ACKNOWLEDGMENTS

The State Tourism Satellite Accounts series has been produced as part of a modelling program established and funded in partnership with the Australian Government and each of the state and territory tourism organisations to enhance understanding of the economic dynamics of tourism.

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Publication date: April 2018

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Cover image: Cradle Mountain Huts Overland Track Walk, Mount Pelion West, Cradle Mountain-Lake St Clair National Park, TAS. Image courtesy of Tourism Australia.
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INTRODUCTION

THE IMPORTANCE OF TOURISM

Tourism is a major export earner for Australia, a source of employment for hundreds of thousands of workers and a key driver of growth in the economy. Unlike many other industries that are concentrated in geographic pockets, the benefits of tourism are widespread, with almost half of all expenditure going into regional Australia.

With the resources boom now well behind us, tourism also has the potential to be Australia’s fastest growing industry. Tourism Research Australia (TRA) forecasts show that international arrivals will likely grow by 6.9% in 2017–18, and by 64% in 2026–27 compared to 2017–18. Domestic travel is forecast to grow by 24% (overnight visitors) and 29% (day visitors) over the period 2017–18 to 2026–27.

The economic upside to tourism is substantial, nonetheless there are significant challenges to address, and opportunities to seize, in order to grow the industry in a sustainable way (Box 1).


data:image/png;base64,iVBORw0KGgoAAAANSUhEUgAAAZwAAAD6CAYAAAAa8sIPAAAgAElEQVR42u5DSRw2AMAwBwEd+OYKdQwAAAAABJRU5ErkJggg==

BOX 1 – CHALLENGES AND OPPORTUNITIES FOR TOURISM

Australia is well placed geographically to take advantage of the growth of Asian middle-class populations, which are expected to increase five-fold over the next twenty years.

The global tourism market is, however, highly competitive, with more than 190 national tourism organisations competing for international visitors. Activity within the industry is also highly vulnerable to international events, economic uncertainties and levels of traveller risk – both real and perceived. Nevertheless, with its economic and political stability, Australia is able to provide a safe and secure environment for investors, operators and travellers.

To ensure that Australia continues to remain an attractive destination for overseas visitors, and to keep pace with forecast increases in demand, continued (and greater) investment in hotels, infrastructure, attractions and training is needed. For this reason, the Australian Government – together with industry – implemented a strategy to grow the industry, Tourism 2020, and is currently developing a new strategy to plan for sustainable growth beyond 2020.

ABOUT THIS REPORT

The State Tourism Satellite Accounts (State TSA) report highlights the importance of tourism to each state and territory’s economy by presenting a comprehensive set of tourism data for all states and territories in Australia. The report examines the changing pattern of tourism over the period 2006–07 to 2016–17, and the key changes that occurred in 2016–17. At an Australia-wide level, estimates from this report are consistent with the nationally based Tourism Satellite Accounts produced by the Australian Bureau of Statistics (ABS) each year.

Data in the State TSA are reliant on a range of other statistics, which are subject to revision from time to time. In particular, revisions have been applied to the source data from TRA’s National Visitor Survey (NVS); the National TSA results which State TSA results are benchmarked against for consistency; and to the ABS’ Labour Force Survey that forms the basis for tourism employment estimates. As a consequence of this and other revisions, historical data from this report will differ from previous editions. See ‘Explanatory notes’ for more information.

HOW SATELLITE ACCOUNTS MEASURE TOURISM IMPACTS

State satellite accounts capture the relationship between the consumption of tourists in each state and territory and the ensuing economic and labour market impacts – both direct and indirect. These include Gross Domestic Product (GDP) at the national level, Gross State Product (GSP) at the state and territory levels, Gross Value Added (GVA), exports, and employment. Underpinning these accounts is a framework built on international and domestic tourist spend (including day trippers), industry statistics, labour force statistics and national accounts data (Figure 1).
FIGURE 1 – THE STATE TSA FRAMEWORK

SUPPLY-SIDE DATA

INDUSTRY OUTPUT, FROM AUSTRALIAN INDUSTRY STATISTICS
- ACCOMMODATION & FOOD SERVICES
- TRANSPORT & POSTAL WAREHOUSING
- RETAIL TRADE
- ARTS & RECREATION SERVICES
- EDUCATION
- ADMINISTRATIVE & SUPPORT SERVICES

AUSTRALIA’S WORKFORCE DATA FROM LABOUR FORCE SURVEYS

DEMAND-SIDE DATA

TOURIST SPEND FROM THE INTERNATIONAL AND NATIONAL VISITOR SURVEYS

ECONOMIC AND LABOUR FORCE IMPACTS OF TOURISM

- GROSS STATE PRODUCT (GSP) AND GROSS VALUE ADDED (GVA)
- EMPLOYMENT
- CONSUMPTION
- EXPORTS
Measuring the indirect or flow-on effects of tourism is an important feature of the state satellite accounts, as this provides a more complete picture of the impacts of tourism. For example, purchasing a meal from a hotel will have a direct impact on Australia’s accommodation and food services sector, but beyond that there are also indirect impacts on the agricultural sector that grows the produce, on the transport sector that delivers the produce, and on the wholesale sector that sells the produce on to the hotel. Figure 2 shows how the different forms of tourism consumption contribute to the economy and labour market.

While the direct effects of tourism are specific to each jurisdiction, the indirect effects can be nationwide. Using the example above, a meal at a Melbourne restaurant will have a direct effect on employment, GVA and GSP for Victoria. However, if the food being served comes from Queensland, there will be an indirect effect on employment, GVA and GSP for Queensland. Therefore, it is correct to say in the case of Victoria, for example, that direct and indirect tourism GSP contributed $24.8 billion to the national economy. When reporting on direct effects, it is equally correct to say Victoria’s direct tourism GSP contributed $12.2 billion to Victoria’s economy.

These examples of direct and indirect effects illustrates how tourist consumption can cut across many different sectors of the Australian economy. However, this means that the tourism industry does not fit within the conventional framework used to calculate measures of economic activity, such as the Australian System of National Accounts. For this reason, satellite accounts make extensive use of input-output tables for each state and territory to aggregate tourism-related contributions from different industries and compile a range of economic and labour market measures (see ‘Explanatory notes’ for more detail).
FIGURE 2 – IMPACTS OF TOURISM ON THE ECONOMY AND EMPLOYMENT, 2016–17

- Domestic interstate tourism consumption: $33.5b
- Domestic intrastate tourism consumption: $43.1b
- Domestic day trip tourism consumption: $21.7b
- Inbound tourism consumption: $37.2b

**Total tourism consumption at purchasers’ prices (internal consumption):** $135.5b

- Net taxes on tourism consumption: $9.3b
- Imported goods and services: $10.8b

**Tourism consumption at basic prices:** $115.4b

- Direct tourism consumption: $97.0b
- Indirect tourism consumption: $18.3b

- Tourism consumption at basic prices: $97.0b
- Direct tourism gross value added (GVA): $50.6b
- Direct tourism employment: 598,200

**Direct tourism gross domestic product (GDP)/gross state product (GSP):** $55.3b

**Tourism output multiplier:**

**Total (direct and indirect) tourism output:** $210.0b

- Net taxes on total (direct and indirect) tourism consumption: $11.4b
- Total (direct and indirect) tourism value added: $98.5b
- Total (direct and indirect) tourism employment: 924,600

**Total (direct and indirect) tourism GDP/GSP:** $110.0b
TOURISM CONSUMPTION

NATIONAL RESULTS, 2016–17

Tourism consumption is the total value of goods and services consumed by domestic and international visitors in Australia. It is measured in purchasers’ prices – the price the visitors pay, including taxes, subsidies, and other mark-ups.

In 2016–17, total tourism consumption was $136 billion nationally, 5.3% higher than 2015–16. Of this, almost three-quarters (73%) came from domestic consumption, which increased 4.5% over 2015–16 to reach $98 billion for the year. The remaining 27% was by international visitors, with $37 billion worth of consumption in 2016–17, $2.6 billion more than in 2015–16.

Among domestic travellers, 22% of spend was from day trips ($22 billion) and 78% from overnight trips ($77 billion).

In terms of visitor type, 19% of domestic spend ($19 billion) was by business and government travellers, and the remaining 81% ($80 billion) came from Australian households.

Although domestic consumption outweighs international consumption by almost three-to-one, the average international visitor consumed $4,347 in 2016–17, 1.2% lower than the previous year. This was 12 times more than domestic travellers ($349, 2.9% higher than the previous year).

Spend by domestic travellers varies substantially between day trips and overnight trips, due to accommodation costs. Average spend per overnight trip was $818 in 2016–17, compared with $115 per average day trip. Figure 4 shows total international and domestic spend on tourism products in 2016–17.

Aside from differences in the amount of spend, there are substantial variations in spend patterns between domestic and international tourists.

For every dollar spent by international visitors, 15 cents was spent on accommodation, 16 cents on long-distance transport, 13 cents on shopping and 12 cents on takeaway and restaurant meals.

International visitors are the main consumers of education services, with $5 billion spent in 2016–17. This was equivalent to 15 cents in every dollar going on education services, with demand especially high from Asian markets.

Among domestic travellers, the main items of spend in 2016–17 were eating out, long-distance passenger transport and shopping – accounting for 18, 15 and 12 cents of every dollar spent.
FIGURE 4 – VISITOR CONSUMPTION SPEND ON TOURISM PRODUCTS ($ MILLION), 2016–17

<table>
<thead>
<tr>
<th>Category</th>
<th>Domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation and Meals</td>
<td>11,268</td>
<td>32,275</td>
</tr>
<tr>
<td>Transport</td>
<td>7,428</td>
<td>17,966</td>
</tr>
<tr>
<td>Travel Agency and Tour Operator Services</td>
<td>373</td>
<td>4,531</td>
</tr>
<tr>
<td>Arts and Recreation Services</td>
<td>1,126</td>
<td>5,347</td>
</tr>
<tr>
<td>Shopping, Gifts and Souvenirs</td>
<td>4,690</td>
<td>11,586</td>
</tr>
<tr>
<td>Food and Drinks</td>
<td>4,679</td>
<td>11,103</td>
</tr>
<tr>
<td>Education Services</td>
<td>5,415</td>
<td>425</td>
</tr>
<tr>
<td>Other Goods and Services</td>
<td>2,223</td>
<td>15,069</td>
</tr>
</tbody>
</table>

Source: ABS, 2017
STATE AND TERRITORY RESULTS, 2016–17

New South Wales, Queensland and Victoria contributed three-quarters (76%) to total tourism consumption in 2016–17, while over the same period, the combined share of the remaining states/territories was around 25%. International travel’s share of total tourism consumption was lowest for Tasmania and South Australia and greatest for New South Wales and Victoria (Figure 5).

FIGURE 5 – STATE AND TERRITORY SHARE OF AUSTRALIA’S TOTAL TOURISM SPEND, 2016–17

Source: Derived by TRA
Between 2006–07 and 2016–17, the contribution – and thus relative importance – of international tourism to total consumption increased in the following states and territories:

- Victoria – 31%, up from 23%
- New South Wales – 32%, up from 27%
- Australian Capital Territory – 22%, up from 16%
- South Australia – 19%, up from 14%
- Tasmania – 17%, up from 15%.

For all others states and territories, the share of consumption attributable to international tourism fell or remained unchanged between 2006–07 and 2016–17:

- Queensland – remained unchanged at 24%
- Northern Territory – 24%, down from 29%
- Western Australia – 22%, down from 23%.

**FIGURE 6 – DOMESTIC CONSUMPTION VS INTERNATIONAL CONSUMPTION, 2016–17**

Sources: TRA's estimates (for states/territories) and ABS (2017) (for Australia)
TOURISM’S ECONOMIC CONTRIBUTION

TOURISM GROSS VALUE ADDED

By excluding payments made through the taxation system, GVA is a more accurate indicator of tourism’s contribution to Australia’s economy than GDP. Using this measure, direct tourism GVA increased 6.1% (or $2.9 billion) to $51 billion in current price terms in 2016–17. This represented 3.1% of national GVA, which places tourism ahead of Agriculture, forestry and fishing, which captured a 2.8% share of national GVA.

International tourism contributed $17 billion to tourism GVA – an increase of $1.3 billion on 2015–16, and a 30% share of all GVA. The remaining 70% share ($39 billion) was from domestic travel, comprising:

- intrastate travel – $16.0 billion, $1.0 billion more than 2015–16
- interstate travel – $12.4 billion, $0.5 billion more than 2015–16
- same-day travel – $5.7 billion, $0.1 billion more than 2015–16.

Domestic travel makes a larger contribution to GVA than international tourism in all states and territories. The dominance of this contribution ranges from a 63% and 62% share for New South Wales and Victoria through to a 78% and 76% share for Tasmania and South Australia. Figure 7 shows the value of the domestic component of tourism GVA, and growth in domestic GVA since 2015–16.

Within the domestic sector, the share of GVA attributable to:

- interstate travel was highest for the Australian Capital Territory (72%), the Northern Territory (61%) and Tasmania (58%), and lowest for Western Australia (21%) and New South Wales (32%)
- intrastate travel was highest for Western Australia (63%), New South Wales (50%) and Queensland (47%), and lowest for Tasmania (26%) and the Australian Capital Territory (16%)
- same-day travel was highest for New South Wales (18%) and Victoria (18%), and lowest for the Australian Capital Territory (12%) and the Northern Territory (7%).
FIGURE 7 – VALUE OF DOMESTIC COMPONENT OF DIRECT TOURISM GVA, AND GROWTH SINCE 2015–16

Sources: TRA’s estimates (for states/territories) and ABS (2017) (for Australia)
Total tourism GVA contributed most to total state GVA in Tasmania (5.1%), the Northern Territory (4.7%), and Queensland (3.7%) in 2016–17. For other states and territories, the share of total state GVA ranged between 2% and 3% – with New South Wales, Victoria and South Australia reporting that tourism had a 3.0% share of total GVA. For the Australian Capital Territory and Western Australia, the respective shares were 2.6% and 2.1%.

Between 2006–07 and 2016–17, tourism’s direct share of total state GVA increased slightly from 3.0% to 3.1%, with most states and territories reporting a growing share of GVA attributable to tourism with the exception of Queensland and the Northern Territory, which reported a fall in share from 4.1% to 3.9% and 6.0% to 4.8%, respectively. (Figure 8).

INDIRECT TOURISM GVA, 2016–17

Indirect tourism GVA contributed a further $48 billion to national GVA. Combined with direct tourism GVA, this represented total GVA from tourism of $99 billion, or 6.1% of Australia’s total GVA. Between 2006–07 and 2016–17, the contribution of indirect tourism GVA to total flow-on GVA reduced slightly from 52% to 49%.

The states that contributed most to indirect tourism GVA in 2016–17 were:

- New South Wales – $15 billion (a 31% share)
- Queensland – $11 billion (23%)
- Victoria – $11 billion (23%).

Collectively, these three states contributed more than three-quarters (77%) of all indirect GVA.

TOURISM GROSS DOMESTIC PRODUCT

Direct tourism Gross Domestic Product (GDP) measures the value added of the tourism industry at purchasers’ (market) prices – unlike GVA, it includes taxes paid, less subsidies.

Over the period 2006–07 to 2016–17, tourism GDP and GVA each increased more than 5% on average per year, with growth accelerating in recent years. As a result, there has been a slight increase in the direct tourism share of national GVA and GDP totals. A similar increase in shares can be identified when flow-on effects are considered as well (Table 1).
TABLE 1 – TOURISM’S SHARE OF NATIONAL GVA AND GDP

<table>
<thead>
<tr>
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<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>% share</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DIRECT EFFECTS OF TOURISM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GVA share(^{(a)})</td>
<td>2.8</td>
<td>2.7</td>
<td>2.9</td>
<td>3.1</td>
<td>3.1</td>
<td>2.9</td>
</tr>
<tr>
<td>GDP share(^{(a)})</td>
<td>2.8</td>
<td>2.8</td>
<td>3.0</td>
<td>3.1</td>
<td>3.2</td>
<td>3.0</td>
</tr>
<tr>
<td>Employment share(^{(a)})</td>
<td>4.8</td>
<td>4.8</td>
<td>4.9</td>
<td>4.9</td>
<td>4.9</td>
<td>4.9</td>
</tr>
<tr>
<td><strong>DIRECT AND INDIRECT EFFECTS OF TOURISM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GVA share(^{(b)})</td>
<td>5.5</td>
<td>5.5</td>
<td>5.8</td>
<td>6.0</td>
<td>6.1</td>
<td>5.8</td>
</tr>
<tr>
<td>GDP share(^{(b)})</td>
<td>5.8</td>
<td>5.8</td>
<td>6.0</td>
<td>6.3</td>
<td>6.3</td>
<td>6.0</td>
</tr>
<tr>
<td>Employment share(^{(b)})</td>
<td>7.2</td>
<td>7.3</td>
<td>7.4</td>
<td>7.5</td>
<td>7.7</td>
<td>7.4</td>
</tr>
</tbody>
</table>

Sources: (a) ABS (2017); (b) TRA’s estimates

TOURISM EMPLOYMENT

Tourism continues to be a significant direct and indirect employer. In 2016–17, tourism directly employed 4.9% of all workers in the economy – 598,200 tourism workers in total, and 17,500 more than were employed in 2015–16. When indirect effects are included, tourism’s share of national employment increases to 7.7%, or 924,600 workers – an increase of 34,600 on the 2015–16 employment figure of 890,000 workers.

Tourism’s 7.7% share of national employment is 0.2 percentage points higher than the percentage share reported in 2015–16, and above the long-term average share of 7.3% since 2006–07.

Between 2006–07 and 2016–17, tourism employment has grown as follows:

- Direct employment has increased from 530,400 to 598,200 – an average annual increase of 1.2%
- Indirect employment has increased from 225,900 to 326,600 – an average annual increase of 3.8%
- Total employment has increased from 756,200 to 924,600 – an average annual increase of 2.0%.

The states that contributed most to the total number of persons employed directly in tourism in 2016–17 were:

- New South Wales – 171,100 (a 29% share)
- Victoria – 143,800 (24%)
- Queensland – 137,500 (23%).

These three states also made the largest contribution to indirect employment:

- New South Wales – 91,000 (a 28% share)
- Queensland – 79,000 (24%)
- Victoria – 71,000 (22%).

Collectively, these three states accounted for 76% of direct employment, 74% of indirect employment and 75% of total employment in the tourism industry.

TOTAL EMPLOYMENT (DIRECT AND INDIRECT)

Direct and indirect employment for other states and territories was as follows:

- Western Australia – 104,000 (a 11.2% share)
- South Australia – 56,000 (6.1%)
- Tasmania – 38,000 (4.1%)
- Australian Capital Territory – 17,000 (1.8%)
- Northern Territory – 16,000 (1.8%).
FIGURE 9 – DIRECT AND INDIRECT TOURISM EMPLOYMENT BY STATE AND TERRITORY IN 2016–17, AND CHANGE ON 2015–16

Sources: TRA’s estimates (for states/territories) and ABS (2017) (for Australia)
Over the period 2006–07 to 2016–17, there was some movement in the share of direct tourism employment attributable to each state and territory (Figure 10).

The states that increased their share of national tourism employment over this period were:

- Victoria – growing from a 21% to 24% share, as direct employment increased from 110,000 to 144,000 workers
- Western Australia – growing from a 11% to 12% share, as employment increased from 57,000 to 71,000 workers.

Meanwhile, Queensland decreased its share of national tourism employment slightly over the same period, (25% to 24%) as direct employment decreased from 139,000 to 138,000 workers.

States and territories that maintained their share of national tourism employment over the same period were:

- New South Wales – a 29% share, while employment grew from 156,000 to 171,000 workers
- South Australia – a 6% share, while employment grew from 32,000 to 36,000 workers
- Tasmania – a 3% share, while employment grew from 17,000 to 19,000 workers
- Australian Capital Territory – a 2% share, while employment grew from 9,000 to 11,000 workers
- Northern Territory – a 2% share, while employment declined from 11,000 to 9,000 workers.

Industries that contributed most to direct tourism employment across each state and territory in 2016–17 were:

- Food services – a 25% to 34% share of total employment
- Retail trade – a 15% to 20% share
- Accommodation – a 12% to 19% share
- Education and training – a 4% to 11% share.

**FIGURE 10 – INDUSTRY CONTRIBUTION BY STATE AND TERRITORY TO TOURISM EMPLOYMENT, 2016–17**

<table>
<thead>
<tr>
<th>State</th>
<th>Accommodation</th>
<th>Food Services (^*)</th>
<th>Retail Trade</th>
<th>Education and Training</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW</td>
<td>15%</td>
<td>28%</td>
<td>17%</td>
<td>8%</td>
<td>33%</td>
</tr>
<tr>
<td>VIC</td>
<td>19%</td>
<td>27%</td>
<td>17%</td>
<td>11%</td>
<td>25%</td>
</tr>
<tr>
<td>QLD</td>
<td>17%</td>
<td>25%</td>
<td>15%</td>
<td>6%</td>
<td>37%</td>
</tr>
<tr>
<td>SA</td>
<td>17%</td>
<td>34%</td>
<td>16%</td>
<td>4%</td>
<td>29%</td>
</tr>
<tr>
<td>WA</td>
<td>15%</td>
<td>27%</td>
<td>15%</td>
<td>7%</td>
<td>35%</td>
</tr>
<tr>
<td>TAS</td>
<td>12%</td>
<td>28%</td>
<td>20%</td>
<td>6%</td>
<td>34%</td>
</tr>
<tr>
<td>NT</td>
<td>15%</td>
<td>28%</td>
<td>16%</td>
<td>6%</td>
<td>35%</td>
</tr>
<tr>
<td>ACT</td>
<td>14%</td>
<td>29%</td>
<td>16%</td>
<td>9%</td>
<td>31%</td>
</tr>
</tbody>
</table>

Sources: TRA’s estimates (for states/territories) and ABS (2017) (for Australia)

\(^*\)Refers to cafes, restaurants and take-away food services
EXPLANATORY NOTES

DATA REVISIONS

The STSA is periodically affected when historical estimates for previous years are revised due to changes in the data on which they were based. In 2016–17, these comprised:

- **changes to regional expenditure (REX):** A review of the supplied REX data post the 2015–16 Satellite Accounts resulted in minor adjustments to modelled outputs and reallocation of domestic expenditure.

- **changes in the National Accounts:** These are revised annually by the ABS to ensure their statistics continue to reflect changes in the economy, in line with international best practice. These changes affect the national economy as well as tourism.

Aside from these changes, benchmarking, which occurs every 3 years, can result in revisions in the economic estimates in other years. Back casting of IVS/NVS data for 2014 and 2015 estimates also had a substantial impact on the STSA for 2015–16.

IMPACT OF DATA REVISIONS

Under the STSA methodology:

- changes in REX will affect tourism consumption, which is then used in estimating tourism GVA.

- changes in National Accounts will affect GVA at the national and state level across all industries.

Employment will also be affected, as estimates for tourism employment within each state are largely based on the ratio of tourism GVA to state GVA, and on the structure of their tourism industry.

NOTES ON THE TSA CONCEPTUAL FRAMEWORK

The following organisations jointly developed the framework for the TSA:

- Commission of the European Communities
- Organisation for Economic Co-operation and Development (OECD)
- United Nations World Tourism Organization (UNWTO)
- World Travel and Tourism Council (WTTC).

It was approved by the United Nations Statistical Commission (EUROSTAT et al. 2000) and has been revised in UNWTO (2008) and *Tourism Satellite Accounts: Recommended Methodological Framework* (2008). The framework has been widely applied in Australia and internationally, so the recommended methodology for TSAs is not reproduced in this report.

METHODOLOGY AND DATA SOURCES

The 2016–17 State TSA publication builds on the ABS’ national TSA to present a comprehensive set of data on the direct and indirect economic contribution of tourism for all states and territories. In doing so, the report highlights changes, in nominal terms, that have occurred in 2016–17 and examines longer-term patterns in tourism's contribution to the national and state and territory economies.

Although the tourism industry is a high value contributor to the Australian economy, the ABS System of National Accounts (SNA) does not capture tourism as a single industry because of the sector’s diverse products and services. The TSA bridges this gap by measuring the economic contribution of tourism and effectively supplementing the SNA. By doing this, comparisons can be made between the tourism industry’s economic contribution and that of conventional industries within an economy, or even between tourism sectors across different countries.

DIRECT CONTRIBUTION OF TOURISM

The approach that has been adopted to derive the direct contribution of tourism in the State TSA is similar to that developed by Pham et al. (2009). Essentially, tourism spend data and state/territory industry input-output (I-O) data are combined with the national TSA benchmark. This ensures both the supply of tourism and the demand for tourism at the state level are captured.
The main data sources are:

- unpublished modelled regional expenditure data from TRA’s IVS and NVS
- the I-O database from The Enormous Regional Model (TERM) (Horridge, Madden & Wittwer, 2003)

Regional expenditure data are used to derive tourism consumption, or demand, in each state. The regional I-O database provides the cost structure and all required information to derive the supply side of the tourism sector in the State TSAs.

The supply and demand elements of the State TSA data are then reconciled with the national TSA benchmark so that the summing conditions between state and national levels are satisfied. Reconciliation is required because the sum of state spend data is not equal to the national TSA produced by the ABS. The main reason for this difference is that the ABS makes an upward adjustment to tourism spend to derive the national TSA data. Unfortunately, the equivalent information necessary to apply an upward adjustment to the state tourism spend is not available. Importantly, the relativity of state differences captured from the regional I-O database and regional spend patterns is maintained when reconciling the State TSA data to the national target.

INDIRECT AND TOTAL CONTRIBUTION OF TOURISM

The indirect effects of tourism demand on businesses that provide goods and services to the tourism industry have also been measured. For example, the indirect tourism demand generated from supplying a meal to a visitor starts with the production of what the restaurant needs to make the meal, such as fresh produce and electricity for cooking.

This approach complements the direct effects presented through the TSA framework and provides a clearer picture of the total contribution of tourism to the economy. However, as the TSA framework is not designed to measure these indirect effects at state and territory level, they have been calculated using I-O analysis methods.

The I-O analysis methods provide a breakdown of the supply and demand of commodities in the Australian economy. As the tourism sector does not have its own multiplier, the multipliers for other industries are used as the basis for calculating tourism’s indirect effects. The multipliers measure the individual contribution of the industries associated with supplying goods and services to tourists and thus provide estimates of the flow-on effects for tourism output, tourism GVA, tourism GSP and tourism employment.

The equivalent state and territory output multipliers and state-specific industry level GVA to output and employment to output ratios have been derived from the TERM I-O database. This database is widely used in Australia, and is the only source available for this information at the state and territory level. It is based on 2004–05 data. The same state output multipliers and the associated ratios have been applied to all TSA years presented in this report.

REGIONAL EXPENDITURE

As indicated in the previous section, State TSA data are based on TRA modelled regional expenditure estimates, which were derived from IVS and NVS data. The survey data are allocated to tourism regions using an iterative procedure (TRA, 2013). Essentially, the technique takes into account visitors’ reported expenditure on their entire trip in Australia, relative to the nights they spend in different tourism regions in Australia.

The estimates derived from the regional expenditure model show there are considerable differences in spend patterns across states and territories. As a key input to the State TSA, they are therefore an important contributor in shaping the patterns evident in the estimates of each state and territory, and the shares attributed to specific tourism-characteristic and tourism-connected industries in each state and territory.

Importantly, it should be recognised that as the modelled regional expenditure figures are derived from survey data, there can be some volatility in these estimates. This is particularly the case for smaller states and territories and spend categories with lower levels of spend.

TOURISM CONSUMPTION AND OUTPUT

The modelled tourism expenditure estimates which are used as an input to the State TSA are measured at purchasers’ prices. This includes the following components that are not directly related to industries producing goods and services for tourism purposes:

- imports
- wholesale, retail margins, and transports (margins)
- net commodity taxes.

Consumption represents the demand side of tourism, with visitors paying a final price for goods and services. Thus consumption in this report is generally measured in purchasers’ prices (Tables 4 and 8) to reflect the full price paid by tourists for goods and services. Most consumption data in the national account and State TSA are presented in the same way.
However, in order to measure flow-on effects correctly, it is necessary to use consumption measured at basic prices. If consumption were measured at purchasers’ prices, flow-on effects would be over-estimated by the inclusion of values (such as imports) which are not related directly to domestic production.

Tourism output measures how much demand is satisfied by domestic industries. Often, output is less than total consumption (at purchasers’ prices) due to the amount of imports, commodity taxes and any associated margins that are required to facilitate the transfer of goods and services from producers to tourists. Road and rail transport and the wholesale and retail sectors are good examples of this. Only at basic prices is consumption equal to output of the producing industry, as all add-on components paid by the consumers are removed (noting the amounts of margins that are re-allocated to the applicable industries to reflect their contribution to tourism consumption explicitly).

It is also important to note that within the basic prices category, not all goods and services are now defined as direct output in the new TSA framework. As indicated previously, the output of an industry is defined as direct tourism output only when the industry has physical contact with tourists (for example, cafes, restaurants and accommodation). Items like fuel are not direct tourism outputs. For example, if a tourist spends $98 to fill up their petrol tank, and $80 is the cost of fuel and $18 is the cost to run the petrol station, then only $18 is recorded as direct tourism output associated with the retail industry. The remaining $80 is considered to be the cost to the retailer of the domestic good sold to tourists and would be captured in the flow-on effects to account for the value-adding that tourism has generated in the domestic economy.

### Glossary

**Basic price**: The amount receivable by the producer from the purchaser for a unit of a good or service prior to any additional costs such as net commodity taxes or any margins required to facilitate transfer of the goods and services from the producer to the tourists. These additional costs are paid by consumers but received by other industries (transport) and government (tax revenue).

**Direct contribution of tourism**: The contribution generated by transactions between the visitor and producer for a good or service that involves a direct physical or economic relationship. For example, the direct effects of an increase in the number of visitors staying in hotel accommodation are the sales and any associated changes in payments for wages and salaries, taxes and supplies and services. These direct economic impacts are measured according to the TSA framework throughout this report.

**Employed person**: A person aged 15 years or over who, during the reference week, worked for one hour or more for pay, profit, commission or payment in kind in a job or business or on a farm, or worked for one hour or more without pay in a family business or on a farm. Direct and indirect tourism employment are measured separately using the TSA framework and I-O modelling techniques respectively. Combined they provide an estimate of total tourism employment.

**Indirect contribution of tourism**: The subsequent or flow-on effects created by the requirement for inputs from those industries supplying goods and services to tourists. For example, in the case of the hotel industry this might include the fresh produce supplied to a hotel and the electricity used. These indirect economic impacts are measured using I-O modelling techniques in this report as the TSA framework is not designed to produce such estimates at the state and territory level.

**International tourism**: Overseas visitors to Australia who stay for a period of less than 12 months.

**Interstate travel**: Domestic overnight travel where a visitor travels to a state or territory other than that in which they reside.

**Intrastate travel**: Domestic overnight travel where a visitor travels to a location in the state or territory in which they reside.

**Net taxes on products**: The combined taxes or subsidies on a product, payable per unit of a good or service. These usually become payable when the product is sold or imported but these may also become payable in other circumstances such as when a good is exported.
**Purchasers’ prices:** The amount payable by the purchaser (excluding any deductible tax) to take delivery of a unit of a good or service at the time and place they require it. This includes any transport charges paid separately to take delivery of the good or service.

**Same-day travel:** Domestic travel involving a round trip distance of at least 50 kilometres and at least four hours, and no nights spent away from home. Same-day travel as part of overnight travel is excluded, as is routine travel such as commuting between work or school and home.

**Total contribution of tourism:** The total contribution of tourism taking into account direct and indirect effects (see direct contribution of tourism and indirect contribution of tourism).

**Tourism-characteristic industries:** Industries that would either cease to exist in their present form or be significantly affected if tourism were to cease. Under the international TSA standards, core lists of tourism characteristic industries, based on the significance of their link to tourism in the worldwide context, are recommended to facilitate international comparison. The core list of tourism characteristic industries is consistent with the newly revised international classification of industries, namely the International Standard Industrial Classification, Revision 4 (ISIC Rev. 4), which aligns closely with ANZSIC 2006. In the Australian TSA, for an industry to be a country-specific tourism characteristic industry, at least 25% of its output must be consumed by visitors.

**Tourism-characteristic products:** Products that would either cease to exist in their present form or be significantly affected if tourism were to cease, or for which sales would be significantly reduced in the absence of tourism. Under the international TSA standards, core lists of tourism characteristic products, based on the significance of their link to tourism in the worldwide context, are recommended to facilitate international comparison. In the Australian TSA, for a product to be a country-specific tourism characteristic, at least 25% of the output of the product must be consumed by visitors.

**Tourism-connected industries:** Industries, other than tourism characteristic industries, for which a tourism-related product is directly identifiable (primary) and where the products are consumed by visitors in volumes that are significant for the visitor and/or the producer. All other industries are classified as ‘all other industries’, though some of their products may be consumed by visitors and are included in the calculation of direct tourism GVA and direct tourism GDP.

**Tourism-connected products:** Products that are consumed by visitors but are not considered as tourism characteristic products.

**Tourism consumption:** The total value of tourism goods and services consumed by residents and visitors from overseas in Australia. It includes household, business and government tourism consumption. It represents the price paid by the visitor (which therefore includes taxes and subsidies) and is measured in purchasers’ prices.

**Tourism gross state product:** Tourism GVA plus net taxes on products that are attributable to the tourism industry. As such, it generally has a higher value than tourism GVA. Direct and indirect flow-on GSP are measured separately using the TSA framework and I-O modelling techniques, respectively. Combined, they provide an estimate of total tourism GSP.

**Tourism gross value added:** Considered the most accurate measure of the contribution of the industry to the economy. It includes the total labour income and capital revenue received by the industry and the net taxes that government receives from the production, and is measured in basic prices. Direct and indirect flow-on GVA are measured separately using the TSA framework and I-O modelling techniques, respectively. Combined, they provide an estimate of total tourism GVA.

**Tourism output:** The total value of goods and services produced in Australia to satisfy visitor consumption. It is measured in basic prices, so it excludes net taxes on tourism products. Direct and indirect flow-on outputs are measured separately using the TSA framework and I-O modelling techniques, respectively. Combined, they provide an estimate of total tourism output.
REFERENCES


——2017, Labour Force, Australia Detailed, Quarterly, Cat. No. 6291.0.55.033, Table 5, ABS, Canberra.

Dwyer, L, Pham, T, Hoque, S, Forsyth, P and Spurr, R 2011, Return on investment from international tourism marketing, Report submitted to TRA by Centre for Economics and Policy.


Ho, TV, Spurr, R, Pambudi, D, Forsyth, P, Dwyer, L and Hoque, S 2008b, Tourism Satellite Account 2006–07 [as separate publications for] New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania, Northern Territory and Australian Capital Territory, Sustainable Tourism Cooperative Research Centre, Gold Coast, Queensland, available at http://www.sustainabletourismonline.com/


Pham, T, Dwyer, L and Spurr, R 2010, Regional Economic Contribution of Tourism Destinations in Queensland, STCRC Centre for Economics and Policy.


Tourism Research Australia 2013, The Economic Impact of the Mining Boom on the Australian Tourism Industry, TRA, Canberra.
