


Tourism satellite account: Year ended March 2021



The contribution made by tourism
to the New Zealand economy



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Purpose and key provisional estimates

Purpose

Tourism satellite account: Year ended March 2021 provides a picture of the role tourism plays in New Zealand, with information on the changing levels and impact of tourism activity. It presents information on tourism's contribution to the New Zealand economy in terms of expenditure and employment. Results cover provisional figures for the year ended March 2021 and detailed results for 2020.

Key provisional estimates

Note: The 2021 annual estimates featured capture the impact of COVID-19 in New Zealand between the period April 2020 and March 2021. The extent of COVID-19's impact beyond this period will be evident in *Tourism satellite account: Year ended March 2022*, to be published in December 2022.

Key provisional estimates for the year ended March 2021:

- total tourism expenditure was \$26.1 billion, a decrease of 37.3 percent (\$15.6 billion) from the previous year
- international tourism expenditure decreased 91.5 percent (\$16.2 billion) to \$1.5 billion:
 - international student expenditure (studying less than 12 months) was \$78 million, a decrease of 98.1 percent (\$4.1 billion)
 - international tourism's overall contribution to New Zealand's total exports of goods and services fell to 2.1 percent from 20.0 percent, a decrease of 17.9 percentage points
 - GST generated from international tourists totalled \$165 million, a decrease of \$1.7 billion
- overseas visitor arrivals to New Zealand decreased 98.6 percent (3.6 million arrivals) to 52,690
- domestic tourism expenditure increased 2.6 percent (\$622 million) to \$24.6 billion:
 - household tourism expenditure increased 8.1 percent (\$1.4 billion)
 - business and government decreased 13.0 percent (\$815 million)
- tourism generated a direct contribution to GDP of \$8.5 billion, or 2.9 percent of GDP, a decrease of 47.5 percent (\$7.7 billion), or 2.6 percentage points
- the indirect value added of industries supporting tourism generated an additional \$5.8 billion, or 1.9 percent of GDP
- the number of people attributed to being directly employed in tourism was 146,295 – a decrease of 33.1 percent (72,285 people)
 - the number of tourism employees was 126,204 – a decrease of 34.2 percent (65,550)
 - the number of tourism working proprietors was 20,091 – a decrease of 25.1 percent (6,738)
 - as a share of the total number of people employed in New Zealand, direct tourism employment was 5.2 percent, a decrease of 2.7 percentage points from the previous year.

2021 data interpretation

- International tourism expenditure recorded in the March 2021 year is reflective of the small number of visitors who arrived within the measurement year period, and that meet the definition of a tourist. Furthermore, expenditure by visitors who arrived before 31 March 2020 yet were subsequently delayed in their departure beyond this date by COVID-19 border restrictions and repatriation challenges is also included. Their visitor spend from 1 April 2020 is captured within the year ended March 2021 estimates.
- International student expenditure recorded in the March 2021 year is reflective of the small number of visitors who arrived for their stated purpose of education within the measurement year period, and that meet the definition of a tourist (studying less than 12 months). This expenditure varies from the calculation of education exports in the balance of payments whose valuation encompasses all international students regardless of duration.
- The derivation of tourism employment is reliant on the relationship between tourism expenditure as a proportion of an industry's output multiplied by that industry's employment counts. The substantial loss of international tourism expenditure, and some domestic tourism expenditure, together with COVID-19's wider impact on industries' output has seen these relatively consistent industry ratios change significantly. Furthermore, employment counts in industries have also been affected through COVID-19's impact, including a number of people being determined as being employed who have been supported by wage subsidy payments.
- A basic example of the tourism derivation impact is featured in the table below for the air transport industry using indicative rather than actual data. Derived counts are rounded.

Tourism derivation impact for the air transport industry			
March year	Industry ratio – passenger revenue to industry output	Employment counts	Applied industry ratio to derive direct tourism employment attribution – number of people employed
A	0.85	12,700	10,800
B	0.50	10,300	5,100

- Based on this, users should interpret tourism employment as what can be attributed to tourism, and that this is one lens on overall employment which can show a differing perspective.
- Accommodation expenditure in the March 2021 year has been impacted by both Managed Isolation and Quarantine (MIQ), and the use of traditional accommodation providers for emergency housing, primarily during lockdowns. In line with the definition of a tourist, the vast majority of MIQ expenditure would not fully constitute tourism activity, particularly so for returning New Zealand residents, and emergency housing is not considered tourism activity. While this expenditure would be captured on the supply side, an allowance has been made to exclude this from the tourism demand side. This has consequently led to lower accommodation product and industry ratios which flow through to tourism employment derivations. These derived numbers therefore better reflect 'employees' engaged in tourism as opposed to those in accommodation industry entities servicing MIQ and emergency housing.

Revisions

Tourism satellite account: Year ended March 2021 includes revisions made to both the domestic and international tourism expenditure series. These revisions cause changes to the value of tourism expenditure in the New Zealand economy, and affect the official tourism satellite account (TSA) time series.

Revisions to the expenditure series included the following.

- Historic changes to export education source data used to derive international student expenditure.
- Updated source data used in the derivation of imputed rental on holiday homes.
- A change in the name and associated expenditure value of the former 'cultural, recreation, and gambling services' product as featured in tables 11, 12, and 13. This is now called 'cultural, recreation, travel, and tour services' with expenditure values revised in 'other tourism products' which now includes 'gambling services'. Expenditure values for each of these products have been revised across the time series.
- Methodological improvements and changes:
 - integrating revised annual enterprise survey (AES) data (2018 and 2019) and 2020 with household tourism expenditure estimates (HTEE)
 - modelling of the February and March 2021 months of the HTEE due to changes in data supply arrangements (covered in detail in [Appendix 2: Methodology](#))
 - updated HTEE supplementary data sources
 - modelling of international visitor expenditure for the year ended March 2021 due to the suspension of the airport departure based International Visitor Survey (covered in detail in [Appendix 2: Methodology](#))
 - the incorporation of 2020 input-output tables used in the derivation of indirect value added and imports used in the production of goods and services sold to tourists. These have a flow-on impact to indirect tourism employment calculations
 - national accounts data, including revised nominal GDP statistics from 2016 to 2020 [2021 national accounts improvements preview](#).
- Revisions were also made to annual Linked Employer-Employee Data and Household Labour Force Survey sources used in determining tourism employment.

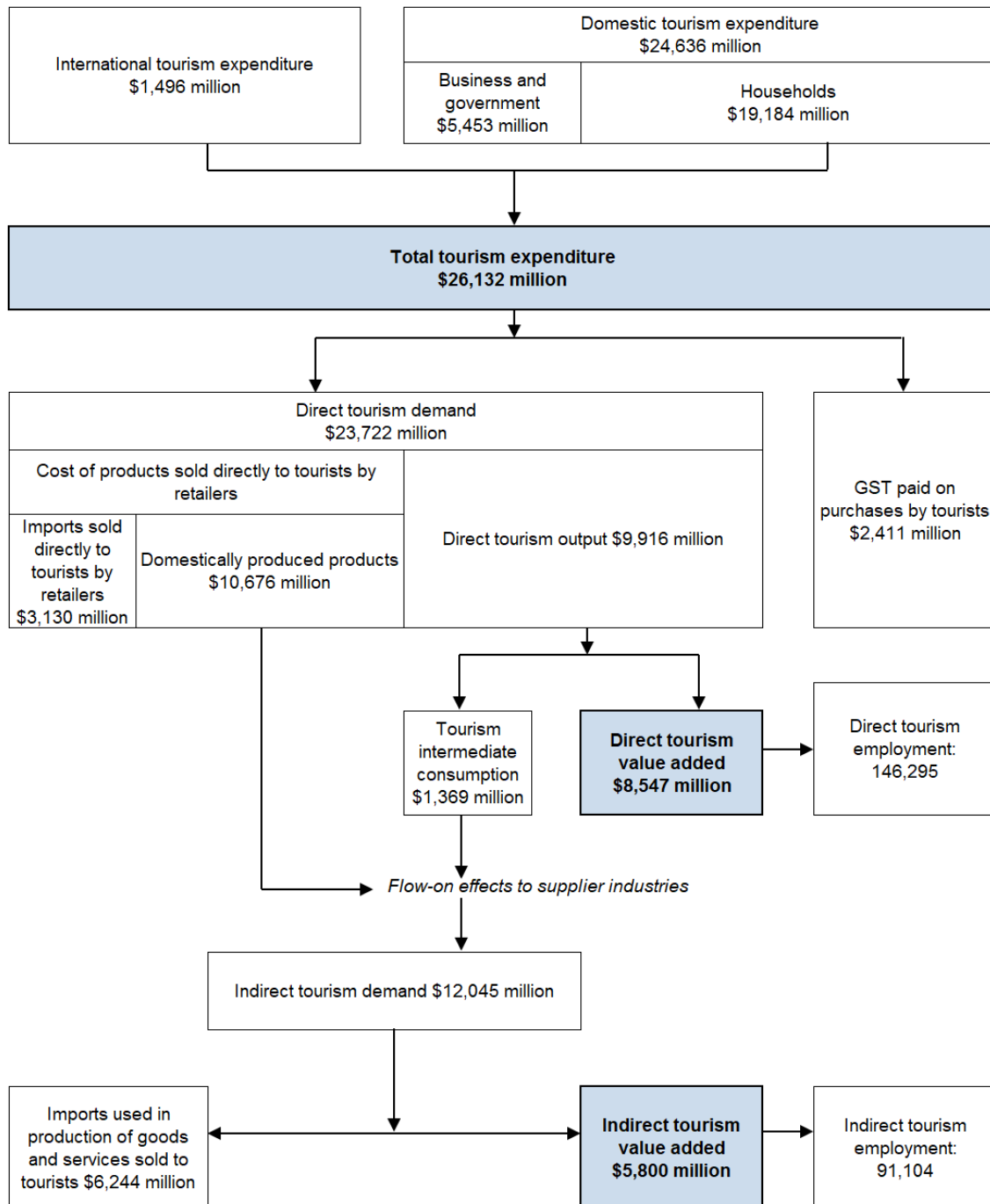
Tourism industry ratios are impacted because of these revisions. These ratios are the proportion of an industry's output that is consumed by tourists and are used to calculate value-added and tourism employment estimates. As a result of the ratio changes, we revised the historical value added-time series. Together with the ratio changes, we also revised the tourism employment time series.

[Figure 1](#) traces the flows of tourism expenditure through the New Zealand economy for the year ended March 2021. It shows the value tourism adds to the New Zealand economy, both directly and indirectly, the GST received by government, the imports of goods and services, and direct and indirect employment.

Figure 1

Flows of tourism expenditure through the New Zealand economy⁽¹⁾⁽²⁾

Year ended March 2021



1. Totals may not add to the stated totals due to rounding.
 2. Tourism expenditure is measured in purchaser prices. Other monetary aggregates are measured in producer prices.

About the tourism satellite account

We develop and publish the tourism satellite account, using a United Nations World Tourism Organization framework, with funding from the Ministry of Business, Innovation and Employment. The tourism satellite account is part of a core set of tourism data that provides base information for understanding and monitoring tourism activity in New Zealand. Other elements of the core dataset include a survey of spending by international visitors, regional tourism expenditure estimates, visitor arrival and accommodation statistics, and forecasts of international tourist numbers and expenditure.

A tourism satellite account integrates data about the supply and use of tourism-related goods and services into a single format. It summarises the contribution tourism makes to production and employment, and is consistent and integrated with New Zealand's official national accounts. This ensures that the importance of the tourism sector is measured and understood in the context of the New Zealand economy as a whole. New Zealand's tourism satellite account (TSA) measures expenditure in New Zealand by both resident and non-resident tourists, and thus gives a picture of the overall size of the tourism industry, including its contribution to gross domestic product (GDP) and employment.

Tourism, unlike 'conventional' industries such as agriculture or manufacturing that are classified according to the goods and services they produce, is defined by the characteristics of the customer demanding tourism products. Tourism products can cut across standard industry definitions, and therefore require a different approach.

Satellite accounts are an extension of the core national accounts, and involve rearranging existing information in the national accounts so that an area of particular economic or social importance can be analysed more closely. As extensions of the core system of national accounts, satellite accounts are an important recommendation of the international standard, the System of National Accounts 2008 (Inter-Secretariat Working Group on National Accounts, 2008).

We present both final and provisional estimates in *Tourism satellite account: Year ended March 2021*. The supply and use framework provides a detailed picture of the economy broken down by industry, product, primary input, and final demand categories. It is the starting point for deriving final accounts. To give a more timely picture of the impact of tourism, we prepare provisional TSAs, using fewer data sources than final year estimates. The provisional estimates are presented in a less detailed format, and are revised as relevant data sources become available. As balanced supply and use tables are completed for the relevant years (as part of the ongoing production of the New Zealand System of National Accounts), we replace provisional results with final year estimates.

Tourism satellite account: Year ended March 2021 presents results for the March 2021 year at the aggregated provisional estimate level in current prices.

[Detailed tables, year ended March 2020](#) contains results for the latest final account year.

Value added

Value added is the 'value' businesses add to the goods and services they purchase (intermediate inputs) and use in producing their own outputs. The measurement of tourism's direct value added, also known as tourism's direct contribution to GDP, is the major focus of the TSA. As direct value added for tourism is measured on the same basis as that used for industries in the national accounts, it enables a consistent comparison between the tourism industry's contribution to GDP and that of more traditional industries such as agriculture and construction.

Direct value added does not measure the full impact of tourism on the New Zealand economy because it is limited to businesses that have a direct relationship with tourists. Additional value added comes from tourism through producing the intermediate inputs used in producing goods and services sold to tourists, although there is no direct relationship between the producer of the intermediate inputs and the tourist. This additional value added is known as indirect value added.

Results

Tourism plays a significant role in the New Zealand economy in terms of producing goods and services and creating employment opportunities. Tourism expenditure includes spending by all travellers, whether they are international, resident householders, or business and government travellers. International tourism expenditure includes spending by foreign students studying in New Zealand for less than 12 months.

See:

- [Results by topic for the year ended March 2021](#)
- [Key events that influenced tourism for year ended March 2021](#)
- [Key events that influenced tourism for year ended March 2020](#)
- [Key events that influenced tourism for year ended March 2019](#)
- [Key events that influenced tourism for year ended March 2018](#)

See also chapter [Detailed product and industry tables, year ended March 2020](#).

Results by topic for the year ended March 2021

Tourism expenditure

Total tourism expenditure decreased 37.3 percent to \$26.1 billion, following an increase of 2.1 percent in the March 2020 year.

Tourism expenditure generated \$8.5 billion of direct value added, representing a 2.9 percent contribution to GDP. A further \$5.8 billion of indirect value added activity was recorded (see [table 1](#)).

Table 1

Tourism expenditure by component, ⁽¹⁾ year ended March 1999–2021

Year ended March	Direct tourism value added	Indirect tourism value added ⁽²⁾	Imports sold to tourists ⁽³⁾	GST paid on purchases by tourists	Total tourism expenditure	Value added as a percentage of total industry contribution to GDP		
						Direct tourism value added	Indirect tourism value added	Total tourism value added
						Percent		
\$(million)						Percent		
1999	5,112	4,191	4,931	1,162	15,397	5.1	4.2	9.4
2000	5,660	4,618	5,875	1,281	17,435	5.4	4.4	9.8
2001	5,914	5,344	6,046	1,423	18,728	5.3	4.8	10.1
2002	6,454	5,556	6,535	1,535	20,079	5.4	4.6	10.0
2003	7,423	5,585	6,912	1,652	21,572	5.9	4.4	10.4
2004	7,926	5,632	6,619	1,703	21,880	5.9	4.2	10.1
2005	8,417	5,786	6,532	1,808	22,544	5.9	4.0	9.9
2006	8,782	6,042	6,495	1,902	23,222	5.8	4.0	9.8
2007	9,135	6,425	6,929	1,994	24,483	5.8	4.0	9.8
2008	9,781	6,915	6,879	2,052	25,627	5.7	4.0	9.7
2009	9,119	6,375	8,567	2,098	26,159	5.2	3.6	8.8
2010	9,437	6,638	7,172	2,050	25,297	5.2	3.7	8.9
2011	9,606	6,714	7,284	2,227	25,831	5.1	3.6	8.7
2012	9,937	6,966	7,126	2,435	26,464	5.1	3.6	8.7
2013	10,162	7,126	7,160	2,462	26,909	5.1	3.6	8.7
2014	10,786	7,569	7,308	2,593	28,256	5.0	3.5	8.6
2015	12,517	8,707	7,475	2,896	31,595	5.6	3.9	9.5
2016	14,405	10,038	7,412	3,293	35,148	6.2	4.3	10.5
2017	14,391	9,961	8,472	3,385	36,209	5.8	4.0	9.8
2018	15,426	10,653	9,302	3,688	39,069	5.8	4.0	9.8
2019	15,846	10,939	10,279	3,789	40,853	5.6	3.9	9.5
2020	16,289	11,183	10,360	3,872	41,704	5.5	3.8	9.3
2021P	8,547	5,800	9,374	2,411	26,132	2.9	1.9	4.8

1. Individual figures may not sum to stated totals due to rounding.

2. Results from input-output tables for 2020 have been used in the calculation of indirect tourism value added.

3. Imports used in production of goods and services sold to tourists; imports sold directly to tourists by retailers.

Note: Figures prior to 2021 have been revised.

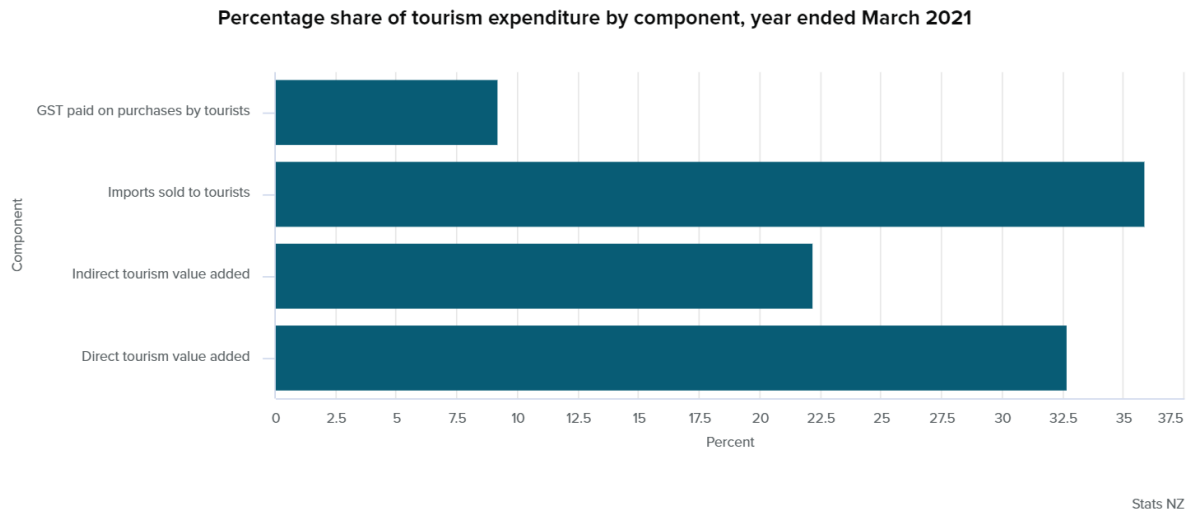
Symbol:

P provisional

Source: Stats NZ

Direct and indirect tourism value added, when combined, accounted for 54.9 cents for every dollar spent by tourists, while GST accounted for 9.2 cents for every dollar spent by tourists. The remainder represents imports (see [figure 2](#)).

Figure 2



Note: Individual percentages may not sum to 100 due to rounding. Imports sold to tourists comprises imports used in production of goods and services sold to tourists and imports sold directly to tourists by retailers.

Tourism expenditure by type of tourist

International tourism expenditure decreased 91.5 percent, following a 3.1 percent increase in the March 2020 year. This represents the lowest international expenditure recorded in the official TSA time series.

Domestic tourism expenditure increased 2.6 percent, following a 1.4 percent increase in the previous year (see [table 2](#) and [figure 3](#)).

The \$26.1 billion in total tourism expenditure recorded in the March 2021 year is approximately equivalent to the total tourism expenditure reported in the March 2009 year.

Table 2

Tourism expenditure by type of tourist,⁽¹⁾ year ended March 1999–2021

Year ended March	International tourism expenditure		Domestic tourism expenditure		Total tourism expenditure		Total exports of goods and services	International tourism as a percentage of total exports
	\$(million)	Annual percentage change	\$(million)	Annual percentage change	\$(million)	Annual percentage change	\$(million)	Percent
1999	5,999	...	9,398	...	15,397	...	31,639	19.0
2000	7,122	18.7	10,313	9.7	17,435	13.2	35,045	20.3
2001	8,169	14.7	10,559	2.4	18,728	7.4	42,837	19.1
2002	8,989	10.0	11,090	5.0	20,079	7.2	45,604	19.7
2003	9,494	5.6	12,078	8.9	21,572	7.4	44,403	21.4
2004	9,603	1.1	12,277	1.6	21,880	1.4	43,119	22.3
2005	9,987	4.0	12,557	2.3	22,544	3.0	45,662	21.9
2006	10,065	0.8	13,156	4.8	23,222	3.0	46,087	21.8
2007	10,676	6.1	13,806	4.9	24,483	5.4	50,928	21.0
2008	11,010	3.1	14,617	5.9	25,627	4.7	54,645	20.1
2009	10,927	-0.8	15,232	4.2	26,159	2.1	60,759	18.0
2010	10,316	-5.6	14,981	-1.6	25,297	-3.3	55,832	18.5
2011	10,090	-2.2	15,741	5.1	25,831	2.1	61,559	16.4
2012	10,151	0.6	16,313	3.6	26,464	2.5	64,749	15.7
2013	9,958	-1.9	16,952	3.9	26,909	1.7	62,766	15.9
2014	10,444	4.9	17,812	5.1	28,256	5.0	67,076	15.6
2015	12,426	19.0	19,169	7.6	31,595	11.8	67,906	18.3
2016	14,864	19.6	20,284	5.8	35,148	11.2	71,277	20.9
2017	14,796	-0.5	21,413	5.6	36,209	3.0	72,240	20.5
2018	16,320	10.3	22,749	6.2	39,069	7.9	80,157	20.4
2019	17,164	5.2	23,689	4.1	40,853	4.6	85,378	20.1
2020	17,691	3.1	24,014	1.4	41,704	2.1	88,504	20.0
2021P	1,496	-91.5	24,636	2.6	26,132	-37.3	71,558	2.1

1. Individual figures may not sum to stated totals due to rounding.

Note: Figures prior to 2021 have been revised.

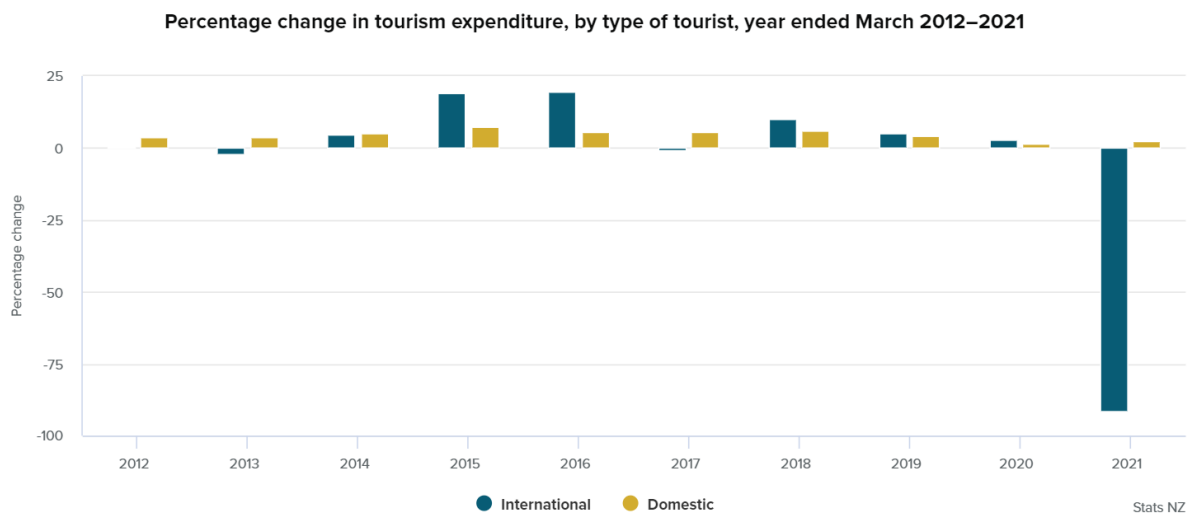
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Source: Stats NZ

Figure 3



Exports

Before 2021, international tourism was a significant export earner for New Zealand, compared with other traditional export products (see [table 3](#) and [figure 4](#)).

In the year ended March 2021, international tourism’s contribution to total exports was \$1.5 billion (2.1 percent of exports). The export receipts from tourism were lower than each of the selected primary exports featured.

Excluding international tourism, the total exports for goods and services decreased 1.1 percent (\$751 million) in the year to March 2021.

Table 3

**International tourism expenditure compared with selected primary exports,⁽¹⁾
year ended March 1999–2021**

Year ended March	Selected export					
	International tourism	Dairy products, including casein	Meat and meat products	Wood and wood products	Fruit	Seafood
\$(million)						
1999	5,999	4,703	2,843	2,348	909	1,173
2000	7,122	4,460	3,198	2,950	1,059	1,199
2001	8,169	6,167	3,854	3,635	1,074	1,334
2002	8,989	7,491	4,414	3,536	1,051	1,388
2003	9,494	5,919	4,242	3,653	1,054	1,309
2004	9,603	5,707	4,232	3,076	1,047	1,062
2005	9,987	5,678	4,688	3,203	1,356	1,136
2006	10,065	5,884	4,411	3,116	1,181	1,146
2007	10,676	7,332	4,813	3,497	1,191	1,193
2008	11,010	9,277	4,416	3,406	1,298	1,098
2009	10,927	9,975	5,432	3,619	1,497	1,289
2010	10,316	8,972	4,997	3,767	1,586	1,201
2011	10,090	11,576	5,199	4,413	1,446	1,350
2012	10,151	12,704	5,389	4,327	1,583	1,388
2013	9,958	12,349	5,279	4,385	1,568	1,369
2014	10,444	15,896	5,492	5,154	1,548	1,337
2015	12,426	14,168	6,194	4,633	1,758	1,380
2016	14,864	12,346	6,580	4,855	2,362	1,527
2017	14,796	12,374	5,983	5,315	2,758	1,586
2018	16,320	15,078	6,797	6,144	2,648	1,619
2019	17,164	15,574	7,632	6,773	3,294	1,696
2020	17,691	17,146	8,301	5,916	3,518	1,814
2021P	1,496	16,501	7,900	5,883	3,938	1,548

1. Exports are valued fob (free on board – the value of goods at New Zealand ports before export) and include re-exports.

Note: Figures prior to 2021 have been revised.

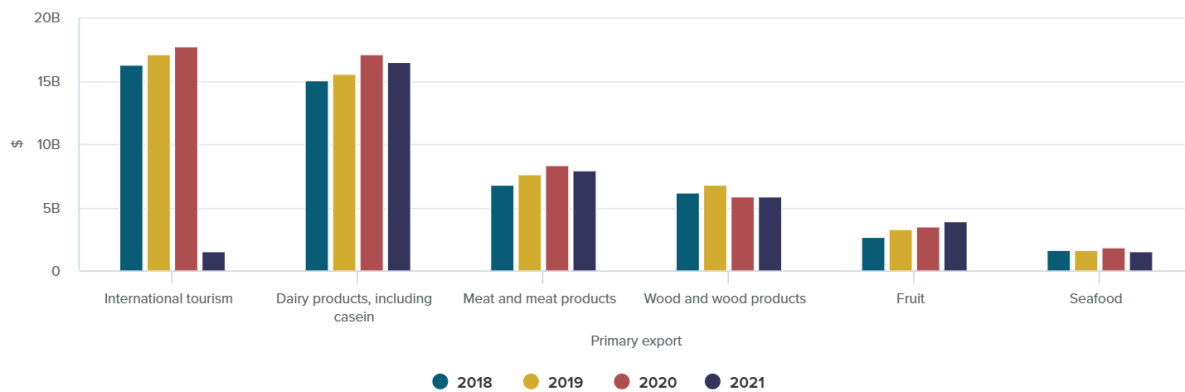
Symbol:

P provisional

Source: Stats NZ

Figure 4

International tourism expenditure compared with value of selected primary exports (\$), year ended March 2018–2021



Exports are valued fob (free on board – the value of goods at New Zealand ports before export) and include re-exports.

Stats NZ

International student expenditure – studying less than 12 months

Included in international tourism expenditure is the component of international students studying in New Zealand for less than 12 months (consistent with the definition of a tourist). Expenditure by international students studying for less than 12 months comprises course fees, living costs, and airfares on resident airlines.

In the year ended March 2021, expenditure totalled \$78 million, a decrease of 98.1 percent (\$4.1 billion – see [table 4](#) and [figure 5](#)). The number of short-term arrivals for education purposes (studying for less than 12 months) was 1,036, down 98.5 percent, or 69,386 students (see [table 8](#)).

Note that the calculation of international students' expenditure when studying less than 12 months varies from the calculation of education exports derived from balance of payments data, reflecting different conceptual approaches.

Table 4

**International student expenditure – studying less than 12 months,
year ended March 1999–2021**

Year ended March	International student expenditure – studying less than 12 months		International tourism expenditure	
	\$(million)	Annual percentage change	\$(million)	Annual percentage change
1999	291	...	5,999	...
2000	323	11.1	7,122	18.7
2001	446	38.2	8,169	14.7
2002	791	77.3	8,989	10.0
2003	1,150	45.3	9,494	5.6
2004	1,583	37.6	9,603	1.1
2005	1,792	13.2	9,987	4.0
2006	1,836	2.4	10,065	0.8
2007	1,816	-1.1	10,676	6.1
2008	1,858	2.3	11,010	3.1
2009	1,874	0.9	10,927	-0.8
2010	2,002	6.8	10,316	-5.6
2011	2,051	2.5	10,090	-2.2
2012	2,044	-0.4	10,151	0.6
2013	2,053	0.4	9,958	-1.9
2014	2,267	10.4	10,444	4.9
2015	2,653	17	12,426	19.0
2016	2,949	11.2	14,864	19.6
2017	3,081	4.5	14,796	-0.5
2018	3,529	14.5	16,320	10.3
2019	3,899	10.5	17,164	5.2
2020	4,203	7.8	17,691	3.1
2021P	78	-98.1	1,496	-91.5

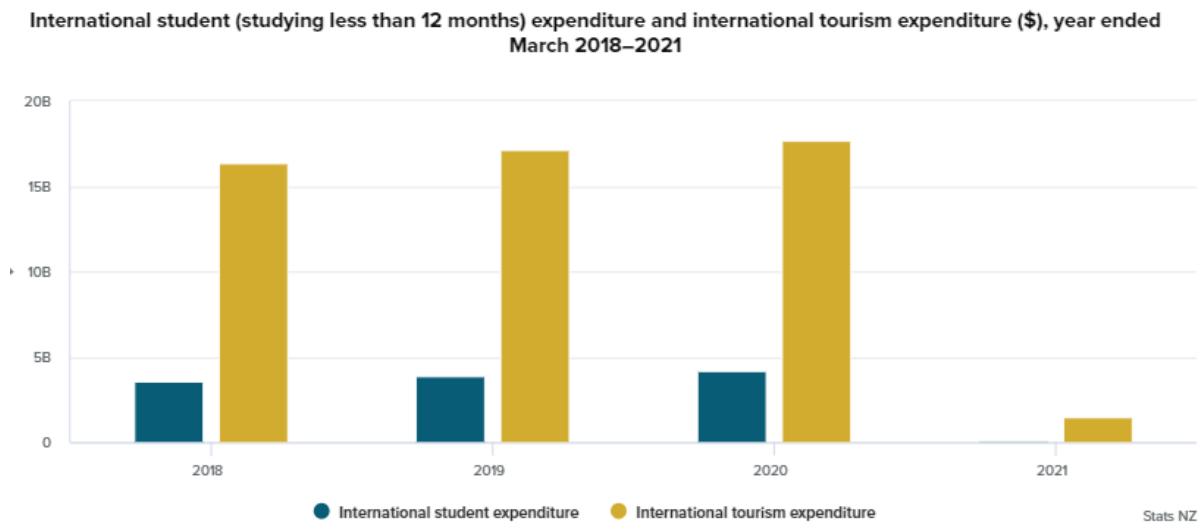
Note: Figures prior to 2021 have been revised.

Symbols:

P provisional

... not applicable

Source: Stats NZ

Figure 5

Cruise ship expenditure in New Zealand

We present cruise ship expenditure in New Zealand on a year ended June basis (2018–2021) to best align with the cruise season and cruise traveller statistics (see [table 5](#)).

Estimates are provided at a national and regional level, by port. Expenditure movements can be influenced by a range of factors including the number of ship voyages, port visits, a transit versus exchange cruise, cruise ship capacity, a boutique versus large cruise ship, weather events, economic conditions, and exchange rates.

Vessel expenditure comprises shipping agents (ship visit logistics), bunkering (providing marine fuels), and providing (providing produce and other supplies) sourced from key firms involved.

Visitor expenditure comprises shore excursions (predominantly pre-booked), including overland tours, and spending ashore. Shore excursions expenditure is sourced from several key firms and combined with a card transaction-based model to estimate total spending by passengers and crew.

A vessel and visitor expenditure breakdown by region by port is not possible due to the confidentiality of businesses providing data.

Airfares for international passengers and crew are excluded, as is cruise expenditure by domestic passengers (New Zealand passport holders). The domestic expenditure undertaken by passengers is recorded within existing domestic tourism estimates but is not currently separately identifiable.

[Cruise ship expenditure by international visitors](#) has additional methodological information.

In the year ended June 2021, no cruise ship expenditure or visitation was recorded in New Zealand – in line with Stats NZ’s measurement scope – due to COVID-19 border restrictions (see [table 5](#)).

[Cruise ship traveller and expenditure statistics: Year ended June 2020](#) has previous years’ cruise traveller statistics.

Table 5**Cruise ship expenditure in New Zealand, ⁽¹⁾ year ended June 2018–2021**

Component	June year				Change from 2018 to 2019	Change from 2019 to 2020	Change from 2020 to 2021
	2018	2019	2020	2021			
	\$(000)				Annual percentage change		
Vessel ⁽²⁾	104,462	141,820	138,664	0	35.8	-2.2	-100.0
Visitor ⁽³⁾	296,833	369,478	356,413	0	24.5	-3.5	-100.0
GST	43,251	53,890	51,978	0	24.6	-3.5	-100.0
Total	444,546	565,189	547,055	0	27.1	-3.2	-100.0

1. Individual figures may not sum to stated totals due to rounding.

2. Comprises shipping agents (ship visit logistics), bunkering (providing marine fuels), and provisioning (providing produce and other supplies).

3. Incorporates shore excursions (predominantly pre-booked), including overland tours, and spending ashore by passengers and crew.

Source: Stats NZ

Employment

In the year ended March 2021, tourism directly employed 146,295 people (see [table 6](#) and [figure 6](#)). Compared with the previous year, this was a decrease of 72,285 people.

Tourism activity directly generated 5.2 percent of total employment in New Zealand (see [table 6](#)), a fall of 2.7 percentage points compared with the year ended March 2020. This compares with tourism generating 2.9 percent of direct value added to GDP (see [table 1](#)). The fact that tourism contributes more to total employment than it does to direct value added, reflects a higher level of labour intensity in tourism industries.

A further 91,104 were indirectly employed in tourism generating an additional 3.3 percent share of total employment. This was a decrease of 56,109 people – or 2.0 percentage points.

Table 6

Tourism employment,⁽¹⁾⁽²⁾ year ended March 2000–2021

Year ended March	Number of people			Number of people employed in tourism as a percentage of the total number of people employed		
	Directly employed in tourism	Indirectly employed in tourism	Total tourism employment	Directly employed in tourism	Indirectly employed in tourism	Total tourism employment
				Percent		
2000	152,610	159,669	312,279	8.2	8.6	16.8
2001	157,389	154,941	312,330	8.3	8.1	16.4
2002	162,042	147,489	309,531	8.3	7.6	15.9
2003	169,965	147,342	317,307	8.4	7.3	15.7
2004	177,861	139,686	317,547	8.5	6.7	15.2
2005	184,761	134,697	319,458	8.5	6.2	14.7
2006	190,890	135,204	326,094	8.5	6.0	14.6
2007	197,028	134,775	331,803	8.6	5.9	14.5
2008	198,219	135,684	333,903	8.5	5.8	14.3
2009	198,555	135,162	333,717	8.5	5.8	14.3
2010	187,083	127,305	314,388	8.2	5.6	13.8
2011	181,881	123,027	304,908	8.0	5.4	13.3
2012	175,866	119,088	294,954	7.6	5.2	12.8
2013	173,721	117,087	290,808	7.5	5.0	12.5
2014	175,023	117,627	292,650	7.3	4.9	12.3
2015	191,796	131,301	323,097	7.8	5.3	13.2
2016	210,126	144,162	354,288	8.3	5.7	14.1
2017	208,923	143,211	352,134	8.0	5.5	13.5
2018	222,129	151,302	373,431	8.3	5.7	14.0
2019	220,875	150,153	371,028	8.1	5.5	13.5
2020	218,580	147,213	365,793	7.9	5.3	13.2
2021P	146,295	91,104	237,399	5.2	3.3	8.5

1. Data is only available from 2000. For more details refer to appendix 3.

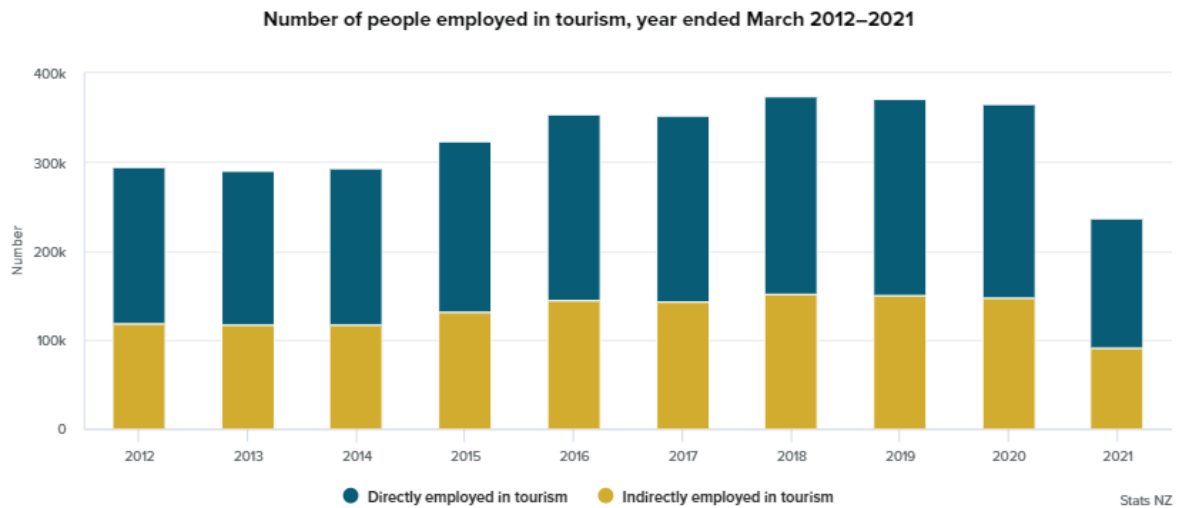
2. Individual figures may not sum to stated totals due to rounding.

Note: Figures prior to 2021 have been revised.

Symbol:

P provisional

Source: Stats NZ

Figure 6

In response to COVID-19, we have provided a breakdown of direct tourism employment by industry for the provisional year (2021) with a comparison to 2020 (see [table 7](#)).

In percentage terms, the largest falls were recorded in the ‘other transport, transport support, and travel and tour services’ industry, ‘accommodation’, and the ‘air and space transport’ industry.

The data sources used in deriving these provisional year numbers will be subject to future revisions. Data presented should serve to provide initial guidance as opposed to being interpreted as any finalised, definitive counts.

The provisional industry data is determined from applying employment monthly schedule and Household Labour Force Survey movements by industry to year ended March 2020 employee and working proprietors data respectively sourced from Linked Employer-Employee Data.

From here, provisional tourism industry ratios for the year ended March 2021 – the proportion of tourism spend to output by industry – are then applied to these counts prior to aggregation to a total. Percentage changes are undertaken at the aggregate level.

Table 7

Direct tourism employment, by industry overview,⁽¹⁾ year ended March 2020–2021

	Tourism-characteristic industries							Tourism-related industries		All non-tourism-related industries	Total industry
	Accommodation	Food and beverage services	Road, rail, and water transport ⁽²⁾	Air and space transport	Other transport, transport support, and travel and tour services	Rental and hiring services	Arts and recreation services	Retail trade	Education and training		
Number											
2020											
Number of people directly employed in tourism⁽³⁾	27,318	62,085	4,338	10,818	13,080	4,455	8,433	32,751	16,149	39,153	218,580
2021P											
Number of people directly employed in tourism⁽⁴⁾	12,529	47,078	4,106	5,128	2,596	3,831	6,918	23,874	7,863	32,373	146,295
Percent											
Percentage change in number of people directly employed in tourism⁽⁵⁾	-54.1	-24.2	-5.3	-52.6	-80.2	-14.0	-18.0	-27.1	-51.3	-17.3	-33.1

1. Individual figures in this table have been rounded, and discrepancies may occur between sums of components and totals.

2. Road, rail, and water transport are combined for confidentiality reasons.

3. Numbers are sourced from Linked Employer-Employee Data (LEED) as per table 25.

4. The 2021 numbers in each industry are originally derived using movements in the Employer Monthly Schedule and Household Labour Force Survey off LEED 2020 data. From there, 2021 year tourism spend to overall industry output ratios are applied in each industry to derive direct employment.

5. Percentage is calculated from unrounded employment numbers.

Symbol:

P provisional

Source: Stats NZ

Overseas visitor arrivals

Everyone who completes border clearance, regardless of whether they travel by air or by sea, is counted in the arrivals/departures of International travel statistics. Transit passengers who do not complete border clearance are not included in international travel statistics.

With regard to cruise ship travellers, based on analysis covering 2015–2020, about three-quarters of cruise ship passengers visiting New Zealand are transit passengers. These travellers are not included in international travel statistics. The remaining one-quarter are passengers who enter or leave New Zealand by air, before or after travelling by cruise ship. These passengers complete border clearance, which includes completing arrival cards, and are included in international statistics.

In the year ended March 2021, the number of international visitors was 52,690, a decrease of 98.6 percent (3,599,277) following a decrease of 5.6 percent in the previous year. Visitor numbers from all featured regions declined for the second consecutive year.

The number of visitors from Oceania decreased 98.7 percent (1,643,819), following a 0.2 percent decrease in the previous year. Visitor numbers from Asia decreased 99.0 percent (863,288), Europe 97.8 percent (517,847), while visitors from the Americas decreased 98.3 percent (459,568).

By purpose of visit, short-term visitor arrivals to New Zealand changes were recorded for the following categories:

- holiday – down 99.9 percent (1,825,213 arrivals)

- visiting friends and relatives – down 98.0 percent (1,028,735)
- conference and conventions – down 100.0 percent (81,672)
- business – down 98.7 percent (321,142)
- education – down 98.5 percent (69,386).

See [table 8](#) and [figure 7](#) for a breakdown of international visitors by region of last permanent residence for the years ended March 2018–2021. A breakdown by purpose of visit is also included in the table.

Table 8

Overseas visitor arrivals,⁽¹⁾⁽²⁾ year ended March 2018–2021

	Year ended March						
	2018	2019	2020	2021	2019	2020	2021
	Number				Annual percentage change		
By region of last permanent residence							
Oceania	1,663,904	1,669,170	1,665,076	21,257	0.3	-0.2	-98.7
Asia	1,009,856	1,022,191	872,207	8,919	1.2	-14.7	-99.0
Europe	587,520	558,681	529,238	11,391	-4.9	-5.3	-97.8
Americas	474,560	493,760	467,320	7,752	4.0	-5.4	-98.3
Other ⁽³⁾⁽⁴⁾	76,272	120,216	118,126	3,371	57.6	-1.7	-97.1
Total⁽⁵⁾	3,819,817	3,867,756	3,651,967	52,690	1.3	-5.6	-98.6
By purpose of visit							
Holiday	2,010,992	2,006,518	1,826,304	1,091	-0.2	-9.0	-99.9
Visiting friends & relatives	1,101,856	1,075,134	1,050,064	21,329	-2.4	-2.3	-98.0
Conferences & conventions	74,256	76,884	81,703	31	3.5	6.3	-100.0
Business	299,072	306,087	325,433	4,291	2.3	6.3	-98.7
Education	67,104	67,214	70,422	1,036	0.2	4.8	-98.5
Other ⁽⁴⁾⁽⁶⁾	258,832	332,150	298,026	24,858	28.3	-10.3	-91.7

1. Intended length of stay in New Zealand is less than 12 months.

2. Individual figures may not sum to stated totals due to rounding.

3. Includes not stated

4. As of November 2018, reporting of countries and travel purpose moved to a full capture system. This has resulted in an increase in the not stated category since then.

5. These totals are actual counts, and may differ from the sum of individual figures for different countries, which are derived from samples.

6. Includes unspecified.

Source: Stats NZ

Figure 7

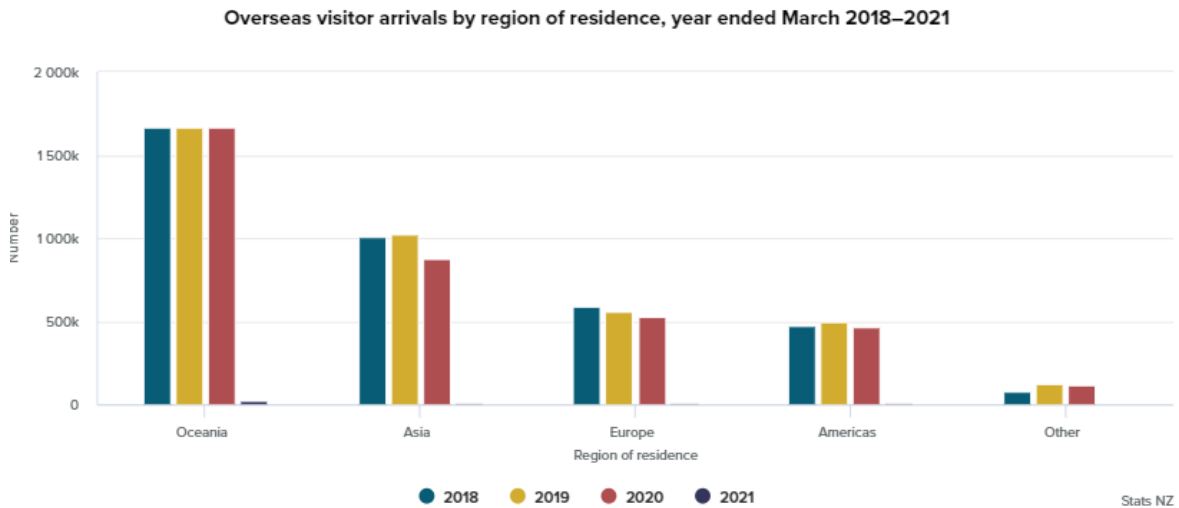


Table 9 presents the breakdown of international visitors by selected country of last permanent residence for the years ended March 2018–2021 (see also [figure 8](#)).

Table 9

Selected overseas visitor arrivals,⁽¹⁾⁽²⁾ year ended March 2018–2021

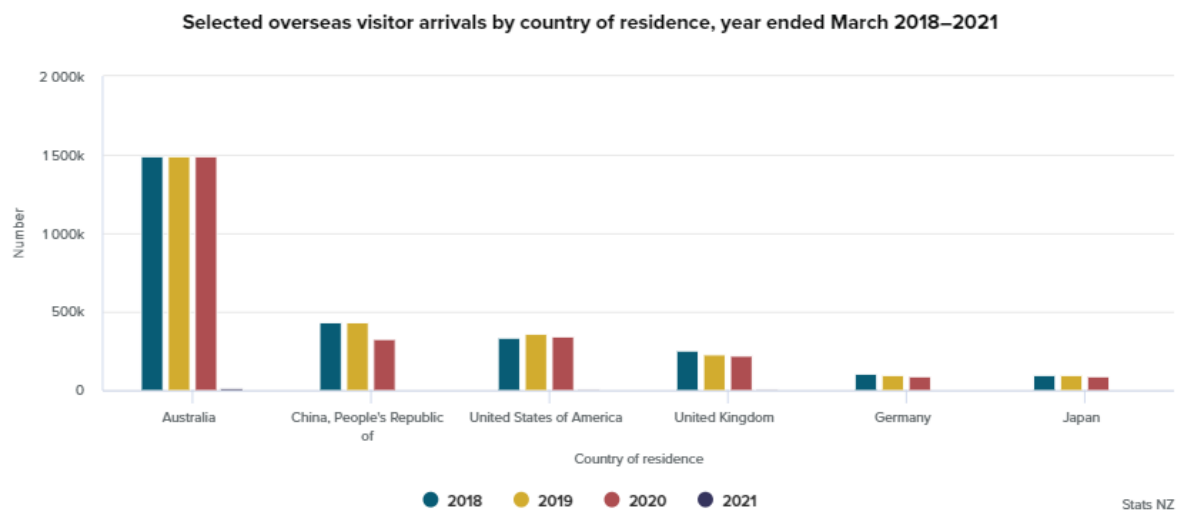
	Year ended March						
	2018	2019	2020	2021	2019	2020	2021
	Number				Annual percentage change		
By country of last permanent residence							
Australia	1,495,392	1,491,000	1,491,252	15,106	-0.3	0.0	-99.0
China, People's Republic of	437,696	434,323	328,145	2,155	-0.8	-24.4	-99.3
United States of America	340,144	362,394	347,629	6,123	6.5	-4.1	-98.2
United Kingdom	254,832	230,307	223,102	6,855	-9.6	-3.1	-96.9
Germany	102,864	102,107	91,067	718	-0.7	-10.8	-99.2
Japan	102,416	99,300	90,326	496	-3.0	-9.0	-99.5

1. Intended length of stay in New Zealand is less than 12 months.

2. These totals are derived from sample counts.

Source: Stats NZ

Figure 8



Before March 2021, approximately 70 percent of short-term visitor arrivals to New Zealand originated from a group of key markets, on a by country of last permanent residence basis.

In the year ended March 2021, the COVID-19 impact of border restrictions resulted in the following decreases:

- Australia – down 99.0 percent (1,476,146 arrivals)
- China – down 99.3 percent (325,990)
- United States of America – down 98.2 percent (341,506)
- United Kingdom – down 96.9 percent (216,247)
- Germany – down 99.2 percent (90,349)
- Japan – down 99.5 percent (89,830).

In the context of the TSA, the term ‘tourist’ includes travellers who might not usually be associated with the term. For instance, in addition to holiday and leisure travel, it covers other visitor activities, such as conducting business, attending meetings and conferences, and arriving for short-term education. Domestic costs incurred by New Zealanders travelling overseas (such as booking fees or commissions paid to the travel agency) are included in domestic travel expenditure, as well as tourism-specific consumer durable goods (such as outdoor items and equipment) bought either before or after the trip.

[Table 10](#) presents the breakdown of guest nights by origin, sourced from Stats NZ’s accommodation survey, for the years ended March 2017–19 (see also [figure 9](#)).

Note: The accommodation survey is no longer produced by Stats NZ. Results featured are up to the March 2019 year, with the last results for the September 2019 month published in November 2019. The Ministry of Business, Innovation and Employment’s [Accommodation Data Programme](#) has guest night and associated data available for the period commencing June 2020.

In the year ended March 2019, 40.2 million guest nights were spent in short-term commercial accommodation, a 0.6 percent increase compared with the previous year. This follows an increase of 3.9 percent in the year ended March 2018.

Table 10

Guest nights by origin,⁽¹⁾ year ended March 2017–2019

Year ended March	International guest nights		Domestic guest nights		Total guest nights	
	Number (000)	Annual percentage change	Number (000)	Annual percentage change	Number (000)	Annual percentage change
2017	16,598	...	21,820	...	38,418	...
2018	17,590	6.0	22,336	2.4	39,926	3.9
2019	17,380	-1.2	22,802	2.1	40,182	0.6

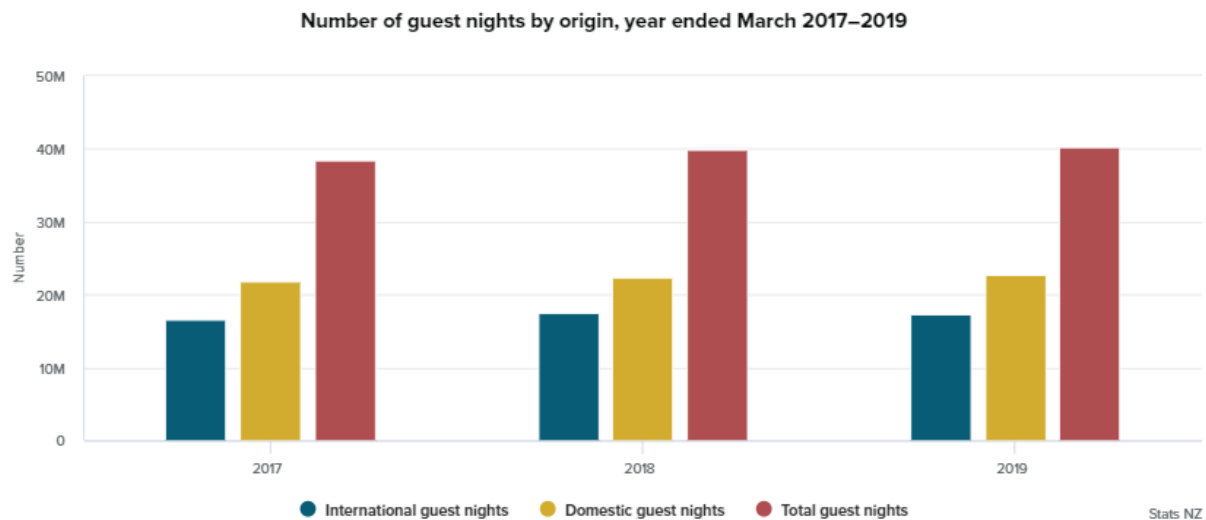
1. Individual figures may not sum to stated totals due to rounding.

Symbol:

... not applicable

Source: Stats NZ

Figure 9



Key events that influenced tourism for year ended March 2021

Here are the significant events that influenced tourism in the year ended March 2021.

- On 13 May 2020, New Zealand moved to alert level 2 at 11:59pm.
- On 8 June, the Ministry of Health reported that there were no more active cases of COVID-19 in New Zealand. At 11:59pm, New Zealand moved to alert level 1.
- On 11 August, four new cases of COVID-19 were recorded in the community.
- On 12 August, Auckland region moved to alert level 3. The rest of New Zealand moved to alert level 2.
- On 30 August, Auckland moved to alert level 2 at 11:59pm, with extra restrictions on travel and gatherings. The rest of New Zealand remained at alert level 2.
- On 21 September, all regions except Auckland moved to alert level 1 at 11:59pm.
- On 23 September, Auckland moved to alert level 2, without extra restrictions on travel and gatherings, at 11:59pm.
- On 7 October, Auckland moved to alert level 1 at 11:59pm. All of New Zealand was at alert level 1.
- On, 14 February 2021, three new cases of COVID-19 were recorded in the community. Auckland moved to alert level 3 at 11:59pm. The rest of New Zealand moved to alert level 2.
- On 17 February, Auckland moved to alert level 2 at 11:59pm. The rest of New Zealand moved to alert level 1.
- On 22 February, Auckland moved to alert level 1 at 11:59pm. All of New Zealand was at alert level 1.
- On 28 February, Auckland moved to alert level 3. The rest of New Zealand moved to alert level 2.
- In January, the first quarantine-free flight from the Cook Islands arrived in Auckland.
- Air New Zealand transported more than 700 workers from Apia to Auckland under the Recognised Seasonal Employer programme.

- The Government's International Air Freight Capacity package provided assistance to maintain critical cargo connections, including imports (particularly medical supplies), and high-value exports. It also provided opportunities for repatriations.
- Air New Zealand assisted governments around the world in repatriating more than 7,100 stranded passengers due to COVID-19 travel restrictions.
- In July, Air New Zealand placed a hold on new bookings on international services into New Zealand following a request from the New Zealand Government.
- In July, Air New Zealand resumed direct jet services between Auckland and Invercargill.
- The Prada America's Cup World Series Auckland and the Prada Christmas Race was held between 17 and 20 December 2020.
- The Prada Cup: Challenger Selection Series was held between 15 January and 21 February 2021.
- The 36th America's Cup Match was staged between 10 and 17 March 2021.

Key events that influenced tourism for year ended March 2020

Here are the significant events that influenced tourism in the year ended March 2020.

- The COVID-19 pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was first identified in December 2019 in Wuhan, China.
- The World Health Organization declared the outbreak a public health emergency of international concern in January 2020 and a pandemic in March 2020.
- New Zealand recorded its first COVID-19 case on 28 February 2020.
- On 14 March, the Government announced anyone entering New Zealand must self-isolate for 14 days, except those arriving from the Pacific.
- On 19 March, all indoor gatherings of more than 100 people were cancelled, and borders closed to all but New Zealand citizens and permanent residents.
- On 21 March, the Government introduced a 4-tiered alert level system to help combat COVID-19 with New Zealand at alert level 2.
- On 23 March, New Zealand moved to alert level 3.
- On 25 March, at 12.21pm, a state of national emergency was declared. At 11:59pm, New Zealand moved to alert level 4, and the entire nation went into self-isolation.
- A volcanic eruption on Whakaari/White Island in December 2019 resulted in the death of 22 people, including two who were missing and declared dead, and a further 25 people suffered serious injuries.
- Cathay Pacific took over Air New Zealand's summer operations of the Hong Kong-Auckland return service covering the first quarter of 2020. This was in response to issues encountered with Rolls-Royce engines on its Boeing 787-9 aircraft first encountered in December 2017.
- Air New Zealand commenced non-stop services between Auckland and Seoul.
- Jetstar withdrew regional services at the end of November between Auckland and Napier, Nelson, New Plymouth, and Palmerston North, as well as between Nelson and Wellington.

- In response to Jetstar’s withdrawal of regional services, Air New Zealand announced additional services between Auckland and Napier, New Plymouth, Nelson, and Palmerston North, as well as between Nelson and Wellington.
- Air New Zealand commenced a direct scheduled jet service between Auckland and Invercargill in late August.
- Air New Zealand and Cathay Pacific extended their joint venture alliance for a further five years.
- Air Chatham’s began an Auckland to Norfolk Island service in September.
- Singapore Airlines increased the number of services on the Wellington-Singapore route via Melbourne while introducing the A350-900 aircraft.
- Cathay Pacific commenced a third summer season between Christchurch and Hong Kong featuring additional flights and capacity.
- Korean Air commenced 10 summer seasonal return services between Christchurch and Seoul Incheon from late December.

Key events that influenced tourism for year ended March 2019

Here are the significant changes to flights in the year ended March 2019.

- Air New Zealand added six additional weekly return services between Auckland and Dunedin.
- Air New Zealand added 12 additional weekly flights between Palmerston North and Auckland, and 12 additional weekly flights between Napier and Auckland.
- Air New Zealand increased its service between Queenstown and Wellington to two return flights daily from November to March.
- Air New Zealand suspended its service between Auckland and the Kapiti Coast.
- Air New Zealand began non-stop services between Auckland and Taipei.
- Air New Zealand launched services between Auckland and Chicago using a Boeing 787-9 Dreamliner.
- Air New Zealand began two new trans-Tasman routes – services between Queenstown and Brisbane, and between Wellington and Brisbane.
- Air New Zealand added additional services from Auckland and Christchurch to Melbourne, Brisbane, and Sydney.
- Air New Zealand added a Monday return service between Auckland and Gold Coast.
- Air New Zealand increased its service between Auckland and Bali to five times a week during peak times.
- Air New Zealand increased its service between Auckland and Honolulu from April to October, adding almost 60,000 extra seats.
- Air New Zealand added 16,000 seats on its service between Auckland and Houston from March to October.
- Air New Zealand increased its capacity on the service between Auckland and Vancouver during the year.
- Air New Zealand added nearly 6,000 seats to its seasonal service between Christchurch and Nadi.

- Air New Zealand and Qantas agreed to codeshare on New Zealand and Australia domestic networks.
- Air New Zealand and Virgin Australia ended their trans-Tasman alliance.
- Air New Zealand and Singapore Airlines increased services to daily between Auckland and Singapore from October to March.
- Emirates began a new daily service from Auckland to Bali then onto Dubai.
- Air Tahiti began a service between Auckland and Papeete flying three times a week.
- Virgin Australia resumed their winter service between Christchurch and Rarotonga from June to October.
- Singapore Airlines rerouted the service between Wellington and Singapore through Melbourne.
- China Southern Airlines commenced a Boeing 787-9 service between Christchurch and Guangzhou.

Key events that influenced tourism for year ended March 2018

Here are the significant changes to flights that influenced tourism in the year ended March 2018.

- Air New Zealand added 180,000 extra domestic seats across its network between November 2017 and March 2018.
- Air New Zealand added a Sunday return jet service between Dunedin and Auckland.
- Air New Zealand added nearly 1000 seats to accommodate competitors in the Hawke's Bay International Marathon held in May.
- Air New Zealand added more than 7100 extra seats into Auckland and Dunedin to accommodate fans attending Ed Sheeran's concerts. Air New Zealand commenced services between Auckland and Haneda Tokyo.
- Air New Zealand deployed additional capacity between Auckland and Wellington for the All Whites versus Peru FIFA World Cup Intercontinental Playoff held in Wellington in November.
- Air New Zealand began Boeing 787-9 Dreamliner services between Auckland and Adelaide.
- Air New Zealand increased services from Auckland to Houston deploying its Boeing 787-9 Dreamliner aircraft.
- Air New Zealand increased its Auckland to Vancouver services from January 2018.
- Air New Zealand moved to Boeing 787-9 Dreamliner and Boeing 777-200 services at least twice weekly year-round between Auckland and Apia.
- Air New Zealand leased Airbus 330 and Airbus 340 from Hi Fly to operate some Auckland–Sydney and Auckland–Perth services.
- Air New Zealand was forced to reschedule international flights and make cancellations as a result of issues, and the need for early maintenance checks, with Rolls-Royce engines across some of its Boeing 787-9 Dreamliner aircraft.
- The temporary shut-down of Refining New Zealand's pipeline into Auckland impacted airlines operations into and out of Auckland Airport.

- Sunair returned to Whangarei with weekday flights offered to Great Barrier Island, Hamilton, Tauranga or Rotorua. Sunair was subsequently grounded by the Civil Aviation Authority.
- Originair commenced flights between Nelson and New Plymouth.
- Sounds Air ceased flights between Blenheim and Kaikoura.
- Sounds Air added new flights on the Wellington to Blenheim route.
- Sichuan Airlines began direct flights from Chengdu to Auckland.
- Cathy Pacific began a new seasonal service on the Airbus A350 between Hong Kong and Christchurch.
- China Southern Airlines increased its services between Guangzhou and Christchurch during the summer season.
- Philippine Airlines began Airbus A340 services direct from Manila to Auckland.
- Thai Airways increased its services from Bangkok to Auckland, offering daily flights.
- Nauru Airlines began services from Norfolk Island to Auckland.
- Virgin Australia began after-dark services between Brisbane and Queenstown.
- Qantas began after-dark services between Sydney and Queenstown.
- Jetstar reintroduced services between Wellington and Queenstown.
- The 2017 British and Irish Lions Rugby Tour generated international and domestic tourism activity within New Zealand during the year ended March 2018.

Tourism expenditure

The major focus of the TSA is to identify and measure tourism expenditure on goods and services produced within the New Zealand economy.

By determining tourism expenditure, tourism's direct contribution to GDP can be derived and compared with the contribution of other industries such as agriculture or manufacturing, see [table 11](#).

Table 11

Tourism expenditure by type of product,⁽¹⁾⁽²⁾ year ended March 2018–2021

Product	Year ended March						
	2018	2019	2020	2021P	2019	2020	2021P
	\$(million)				Annual percentage change		
Accommodation services	3,158	3,302	3,321	1,776	4.6	0.6	-46.5
Food and beverage serving services	4,596	4,723	4,929	2,621	2.8	4.4	-46.8
Air passenger transport	5,210	5,550	5,466	2,454	6.5	-1.5	-55.1
Other passenger transport	2,915	3,014	3,093	2,320	3.4	2.6	-25.0
Imputed rental on holiday homes	725	777	825	871	7.2	6.2	5.6
Cultural, recreation, travel, and tour services	2,181	2,370	2,479	1,175	8.7	4.6	-52.6
Retail sales – alcohol, food, and beverages	2,452	2,439	2,532	2,219	-0.5	3.8	-12.4
Retail sales – fuel and other automotive products	2,062	2,296	2,234	1,467	11.3	-2.7	-34.3
Retail sales – other	7,648	7,839	7,897	5,936	2.5	0.7	-24.8
Education services	995	1,154	1,286	574	16.0	11.4	-55.4
Other tourism products	3,440	3,600	3,771	2,308	4.7	4.8	-38.8
Total tourism demand excluding GST	35,381	37,064	37,833	23,722	4.8	2.1	-37.3
GST paid on purchases by tourists	3,688	3,789	3,872	2,411	2.7	2.2	-37.7
Total tourism expenditure	39,069	40,853	41,704	26,132	4.6	2.1	-37.3

1. All product values are in producers' prices.

2. Individual figures may not sum to stated totals due to rounding.

Note: Figures for years prior to 2021 have been revised.

Symbol:

P provisional

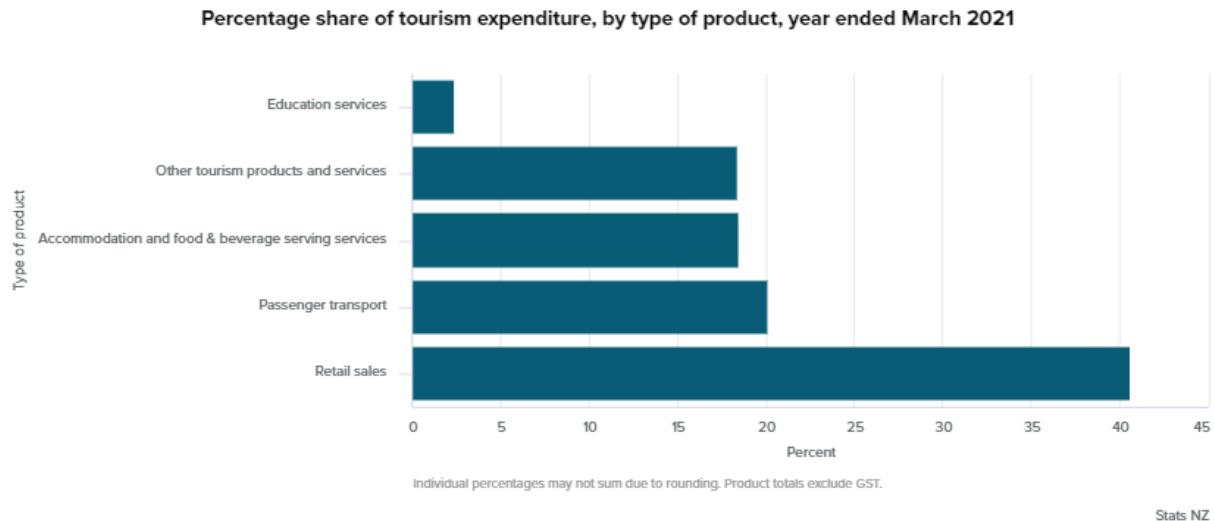
Source: Stats NZ

Table 11 shows that for the year ended March 2021:

- total tourism expenditure decreased 37.3 percent, following increases of 2.1 percent in 2020 and 4.6 percent in 2019.
- the largest decreases in tourism expenditure were in:
 - air passenger transport decreased \$3.0 billion (55.1 percent)
 - food and beverage services, decreased \$2.3 billion (46.8 percent)
 - retail sales – other, decreased \$2.0 billion (24.8 percent).
- GST paid on purchased by tourists decreased \$1.5 billion (37.7 percent).

The main products tourists purchased were retail sales and passenger transport, which contributed 40.6 percent and 20.1 percent, respectively. Tourists spent 18.5 percent of their budget on accommodation, and food and beverage serving services. They spent 18.4 percent on other tourism products and services, and 2.4 percent on education services (see [figure 10](#), which presents the share of tourism expenditure, excluding GST).

Figure 10



[Table 12](#) presents tourism expenditure by type of product and by type of tourist for the years ended March 2018–2021. The tourism product ratio is the proportion of total supply (national production plus imports) of each product that tourists purchase.

For the year ended March 2021:

- total household tourism expenditure increased 8.1 percent (\$1.4 billion), following an increase of 1.0 percent the previous year.
- the largest increases in household tourism expenditure were in retail sales – other, up \$789 million. Other passenger transport increased \$231 million from the previous year, with food and beverage serving services increasing \$226 million.
- decreases in household tourism expenditure were recorded in air passenger transport, down \$417 million and cultural, recreation, travel, and tour services, down \$167 million.
- between 2018 and 2021, total household tourism spending increased 10.0 percent. Over the same period, total household consumption expenditure increased 12.7 percent.
- business and government tourism expenditure decreased 13.0 percent (\$815 million), following an increase of 2.5 percent the previous year.
- the decrease in business and government tourism expenditure was largest in cultural, recreation, travel, and tour services, down \$428 million, and other passenger transport decreased \$177 million from the previous year. Air passenger transport decreased \$51 million.
- total spending by international tourists in New Zealand decreased 91.5 percent (\$16.2 billion), following an increase of 3.1 percent in the March 2020 year.
- the largest decreases in international tourism expenditure were in retail sales – other, down \$2.8 billion. Air passenger transport decreased \$2.5 billion with food and beverage serving services also decreasing by \$2.5 billion. Accommodation services fell \$1.7 billion.

Table 12

Tourism expenditure, ⁽¹⁾⁽²⁾ by type of product and type of tourist, year ended March 2018–2021

Product	Domestic demand		International demand	Total demand	Total supply	Tourism product ratio
	Business and government demand	Household demand				
	\$(million)					
2018						
Accommodation services	624	747	1,786	3,158	3,313	0.95
Food and beverage serving services	418	1,596	2,582	4,596	10,615	0.43
Air passenger transport	1,511	1,222	2,478	5,210	5,247	0.99
Other passenger transport	1,137	953	824	2,915	4,849	0.60
Imputed rental on holiday homes	0	725	0	725	725	1.00
Cultural, recreation, travel, and tour services	555	882	744	2,181	3,775	0.58
Retail sales – alcohol, food, and beverages	0	2,002	450	2,452	68,165	0.04
Retail sales – fuel and other automotive products	748	626	688	2,062	11,135	0.19
Retail sales – other	0	4,853	2,794	7,648	55,357	0.14
Education services	0	343	652	995	6,366	0.16
Other tourism products	303	1,509	1,629	3,440	52,230	0.07
Total tourism demand excluding GST	5,296	15,459	14,627	35,381	...	...
GST paid on purchases by tourists	6	1,989	1,693	3,688	...	...
Total tourism expenditure	5,302	17,447	16,320	39,069	...	...
2019						
Accommodation services	651	781	1,871	3,302	3,484	0.95
Food and beverage serving services	460	1,571	2,692	4,723	11,152	0.42
Air passenger transport	1,825	1,067	2,658	5,550	5,624	0.99
Other passenger transport	1,246	901	866	3,014	5,327	0.57
Imputed rental on holiday homes	0	777	0	777	777	1.00
Cultural, recreation, travel, and tour services	674	925	771	2,370	4,020	0.59
Retail sales – alcohol, food, and beverages	0	1,970	469	2,439	71,872	0.03
Retail sales – fuel and other automotive products	913	664	719	2,296	13,551	0.17
Retail sales – other	0	4,926	2,913	7,839	58,149	0.13
Education services	0	426	728	1,154	6,657	0.17
Other tourism products	338	1,560	1,703	3,600	56,400	0.06
Total tourism demand excluding GST	6,106	15,568	15,390	37,064	...	...
GST paid on purchases by tourists	7	2,008	1,775	3,789	...	...
Total tourism expenditure	6,113	17,576	17,164	40,853	...	...

For footnotes, see end of table.

Table continues next page

Table 12 continued

Tourism expenditure,⁽¹⁾⁽²⁾ by type of product and type of tourist, year ended March 2018–2021

Product	Domestic demand		International demand	Total demand	Total supply	Tourism product ratio
	Business and government demand	Household demand				
	\$(million)					
2020						
Accommodation services	693	683	1,945	3,321	3,513	0.95
Food and beverage serving services	502	1,655	2,772	4,929	11,618	0.42
Air passenger transport	1,818	956	2,692	5,466	5,531	0.99
Other passenger transport	1,265	928	900	3,093	5,359	0.58
Imputed rental on holiday homes	0	825	0	825	825	1.00
Cultural, recreation, travel, and tour services	775	911	793	2,479	4,238	0.58
Retail sales – alcohol, food, and beverages	0	2,048	484	2,532	76,304	0.03
Retail sales – fuel and other automotive products	849	640	745	2,234	12,846	0.17
Retail sales – other	0	4,925	2,972	7,897	58,822	0.13
Education services	0	491	795	1,286	7,099	0.18
Other tourism products	357	1,656	1,758	3,771	60,234	0.06
Total tourism demand excluding GST	6,260	15,718	15,854	37,833	...	...
GST paid on purchases by tourists	8	2,028	1,836	3,872	...	...
Total tourism expenditure	6,268	17,746	17,691	41,704	...	...
2021P						
Accommodation services	668	824	283	1,776	2,224	0.80
Food and beverage serving services	490	1,881	249	2,621	8,861	0.30
Air passenger transport	1,767	539	147	2,454	2,484	0.99
Other passenger transport	1,088	1,159	73	2,320	4,309	0.54
Imputed rental on holiday homes	0	871	0	871	871	1.00
Cultural, recreation, travel, and tour services	347	744	83	1,175	2,686	0.44
Retail sales – alcohol, food, and beverages	0	2,175	45	2,219	75,528	0.03
Retail sales – fuel and other automotive products	761	663	44	1,467	9,669	0.15
Retail sales – other	0	5,714	222	5,936	55,211	0.11
Education services	0	560	15	574	7,102	0.08
Other tourism products	324	1,815	170	2,308	63,031	0.04
Total tourism demand excluding GST	5,445	16,945	1,331	23,722	...	...
GST paid on purchases by tourists	7	2,238	165	2,411	...	...
Total tourism expenditure	5,453	19,184	1,496	26,132	...	...

1. All product values are in producers' prices.

2. Individual figures may not sum to stated totals due to rounding.

Note: Figures for years prior to 2021 have been revised.

Symbols:

P provisional

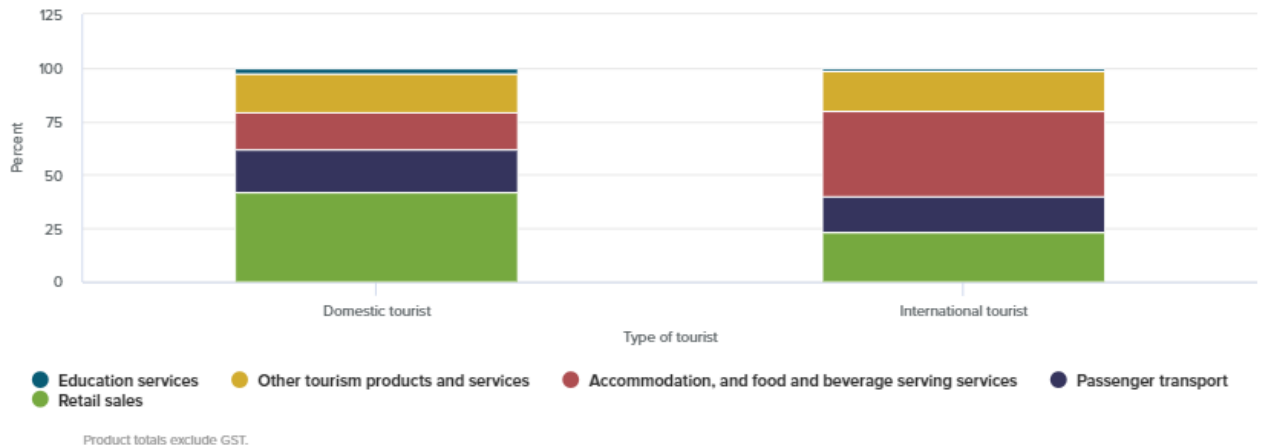
... not applicable

Source: Stats NZ

The biggest share of domestic demand was retail sales, at 41.6 percent, while international tourism’s demand of retail represented only 23.4 percent of international spending. International tourists spent the remainder of their budget primarily on accommodation, and food and beverage serving services (40.0 percent), other tourism product and services (19.0 percent), and passenger transport (16.5 percent) – (see [figure 11](#)).

Figure 11

Percentage share of tourism expenditure, by type of product and type of tourist, year ended March 2021



Stats NZ

Tourism supply

The tourism supply of an industry is derived by summing the value of tourism products sold by that industry. The value of tourism product sales is derived by multiplying the total supply (national production plus imports) by its corresponding tourism product ratio.

In the absence of supply and use tables for the year ended March 2021, we derived an initial value of supply by product by industry for the same period from a variety of sources (covered in detail in [Appendix 2: Methodology](#)). In [table 13](#), supply by product is shown only for tourism-characteristic industries (see [Appendix 1: Conceptual framework](#)).

[Table 13](#) shows total supply and tourism supply by product for the years ended March 2018–2021.

Points to note from table 13:

- goods and services can be consumed/purchased by tourists and non-tourists. The tourism product ratio indicates the proportion of a product's supply that is purchased by tourists. For example, prior to the March 2021 year, the tourism product ratio for accommodation services in 2020 was 0.95. This means that almost all accommodation available was purchased by tourists. In contrast, tourists purchased only 0.17 of retail supplies of fuel and other automotive products.
- tourism supply decreased 37.3 percent in the March 2021 year while total supply fell 5.8 percent.
- imports sold directly to tourists represented 13.2 percent of total tourism supply in the March 2021 year, compared with 11.2 percent in the year ended March 2020.

Table 13

Derivation of tourism supply from total supply,⁽¹⁾⁽²⁾ year ended March 2018–2021

Product	Total supply				Tourism product ratio	Tourism supply			
	Tourism-characteristic industries	All other industries	Imports	Total		Tourism-characteristic industries	All other industries	Imports sold directly to tourists by retailers	Total
	\$(million)					\$(million)			
2018									
Accommodation services	2,728	585	0	3,313	0.95	2,600	557	0	3,158
Food and beverage serving services	9,464	1,151	0	10,615	0.43	4,117	479	0	4,596
Air passenger transport	5,183	64	0	5,247	0.99	5,146	64	0	5,210
Other passenger transport	4,465	385	0	4,849	0.60	2,674	240	0	2,915
Imputed rental on holiday homes	0	725	0	725	1.00	0	725	0	725
Cultural, recreation, travel, and tour services	3,534	241	0	3,775	0.58	2,071	109	0	2,181
Retail sales – alcohol, food, and beverages	1,763	59,596	6,807	68,165	0.04	312	1,773	367	2,452
Retail sales – fuel and other automotive products	3	7,775	3,357	11,135	0.19	1	1,457	605	2,062
Retail sales – other	278	31,205	23,874	55,357	0.14	64	4,544	3,040	7,648
Education services	17	6,349	0	6,366	0.16	3	992	0	995
Other tourism products	2,467	49,764	0	52,230	0.07	353	3,088	0	3,440
Total supply of products	29,901	157,840	34,038	221,779	...				
Total tourism supply of products						17,341	14,028	4,011	35,381
2019									
Accommodation services	2,862	621	0	3,484	0.95	2,713	589	0	3,302
Food and beverage serving services	9,957	1,195	0	11,152	0.42	4,235	488	0	4,723
Air passenger transport	5,555	69	0	5,624	0.99	5,482	68	0	5,550
Other passenger transport	4,919	408	0	5,327	0.57	2,774	239	0	3,014
Imputed rental on holiday homes	0	777	0	777	1.00	0	777	0	777
Cultural, recreation, travel, and tour services	3,768	253	0	4,020	0.59	2,256	114	0	2,370
Retail sales – alcohol, food, and beverages	2,006	62,695	7,171	71,872	0.03	316	1,774	349	2,439
Retail sales – fuel and other automotive products	3	8,997	4,551	13,551	0.17	1	1,543	752	2,296
Retail sales – other	290	32,358	25,502	58,149	0.13	60	4,612	3,166	7,839
Education services	21	6,636	0	6,657	0.17	4	1,150	0	1,154
Other tourism products	2,533	53,868	0	56,400	0.06	361	3,240	0	3,600
Total supply of products	31,914	167,876	37,224	237,013					
Total tourism supply of products					...	18,203	14,593	4,268	37,064

For footnotes, see end of table.

Table continues next page

Table 13 continued

Derivation of tourism supply from total supply, ⁽¹⁾⁽²⁾ year ended March 2018–2021

Product	Total supply				Tourism product ratio	Tourism supply			
	Tourism-characteristic industries	All other industries	Imports	Total		Tourism-characteristic industries	All other industries	Imports sold directly to tourists by retailers	Total
	\$ (million)					\$ (million)			
2020									
Accommodation services	2,855	657	0	3,513	0.95	2,700	621	0	3,321
Food and beverage serving services	10,324	1,294	0	11,618	0.42	4,403	526	0	4,929
Air passenger transport	5,455	76	0	5,531	0.99	5,390	75	0	5,466
Other passenger transport	4,943	416	0	5,359	0.58	2,847	245	0	3,093
Imputed rental on holiday homes	0	825	0	825	1.00	0	825	0	825
Cultural, recreation, travel, and tour services	3,978	260	0	4,238	0.58	2,367	112	0	2,479
Retail sales – alcohol, food, and beverages	2,141	66,765	7,398	76,304	0.03	332	1,843	358	2,532
Retail sales – fuel and other automotive products	3	8,767	4,076	12,846	0.17	1	1,530	703	2,234
Retail sales – other	302	33,234	25,287	58,822	0.13	58	4,652	3,187	7,897
Education services	21	7,078	0	7,099	0.18	5	1,281	0	1,286
Other tourism products	2,588	57,646	0	60,234	0.06	348	3,423	0	3,771
Total supply of products	32,611	177,018	36,761	246,389	...				
Total tourism supply of products						18,450	15,134	4,248	37,833
2021P									
Accommodation services	1,936	288	0	2,224	0.80	1,546	230	0	1,776
Food and beverage serving services	7,520	1,341	0	8,861	0.30	2,246	374	0	2,621
Air passenger transport	2,404	80	0	2,484	0.99	2,375	79	0	2,454
Other passenger transport	3,894	414	0	4,309	0.54	2,076	244	0	2,320
Imputed rental on holiday homes	0	871	0	871	1.00	0	871	0	871
Cultural, recreation, travel, and tour services	2,408	278	0	2,686	0.44	1,059	116	0	1,175
Retail sales – alcohol, food, and beverages	1,776	67,597	6,155	75,528	0.03	301	1,676	242	2,219
Retail sales – fuel and other automotive products	3	6,275	3,391	9,669	0.15	1	923	543	1,467
Retail sales – other	273	33,900	21,038	55,211	0.11	71	3,520	2,345	5,936
Education services	10	7,092	0	7,102	0.08	2	572	0	574
Other tourism products	2,294	60,738	0	63,031	0.04	238	2,070	0	2,308
Total supply of products	22,519	178,874	30,584	231,977	...				
Total tourism supply of products						9,916	10,676	3,130	23,722

1. Tourism supply by product may differ from that obtained by multiplying total supply by the relevant tourism product ratio. Supply is generally calculated at a finer product level than shown.

2. Individual figures may not sum to stated totals due to rounding.

Note: Figures for years prior to 2021 have been revised.

Symbols:

P provisional

... not applicable

Source: Stats NZ

Tourism value added

Direct tourism value added

Direct tourism value added calculations are usually made at a finer level of industry detail than is presented in [table 14](#). For reasons of confidentiality and practicality, we show only the working level of calculations in this report.

We calculate the tourism industry ratio by dividing tourism supply by industry by the total supply for that industry. The tourism industry ratio represents the proportion of each industry's output that is consumed by tourists.

We multiply tourism industry ratios through each production account for all industries to produce direct tourism value added, see [table 14](#) for the years ended March 2018–2021.

Table 14

Direct tourism value added, ⁽¹⁾ year ended March 2018–2021

	Year ended March						
	2018	2019	2020	2021P	2019	2020	2021P
	\$ (million)				Annual percentage change		
Published GDP	290,804	306,327	323,967	326,507	5.3	5.8	0.8
<i>Less</i> GST, import duties, and other taxes on production	24,687	25,656	27,139	26,921	3.9	5.8	-0.8
Gives contribution to GDP from production	266,117	280,671	296,828	299,586	5.5	5.8	0.9
Tourism output of tourism-characteristic industries	17,341	18,203	18,450	9,916	5.0	1.4	-46.3
<i>Less</i> tourism intermediate consumption of tourism-characteristic industries	9,553	10,150	10,320	5,701	6.2	1.7	-44.8
Gives direct tourism value added of tourism-characteristic industries	7,787	8,054	8,132	4,215	3.4	1.0	-48.2
<i>Plus</i> direct tourism value added of all other industries	7,638	7,793	8,158	4,332	2.0	4.7	-46.9
Gives total direct tourism value added	15,426	15,846	16,289	8,547	2.7	2.8	-47.5
Percent							
Direct tourism value added as a percentage of total industry contribution to GDP	5.8	5.6	5.5	2.9	...	...	...

1. Individual figures may not sum to stated totals due to rounding.

Note: Figures for all years prior to 2021 have been revised.

Symbols:

P provisional

... not applicable

Source: Stats NZ

Point to note from table 14:

- in 2021, direct tourism value added (also referred to as tourism's direct contribution to GDP) decreased 47.5 percent while the contribution to GDP from domestic production increased 0.9 percent.

As shown in [figure 1](#), total expenditure on goods and services by tourists (\$26.1 billion in 2021) consists of three components:

- goods and services worth \$20.6 billion produced in New Zealand and directly purchased by tourists. Direct tourism output consisted of \$1.4 billion of intermediate inputs, and \$8.5 billion of direct tourism value added.

- imports of \$3.1 billion sold directly to tourists by retailers.
- GST of \$2.4 billion paid on goods and services purchased by tourists.

Domestically produced goods are sold directly to tourists by retailers, and only the retail margin (production value of the turnover of the retailer) of these sold goods is recorded in the direct tourism value added. The value added in the production of these goods is not part of tourism direct gross value added, but is to be considered within the indirect effects.

Indirect tourism value added and imports

As well as measuring direct tourism value added, we report on indirect tourism value added (or tourism's indirect contribution to GDP). This broader measure goes beyond the value added generated by producers directly supplying tourism products, and embraces the total value added of all producers both directly and indirectly.

Measuring indirect tourism value added involves tracing the flow-on effects of businesses' intermediate purchases that are used directly in producing tourism products (see [figure 1](#)) and measuring the cumulative value added these purchases generate.

For example, the intermediate purchases of the 'accommodation' and 'food and beverage services' industries include items such as electricity, bedding, and food purchased from other industries or imports. In turn, these other industries will have made intermediate purchases from other industries (or from overseas) to produce the items they sell to the accommodation, and food and beverage services industries. So the sequence continues, until all intermediate purchases can be directly accounted for, either as value added or imports.

Measuring indirect tourism's contribution to GDP involves summing the value added of each industry that is generated throughout this sequence. The New Zealand TSA covers the intermediate consumption related to direct tourist expenditure. Total tourism expenditure can be explained in terms of:

- direct tourism value added
- indirect tourism value added
- imports (those directly sold to tourists and those used indirectly in production)
- GST.

Note that some of tourism's indirect demand for intermediate inputs will not be met by the output of New Zealand producers, but by imports that provide no direct contribution to New Zealand's GDP. For more information, refer to [Overview of sources and methods for quarterly gross domestic product: Updates and COVID-19 adjustments](#) (Stats NZ, 2021).

Direct tourism value added does not necessarily show the same movement as tourism expenditure. This is because changes in expenditure patterns flow through into the composition of industries that supply products consumed by tourists.

Changing industry composition flows through into other economic aggregates. This can lead to a result where the different industries that contribute to tourism have varying value added to output ratios.

Movements in the value of imports sold directly to tourists and in imports used in the production of goods and services sold to tourists are strongly influenced by exchange rate variations and changes in the mix of products purchased.

[Table 15](#) summarises the relationships between the various components of tourism expenditure. In the year ended March 2021, these imports decreased 9.5 percent, and direct tourism value added decreased 47.5 percent.

Table 15

Tourism expenditure by component,⁽¹⁾ year ended March 2018–2021

	Year ended March						
	2018	2019	2020	2021P	2019	2020	2021P
	\$ (million)				Annual percentage change		
Direct tourism value added	15,426	15,846	16,289	8,547	2.7	2.8	-47.5
Indirect tourism value added	10,653	10,939	11,183	5,800	2.7	2.2	-48.1
Imports sold to tourists ⁽²⁾	9,302	10,279	10,360	9,374	10.5	0.8	-9.5
GST paid on purchases by tourists	3,688	3,789	3,872	2,411	2.8	2.2	-37.7
Total tourism expenditure	39,069	40,853	41,704	26,132	4.6	2.1	-37.3

1. Individual figures may not sum to stated totals due to rounding.

2. Imports used in production of goods and services sold to tourists; imports sold directly to tourists by retailers.

Note: Figures for years prior to 2021 have been revised.

Symbol:

P provisional

Source: Stats NZ

Tourism expenditure can also be presented by the share of each component, as shown in [table 16](#) for the years ended March 2018–2021.

Table 16

Share of tourism expenditure by component,⁽¹⁾ year ended March 2018–2021

	Year ended March			
	2018	2019	2020	2021P
	Percent			
Direct tourism value added	39.5	38.8	39.1	32.7
Indirect tourism value added	27.3	26.8	26.8	22.2
Imports sold to tourists ⁽²⁾	23.8	25.2	24.8	35.9
GST paid on purchases by tourists	9.4	9.3	9.3	9.2
Total tourism expenditure	100.0	100.0	100.0	100.0

1. Individual figures may not sum to stated totals due to rounding.

2. Imports used in production of goods and services sold to tourists; imports sold directly to tourists by retailers.

Note: Figures for years prior to 2021 have been revised.

Symbol:

P provisional

Source: Stats NZ

Tourism employment

Direct tourism employment adds another dimension to measuring the role of tourism in the New Zealand economy, focusing on tourism's impact on employment. [Table 17](#) shows the number of people directly employed in tourism, grouped by employees, and working proprietors.

Employment is derived from Linked Employer-Employee Data (LEED) annual statistics. The tourism satellite account uses the main earnings source, by industry measure, which allocates a person to the industry they have generated the most earnings from in a tax year.

Table 17

Direct tourism employment, ⁽¹⁾⁽²⁾⁽³⁾ year ended March 2018–2021

	Year ended March						
	2018	2019	2020	2021P	2019	2020	2021P
	Number				Annual percentage change		
Total employment							
Employees	2,241,669	2,291,847	2,311,029	2,305,368	2.2	0.8	-0.2
Working proprietors	431,406	449,856	453,378	493,941	4.3	0.8	8.9
Number of people employed	2,673,075	2,741,703	2,764,410	2,799,309	2.6	0.8	1.3
Tourism employment							
Tourism employees	195,480	193,647	191,754	126,204	-0.9	-1.0	-34.2
Tourism working proprietors	26,652	27,231	26,829	20,091	2.2	-1.5	-25.1
Number of people directly employed in tourism	222,129	220,875	218,580	146,295	-0.6	-1.0	-33.1
	Percent						
Number of people directly employed in tourism as a percentage of the total number of people employed	8.3	8.1	7.9	5.2	...	...	...

1. Individual figures in this table have been rounded, and discrepancies may occur between sums of components and totals.

2. Total employment numbers are sourced from Linked Employer-Employee Data.

3. Percentage calculations are from unrounded employment numbers.

Note: Figures for years prior to 2021 have been revised.

Symbols:

P provisional

... not applicable

Source: Stats NZ

Points to note from table 17:

- the number of people attributed to being directly employed in tourism was 146,295 people in the year ended March 2021, a decrease of 33.1 percent (72,285 people) from the previous year.
- the number of tourism employees was 126,204 – a decrease of 34.2 percent (65,550).
- the number of tourism working proprietors was 20,091 – a decrease of 25.1 percent (6,738).
- as a share of the total number of people employed in New Zealand, direct tourism employment was 5.2 percent, a decrease of 2.7 percentage points from the previous year.
- the total number of people employed in the New Zealand economy increased 1.3 percent (34,899).
- both total and tourism employment in the year ended March 2021, and to a small extent in the March 2020 year, will reflect Government support extended through the various wage subsidy payments.
- the number of people employed in tourism does not necessarily correlate with movements in total tourism expenditure or direct value added. In 2021, for example, direct tourism value added decreased 47.5 percent, while the number of people employed directly in

tourism decreased 33.1 percent. This difference may be the result of several factors including:

- a lag between growth in a given industry and decisions to employ new staff
- a shift in the number of hours worked, or output for each person employed.

We use tourism industry ratios to allocate tourism employment numbers by industry. This treatment assumes that, for each industry, a given dollar value of output will require a fixed quantity of labour input, regardless of whether the products are purchased by tourists or non-tourists.

Tourism industry profitability

Measuring tourism industry profitability allows for more in-depth alternative analysis of the tourism sector. This measure provides time-series data on variables at an industry level, allowing comparison across time, within an existing industry, and across industries.

[Table 18](#) and [figure 12](#) show gross operating surplus and gross mixed income as a percentage of total tourism output for tourism industries and for all non-tourism-related industries. It is one measure of tourism profitability but reflects economic rather than accounting concepts. Data is presented up until the latest balanced supply and use year (2020).

Gross operating surplus and gross mixed income is before the deduction of interest and economic depreciation.

Table 18

Tourism gross operating surplus and gross mixed income as a percentage of total tourism year ended March 2016–2020

Industry	Year ended March				
	2016	2017	2018	2019	2020
	Percent				
Tourism-characteristic industries					
Accommodation	23.2	24.4	24.1	24.9	25.7
Food and beverage services	14.2	14.6	13.4	13.7	16.0
Road, rail, and water transport ⁽³⁾	16.1	16.8	16.7	14.5	15.3
Air and space transport	22.0	13.3	11.0	9.3	9.8
Other transport, transport support, and travel and tour services	22.0	23.1	24.5	25.6	22.9
Rental and hiring services	43.6	46.2	43.4	43.3	43.2
Arts and recreation services	18.2	16.2	18.2	19.2	19.1
Total tourism-characteristic industries	21.5	19.4	18.5	18.2	18.8
Tourism-related industries					
Retail trade	22.2	24.7	23.8	24.1	23.4
Education and training	16.9	16.6	16.8	17.2	17.6
All non-tourism-related industries	26.9	25.8	26.7	25.8	26.4
Total industry	23.0	21.7	21.4	21.0	21.5

1. Tourism gross operating surplus and gross mixed income as a percentage of gross output is considered to be an indicator of tourism profitability.

2. Individual figures may not sum to stated totals due to rounding.

3. Road, rail, and water transport are combined for confidentiality reasons.

Note: Figures for all years prior to 2020 have been revised.

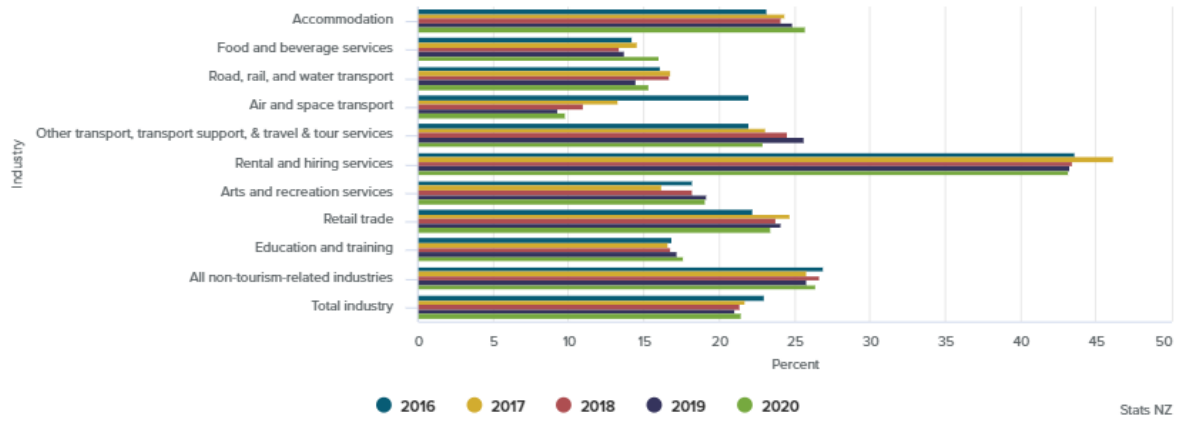
Source: Stats NZ

Points to note from table 18:

- the profitability of total tourism-characteristic industries for the year ended March 2020 increased 0.6 percentage points compared with the year ended March 2019.
- the biggest fall in profitability ratio from 2019 was in 'other transport, transport support, and travel and tour services' (2.7 percentage points).
- the biggest increase in profitability ratios in the year ended March 2020 compared with the year ended March 2016 was in 'accommodation' (2.5 percentage points) compared with the biggest decrease in 'air and space transport' (12.2 percentage points).
- at a 'total industry' level, the profitability ratio decreased 1.5 percentage points in the year ended March 2020 compared with the year ended March 2016.

Figure 12

Tourism gross operating surplus and gross mixed income as a percentage of total tourism output, by industry, year ended March 2016–2020



Detailed product and industry tables, year ended March 2020

Tables 19–26 in this chapter (also available for download from www.stats.govt.nz) provide details of the tourism satellite account for the year ended March 2020, the latest year for which balanced supply and use tables are available.

See:

[19 Tourism expenditure, by type of product and type of tourist, year ended March 2020](#)

[20 New Zealand System of National Accounts production accounts, by industry, year ended March 2020](#)

[21 Sales by type of product and industry, year ended March 2020](#)

[22 Derivation of tourism product ratios, year ended March 2020](#)

[23 Derivation of tourism industry ratios, year ended March 2020](#)

[24 Derivation of direct tourism value added, year ended March 2020](#)

[25 Direct tourism employment, by industry, year ended March 2020](#)

[26 Gross fixed capital formation and net capital stock, by industry, year ended March 2020](#)

Detailed product and industry tables for the year ended March 2021 will be available in *Tourism satellite account: Year ended March 2022*, to be published in December 2022 on www.stats.govt.nz.

Table 19

Tourism expenditure, by type of product and type of tourist,⁽¹⁾⁽²⁾ year ended March 2020

Product	Domestic demand			International demand	Total demand
	Business demand	Government demand	Household demand		
	\$(million)				
Tourism-characteristic products					
Accommodation services	492	201	683	1,945	3,321
Food and beverage serving services	379	123	1,655	2,772	4,929
Road, rail, and water passenger transport ⁽³⁾	219	61	455	570	1,304
Air passenger transport	1,236	582	956	2,692	5,466
Travel agency services	527	248	471	421	1,666
Motor vehicle hire or rental	713	273	473	329	1,788
Imputed rental on holiday homes	0	0	825	0	825
Libraries, archives, museums, and other cultural services	0	0	89	124	212
Other sport and recreation services	0	0	352	249	600
Total tourism-characteristic products	3,565	1,489	5,958	9,102	20,113
Tourism-related products					
Retail sales – alcohol	0	0	731	109	840
Retail sales – clothing and footwear	0	0	1,245	693	1,938
Retail sales – food, beverages, tobacco, and other groceries	0	0	1,317	375	1,692
Retail sales – fuel and other automotive products	566	283	640	745	2,234
Retail sales – retail medicines, toiletries	0	0	580	136	715
Retail sales – tourism consumer durables	0	0	1,574	280	1,854
Retail sales – other shopping	0	0	1,526	1,863	3,389
Financial services	28	3	1	5	38
General insurance (incl travel insurance)	95	10	98	84	287
Social and health-related services	0	0	794	103	897
Gambling services	0	0	223	91	315
Education services	0	0	491	795	1,286
Other tourism-related services	166	55	391	1,449	2,061
Other personal services	0	0	150	25	174
Total tourism-related products	855	351	9,760	6,753	17,720
Total tourism demand excluding GST	4,420	1,840	15,718	15,854	37,833
GST paid on purchases by tourists	7	1	2,028	1,836	3,872
Total tourism expenditure	4,427	1,841	17,746	17,691	41,704

1. Individual figures may not sum to stated totals due to rounding.

2. All values are in producers' prices.

3. Road, rail, and water passenger transport are combined for confidentiality reasons.

Source: Stats NZ

Table 20

New Zealand System of National Accounts production accounts, by industry, ⁽¹⁾⁽²⁾ year ended March 2020

	Tourism-characteristic industries							Tourism-related industries		All non-tourism-related industries	Total industry	
	Accommodation	Food and beverage services	Road, rail, and water transport ⁽³⁾	Air and space transport	Other transport, transport support, and travel and tour services	Rental and hiring services	Arts and recreation services	Retail trade	Education and training			
	\$ (million)											
Published GDP	323,967
Less GST, import duties, and other taxes on production	27,139
Contribution to GDP from production	2,158	4,904	5,081	1,935	5,794	3,040	4,308	14,104	13,958	241,546	296,828	
Equivalent to total output	4,237	10,805	11,722	6,423	8,763	5,215	8,085	23,313	19,161	522,775	620,499	
Less intermediate consumption	2,079	5,901	6,642	4,488	2,969	2,175	3,777	9,209	5,203	281,228	323,671	
Components of GDP												
Compensation of employees	1,063	3,576	2,944	1,289	2,375	754	2,045	8,780	11,399	105,232	139,457	
Gross operating surplus and gross mixed income	1,090	1,726	1,770	633	3,332	2,250	1,572	5,522	2,544	125,681	146,120	
Taxes on production and imports	87	70	987	18	145	67	807	133	102	13,857	16,273	
Less subsidies	83	468	621	5	58	32	115	331	87	3,223	5,022	

1. Individual figures may not sum to stated totals due to rounding.

2. All values are in producers' prices.

3. Road, rail, and water transport are combined for confidentiality reasons.

Symbol:

... not applicable

Source: Stats NZ

Table 21

Sales by type of product and industry,⁽¹⁾⁽²⁾ year ended March 2020

Product	Tourism-characteristic industries							Tourism-related industries		All non-tourism-related industries	Imports	Total industry (supply)
	Accommodation	Food and beverage services	Road, rail, and water transport ⁽³⁾	Air and space transport	Other transport, transport support, and travel and tour services	Rental and hiring services	Arts and recreation services	Retail trade	Education and training			
\$(million)												
Sales of tourism-characteristic products												
Accommodation services	2,263	476	0	0	2	0	114	0	503	154	0	3,513
Food and beverage serving services	1,409	8,332	20	0	81	1	481	398	225	671	0	11,618
Road, rail, and water passenger transport ⁽⁴⁾	39	0	1,960	0	368	2	5	1	44	36	0	2,454
Air passenger transport	0	0	0	5,454	1	0	0	1	69	6	0	5,531
Travel agency services	15	0	1	36	1,567	4	15	0	3	38	0	1,679
Motor vehicle hire or rental	0	0	21	138	9	2,403	0	16	0	319	0	2,905
Imputed rental on holiday homes	0	0	0	0	0	0	0	0	0	825	0	825
Libraries, archives, museums, and other cultural services	0	0	0	0	0	0	466	0	44	23	0	533
Other sport and recreation services	45	0	0	0	23	70	1,736	0	46	107	0	2,026
Total tourism-characteristic products	3,771	8,807	2,002	5,628	2,052	2,479	2,817	415	935	2,178	0	31,084
Sales of tourism-related products												
Retail sales – alcohol	353	1,022	0	0	0	0	1	270	0	5,556	687	7,888
Retail sales – clothing and footwear	0	0	0	0	0	0	0	2,215	10	1,097	3,227	6,548
Retail sales – food, beverages, tobacco, and other groceries	31	731	0	0	4	0	0	5,355	1	55,584	6,711	68,416
Retail sales – fuel and other automotive products	0	0	3	0	0	0	0	933	0	7,834	4,076	12,846
Retail sales – retail medicines, toiletries	0	7	0	0	0	0	0	1,264	0	3,049	2,807	7,127
Retail sales – tourism consumer durables	0	0	2	0	0	0	0	3,845	1	6,898	10,704	21,450
Retail sales – other shopping	0	0	1	0	2	263	27	6,026	87	8,743	8,549	23,697
Financial services	0	0	0	0	0	0	0	3	1	4,261	0	4,265
General insurance (incl travel insurance)	0	0	0	0	0	0	0	0	0	7,100	0	7,101
Social and health-related services	0	0	0	0	1	0	8	0	4	13,244	0	13,256
Gambling services	0	10	0	0	0	0	2,135	1	0	17	0	2,163
Education services	0	0	1	13	6	0	1	0	6,180	898	0	7,099
Other tourism-related services	0	4	74	8	311	20	4	597	22	30,135	0	31,176
Other personal services	0	0	0	0	0	13	0	0	0	2,260	0	2,274
Total tourism-related products	384	1,774	81	21	324	295	2,176	20,508	6,306	146,675	36,761	215,305
Sales of all domestically produced non-tourism-related products												
	85	234	9,639	776	6,387	2,422	3,114	2,389	11,933	373,366	...	410,347
Total sales	4,239	10,816	11,722	6,424	8,764	5,197	8,107	23,313	19,174	522,220	36,761	656,736
Other output items	-2	-11	1	-1	-1	18	-22	0	-13	555	...	523
Less imports of tourism-related products ⁽⁵⁾	36,761	36,761
Total industry output	4,237	10,805	11,722	6,423	8,763	5,215	8,085	23,313	19,161	522,775	...	620,499

1. Individual figures may not sum to stated totals due to rounding.

2. All values are in producers' prices.

3. Road, rail, and water transport are combined for confidentiality reasons.

4. Road, rail, and water passenger transport are combined for confidentiality reasons.

5. Imports of tourism-related products are subtracted from total sales, as this relates to goods not produced in New Zealand.

Symbol:

... not applicable

Source: Stats NZ

Table 22

Derivation of tourism product ratios, ⁽¹⁾⁽²⁾ year ended March 2020

Product	Total demand (from table 19)	Total supply (from table 21)	Tourism product ratio ⁽³⁾
	\$ (million)		
Tourism-characteristic products			
Accommodation services	3,321	3,513	0.95
Food and beverage serving services	4,929	11,618	0.42
Road, rail, and water passenger transport ⁽⁴⁾	1,304	2,454	0.53
Air passenger transport	5,466	5,531	0.99
Travel agency services	1,666	1,679	0.99
Motor vehicle hire or rental	1,788	2,905	0.62
Imputed rental on holiday homes	825	825	1.00
Libraries, archives, museums, and other cultural services	212	533	0.40
Other sport and recreation services	600	2,026	0.30
Total tourism-characteristic products	20,113	31,084	...
Tourism-related products			
Retail sales – alcohol	840	7,888	0.11
Retail sales – clothing and footwear	1,938	6,548	0.30
Retail sales – food, beverages, tobacco, and other groceries	1,692	68,416	0.02
Retail sales – fuel and other automotive products	2,234	12,846	0.17
Retail sales – retail medicines, toiletries	715	7,127	0.10
Retail sales – tourism consumer durables	1,854	21,450	0.09
Retail sales – other shopping	3,389	23,697	0.14
Financial services	38	4,265	0.01
General insurance (incl travel insurance)	287	7,101	0.04
Social and health-related services	897	13,256	0.07
Gambling services	315	2,163	0.15
Education services	1,286	7,099	0.18
Other tourism-related services	2,061	31,176	0.07
Other personal services	174	2,274	0.08
Total tourism-related products	17,720	215,305	...
Total tourism demand excluding GST	37,833	246,389	...
GST paid on purchases by tourists	3,872	...	...
Total tourism expenditure	41,704	...	...

1. Individual figures may not sum to stated totals due to rounding.

2. All values are in producers' prices.

3. Tourism product ratios shown in this table may differ at the industry level for some products from the ratios used to derive tourism supply in table 23. Supply is calculated at a more detailed level than the level presented in other tables.

4. Road, rail, and water passenger transport are combined for confidentiality reasons.

Symbol:

... not applicable

Source: Stats NZ

Table 23

Derivation of tourism industry ratios,⁽¹⁾⁽²⁾ year ended March 2020

Product	Tourism-characteristic industries							Tourism-related industries		All non-tourism-related industries; imports sold directly to tourists by retailers ⁽⁴⁾	Total industry (tourism supply)	
	Accommodation	Food and beverage services	Road, rail, and water transport ⁽³⁾	Air and space transport	Other transport, transport support, and travel and tour services	Rental and hiring services	Arts and recreation services	Retail trade	Education and training			
\$(million)												
Tourism-characteristic products												
Accommodation services	2,140	450	0	0	2	0	108	0	476	145	3,321	
Food and beverage serving services	613	3,520	9	0	37	0	223	151	98	277	4,929	
Road, rail, and water passenger transport ⁽⁵⁾	18	0	963	0	281	1	3	0	21	18	1,304	
Air passenger transport	0	0	0	5,389	1	0	0	1	69	6	5,466	
Travel agency services	15	0	1	36	1,555	4	15	0	3	37	1,666	
Motor vehicle hire or rental	0	0	13	85	5	1,479	0	10	0	196	1,788	
Imputed rental on holiday homes	0	0	0	0	0	0	0	0	0	825	825	
Libraries, archives, museums, and other cultural services	0	0	0	0	0	0	186	0	17	9	212	
Other sport and recreation services	14	0	0	0	6	21	514	0	13	32	600	
Total tourism-characteristic products purchased by tourists	2,800	3,970	986	5,510	1,889	1,506	1,048	162	697	1,546	20,113	
Tourism-related products												
Retail sales – alcohol	62	177	0	0	0	0	0	65	0	537	840	
Retail sales – clothing and footwear	0	0	0	0	0	0	0	745	2	1,191	1,938	
Retail sales – food, beverages, tobacco, and other groceries	7	86	0	0	0	0	0	271	0	1,328	1,692	
Retail sales – fuel and other automotive products	0	0	1	0	0	0	0	210	0	2,023	2,234	
Retail sales – retail medicines, toiletries	0	1	0	0	0	0	0	293	0	421	715	
Retail sales – tourism consumer durables	0	0	0	0	0	0	0	357	0	1,496	1,854	
Retail sales – other shopping	0	0	0	0	0	33	22	985	38	2,310	3,389	
Financial services	0	0	0	0	0	0	0	0	0	38	38	
General insurance (incl travel insurance)	0	0	0	0	0	0	0	0	0	287	287	
Social and health-related services	0	0	0	0	0	0	1	0	0	896	897	
Gambling services	0	1	0	0	0	0	312	0	0	2	315	
Education services	0	0	0	2	2	0	0	0	974	307	1,286	
Other tourism-related services	0	0	6	1	25	1	1	84	6	1,937	2,061	
Other personal services	0	0	0	0	0	1	0	0	0	173	174	
Total tourism-related products purchased by tourists	69	266	8	3	27	36	336	3,010	1,021	12,945	17,720	
Direct tourism sales	2,868	4,236	993	5,513	1,916	1,541	1,383	3,173	1,718	14,491	37,833	
Total industry output	4,237	10,805	11,722	6,423	8,763	5,215	8,085	23,313	19,161	522,775	620,499	
Tourism industry ratio	0.68	0.39	0.08	0.86	0.22	0.30	0.17	0.14	0.09	0.02	...	

1. Individual figures may not sum to stated totals due to rounding.

2. All values are in producers' prices.

3. Road, rail, and water transport are combined for confidentiality reasons.

4. The 'all non-tourism-related industries' ratio is calculated exclusive of imports sold directly to tourists by retailers.

5. Road, rail, and water passenger transport are combined for confidentiality reasons.

Symbol:

... not applicable

Source: Stats NZ

Table 24

Derivation of direct tourism value added,⁽¹⁾⁽²⁾ year ended March 2020

	Tourism-characteristic industries							Tourism-related industries		All non-tourism-related industries	Total industry
	Accommodation	Food and beverage services	Road, rail, and water transport ⁽³⁾	Air and space transport	Other transport, transport support, and travel and tour services	Rental and hiring services	Arts and recreation services	Retail trade	Education and training		
	\$(million)										
Tourism industry ratio	0.68	0.39	0.08	0.86	0.22	0.30	0.17	0.14	0.09	0.02	...
Direct tourism value added	1,461	1,923	424	1,661	1,030	898	735	1,874	1,175	5,109	16,289
<i>Equivalent to</i> tourism output	2,868	4,236	993	5,513	1,916	1,541	1,383	3,173	1,718	10,243	33,584
<i>Less</i> tourism intermediate consumption	1,408	2,313	570	3,852	886	643	648	1,298	544	5,134	17,296
Contribution to GDP from production	...	...	...	...	...	...	...	...	...	...	296,828
	Percent										
Direct tourism value added as a percentage of total industry contribution to GDP	...	...	...	...	...	...	...	...	...	...	5.5
	\$(million)										
Components of direct tourism value added											
Tourism compensation of employees	720	1,402	245	1,107	611	223	339	1,163	874	1,871	8,553
Tourism gross operating surplus and gross mixed income	738	677	152	543	438	665	264	743	302	2,703	7,224
Tourism taxes on production and imports	59	28	72	15	19	20	150	18	11	614	1,005
<i>Less</i> tourism subsidies	56	184	45	4	38	9	18	49	11	78	493

1. Individual figures may not sum to stated totals due to rounding.

2. All values are in producers' prices.

3. Road, rail, and water transport are combined for confidentiality reasons.

Symbol:

... not applicable

Source: Stats NZ

Table 25

Direct tourism employment, by industry,⁽¹⁾⁽²⁾ year ended March 2020

	Tourism-characteristic industries							Tourism-related industries		All non-tourism-related industries	Total industry
	Accommodation	Food and beverage services	Road, rail, and water transport ⁽³⁾	Air and space transport	Other transport, support, and travel and tour services	Rental and hiring services	Arts and recreation services	Retail trade	Education and training		
Number											
Total employment											
Employees	36,270	142,833	44,019	12,378	31,251	12,561	42,219	222,321	195,822	1,571,349	2,311,029
Working proprietors	4,089	15,537	9,120	228	3,933	2,511	9,252	24,921	8,661	375,129	453,378
Number of people employed	40,359	158,370	53,142	12,609	35,184	15,075	51,468	247,242	204,483	1,946,475	2,764,410
Tourism industry ratio⁽⁴⁾	0.68	0.39	0.08	0.86	0.22	0.30	0.17	0.14	0.09	0.02	...
Tourism employment											
Tourism employees	24,552	55,995	3,660	10,623	10,632	3,714	7,065	29,226	14,565	31,722	191,754
Tourism working proprietors	2,766	6,090	675	195	2,445	744	1,371	3,525	1,581	7,431	26,829
Number of people directly employed in tourism	27,318	62,085	4,338	10,818	13,080	4,455	8,433	32,751	16,149	39,153	218,580
Percent											
Number of people directly employed in tourism as a percentage of the total number of people employed⁽⁵⁾	7.9
\$(million)											
Total employment earnings⁽⁶⁾											
Employees	1,075	3,501	2,641	C	1,956	615	1,865	8,279	10,541	C	127,009
Working proprietors	213	690	413	C	247	156	386	1,440	370	C	30,849
Total earnings	1,288	4,191	3,054	C	2,202	771	2,251	9,718	10,911	C	157,859

1. Individual figures in this table have been rounded, and discrepancies may occur between sums of components and totals.

2. Total employment numbers by industry are sourced from Linked Employer-Employee Data.

3. Road, rail, and water transport are combined for confidentiality reasons.

4. The tourism industry ratio is sourced from table 24.

5. Percentage is calculated from unrounded employment numbers.

6. Total employment earnings by industry are sourced from Linked Employer-Employee Data. A person is assigned to the industry where they have generated the most earnings from in the tax year.

Symbols:

... not applicable

C confidential

Source: Stats NZ

Table 26

Gross fixed capital formation and net capital stock, by industry, ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾ year ended March 2020

	Tourism-characteristic industries							Total tourism-characteristic industries	All other industries ⁽⁶⁾	Total industry
	Accommodation	Food and beverage services	Road, rail, and water transport ⁽⁵⁾	Air and space transport	Other transport, transport support, and travel and tour services	Rental and hiring services	Arts and recreation services			
\$(million)										
Gross fixed capital formation										
Asset type										
Residential buildings	0	0	0	0	0	0	1	1	23,338	23,339
Non-residential buildings	395	110	68	-10	490	642	332	2,028	7,881	9,909
Other construction	8	6	92	0	3,855	1	180	4,143	6,120	10,263
Land improvement ⁽⁷⁾	2	1	0	0	2	3	116	124	720	844
Transport equipment	19	40	916	186	137	1,200	33	2,531	3,230	5,761
Plant, machinery, and equipment	164	244	83	185	463	692	323	2,154	12,177	14,332
Intangible assets	18	45	59	24	96	40	151	432	10,786	11,218
Total gross fixed capital formation	606	447	1,218	384	5,043	2,579	1,135	11,413	64,252	75,665
Net capital stock										
Total net capital stock	6,737	4,570	10,112	3,836	71,582	12,436	13,559	122,832	836,781	959,613

1. Individual figures may not sum to stated totals due to rounding.

2. All values are in purchasers' prices.

3. Gross fixed capital formation by industry and asset type and net capital stock by industry were used as a basis for calculating the table.

4. Gross fixed capital formation by industry and asset type presented here excludes weapons systems.

5. Road, rail, and water transport are combined for confidentiality reasons.

6. The 'all other industries' column includes all tourism-related and non-tourism-related industries.

7. Land improvement is shown in gross fixed capital formation, but does not form a part of net capital stock.

Source: Stats NZ

Glossary

National accounts definitions

basic prices – the amounts receivable by producers from purchasers for units of goods or services produced as outputs minus any taxes payable, and plus any subsidies receivable. They exclude any transport charges invoiced separately by the producers.

change in inventories – the book value change as recorded in most business accounting records, less an inventory valuation adjustment that removes the capital gains and losses that may arise through holding inventories purchased at prices either higher or lower than those ruling during the period of account. Change in inventories effectively values the change in stocks at the average prices for the period.

compensation of employees – total remuneration, in cash or in kind, payable by enterprises to employees. Includes contributions paid on employees' behalf to superannuation funds, private pension schemes, the Accident Compensation Corporation, casualty and life insurance schemes, and other fringe benefits.

consumption of fixed capital – the reduction in the value of the fixed assets used in production during the accounting period resulting from physical deterioration, normal obsolescence, or accidental damage. It is valued at replacement cost.

exports of goods and services – all goods and services produced by New Zealand residents and purchased by non-residents.

gross domestic product (GDP) – the total market value of goods and services produced in New Zealand after deducting the cost of goods and services used in the process of production, but before deducting allowances for the consumption of fixed capital.

gross fixed capital formation – the total value of a producer's purchases, less disposals, of durable real assets such as buildings, motor vehicles, plant and machinery, hydroelectric construction, roading, and improvements to land. Land is excluded from gross fixed capital formation. Included is the value of construction work done by a firm's own employees. The term 'gross' indicates that consumption of fixed capital has not been deducted from the value of the outlays.

gross mixed income – the operating surplus of closely-held or unincorporated business, which contains an element of labour remuneration that cannot be separately identified from the return on capital to the owner. In the TSA, gross mixed income is included in the total, gross operating surplus and gross mixed income, and is not separately identified.

gross operating surplus – output at producer's values less the sum of intermediate consumption, compensation of employees, and taxes on production and imports net of subsidies. It is approximately equal to accounting profit before deducting depreciation, direct taxes, dividends, interest paid, and bad debts, and before adding interest and dividends received. In the TSA, gross operating surplus is included in the total, gross operating surplus and gross mixed income, and is not separately identified.

gross operating surplus and gross mixed income – this represents the sum of gross operating surplus and gross mixed income.

GST on production – the transactions of registered producers are recorded excluding goods and services tax (GST), while those of final consumers (including producers of exempt goods and

services) are recorded at actual market prices. The potential imbalance between the value of goods and services produced and the value ultimately consumed is removed by including the item 'GST on production' in the GDP account. This item produces a measure of the amount of GST included in the valuation of the final demand categories. Note that not all purchases by tourists attract GST, for example, airfares purchased abroad by international tourists.

imports of goods and services – all goods and services produced by non-residents and purchased by New Zealand residents.

intermediate consumption – the value of non-durable goods and services used in production. Valuation is at purchaser's values.

net capital stock – the accumulated written-down value of fixed assets valued in current prices. It is equal to accumulated investment less retirements and less accumulated depreciation for assets still operating.

output – goods and services produced within an establishment that become available for use outside that establishment, plus any goods and services produced for own final use.

producer prices – the amount receivable by the producer from the purchaser for a unit of goods or a service produced as output less any deductible taxes invoiced to the purchaser. The producer price excludes any transport charges invoiced separately by the producer.

purchaser prices (market prices) – the amount paid by the purchaser, exclusive of any deductible taxes, to take delivery of goods or services at the time and place required by the purchaser. The purchaser price of goods includes any transport charges paid separately by the purchaser to take delivery at the required time and place.

subsidies – current unrequited payments made by governments to enterprises based on the levels of their production activities or the quantities or values of the goods and services they produce, sell, or import.

taxes on production and imports – taxes assessed on producers in respect of the production, sale, purchase, and use of goods and services, and that add to the market prices of those goods and services. This includes sales tax, local authority rates, import and excise duties, fringe benefits tax, and registration fees, such as motor vehicle registration, paid by producers.

value added – the value added to goods and services by the contributions of capital and labour (ie, after the costs of bought-in materials and services have been deducted from the total value of output).

Abbreviations used in this report

ANZSIC06: 2006 Australian and New Zealand Standard Industrial Classification

BoP: balance of payments

CPI: consumers price index

DTS: Domestic Travel Survey

EMS: employer monthly schedule

GDP: gross domestic product

GST: goods and services tax

HLFS: household labour force survey

HTEE: Household Tourism Expenditure Estimates

IVS: International Visitor Survey

LEED: Linked Employer-Employee Data

MBIE: Ministry of Business, Innovation and Employment

NZSNA: New Zealand System of National Accounts

OECD: Organisation for Economic Co-operation and Development

TSA: tourism satellite account

UNWTO: United Nations World Tourism Organization

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Appendix 1: Conceptual framework

Definitions

Tourism satellite account: Year ended March 2021 is based on the methodology produced by the United Nations World Tourism Organization (UNWTO) in its publication *Tourism satellite account: Recommended methodological framework 2008* (UNWTO, 2008).

This method is approved by the United Nations Statistical Commission and the methodological publications of the Organisation for Economic Co-operation and Development (OECD). These organisations have collaborated to produce guidelines for tourism satellite accounts (TSAs). Although the organisations may differ slightly in their recommended treatment of some conceptual issues, they generally take a similar approach based on the international standard [System of national accounts 2008](#).

Definitions used in *Tourism satellite account: Year ended March 2021* are based on the recommendations of the UNWTO, with some modification for New Zealand purposes.

Tourist

A tourist is any person travelling to a place other than their usual environment for less than 12 months and whose main purpose is other than the exercise of an activity remunerated from within the place visited.

Not all travellers (people moving from one place to another) are tourists. To be defined as a tourist, a person must also be travelling to places outside their usual environment (defined below) for a limited time. The 12-month time limit is consistent with the guideline in *System of national accounts 2008*, which is that a person staying in a country for longer than 12 months is a resident. A place becomes part of a tourist's usual environment after the tourist has spent more than 12 months there.

The following people are not considered tourists:

- those, such as travelling salespeople, for whom travel is an intrinsic part of their job
- those who travel for the purpose of being admitted to, or detained in, a residential facility, such as a hospital, prison, or long-stay care
- those travelling as part of a shift to a new permanent location
- those undertaking military duties
- those travelling between two parts of their usual environment.

The New Zealand TSA covers only tourists who travel to or within New Zealand. These are classified as either domestic or international tourists. The domestic tourist group is further broken down according to household, business, or government travel.

Domestic tourist

A domestic tourist is a New Zealand resident who travels within New Zealand but outside their usual environment. While travelling, they do not stay in any one place for more than 12 months.

- A domestic **household** tourist is a domestic tourist whose purpose of visiting is other than to carry out a business activity.

- A domestic **business** tourist is a domestic tourist and an employee of a private sector enterprise whose purpose of travel is to carry out a business activity and whose expenses are met either in full or in part by their employer.
- A domestic **government** tourist is a domestic tourist and an employee of a central or local government sector enterprise whose purpose of travel is to carry out a business activity and whose expenses are met either in full or in part by their employer.

International tourist

An international tourist is a person who travels to a country other than that in which they have their usual residence, and outside their usual environment. While travelling, they do not stay in any one place for more than 12 months.

For the purposes of a TSA, international tourists are exclusively inbound travellers (non-residents travelling in New Zealand). International students studying in New Zealand for less than 12 months are included in the scope of the TSA. All their expenditure – airfares, tuition fees, and accommodation and living expenses – are included in international tourism expenditure.

International students studying in New Zealand for more than 12 months are excluded from the TSA because they are considered to be residing in their usual environment within New Zealand. Such students are treated as tourists only if they travel outside their usual environment within New Zealand. However, in practice, it is difficult to estimate this expenditure, and it is therefore excluded.

Usual environment

Usual environment is the place or places a person occupies within their regular routine of life (except places visited for leisure or recreational activities only).

It is the concept of 'usual environment' that defines a tourist. Individuals must be travelling outside their usual environment for their expenditure to be considered tourism.

A destination will benefit from the goods and services purchased by tourists travelling outside their usual environment, by the amount spent by the tourist at that location, excluding imports.

The important link between usual environment and tourism is that tourists who purchase goods and services outside their usual environment have a positive economic impact on that destination. This benefit would not have occurred without tourism. This is the basis of tourism expenditure and is the reason a TSA excludes expenditure by outbound New Zealand travellers on foreign-produced goods and services. In other words, the economic benefits that accrue from these travellers do not benefit New Zealand.

However, expenditure by outbound tourists on domestically produced services (for example, international flights on New Zealand carriers, New Zealand travel agents' booking fees, or travel insurance for outbound trips) is included within the TSA because it is a form of tourism and provides economic benefit to the New Zealand economy.

The concept of usual environment is difficult to define because it depends on the nature of the country in question. For this reason, the UNWTO does not give a definitive definition. Instead, it suggests possible criteria to be used by countries to establish their own definition.

In New Zealand, for a tourist to be outside their usual environment they must, subject to previously stated exclusions, satisfy at least one of the following conditions:

- travel by a scheduled flight or inter-island ferry service
- travel more than 40 kilometres from their residence (one way) and outside the area they commute to for work or visit daily
- travel as an international tourist.

Tourism expenditure

Tourism expenditure is spending by, or on behalf of, a tourist before, during, and after a trip. This expenditure occurs either on the trip (for example, meals or souvenirs), or is travel related (for example, pre-booked airfares, luggage, or other tourism-specific durables). The trip must be taken outside the usual environment of the tourist. This expenditure includes goods and services tax (GST).

Since tourists are defined based on their relationship to their usual environment, expenditure on a product may constitute tourism expenditure, depending on who is purchasing the product. Tourism expenditure is defined from the perspective of the tourist.

On-trip tourism expenditure is tourism expenditure occurring during a trip. Off-trip tourism expenditure is expenditure that occurs outside a trip but relates to goods and services purchased specifically for use while on a trip.

Tourism demand

Tourism demand is GST-exclusive expenditure made by, or on behalf of, a tourist before, during, and after a trip. This expenditure occurs either on the trip or is travel related, and the trip must be taken outside the usual environment of the tourist. In other words, tourism demand is equivalent to tourism expenditure, excluding GST.

Tourism output

Tourism output is the value of goods and services purchased by tourists, excluding imports sold directly to tourists. It is derived from tourism demand by removing the imports sold directly to tourists by retailers and comprises the following components:

- tourism intermediate consumption – the goods and services used in the process of production of products sold to tourists
- tourism value added – the ‘value’ a producer adds to the raw material goods and services and/or transformed goods it purchases in the process of production.

Tourism intermediate consumption

Tourism intermediate consumption consists of goods and services used in the process of producing products sold to tourists.

Travel agents’ commissions, even where these are paid by transport or accommodation providers to travel agents, are not included in tourism intermediate consumption. Instead, this expenditure is included in tourism demand (and in business travel expenditure) because it is assumed these commissions are paid to travel agents by transport or accommodation providers on behalf of tourists. Travel agents’ commissions received directly from fares booked are also included in tourism demand.

Goods for resale

Goods for resale are goods acquired for the purpose of reselling and without further processing or transformation.

Valuation basis used in tourism satellite accounts

Tourism expenditure in TSAs is initially measured in purchasers' prices (market prices). Essentially, purchasers' prices are the amounts paid by tourists for products. Tourism expenditure is then converted into producers' prices and incorporated into the supply and use framework of the TSA. Producers' prices are the amounts producers receive for selling their products. For this reason, they are exclusive of GST. All monetary aggregates presented in a TSA are in producers' prices, unless otherwise stated.

Some valuation issues exist in comparing the New Zealand TSA with those of other countries. This is because the New Zealand System of National Accounts (NZSNA) and the TSA measure industry value added in producers' prices, while Australia and other countries measure industry value added in basic prices, or at factor cost. Consequently, international comparisons can be slightly misleading, as industry value added estimates can have a different valuation basis. (For definitions of basic, producer, and purchaser prices, see the [glossary](#).)

It is important to emphasise that the direct tourism value added valuation is consistent with the value added generated by industries in the NZSNA, as direct tourism value added valuation is also measured in producers' prices.

Tourism products

The tourism product ratio

The tourism product ratio is the proportion of the total supply of a product or service that is consumed by tourists. It provides the means of classifying tourism products as outlined below.

Classifying products sold to tourists

TSAs make a distinction between three categories of products:

- A **tourism-characteristic** product is one that would cease to exist in meaningful quantity, or for which the level of consumption would be significantly reduced, in the absence of tourists. A product is classified as a tourism-characteristic product if at least 25 percent of its production is purchased by tourists.
- A **tourism-related** product is distinct from a tourism-characteristic product in that tourists consume a smaller proportion of the total supply of the product. For a product to be classified as a tourism-related product, tourists must purchase up to 25 percent of its production. However, 'Retail sales – clothing and footwear', which exceeds the 25 percent of production threshold, is categorised alongside fellow tourism-related retail commodities, because the activity undertaken specifically relates to retail.

Note: A tourism-specific product is either a tourism-characteristic product or a tourism-related product.

- A **non-tourism-related** product is a product that is not tourism-specific. It is assumed in the New Zealand TSA that none of these products are purchased by tourists.

[Table 27](#), appendix 3: Tourism product classification, has a full list of tourism-characteristic and tourism-related products.

The criteria for categorising products are derived from the UNWTO's recommended treatment, while the product classification used is based on the Australian and New Zealand Standard Commodity Classification.

When looking at product classifications, the following points are important to consider:

- The main purpose of making the distinction between categories of products is for presentational and analytical purposes. It allows analysis to be specifically focused on products that make up the majority of tourism expenditure.
- Tourism products are not exclusively consumed by tourists. A non-tourist can consume a tourism-characteristic product. Rather than providing a robust set of products consumed exclusively by tourists, tourism product classifications provide a way of identifying an industry's supply of products consumed by tourists.

Note that constraints on the availability of input data for provisional accounts mean that a regrouping of tourism-characteristic and tourism-related products is necessary (see [table 27](#), appendix 3: Tourism product classification).

Industries producing tourism products

The tourism industry ratio

The tourism industry ratio is the proportion of an industry's output that is consumed by tourists. It provides the means of classifying industries, as outlined below.

Categorising industries producing tourism products

A **tourism-characteristic** industry is one where either of the following conditions apply.

- At least 25 percent of the industry's output is purchased by tourists.
- The industry's output includes a tourism-characteristic product. For example, less than 25 percent of the water transport industry's output is consumed by tourists, but its characteristic outputs are water freight transport and water passenger transport. Water passenger transport is a tourism-characteristic product, so the water transport industry is classified as a tourism-characteristic industry, and a direct physical contact occurs between the industry and the tourist buying its products.

Therefore, manufacturing and wholesaling industries are not tourism-characteristic industries.

A **tourism-related** industry is one where:

- the industry is not a tourism-characteristic industry
- between 5 and 25 percent of the industry's output is purchased by tourists
- a direct physical contact occurs between the industry and the tourist buying its products.

Therefore, manufacturing and wholesaling industries are not tourism-related industries.

A **non-tourism-specific** industry is any industry that is not a tourism-characteristic industry or a tourism-related industry. However, a non-tourism-specific industry may still sell some of its products to tourists.

The following points relate to the TSA industry classification.

- The industries are consistent with the published industries within the NZSNA.
- The classification of industries outlined above has no effect on the value of direct tourism value added. This is because direct tourism value added is determined by the scope of total tourism expenditure regardless of the classification of the industry. We identify the tourism-characteristic and tourism-related industries for extra emphasis in this TSA because they are involved significantly in tourism.

Note that constraints on the availability of input data for provisional accounts mean that supply by product and value added are shown only for tourism-characteristic industries and for all other industries.

Value added

Value added is the 'value' that a producer adds to the raw material goods and services and/or transformed goods it purchases in the process of production. This can be shown as:

$$\begin{array}{rcl}
 & & \text{Output (produced goods and services)} \\
 \textit{less} & & \text{intermediate consumption (purchased goods and services required to} \\
 & & \text{produce outputs)} \\
 \textit{equals} & & \text{value added.}
 \end{array}$$

The value added of a business is less than the value of its output.

Value added has several components:

- compensation of employees – the cost of employing labour used to produce output
- gross operating surplus and gross mixed income – the surplus or deficit accruing from production before taking account of any interest or rent payable on financial or tangible non-produced assets borrowed or rented by the enterprise, any interest or rent receivable on financial or tangible non-produced assets owned by the enterprise, or the depreciation of capital used in production (that is, consumption of fixed capital)
- net taxes on production and imports – taxes payable (less subsidies receivable) on goods and services (excluding GST) when they are produced, plus taxes and duties on imports that become payable (less subsidies receivable) when goods enter the country.

Direct tourism value added

Direct tourism value added is the value added by producers from the production of goods and services that are sold directly to tourists. This results in a measure of the contribution of tourism to GDP that is consistent with that measured for other industries in the economy.

These goods and services (products) can be produced through the involvement of a manufacturer and a wholesaler before being supplied to retailers to sell to tourists. During this process, a producer can apply both an amount to recover costs associated with providing the goods or services, and a profit component. This amount can take the form of:

- the margin a retailer applies to selling a product to a tourist
- the margin charged by the wholesaler
- the price received by the manufacturer.

The margin represents the mark-up, or the difference between the value at which goods or services are acquired and the value for which they are sold. For the product to be sold directly to a tourist there needs to be a strong economic link between the tourist and the supplier of the goods or services. This is best represented in the form of a direct or physical contact between the parties, for example a tourist purchasing a souvenir from a retail outlet.

Through selling the souvenir to the tourist, the producer (a retail outlet in this case) will have applied their margin (or 'mark-up') over and above the costs associated with selling this souvenir. It is solely this margin that direct tourism value added is then derived from.

Indirect tourism value added

Indirect tourism value added is generated from the purchase of goods that are subsequently resold to tourists, or the purchase of goods and services used in producing products that are sold directly to tourists. Producers of both these products have no direct relationship with the tourist.

Using the example above, the manufacturer's purchase of raw materials and services used in producing the souvenir, and the margin applied by the wholesaler, represent the components from which indirect tourism value added is derived – for industries that have no direct contact with the tourist.

Relating direct tourism value added and tourism expenditure

It is important to distinguish between two related concepts: total tourism expenditure and direct tourism value added. The two differ in both concept and scope.

Total tourism expenditure comprises output sold to tourists, imported goods directly purchased by tourists, and GST on purchases by tourists. Direct tourism value added equals the value of goods and services produced domestically and consumed by tourists, less the value of purchased goods and services required to produce these goods and services (outputs).

The relationship between these concepts is as follows:

	Total tourism expenditure
<i>less</i>	GST
<i>equals</i>	tourism demand
<i>less</i>	imports sold directly to tourists by retailers
<i>equals</i>	tourism output
<i>less</i>	tourism intermediate consumption (including goods for resale)
<i>equals</i>	direct tourism value added
	Tourism intermediate consumption (including goods for resale)
<i>less</i>	imports used in production of goods and services sold to tourists
<i>equals</i>	indirect tourism value added.

Reference for appendix

United Nations Statistics Division, Statistical Office of the European Communities, Organisation for Economic Co-operation and Development, World Tourism Organization (2008). [Tourism satellite account: Recommended methodological framework](#). Available from www.oecd.org.

Appendix 2: Methodology

Direct tourism value added

Tourism expenditure and direct tourism value added (or tourism's contribution to gross domestic product (GDP)) are the two major economic aggregates derived in a tourism satellite account (TSA).

Tourism expenditure measures the value of products purchased by visitors, whether before, during, or after travel.

Direct tourism value added measures the value of the output of tourism products by industries, less the value of goods and services used in their production (intermediate consumption). When summed across all industries, it shows the direct value added to the economy by tourism.

Tables 11, 12, 13, and 14 detail the process used to measure direct tourism value added. This involves the following steps.

- Begin with tourism expenditure by type of product (presented in [table 11](#) – and further dissected by type of tourist in [table 12](#)).
- Match tourism expenditure by type of product with the total supply of products in the annual supply and use tables of the New Zealand economy. Derive the tourism product ratio for each product by dividing the value of tourism expenditure by total supply of the product.
- Multiply each industry's supply by product by the tourism product ratio, to calculate tourism supply by industry. [Table 13](#) presents tourism supply for tourism-characteristic industries, all other industries, and imports.
- Divide tourism supply by total output by industry, to give tourism industry ratios – the proportion of each industry's total output that is purchased by tourists.
- Multiply the tourism industry ratios through each industry's production account. Sum the resulting series to obtain total tourism value added. [Table 14](#) presents total tourism value added resulting from tourism-characteristic industries and all other industries.

The same methodology underlies the calculation of direct tourism value added for final and provisional accounts, and is ordered according to the steps above. However, the derivation of inputs into the calculation process and the level at which calculations are performed differ between final and provisional accounts. The main reasons for this are:

- the lack of balanced supply and use results for the provisional accounts limits the level at which expenditure by product can be calculated for business and government travellers
- the same constraints apply to the supply of tourism products – the absence of balanced supply and use accounts means the supply of each product by industry cannot be derived reliably at the same level of detail as in a final account
- the industry production accounts, and therefore industry value added, are provisional and are yet to be balanced within a supply and use framework to derive a final GDP figure.

Differences in deriving input data for final and provisional accounts are outlined in the following sections.

Calculating tourism expenditure

[Table 12](#) presents tourism expenditure by type of product and by type of tourist: international (international visitors and international students); household; and business and government. We describe below how we calculate expenditure by the three types of tourist.

International tourism expenditure

International tourism expenditure comprises expenditure from international visitors and international students.

Final accounts

Expenditure by international tourists in New Zealand is derived from the [International Visitor Survey \(IVS\)](#) published by the Ministry of Business, Innovation and Employment (MBIE).

The IVS is a sample survey of approximately 8,900 international visitors to New Zealand aged 15 years or older per year, excluding individuals whose purpose of visiting New Zealand was to attend a recognised educational institute, and are foreign-fee-paying students.

The IVS draws its visitor sample based on measures of the actual number of target population visitors who departed New Zealand from our international airports over the survey time period in the previous year. Using actual historical visitor departure information, time periods are randomly selected with the probability of being selected based on the number of flights during that period – periods with no flights will have no probability of being selected, while those with a high number of flights have a high probability. For Auckland, Wellington, and Queenstown airports, two-hour time periods are used, while for Christchurch airport it is a four-hour time period.

The IVS uses a two-part collection process. The first part involves screening departing visitors during the selected time periods for eligibility and collecting email addresses. The second part, where the bulk of the information is captured, is via an online survey, a link to which is sent to those eligible and agreeing to participate.

Each respondent within the sample is weighted to represent their fraction of the total number of all international visitors departing New Zealand using migration data within the survey's target population. Survey response weights are adjusted to reflect the unequal probabilities of respondent selection from the composition of the target population, and known discrepancies between the sample and the population definitions.

The IVS data is supplemented with breakdowns from balanced supply and use accounts, consumers price index (CPI) weightings, and tourism producers' own data. In some instances, tourism producers can provide estimates of the proportions of their output consumed by international visitors.

Broad-level valuations of international visitors' expenditure in New Zealand are derived from transportation and travel services items in the balance of payments (BoP). IVS data is a major source for BoP statistics, but several supplementary sources are also used. Small revisions have been made to the source data in some years. We break down these totals into tourism products, using proportions from balanced supply and use accounts. We compare these splits with other data sources, and refine the totals where additional information is available.

Provisional accounts

The same basic data source, the IVS, is also used in the provisional accounts. However, in the absence of supply and use tables, the IVS is not broken down to the same level of product detail found in final accounts. We use the breakdown for the latest final account to derive the initial product breakdown for the provisional years. This initial product breakdown is subsequently refined during the balancing process (covered in more detail later in this appendix – see [Balancing tourism expenditure and tourism production](#)).

COVID-19 measurement

The IVS collection at international airports was suspended once border restrictions were introduced near the end of March 2020. This consequently reduced the sample size for the March 2020 quarter, and led to no survey data being collected in the subsequent quarters making up the year ended March 2021.

Stats NZ developed a model of international expenditure using electronic card transaction data and international visitor numbers. This was first published in June 2020 as an experimental series: [Visitor expenditure in New Zealand using an experimental series](#). Only expenditure was modelled as other variables published as part of the IVS release (such as travel methods, visitor satisfaction, and locations travelled to), could not be obtained.

The performance of this model was monitored by Stats NZ over each quarter as visitor expenditure estimates were published. Spending on international cards did not change in line with the fluctuations in visitor stock numbers, resulting in increasingly unrealistic estimates of daily spend per visitor from some countries, notably the People’s Republic of China and the United Kingdom.

In the absence of reliable card data on travel expenditure, Stats NZ moved to using daily spend per visitor estimates from the IVS in the model, collected pre-COVID-19. These estimates are calculated at country by purpose of visit level, by length of stay categories. A visitor’s length of stay in New Zealand is a useful explanatory variable for how much they spend per day. Long-staying visitors typically spend significantly less per day than short-staying visitors.

Visitor stocks can be categorised by the same length of stay categories. For visitors that have departed, the arrival and departure dates are used. For visitors that are still in New Zealand, we estimate the likelihood that they are in each length of stay class in estimating the visitor stocks for each length of stay category. Further detail can be found at [Change to methodology for estimating visitor expenditure in New Zealand for the June 2021 quarter](#).

Cruise ship expenditure by international visitors

Background

Historically, New Zealand’s international visitor expenditure measurement and macro-economic outputs, including the TSA, have not captured the full value of expenditure undertaken by cruise travellers.

This was due to the IVS being limited to airport departures, therefore only those cruise travellers who completed their cruise in New Zealand before flying out were within scope. Consequently, this did not account for the significant and growing number of cruise travellers who fly in and cruise out, and cruise in and cruise out of New Zealand.

Stats NZ and MBIE enhanced the New Zealand Cruise Association’s (NZCA) method for calculating expenditure undertaken by cruise travellers and sourced additional administrative data.

The key data sources that enabled this development are:

- cruise ship schedules
- cruise ship manifests of passenger and crew
- key firms involved in the provision of goods and services to ships
- key firms involved in the provision of shore excursions
- international card transaction data.

How we calculate cruise ship expenditure by international visitors

Data sources

For each cruise season, NZCA provides us with a ship schedule outlining the dates and port locations together with arrival and departure timings relating to each specific cruise ship visit. We source cruise ship manifests containing the count and details of passengers and crew from the New Zealand Customs Service. We receive international card transaction data with Worldline (formerly Paymark) merchants (subsequently scaled to the full population of merchants) from Marketview Ltd, with date, time, country of card issue, location (territorial authority), transaction value, and industry identifiers. We source cash factors from the IVS to provide a comprehensive estimate of expenditure across key payment mediums.

Linking data

Using card transaction data, we link international-cardholding cruise travellers who make a transaction on two dates and at two territorial authorities with a particular cruise ship voyage. We take into account timing parameters to ensure transactions occur within the timing the ship is in port, as well as factoring in allowances for disembarking and embarking.

Using information from shore excursion operators and regional tourism organisations about available tourism activities, we establish a geographic location around each port that a cruise visitor could be expected to travel and spend. We get additional information from shore excursion operators regarding overland tours (disembarking at one port before re-joining at another) to ensure dates, timings, and geographic locations for capturing associated shore-based card expenditure.

Exclusions and scaling

We then apply exclusions to matches based on the particular industry spent in and the use of the card outside of the geographic locations aligned with the ship schedule. The resultant dataset is scaled up by Marketview Ltd to represent the full population of merchants in New Zealand and provided to Stats NZ.

Unique international passenger (excluding New Zealand passport holders) and actual crew counts by nationality (passport) as determined by Stats NZ are used to scale the determined card spend. Cash factors are applied reflecting the propensity and breakdown of key nationalities card to cash use.

Output

The resultant output is produced by quarter, by country of origin, and by port. It is subsequently added to the following data sources:

- shipping agents – expenditure related to ship visits logistics, including port fees, customs security, and minor repairs and utilities
- bunkering – the provision of marine fuels
- providoring – the provision of produce and other supplies

- shore excursions – a range of tours or activities organised for passengers on behalf of the cruise line and the destination.

These data sources are provided directly from several firms involved on an annual basis.

Note: Airfares for international passengers and crew are excluded as is cruise ship expenditure by domestic travellers. The domestic cruise expenditure is recorded within existing domestic tourism estimates but is not currently separately identifiable.

The combination of these data sources enables comprehensive cruise ship expenditure estimates to be derived for the years ended June 2015–2020 when cruise activity occurred. Data before 2015 is not available due to the limitations of some key data inputs. No modelling is undertaken to determine estimates before 2015.

Tourism expenditure by international students

International students are defined as those studying in New Zealand for less than 12 months.

Tourism satellite account: Year ended March 2021 incorporates historic changes to export education data (student numbers) used to derive international student expenditure.

Tourism expenditure by international students is calculated using the following steps.

- Obtain total international student numbers from the Ministry of Education.
- Derive the number of international students studying in New Zealand for less than 12 months as a proportion of total student numbers, by using the number of short-term passenger arrivals visiting New Zealand for education purposes.
- Calculate expenditure on tuition fees using the Ministry of Education’s Export Education Levy data (inclusive of GST), a census of international students studying in New Zealand. It includes average tuition fees for students studying at schools, tertiary education institutes, and private tertiary establishments (such as English language schools).
- Calculate expenditure on living costs (including accommodation costs) consistent with how it is calculated by BoP. This involves taking average tuition fee data and applying predetermined living cost multipliers for each type of student.
- Calculate expenditure on airfares by short-term students by multiplying the number of students in New Zealand for less than 12 months as a proportion of total international arrivals, by the total airfare income of resident airlines (from BoP).
- Sum expenditure on tuition fees, living costs, and airfares, to obtain the total tourism expenditure by international students in New Zealand for less than 12 months.

Household tourism expenditure

Household tourism expenditure, shown as household demand in table 12, consists of four components:

1. household domestic travel expenditure
2. outbound travel purchased from New Zealand-resident firms
3. off-trip purchases of tourism-specific consumer durable goods
4. imputed rental on holiday homes.

1. Household domestic travel expenditure

Tourism satellite account: Year ended March 2021 uses an administrative data source based on electronic card transaction data to collect and determine household domestic travel expenditure. The Household Tourism Expenditure Estimates (HTEE), developed by Stats NZ and funded by MBIE, cover the years ended March 2009–2021. Before the year ended March 2009, we used data from the Domestic Travel Survey (DTS) undertaken by MBIE. The DTS collected the expenditure and behaviours of domestic travellers within New Zealand.

The DTS data collection began in 1999, with data available as both quarterly and annual series through to its cessation in 2013. The DTS data provided information on the nature of domestic travel activity, including the origin and destination of domestic travellers. MBIE categorised the data by purpose of travel, expenditure type, and length of trip (either day trip or overnight trip). The four travel purposes were: holiday, visiting friends and relatives, business, and other. The eight expenditure categories were: transport, accommodation, food, alcohol, gifts and souvenirs, recreation, other shopping, and gambling. DTS expenditure was available by purpose of travel, expenditure category, and length of trip.

We then supplemented the DTS with additional household tourism expenditure for outbound travel, off-trip purchases, and imputed rental on holiday homes – using a mix of sources and methods, as outlined in the following sections.

In the year ended March 2014, the DTS was replaced by a developmental version of the HTEE, which was further developed and fully integrated into *Tourism satellite account: Year ended March 2015*. We have made additional refinements to these estimates for *Tourism satellite account: Year ended March 2021*. The HTEE use geographic information to determine tourism spending in New Zealand by New Zealanders and is available from the year ended March 2009. The DTS is used in determining prior year estimates.

HTEE source data

Electronic card transaction data is provided to us by Marketview Ltd, who acquires this from two main sources:

- Worldline (formerly Paymark) – the largest electronic card payment network in New Zealand
- Modelled data (Marketview) – historically derived from spending by Bank of New Zealand (BNZ) cardholders, which excludes any personal identifiers (we call this depersonalised spending).

Worldline data

Data is derived from all transactions made at merchants on the Worldline network, used by approximately 70 percent of New Zealand retailers. The dataset includes all eftpos and credit card transactions made at these retailers. There is no link to the person making the transaction, but transactions are linked to merchants. The Worldline dataset excludes ‘cash-out’ transactions.

From this data a complete valuation of New Zealanders’ spending can be generated, comprising:

- day of the week and time of the day
- where in New Zealand the transaction occurred
- ANZSIC06 (Australian and New Zealand Standard Industrial Classification 2006) storetype
- domestic or internationally issued card.

Marketview modelled data

Marketview's modelled data, used in previous releases of the HTEE, uses depersonalised spending on BNZ debit and credit cards. This dataset is based on the depersonalised eftpos (debit card) and credit card spending of approximately 600,000 cardholders (aged 15 years and above) in the New Zealand retail market. Raw spending data is weighted and aggregated to provide a representative sample of the national population. The dataset included spending at Worldline and non-Worldline retailers. It excludes 'cash out' transactions and bank transfers.

This enables Marketview to observe:

- electronic card spending at virtually all merchants in New Zealand, regardless of whether the merchant uses the Worldline network or not
- where in New Zealand the transaction occurred
- whether the transaction was conducted at a physical store or online.

Changes in the data provision arrangement between BNZ and Marketview has resulted in additional modelling to household tourism spending for the period over the second half of the year ended March 2021.

With input from Stats NZ, Marketview undertook historical analysis across the previous five years, including making allowances for COVID-19 lockdown periods, Easter holidays, and a trend comparison with Worldline merchant activity.

Modelling was undertaken at subnational geographies to build a national household tourism spending estimate for the specific period. This subsequently enabled the determination of a full 12-month dataset for the year ended March 2021, which was ultimately fed through the Stats NZ balancing process.

Sample management

From Marketview's long-term relationship with BNZ, we know the sample used in the modelled data was both geographically and demographically distributed in line with the New Zealand population, although small variations exist down to an area unit/customer age level. A further weighting was calculated by determining the distribution of cardholders and comparing this to the distribution of the overall population.

Marketview uses Stats NZ's area unit population estimates as the basis for the national population. This enables the distribution to change over time, as each year of the data was compared with a different population estimate. For example, Marketview data from 2020 is weighted according to the 2019 population estimates. This ensures significant population changes – such as after the Canterbury earthquakes, or new subdivisions opening – are accounted for in the dataset.

The weighting factor is applied to the dataset by age (in five-year bands starting at 15–19), by census area unit, and by month. This weighting ensures the distribution of cardholders matches the distribution of the national population, by age, location, and over time. Weighting by age and location ensures management of any bias in the sample, as income and wealth typically increase with age, and wealth can correlate with where a person lives.

Combining data sources

By combining Worldline and Marketview's modelled data, Marketview produces a dataset that accurately quantifies:

- the value of spending of each transaction

- the source and origin of those payments, for example, business vs personal, domestic vs international tourist
- where in New Zealand the cardholder lives (the area unit the card resides in)
- where each transaction took place, for example, physical store vs online, Auckland vs Invercargill
- the industry category of the merchants, as defined by ANZSIC06 codes
- the time and day of the purchase.

It is important to note that in combining these two sources, all individual cardholder and merchant information is aggregated to a point where no individual cardholder or merchant's activity can be derived.

Defining household tourism expenditure

Household tourism expenditure is defined as expenditure that occurs outside a 40km radius of the meshblock in which the cardholder's address is located, and aligns with industries defined as tourism industries. The 40km reflects the New Zealand definition of travel outside one's usual environment. Tourism industries encompass both characteristic and related industry data along with selected non-tourism industries.

Marketview applies this 40km radius to the combined Worldline and its modelled dataset to determine the HTEE. Exceptions are made where regular behavioural spending patterns show a person's usual environment extends to an area outside the 40km radius, such as commuters. This is removed from the HTEE.

Additional data on internet transactions is collected specifically for selected tourism industries that require travel to consume a purchased good. For example, internet expenditure on accommodation and air passenger transport is collected.

Scaling household tourism expenditure data to total economy

As electronic card data reflects only one aspect of household tourism expenditure across the New Zealand economy, Marketview upscales their dataset by adding in a factor for cash and other payment methods. This is calculated as the difference between electronic card spending and total economy spending based on ANZSIC06 industry information supplied from our Annual Enterprise Survey (AES).

For example, Marketview may record the total value of electronic card spending in ANZSIC06 industry G4110 at \$100 for the year, with 10 percent being tourism (\$10). The total industry value of G4110 as calculated from the AES was \$120. The Marketview card value is thus upscaled by a multiple of 1.2, yielding a total market value of \$120, consistent with the AES. The tourism component is still 10 percent, hence tourism spending for that year is calculated at \$12.

The assumption used is that consumer and business spending on cash versus card on tourism and non-tourism related trips are equal.

The HTEE dataset

The HTEE dataset provided by Marketview covers the years 2009–2021. At the time of compilation, AES data was available to the 2020 financial year. To produce the HTEE through to 2021, Marketview estimated the value of each industry in the 2021 provisional year by applying movements for each industry from additional Stats NZ data sources, including GST data, to the 2020 AES data.

For example, Marketview took annual movements in spending for ANZSIC06 industry G4110 from the Retail Trade Survey. They applied this to the 2020 AES data to determine a 2021 provisional estimate. They estimated other industries from data indicators sourced from Stats NZ.

Marketview will update the provisional year estimate as AES data becomes available and indicator data is revised as part of the annual publication cycle of the TSA.

Turning industry-based HTEE into tourism products

The HTEE industry dataset is then broken down into tourism-defined products using annual supply-use commodity proportions and retail industries sales data. For validation purposes it is then confronted against household consumption expenditure commodity data net of overseas visitor expenditure and New Zealanders' travel expenditure abroad. This isolates New Zealanders' spending within New Zealand, allowing for a comparison on an equivalent expenditure basis with the HTEE.

Additional household tourism expenditure

While the HTEE dataset provided by Marketview captures most household tourism expenditure, the TSA supplements the HTEE product breakdowns with its own product expenditure estimates. These include some off-trip purchases of tourism-specific consumer durable goods and imputed rental on holiday homes.

Both the HTEE and additional Stats NZ tourism product data then provide the initial expenditure levels to feed into the balancing process. These levels can be subsequently modified where necessary (the balancing process is covered in more detail later in this appendix – see [Balancing tourism expenditure and tourism production](#)).

2. Outbound travel purchased from New Zealand-resident firms

All years

Household tourism expenditure in the TSA includes expenditure on overseas travel, where New Zealanders purchase New Zealand-produced goods and services. This expenditure includes fares paid to resident air carriers for flying a household tourist overseas, commissions paid to resident travel agents for booking household outbound travel, pre-paid travel insurance, and vaccinations needed by household outbound tourists. We estimate this expenditure from sources including the HTEE and company data.

3. Off-trip purchases of tourism-specific consumer durable goods

All years

Off-trip expenditure by households on tourism-specific consumer durables (such as tents and sleeping bags) is included in household tourism expenditure. These off-trip purchases are based on data sourced from the HES together with supply-side product data and are added to the on-trip purchases of these goods. Off-trip tourism expenditure is defined in [Tourism expenditure](#) in appendix 1: Conceptual framework. Read more about consumer durables in the TSA in the [Special treatments](#) section later in this appendix.

4. Imputed rental on holiday homes

All years

The TSA includes an imputed rental on dwellings owned by households that are used as holiday homes. We calculate the total number of holiday homes using data from the Census of Population and Dwellings and an annual volume change indicator. We calculate annually an average weekly imputed rental price derived from national accounts imputed rental data. We multiply this price by

the number of weeks in the year to give an annual imputed rental price. We then multiply the number of holiday homes by the annual imputed rental price to give the total imputed rental value.

Business and government travel expenditure

Final accounts

Business and government travel expenditure is drawn from intermediate consumption of industry data in the balanced supply and use accounts. We calculate it by applying product ratios reflecting travel expenses to total intermediate consumption for each of business and government from the latest final account. This provides the initial product breakdown, which we subsequently modify during the balancing process (covered in more detail later in this appendix – see [Balancing tourism expenditure and tourism production](#)).

Provisional accounts

In the absence of balanced supply and use accounts, we first derive intermediate consumption by applying a variety of data sources, including the Annual Enterprise Survey, GST purchases, and annual report data to the latest final account year. Each year is then subsequently derived from the previous year's totals by applying key data source movements. We then apply the product ratio reflecting travel expenses to the derived total intermediate consumption for each of business and government. This provides the initial product breakdown, which we subsequently modify during the balancing process.

Production of tourism goods and services

Final accounts

Analysing the production of tourism-characteristic and tourism-related products starts with the production accounts by industry that underlie the supply and use table. Within the balanced supply and use accounts, we break down each industry's output and intermediate consumption into products. Final demand categories such as household consumption expenditure and exports are also broken down by product. For the TSA, we rearrange output product data from balanced supply and use tables to focus on tourism-characteristic and tourism-related products. We arrange total sales by each industry into tourism-characteristic, tourism-related, and non-tourism-related products.

Provisional accounts

Constraints on the availability of data for provisional accounts (no balanced supply and use results available) mean that supply by product is shown only for tourism-characteristic industries and for all other industries. Without balanced supply and use accounts, we derive total output by industry using indicators from the business financial data collection (BFD). This is a comprehensive source of economic survey data, administrative data from Inland Revenue, and financial data collected directly from businesses. We break down this output into the supply of tourism products by using the latest final account breakdown of output by product and industry. This provides the initial product breakdown, which we subsequently modify during the balancing process (covered in more detail below, [Balancing tourism expenditure and tourism production](#)).

Balancing tourism expenditure and tourism production

Final accounts

Supply and use balancing is an established and integral process when compiling the national accounts. It is used “for checking the consistency of statistics on flows of goods and services obtained from quite different kinds of statistical sources” (Inter-Secretariat Working Group on National Accounts, 2008). The supply and use balancing process rigorously examines diverse data sources, reconciling them in a framework that reduces the error margins implicit in the individual data sources.

The supply and use approach provides the best framework to bring the demand and supply sides of the economy into balance. The usual process is to confront supply and demand by product, and perform adjustments so that the value of the supply of each product is equal to the value used. We make adjustments to either supply or demand, depending on the relative strength of each data source. In doing so, the potential for errors that may result from using a single data source, either supply- or demand-based, is reduced. We also performed similar checking of supply and use by product, which underlies Stats NZ’s annual supply and use models.

The TSA begins with the balanced supply and use tables, so we balance all products in terms of their total supply and total use. We break down these ‘product accounts’ further into their tourism and non-tourism components. The resulting tourism supply and tourism use may no longer be balanced because of the methodology used to make this split. We then use the same type of data confrontation as used in supply and use balancing to ensure that tourism supply is equal to tourism use.

A typical example of how this process is undertaken follows:

1. Compare the total supply of tourism-characteristic and tourism-related products with the total direct tourism demand and non-tourism demand for these products. This comparison identifies areas where the tourism product ratio is unexpected or obviously incorrect. Note that GST is deducted from tourism expenditure for this comparison – so production for and expenditure on tourism products are both valued in producers’ prices.
2. Re-examine the methodology used, checking for errors, conceptual inconsistencies, and methodological problems.
3. Compare the strength of the respective supply- and demand-side data sources, identifying areas where particular strengths and weaknesses lie. Typically, the strengths are in the supply-side industry and product data, and the total demand by type of tourist data. Demand for individual products is often considered to be of weaker quality.

The focus is to strengthen the breakdown of total tourism expenditure types into products. The first step is to look for any extra data sources to provide indications of what these should be. Where possible, we incorporate changes. In areas where no data is available, we make iterative changes to these products, keeping particular areas of confidence ‘locked’. We continue this process until the ratios for each product come into line with expectations. The outcome of the balancing process is a strengthened analysis and a complete set of tourism product ratios – that is, the proportion of the supply of products that make up tourism demand. The tourism industry ratios, and thus tourism value added, are derived from these.

Provisional accounts

The same checking of supply and use by product that underlies the annual supply and use analysis is performed in the provisional accounts. However, due to data constraints, the process is at a more

aggregated product level. Furthermore, the relative strengths of supply and use data sources are quite different between provisional and final accounts.

Calculating direct tourism value added

Derivation of the tourism product ratio

Tourism consumption for each product is divided by total supply to give the tourism product ratio. This ratio measures the proportion of a product's output that is used by tourists.

Derivation of tourism supply and the tourism industry ratio

Calculation of tourism supply and the tourism industry ratio for each industry is an important intermediate step in deriving direct tourism value added and employment.

To derive tourism supply by product by industry, we apply the tourism product ratio (from [table 12](#)) to the supply of that product by each industry. We then calculate total tourism supply by each industry by summing tourism supply for all products.

For example, we applied the tourism product ratio for accommodation services to the output of all industries supplying this product. This gave tourism supply of accommodation services by each industry. We then divided tourism supply by each industry by total industry output, to give the tourism industry ratio. Note that although the accommodation industry is the dominant supplier of accommodation services it is not the sole supplier, as other industries can also supply this product.

While calculating the tourism industry ratio and tourism supply by industry is an important step in deriving direct tourism value added, neither is shown in provisional years as these values are themselves derived from the gross output of each industry. [Table 13](#) shows total supply and tourism supply by product for tourism-characteristic and all other industries.

Derivation of direct tourism value added

The tourism industry ratio is applied to the production account for each industry to obtain direct tourism value added.

Production accounts by industry are not available for provisional years. Therefore, before we can calculate tourism value added, we derive provisional production accounts for each industry. We use data from a variety of sources, including GST sales and purchases, annual reports, and the Annual Enterprise Survey, to break down the latest published total value added to give value added by industry.

Final TSA account tables present full production accounts, as well as tourism production accounts by industry. Direct tourism value added in provisional TSA accounts is split by tourism-characteristic and all other industries. This reflects the less detailed nature of total value added by industry in years in which tourism value added is derived as a subset.

We make a major assumption relating to the use of the tourism product ratio and the tourism industry ratios in compiling the TSA. The industry technology assumption is that the input requirements of tourism and non-tourism products are identical for an industry. That is, if 50 percent of the output of an industry is goods and services sold to tourists, then 50 percent of its inputs are used to produce those goods and services. This is likely to be a more valid assumption for an industry that makes a range of products that are very similar, requiring similar inputs. However,

in some instances the assumption is likely to be less valid; for example, where an industry has a low degree of tourism specialisation, and a diverse range of products are produced.

An alternate assumption is to relate specific inputs to outputs – that is, a product technology assumption. However, this approach is not easily implemented due to the lack of sufficiently detailed product data. Industry data, on the other hand, is far more readily available. Both the industry and product technology assumptions are sanctioned by the UNWTO.

Direct tourism employment

Direct tourism employment (see [table 17](#)) is derived by applying tourism industry ratios to the number of people employed in each industry. This approach produces a value for the number of people in each industry as a result of tourism.

In *Tourism satellite account: Year ended March 2021*, employment numbers come from linked employer-employee data (LEED) annual statistics by each industry. Employment and tourism employment are presented by the number of people employed, for both employees and working proprietors, with a series available from 2000.

LEED data is based on administrative tax data, where the number of hours worked is not available, so we cannot provide a full-time and part-time split. Further discussion about LEED is covered in the tourism [employment source data](#) section later in this appendix.

Tourism industry profitability

Tourism gross operating surplus and gross mixed income as a percentage of total tourism output is one measure of tourism profitability. It reflects national accounting rather than commercial concepts. Gross operating surplus and gross mixed income is before interest and depreciation.

Indirect effects of tourism

Indirect imports and tourism value added

As described in Appendix 1 (see [Relating direct tourism value added and tourism expenditure](#)), the basis of a TSA's measure of indirect tourism value added (or tourism's indirect contribution to GDP) is:

	Total tourism expenditure
<i>less</i>	GST
<i>equals</i>	tourism demand
<i>less</i>	imports sold directly to tourists by retailers
<i>equals</i>	tourism output
<i>less</i>	tourism intermediate consumption (inclusive of goods for resale)
<i>equals</i>	direct tourism value added

Tourism intermediate consumption (inclusive of goods for resale)

<i>less</i>	imports used in production of goods and services sold to tourists
<i>equals</i>	indirect tourism value added.

We discuss below the derivation of imports used in producing goods and services sold to tourists and indirect tourism value added.

Imports used in production of goods and services sold to tourists

Indirect tourism imports represent imported products not sold directly to tourists, but used in producing tourism supply.

We calculate the value of imports used in producing products sold to tourists using the table of cumulated import coefficients of industries, and categories of final demand, from 2020 input-output tables. This is the most recent cumulated import coefficients table available and the application of these latest tables has been incorporated in *Tourism satellite account: Year ended March 2021*. It may be updated when the relevant tables from more recent years become available. The cumulated imports coefficients table shows how many units of imports are required for an industry to produce a unit of output.

Tourism supply by industry is derived as part of the direct tourism value added calculation. Multiplying this supply by the relevant import coefficients by industry produces the value of imports used in producing goods and services sold to tourists.

Indirect tourism value added

Indirect tourism value added may be calculated directly by using the supply and use framework or derived indirectly as a residual item. The indirect method calculates total tourism expenditure (excluding GST), then subtracts direct tourism value added, imports sold directly to tourists by retailers, and imports used in the production of goods and services that are sold to tourists.

Final accounts

Indirect tourism value added is calculated directly using the table of industry-by-industry total requirements of 2020 input-output tables – the most recent total requirements table available. The application of these latest tables has been incorporated in *Tourism satellite account: Year ended March 2021*.

Provisional accounts

Indirect tourism value added is derived using the subtraction method, after first deriving imports used in production of goods and services sold to tourists. The advantage of this method is that it is simpler, does not require multiple iterations, and industry total value added is a less critical input.

Indirect tourism employment

[Table 6](#) presents the number of people employed indirectly in tourism.

Final accounts

Indirect tourism employment takes, as its starting point, indirect tourism value added by industry. We calculate the ratio of indirect tourism value added to value added, and multiply it by

employment by industry, to give indirect tourism employment. We sum these industry estimates to calculate the number of people employed indirectly in tourism.

Provisional accounts

For provisional years, neither direct tourism value added nor indirect tourism value added is available by industry in the New Zealand System of National Accounts (NZSNA). Therefore, we calculate the ratio of indirect tourism value added to value added, by industry, from the latest final year. We multiply this by employment by industry, to give the number of people employed indirectly in tourism.

Supply and use framework

Final accounts

The TSA is a rearrangement of the NZSNA. More specifically, we derive the tables for final accounts from the annual supply and use analyses of the New Zealand economy. Supply and use analyses are both a statistical and economic representation of the economy, broken down by industry, product, primary input category (for example, compensation of employees, consumption of fixed capital), and final demand category (such as household consumption expenditure and exports). By adopting the supply and use framework, a tourism industry can be presented in the same way as those for the agriculture and manufacturing industries are presented. It is then possible for tourism to be compared with other industries and with total national accounts aggregates, such as GDP.

Additionally, by compiling the TSA within a supply and use framework, we can produce derived tables that allow further analyses. For example, an impact analysis can be completed, which allows the user to trace the direct and indirect impact of tourism expenditure on the economy. This shows the flow-on effects of tourism, as expenditure on tourism products first affects industries that directly supply tourists, and then industries that provide indirect inputs to the industries supplying tourists.

The supply and use structure also allows economic data on tourism to be easily linked to non-financial data such as employment. Balanced supply and use accounts provide detail, at the product level, of both the structure of industry output (supply), and the demand for these products by business and final demand categories (for example, household spending). They are the starting point from which a TSA is derived.

Provisional accounts

Balanced supply and use accounts are not yet available for provisional years. Only total economy-wide value added has been published for these years. Therefore, we calculate aggregated supply of products sold to tourists by industry. This involves:

- deriving the output of each industry (as outlined above in [Production of tourism goods and services](#))
- breaking down total output into supply of each tourism product, using the industry output breakdown from the latest available supply and use analysis. This provides the initial product breakdown, which we subsequently modify during the balancing process
- calculating value added by industry within the constraint of published total value added.

The absence of balanced supply and use accounts results in less robust estimates of tourism value added for these later years.

Employment source data

Linked Employer-Employee Data (LEED)

LEED uses existing administrative data from the Inland Revenue taxation system and business data from Stats NZ's Business Register (BR). LEED provides statistics on a variety of job measurements including the number of people employed, number of filled jobs, job flows, worker flows, mean and median earnings for continuing jobs and new hires, and total earnings. This information gives an insight into the operation of New Zealand's labour market on both a quarterly and annual basis from national, regional, and territorial authority perspectives.

The LEED annual statistics cover all individuals ('employees') who either receive income from which tax is deducted at source, or from self-employment. In LEED, the employer is the geographical unit or physical location of the business rather than the administrative reporting unit. For example, a nationwide retail chain may have one Inland Revenue reporting unit covering all its retail branches. In LEED, each branch is considered to be a distinct employer.

For inclusion in LEED annual statistics, a person must:

- be aged 15 years and over at the start of the tax year
- have received non-zero income with tax deducted at source through the Employer Monthly Schedule (EMS) system, or self-employment income in the reference period.

All income measures are before tax.

The tourism satellite account uses the LEED annual table 1.5: Main earnings source, by industry (ANZSIC06) measure, which allocates a person to the industry where they have generated the most earnings from in the tax year.

[Linked employer-employee data](#) has more information about LEED employment.

Employment and tourism employment estimates for 2021

Employment and tourism employment are presented by the number of people employed, for both employees and working proprietors, with a series available from 2000. As LEED annual statistics are only available up until 2020 at the time of publication, *Tourism satellite account: Year ended March 2021* provides aggregate level estimates for the year 2021. We will update these estimates as LEED becomes available as part of the annual publication cycle of the tourism satellite account.

These are derived for both employees and working proprietors using differing employment data sources.

- Employee estimates for 2021 are derived using a more timely summary source of EMS data. This data is currently used as an experimental series and business size indicator for the BR. For the purposes of the TSA, the annual March month movements are then applied to 2020 LEED employee industry data.
- Working proprietor estimates for 2021 are derived by applying the year ended March (quarterly mean) annual Household Labour Force Survey (HLFS) industry movements to 2020 LEED working proprietor industry data.
- From here, provisional year ended March 2021 tourism industry ratios – the proportion of tourism spend to output by industry – are then applied to the above counts prior to aggregation to totals.

Tourism employment LEED examples

The following tourism industry examples illustrate how to use the LEED-based 'number of people employed in tourism' measure. Examples of how employment would be measured from a LEED filled-jobs measure perspective are provided for comparison.

1. Brianne holds three part-time jobs in Queenstown – at a tourist attraction, in a restaurant, and at an accommodation provider. During the year Brianne's highest earnings were generated from the restaurant, therefore she would be assigned to the food and beverage services industry.

Under the LEED-based measures this equates to:

- number of people employed = 1
 - number of filled jobs = 3.
2. Garth holds a full-time job in summer in Ohakune working at an outdoor equipment retail store. In winter, he works full time at the cafés on the ski field. Over the year Garth generated more earnings from the retail store than his café work, therefore he would be assigned to the retail trade industry.

Under the LEED-based measures this equates to:

- number of people employed = 1
 - number of filled jobs = 2.
3. Michael is an owner-operator running two seasonal businesses in Nelson – one sightseeing, and the other fishing tours. As a working proprietor, Michael has a unique ID number and the businesses he runs have their own separate ID numbers. The same rule for jobs data can be applied to working proprietors, where the link between the person and geographic business location is the key relationship.

For Michael's two seasonal businesses, the data is recorded as:

Name of business	Owner ID number	Business ID number
Michael's first seasonal business	12345	98765
Michael's second seasonal business	12345	87654

Most of Michael's self-employed income was generated from his first seasonal business, therefore he would be allocated to that business's industry.

Under the LEED-based measures this equates to:

- number of people employed = 1
 - number of filled jobs = 2.
4. Karen and Bruce live together in Wellington on the understanding that Karen is the breadwinner and Bruce is the homemaker. Karen operates her own small business selling music souvenirs to tourists during the week, while on the weekends she works for the local holiday park. Bruce helps at the holiday park in the month of February – his only employment for the year. Karen's highest earnings were generated from her retail business, therefore she would be allocated to the retail trade industry. Bruce's employment would be allocated to the accommodation industry.

Under the LEED-based measures this equates to:

- number of people employed = 2 (1 Karen and 1 Bruce)
- number of filled jobs = 3 (2 Karen and 1 Bruce).

Special treatments

This section details areas in TSA methodology that receive special treatment.

Treatment of the margin

In the national accounts, purchases of retail goods can effectively be split into three components:

- the margin (or 'mark-up') of the retailer selling the product
- the margin charged by the wholesaler
- the price received by the manufacturer.

The treatment adopted in the TSA is illustrated in the following example.

A tourist purchases a jersey for \$100, comprising a \$10 mark-up from the retailer (who has direct contact with the tourist), a \$15 margin from the wholesaler, and \$75 charged by the manufacturer. The breakdown is as follows.

- The full purchase price of the jersey (\$100) is recorded as total tourism expenditure.
- The margin (or mark-up) by the retailer selling the jersey to the tourist is the retail output (\$10) from which direct tourism value added is then derived.
- The remaining \$90 is the price received by the manufacturer (\$75) and the margin charged by the wholesaler (\$15). Neither of these has direct contact with the tourist and is the output from which indirect value added is derived.

Consumer durables

Two types of expenditure on consumer durables are included in tourism expenditure in a TSA, consistent with UNWTO recommendations:

- Conceptually, all consumer durables acquired on a trip are included in tourism demand. This includes the purchase of high-value consumer durables during a trip, such as motor vehicles, even though the primary purpose may not be for tourism use. The estimate of purchases of motor vehicles by households while on trips is related to the proportion of New Zealanders living in rural areas. This is based on the assumption that rural residents will travel outside their [usual environment](#) (defined in Appendix 1) to purchase a motor vehicle. It is recognised that the usual environment for a rural New Zealander may well include urban areas that fall outside the strict TSA definition of 'usual environment'. While the measurement attempts to take this into consideration, there is little hard data with which to refine it. As a result, these estimates may be revisited in the future.
- Off-trip purchases of a specific range of consumer durables with very high tourism use are included. For example, luggage and tents are acquired primarily for tourism purposes, so are always considered tourism expenditure. TSAs have a defined set of consumer durables with very high tourism use, based on a list developed by the OECD that is supplemented with consumer durables having high tourism use in New Zealand. (See [Appendix 3: Tourism product classification](#) for items included as tourism consumer durables.)

Holiday homes

An imputed rental on owner-occupied dwellings is calculated in the national accounts. This is to avoid distortions over time resulting from changes in the number of people renting rather than owning homes (otherwise, an increase in the number of people renting homes would increase GDP). This imputed rental is applied to both first and second homes (which includes holiday homes).

Although a holiday home may not be in full-time use, we assume it is available to be used all year, and therefore allocate the rental from owning the holiday home to tourism expenditure.

For a TSA, we assume demand for holiday homes to come solely from domestic recreational tourists, due to a lack of data on the origin of holiday homes. We set total supply of holiday homes equal to the total imputed holiday home rental (and therefore total demand) of domestic household tourists, as holiday home supply is provided solely for the purposes of tourism.

Package tours

TSA's apply the net approach to recording package tour expenditure, where the organiser's margin for arranging the tour is recorded as the sole output, while the components of the tour are treated as being purchased directly by the tourist.

For example, a travel agent sells a package tour to a tourist. The travel agent (organiser) records a margin from the sale of the package tour. The expenditure on each of the components of the tour is captured under the respective industry's output.

Travel agency services

Travel agents obtain their income in two major ways. Firstly, they earn income by buying travel products (generally at a bulk discount) and selling them to travellers, thereby earning a margin. Secondly, an agent may book a traveller's fare or accommodation with the service provider, and receive commission from the service provider (on behalf of the traveller). TSA's use special treatments for each of the following means of generating income.

- Where travel agents have sold travel to travellers, we record travellers as having bought travel (from the travel provider) and travel agency services (the travel agent's margin).
- Where travel agents have received commissions, we assume providers to have purchased travel agency services on behalf of the tourist. This means that these travel agency services are included in direct tourism demand and therefore contribute to direct tourism value added. Consequently, business travel expenditure includes a high level of demand for travel agency services.

Non-market output services consumed by tourists

The New Zealand TSA does not include an imputation for providing individual non-market tourism services in total tourism consumption. These services include information centres, museums, and libraries, and any other services that tourists use without having to pay for them, such as national parks. This is a recommended inclusion in UNWTO TSA methodology.

To implement the UNWTO recommendation requires:

- a very detailed functional breakdown of the expenditure of government and non-profit institutions, that is, separately identifying those entities which provide 'individualised' services
- splitting this expenditure between tourist and non-tourist consumption.

Identifying individualised and collective non-market consumption is a recommendation from *System of national accounts 2008* (Inter-Secretariat Working Group on National Accounts, 2008). However, we have only partly implemented this (local government has not been fully split). In areas that have been split, the breakdowns are not sufficiently detailed for TSA purposes.

Appendix 2 references

Inter-Secretariat Working Group on National Accounts (2008). [System of national accounts 2008](#). Available from <http://unstats.un.org>.

United Nations Statistics Division, Statistical Office of the European Communities, Organisation for Economic Co-operation and Development, World Tourism Organization (2008). [Tourism satellite account: Recommended methodological framework](#). Available from www.oecd.org

Appendix 3: Tourism product classification

Tourism product information is less detailed in a provisional tourism satellite account than it is for a final tourism satellite account. Table 27 shows these distinctions. The inclusions and exclusions are not exhaustive, but are intended to clarify coverage from a tourism perspective.

Table 27

Tourism product classification			
Tourism product for provisional tourism satellite accounts	Tourism product for tourism satellite accounts	Includes	Excludes
Accommodation services	Accommodation services	Hotel and other lodging services	Accommodation for the elderly and students' accommodation (for example, student hostels)
Food and beverage serving services	Food and beverage serving services	Meal serving services (including takeaways), event catering, and other food serving services, beverage serving services for consumption on the premises	
Air passenger transport	Air passenger transport	Scheduled and unscheduled air passenger transport, rental services of passenger aircraft with operator	Air freight transport
Other passenger transport	Road passenger transport	Bus and taxi passenger transport, rental services of passenger cars, buses and coaches with operator, other unscheduled road passenger services	Road freight transport
	Rail passenger transport	Passenger transport by rail	Rail freight transport
	Water passenger transport	Passenger transport by international and coastal sea-going vessels and inland water passenger transport	Water freight transport
	Motor vehicle hire or rental	Hiring of cars, trucks, buses, and campervans without operator	Taxis, hiring of motor vehicles with drivers, machinery hire

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Table 27 continued

Tourism product classification			
Tourism product for provisional tourism satellite accounts	Tourism product for tourism satellite accounts	Includes	Excludes
Imputed rental on holiday homes	Imputed rental on holiday homes	Imputed rental on second homes used only (or partly) by the owner – these may be made available to third parties for holidays, leisure, and business activities	
Cultural, recreation, travel, and tour services	Libraries, archives, museums, and other cultural services	Historical sites and buildings, nature reserves, performing arts	
	Other sport and recreation services	Sports and recreational sports facility operation services, amusement park and similar attraction services, other sports and recreation services	
	Travel agency services	Reservation services, tour operator services, tourist guide services, visitor information services, ticket selling	Freight agency services
Retail sales – alcohol, food, and beverages	Retail sales – alcohol	Alcoholic beverages purchased from liquor stores and other retail outlets	Alcohol sold for consumption on premises
	Retail sales – food, beverages, tobacco, and other groceries	Supermarkets, speciality stores, and other retail outlets	
Retail sales – fuel and other automotive products	Retail sales – fuel and other automotive products	Petrol, diesel, motor oils, rubber tyres and tubes	
Retail sales – other	Retail sales – clothing and footwear		
	Retail sales – tourism consumer durables	Made-up textile articles, luggage, motor vehicles, pleasure and sporting boats, sports goods	
	Retail sales – retail medicines, toiletries		
	Retail sales – other shopping		

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Table 27 continued

Tourism product classification			
Tourism product for provisional tourism satellite accounts	Tourism product for tourism satellite accounts	Includes	Excludes
Education services	Education services	Spending on education services by international students studying in New Zealand for less than 12 months	Spending on education services by international students studying in New Zealand for more than 12 months
Other tourism products	Financial services	Issuing and negotiating foreign cash and non-trade financial instruments	Financial intermediation services indirectly measured
	Gambling services	Casino-based gambling services, lottery, racing, and sports betting services, other gambling services	
	General insurance	Travel insurance, other general insurance	Life insurance, superannuation, and health insurance
	Social and health-related services	Health and medical services, social services	
	Other tourism-related services	Telecommunications, postal and courier services, other tourism products	
	Other personal services	Laundry services, hairdressing, beauty services	
Source: Stats NZ			

Appendix 4: Tourism industry concordance

Within the national accounting system, industries are defined as groups of producers that supply particular goods or services. The tourism industry is different. It is defined not by its goods or services, but by the particular group of consumers – tourists – who purchase its output. Tourism industry information is more aggregated in a provisional tourism satellite account than it is for a final tourism satellite account, see table 28.

Table 28

Tourism industry concordance				
Tourism industry category for provisional tourism satellite accounts	Tourism industry category for tourism satellite accounts	Tourism industry component	ANZSIC06 industry subdivision/group code	ANZSIC06 industry subdivision/group title
Tourism-characteristic industries	Tourism-characteristic industries	Accommodation	H44	Accommodation
		Food and beverage services	H45	Food and beverage services
		Road passenger transport	I46	Road transport
		Rail passenger transport	I47	Rail transport
		Water passenger transport	I48	Water transport
		Air passenger transport	I49	Air and space transport
		Other transport, transport support, and travel and tour services	I50	Other transport
			I52	Transport support services
			N722	Travel agency and tour arrangement services
		Rental and hiring services	L661	Motor vehicle and transport equipment rental and hiring
		Arts and recreation services	R89	Heritage activities
			R90	Creative and performing arts activities
			R91	Sports and recreation activities
			R92	Gambling activities

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Table 28 continued

Tourism industry concordance				
Tourism industry category for provisional tourism satellite accounts	Tourism industry category for tourism satellite accounts	Tourism industry component	ANZSIC06 industry subdivision/group code	ANZSIC06 industry subdivision/group title
Tourism-related industries	Tourism-related industries	Retail trade	G39	Motor vehicle and motor parts retailing
			G40	Fuel retailing
			G41	Food retailing
			G42	Other store-based retailing
			G43	Non-store retailing and retail commission-based buying and/or selling
		Education and training	P80	Preschool and school education
			P81	Tertiary education
			P82	Adult, community, and other education
		All other industries	All non-tourism-related industries	
Note: ANZSIC06 – Australian and New Zealand Standard Industrial Classification 2006				
Source: Stats NZ				