

LEGISLATIVE COUNCIL

Question On Notice

Tuesday, 2 April 2019

2040. Hon Robin Chapple to the Minister for Ports

I refer to the proposed dredging in Roebuck Bay in the Kimberley, part of which is Ramsar listed because of its internationally significant migratory birds, a hotspot for rare snubfin dolphins, and a marine park jointly managed with the Yawuru Traditional Owners, and ask:

- (a) how much is being spent on the dredging;
- (b) how many more ships are estimated to be able to use the Port if the dredging goes ahead;
- (c) has a cost-benefit analysis been undertaken on the proposal;
- (d) if no to (c), why not;
- (e) if yes to (c), will the Minister table the document;
- (f) has Kimberley Ports Authority considered altering the under keel clearance regulations to allow a larger window of time for ships to enter;
- (g) if no to (f), why not;
- (h) does the Kimberley Ports Authority, the department or the Minister have the power to change the under keel clearance so that dredging is not required;
- (i) if no to (h), why not;
- (j) in metres and centimetres, what is the minimum clearance available between the deepest point on vessels and the seabed for ships entering the Port of Broome;
- (k) can the Kimberley Ports Authority provide evidence that there will not be any risk of maintenance dredging following the initial proposed capital dredge in Roebuck Bay;
- (l) if no to (k), why not;
- (m) if yes to (k), will the Minister table the evidence;
- (n) in its proposal, has the Kimberley Port Authority considered the effects of cyclones and big wet season events in the accretion of dredged areas, for example, as in the unexpected circumstance at Darwin harbour, where studies showed no maintenance dredging would be needed, but in fact regular maintenance dredging is now required;
- (o) if no to (n), why not; and
- (p) if yes to (n), will the Minister table the document?

Answer

- a) The total allocated budget is \$15.3 million.
- b) The business case for the dredging program was based on the economic benefit for Broome and the State through the extended tidal access to the Broome wharf, in particular, for cruise ships.

The Government's commitment to fix Broome Port prompted Carnival Australia to re-commit to home berthing its P&O ships in WA in October last year, saving the regional port town being removed from cruise itineraries. Carnival alone contributes about \$32 million in economic benefits by visiting places like Broome, Albany, Busselton and Geraldton.

- c) Yes.
- d) Not applicable.
- e) The Cruise Ship Industry Report, WA Homeported Cruise Ships 2015-16, contains the cost benefit analysis and details the potential that the industry will have on Western Australia. [See tabled paper No.:]
- f) Yes, however this did not provide a substantial change to port access compared to current static under keel clearance, nor did it satisfy the cruise industry's requirements for tidal access.
- g) Not applicable.
- h) The Kimberley Ports Authority's Harbour Master has the power to adjust the under keel clearance requirements. Dredging is still required to enable safe access for larger vessels at all tides.
- i) Not applicable.
- j) The minimum clearance in the Port of Broome is 1m plus 10 per cent of the draft of the ship. Currently the channel has a depth of approximately 4.1 m at the lowest tide, and post dredging the depth will be 10m.
- k) The project is to dredge a high spot and widen the approach channel which is removing rock and hard consolidated material not sand and sediments that can be transient, so future maintenance dredging is not anticipated.
- l) Not applicable.
- m) A review and mapping of historical Department of Transport bathymetry survey data extending back to 2007 was undertaken. The data shows the underwater sand dunes movement due to tides etc. over the past 9 years is outside of the channel and will have little or no impact. [See tabled paper No.:]
- n) The bathymetry survey data has been assessed dating back to 2007. During that time there have been cyclones and extreme wet season events. The hard material dredging in the channel will not significantly change the channel approach design.
- o) Not applicable.
- p) See answer to part (m).

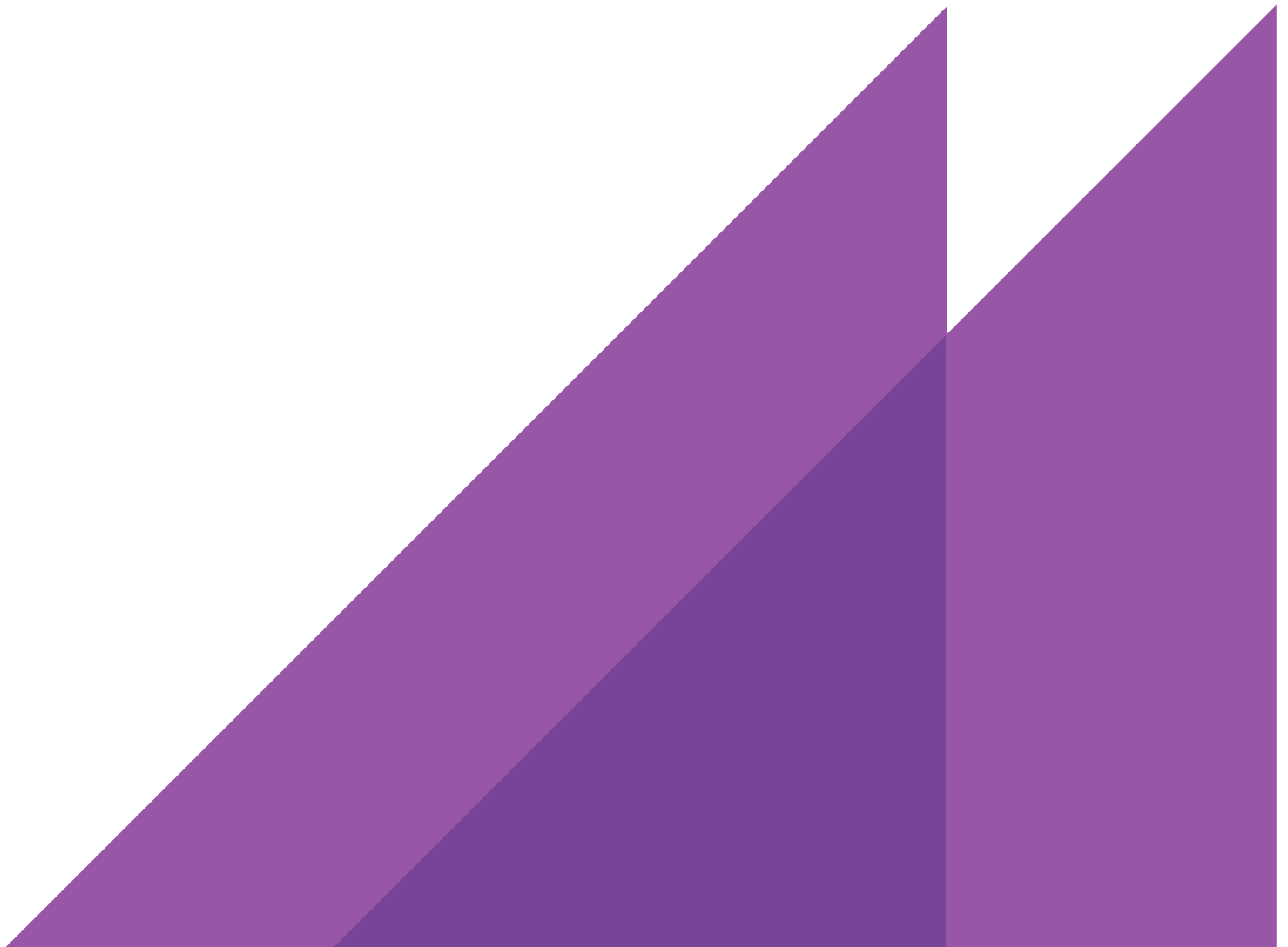


REPORT TO
TOURISM WA
JULY 2016

WA HOMEPORTRD CRUISE SHIPS, 2015-16



ECONOMIC IMPACT ASSESSMENT





ACIL ALLEN CONSULTING PTY LTD
ABN 68 102 652 148

LEVEL FIFTEEN
127 CREEK STREET
BRISBANE QLD 4000
AUSTRALIA
T+61 7 3009 8700
F+61 7 3009 8799

LEVEL TWO
33 AINSLIE PLACE
CANBERRA ACT 2600
AUSTRALIA
T+61 2 6103 8200
F+61 2 6103 8233

LEVEL NINE
60 COLLINS STREET
MELBOURNE VIC 3000
AUSTRALIA
T+61 3 8650 6000
F+61 3 9654 6363

LEVEL ONE
50 PITT STREET
SYDNEY NSW 2000
AUSTRALIA
T+61 2 8272 5100
F+61 2 9247 2455

LEVEL TWELVE, BGC CENTRE
28 THE ESPLANADE
PERTH WA 6000
AUSTRALIA
T+61 8 9449 9600
F+61 8 9322 3955

161 WAKEFIELD STREET
ADELAIDE SA 5000
AUSTRALIA
T +61 8 8122 4965

ACILALLEN.COM.AU

AUTHORS

JOHN NICOLAOU | NEBO FRANICH | JAMES HAMMOND

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KEY FINDINGS

ACIL Allen Consulting has been commissioned by Tourism WA to undertake an assessment of the economic impact of homeported cruise shipping on the Western Australian economy in 2015-16. While the economic impact will primarily be centred on the homeport of Fremantle in Metropolitan Perth, with transit ports located in six of the nine Western Australian development regions, the total economic impact of the homeported cruise shipping industry does spread across the State.

In developing this economic impact assessment, ACIL Allen has obtained data from the cruise lines on the number of passengers and crew that visited Western Australian ports during 2015-16, the 2015-16 cruise itineraries, and operating costs of cruise vessels visiting Western Australia.

The average expenditures undertaken by passengers and crew either prior to boarding a cruise at Fremantle Port, or while ported at a transit port, were sourced from Cruise Lines International Association Australasia in their report *The Contribution of Cruise Tourism to the Australian Economy in 2014-15*.

All economic impact results presented in this report provide an estimate of the **economic footprint** of homeported cruise vessels on the Western Australian and regional economies, rather than the net economic impact homeported cruise vessels create. The net economic impact of homeported cruise vessels on the WA and regional economies is less than the economic footprint because it is assumed that if domestic cruises were not on offer in WA, domestic travellers would spend the same amount of income on a different form of tourism related expenditure. It follows that if there was a greater percentage of total passengers that were from overseas, this would generate a larger net economic impact, because it would be additional spending undertaken in the WA economy.

The economic impact results in this report are presented in terms of the direct plus the indirect (or flow on) impact (economic footprint) of homeported cruise vessels during 2015-16. This indirect impact (often referred to in other forums as the multiplier effect) embodies the effect of changes in demand from other industries, which is caused when the initial impact from passenger, crew or cruise vessel expenditure leads to more spending in the economy that in turn creates more income and taxes and then leads to further spending. The indirect impact also addresses any crowding out effects as scarce resources (particularly labour and capital) are directed away from other possible economic activities toward the activities of the cruise shipping industry.

Information supplied by cruise lines shows that during 2015-16, (homeported) cruise ships made 107 port calls across WA, with the majority of these (55) attributed to the homeport in Fremantle. Of the regional ports, Broome and Geraldton received 11 transit port calls each, followed by Esperance and Albany (10 each), and then Busselton (seven) and Exmouth (three).

The number of passenger and crew days at each port were representative of each port's respective number of port calls, with:

- Fremantle Port accounting for some 75,800 passenger days and just under 24,500 crew days;

- Broome Port accounting for roughly 20,000 passenger days and just over 4,400 crew days;
- Geraldton accounting for just under 19,000 passenger days and close to 2,200 crew days; and
- all other ports accounting for less than 12,500 passenger days each and less than 2,700 crew days each.

ACIL Allen has estimated that there was a total of \$57.3 million in direct spending by passengers either during their pre-cruise stay at Fremantle Port or their onshore visits at transit ports across WA during 2015-16. Of this, domestic passengers accounted for 96 per cent (or \$55 million) of the total spend, while international passengers accounted for the other four per cent (or \$2.3 million).

In relation to the types of spend, domestic passengers directed the majority of their spending on accommodation, retail shopping and transportation, while international passengers directed the majority of their spending to shore excursions, accommodation and transportation.

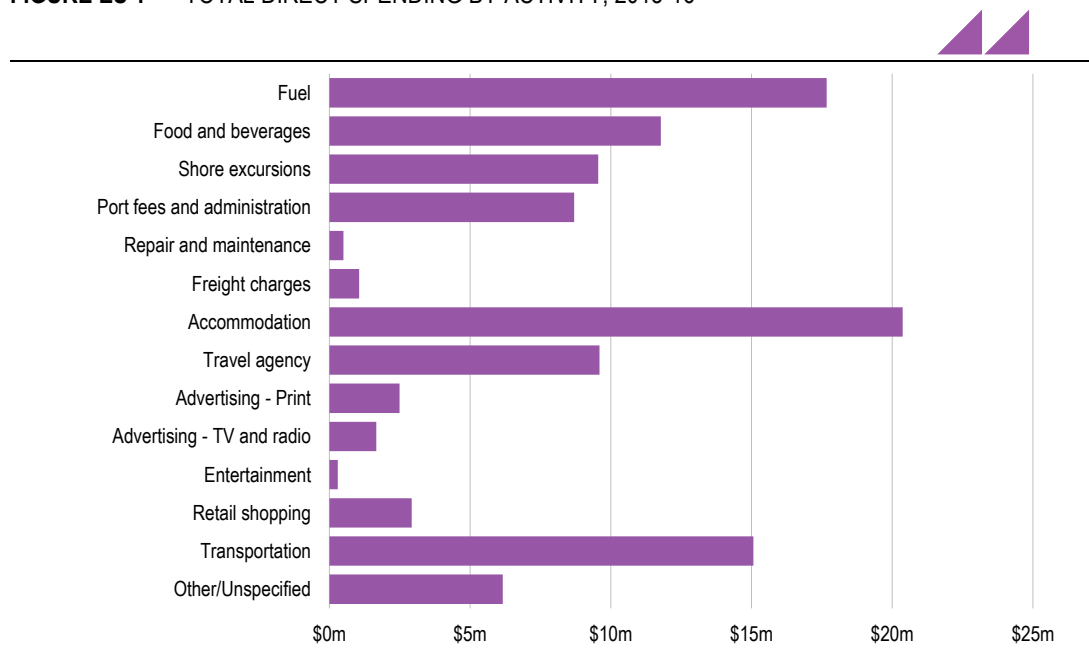
The crew are also estimated to have spent almost \$3 million in 2015-16, primarily on food and beverages and retail shopping.

ACIL Allen was also able to estimate that the direct spending attributed to cruise vessels was \$47.6 million in 2015-16, with the majority of this spend directed to fuel, travel agency costs and port fees and administration.

Combining both passenger, crew member and cruise vessel operating spending provides an overall estimate of the direct impact of homeported cruise ships on the WA economy in 2015-16. Overall, it is estimated that there was \$107.8 million in direct spending, of which passengers and crew accounted for 55.9 per cent of the total, with the remaining 44.1 per cent from cruise vessel operating spending.

Of the total direct spending from cruise shipping in WA, the majority of their spending activity was directed to accommodation, fuel, transportation and food and beverages.

FIGURE ES 1 TOTAL DIRECT SPENDING BY ACTIVITY, 2015-16



SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES AND CRUISE LINES INTERNATIONAL ASSOCIATION AUSTRALASIA

In order to estimate the economic impact of the direct spending from passengers, crew and cruise ships, ACIL Allen used its Input-Output models of the Western Australian and regional economies. Overall, it is estimated the **total economic footprint from homeported cruise ships in WA was \$155 million in 2015-16**. Of this amount, \$95.4 million was the direct spending undertaken by passengers, crew and the cruise ships across all WA ports (excluding associated imports and taxes), which generated a flow on impact of \$59.6 million across the local economy – implying a multiplier of 1.62.

Of the total economic footprint, it is estimated that the WA economy will receive a **boost of \$70.7 million in Gross Value Added (GVA)** terms, and once taxes (less subsidies) are taken into consideration, **increase Gross State Product (GSP) by \$81.7 million** in 2015-16.

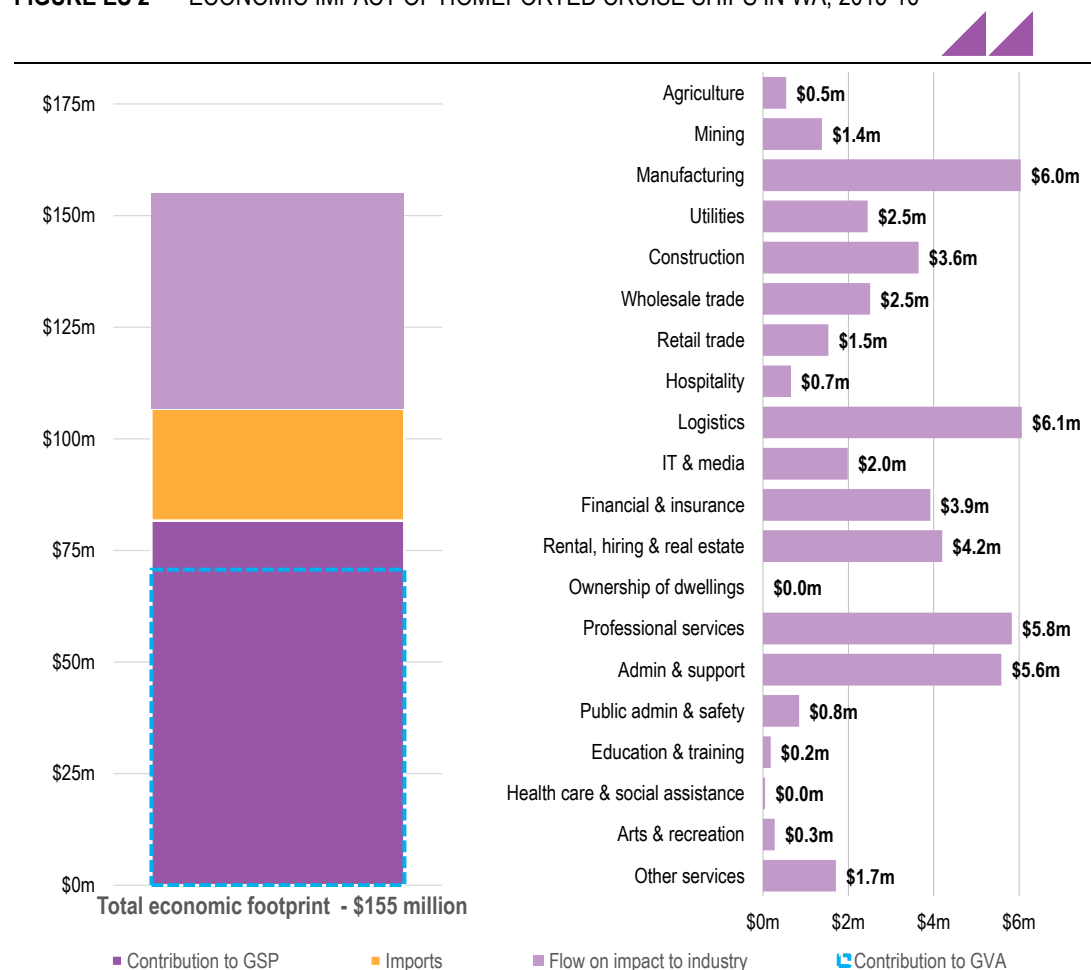
The additional taxes that are generated for governments from this activity is estimated to be \$12.1 million in 2015-16.

For industry, the **flow on impacts from the initial spending stimulus is estimated to be \$48.3 million** in 2015-16. These flow on impacts result from the procurement of the goods and services required by the primary industries that service the cruise ships, passengers and crew. With homeported cruise ships generating spending activity in areas such as accommodation, fuel, transportation and food and beverages, this generates flow on activity across a number of sectors, including:

- Logistics – such as freight transport and passenger transport services;
- Manufacturing – such as ship repairs and maintenance;
- Professional services – such as accounting, marketing and legal services; and
- Administrative support – such as building and cleaning, and employment and travel agency services.

However, not all activity generated by homeported cruise shipping remains in WA. ACIL Allen estimates that \$25.1 million, or 16.2 per cent, of the total economic footprint is accounted for by imports (domestic and international), with the largest imports shares for fuel, food and beverages, and accommodation.

FIGURE ES 2 ECONOMIC IMPACT OF HOMEPORTED CRUISE SHIPS IN WA, 2015-16



SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES AND CRUISE LINES INTERNATIONAL ASSOCIATION AUSTRALASIA

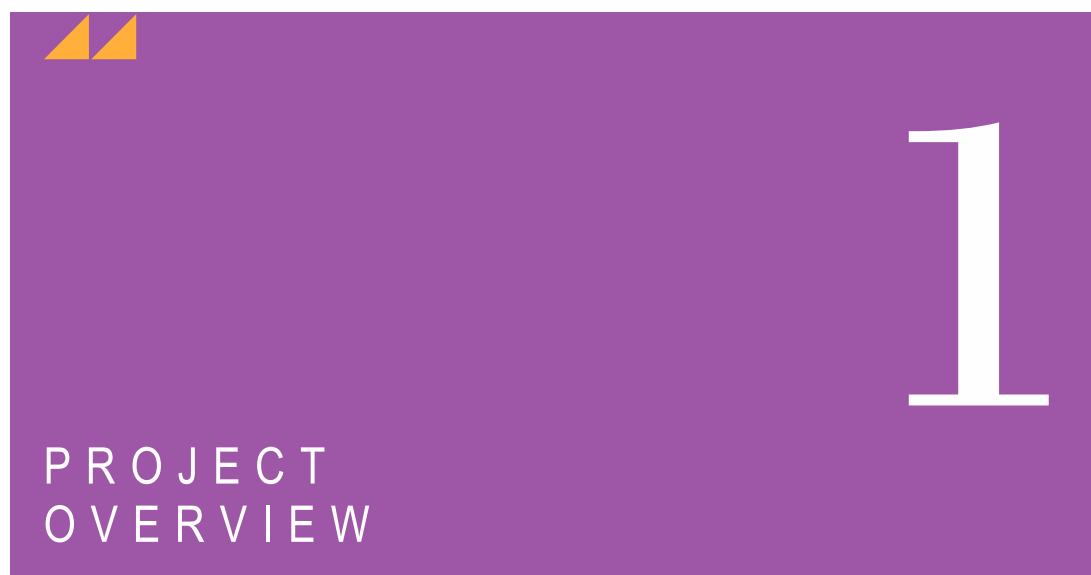
The economic activity resulting from homeported cruise shipping is estimated to have generated **473 full time equivalent (FTE) job years in 2015-16**. While the bulk of the job creation is in the Perth region where the homeport of Fremantle is located (91 per cent), a small number were also estimated to have been created across regional WA as a result of activity generated in the regional ports.

ACIL Allen also modelled the impact of homeported cruise shipping in 2015-16 on each of the regional economies where the ports are located, with the quantum of the impact dependant on the number of port calls – and therefore the number of passenger and crew days – in each port. The results of regional economic modelling are presented in the table below.

TABLE ES 1 ECONOMIC IMPACT OF HOMEPORTED CRUISE SHIPS BY PORT, 2015-16

Port	Economic Footprint	Direct Spend	Flow on impact	Multiplier	GVA	GRP	FTEs
Fremantle	\$138m	\$84m	\$54.2m	1.65	\$63.4m	\$74.1m	430
Broome	\$4.9m	\$3.6m	\$1.4m	1.37	\$2.2m	\$2.3m	13
Geraldton	\$4.1m	\$2.7m	\$1.4m	1.51	\$1.8m	\$1.8m	10
Busselton	\$2.2m	\$1.4m	\$0.8m	1.54	\$0.9m	\$0.9m	8
Albany	\$3.0m	\$1.9m	\$1.1m	1.56	\$1.3m	\$1.4m	5
Esperance	\$2.0m	\$1.3m	\$0.7m	1.51	\$0.8m	\$0.9m	5
Exmouth	\$0.8m	\$0.6m	\$0.2m	1.37	\$0.4m	\$0.4m	2
Regional Total	\$17m	\$11.6m	\$5.4	1.47	\$7.3m	\$7.6m	43
Total	\$155m	\$95m	\$60m	1.62	\$71m	\$82m	473

SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES AND CRUISE LINES INTERNATIONAL ASSOCIATION AUSTRALASIA



1.1 Project details

The Western Australian Government's Strategy for Tourism in Western Australia 2020 (the 2020 Strategy) establishes a desired outcome to increase tourist spend in Western Australia from \$6 billion in 2010 to \$12 billion by 2020.

The 2020 Strategy sets out seven strategic pillars aimed at ensuring the \$12 billion outcome is delivered:

1. Brand – establishing the Experience Extraordinary brand
2. Asia – growing Western Australia's share of high-yielding Asian markets
3. Events – positioning Western Australia as a recognised events destination for locals and visitors
4. Business travel – increasing the contribution from business travel
5. Infrastructure – ensuring adequate capacity around hotels, aviation and the workforce to support growth
6. Regional travel – increasing visitors to regional Western Australia
7. Indigenous tourism – providing every visitor the opportunity to have an Aboriginal tourism experience

Critical to achieving the 2020 Strategy, which Tourism WA is currently tracking towards (\$8.7 billion tourism spend in 2014-15), will be realising the full potential of progressive tourism markets, such as the Western Australian cruise shipping industry. In 2014-15 alone, the cruise shipping industry generated \$275.3 million of tourism expenditure in Western Australia¹ – a 10 fold increase since 2004-05, which has seen it already eclipse the *Western Australian Cruise Shipping Strategic Plan 2012-2020* spend goal of \$274.4 million in 2020.

Although the majority of this expenditure is undertaken in the Fremantle area where the State's primary port is located, cruise shipping generated expenditure also directly contributes to regional travel, which is one of the seven strategic pillars set by Tourism WA. Spending undertaken at WA's regional ports reached just over \$20 million in 2014-15², and is a key source of growth opportunity in the future, with cruises to regional areas having the ability to connect the Experience Perth tourism region with other regional markets.

It should be noted that the above 2020 cruise shipping spend target and associated expenditure is in relation to the expenditure resulting from all cruise shipping in Western Australia. However, for the

¹ Cruise Down Under. 2015. Economic Impact Assessment of the Cruise Shipping Industry in Australia, 2014-15

² Ibid.

purposes of this study, Tourism WA would like to further understand the economic impact of **homeported cruise shipping** on the Western Australian economy, including:

- the total passenger and crew expenditure by port/destination and by spend category;
- the other direct expenditure generated by homeporting the vessels in Fremantle;
- a measure of the direct and indirect output, Gross State Product, Gross Value Added, employment and taxes generated by homeported ships in WA; and
- where possible, the impact by regional area source market and vessel or cruise line.

1.2 Port locations

The economic impact of the cruise shipping industry on the Western Australian economy is centred at Fremantle Port in Metropolitan Perth, which is the primary homeport for cruise vessels in WA. However, with transit ports located in six of the nine Western Australian development regions, the total economic impact of the cruise shipping industry spreads across the State.

Figure 1.1 on the following page shows the Ports located in WA (and their respective development regions) that were visited by cruise vessels that homeported at Fremantle Port during 2015-16.

1.3 Data sources

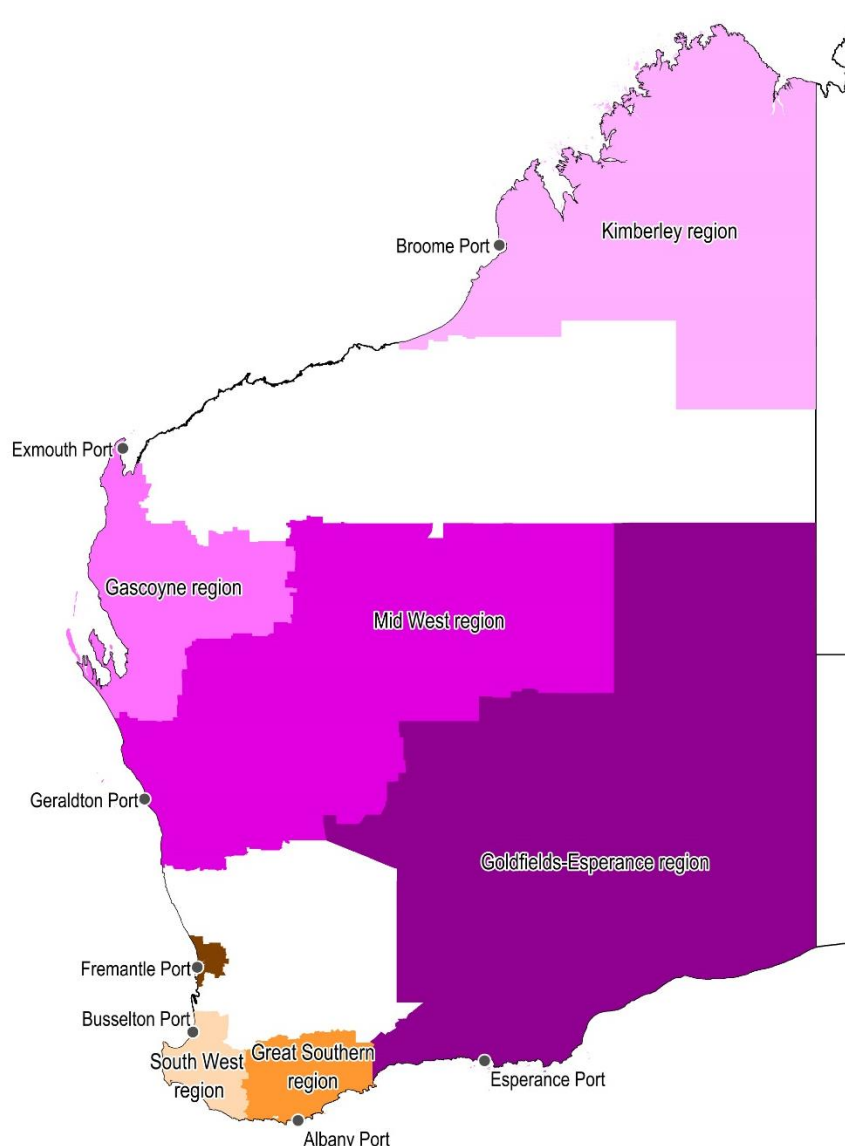
Data on the number of passengers and crew that visited Western Australian ports during 2015-16, the 2015-16 cruise itineraries, and operating costs of cruise vessels visiting Western Australia, were sourced from the cruise lines³. The seven ports that were visited by the cruise vessels in 2015-16 included:

- Fremantle Port;
- Broome Port;
- Geraldton Port;
- Busselton Port;
- Albany Port;
- Esperance Port; and
- Exmouth Port.

The average expenditures undertaken by passengers and crew either prior to boarding a cruise at Fremantle Port, or while ported at a transit port, were sourced from Cruise Lines International Association Australasia in their report *The Contribution of Cruise Tourism to the Australian Economy in 2014-15*.

All other data regarding the description of the WA or regional economies and key economic variables has been sourced from publicly available sources. The primary source of data is the Australian Bureau of Statistics including the 2011 Census as well as other updated information held by this agency relating to and Gross Product.

³ ACIL Allen would like to thank Carnival Australia and Cruise and Maritime Voyages Australia for providing the data needed to complete this economic impact assessment.

FIGURE 1.1 WA PORTS AND DEVELOPMENT REGIONS

SOURCE: ACIL ALLEN CONSULTING, GEOSCIENCE AUSTRALIA AND ABS

1.4 Key considerations

All economic impact results presented in this report provide an estimate of the **economic footprint** of homeported cruise vessels on the Western Australian and regional economies, rather than the net economic impact homeported cruise vessels create. Net economic impact calculations take into consideration the difference between the actual generated expenditure or revenue and a scenario where the expenditure or revenue shock did not take place. For example, the net economic impact of homeported cruise vessels on the WA and regional economies would be less than the economic footprint due to the assumption that if domestic cruises were not on offer in WA, domestic travellers would spend the same amount of income on a different form of tourism related expenditure. The only actual net additional expenditure the cruise lines generate for WA is the expenditure associated with international travellers.

Within this context, the economic impact results in this report are presented in terms of the direct plus the indirect (or flow on) impact (economic footprint) of homeported cruise vessels during 2015-16. This indirect impact (often referred to in other forums as the multiplier effect) embodies the effect of changes in demand from other industries, which is caused when the initial impact from passenger, crew or cruise vessel expenditure leads to more spending in the economy that in turn creates more income and taxes and then leads to further spending. The indirect impact also embodies any crowding out effects as scarce resources (particularly labour and capital) are directed away from other possible economic activities toward the activities of the cruise shipping industry.

A number of other key details should be taken into consideration when reading this report:

- all data is presented for the 2015-16 financial year unless otherwise stated;
- all data is presented in Australian dollars; and
- all data is presented in 2015-16 dollars.

1.5 Glossary of key economic terms

Economic footprint

A measure of the total economic activity in the production of new goods and services

Economic footprint is a broader measure of the economy in that it includes the final value of goods and services produced (GDP/GSP), as well as the value of the intermediate consumption within the region to produce the goods and services, and imports from outside the region.

Gross Product

A measure of the size of an economy

Gross product is a measure of the output generated by an economy over a period of time (typically a year). It represents the total dollar value of all finalised goods and services produced over a specific time period and is considered as a measure of the size of the economy. At a national level, it is referred to as Gross Domestic Product (GDP); at the state level, Gross State Product (GSP); while at a regional level, Gross Regional Product (GRP).

Gross value added

A measure of the value of goods and services produced in an industry or sector of an economy.

Gross Value Added (GVA) is the output of an industry or sector minus intermediate consumption. GVA therefore represents the value of all goods and services produced, minus the cost of all inputs and raw materials used to produce that good or service. Unlike Gross Product, GVA does not include the value of taxes minus subsidies.

Imports

The value of goods imported to a region and amounts payable to non-residents for the provision of services to residents.

Employment

The number of full time equivalent job years created as a result of a project or expenditure in the economy, which includes direct and indirect (flow-on) employment.

1.6 Acronyms

A number of acronyms are used throughout this report. These and their meaning are presented in the following table.

TABLE 1.1 LIST OF ACRONYMS

Abbreviation	Full name
ABS	Australian Bureau of Statistics
AUD or \$	Australian dollars
I-O	Input-output
FTE	Full time equivalent
GDP	Gross Domestic Product
GRP	Gross Regional Product
GSP	Gross State Product
GVA	Gross Value Added

1.7 Report structure

This report describes the economic impact of homeported cruise vessels visiting Western Australian ports during 2015-16, and is structured in the following manner:

- Chapter two provides an economic context for the WA and regional economies;
- Chapter three outlines the direct tourism expenditure resulting from homeported cruise vessels visiting Western Australian ports, and the economic impact of this expenditure on the Western Australian and regional economies; and
- Appendix A provides a description of the methodology used to obtain the economic impact results, which will include the key assumptions used during the analysis.

ECONOMIC AND STRATEGIC CONTEXT

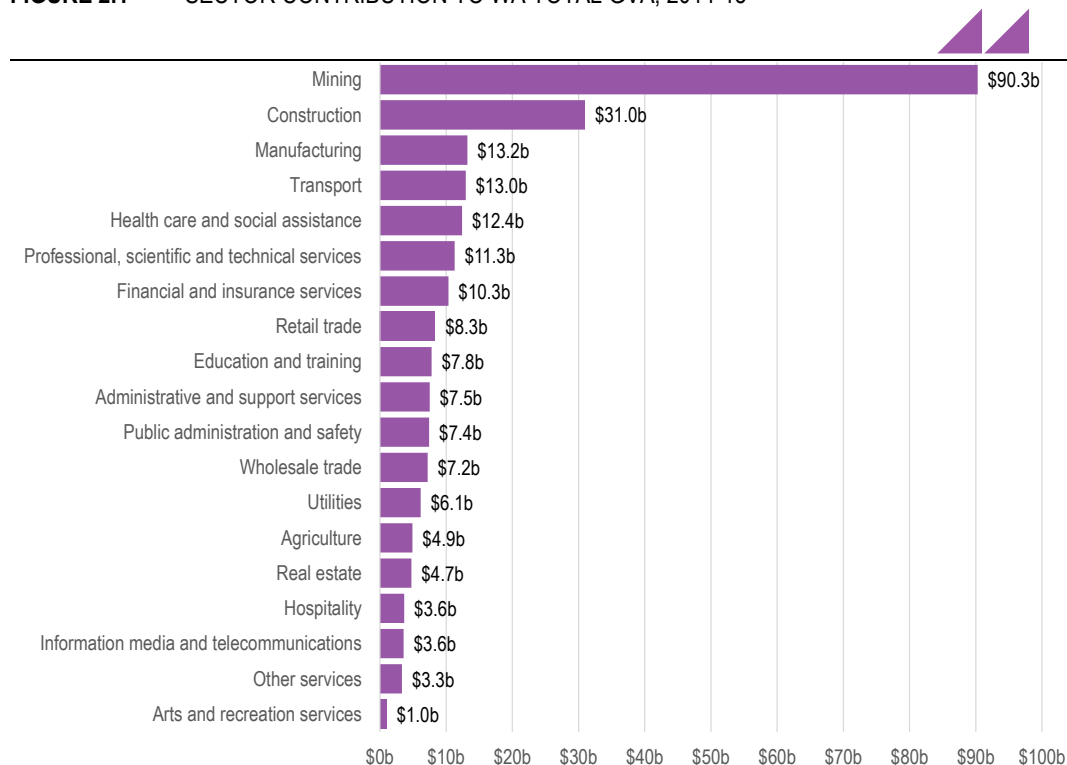
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2.1 WA economic profile

The Western Australian economy is Australia's fourth largest economy, with Gross State Product (GSP) totalling \$276 billion in 2014-15 – accounting for just over 17 per cent of Australia's Gross Domestic Product (GDP).

Around one third of State's economy is attributed to the Western Australian mining sector, which was responsible for \$90 billion of output in Gross Value Added terms during 2014-15. The construction sector is the State's next largest sector in output terms (\$31 billion), while a number of other sectors such as manufacturing (\$13 billion), transport (\$13 billion), and health care and social assistance (\$12 billion) also feature prominently in terms of their economic contribution to WA (see **Figure 2.1** below).

FIGURE 2.1 SECTOR CONTRIBUTION TO WA TOTAL GVA, 2014-15

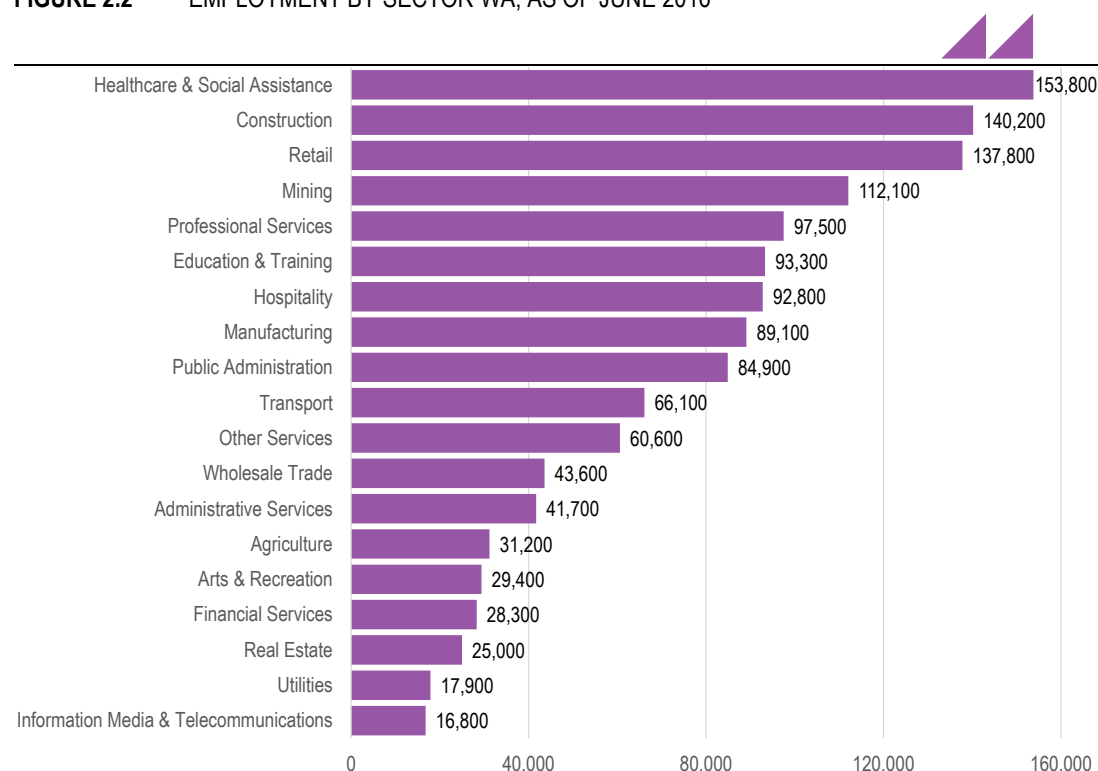


SOURCE: ACIL ALLEN CONSULTING AND ABS CAT 5220.0

The State's tourism sector, includes the goods and services produced in the hospitality, retail trade, transport and arts and recreational services sectors. It is estimated that the tourism sector contributed just over \$4 billion to the WA economy in GVA terms, in 2013-14.⁴

On the employment side, the healthcare and social assistance sector is WA's highest employing sector (153,800 employees), followed by the construction sector (140,200) and then the retail sector (137,800), while the mining sector is the fourth highest employing sector (112,100) in 2014-15. The State's tourism sector (which is comprised of employees in various sectors across WA) employed around 58,000 people in 2013-14.

FIGURE 2.2 EMPLOYMENT BY SECTOR WA, AS OF JUNE 2016



SOURCE: ACIL ALLEN CONSULTING AND ABS CAT6203.0

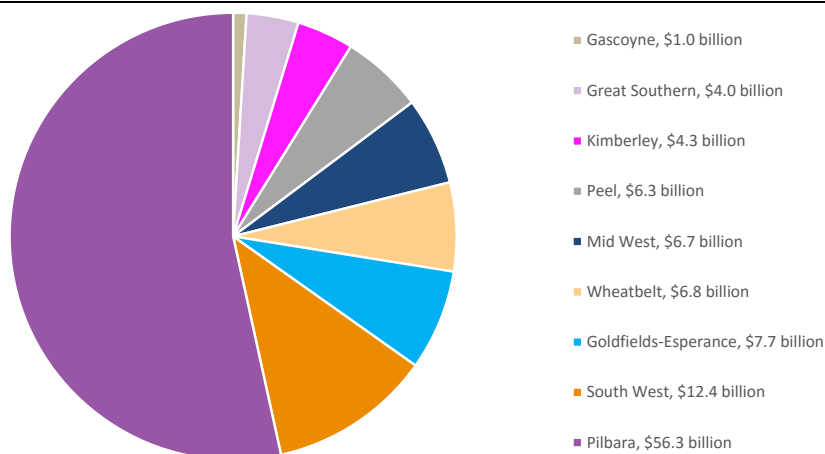
The Pilbara region is WA's largest regional economy⁵ with Gross Regional Product (GRP) in the region reaching \$56 billion in 2014-15, largely on the back of the significant growth and expansion in mining operations, particularly iron ore mining (contribution of \$34 billion in GVA terms) and oil and gas extraction in the region (contribution of \$10 billion in GVA terms).

The South-West region represents WA's second largest regional economy, generating just over \$12 billion of GRP in 2014-15. The next four largest regional economies (Goldfields-Esperance, Wheatbelt, Mid West and Peel) recorded GRP of between \$6 billion and \$8 billion in 2014-15, followed next by the Kimberley and Great Southern regions (each generating around \$4 billion of GRP), and then the Gascoyne region (just over \$1 billion of GRP).

The GRP of each of WA's regional economies can be seen below in **Figure 2.3**.

⁴ Tourism Research Australia. 2015. State Tourism Satellite Accounts 2013-14.

⁵ Excluding the Perth region, which recorded GRP of \$143 billion in 2014-15

FIGURE 2.3 GROSS REGIONAL PRODUCT IN WA, 2014-15

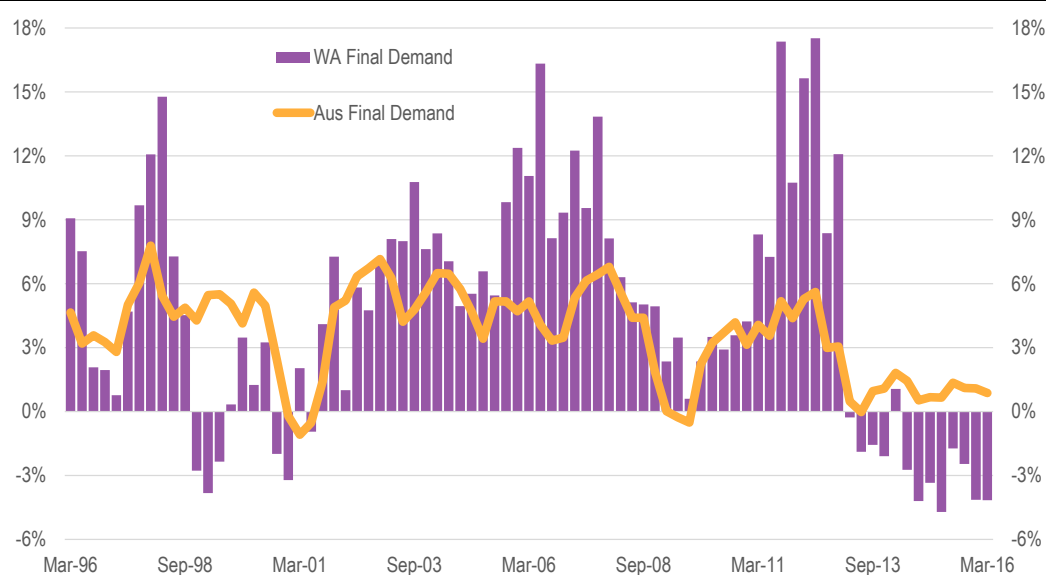
SOURCE: ACIL ALLEN CONSULTING

2.2 Recent economic and tourism trends

The WA economy has undergone significant change since 2012, when the Government first released its 2020 strategy. In 2012, the resources boom was in full swing – commodity prices were just off their historic highs, and resources sector investment was at record levels, bringing with it record levels of employment in the sector.

Fast forward to today, and the economic context has changed dramatically, with the domestic economy recording negative annual growth in 12 of the last 13 quarters by March 2016 and the unemployment rate averaging six per cent over the past 12 months from 5.4 per cent the 12 months before.

After recording average annual quarterly rates of growth in the domestic economy of 9.3 per cent in the three years leading up to 2013, the economy has since contracted by an average annual quarterly rate of 2.5 per cent since 2013. WA's domestic economy is now back to the size it was in 2011.

FIGURE 2.4 DOMESTIC GROWTH, WA & AUSTRALIA, ANNUAL % CHANGE

SOURCE: ACIL ALLEN CONSULTING AND ABS CAT NO. 5242.0

WA's labour market continues to weaken in the face of a slowing economy. While the number of people employed has risen by 33,700 in the past four years, this is entirely due to the growth in part time employment, with the number of full time workers declining by 32,500 over this period.

The annual state accounts released by the Australian Bureau of Statistics in November 2015 highlight the weakening economic conditions in Western Australia, with real gross state income falling by 8.9 per cent in 2014-15, meaning the WA economy was in an "income" recession last financial year. Compared to 2012, real gross state income is five per cent lower in WA, representing a loss of \$12.8 billion in income in the economy available for spending. Across Australia, overall levels of income are up by a modest two per cent or \$30.5 billion between June 2012 and June 2015.

However, against this trend, the (long overdue) depreciation of the exchange rate has played an important role in supporting the transition in the economy. The Australian dollar has depreciated by over 30 per cent against the US dollar since the 2011 peak in commodity prices, which has provided the strong incentive for Australians to switch to domestic tourism, as well as encouraging a pick-up in demand for international tourists.

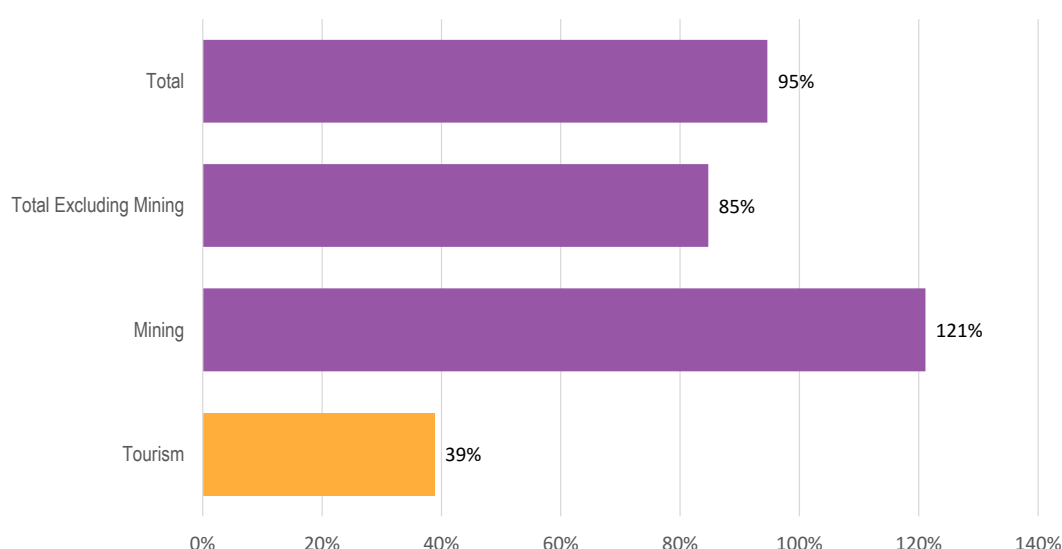
While the Australian dollar has appreciated by close to 11 per cent from its recent low in January, there are a number of factors that may contribute to the depreciation of the dollar looking ahead. The Reserve Bank of Australia recently reduced the official cash rate by another 25 basis points to a fresh low of 1.75 per cent, with the scope to reduce further if deemed appropriate. Further, the United States Federal Reserve is embarking on a period of interest rate normalisation. The two headline figures from Australia and the United States have implications for capital flows between the two nations, which has a significant bearing on the exchange rate. As a result, it is expected that as the two headline figures draw closer together, the Australian dollar will depreciate.

Despite the downturn in the resources sector, the tourism sector still has the potential to realise the WA Government's 2020 target because of the more favourable business operating conditions, as well as the boost to the sector's competitiveness from the depreciation of the Australian dollar. The construction of major tourism investments, including new hotel developments, upgrades to the airport and surrounding infrastructure, and major infrastructure projects such as the Northbridge Link and Elizabeth Quay will also help to boost tourism expenditure over the coming years.

Tourism Industry Trends

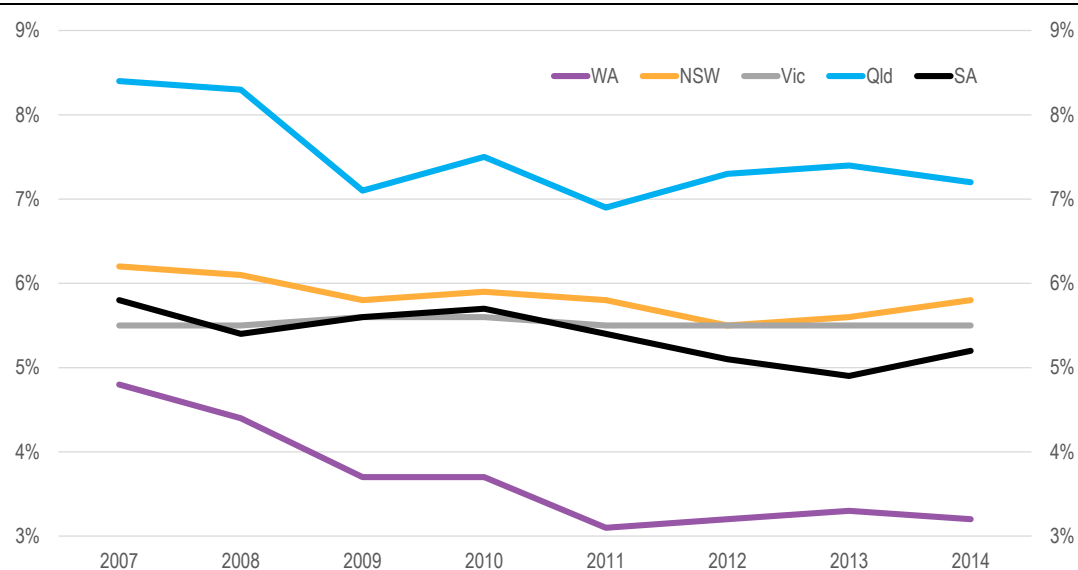
Beyond the broad 2020 target measure of tourist spending, there are a range of economic indicators which should also be used to highlight the trends in the industry, and assist in understanding the prospects for the future.

In GVA terms, the WA tourism sector has grown by 39 per cent between 2006-07 and 2013-14. This does not compare favourably against the broader trends across the WA economy, with total GVA rising by 95 per cent over the same period, or 85 per cent if WA's dominant mining sector is excluded.

FIGURE 2.5 WA GROSS VALUE ADDED, TOTAL GROWTH BETWEEN 2006-07 AND 2013-14

SOURCE: ACIL ALLEN CONSULTING AND TOURISM RESEARCH AUSTRALIA

The relative underperformance of the WA tourism industry has meant that its overall contribution (direct and indirect impacts) to the WA economy has fallen in recent years, from 4.8 per cent in 2006-07 to 3.2 per cent in 2013-14.

FIGURE 2.6 TOURISM SECTOR SHARE OF STATE ECONOMIES (DIRECT AND INDIRECT IMPACTS)

Note: Economic output measured in Gross Value Added (GVA) terms

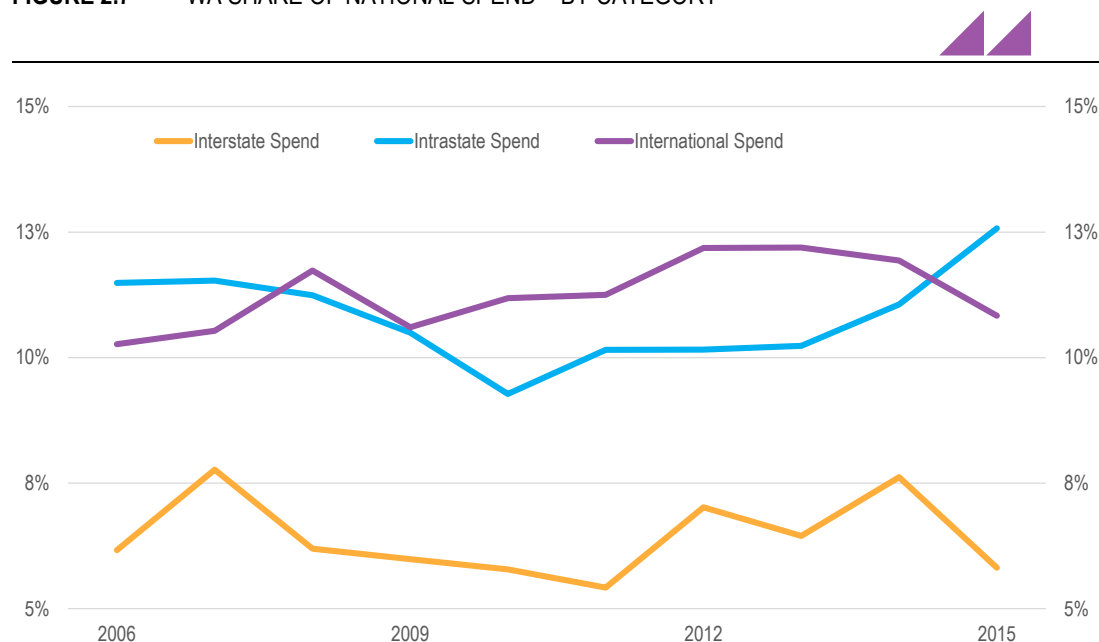
SOURCE: ACIL ALLEN CONSULTING AND TOURISM RESEARCH AUSTRALIA

Against other states, WA has been able to maintain its competitive position in recent years, with its share of Australia's direct tourism GVA holding at 10 per cent. Key to maintaining WA's share has been the growth in WA's market share of intrastate visitor spend, which reached a high of 12.6 per cent in 2014-15. This helped offset the slide in WA's share of interstate and international visitors spend, which has seen:

- WA's share of interstate visitor spend decline to 5.8 per cent in 2014-15, compared to a high of 7.6 per cent in 2013-14; and

- WA's share of international visitor spend decline to 10.8 per cent in 2014-15, compared to a high of 12.2 per cent in 2012-13.

FIGURE 2.7 WA SHARE OF NATIONAL SPEND – BY CATEGORY



SOURCE: ACIL ALLEN CONSULTING AND TOURISM RESEARCH AUSTRALIA

WA has been losing its market share of Australian interstate and international trips (holiday and leisure) over time, with its share falling from 5.9 per cent in 2008-09 to 4.8 per cent in 2014-15. Over the same period, NSW and Victoria have increased their share of the interstate and international holiday markets (excluding trips by WA residents) – with Victoria rising from 22.1 per cent to 26.2 per cent and NSW rising from 38 per cent to 40.4 per cent. Queensland's share also declined, but from a much higher base, with its share falling to 28.1 per cent in 2014-15 from 33.6 per cent in 2008-09.

2.3 Economic outlook

WA economic outlook

There are both positive and negative influences that make the near term outlook for WA more unpredictable than it has been for many years. While the economy is expected to grow over the coming years because of the boost to exports, the headline numbers will mask to some degree the continued weakness in the domestic economy.

The Government's revised economic forecasts presented in its 2016-17 Budget scaled back the growth expectations for the WA economy, with economic growth forecasts slashed to just one per cent in 2015-16 and 1.25 per cent in 2016-17, driven largely by the further contraction in the domestic economy.

Weaker consumer spending will continue to provide little support to economic growth in offsetting large declines in business investment. Household consumption makes up the largest part of the WA economy (around 46 per cent), and grew by just 1.1 per cent in 2014-15. The Government has consumption growing by 1.75 per cent in 2015-16 and 2016-17 before returning to trend levels towards the end of the forward estimates (three per cent).

The contraction in the domestic economy has led to an uncertain economic environment for the consumer and business sectors, and as a result weighed heavily on overall levels of confidence. Consumer and business' expectations of the WA economy reached record lows during 2015 and have remained at near record lows so far in 2016.

For the tourism sector, the labour market outlook and the broader population trends provide important insights into the financial health of domestic tourists.

The WA Budget has estimated that the unemployment rate in WA will average 6.25 per cent in 2015-16 and 6.75 per cent in 2016-17, driven largely by the slowdown in job creation across the economy.

Over the next few years, it is likely that the labour market will remain soft, as employers continue to hold back on their recruitment plans, and as thousands of construction workers seek out new employment opportunities as the Gorgon, Wheatstone and Roy Hill projects continue to phase into production.

In response to the weaker labour market outlook, the number of people migrating to WA has slowed significantly. As with other economic indicators, the WA Government has revised down its forecasts for population growth to a below average 1.2 per cent in 2015-16, rising marginally to 1.3 per cent in 2016-17.

Despite the weaker domestic outlook, domestic tourism is a growth opportunity in the WA economy. A lower Australian dollar will continue to provide incentive for Australian residents to travel locally; so too will be the recent decline in the cost of domestic travel, with the June Quarter Perth Consumer Price Index reporting a fall of 5.3 per cent since the beginning of 2015.

Global Outlook

In relation to the global growth outlook, China remains the most important driver of the WA economy, but also WA's other key trading partners. The Chinese Government this year announced a growth target of seven per cent, which is the lowest set growth target in 11 years. There are growing concerns about the ability of China to reach this target, with the International Monetary Fund forecasting 6.5 per cent growth in 2016, easing to 6.2 per cent growth in 2017.

Of significance to WA's tourism industry, however, is the changing nature of growth in China, as a wealthier middle class emerges. A recently released Credit Suisse report⁶ has shown that China's middle class now exceeds 109 million people and for the first time in history, has surpassed the US' middle class to have the largest number of middle class residents in the world. WA's geographical location and strong existing trade ties puts service based industries like tourism in a strong position to leverage off the potential from China's growing middle class.

A survey of the Australian Hotels Association's Western Australian members (the AHA Survey), which was completed by ACIL Allen, identified that China is not the only international market of future significance to tourism businesses in WA. The majority of respondents (54 per cent) in the survey identified the United Kingdom as the most prospective international market in the future, followed by Singapore (51 per cent) and then China in third place (45 per cent). Also ranking highly was Malaysia, with 31 per cent identifying it as a key international market in the future, while New Zealand (24 per cent) and the United States (19 per cent) received the lowest overall percentage of votes.

Despite recent global economic shocks such as the United Kingdom referendum where local residents voted to leave the European Union, the outlook for the world economy is more positive than it has been in recent years, as advanced economies around the world continue to recover from the lasting effects of the Global Financial Crisis. This continued recovery is highlighted in the IMF's forecasts that predict advanced economies will grow at 1.9 per cent in 2016, and a further two per cent growth in 2017.

As identified in the AHA Survey, the international markets of greatest potential for WA tourism businesses are countries in the Asia-Oceanic region. Overall, emerging and developing Asian economies are expected to grow at a similar rate to China in 2016, at an annual rate of growth of 6.4 per cent in 2016 and 6.3 per cent in 2017. Both Malaysia and Singapore, which were specifically identified in the AHA Survey as key future international markets for WA businesses, are expected to grow strongly over the coming years. The IMF has forecast Malaysia to grow by 4.4 per cent in 2016, increasing to 4.8 per cent in 2017; while Singapore is expected to grow by 1.8 per cent in 2016 and 2.2 per cent in 2017.

⁶ Credit Suisse Global Wealth Report 2015



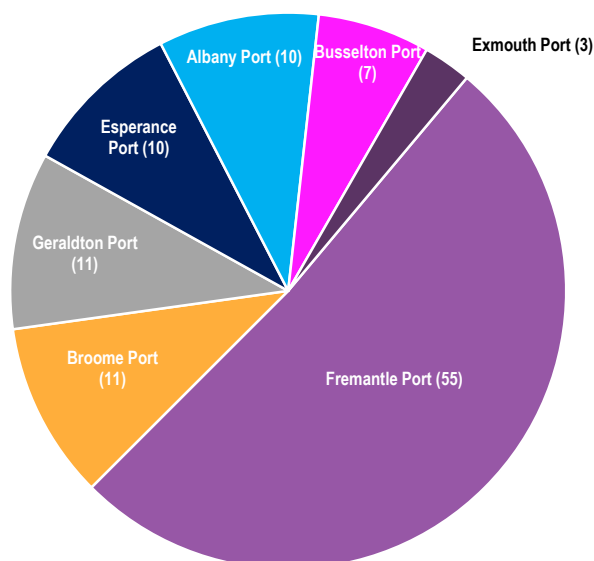
The following section will first outline:

- the number of port calls (by port) undertaken by homeported cruise vessels in WA in 2015-16;
- the number of passenger and crew days at each Port; and
- the estimated 2015-16 direct tourism expenditure undertaken by:
 - crew members who disembark at Western Australian ports; and
 - passengers either during their pre-cruise stay at Fremantle Port (homeport) or their onshore visits at transit ports located in WA; and
 - cruise vessels for their Western Australian operations.

Following this, the economic impact of these expenditures will be forecast using ACIL Allen's Input-Output model of the Western Australian and regional economies.

3.1 Port calls and passenger and crew numbers

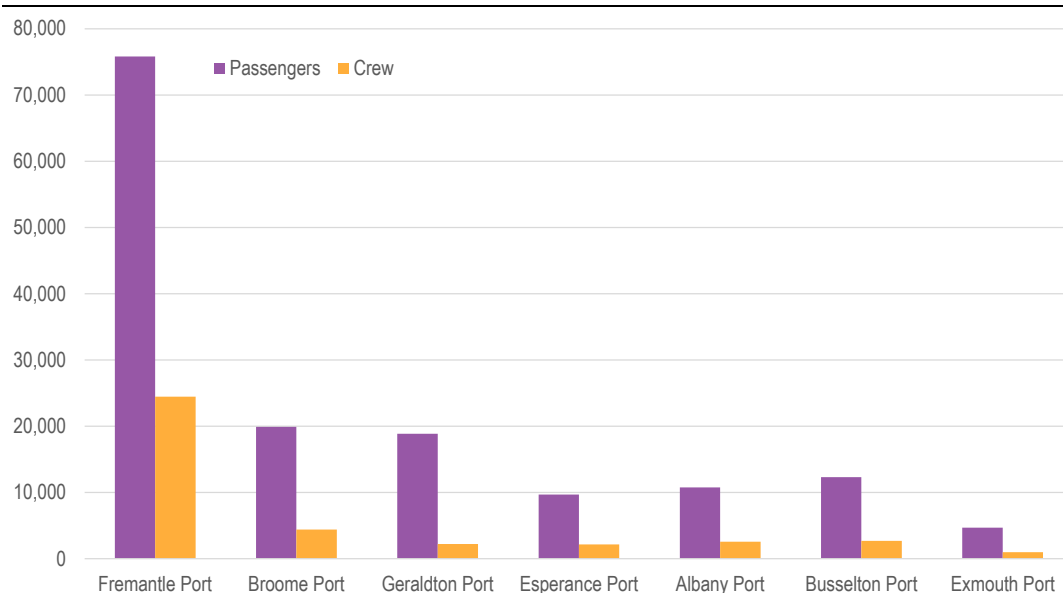
During 2015-16, homeported cruise ships made 107 port calls across WA, with the majority of these (55) attributed to Fremantle Port, which is the State's primary homeport located in the Perth metropolitan region. The Western Australian ports that experienced the highest number of transit port calls throughout 2015-16 were Broome and Geraldton (11 each), followed by Esperance and Albany (10 each), and then Busselton (seven) and Exmouth (three) (see **Figure 3.1** below).

FIGURE 3.1 CRUISE SHIP PORT CALLS BY WA PORT, 2015-16

SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES

The number of passenger and crew days at each port were representative of each port's respective number of port calls, with:

- Fremantle Port accounting for some 75,800 passenger days and just under 24,500 crew days;
- Broome Port accounting for roughly 20,000 passenger days and just over 4,400 crew days;
- Geraldton accounting for just under 19,000 passenger days and close to 2,200 crew days; and
- all other ports accounting for less than 12,500 passenger days each and less than 2,700 crew days each.

FIGURE 3.2 CRUISE SHIP PASSENGERS AND CREW DAYS BY WA PORT, 2015-16

SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES

3.2 Direct tourism expenditure

The direct tourism expenditure estimates outlined below are based on passenger, crew member and operating cost data provided by the cruise lines (passenger and crew numbers detailed in Section 3.1) and average passenger and crew expenditure survey data from the Cruise Lines International Association Australasia's report, *The Contribution of Cruise Tourism to the Australian Economy in 2014-15*. A detailed description of the methodology (and associated assumptions) used to estimate the direct tourism expenditure estimates is provided in Appendix A.

3.2.1 Passengers and crew members

ACIL Allen has estimated that there was a total of \$57.3 million in direct spending by passengers either during their pre-cruise stay at Fremantle Port (homeport) or their onshore visits at transit ports across WA during 2015-16. Of this, domestic passengers accounted for 96 per cent (or \$55 million) of the total spend, while international passengers accounted for the other four per cent (or \$2.3 million).

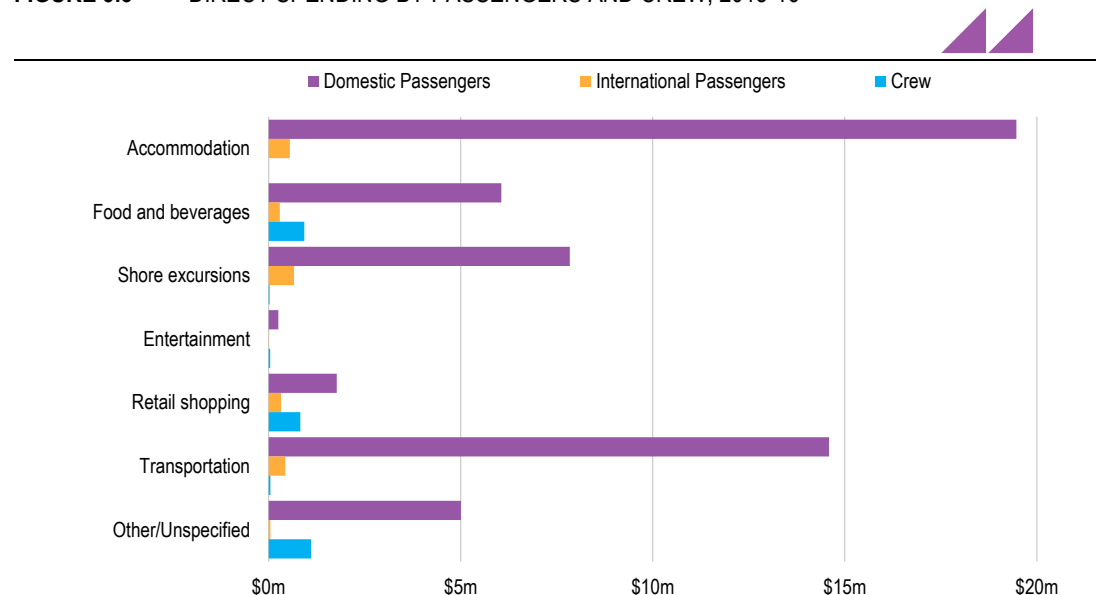
In relation to the types of spend, domestic passengers directed the majority of their spending on accommodation (35.4 per cent of total spend), retail shopping (32.3 per cent) and transportation (26.5 per cent).

By comparison, international passengers directed the majority of their spending to shore excursions (28.8 per cent of total spend), accommodation (24 per cent) and transportation (18.6 per cent).

The crew are also estimated to have spent almost \$3 million in 2015-16, primarily on food and beverages (31.3 per cent of total spend) and retail shopping (27.8 per cent).

Figure 3.3 provides further details on the spending patterns of passengers and crew.

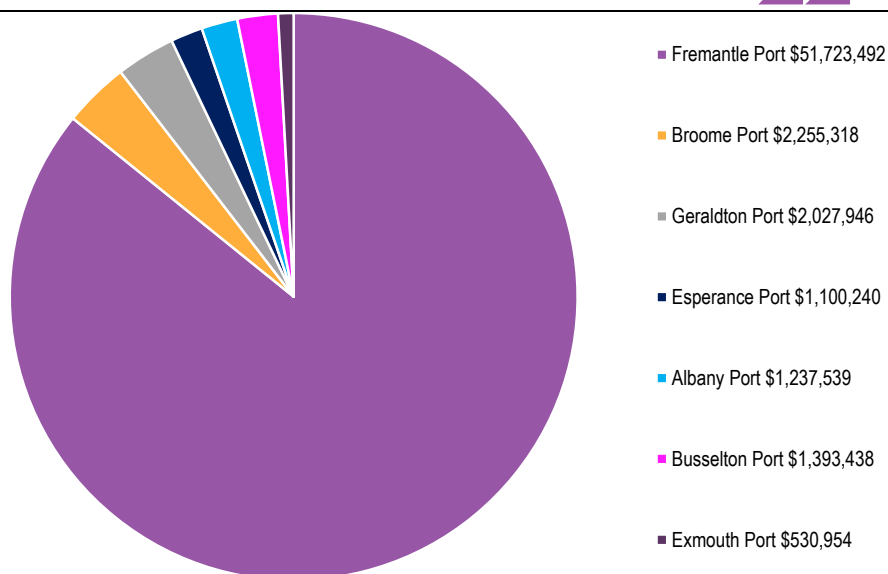
FIGURE 3.3 DIRECT SPENDING BY PASSENGERS AND CREW, 2015-16



SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES AND CRUISE LINES INTERNATIONAL ASSOCIATION AUSTRALASIA

In relation to spending by location, the majority of the spending by passengers and crew was at Fremantle Port – accounting for 86.5 per cent (or \$49.6 million) of all passenger spending, and 72.2 per cent (or \$2.1 million) of all crew spending in 2015-16. Of the other Western Australian ports, the largest spend by passengers and crew was at Broome Port (3.7 per cent or \$2.3 million) and Geraldton Port (3.4 per cent or \$2 million) in 2015-16.

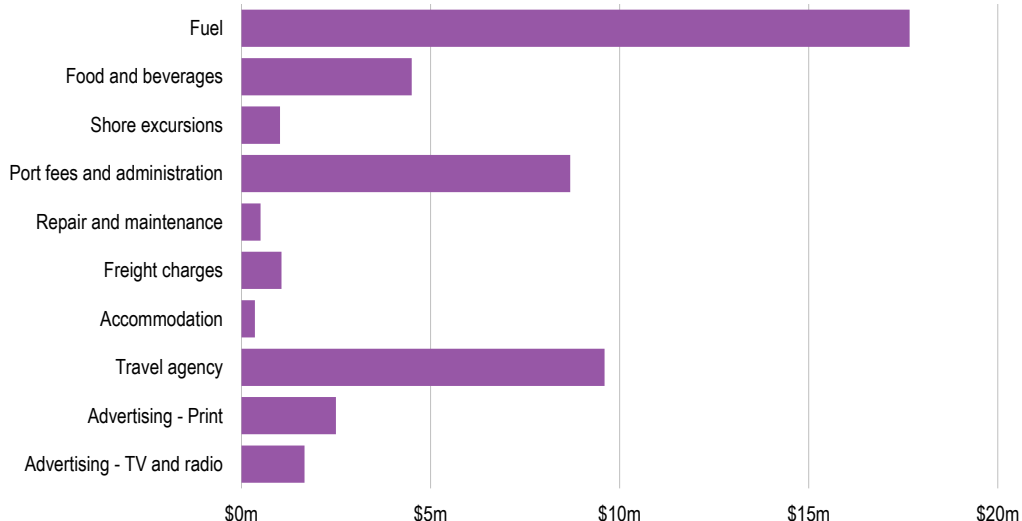
Figure 3.4 below provides further details of direct passenger and crew spending by location.

FIGURE 3.4 DIRECT PASSENGER AND CREW SPENDING BY PORT, 2015-16

SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES AND CRUISE LINES INTERNATIONAL ASSOCIATION AUSTRALASIA

3.2.2 Cruise vessels

ACIL Allen has estimated that the direct spending attributed to cruise vessels was \$47.6 million in 2015-16, with the majority of this spend directed to fuel (37.2 per cent or \$17.7 million), travel agency costs (20.2 per cent or \$9.6 million) and port fees and administration (18.3 per cent or \$8.7 million). See **Figure 3.5** below.

FIGURE 3.5 DIRECT SPENDING BY CRUISE VESSELS, 2015-16

SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES

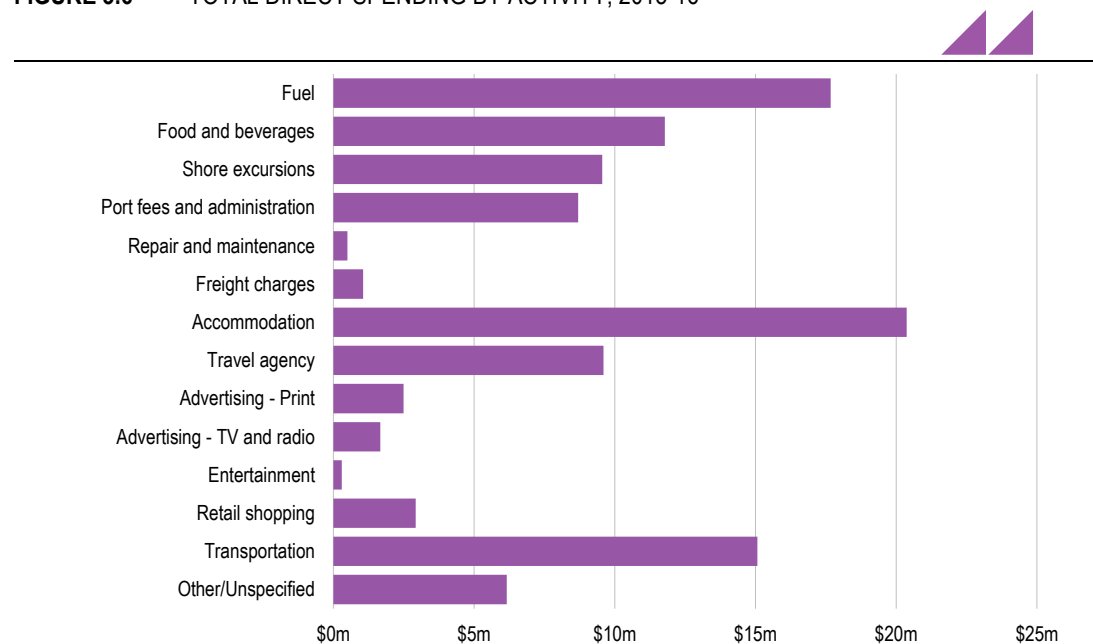
The majority of this expenditure is estimated to be undertaken in the homeport, with Fremantle accounting for 92.6 per cent (or \$44 million) of the total cruise vessel spending.

3.2.3 Overall spending

Combining both passenger, crew member and cruise vessel spending provides an overall estimate of the direct impact of the cruise ships on the WA economy in 2015-16. Overall, it is estimated that there was \$107.8 million in direct spending, of which passengers and crew accounted for 55.9 per cent of the total, with the remaining 44.1 per cent from cruise vessel operating spending.

Of the total direct spending from cruise shipping in WA, the majority of their spending activity was directed to accommodation (18.9 per cent), fuel (16.4 per cent), transportation (14 per cent) and food and beverages (10.9 per cent). See **Figure 3.6** for further details.

FIGURE 3.6 TOTAL DIRECT SPENDING BY ACTIVITY, 2015-16



SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES AND CRUISE LINES INTERNATIONAL ASSOCIATION AUSTRALASIA

By location, the patterns of spending are consistent with the spending patterns for passengers and crew, and for cruise ships, with the homeport of Fremantle accounting for the majority of all spending activity (88.8 per cent), with the Broome (3.5 per cent) and Geraldton (2.6 per cent) ports accounting for the highest shares of total spending of the regional ports.

3.3 Economic impact results

The economic impact results provided below were obtained by tracing the direct tourism expenditure amounts through ACIL Allen's Input-Output model of the Western Australian and regional economies. A detailed description of the methodology (and associated assumptions) used for this analysis is provided in Appendix A.

ACIL Allen has estimated the **total economic footprint from homeported cruise ships in WA was \$155 million in 2015-16**. Of this amount, \$95.4 million was the direct spending undertaken by passengers, crew and the cruise ships across all WA ports (excluding associated imports and taxes), which generated a flow on impact of \$59.6 million across the local economy – implying a multiplier of 1.62.

Of the total economic footprint, ACIL Allen's modelling has estimated that the WA economy will receive a **boost of \$70.7 million in Gross Value Added (GVA)** terms, and once taxes (less subsidies) are taken into consideration, **increase Gross State Product (GSP) by \$81.7 million** in 2015-16.

The additional taxes that are generated for governments from this activity is estimated to be \$12.1 million in 2015-16.

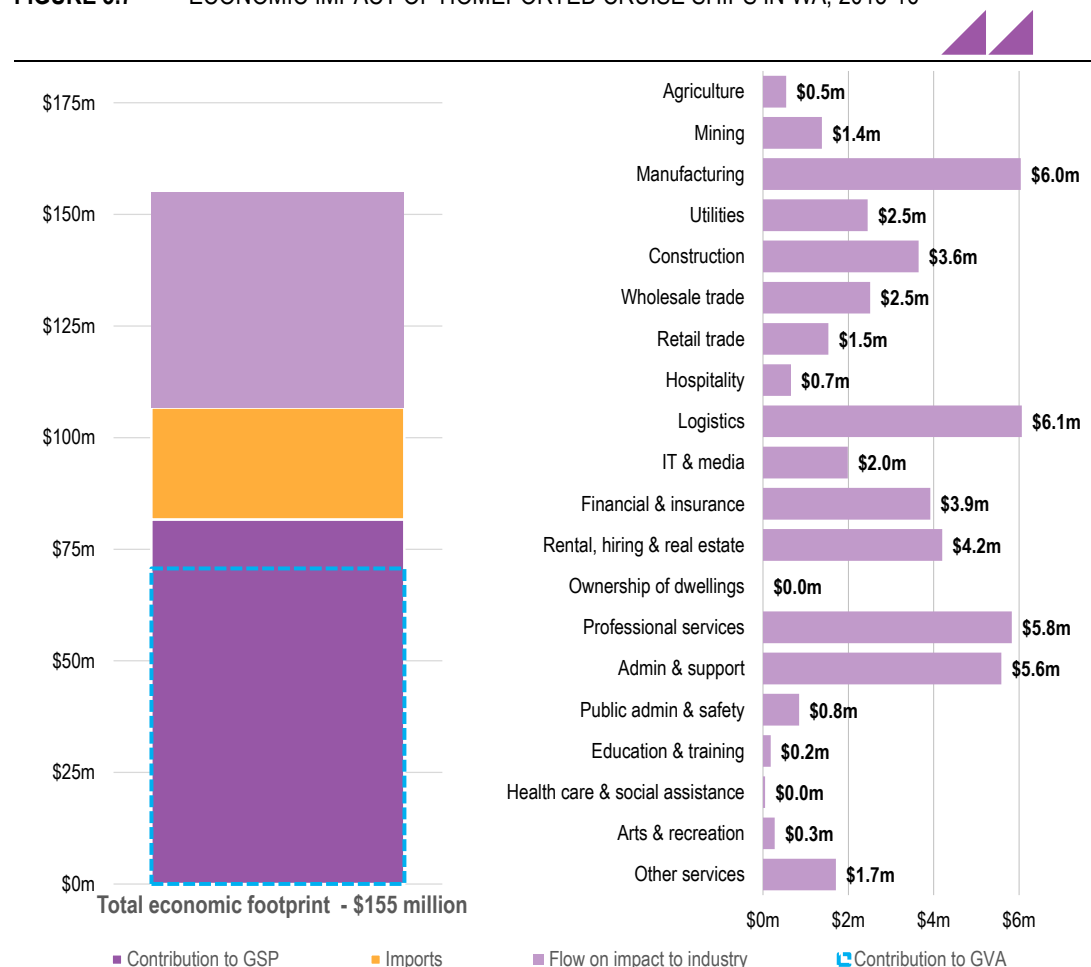
The **flow on impacts to industry from the initial spending stimulus is estimated to be \$48.3 million** in 2015-16. These flow on impacts result from the procurement of the goods and services required by the primary industries that service the cruise ships, passengers and crew. With homeported cruise ships generating spending activity in areas such as accommodation, fuel, transportation and food and beverages, this generates flow on activity across a number of sectors, including:

- Logistics – such as freight transport and passenger transport services;
- Manufacturing – such as ship repairs and maintenance;
- Professional services – such as accounting, marketing and legal services; and
- Administrative support – such as building and cleaning, and employment and travel agency services.

However, not all activity generated by homeported cruise shipping remains in WA. ACIL Allen estimates that **\$25.1 million**, or 16.2 per cent, of the total economic footprint is accounted for by imports (domestic and international), with the largest imports shares for fuel, food and beverages, and accommodation.

The breakdown of the economic impact from homeported cruise ships on the WA economy is highlighted in **Figure 3.8** below.

FIGURE 3.7 ECONOMIC IMPACT OF HOMEPORTED CRUISE SHIPS IN WA, 2015-16



SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES AND CRUISE LINES INTERNATIONAL ASSOCIATION AUSTRALASIA

The economic activity resulting from homeported cruise shipping also stimulates job creation. ACIL Allen estimates that approximately **473 full time equivalent (FTE) job years would be created** as a result of the activity generated from homeported cruise shipping in 2015-16. While the bulk of the job creation is in the Perth region where the homeport of Fremantle is located (91 per cent), a small

number of jobs are also created in the regions as a result of activity generated in the regional ports. The breakdown of jobs created by region is detailed below:

- Fremantle Port: approximately 430 FTE job years are estimated will be generated in the Perth region as a result of the activity in the homeport of Fremantle;
- Broome Port: approximately 13 FTE job years are generated in the Kimberley region;
- Geraldton Port: approximately 10 FTE job years are generated in the Mid-West region;
- Albany Port: approximately 8 FTE job years are generated in the Great Southern region;
- Esperance Port: approximately 5 FTE job years are generated in the Goldfields-Esperance region;
- Busselton Port: approximately 5 FTE job years are generated in the South West region; and
- Exmouth Port: approximately 2 FTE job years are generated for the Gascoyne region.

ACIL Allen has also modelled the impact of the cruise shipping industry on each of the regional economies where the ports are located. These results are provided in the following sections. It should be noted that the overall impact of homeported cruise shipping on each regional economy will depend on the number of port calls – and therefore the number of passenger and crew days – in each port.

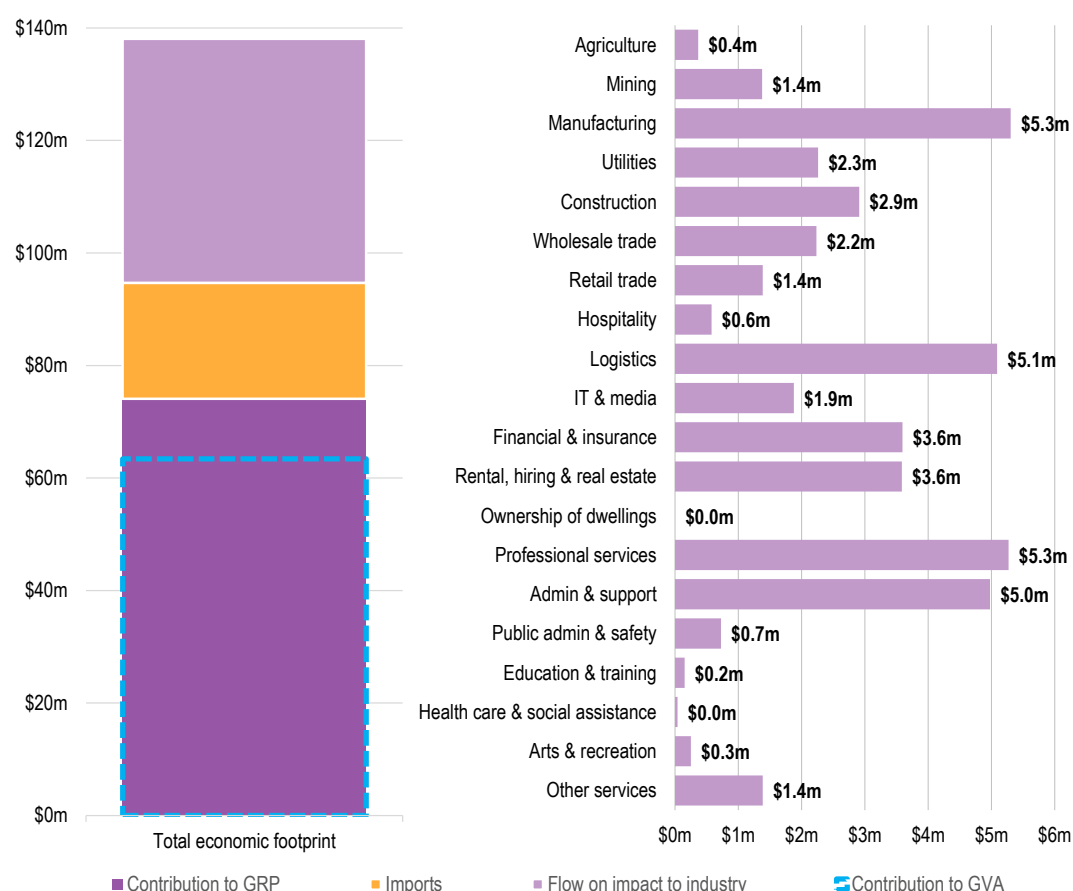
3.3.1 Fremantle Port

ACIL Allen has estimated the total economic footprint (in the Perth region) from cruise ships homeported in Fremantle was \$138 million in 2015-16. Of this amount, \$84 million was the direct spending undertaken by passengers, crew and the cruise ships in Fremantle (excluding associated imports and taxes), which generated a flow on impact of \$54.2 million across the local Perth economy – implying a regional multiplier of 1.65.

Of the total economic footprint, ACIL Allen's modelling has estimated that the local economy will receive a boost of \$63.4 million in GVA terms, and once taxes are taken (less subsidies) into consideration, increase the Gross Regional Product (GRP) of Metropolitan Perth by \$74.1 million in 2015-16.

For industry, the flow on impacts from the initial spending stimulus is estimated to be \$43 million in 2015-16. These flow on impacts result from the procurement of the goods and services required by the primary industries that service the cruise ships, passengers and crew. For example, while accommodation is the largest spend generated by homeported cruise ships, it is the services required by the accommodation sector, such as wholesale trade, utilities, finance and insurance, and administrative services (building and cleaning, employment and travel agency services), that will also be positively impacted by demand generated by cruise ships.

The breakdown of the economic impact from cruise ships ported in Fremantle is highlighted in **Figure 3.8** below.

FIGURE 3.8 REGIONAL ECONOMIC IMPACT OF HOMEPORTED SHIPS, FREMANTLE PORT, 2015-16

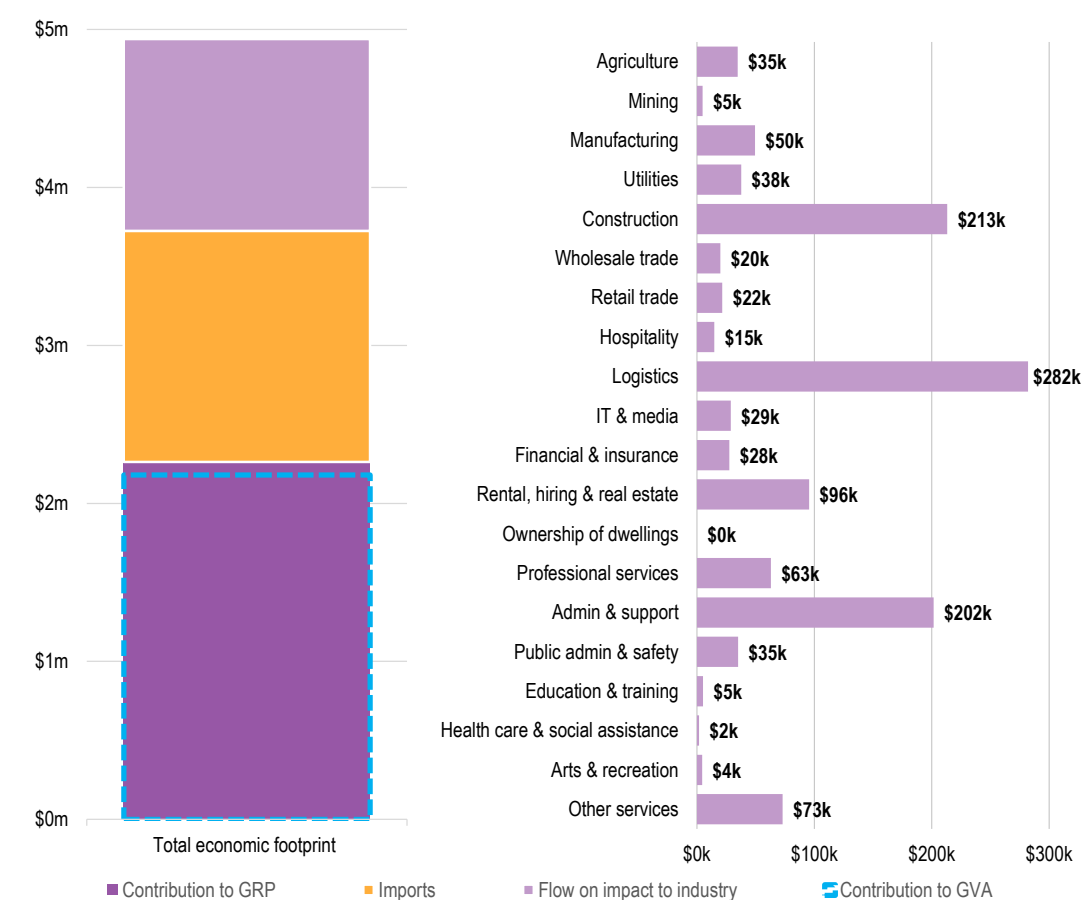
SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES AND CRUISE LINES INTERNATIONAL ASSOCIATION AUSTRALASIA

3.3.2 Broome Port

ACIL Allen has estimated the total economic footprint from cruise ships ported in Broome was \$4.94 million in 2015-16. Of this amount, \$3.59 million was the direct spending undertaken by passengers, crew and the cruise ships in Broome (excluding associated imports and taxes), which generated a flow on impact of \$1.35 million across the local economy – implying a regional multiplier of 1.37.

Of the total economic footprint, ACIL Allen's modelling has estimated that the local economy will receive a boost of \$2.18 million in GVA terms, and once taxes (less subsidies) are taken into consideration, increase the GRP in the Kimberley region by \$2.26 million in 2015-16.

For industry, the flow on impacts from the initial spending stimulus is estimated to be \$1.21 million in 2015-16. These flow on impacts result from the procurement of the goods and services required by the primary industries that service the cruise ships, passengers and crew. The breakdown of the economic impact from cruise ships ported in Broome is highlighted in **Figure 3.9** below.

FIGURE 3.9 REGIONAL ECONOMIC IMPACT OF HOMEPORTED SHIPS, BROOME PORT, 2015-16

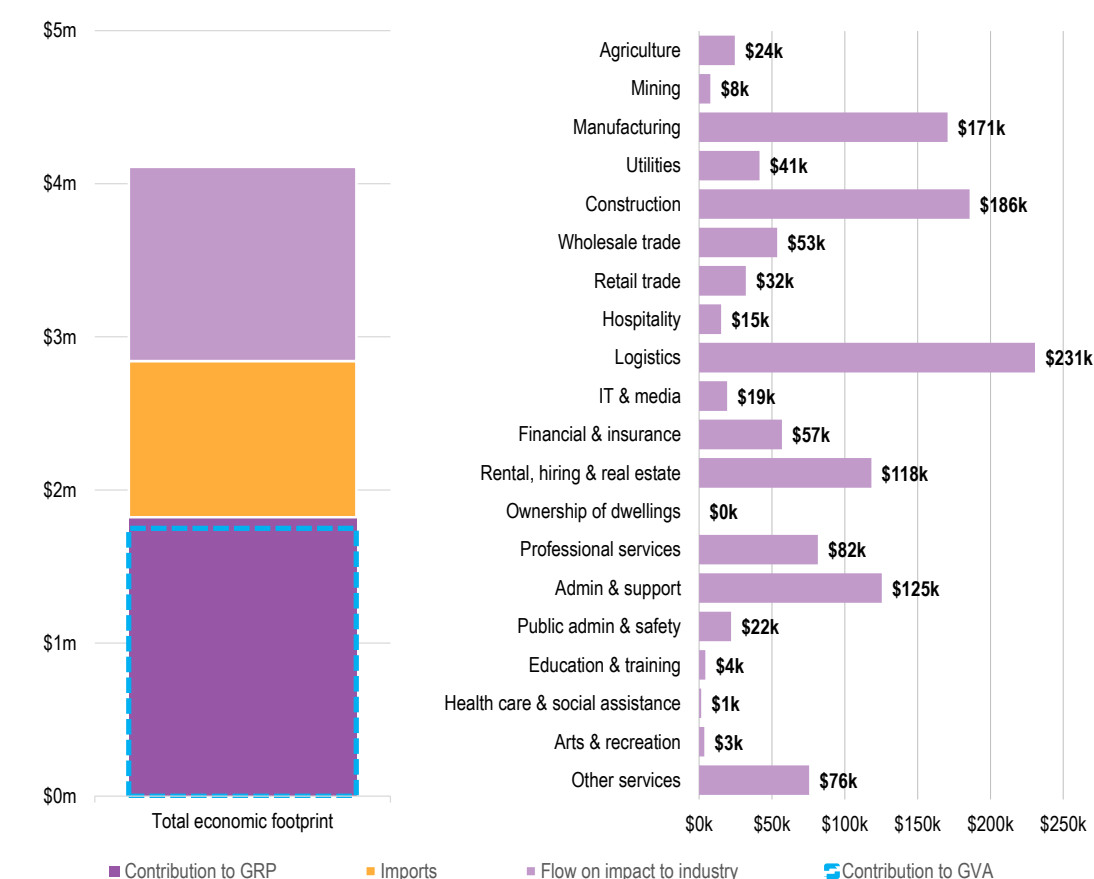
SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES AND CRUISE LINES INTERNATIONAL ASSOCIATION AUSTRALASIA

3.3.3 Geraldton Port

ACIL Allen has estimated the total economic footprint from cruise ships ported in Geraldton was \$4.11 million in 2015-16. Of this amount, \$2.73 million was the direct spending undertaken by passengers, crew and the cruise ships in Geraldton (excluding associated imports and taxes), which generated a flow on impact of \$1.4 million across the local economy – implying a regional multiplier of 1.51.

Of the total economic footprint, ACIL Allen's modelling has estimated that the local economy will receive a boost of \$1.75 million in GVA terms, and once taxes (less subsidies) are taken into consideration, increase the GRP of the Mid West region by \$1.82 million in 2015-16.

For industry, the flow on impacts from the initial spending stimulus is estimated to be \$1.38 million in 2015-16. These flow on impacts result from the procurement of the goods and services required by the primary industries that service the cruise ships, passengers and crew. The breakdown of the economic impact from cruise ships ported in Geraldton is highlighted in **Figure 3.10** below.

FIGURE 3.10 REGIONAL ECONOMIC IMPACT OF HOMEPORTED SHIPS, GERALDTON PORT, 2015-16

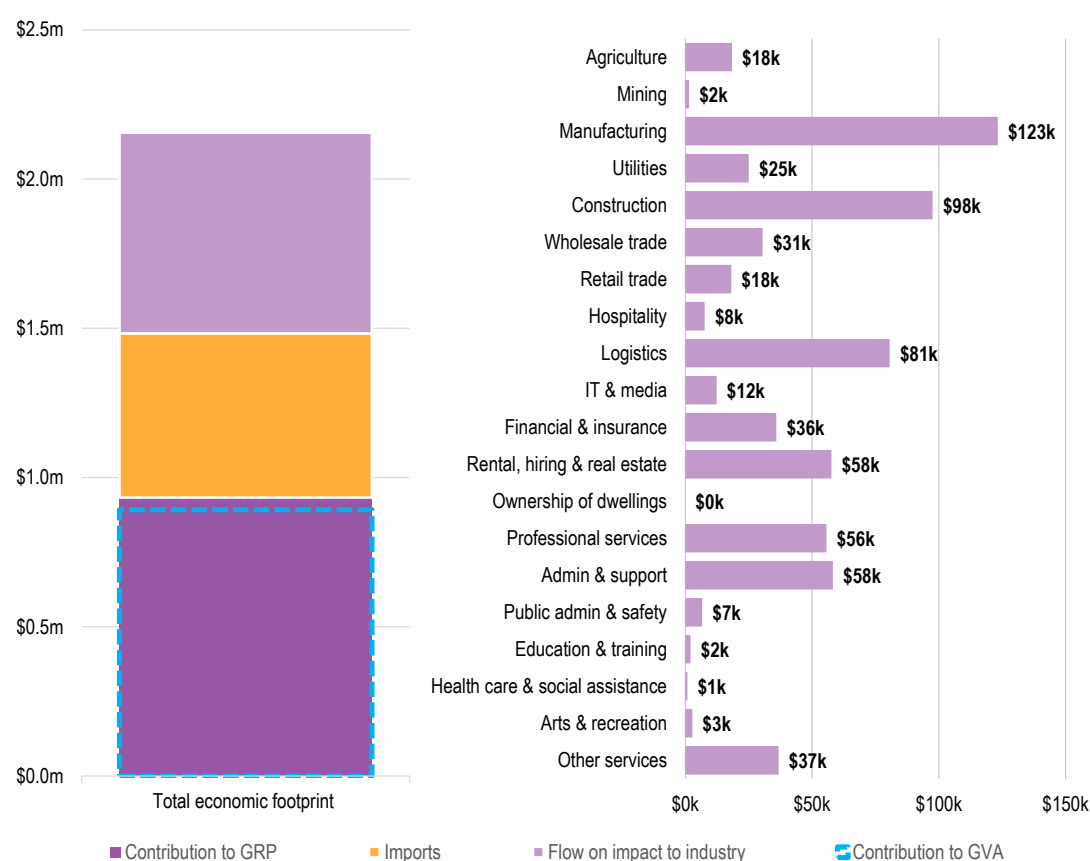
SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES AND CRUISE LINES INTERNATIONAL ASSOCIATION AUSTRALASIA

3.3.4 Busselton Port

ACIL Allen has estimated the total economic footprint from cruise ships ported in Busselton was \$2.15 million in 2015-16. Of this amount, \$1.4 million was the direct spending undertaken by passengers, crew and the cruise ships in Busselton (excluding associated imports and taxes), which generated a flow on impact of \$0.75 million across the local economy – implying a regional multiplier of 1.54.

Of the total economic footprint, ACIL Allen's modelling has estimated that the local economy will receive a boost of \$0.89 million in GVA terms, and once taxes (less subsidies) are taken into consideration, increase the GRP of the South West region by \$0.93 million in 2015-16.

For industry, the flow on impacts from the initial spending stimulus is estimated to be \$0.67 million in 2015-16. These flow on impacts result from the procurement of the goods and services required by the primary industries that service the cruise ships, passengers and crew. The breakdown of the economic impact from cruise ships ported in Busselton is highlighted in **Figure 3.11** below.

FIGURE 3.11 REGIONAL ECONOMIC IMPACT OF HOMEPORTED SHIPS, BUSSELTON PORT, 2015-16

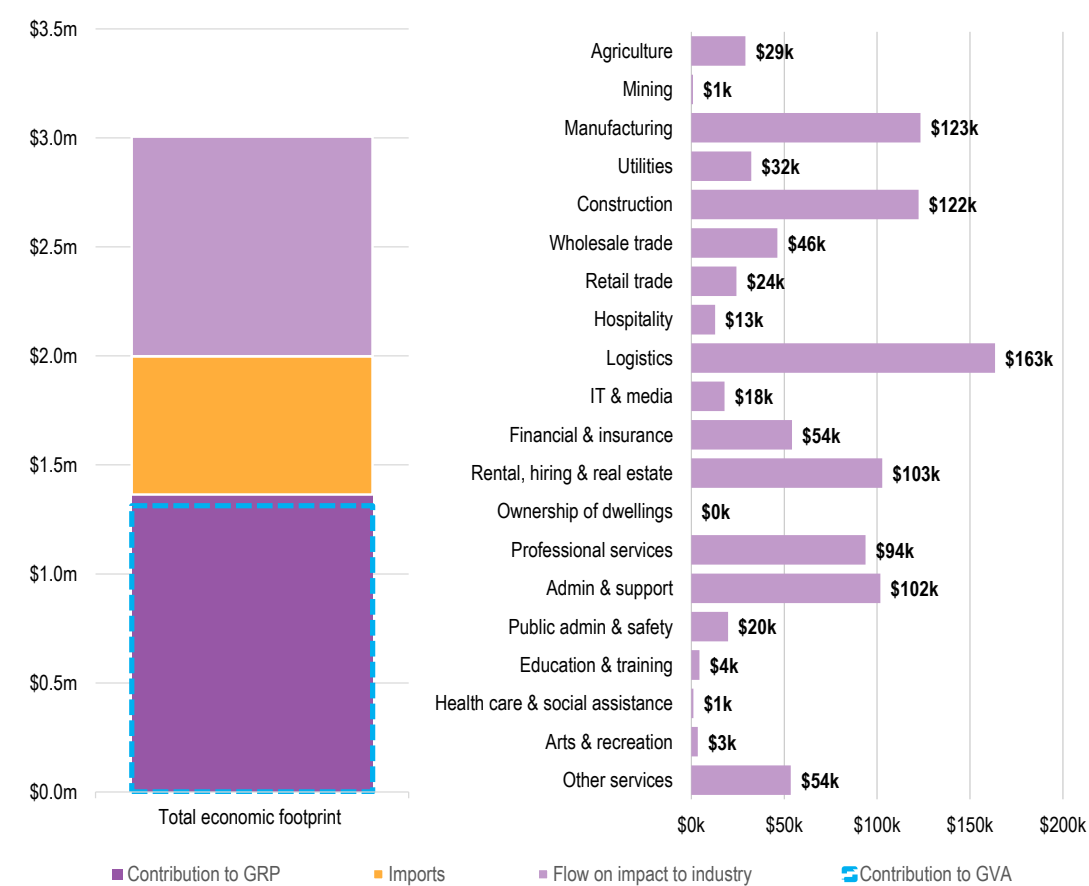
SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES AND CRUISE LINES INTERNATIONAL ASSOCIATION AUSTRALASIA

3.3.5 Albany Port

ACIL Allen has estimated the total economic footprint from cruise ships ported in Albany was \$3.01 million in 2015-16. Of this amount, \$1.93 million was the direct spending undertaken by passengers, crew and the cruise ships in Albany (excluding associated imports and taxes), which generated a flow on impact of \$1.08 million across the local economy – implying a regional multiplier of 1.56.

Of the total economic footprint, ACIL Allen's modelling has estimated that the local economy will receive a boost of \$1.31 million in GVA terms, and once taxes (less subsidies) are taken into consideration, increase the GRP of the Great Southern region by \$1.36 million in 2015-16.

For industry, the flow on impacts from the initial spending stimulus is estimated to be \$1.01 million in 2015-16. These flow on impacts result from the procurement of the goods and services required by the primary industries that service the cruise ships, passengers and crew. The breakdown of the economic impact from cruise ships ported in Albany is highlighted in **Figure 3.12** below.

FIGURE 3.12 REGIONAL ECONOMIC IMPACT OF HOMEPORTED SHIPS, ALBANY PORT, 2015-16

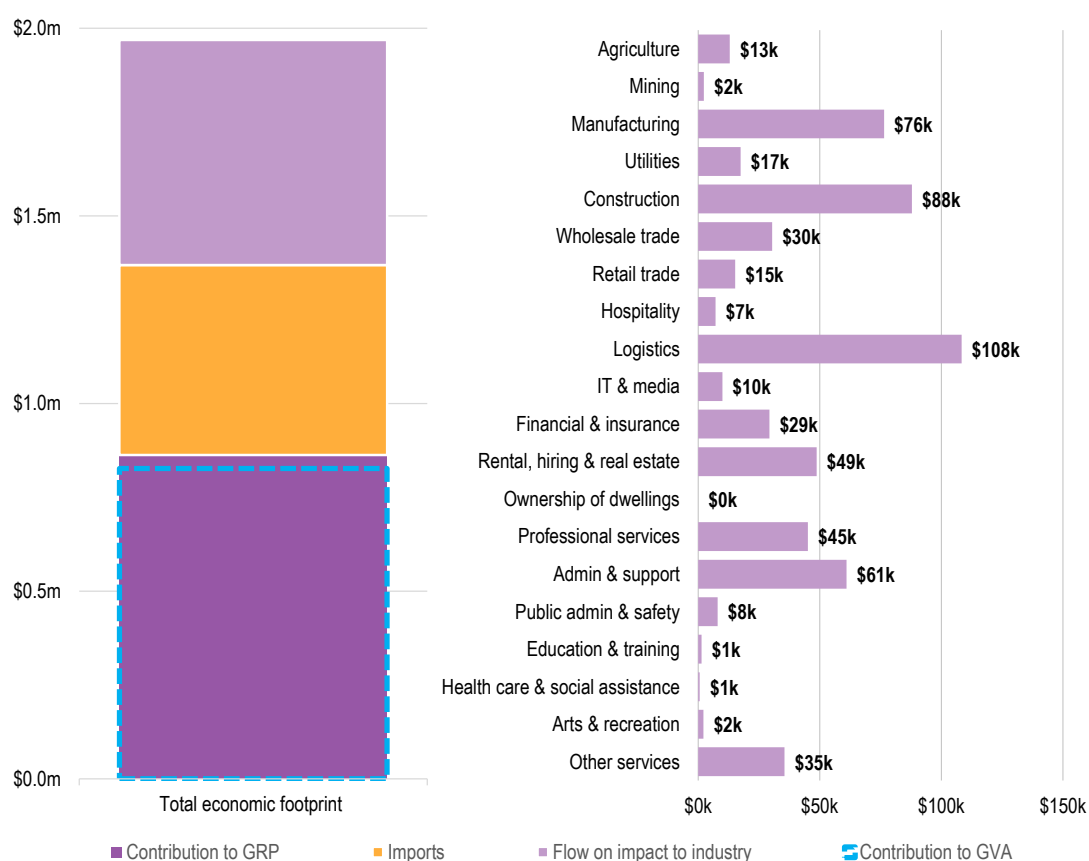
SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES AND CRUISE LINES INTERNATIONAL ASSOCIATION AUSTRALASIA

3.3.6 Esperance Port

ACIL Allen has estimated the total economic footprint from cruise ships ported in Esperance was \$1.97 million in 2015-16. Of this amount, \$1.3 million was the direct spending undertaken by passengers, crew and the cruise ships in Esperance (excluding associated imports and taxes), which generated a flow on impact of \$0.66 million across the local economy – implying a regional multiplier of 1.51.

Of the total economic footprint, ACIL Allen's modelling has estimated that the local economy will receive a boost of \$0.83 million in GVA terms, and once taxes (less subsidies) are taken into consideration, increase the GRP of the Goldfields-Esperance region by \$0.86 million in 2015-16.

For industry, the flow on impacts from the initial spending stimulus is estimated to be \$0.6 million in 2015-16. These flow on impacts result from the procurement of the goods and services required by the primary industries that service the cruise ships, passengers and crew. The breakdown of the economic impact from cruise ships ported in Esperance is highlighted in **Figure 3.13** below.

FIGURE 3.13 REGIONAL ECONOMIC IMPACT OF HOMEPORTE SHIPS, ESPERANCE PORT, 2015-16

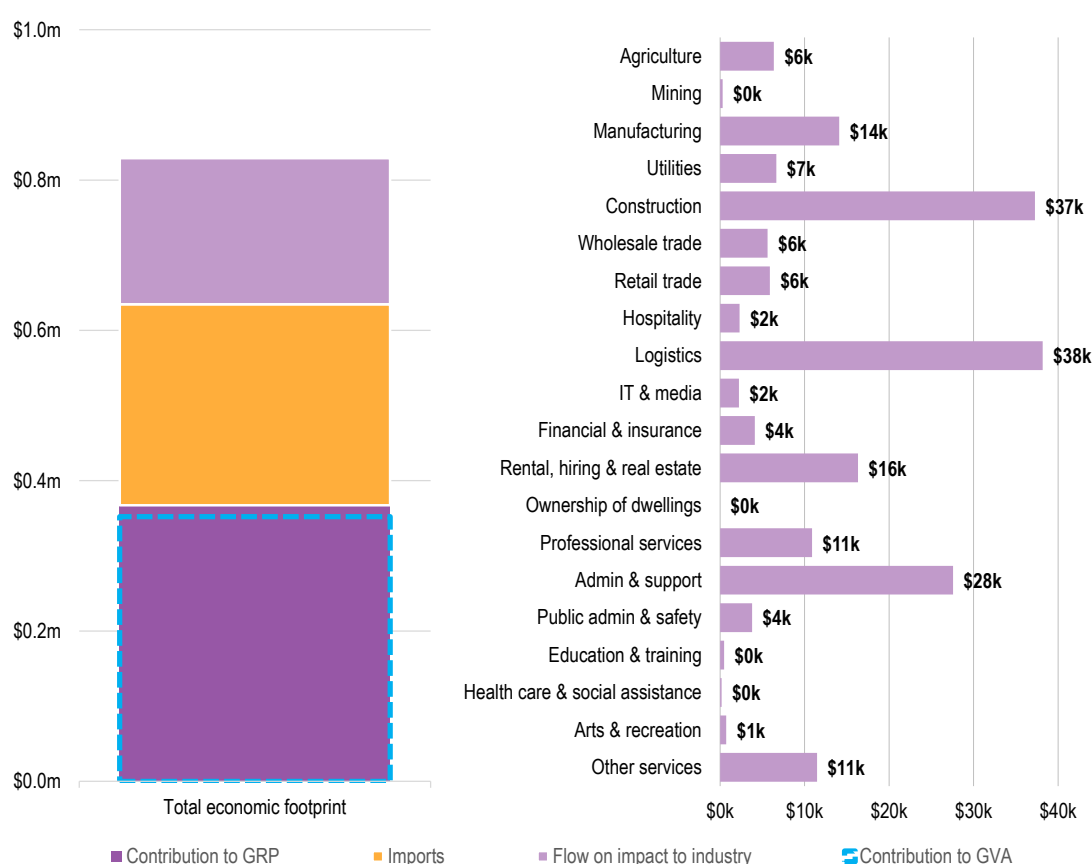
SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES AND CRUISE LINES INTERNATIONAL ASSOCIATION AUSTRALASIA

3.3.7 Exmouth Port

ACIL Allen has estimated the total economic footprint from cruise ships ported in Exmouth was \$0.83 million in 2015-16. Of this amount, \$0.6 million was the direct spending undertaken by passengers, crew and the cruise ships in Exmouth (excluding associated imports and taxes), which generated a flow on impact of \$0.22 million across the local economy – implying a regional multiplier of 1.37.

Of the total economic footprint, ACIL Allen's modelling has estimated that the local economy will receive a boost of \$0.35 million in GVA terms, and once taxes (less subsidies) are taken into consideration, increase GRP by \$0.37 million in 2015-16.

For industry, the flow on impacts from the initial spending stimulus is estimated to be \$0.19 million in 2015-16. These flow on impacts result from the procurement of the goods and services required by the primary industries that service the cruise ships, passengers and crew. The breakdown of the economic impact from cruise ships ported in Exmouth is highlighted in **Figure 3.14** below.

FIGURE 3.14 REGIONAL ECONOMIC IMPACT OF HOMEPORTED SHIPS, EXMOUTH PORT, 2015-16

SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES AND CRUISE LINES INTERNATIONAL ASSOCIATION AUSTRALASIA

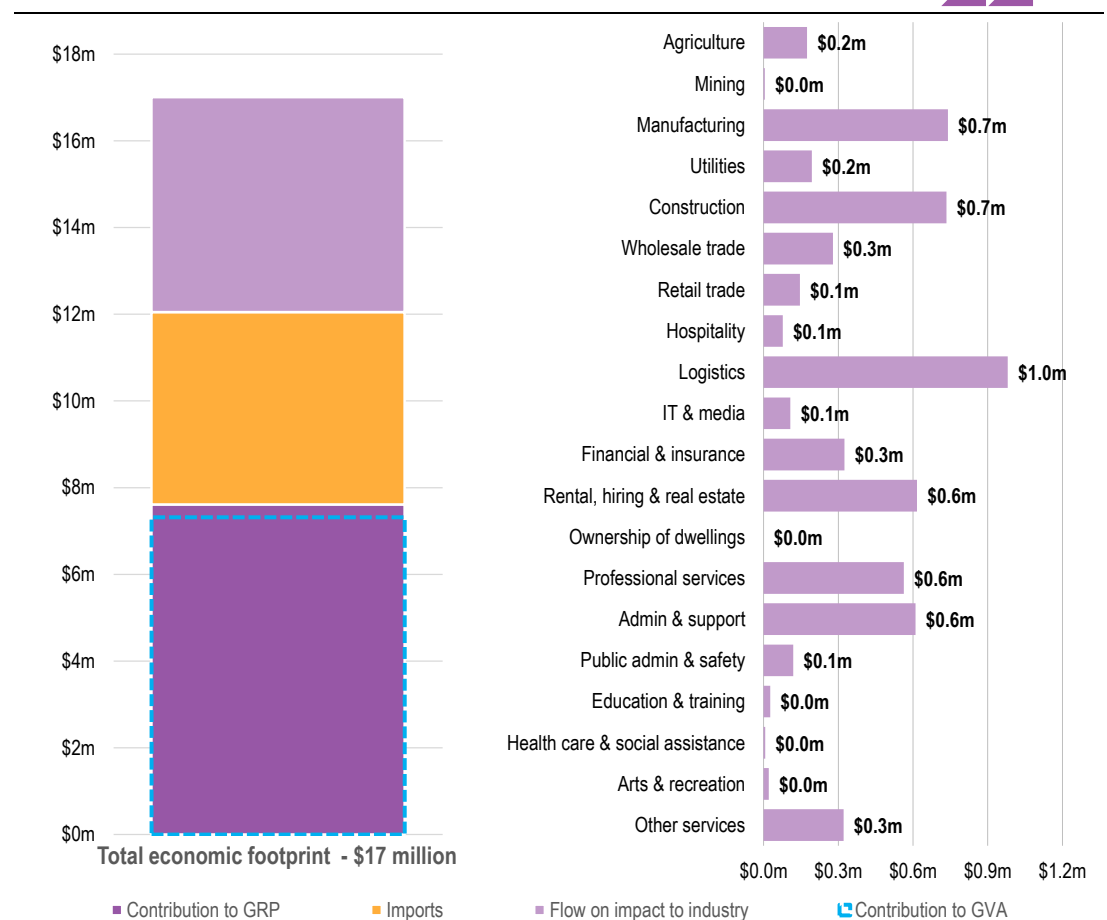
3.3.8 Total Regional Ports

ACIL Allen has estimated the total economic footprint from cruise ships across all regional ports identified in the previous sections was \$17 million in 2015-16. Of this amount, \$11.6 million was the direct spending undertaken by passengers, crew and the cruise ships in all regional ports (excluding associated imports and taxes), which generated a flow on impact of \$5.5 million across the local economy – implying a regional multiplier of 1.47.

Of the total economic footprint, ACIL Allen's modelling has estimated that the WA regions will receive a boost of \$7.3 million in GVA terms, and once taxes (less subsidies) are taken into consideration, increase GRP by \$7.6 million in 2015-16.

For industry, the flow on impacts from the initial spending stimulus is estimated to be \$5 million in 2015-16. These flow on impacts result from the procurement of the goods and services required by the primary industries that service the cruise ships, passengers and crew. The breakdown of the economic impact from cruise ships on regional WA is highlighted in **Figure 3.15** below.

FIGURE 3.15 REGIONAL ECONOMIC IMPACT OF HOMEPORTED SHIPS, TOTAL REGIONAL PORTS, 2015-16



SOURCE: ACIL ALLEN CONSULTING FROM DATA SUPPLIED BY THE CRUISE LINES AND CRUISE LINES INTERNATIONAL ASSOCIATION AUSTRALASIA

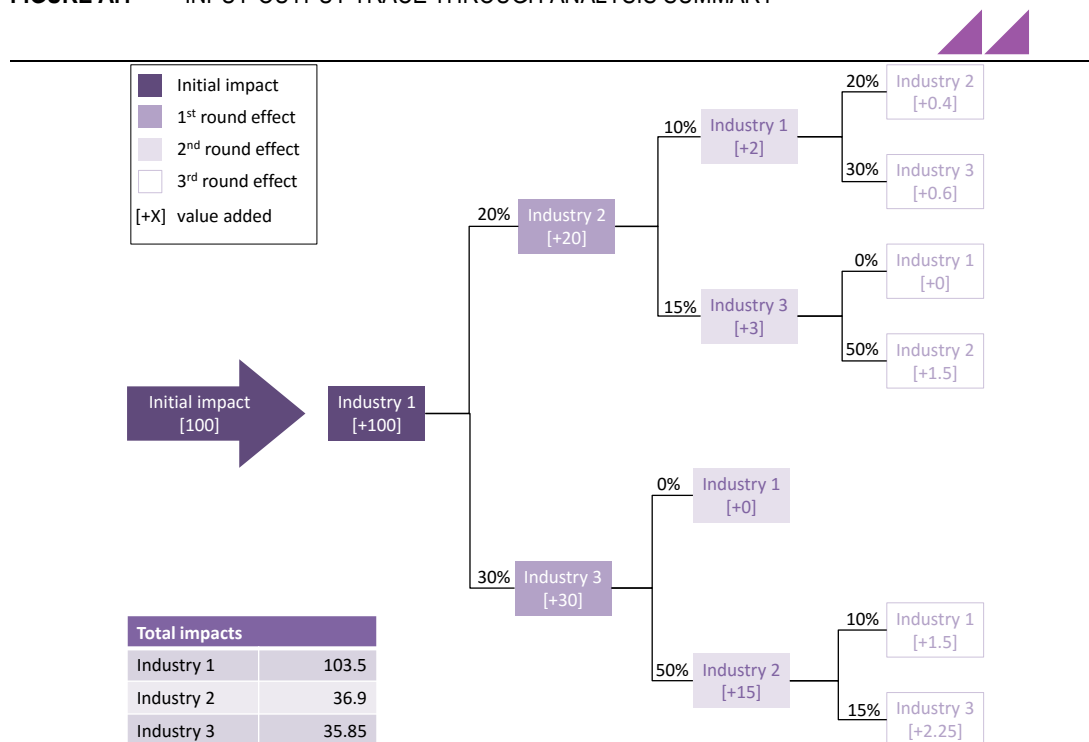
METHODOLOGY

For the purpose of estimating the economic impact of homeported cruise ships on the Western Australian economy during 2015-16, ACIL Allen has developed I-O models for the Perth greater capital city statistical area (which includes Fremantle) and the regional development areas that were visited by cruise ships that were homeported in Fremantle during 2015-16.

I-O models capture the direct and indirect effects of expenditure by capturing for each industry, the industries it purchases inputs from and also the industries it sells its outputs to. For example, the I-O model for the Perth greater capital city statistical region captures purchases from and sales to industries located in the Perth region, as well as imports from outside the region.

With this information, it is possible to trace the direct tourism expenditure undertaken by cruise vessels, crew members and passengers (in Western Australia) through the appropriate corresponding industries. A graphical representation of the approach used is presented in **Figure A.1** below.

FIGURE A.1 INPUT-OUTPUT TRACE THROUGH ANALYSIS SUMMARY



SOURCE: ACIL ALLEN CONSULTING

The illustration depicts how an impact is traced through a (very simple) economy with three industries (1, 2, and 3). The initial impact occurs in Industry 1 where an additional 100 units of value are added to its output. In order to generate this additional output, Industry 1 requires additional inputs from Industry 2 and Industry 3. Therefore Industry 2 and 3 increase their output as well. This in turn requires input from Industry 1 and 3 and Industry 1 and 2 respectively which increase their output to satisfy this additional demand, and so on. The impacts grow smaller with each iteration and ultimately converge to zero. This is because they always only share the impact that occurred in the preceding iteration.

Three impact streams (inputs) that were traced through ACIL Allen's I-O models for this analysis were:

- expenditure undertaken by homeported cruise vessels for their Western Australian operations;
- expenditure undertaken by crew members who disembark at Western Australian ports; and
- expenditure undertaken by passengers during their pre-cruise stay at Fremantle Port (homeport) or their onshore visits at transit ports in WA.

The operational expenditure associated with the cruise lines' Western Australian operations were obtained from the individual cruise lines (Carnival Australia, Cruise and Maritime Voyages Australia); while to obtain the passenger and crew expenditure inputs, ACIL Allen utilised the cruise lines' passenger and crew figures (with disembark percentages, by port) in combination with average passenger and crew expenditure survey data (by industry of expenditure and port), which was obtained from the Cruise Lines International Association Australasia's report, *The Contribution of Cruise Tourism to the Australian Economy in 2014-15*.

In reference to the data used, ACIL Allen made the following assumptions during the modelling phase:

- all crew exchange accommodation and food expenditure undertaken by the cruise lines takes place in the Fremantle region;
- airfare travel expenditure undertaken by the cruise lines has no impact on the Western Australian economy due to the assumption that the large majority of the profits associated with this expenditure does not flow to Western Australian residents or businesses;
- 60 per cent of all advertising expenditure undertaken by the cruise lines is directed towards print publishing advertising, while the remaining 40 per cent is directed towards television and radio advertising (which is consistent with conversations held between ACIL Allen and the cruise lines).

To estimate the total economic impact of homeported cruise vessels on the Western Australian economy, ACIL Allen traced the three stated impact streams through the respective region's economy where they occur and then aggregated the results.

ACIL ALLEN CONSULTING PTY LTD
ABN 68 102 652 148
ACILALLEN.COM.AU

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