Australian Government

Australian Trade and Investment Commission

TOURISM RESEARCH AUSTRALIA

TOURISM RECOVERY SCENARIOS

USING RESEARCH AS AT SEPTEMBER 2020

TOURISM RECOVERY SCENARIOS

This report offers an alternative approach to conventional forecasting, using a range of scenarios to consider the outlook for Australian tourism. Given the challenges in undertaking traditional economic forecasting in 2020, these scenarios have been developed from an industry survey, drawing on first-hand knowledge and experience. Understanding the way tourism might recover can provide important guidance for government policy, business planning and destination marketing.

For many years Australia's tourism industry was a rapidly growing and increasingly important part of the national economy. It benefited from a global surge in international passenger travel and the increased propensity of Australians to explore their own backyard.

The Australian tourism industry reached a high point in 2019. Total spend by domestic tourists and international visitors was $152 billion. This represented a 10.3% increase on the previous year, and marked the 10th successive year of expenditure growth.

COVID-19 brought a sudden change to this strong economic narrative. Within months of the first reported cases, borders closed, airlines grounded passenger fleets, businesses collapsed and hotels went into hibernation. Demand slumped as global travellers cut short trips and travel restrictions stifled domestic tourism.

This was reflected in the 2019–20 economic results:

- Tourism Gross Domestic Product (GDP) of $50 billion – a 2.5% share of the national economy, down 0.6 percentage points
- Exports of $31.2 billion, down $8.3 billion. This means it is now Australia's second largest service export and fifth largest export overall.
- Direct tourism employment of 621,000 workers a decline of 44,900 workers.

The outlook for tourism remains uncertain. While domestic tourism is recovering to some degree, it is still hampered by a lack of aviation access, social distancing, the status of interstate border closures and concerns about personal safety.

The situation for international tourism is more severe. Many of Australia's source markets are in recession and are grappling with high pandemic caseloads. Australian borders are not expected to fully open until well into 2021; the International Air Transport Association does not expect international travel to return to previous levels until 2024.

Finally, in considering the way forward, it is important to understand how tourism was performing before the pandemic. In 2019:

International visitors

- 8.7 million international visitors aged 15 and over travelled to Australia, stayed 274 million nights and spent $45 billion in total. This equates to an average of 32 nights per visitor, and an average spend of $5,211.
- In terms of spend the largest category was holiday (38% of all spend). This was followed by education travel (29% of spend), visiting friends or relatives (VFR) travel (17%), and business travel (9%). Due to their longer trip length, education travel was the highest yielding sector (an average of $22,468 per student).

Domestic overnight trips

- 117 million domestic overnight trips by Australians aged 15 and over. These travellers stayed 418 million nights and spent $81 billion. This equates to an average of almost 4 nights per visitor, and an average spend of $687.
- The main domestic travel categories were holiday (48% of spend), business travel (28%) and VFR travel (20%).

Domestic day trips

- 248 million daytrips by Australians aged 15 and over. These travellers spent $26 billion, an average of $106 per trip.

Domestic outbound trips

- 10 million outbound trips by Australians aged 15 and over. These travellers spent $65 billion and stayed 180 million nights overseas. This equates to an average of $6,520 per trip.

KEY CONCEPTS

The World Tourism Organisation defines a visitor as a traveller taking a trip away from their usual environment, for less than a year, for any purpose other than to be employed by a resident. Under this broad definition the main purposes of travel are holiday travel, people visiting friends and relatives (VFR travel), people travelling to study or undertake training (education travel) and business travel.

A visitor can be further classified as follows:

- Based on their trip length a traveller is either a daytrip visitor or an overnight visitor.
- Based on their origin and destination a visitor is either:
  - Domestic – Australian residents traveling within Australia
  - Inbound – International visitors travelling into Australia from overseas
  - Outbound – Australian residents travelling overseas

In reporting on visitor activity there are three common measures:

- The number of trips/visitors
- The number of nights spent on these trips
- The value of spend on these trips.

Image courtesy of Tourism Australia

ABOUT THE REPORT

Towards the end of each year, Tourism Research Australia normally produces domestic and international tourism forecasts. These forecasts are anchored by predictable information on aviation capacity, travel price, traveller income and seasonality that is based on historical trends and industry data.

The events of 2020 and continuing economic and health uncertainties make these conventional forecasting approaches unsuitable. Instead, this report offers an alternative approach. Its purpose is to introduce a range of scenarios that provide a more informed view of how the downturn in demand may evolve and possible pathways to recovery. These scenarios have been developed from an industry survey that drew on respondent's first-hand knowledge and experience. Scenarios are canvassed for 2020 and 2021, given the high degree of uncertainty surrounding the outlook for tourism.

The scenarios are complemented by counterfactual forecasts that predict what tourism demand would have been had COVID-19 not occurred. Throughout the report these are referred to as the non-COVID forecast.

The scenarios described in this report cover the following elements:

- International visitor numbers
- Domestic visitor nights
- The point at which tourism demand for different markets and different purposes will return to pre-pandemic levels.

ASSUMPTIONS

It is assumed that different parts of the tourism sector will recover at different paces. For example:

- After a prolonged period of restrictions, people will be eager to reconnect with friends and family. This will make VFR travel one of the first sectors to return as borders reopen.
- Holiday travel will take longer to return than VFR travel. Reasons for this include the planning and expenses involved and the fact it is a discretionary activity. Given the choice, some people may choose to forego travel in the short term, spending money elsewhere, paying off debt, increasing savings or waiting longer till they can be more confident about travel safety.
- The pandemic has significantly altered the way people interact with each other in a business setting. In a far more challenging financial environment, organisations may reassess the amount of business travel they consider necessary.
- The closure of international borders and the emergence of a second wave of the pandemic in many of our key markets will delay the return of international travel. Even when borders do open, it will still take time for international travel to return to previous levels. This anticipated lag in recovery time is due to the expense involved, our status as a long-haul destination, limited aviation capacity and weaker economic conditions globally.
- The prevalence of the pandemic in individual countries, and Australia's willingness to accept travellers from these countries, will also significantly affect the recovery timeframe.

REPORT LIMITATIONS

This report was prepared in November 2020, using the most up-to-date information available. Given the challenges associated with any type of forecasting, it represents the best estimates available at this point in time. Furthermore it should be recognised that the survey was conducted in September 2020. The situation, and hence people's views, may have changed significantly since then.

For example in September 2020, Victoria was in the grip of the pandemic's second wave. For the rest of Australia, strict enforcement of interstate border restrictions along with social distancing were keeping the pandemic at bay. Internationally, many countries appeared to be enjoying reduced caseloads over the northern summer.

Much has changed since then. Interstate borders are gradually opening up and Victoria has successfully quelled the second wave of the pandemic. Unfortunately, the pandemic has surged in the United States and Europe, with second wave caseloads overshadowing those from the first wave.

Image courtesy of Tourism Australia

METHODOLOGY

This project required a strong collaborative effort with industry members and academia. Particular thanks are owed to Professor George Athanasopoulos, Mr Mitchell O'Hara-Wild and Professor Rob Hyndman from Monash University's Department of Econometrics and Business Statistics for their substantial contribution to this project, both in modelling these forecasts and in analysing the survey data. Tourism Research Australia would also like to acknowledge the support of the Australian Tourism Industry Council and the Australian Tourism Export Council who enabled the survey to be distributed widely among their memberships.

Producing the report and the accompanying data involved the following:

An industry survey- Almost 450 survey participants from across industry were asked to consider the level of international and domestic demand in 2020 and 2021 relative to pre-pandemic levels. In reflecting on these responses participants were asked to consider three plausible scenarios – a pessimistic, an optimistic and a most likely scenario. Participants were also asked to identify the year they expected tourism demand to fully return to pre-pandemic levels for different markets, travel purposes and destinations.

Smoothing of survey data – This provided a better indication of the range of responses for each survey question. It also enabled a broader range of statistical measures to be generated.

Non-Covid forecasts - We anticipate that if COVID-19 had not occurred, tourism demand would have continued to increase. These non-Covid forecasts show what might have been and better reflect the true impact of the downturn.

Generating other estimates – It wasn't practical to collect all information through the survey. As a result, additional estimates of tourism demand for 2020 and 2021 were made for domestic visitor nights for each state and territory along with quarterly estimates for international and domestic demand.

Comparing the data – The survey revealed many different viewpoints on how quickly different parts of tourism would recover. For reasons of clarity the report focuses on the views of the 'average industry participant' by:

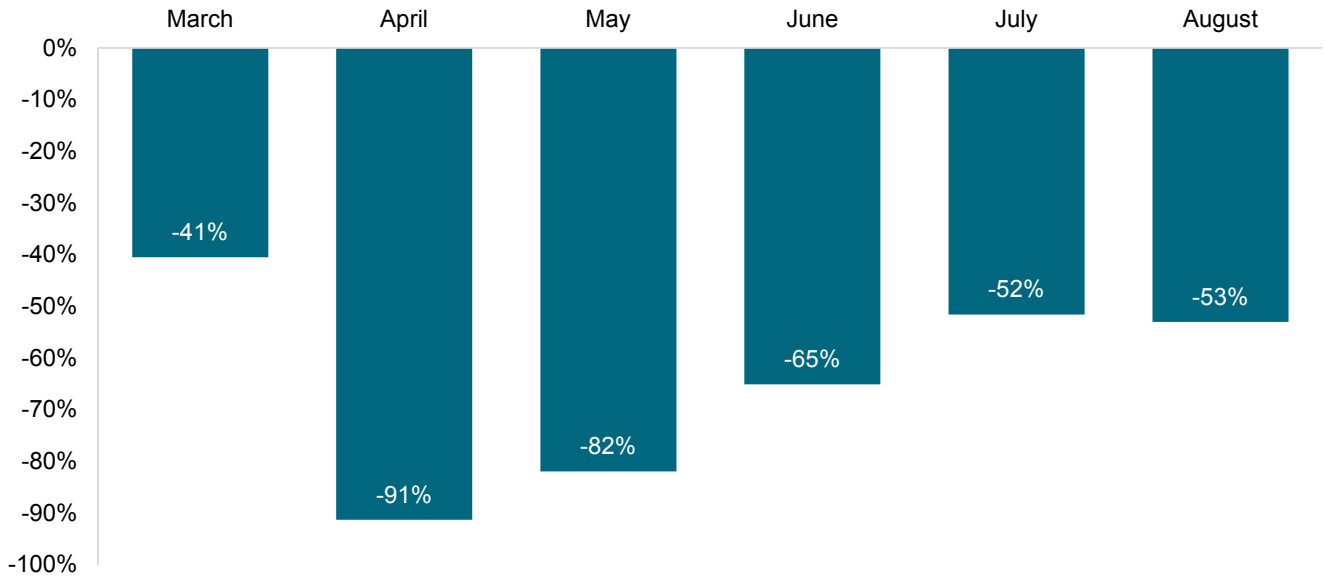
- Taking the median (or midpoint) response to each survey question based on smoothed survey data
- Comparing this data with the non-Covid estimate for the same time period.

A more comprehensive description of the methodology can be found at the end of this report.

THE SHORT TERM OUTLOOK FOR DOMESTIC TOURISM

Domestic tourism fell substantially throughout 2020 because of COVID-19 and to a lesser extent, the summer bushfires. Monthly data from the National Visitor Survey shows that demand reached its lowest ebb in April 2020 when nationwide travel restrictions were at their peak. For that month, domestic overnight spend was just $666 million – 83% down on March 2020 and 91% down on the $7.7 billion spent in April 2019 (Figure 1).

FIGURE 1: CHANGE IN OVERNIGHT SPEND BY MONTH, 2020 COMPARED TO 2019

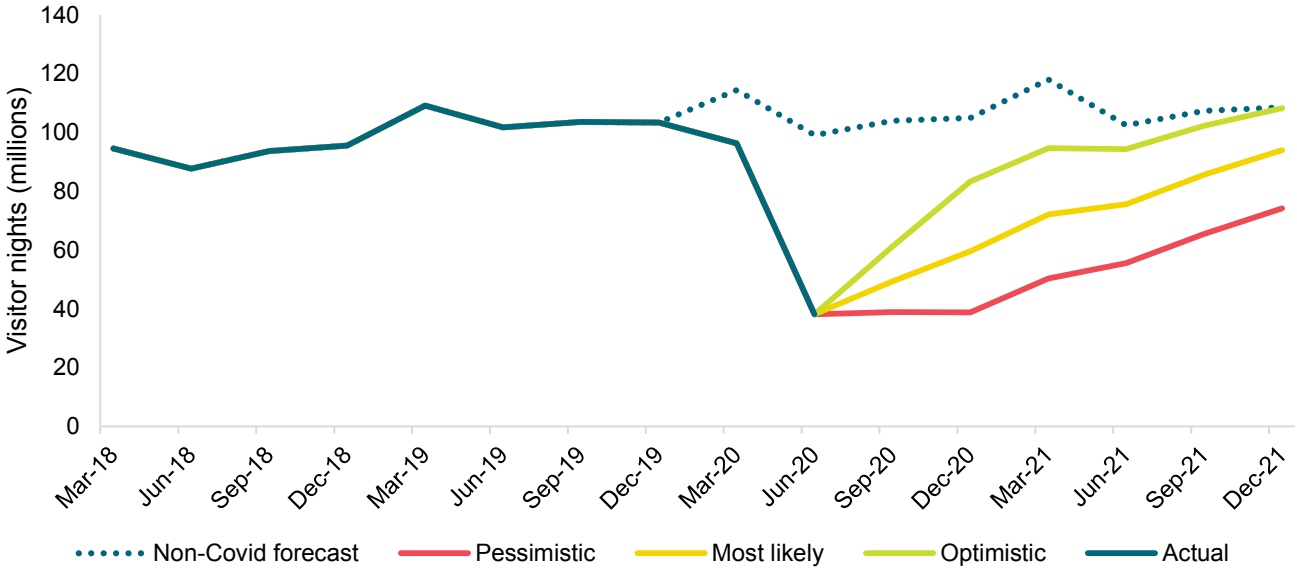


Since April there has been a gradual recovery in activity as border restrictions have been lifted and people feel more confident about resuming travel. Nevertheless, demand still remains well below 2019 levels and the recovery is patchy. For example, because of restrictions and safety concerns much of the growth in travel is to regions that are within a short drive from major cities. This contraction in domestic visitation is reflected in the outlook.

- Under the most likely scenario, the number of visitor nights for 2020 is expected to be 243.6 million nights, which is 42% lower than for 2019. For 2021, a most likely scenario predicts 327.5 million domestic nights for 2021, which is 25.0% lower than what could have occurred if not for COVID-19.
- Continued improvement between 2020 and 2021 is predicted, resulting in 34.4% higher visitor nights in 2021 than 2020, albeit from a much lower base.
- Under the optimistic scenario, 2020 sees 279.2 million nights, and expects an improvement to 399.6 million visitor nights in 2021. This scenario shows a near full recovery by the last quarter of 2021.
- In contrast, under a pessimistic scenario the 2020 figure is just 212.3 million nights, and visitation of 245.6 million nights in 2021, which is 43.7% below the non-Covid

Image courtesy of Tourism Australia

FIGURE 2: POSSIBLE SCENARIOS FOR DOMESTIC VISITOR NIGHTS, 2018 TO 2021



TIMELINES FOR DOMESTIC RECOVERY

The timeline for a return to pre-pandemic levels varies widely for different categories of travel and for different states and territories. Table 1 shows:

- An 18 month difference between pessimistic and optimistic scenarios with a return to 2019 levels in June 2023 and November 2021 respectively.
- A 6 month variation among states and territories for a most likely scenario. Queensland is expected to recover the quickest, reaching 2019 levels in March 2022. As a legacy of its extended lockdown, Victoria would recover the slowest, returning to 2019 levels in September 2022.
- A 7 month variation between different travel purposes for a most likely scenario. This would see VFR travel reaching 2019 levels in December 2021, followed by holiday travel (May 2022) and business travel (July 2022). These reflect the stickiness of travel. VFR travellers will put a trip to a loved one ahead of other activities meaning demand will recover more quickly. By contrast, people may forego holiday travel when opportunities are limited, but enthusiastically resume travel as options open and once they know it is safe to do so.

TABLE 1: RECOVERY TIMELINES FOR DOMESTIC TOURISM

SCENARIO	RECOVERY TIMEFRAME
Optimistic	November 2021
Most likely	July 2022
Pessimistic	June 2023
PURPOSE OF TRAVEL	**MOST LIKELY RECOVERY TIMEFRAME**
VFR	December 2021
Holiday	May 2022
Business	July 2022
STATE	**MOST LIKELY RECOVERY TIMEFRAME**
Queensland	March 2022
South Australia	April 2022
New South Wales	April 2022
Australian Capital Territory	April 2022
Northern Territory	May 2022
Tasmania	May 2022
Western Australia	June 2022
Victoria	September 2022

THE SHORT TERM OUTLOOK FOR INTERNATIONAL TOURISM

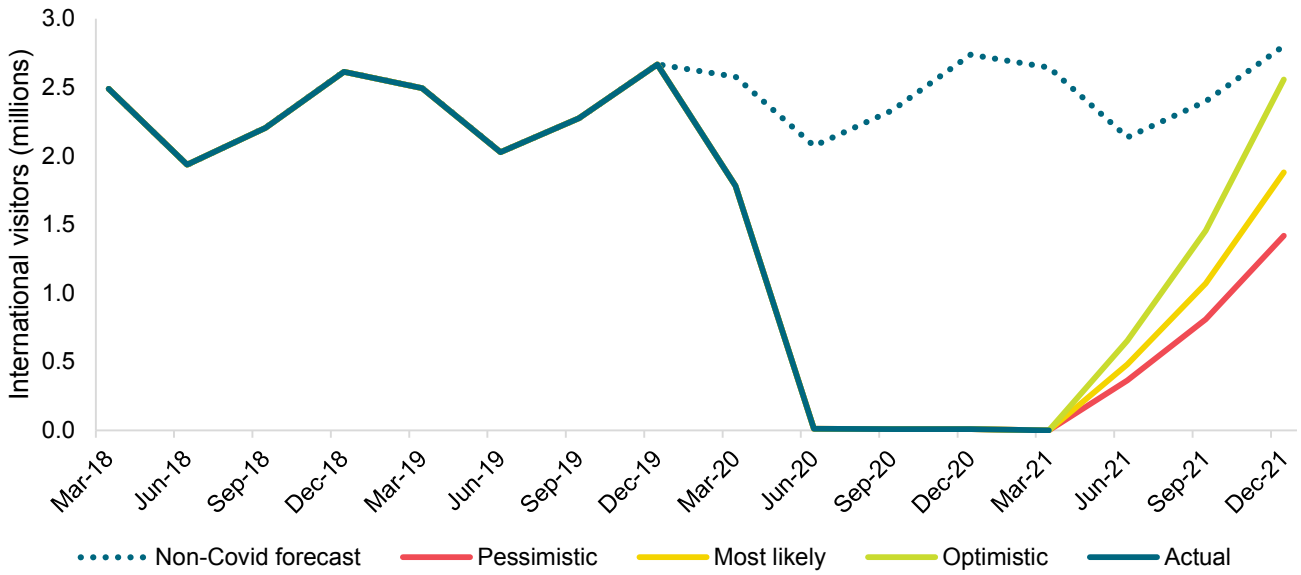
The closure of Australia's border since March 2020 has brought international travel to a near standstill. Overseas Arrivals and Departures data from the Australian Bureau of Statistics shows just 353,000 short-term visitors arriving in Australia between March 2020 and September 2020. This is 93% lower than the same period in 2019.

In contrast, non-Covid forecasts show that international visitor numbers would have grown 2.7% from 9.5 to 9.7 million in 2020, and a further 2.6% to 10 million in 2021.

Current low levels of demand, combined with a highly uncertain outlook are strongly reflected in the survey results. International visitors are not expected to return until March 2021, based on the views of survey respondents. We note this reflects the expectations of respondents, but should not be construed as a policy setting of the Australian Government.

- Under the most likely scenario, the number of international visitors for 2021 is expected to be 2.5 million. This is 75% below the non-Covid forecast, albeit with some improvement in the second half of 2021.
- The optimistic scenario expects 3.6 million visitors, which is a 64% reduction compared to the non-Covid forecast.
- Under the pessimistic scenario, 2021 is expected to see 1.5 million visitors, which is 85% below the non-Covid forecast.

FIGURE 3: POSSIBLE SCENARIOS FOR INTERNATIONAL VISITORS, 2018 TO 2021



TIMELINES FOR INTERNATIONAL RECOVERY

The pace of recovery for different inbound markets largely reflects their expected success in combatting the virus. Therefore under a most likely scenario, the median expectation from the survey is:

- New Zealand, Australia's fourth largest market in terms of spend and second largest in terms of volume, will lead the recovery with a return to 2019 levels by June 2022.
- The June 2022 recovery by New Zealand is 15 months ahead of a recovery from Europe and 18 months ahead of the Americas (Canada and the USA).

Alongside domestic travel, people's need to reconnect with friends and family will likely result in VFR travellers being among the first to resume travel once the Australian border is open. This is reflected in the survey results showing that VFR travel is expected to return to 2019 levels by December 2022. This is 3 months ahead of education travel, 4 months ahead of business travel and 10 months ahead of holiday travel.

These findings are consistent with the views of the International Air Travel Association (IATA). IATA does not expect global passenger travel to return to pre-pandemic levels until 2024 because of slow virus containment, weak consumer confidence and reduced corporate travel. The IATA goes on to say that travel to long-haul destinations (such as Australia) will recover more slowly than short-haul travel.

TABLE 2: RECOVERY TIMELINES FOR INTERNATIONAL TOURISM

SCENARIO	RECOVERY TIMEFRAME
Optimistic	October 2022
Most likely	October 2023
Pessimistic	February 2025
PURPOSE OF TRAVEL	**MOST LIKELY RECOVERY TIMEFRAME**
VFR	December 2022
Holiday	March 2023
Business	April 2023
Education	October 2023
INTERNATIONAL MARKET	**MOST LIKELY RECOVERY TIMEFRAME**
New Zealand	June 2022
Other Asia	August 2023
Europe	September 2023
The Americas	December 2023
Mainland China	March 2024

CONCLUSION

There is no doubt that the COVID-19 Pandemic has had a damaging effect on Australia's $150 billion plus tourism industry and that the outlook remains uncertain. However the industry has a history of resilience and is well positioned to continue to offer value to Australian and international tourists.

The scenarios presented in the report help inform the various ways industry might recover and at the same time reinforce many of the following commonly held views.

The domestic recovery has been uneven and this is likely to continue: TRA survey data from during the pandemic shows that much of the recovery has been limited to regions within a short drive of major cities, which are lower yield trips on average. As a result the increase in tourism demand is not being met by a corresponding increase in spend in more remote areas.

Domestic recovery is on the way: Relative to the rest of the world, Australia has done a good job in quelling the pandemic. Domestic tourism will return relatively strongly as state borders open, reflecting pent-up demand, consumer confidence and the return of domestic aviation.

Return of international will be very slow: When travel does return to scale, Australia will be able to market itself as a relatively safe travel destination. Unfortunately the recovery of international travel will be a protracted process that is likely to stretch out until 2024. In this environment, internationally exposed operators will need to pivot their offerings towards the needs of a domestic market to remain viable.

Image courtesy of Tourism Australia

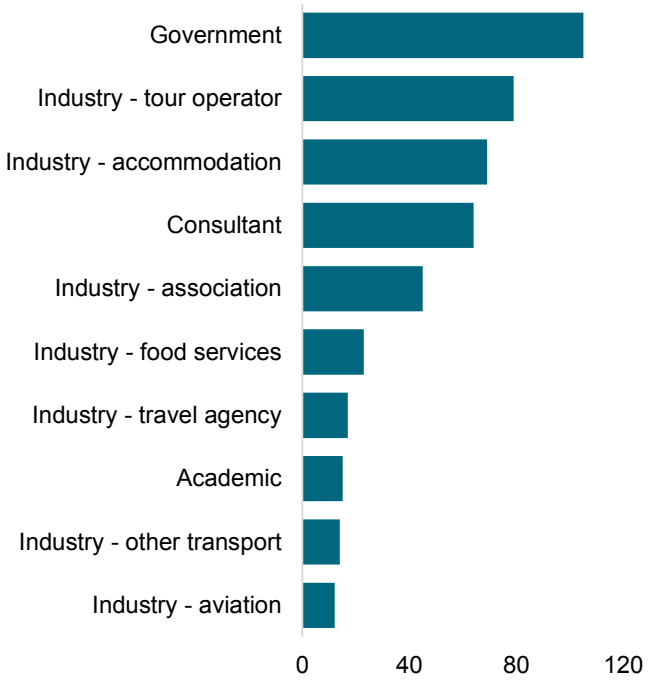
APPENDIX A: DETAILED METHODOLOGY

Producing the report and its accompanying data involved the following steps:

RUNNING AN INDUSTRY SURVEY

Underpinning this report is an email survey of 443 participants conducted in September 2020. The Australian Tourism Industry Council and the Australian Tourism Export Council supported the survey by recommending their members take part. Additional participants were recruited from an Electronic Direct Mail sent to Austrade tourism clients. Through this approach a wide range of responses was received.

FIGURE 4: BREAKDOWN OF SURVEY RESPONSES BY SECTOR



In completing the survey, participants were asked to consider future demand versus pre-pandemic demand by answering the following questions:

- In percentage terms, what will tourism demand in the December quarter 2020 look like compared with the December quarter 2019?
- In percentage terms, what will tourism demand in the December quarter 2021 look like compared with the December quarter 2019?
- In what year will tourism demand return to 2019 levels?

In addition, participants were asked to make these assessments based on 3 different – but plausible – outcomes:

1. A most likely scenario, which reflects their best estimate based on personal knowledge and insight
2. A pessimistic scenario, which reflects a worst case, highly unlikely, but still plausible outcome
3. An optimistic scenario, which reflects a best case, highly unlikely, but still plausible outcome

To frame these three scenarios, participants were provided with tourism data for December 2019 and asked to consider changing economic conditions, concerns around travel and safety, aviation access, the price of travel, and the potential discovery of a vaccine.

Given the extent of the present downturn, the high degree of uncertainty and the importance of keeping the survey to a manageable length there were limits to what could be reasonably asked. For this reason, participants were not asked to assess the percentage change in tourism demand beyond 2021.

That said, some participants had more detailed knowledge than others. Therefore the survey gave participants the option of providing information on the year tourism demand would return to 2019 levels for:

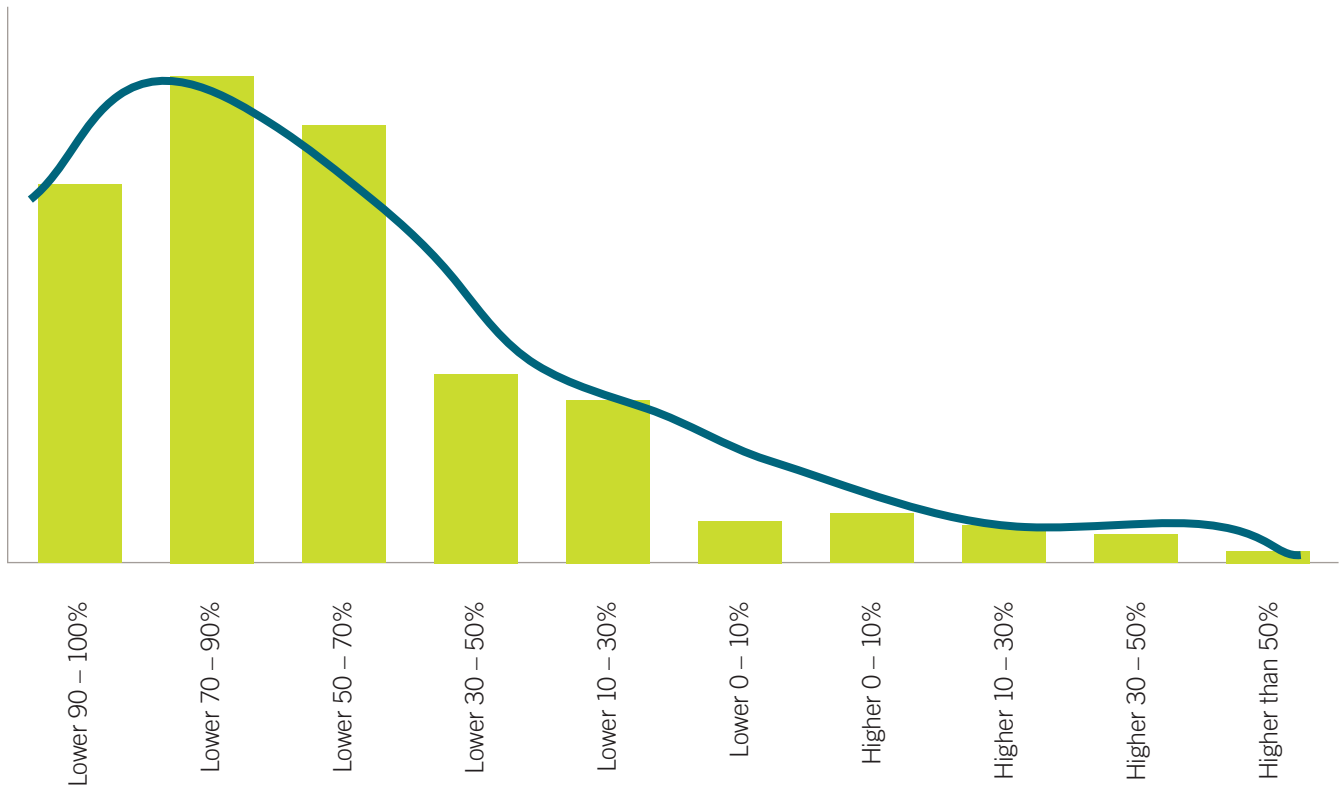
- Different travel purposes, i.e. holiday, business, VFR, education and other purposes
- International tourism from different source markets, i.e. China, New Zealand, Europe, the Americas, elsewhere in Asia and other countries
- Domestic tourism to different states and territories.

SMOOTHING THE SURVEY DATA

For each question in the survey, participants could choose a range of responses. For example, when comparing demand for December 2021 with demand for December 2019, participants could select from 10 categories ranging from 90-100% lower through to more than 50% higher.

To analyse the survey data it is best practice to transform the discrete categories to a continuous distribution which in effect provides a smoothed curve. Having a smoothed curve provides a better measure of the underlying distribution and enables a broad range of statistical measures such as mean, median, and upper and lower quartiles to be calculated (Figure 5). To undertake this transformation Monash University used Kernel Density Estimation (KDE) using a zero-truncated (in order to avoid negative values) Gaussian kernel.

FIGURE 5: EXAMPLE OF DISCRETE CATEGORIES FROM SURVEY BEING SMOOTHED INTO CONTINUOUS CURVE



PRODUCING NON-COVID FORECASTS

The modelling by Monash University produced a series of 'non-Covid' forecasts for domestic and international tourism for each quarter through to the end of 2021. These forecasts:

- assume an outlook where COVID-19 had never occurred
- reflect the strong tourism growth experienced in the years leading up to 2020
- while hypothetical, were evaluated as robust predictors by being tested against historical tourism data
- were based on taking a combination (an average) of forecasts from the following time-series models
  - Auto Regressive Integrated Moving Average (ARIMA) models
  - Exponential Smoothing Model with Error, Trend and Season terms (ETS)
- were reconciled to ensure that they are coherent across all disaggregation components of each international inbound and domestic sectors.

OTHER ESTIMATES

Some information in the report was not obtained directly from the survey but was estimated instead. This included:

- Domestic visitor nights for each state and territory. Estimates were obtained using the share of visitor nights for each jurisdiction for the previous calendar year.
- Quarterly domestic visitor nights for September 2020 to December 2021. Estimates were obtaining using linear interpolation using three known data points: June 2020 data from the National Visitor Survey, and December 2020 and December 2021 data from the industry survey. Generating quarterly estimates enabled comparisons with quarterly non-Covid forecasts.
- Quarterly international visitor numbers for December 2020 to December 2021. Based on commonly held assumptions around border openings, estimates for the December Quarter 2020 and March Quarter 2021 were set to nil. Estimates for the June and September Quarters in 2021 were then obtained using linear interpolation based on industry survey estimates for the December Quarter 2020 and the December Quarter 2021.

COMPARING THE DATA

Because of the evolving nature of the pandemic and the varied impact across different tourism sectors, there were many viewpoints on how quickly the industry would recover. For reasons of clarity the findings in the report focused on the views of the 'average industry participant' by doing the following:

- Taking the median (or midpoint) response to each survey question, based on smoothed survey data.
- Comparing this data with the non-Covid estimate for the same quarter.

For example, smoothed data for median survey participant showed a 62.4% fall in domestic visitor nights between December 2019 and December 2020 based on a pessimistic scenario. In numerical terms this is a decline from 103,351 nights to 38,818 nights. By comparison, the non-Covid forecasts predicted an increase of 1.6% between December 2019 and December 2020 to 104,994 nights. In effect the 62.4% fall translates to a 63.0% fall on what might have occurred had COVID-19 never happened.

While the median was the chosen statistical measure for this report, a range of other responses – including the mean, and upper and lower quartiles can be found in the detailed statistical tables that accompany this report.

For more information, go to **www.tra.gov.au**

Image courtesy of Tourism Australia