Economic Impact of the Queensland Sugar Manufacturing Industry 2017/18

Prepared for the Australian Sugar Milling Council

January 2019

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INTRODUCTION

Lawrence Consulting was commissioned by the Australian Sugar Milling Council (ASMC) to undertake an economic impact assessment of the Queensland sugar manufacturing industry in 2017/18. The analysis utilised data from an expenditure survey completed by ASMC of its full-member companies, in which companies were asked to disclose expenditure and other information by postcode in 2017/18 in the following categories:

- Employee salaries and wages (by place of residence) for full-time equivalent direct employees (FTEs);
- Goods and services expenditure by individual supplier; and
- Cane payments made to individual cane enterprises.

Table 1 lists the sugar milling companies that provided expenditure data as part of the study and who have become the focus of this industry report. (Note: the data provided was specific to raw sugar manufacturing and limited white sugar manufacturing, including cogeneration activities. It did not include complementary ethanol production in Sarina or white sugar manufacturing in Bundaberg. The economic contribution to these regions would be higher if these activities were added.)

Table 1: Queensland Sugar Milling Companies Supplying Expenditure Data	
Bundaberg Sugar Ltd	Sugar Australia (JV – Wilmar and Mackay Sugar)
Isis Central Sugar Mill Co Ltd	Tully Sugar Ltd
Mackay Sugar Ltd	Wilmar Sugar Australia
MSF Sugar Ltd	

The data was supplied by Australian postcodes where the salary was paid (residence of the direct employee) and where the business expenditures were made. The postcode spend data were then aggregated to identify the geographical spread of impacts (direct, indirect and consumption-induced) from the sugar manufacturing sector across Queensland at a number of different geographic scales:

- State (the whole area of Queensland);
- Regional (represented by 13 Statistical Divisions in Queensland);
- Local (represented by 78 Local Government Areas in Queensland);
- State electoral divisions (represented by 93 SEDs in Queensland); and
- Federal electoral divisions (represented by 30 FEDs in Queensland).

For this study, the contribution made by the Queensland sugar manufacturing industry to the local, state and regional economies of Queensland has been measured using **LocalImpact™** regional economic models based on input-output (I-O) tables developed by Lawrence Consulting specifically for these areas to estimate the sum of direct, indirect and consumption-induced effects. 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.

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.

The stimulus from economic activity can be traced through the economy in several different ways:

– The first-round effect, or direct effect, are those from the activities expenditure in purchasing goods from other industries;

- The second-round effects are those from the supplying industries increasing their purchases to meet the additional demand (note: combined with the direct impacts, these are also known as Type I multiplier effect). The second and subsequent rounds of purchasing are termed the indirect effects; and

- The consumption-induced effects, which recognise that the level of local production is important in determining regional levels of household consumption, that this in turn will be spent locally to a large extent and therefore influence the level of regional consumption and the level of output of each sector (note: when included in addition to first- and second-round impacts are also identified as Type II multiplier effect).

These effects can be represented by four common multipliers:

- Output
- Income
- Employment
- Value added.

ECONOMIC BENEFITS

Direct Spending

Expenditure data indicated that the **sugar manufacturing industry contributed approximately $2.2 billion** in direct spending to the Queensland economy in 2017/18, comprising:

- **$352.7 million in wages and salaries** to approximately **4,591 fulltime resident employees**, representing an average salary level across the sector of approximately $76,814 per annum, which was significantly higher than the average income for the Australian manufacturing industry ($67,834) and all industries ($62,785);

- **$686.3 million in purchases of goods and services** from **over 5,550 local businesses**, with an average spend per supplier of approximately $123,650; and

- **$1.2 billion in cane purchases** from **over 4,300 enterprises**, with an average spend per enterprise of approximately $279,830. These payments to cane enterprises supported direct employment of approximately 4,550 workers across Queensland (Source: ABS Census 2016).

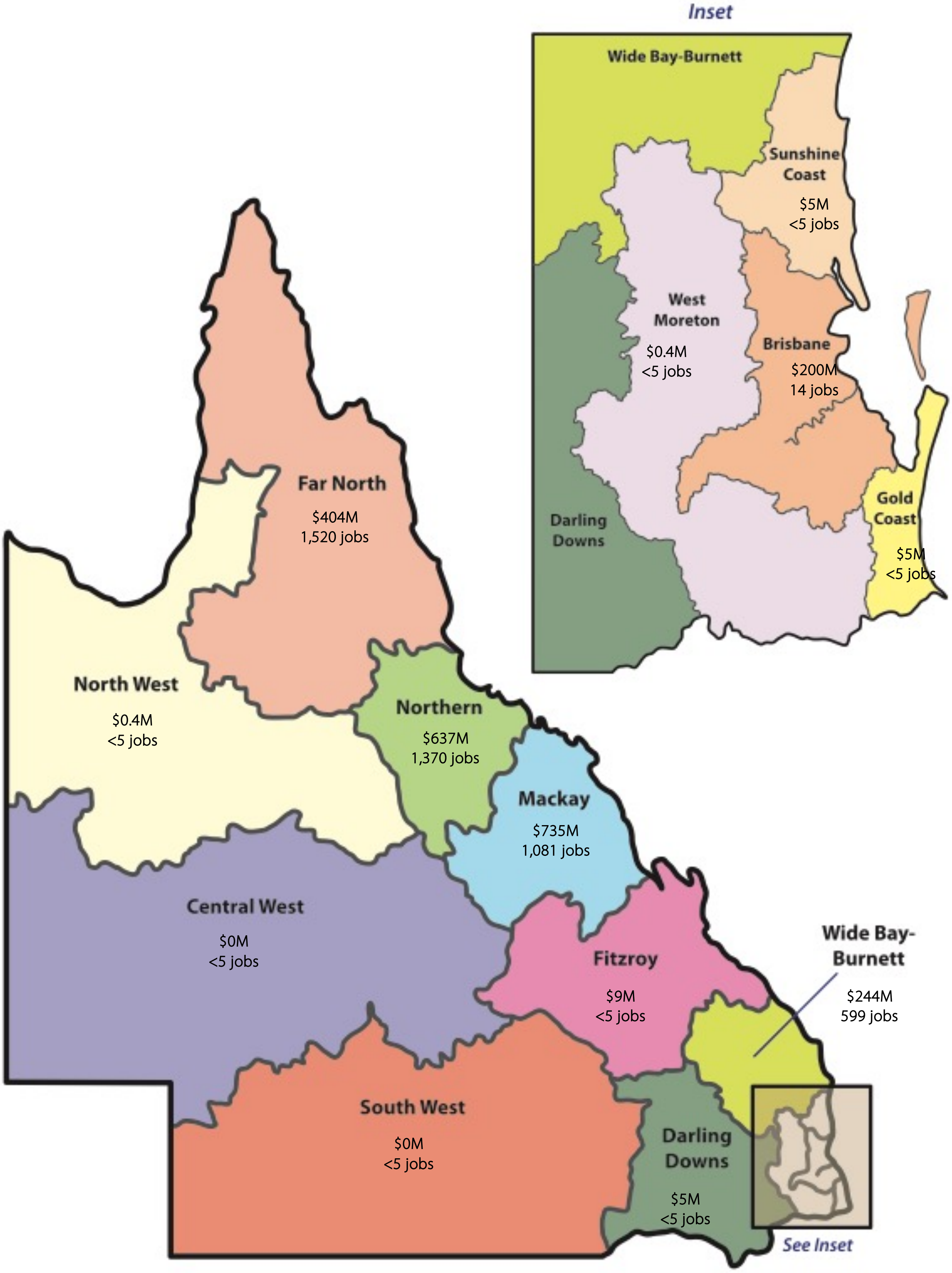
Table 2 and Figure 1 below show that the highest direct expenditure by region was in Mackay ($735.2 million), followed by the Northern ($637.2 million) and Far North ($403.9 million) regions. Further of note, approximately 91% of all direct spending by the sugar manufacturing sector was injected into regional host communities, including approximately 90% of all goods and services expenditure, suggesting a strong preference for supply by local businesses. The Far North recorded the highest number of direct employees by place of residence (1,520 FTEs), followed by Northern (1,370 FTEs) and Mackay (1,081 FTEs).

Table 2: Direct Impact of Qld Sugar Manufacturing Sector by Region, 2017/18

Region	Residing mill workers (FTEs)	Associated salaries ($M)	Purchases from mill suppliers ($M)	Cane payments ($M)	Total direct spending ($M)
Brisbane	14	3.2	193.9	2.7	199.8
Central West	0	0.0	0.0	0.0	0.0
Darling Downs	3	0.3	3.8	0.4	4.5
Far North	1,520	83.5	67.2	253.2	403.9
Fitzroy	2	0.1	1.4	7.4	8.9
Gold Coast	0	0.0	3.3	1.3	4.7
Mackay	1,081	103.2	291.5	340.4	735.2
North West	1	0.1	0.0	0.3	0.4
Northern	1,370	121.2	70.4	445.6	637.2
South West	0	0.0	0.0	0.0	0.0
Sunshine Coast	0	0.0	2.2	2.3	4.5
West Moreton	2	0.2	0.1	0.0	0.4
Wide Bay-Burnett	599	40.7	52.5	151.0	244.3
Total Queensland	**4,591**	**352.7**	**686.3**	**1,204.7**	**2,243.6**

Separate production data provided by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) indicates that, despite variables such as weather and price, Australian sugar production has remained relatively stable since 1991. As spend data is closely correlated to production levels, it can be assumed that the direct and flow-on economic benefits observed in 2017/18 have been replicated annually over the past three decades, indicating the sector's contribution is stable and consistent.

Figure 1: Queensland Sugar Manufacturing Sector Direct Expenditure and Employment by Region, 2017/18



Number of Businesses Directly Supported

Details of businesses supplying goods and services to, and receiving cane payments from, the sugar manufacturing industry were analysed to determine the total number of businesses supported by Queensland sugar manufacturing companies. Duplicates were removed to the best extent practicable to ensure an accurate estimation of the number of individual businesses engaged in the supply chain of the sector.

As per Table 3 and Chart 1, approximately 9,860 businesses, largely throughout coastal Queensland, received payments for goods and services including sugarcane supplied during 2017/18 to sugar manufacturing companies. The highest number of businesses supported was recorded in the Far North region (2,553 businesses), followed by Mackay (2,334 businesses), Northern (1,842 businesses) and Wide Bay-Burnett (1,671 businesses).

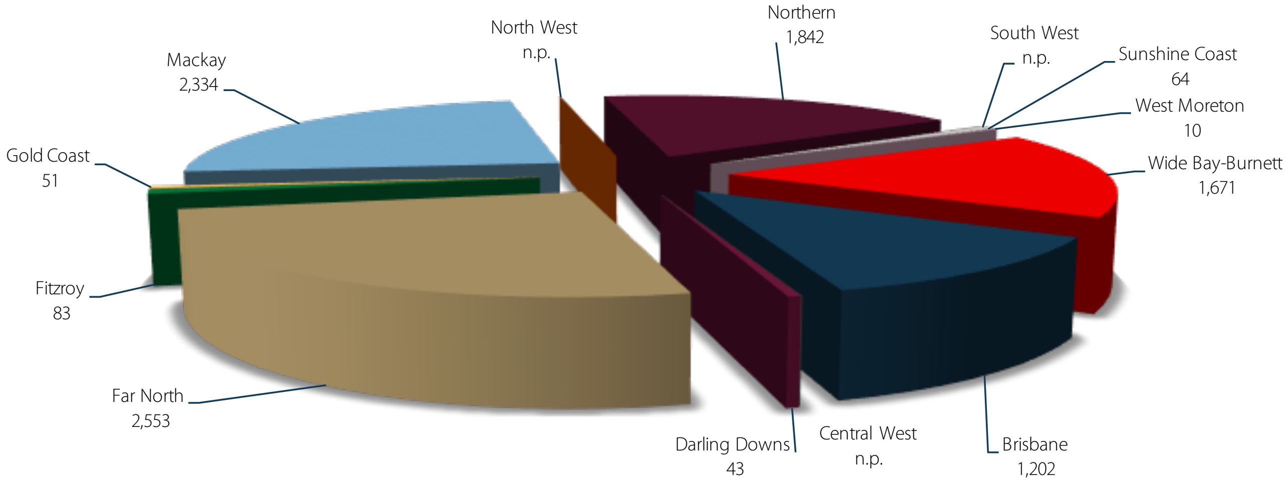
Table 3: Number of Businesses Supported by Region, 2017/18

Region	No. of mill suppliers	No. of cane enterprises	Estimated direct resident cane workers	Total businesses supported
Brisbane	1,193	9	48	1,202
Central West	n.p.	n.p.	n.p.	n.p.
Darling Downs	42	n.p.	n.p.	43
Far North	1,213	1,340	904	2,553
Fitzroy	44	39	0	83
Gold Coast	48	n.p.	70	51
Mackay	1,186	1,148	1,354	2,334
North West	n.p.	n.p.	n.p.	n.p.
Northern	758	1,084	1,476	1,842
South West	n.p.	n.p.	n.p.	n.p.
Sunshine Coast	42	22	26	64
West Moreton	9	n.p.	9	10
Wide Bay-Burnett	1,013	658	658	1,671
Total Queensland	5,551	4,305	4,554	9,856

Note: n.p. not publishable data

Chart 1: Number of Businesses Directly Supported by Sugar Manufacturing Companies

Queensland, 2017/18



Indirect and Total Impact

Economic modelling of the flow-on effects of the direct expenditure of Queensland sugar manufacturing companies allowed the sector's indirect and total economic impact to be estimated (refer Table 4). Across the state, the total economic impact of the sector in 2017/18, based on Type II multipliers (i.e. including both indirect industry and consumption-induced affects), amounted to:

- A significant economic contribution of **$4.0 billion in direct and indirect value added (or contribution to Gross State Product), amounting to 1.2% of GSP for Queensland** (based on the figure of $327.0 billion in 2016/17), through $2.2 billion in direct effects and $1.8 billion in supply chain and consumption effects. This indicates that for every dollar of direct stimulus that is injected by the sugar manufacturing industry into the Queensland economy, another 80 cents of economic activity is generated;

- **22,657 direct and indirect full time equivalent jobs supported**, amounting to **0.9% of total employment in Queensland** during 2017/18, through 9,145 directly employed in milling and cane growing and a further 13,512 jobs sustained indirectly through supply and consumption effects. This means that for every direct job sugar manufacturing and cane growing supports, another 1.5 jobs are sustained or generated in the economy;

- $4.4 billion in output/turnover (a measure of direct and supply chain purchases from local businesses); and

- $1.4 billion in income (wages and salaries) paid to workers.

Table 4: Economic Impact of Queensland Sugar Manufacturing Industry, 2017/18	
Value Added ($M)	
Direct	2,243.6
% of GSP	0.7%
Indirect	1,174.6
Total value added (Type I)	3,418.2
% of GSP	1.0%
Consumption-induced	631.3
Total value added (Type II)	4,049.5
% of GSP	1.2%
Employment (FTEs)	
Direct	9,145
% of total state employment	0.4%
Indirect	8,174
Total employment (Type I)	17,320
% of total state employment	0.7%
Consumption-induced	5,337
Total employment (Type II)	22,657
% of total state employment	0.9%
Business spend ($M)	
Direct	1,891.0
Indirect	937.4
Total business spend (Type I)	2,828.4
Consumption-induced	1,227.2
Total business spend (Type II)	4,055.6
Wages & salaries ($M)	
Direct	352.7
Indirect	632.4
Total wages & salaries (Type I)	985.1
Consumption-induced	375.5
Total wages & salaries (Type II)	1,360.6

Note: Consumption-induced impacts, i.e. the increase in economic activity generated to service the additional employment generated or sustained through the direct and indirect effects, are included in Type II impacts, but are excluded from Type I impacts.

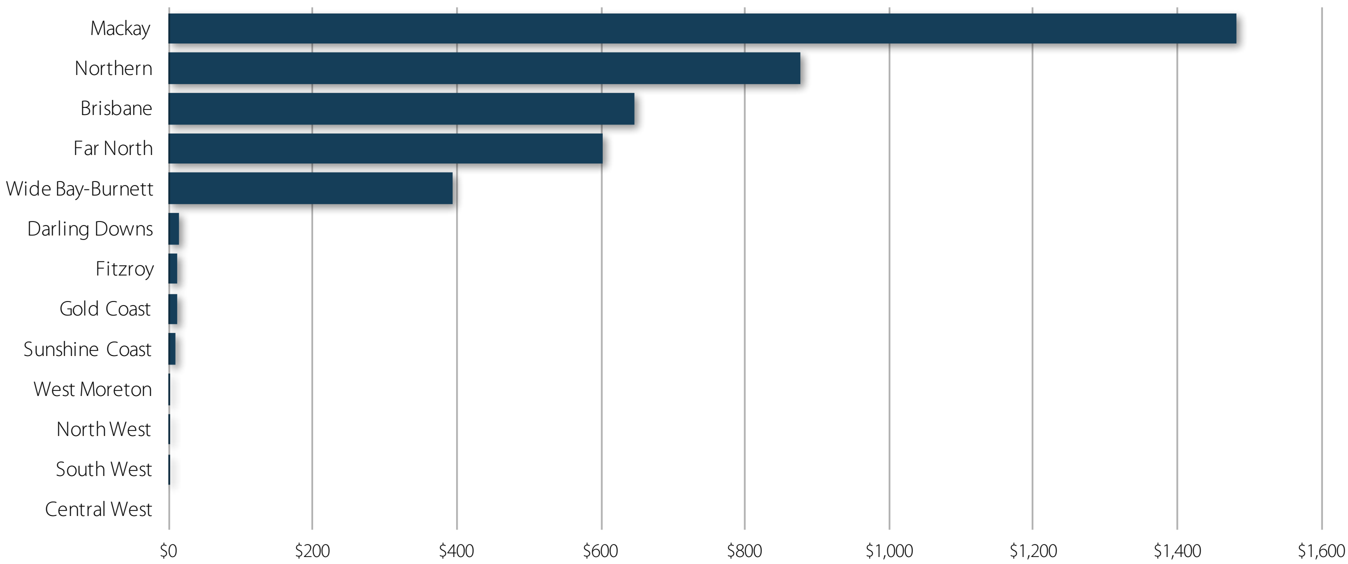
In terms of total economic benefit, the sugar manufacturing industry has the highest overall impact in the Mackay region, with total value added (or gross regional product (GRP)) of $1.5 billion, followed by the Northern ($877.6 million), Brisbane ($645.8 million) and Far North ($603.0 million) regions (refer Table 5 and Chart 2). With regard to economic contribution, the sugar manufacturing industry comprised the largest share of GRP in the Northern region (7.6%), followed by Mackay (6.9%) and Wide Bay-Burnett (2.8%).

Table 5: Total Economic Impact of Queensland Sugar Manufacturing Industry by Region, 2017/18

Region	Total estimated value added ($M)	Total value added as % of GRP	Total direct and indirect and induced employees (FTEs)	% of regional employment
Brisbane	645.8	0.4%	2,984	0.2%
Central West	0.0	0.0%	0	0.0%
Darling Downs	13.0	0.1%	58	0.0%
Far North	603.0	2.4%	4,043	3.2%
Fitzroy	12.0	0.1%	22	0.0%
Gold Coast	11.9	0.0%	117	0.0%
Mackay	1,482.3	6.9%	8,221	8.4%
North West	0.5	0.0%	2	0.0%
Northern	877.6	7.6%	4,842	4.6%
South West	0.0	0.0%	0	0.0%
Sunshine Coast	9.3	0.1%	57	0.0%
West Moreton	0.8	0.0%	14	0.0%
Wide Bay-Burnett	393.2	2.8%	2,287	2.0%
Total Queensland	**4,049.5**	**1.2%**	**22,657**	**0.9%**

Chart 2: Total Sugar Manufacturing Sector Value Added by Region

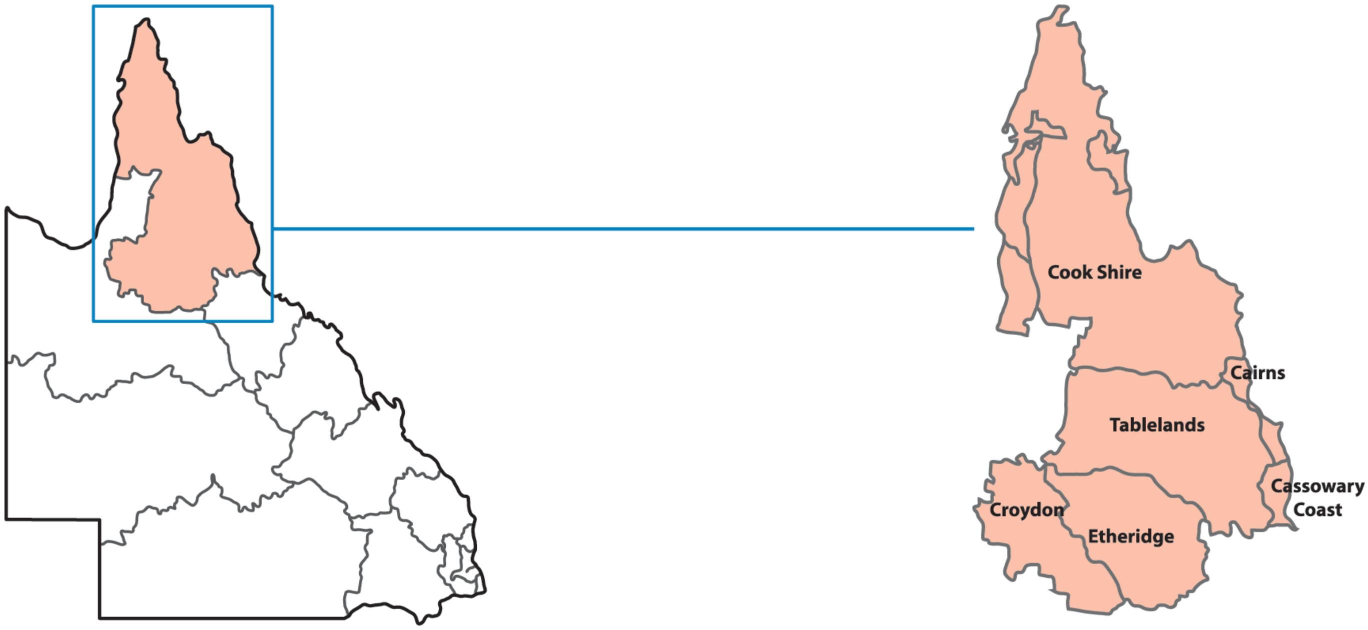
Queensland ($ million), 2017/18



With regard to employment, the sugar manufacturing Industry again had the greatest impact on jobs in the Mackay region, supporting 8,221 FTEs and comprising 8.4% of the total regional workforce. The Northern (4,842 FTEs, or 4.6%) and Far North (4,043, or 3.2%) regions recorded the next highest employment impacts.

Major Regions

Far North



Direct contribution

In 2017/18, the sugar manufacturing sector contributed the following direct impacts to this region:

- $83.5 million in wages and salaries to 1,520 direct fulltime employees, with an average salary of $54,980;
- $67.2 million in purchases of goods and services from 1,213 local businesses; and
- $253.2 million in payments to 1,340 individual cane enterprises.

Indirect contribution

This $403.9 million in direct spending supported:

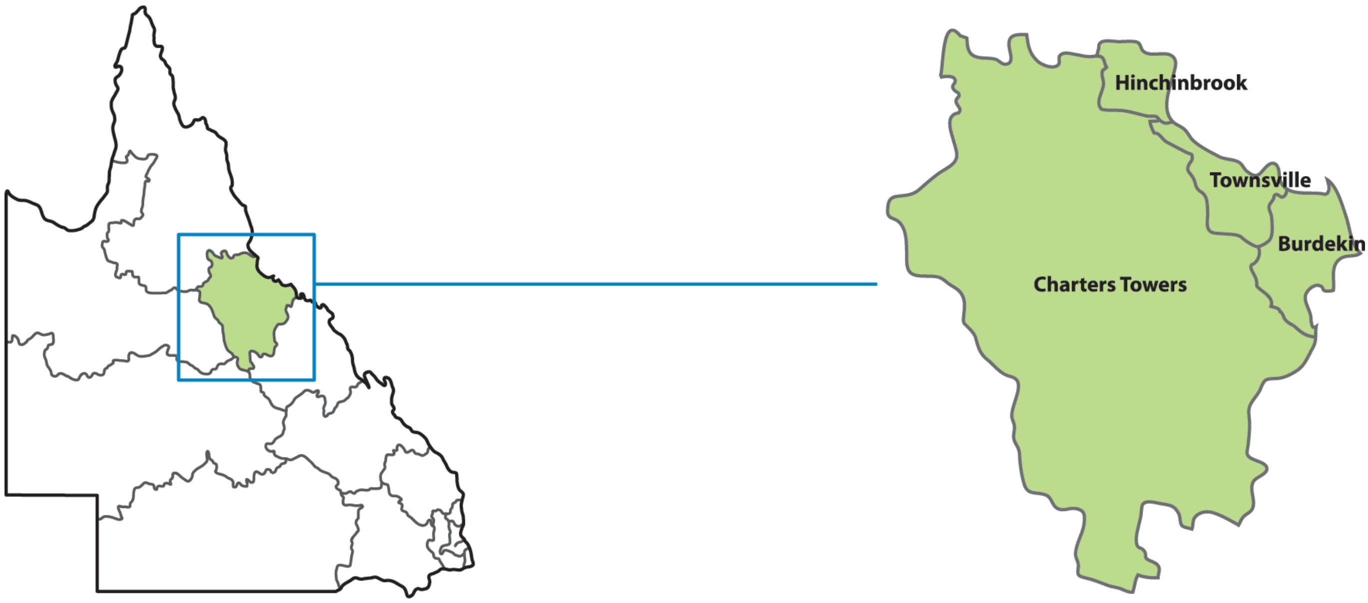
- $210.6 million in additional supply chain purchases and household consumption; and
- $94.5 million in wages and salaries associated with a further 1,619 jobs supported in this region.

Total contribution

The total economic contribution (direct, indirect and consumption-induced) from the sugar manufacturing sector in 2017/18 amounted to:

- $530.9 million in supplying business purchases;
- $178.0 million in total wages and salaries paid to workers;
- $603.0 million in value added, or 2.4% of total GRP in this region ($25.1 billion in 2016/17); and
- 4,043 full-time equivalent jobs, or 3.2% of the entire workforce in this region.

Northern



Direct contribution

In 2017/18, the sugar manufacturing sector contributed the following direct impacts to this region:

- $121.2 million in wages and salaries to 1,370 direct fulltime employees, with an average salary of $88,528;
- $70.4 million in purchases of goods and services from 758 local businesses; and
- $445.6 million in payments to 1,084 individual cane enterprises.

Indirect contribution

This $637.2 million in direct spending supported:

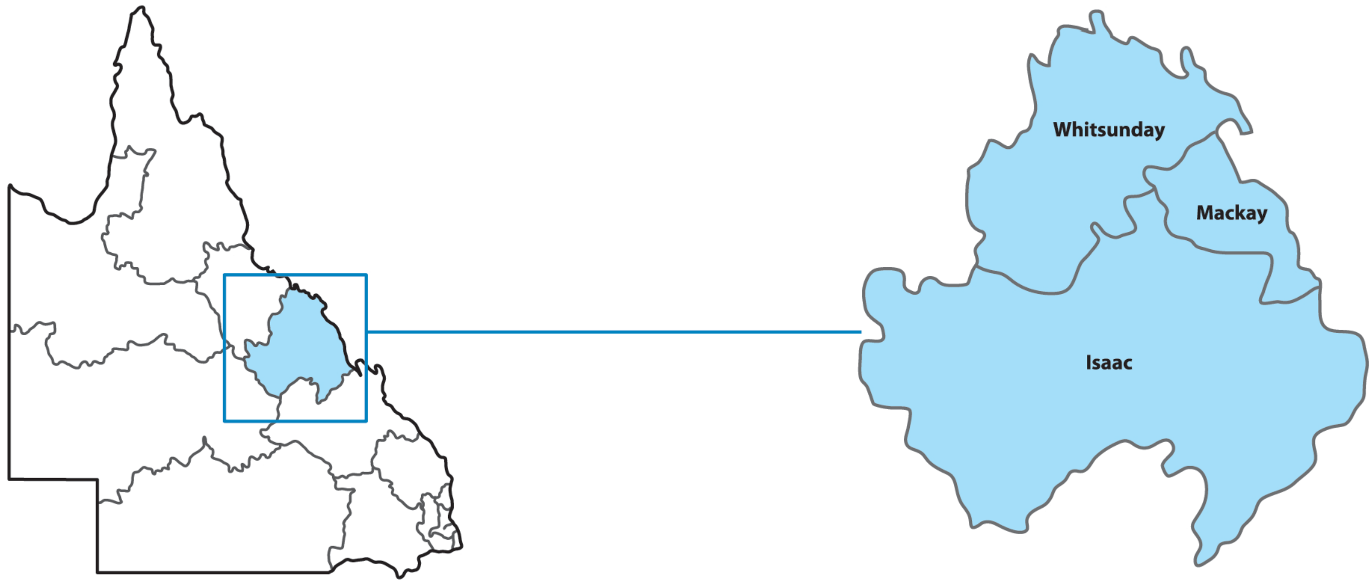
- $253.3 million in additional supply chain purchases and household consumption; and
- $115.4 million in wages and salaries associated with a further 1,997 jobs supported in this region.

Total contribution

The total economic contribution (direct, indirect and consumption-induced) from the sugar manufacturing sector in 2017/18 amounted to:

- $769.3 million in supplying business purchases;
- $236.6 million in total wages and salaries paid to workers;
- $877.6 million in value added, or 7.6% of total GRP in this region ($11.6 billion in 2016/17); and
- 4,842 full-time equivalent jobs, or 4.6% of the entire workforce in this region.

Mackay



Direct contribution

In 2017/18, the sugar manufacturing sector contributed the following direct impacts to this region:

- $103.2 million in wages and salaries to 1,081 direct fulltime employees, with an average salary of $95,479;
- $291.5 million in purchases of goods and services from 1,186 local businesses; and
- $340.4 million in payments to 1,148 individual cane enterprises.

Indirect contribution

This $735.2 million in direct spending supported:

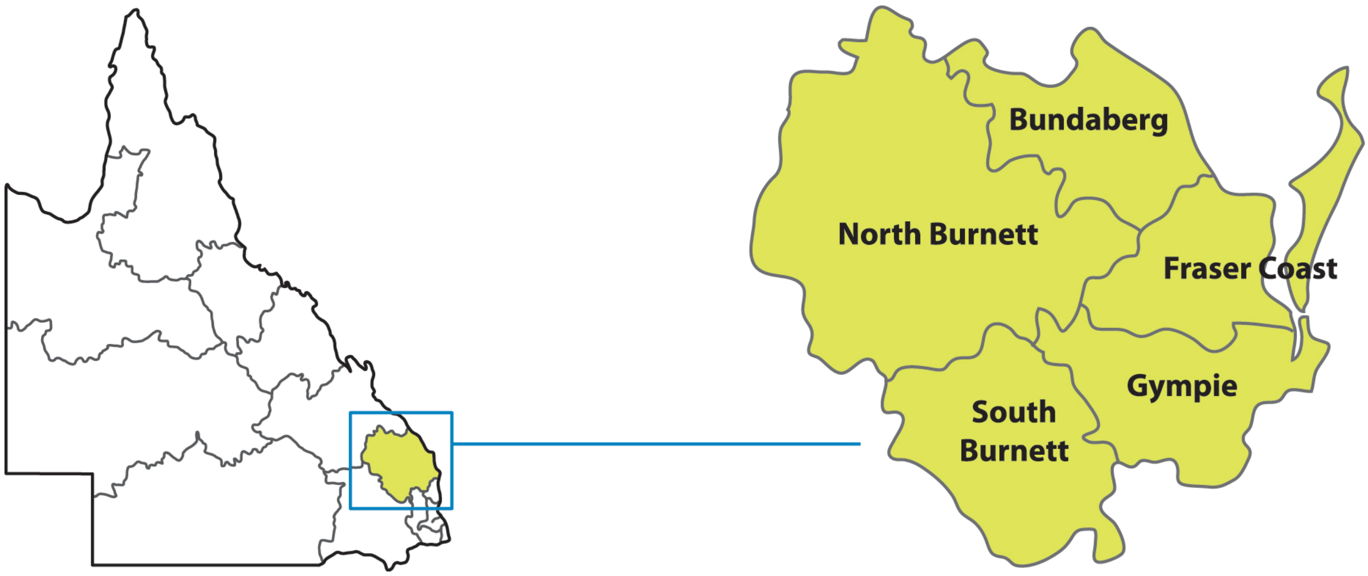
- $945.9 million in additional supply chain purchases and household consumption; and
- $485.7 million in wages and salaries associated with a further 5,786 jobs supported in this region.

Total contribution

The total economic contribution (direct, indirect and consumption-induced) from the sugar manufacturing sector in 2017/18 amounted to:

- $1.6 billion in supplying business purchases;
- $588.9 million in total wages and salaries paid to workers;
- $1.5 billion in value added, or 6.9% of total GRP in this region ($21.4 billion in 2016/17); and
- 8,221 full-time equivalent jobs, or 8.4% of the entire workforce in this region.

Wide Bay-Burnett



Direct contribution

In 2017/18, the sugar manufacturing sector contributed the following direct impacts to this region:

- $40.7 million in wages and salaries to 599 direct fulltime employees, with an average salary of $67,970;
- $52.5 million in purchases of goods and services from 1,013 local businesses; and
- $151.0 million in payments to 658 individual cane enterprises.

Indirect contribution

This $244.3 million in direct spending supported:

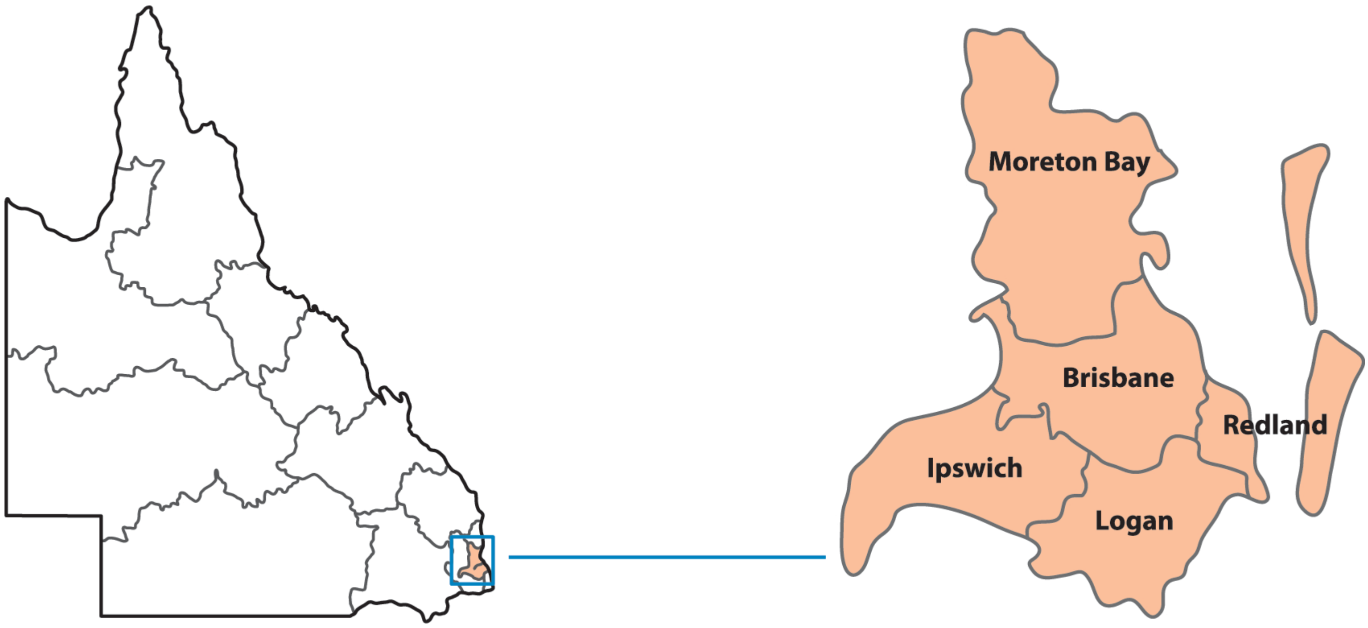
- $181.6 million in additional supply chain purchases and household consumption; and
- $78.1 million in wages and salaries associated with a further 1,030 jobs supported in this region.

Total contribution

The total economic contribution (direct, indirect and consumption-induced) from the sugar manufacturing sector in 2017/18 amounted to:

- $385.2 million in supplying business purchases;
- $118.8 million in total wages and salaries paid to workers;
- $393.2 million in value added, or 2.8% of total GRP in this region ($13.8 billion in 2016/17); and
- 2,287 full-time equivalent jobs, or 2.0% of the entire workforce in this region.

Brisbane



Direct contribution

In 2017/18, the sugar manufacturing sector contributed the following direct impacts to this region:

- $3.2 million in wages and salaries to 14 direct fulltime employees, with an average salary of $234,027;
- $193.9 million in purchases of goods and services from 1,193 local businesses; and
- $2.7 million in payments to 9 individual cane enterprises.

Indirect contribution

This $199.8 million in direct spending supported:

- $543.7 million in additional supply chain purchases and household consumption; and
- $222.3 million in wages and salaries associated with a further 2,922 jobs supported in this region.

Total contribution

The total economic contribution (direct, indirect and consumption-induced) from the sugar manufacturing sector in 2017/18 amounted to:

- $740.2 million in supplying business purchases;
- $225.5 million in total wages and salaries paid to workers;
- $645.8 million in value added, or 0.4% of total GRP in this region ($155.4 billion in 2016/17); and
- 2,984 full-time equivalent jobs, or 0.2% of the entire workforce in this region.

Local Impact

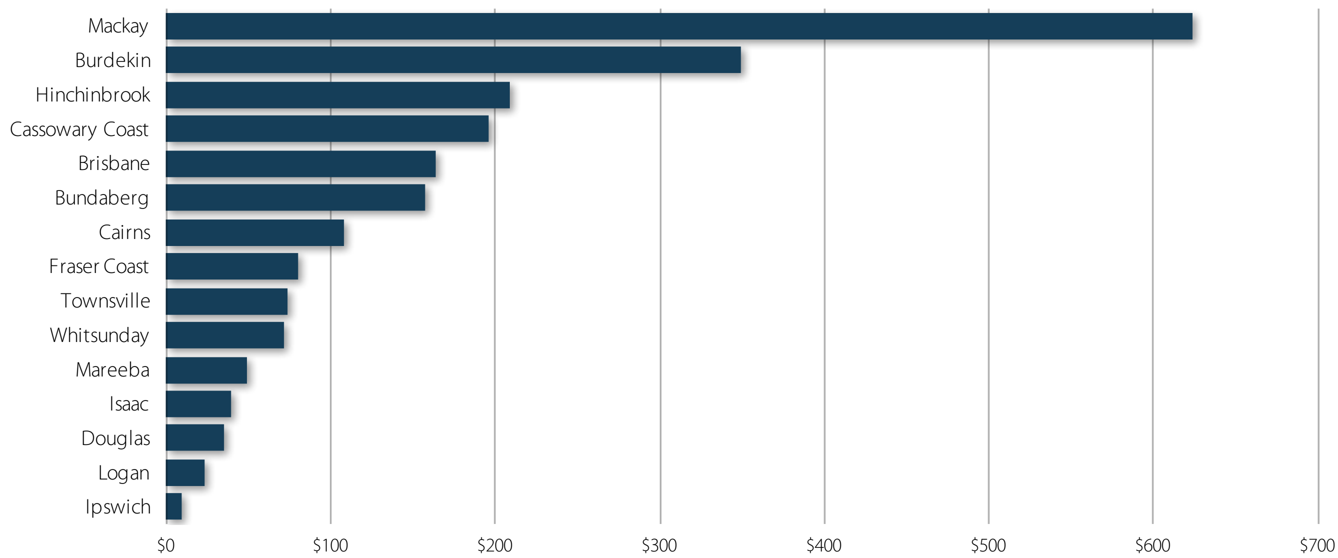
Similar to the analysis at a regional level, the expenditure data was also aggregated using geographical concordances at the local government area (LGA) level. The level of employment, direct expenditure and total economic impact is summarised for the 78 LGAs across Queensland in Appendix A (where significant activity occurs in an LGA).

Table 6 and Chart 3 show the distribution of total direct spending (i.e. salaries, business purchases and cane payments) by the sugar manufacturing sector across Queensland to the top 15 LGAs by expenditure and total economic impact. Mackay LGA recorded the largest share of direct expenditure in 2017/18 ($624.2 million), followed by Burdekin ($349.6 million), Hinchinbrook ($208.8 million), Cassowary Coast ($195.9 million) and Brisbane ($163.7 million). Direct employment was again greatest in the Mackay LGA (642 FTEs), followed by the Cassowary Coast (724 FTEs), Burdekin (710 FTEs), Cairns (451 FTEs) and Hinchinbrook (449 FTEs) LGAs.

Table 6: Local Impact of Queensland Sugar Manufacturing Industry, Top 15 LGAs by Expenditure, 2017/18

Region	Direct impact					Total impact	
	Direct employees (FTEs)	Associated salaries ($M)	Purchases from mill suppliers ($M)	Cane payments ($M)	Total direct spending ($M)	Total value added ($M)	Total employment (FTEs)
Mackay	906	88.9	268.2	267.1	624.2	1,305.4	7,259
Burdekin	710	59.4	19.7	270.5	349.6	428.7	2,283
Hinchinbrook	449	39.2	7.2	162.3	208.8	250.8	1,317
Cassowary Coast	724	39.9	23.2	132.7	195.9	267.1	1,742
Brisbane	12	3.0	158.0	2.7	163.7	510.2	2,280
Bundaberg	383	28.3	44.3	84.8	157.4	276.1	1,716
Cairns	451	21.1	37.1	50.1	108.3	194.8	1,422
Fraser Coast	207	12.0	5.2	62.7	80.0	100.8	490
Townsville	193	21.1	43.2	9.7	74.1	171.6	1,016
Whitsunday	168	13.7	4.4	53.3	71.4	93.0	567
Mareeba	103	4.6	4.0	40.8	49.4	59.9	256
Isaac	7	0.7	18.9	20.0	39.6	81.8	375
Douglas	130	13.1	1.3	20.2	34.5	49.0	331
Logan	0	0.0	23.5	0.0	23.5	74.5	339
Ipswich	2	0.1	8.8	0.0	8.9	28.2	126

Chart 3: Queensland Sugar Manufacturing Sector Direct Spend by LGA, Top 15
2017/18 ($ million)

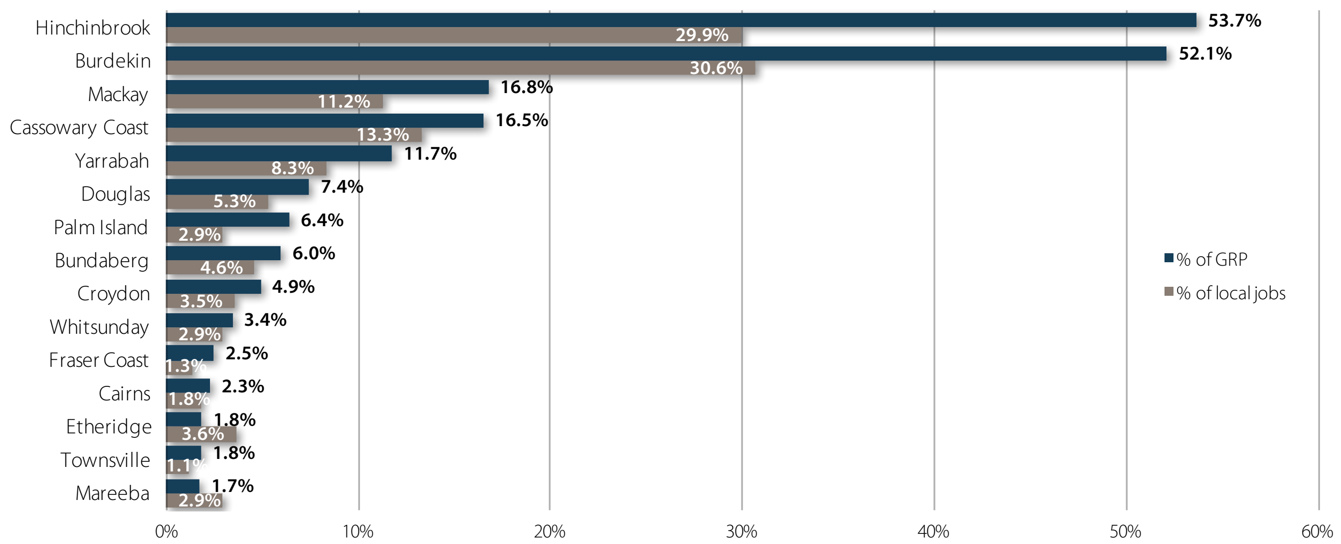


The Queensland sugar manufacturing sector made the largest contribution to the local economy in terms of proportion of gross regional product in the Hinchinbrook LGA (53.7% of total GRP), followed by the Burdekin (52.1%), Mackay (16.8%), Cassowary Coast (16.5%) LGAs (refer Chart 4).

With regard to employment, the sugar manufacturing sector again had the greatest impact on jobs in the Mackay LGA, with 7,259 total FTEs supported. Burdekin (2,283 FTEs), Brisbane (2,280 FTEs), Cassowary Coast (1,742 FTEs) and Bundaberg (1,716 FTEs) LGAs recorded the next highest employment impacts, whilst LGAs where the sugar manufacturing sector accounted for the largest share of employment are Burdekin (30.6%), Hinchinbrook (29.9%), Cassowary Coast (13.3%) and Mackay (11.2%).

Chart 4: Largest Contribution to Local Economy and Employment

Proportion of Gross Regional Product and Jobs, 2017/18



APPENDIX A: TOTAL ECONOMIC IMPACTS BY LGA

Table A1: Estimated Total Economic Impacts of QLD Sugar Manufacturing Industry Spending by LGA (Type II Impact)

Region	Direct impact					Total impact (Type II)			
	Direct employees (FTEs)	Associated salaries ($M)	Purchases from mill suppliers ($M)	Cane payments ($M)	Total direct spending ($M)	Total value added ($M)	% of GRP	Total employment (FTEs)	% of local employment
Brisbane	12	3.0	158.0	2.7	163.7	510.2	0.4%	2,280	0.3%
Bundaberg	383	28.3	44.3	84.8	157.4	276.1	6.0%	1,716	4.6%
Burdekin	710	59.4	19.7	270.5	349.6	428.7	52.1%	2,283	30.6%
Cairns	451	21.1	37.1	50.1	108.3	194.8	2.3%	1,422	1.8%
Cassowary Coast	724	39.9	23.2	132.7	195.9	267.1	16.5%	1,742	13.3%
Charters Towers	9	0.7	0.1	1.7	2.5	3.2	0.5%	20	0.4%
Douglas	130	13.1	1.3	20.2	34.5	49.0	7.4%	331	5.3%
Etheridge	11	0.5	0.1	1.4	2.0	2.3	1.8%	13	3.6%
Fraser Coast	207	12.0	5.2	62.7	80.0	100.8	2.5%	490	1.3%
Gladstone	2	0.1	0.7	7.4	8.2	9.9	0.2%	13	0.0%
Gold Coast	0	0.0	3.3	1.3	4.7	11.9	0.0%	117	0.0%
Gympie	0	0.0	0.7	1.9	2.6	4.2	0.2%	16	0.1%
Hinchinbrook	449	39.2	7.2	162.3	208.8	250.8	53.7%	1,317	29.9%
Ipswich	2	0.1	8.8	0.0	8.9	28.2	0.3%	126	0.1%
Isaac	7	0.7	18.9	20.0	39.6	81.8	0.7%	375	2.9%
Logan	0	0.0	23.5	0.0	23.5	74.5	0.6%	339	0.2%
Mackay	906	88.9	268.2	267.1	624.2	1,305.4	16.8%	7,259	11.2%
Mareeba	103	4.6	4.0	40.8	49.4	59.9	1.7%	256	2.9%
Moreton Bay	0	0.1	1.7	0.0	1.8	5.5	0.0%	32	0.0%
North Burnett	9	0.4	0.0	1.5	2.0	2.3	0.3%	12	0.2%
Palm Island	8	0.8	0.2	1.4	2.3	2.9	6.4%	14	2.9%
Redland	0	0.0	1.9	0.0	1.9	6.0	0.1%	27	0.0%
South Burnett	0	0.0	2.3	0.0	2.3	7.3	0.4%	32	0.3%
Sunshine Coast	0	0.0	2.0	2.2	4.2	8.6	0.1%	54	0.0%
Tablelands	67	2.8	1.1	3.2	7.1	11.3	1.0%	134	1.3%
Toowoomba	3	0.2	2.7	0.4	3.2	9.2	0.1%	41	0.1%
Townsville	193	21.1	43.2	9.7	74.1	171.6	1.8%	1,016	1.1%
Western Downs	0	0.1	1.1	0.0	1.2	3.6	0.1%	16	0.1%
Whitsunday	168	13.7	4.4	53.3	71.4	93.0	3.4%	567	2.9%
Yarrabah	28	1.3	0.2	3.8	5.3	6.3	11.7%	37	8.3%

Note: (a) Excludes LGAs with total direct spend of less than $1 million.

Appendix B: Total Economic Impacts by State Electoral Divisions (SED)

Table B1: Estimated Total Economic Impacts of QLD Sugar Manufacturing Industry Spending by SED (Type II Impact)

State electoral division	Direct impact					Total impact (Type II)	
	Direct employees (FTEs)	Associated salaries ($M)	Purchases from mill suppliers ($M)	Cane payments ($M)	Total direct spending ($M)	Total value added ($M)	Total employment (FTEs)
Algester	0	0.0	13.7	0.0	13.7	43.4	192
Aspley	0	0.0	0.7	0.0	0.7	2.3	10
Bancroft	0	0.0	0.0	0.0	0.1	0.2	1
Barron River	25	1.1	6.0	1.4	8.5	20.2	139
Bonney	0	0.0	0.0	0.0	0.0	0.0	0
Broadwater	0	0.0	0.0	0.0	0.0	0.0	0
Buderim	0	0.0	0.4	0.0	0.4	1.3	13
Bulimba	3	0.8	14.2	0.0	15.0	46.7	209
Bundaberg	137	10.6	25.1	41.5	77.2	140.7	657
Bundamba	1	0.1	1.3	0.0	1.4	4.4	20
Burdekin	735	61.6	33.5	282.3	377.4	495.5	2,648
Burleigh	0	0.0	0.0	0.0	0.0	0.1	0
Burnett	234	17.0	19.1	34.5	70.7	126.8	985
Cairns	47	2.2	23.2	3.1	28.5	72.3	384
Callide	23	1.1	1.2	17.5	19.8	23.4	121
Caloundra	0	0.0	0.0	0.0	0.0	0.0	0
Capalaba	0	0.0	0.8	0.0	0.8	2.5	11
Chatsworth	2	0.3	0.1	0.0	0.4	0.8	5
Clayfield	0	0.0	2.2	1.5	3.7	8.6	32
Condamine	1	0.1	0.3	0.1	0.5	1.2	6
Cook	226	17.4	4.9	58.6	80.9	106.0	572
Coomera	0	0.0	2.6	0.3	2.8	8.5	92
Cooper	2	0.8	12.5	0.0	13.3	41.3	184
Currumbin	0	0.0	0.2	0.4	0.5	0.9	2
Everton	0	0.0	0.3	0.0	0.3	1.0	4
Ferny Grove	0	0.0	0.2	0.0	0.2	0.8	3
Gaven	0	0.0	0.0	0.0	0.0	0.0	0
Gladstone	0	0.0	0.1	0.1	0.2	0.5	2
Glass House	0	0.0	0.1	0.0	0.1	0.4	5
Greenslopes	1	0.2	0.1	0.0	0.3	0.6	7
Gregory	0	0.0	0.1	0.0	0.1	0.4	6
Gympie	6	0.3	0.8	3.1	4.2	6.3	26
Hervey Bay	18	0.9	1.1	2.6	4.6	7.8	46
Hill	771	39.1	25.9	117.0	182.0	265.3	1,858
Hinchinbrook	582	49.2	15.1	200.3	264.6	338.0	1,751
Inala	0	0.0	3.7	0.0	3.7	11.7	52
Ipswich	1	0.0	2.7	0.0	2.7	8.5	38
Ipswich West	0	0.0	2.3	0.0	2.3	7.4	33
Jordan	0	0.0	2.5	0.0	2.5	7.9	35
Kawana	0	0.0	0.0	0.0	0.0	0.1	0
Keppel	0	0.0	0.2	0.0	0.2	0.6	3
Kurwongbah	0	0.0	0.3	0.0	0.3	1.1	5
Lockyer	1	0.1	0.0	0.0	0.2	0.4	6
Logan	0	0.0	4.8	0.0	4.8	15.4	68
Lytton	0	0.0	1.4	0.0	1.4	4.5	20
Macalister	0	0.0	16.1	0.0	16.1	51.2	226

Table B1: Estimated Total Economic Impacts of QLD Sugar Manufacturing Industry Spending by SED (Type II Impact)

State electoral division	Direct impact					Total impact (Type II)	
	Direct employees (FTEs)	Associated salaries ($M)	Purchases from mill suppliers ($M)	Cane payments ($M)	Total direct spending ($M)	Total value added ($M)	Total employment (FTEs)
Mackay	346	34.3	64.1	23.9	122.3	298.3	1,783
Maiwar	2	0.8	3.6	0.7	5.0	13.5	65
Mansfield	0	0.0	0.1	0.0	0.1	0.4	2
Maroochydore	0	0.0	0.4	0.0	0.4	1.3	6
Maryborough	184	10.8	4.0	59.0	73.7	91.5	441
McConnel	1	0.1	88.6	0.2	88.8	281.6	1,243
Mermaid Beach	0	0.0	0.2	0.4	0.6	1.0	2
Miller	1	0.2	0.5	0.1	0.8	2.2	10
Mirani	402	39.1	87.6	174.9	301.7	534.4	2,978
Moggill	0	0.0	0.8	0.2	1.0	2.7	11
Morayfield	0	0.0	0.0	0.0	0.0	0.1	0
Mount Ommaney	0	0.0	5.6	0.0	5.6	17.8	78
Mudgeeraba	0	0.0	0.1	0.0	0.1	0.3	5
Mulgrave	337	16.3	5.5	34.5	56.4	81.6	864
Mundingburra	52	5.8	11.7	3.4	20.9	47.4	270
Murrumba	0	0.0	0.0	0.0	0.0	0.0	3
Nanango	0	0.0	2.3	0.0	2.4	7.4	33
Nicklin	0	0.0	0.6	1.0	1.7	3.0	18
Ninderry	0	0.0	0.5	1.2	1.6	2.6	7
Noosa	0	0.0	0.2	0.0	0.2	0.6	3
Nudgee	0	0.0	1.7	0.0	1.7	5.3	28
Oodgeroo	0	0.0	0.9	0.0	0.9	3.0	13
Pine Rivers	0	0.0	1.0	0.0	1.0	3.3	15
Pumicestone	0	0.0	0.1	0.0	0.1	0.2	1
Redcliffe	0	0.0	0.0	0.0	0.0	0.1	0
Redlands	0	0.0	0.1	0.0	0.1	0.3	1
Rockhampton	0	0.0	0.3	0.0	0.3	1.0	4
Sandgate	0	0.0	0.1	0.0	0.1	0.2	1
Scenic Rim	1	0.1	0.1	0.0	0.1	0.3	7
South Brisbane	0	0.0	0.8	0.0	0.8	2.7	12
Southern Downs	0	0.0	0.1	0.3	0.4	0.6	1
Southport	0	0.0	0.0	0.0	0.0	0.0	3
Springwood	0	0.0	0.5	0.0	0.5	1.6	7
Stafford	0	0.0	0.4	0.0	0.4	1.4	6
Stretton	0	0.0	0.1	0.0	0.1	0.4	2
Surfers Paradise	0	0.0	0.1	0.3	0.3	0.5	4
Theodore	0	0.0	0.0	0.0	0.0	0.1	5
Thuringowa	47	5.3	2.0	0.6	7.8	16.4	138
Toohey	0	0.0	6.9	0.0	6.9	21.9	97
Toowoomba North	1	0.1	1.0	0.0	1.1	3.3	15
Toowoomba South	1	0.0	1.3	0.0	1.4	4.3	20
Townsville	59	6.5	22.8	4.0	33.3	80.3	427
Traeger	21	1.3	0.2	3.4	4.8	6.2	33
Warrego	0	0.1	0.1	0.0	0.2	0.6	2
Waterford	0	0.0	0.9	0.0	0.9	3.0	13
Whitsunday	321	28.9	127.1	132.3	288.2	597.6	3,218
Woodridge	0	0.0	1.0	0.0	1.0	3.2	14

Appendix C: Total Economic Impacts by Federal Electoral Divisions (FED)

Table C1: Estimated Total Economic Impacts of QLD Sugar Manufacturing Industry Spending by FED (Type II Impact)

Commonwealth electoral division	Direct impact					Total impact (Type II)	
	Direct employees (FTEs)	Associated salaries ($M)	Purchases from mill suppliers ($M)	Cane payments ($M)	Total direct spending ($M)	Total value added ($M)	Total employment (FTEs)
Blair	1	0.1	5.2	0.0	5.3	16.8	75
Bonner	1	0.2	2.8	0.0	3.0	9.4	43
Bowman	0	0.0	1.9	0.0	1.9	6.0	26
Brisbane	3	0.8	102.0	1.6	104.5	327.3	1,446
Capricornia	388	37.7	93.0	176.9	307.6	550.8	3,015
Dawson	1,433	128.2	224.9	435.0	788.1	1,312.4	7,016
Dickson	0	0.0	1.4	0.0	1.4	4.3	19
Fadden	0	0.0	1.5	0.1	1.7	5.0	77
Fairfax	0	0.0	1.4	2.2	3.7	6.8	39
Fisher	0	0.0	0.5	0.0	0.5	1.6	12
Flynn	53	3.4	5.9	33.4	42.7	59.0	349
Forde	0	0.0	19.9	0.1	20.0	63.2	290
Griffith	5	1.0	14.0	0.0	15.1	46.5	213
Groom	2	0.2	2.7	0.1	2.9	8.9	41
Herbert	154	16.7	36.7	6.4	59.9	141.6	833
Hinkler	366	26.8	40.3	87.5	154.7	266.8	1,497
Kennedy	1,683	104.2	43.8	388.6	536.6	713.2	4,513
Leichhardt	311	21.1	31.3	32.5	84.8	160.8	1,016
Lilley	0	0.0	3.9	0.0	3.9	12.3	57
Longman	0	0.0	0.3	0.0	0.3	0.9	7
Maranoa	0	0.1	3.4	0.3	3.8	11.2	52
McPherson	0	0.0	0.4	0.4	0.7	1.5	8
Moncrieff	0	0.0	0.1	0.7	0.8	1.1	2
Moreton	1	0.2	18.6	0.1	18.9	59.5	267
Oxley	0	0.0	15.1	0.0	15.2	48.1	215
Petrie	0	0.0	0.4	0.0	0.4	1.2	9
Rankin	0	0.0	2.7	0.0	2.7	8.6	38
Ryan	2	0.8	4.7	0.9	6.4	17.5	85
Wide Bay	183	10.7	4.9	37.5	53.0	73.4	452
Wright	2	0.2	2.3	0.0	2.6	7.9	42