8.6	59
Blaxland	n.a.	n.a.	n.a.	44.8	45.0	61
Bradfield	11	4.0	11	15.2	19.1	53
Calare	3,241	426.0	3,994	587.9	1,013.9	817
Chifley	n.a.	n.a.	n.a.	37.1	37.5	58
Cook	16	2.1	16	9.7	11.8	48
Cowper	17	1.8	17	6.6	8.4	21
Cunningham	785	106.0	1,499	402.0	508.0	348
Dobell	128	18.8	131	38.5	57.3	66
Eden-Monaro	9	1.7	9	39.5	41.2	42
Farrer	30	3.0	30	15.4	18.5	45
Fowler	n.a.	n.a.	n.a.	26.4	26.5	23
Gilmore	117	15.8	117	20.1	35.9	35
Grayndler	6	0.9	6	9.5	10.4	37
Greenway	n.a.	n.a.	n.a.	53.0	53.4	91
Hughes	22	2.8	22	10.4	13.2	36
Hume	119	19.2	197	111.3	130.5	167
Hunter	5,332	715.2	8,648	1,197.9	1,913.1	1,267
Kingsford Smith	13	2.5	13	119.1	121.6	96
Lindsay	10	0.9	10	27.7	28.6	42
Lyne	637	92.7	637	171.0	263.7	207
Macarthur	39	5.2	549	108.4	113.7	83
Mackellar	7	1.1	7	12.5	13.6	73
Macquarie	87	11.9	87	5.8	17.7	39
McMahon	7	0.8	7	96.1	97.0	143
Mitchell	6	0.7	6	18.9	19.5	87
Newcastle	771	106.0	775	1,152.6	1,258.6	739
New England	1,022	122.8	1,140	68.3	191.1	267
North Sydney	11	5.2	11	116.0	121.3	205
Page	13	1.5	13	5.9	7.4	10
Parkes	2,252	240.8	3,606	347.9	588.7	655
Parramatta	n.a.	n.a.	n.a.	520.6	521.0	111
Paterson	1,981	288.0	1,981	1,308.9	1,597.0	701
Reid	7	0.8	7	41.7	42.5	101
Richmond	8	0.7	8	n.a.	1.5	11
Riverina	822	71.1	984	52.6	123.7	118
Robertson	38	4.8	38	45.8	50.6	46
Shortland	677	98.5	678	192.9	291.5	286
Sydney	33	5.7	34	1,576.3	1,581.9	561
Warringah	12	2.2	12	3.0	5.3	42
Watson	n.a.	n.a.	n.a.	6.2	6.3	22
Wentworth	12	2.2	12	1.6	3.8	25
Werriwa	n.a.	n.a.	n.a.	15.5	15.8	28
Whitlam	478	64.5	487	195.5	260.0	75

Note: Data not published for CEDs with total direct spend of less than \$1 million and/or less than 5 residing employees. (a) Includes full-time resident direct employees and contract workers by place of operation.