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Tourism satellite account: Year ended March 2023

The contribution made by tourism to the New Zealand economy

New Zealand Government

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Purpose

Tourism satellite account: Year ended March 2023 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 2023 and detailed results for 2022.

Key provisional estimates

Note: The 2023 annual estimates featured capture the impact of COVID-19 in New Zealand through to March 2023 and are expressed in nominal terms.

Key provisional estimates for the year ended March 2023:

- total tourism expenditure was $37.7 billion, an increase of 39.6 percent ($10.7 billion) from the previous year
- international tourism expenditure increased 456.9 percent ($8.9 billion) to $10.8 billion:
    - international student expenditure (studying less than 12 months) was $2.1 billion, an increase of 1068.2 percent ($2.0 billion)
    - international tourism's overall contribution to New Zealand's total exports of goods and services was 11.4 percent, an increase of 9.0 percentage points
    - GST generated from international tourists totalled $1.0 billion, an increase of $858 million
- overseas visitor arrivals to New Zealand increased 858.7 percent to 2,199,073
- domestic tourism expenditure increased 7.2 percent ($1.8 billion) to $26.9 billion:
    - household tourism expenditure increased 2.8 percent ($576 million)
    - business and government expenditure increased 26.5 percent ($1.2 billion)
- tourism generated a direct contribution to GDP of $13.3 billion, or 3.7 percent of GDP, an increase of 30.9 percent ($3.1 billion)
- the indirect value added of industries supporting tourism generated an additional $8.8 billion, or 2.5 percent of GDP
- the number of people attributed to being directly employed in tourism was 189,432 – an increase of 48.0 percent (61,452 people)
    - the number of tourism employees was 164,619 – an increase of 49.7 percent (54,663)
    - the number of tourism working proprietors was 24,813 – an increase of 37.6 percent (6,786)
    - as a share of the total number of people employed in New Zealand, direct tourism employment was 6.7 percent.

2023 data interpretation

- The data sources used in deriving the numbers for the March 2022 and 2023 years at an industry, commodity, and resultant aggregate level will be subject to future updates. These updates reflect COVID-19 related methodological challenges and further assessment and interpretation of the expenditure compositional change as part of the 2023 cycle of annual analysis and updated input datasets. Data presented in this TSA for these years should serve to provide initial guidance but may be subject to larger than usual updates.

- Accommodation expenditure in the March 2023 year continued to be impacted by both Managed Isolation and Quarantine (MIQ), and the use of traditional accommodation providers for emergency housing, including in response to the Auckland Anniversary floods and Cyclone Gabrielle. 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.
- 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, and the tourism recovery to date has seen these historically relatively consistent industry ratios change significantly. Furthermore, employment counts in industries have also been affected, noting that during COVID-19 this included 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 – indicative example 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	0.86	12,300	10,600
B	0.86	12,600	10,800
C	0.67	10,800	7,200

- 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.

Data updates

Tourism satellite account: Year ended March 2023 includes updates made to both the domestic and international tourism expenditure series. These updates cause changes to the value of tourism expenditure in the New Zealand economy and affect the official tourism satellite account (TSA) time series.

Updates 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.

- Methodological improvements and changes:
    - integrating updated Annual Enterprise Survey (AES) data (2020 and 2021) and AES 2022 data with household tourism expenditure estimates (HTEE)
    - continued modelling of the HTEE to the year ended March 2023 due to changes in data supply arrangements (covered in detail in Appendix 2: Methodology)
    - updated HTEE supplementary data sources
    - national accounts data, including updated nominal GDP statistics (see 2023 national accounts improvements preview).
- Updates 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 updates. 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 updated the historical value added-time series. Together with the ratio changes, we also updated the tourism employment time series.

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, and visitor arrival and accommodation statistics.

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 2023*. 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 updated 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 2023 presents results for the March 2023 year at the aggregated provisional estimate level in nominal terms (current prices).

Detailed tables, year ended March 2022 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 prominent 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 2023
- Key events that influenced tourism for year ended March 2023
- Key events that influenced tourism for year ended March 2022
- Key events that influenced tourism for year ended March 2021
- Key events that influenced tourism for year ended March 2020

See also chapter Detailed product and industry tables, year ended March 2022.

Results by topic for the year ended March 2023

Tourism expenditure

Total tourism expenditure increased 39.6 percent to $37.7 billion, following an increase of 1.8 percent in the March 2022 year.

Tourism expenditure generated $13.3 billion of direct value added, representing a 3.7 percent contribution to GDP. A further $8.8 billion of indirect value added activity was recorded (see table 1).

Table 1

Tourism expenditure by component,[1] year ended March 1999–2023

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
	$(million)					Percent		
1999	5,112	4,191	4,960	1,162	15,426	5.1	4.2	9.4
2000	5,660	4,618	5,910	1,281	17,469	5.4	4.4	9.8
2001	5,914	5,344	6,095	1,423	18,777	5.3	4.8	10.1
2002	6,454	5,556	6,599	1,535	20,144	5.4	4.6	10.0
2003	7,423	5,585	7,011	1,652	21,671	5.9	4.4	10.4
2004	7,926	5,632	6,707	1,703	21,968	5.9	4.2	10.1
2005	8,417	5,786	6,616	1,808	22,627	5.9	4.0	9.9
2006	8,782	6,042	6,577	1,902	23,304	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	12,524	8,711	7,476	2,898	31,608	5.6	3.9	9.5
2016	14,411	10,041	7,412	3,294	35,157	6.2	4.3	10.5
2017	14,393	9,961	8,469	3,384	36,208	5.8	4.0	9.8
2018	15,427	10,653	9,315	3,689	39,084	5.8	4.0	9.8
2019	15,836	10,933	10,307	3,791	40,866	5.6	3.9	9.5
2020	16,118	11,042	10,504	3,858	41,521	5.4	3.7	9.2
2021	10,130	6,726	7,020	2,637	26,513	3.4	2.2	5.6
2022	10,135	6,697	7,568	2,601	27,001	3.1	2.0	5.1
2023P	13,266	8,822	12,081	3,524	37,693	3.7	2.5	6.2

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 2023 have been updated.

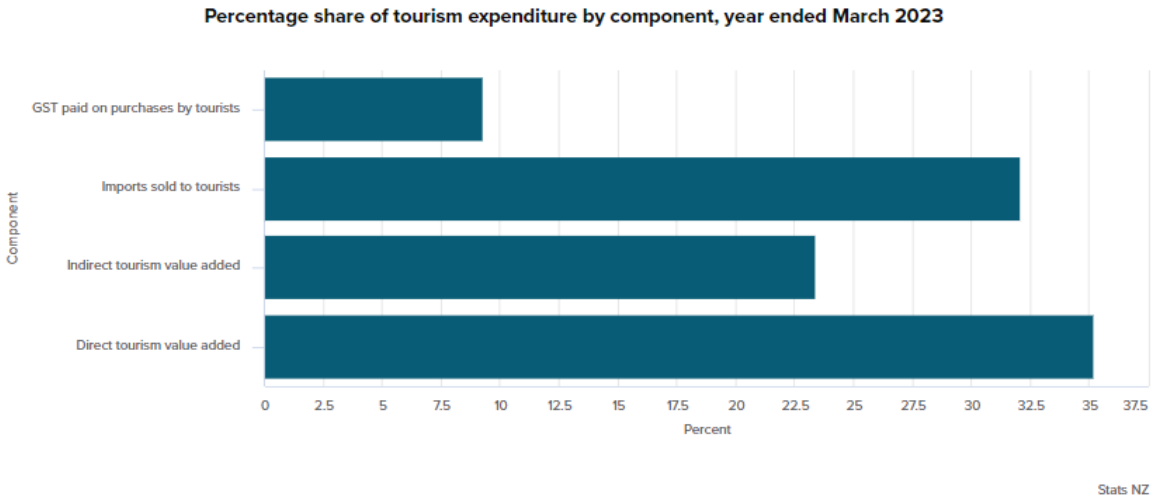
Symbol:

P provisional

Source: Stats NZ

Direct and indirect tourism value added, when combined, accounted for 58.6 cents for every dollar spent by tourists, while GST accounted for 9.3 cents for every dollar spent by tourists. The remainder represents imports (see figure 1).

Figure 1



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 increased 456.9 percent, following a 30.8 percent increase in the March 2022 year.

Domestic tourism expenditure increased 7.2 percent, following a 0.1 percent increase in the previous year (see table 2 and figure 2).

Table 2

Tourism expenditure by type of tourist,[1][2] year ended March 1999–2023

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	6,028	...	9,398	...	15,426	...	31,639	19.1
2000	7,156	18.7	10,313	9.7	17,469	13.2	35,045	20.4
2001	8,218	14.8	10,559	2.4	18,777	7.5	42,837	19.2
2002	9,054	10.2	11,090	5.0	20,144	7.3	45,604	19.9
2003	9,593	6.0	12,078	8.9	21,671	7.6	44,403	21.6
2004	9,691	1.0	12,277	1.6	21,968	1.4	43,119	22.5
2005	10,071	3.9	12,557	2.3	22,627	3.0	45,662	22.1
2006	10,147	0.8	13,156	4.8	23,304	3.0	46,087	22.0
2007	10,676	5.2	13,806	4.9	24,483	5.1	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	17,813	5.1	28,256	5.0	67,076	15.6
2015	12,426	19.0	19,183	7.7	31,608	11.9	67,906	18.3
2016	14,864	19.6	20,294	5.8	35,157	11.2	71,390	20.8
2017	14,796	-0.5	21,411	5.5	36,208	3.0	72,289	20.5
2018	16,320	10.3	22,764	6.3	39,084	7.9	80,203	20.3
2019	17,164	5.2	23,702	4.1	40,866	4.6	85,373	20.1
2020	17,687	3.0	23,834	0.6	41,521	1.6	88,362	20.0
2021	1,486	-91.6	25,027	5.0	26,513	-36.1	71,268	2.1
2022	1,943	30.8	25,058	0.1	27,001	1.8	80,102	2.4
2023P	10,819	456.9	26,874	7.2	37,693	39.6	94,930	11.4

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

2. Percentage calculations are from unrounded numbers.

Note: Figures prior to 2023 have been updated.

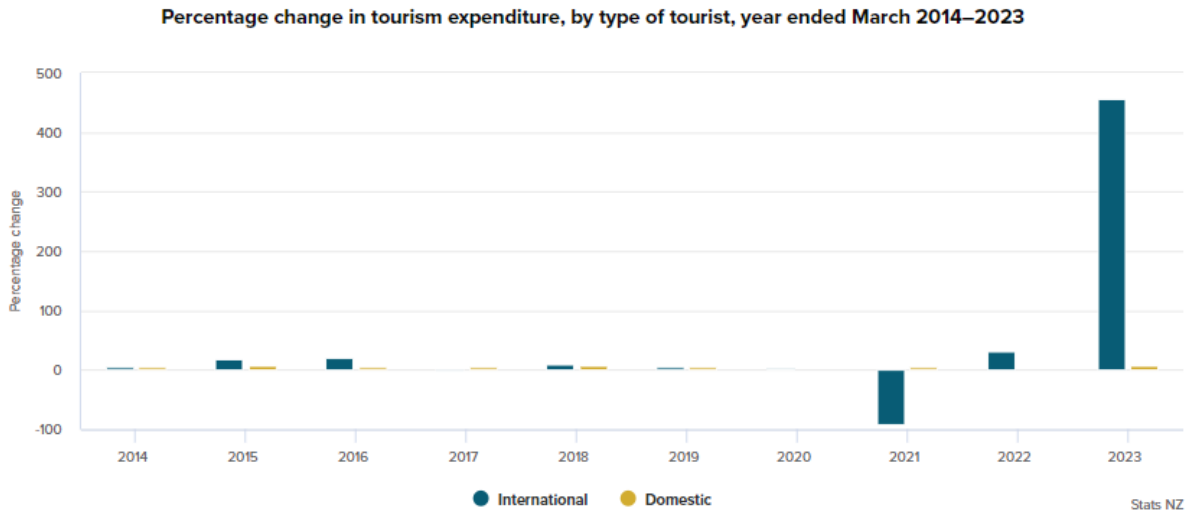
Symbols:

P provisional

... not applicable

Source: Stats NZ

Figure 2



Exports

International tourism resumed being a significant export earner for New Zealand, compared with other traditional export products.

In the year ended March 2023, international tourism's contribution to total exports was $10.8 billion (11.4 percent of exports) (see table 3 and figure 3).

Excluding international tourism, the total exports for goods and services increased 7.6 percent ($6.0 billion) in the year to March 2023.

Table 3

International tourism expenditure compared with selected primary exports,[1] year ended March 1999–2023

Year ended March	Selected export					
	International tourism	Dairy products, including casein	Meat and meat products	Wood and wood products	Fruit	Seafood
	$(million)					
1999	6,028	4,703	2,843	2,348	909	1,173
2000	7,156	4,460	3,198	2,950	1,059	1,199
2001	8,218	6,167	3,854	3,635	1,074	1,334
2002	9,054	7,491	4,414	3,536	1,051	1,388
2003	9,593	5,919	4,242	3,653	1,054	1,309
2004	9,691	5,707	4,232	3,076	1,047	1,062
2005	10,071	5,678	4,688	3,203	1,356	1,136
2006	10,147	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	17,687	17,081	8,272	5,889	3,513	1,812
2021	1,486	16,316	7,834	5,813	3,910	1,565
2022	1,943	19,398	9,142	6,653	3,827	1,734
2023P	10,819	22,360	9,352	6,647	3,778	1,839

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

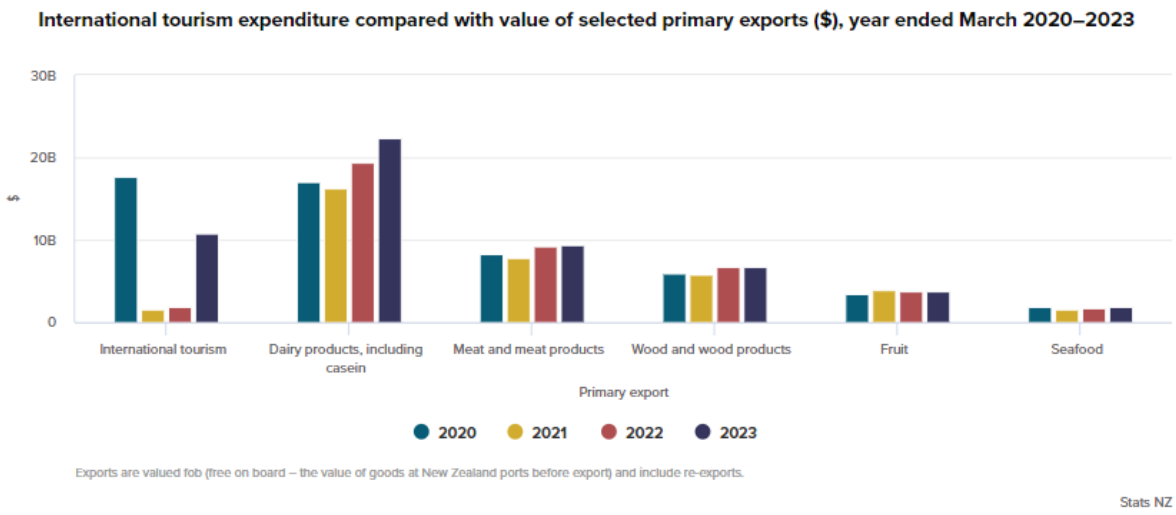
Note: Figures prior to 2023 have been updated.

Symbol:

P provisional

Source: Stats NZ

Figure 3



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 2023, expenditure totalled $2.1 billion, an increase of 1068.2 percent ($2.0 billion – see table 4 and figure 4). The number of short-term arrivals for education purposes (studying for less than 12 months) was 26,628, up 1054.2 percent, or 24,321 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 1999–2023[1]

Year ended March	International student expenditure – studying less than 12 months		International tourism expenditure	
	$(million)	Annual percentage change	$(million)	Annual percentage change
1999	291	...	6,028	...
2000	323	11.1	7,156	18.7
2001	446	38.2	8,218	14.8
2002	791	77.3	9,054	10.2
2003	1,150	45.3	9,593	6.0
2004	1,583	37.6	9,691	1.0
2005	1,792	13.2	10,071	3.9
2006	1,836	2.4	10,147	0.8
2007	1,816	-1.1	10,676	5.2
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	17.0	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	4,199	7.7	17,687	3.0
2021	78	-98.1	1,486	-91.6
2022	184	136.1	1,943	30.8
2023P	2,149	1,068.2	10,819	456.9

Note: Figures prior to 2023 have been updated.

1. Percentage calculations are from unrounded numbers.

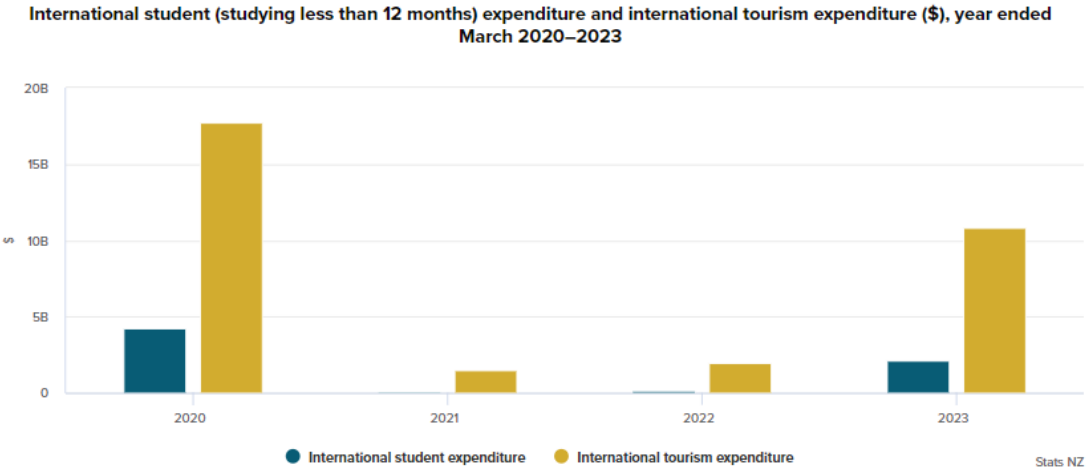
Symbols:

P provisional

... not applicable

Source: Stats NZ

Figure 4



Cruise ship expenditure in New Zealand

We present cruise ship expenditure in New Zealand on a year ended June basis (2019–2023) to best align with the cruise season and cruise traveller statistics (see table 5).

For the year ended June 2023, Stats NZ did not produce cruise ship expenditure or traveller statistics. As part of a prioritisation process, the future of cruise statistics is among other work programmes in the economic statistics suite being evaluated.

For the years ended June 2021 and June 2022, 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.

Cruise ship traveller and expenditure statistics: Year ended June 2020 has the most recent cruise traveller statistics.

Table 5

Cruise ship expenditure in New Zealand,[1] year ended June 2019–2023

Component	June year					Change from 2019 to 2020	Change from 2020 to 2021	Change from 2021 to 2022	Change from 2022 to 2023
	2019	2020	2021[4]	2022[4]	2023[5]				
	$(000)					Annual percentage change			
Vessel[2]	141,820	138,664	..	..	..	-2.2	-100.0	...	...
Visitor[3]	369,478	356,413	..	..	..	-3.5	-100.0	...	...
GST	53,890	51,978	..	..	..	-3.5	-100.0	...	...
Total	**565,189**	**547,055**	..	..	..	**-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 providoring (providing produce and other supplies).
3. Incorporates shore excursions (predominantly pre-booked), including overland tours, and spending ashore by passengers and crew.
4. No cruise ship expenditure or visitation recorded due to COVID-19 border restrictions.
5. No cruise ship expenditure or visitation measured by Stats NZ.

Symbols:
.. figure not available
... not applicable
Source: Stats NZ

Employment

In the year ended March 2023, tourism directly employed 189,432 people (see table 6 and figure 5). Compared with the previous year, this was an increase of 61,452 people.

Tourism activity directly generated 6.7 percent of total employment in New Zealand (see table 6). This compares with tourism generating 3.7 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 128,082 were indirectly employed in tourism generating an additional 4.5 percent share of total employment. This was an increase of 43,215 people.

Table 6

Tourism employment,[1][2] year ended March 2000–2023

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	159,666	312,276	8.2	8.6	16.8
2001	157,386	154,941	312,327	8.3	8.1	16.4
2002	162,042	147,492	309,534	8.3	7.6	15.9
2003	169,965	147,345	317,310	8.4	7.3	15.7
2004	177,861	139,689	317,550	8.5	6.7	15.2
2005	184,764	134,697	319,461	8.5	6.2	14.7
2006	190,893	135,204	326,097	8.5	6.0	14.6
2007	197,028	134,772	331,800	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	187,080	127,305	314,385	8.2	5.6	13.8
2011	181,881	123,030	304,911	8.0	5.4	13.3
2012	175,863	119,082	294,945	7.6	5.2	12.8
2013	173,721	117,081	290,802	7.5	5.0	12.5
2014	175,020	117,624	292,644	7.3	4.9	12.3
2015	191,886	131,328	323,214	7.8	5.4	13.2
2016	210,180	144,177	354,357	8.3	5.7	14.1
2017	208,920	143,202	352,122	8.0	5.5	13.5
2018	222,192	151,314	373,506	8.3	5.7	14.0
2019	220,656	150,222	370,878	8.0	5.5	13.5
2020	220,863	148,392	369,255	8.0	5.4	13.3
2021	145,185	95,112	240,297	5.4	3.5	8.9
2022	127,980	84,867	212,847	4.7	3.1	7.8
2023P	189,432	128,082	317,514	6.7	4.5	11.3

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.

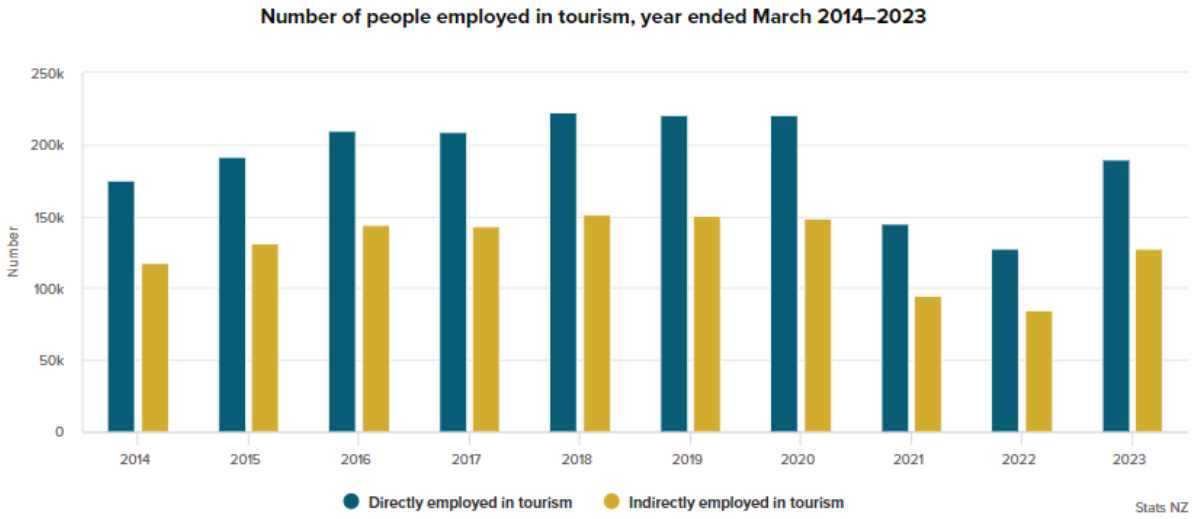
Note: Figures prior to 2023 have been updated.

Symbol:

P provisional

Source: Stats NZ

Figure 5



To further understand COVID-19's impact on tourism, we continue to provide a breakdown of direct tourism employment by industry for the provisional year (2023) with a comparison to 2022 and 2021 (see table 7).

In percentage terms, the largest increases were recorded in the accommodation, food and beverage services, and arts and recreation services industries while the largest increase in the number of people directly employed in tourism was in the food and beverage services industry.

The data sources used in deriving these provisional year numbers will be subject to future updates. 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 employer monthly schedule and Household Labour Force Survey movements by industry to year ended March 2022 employee and working proprietors' data respectively sourced from Linked Employer-Employee Data.

From here, provisional tourism industry ratios for the year ended March 2023 – 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 2021–2023

	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											
2021											
Number of people directly employed in tourism[3]	15,927	35,451	3,186	7,518	7,983	3,591	5,514	25,650	9,063	31,302	145,185
2022											
Number of people directly employed in tourism[3]	11,502	33,378	2,973	6,969	6,006	3,144	4,617	22,851	8,313	28,230	127,980
2023P											
Number of people directly employed in tourism[4]	23,787	54,639	4,434	9,837	9,501	3,552	7,449	29,160	11,766	35,304	189,432
Percent											
Percentage change in number of people directly employed in tourism 2022-2023[5]	106.8	63.7	49.1	41.2	58.2	13.0	61.3	27.6	41.5	25.1	48.0

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. The 2021 and 2022 numbers are derived from Linked Employer-Employee Data (LEED).
4. The 2023 numbers in each industry are originally derived using movements in the Employer Monthly Schedule and Household Labour Force Survey off LEED 2022 data. From there, 2023 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 2023, the number of international visitors was 2,199,073, an increase of 858.7 percent (1,969,703) following an increase of 335.3 percent in the previous year.

The number of visitors from Oceania increased 545.6 percent (1,044,584), following an 800.6 percent increase in the previous year. Visitor numbers from Asia increased 2411.5 percent (239,627), Europe 2430.4 percent (311,547), while visitors from the Americas increased 3995.3 percent (293,332).

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

- holiday – up 2583.2 percent (841,333 arrivals)
- visiting friends and relatives – up 523.6 percent (725,055)
- conferences and conventions – up 4926.8 percent (33,059)
- business – up 680.3 percent (134,919)
- education – up 1054.2 percent (24,321).

See table 8 and figure 6 for a breakdown of international visitors by region of last permanent residence for the years ended March 2020–2023. A breakdown by purpose of visit is also included in the table.

Table 8

Overseas visitor arrivals,[1][2] year ended March 2020–2023

	Year ended March						
	2020	2021	2022	2023	2021	2022	2023
	Number				Annual percentage change		
By region of last permanent residence							
Oceania	1,665,076	21,257	191,442	1,236,026	-98.7	800.6	545.6
Asia	872,207	8,919	9,937	249,564	-99.0	11.4	2,411.5
Europe	529,238	11,391	12,819	324,366	-97.8	12.5	2,430.4
Americas	467,320	7,752	7,342	300,674	-98.3	-5.3	3,995.3
Other[3][4]	118,126	3,371	7,830	88,443	-97.1	132.3	1,029.5
Total[5]	**3,651,967**	**52,690**	**229,370**	**2,199,073**	**-98.6**	**335.3**	**858.7**
By purpose of visit							
Holiday	1,826,781	1,081	32,570	873,903	-99.9	2,913.0	2,583.2
Visiting friends & relatives	1,049,601	21,351	138,479	863,534	-98.0	548.6	523.6
Conferences & conventions	81,897	32	671	33,730	-100.0	1,996.9	4,926.8
Business	325,427	4,295	19,832	154,751	-98.7	361.7	680.3
Education	70,389	1,049	2,307	26,628	-98.5	119.9	1,054.2
Other[4][6]	297,872	24,882	35,511	246,527	-91.6	42.7	594.2

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 6

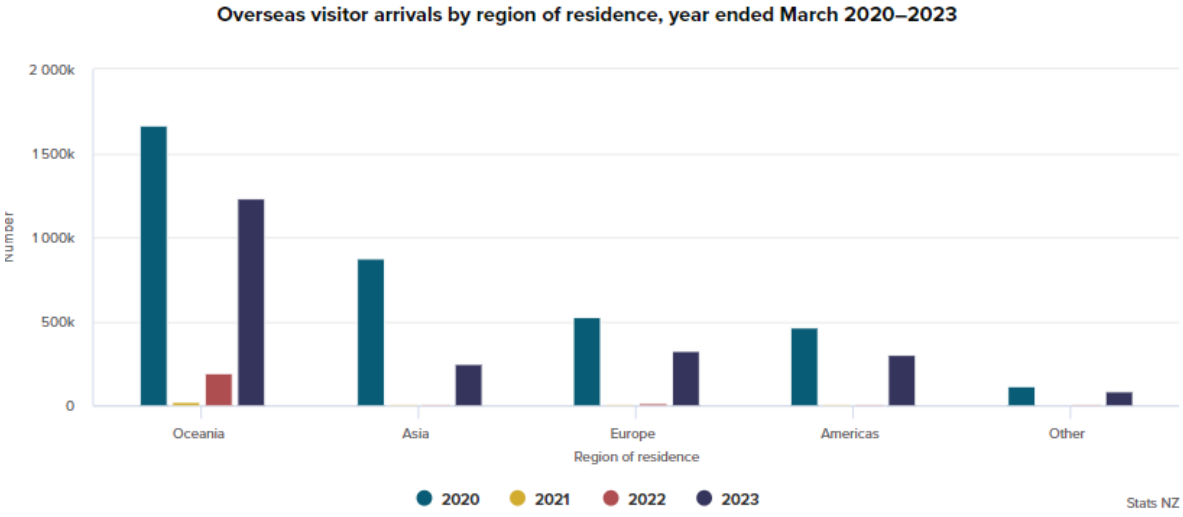


Table 9 presents the breakdown of international visitors by selected country of last permanent residence for the years ended March 2020–2023 (see also figure 7).

Table 9

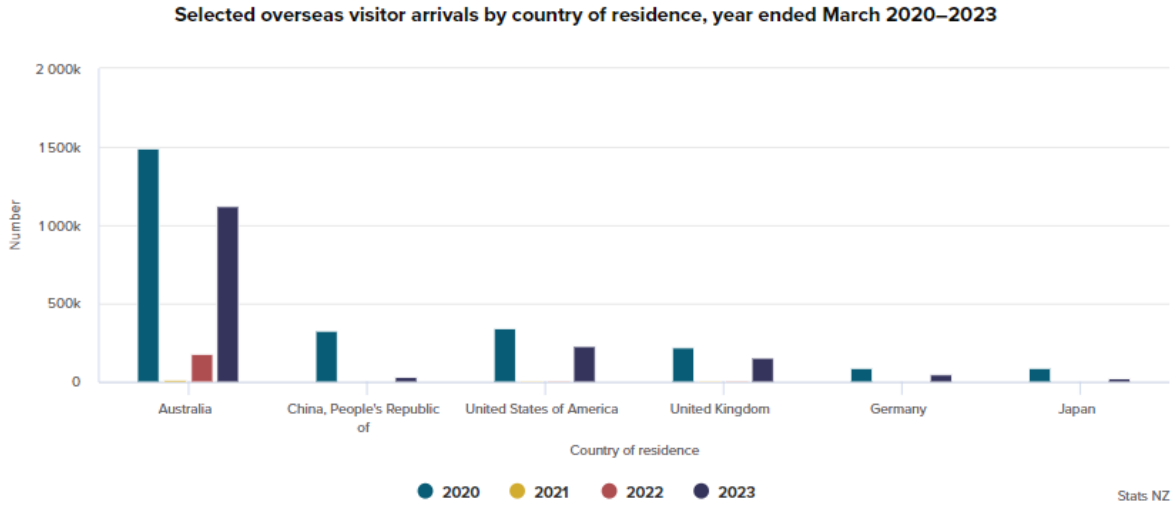
Selected overseas visitor arrivals,[1][2] year ended March 2020–2023

	Year ended March						
	2020	2021	2022	2023	2021	2022	2023
	Number				Annual percentage change		
By country of last permanent residence							
Australia	1,491,252	15,106	176,805	1,125,972	-99.0	1,070.4	536.8
China, People's Republic of	328,145	2,155	1,470	33,168	-99.3	-31.8	2,156.3
United States of America	347,629	6,123	5,559	227,514	-98.2	-9.2	3,992.7
United Kingdom	223,102	6,855	7,541	158,168	-96.9	10.0	1,997.4
Germany	91,067	718	874	47,033	-99.2	21.7	5,281.4
Japan	90,326	496	552	26,405	-99.5	11.3	4,683.5

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 7



The following is a list of the percentage increases of international visitors by selected country of last permanent residence, for the year ended March 2023:

- Australia – up 536.8 percent (949,167 arrivals)
- China – up 2156.3 percent (31,698)
- United States of America – up 3992.7 percent (221,955)
- United Kingdom – up 1997.4 percent (150,627)
- Germany – up 5281.4 percent (46,159)
- Japan – up 4683.5 percent (25,853).

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 the Ministry of Business, Innovation and Employment's Accommodation Data Programme, for the years ended March 2022–2023 (see also figure 8).

In the year ended March 2023, 35.8 million guest nights were spent in short-term commercial accommodation, a 52.0 percent increase compared with the previous year.

Table 10

Guest nights by origin,[1] year ended March 2022–2023

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
2022	1,216	...	22,328	...	23,544	...
2023	8,587	606.2	27,197	21.8	35,784	52.0

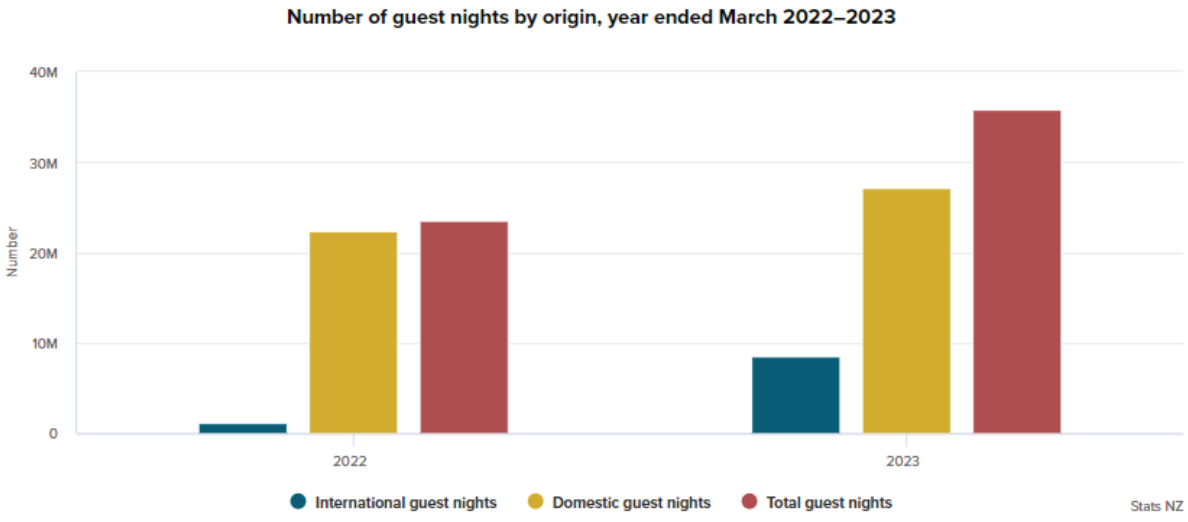
1. Individual figures may not sum to stated totals due to rounding.

Symbol:

... not applicable

Source: Accommodation Data Programme, MBIE/Fresh Info

Figure 8



Key events that influenced tourism for year ended March 2023

Here are the significant events that influenced tourism in the year ended March 2023.

- On 12 April at 11:59pm, all vaccinated Australian citizens and permanent residents were allowed to enter New Zealand and self-test on arrival.
- On May 1 at 11.59pm, the border reopened to visa-waiver travellers and those holding a valid visitor visa.
- In April, Air New Zealand resumed its non-stop service from Auckland to San Francisco.
- Malaysia Airlines resumed non-stop flights from Auckland to Kuala Lumpur.
- Fiji Airways resumed daily flights from Auckland to Nadi.
- In May, Air Tahiti Nui's Auckland to Papeete service resumed.
- Aircalin restarted direct flights from Auckland to Noumea, and services from Christchurch to Noumea via Sydney.
- Qantas resumed services from Sydney and Melbourne to Wellington and from Sydney to Queenstown, with additional services from Melbourne and Brisbane to Christchurch.
- In June, Singapore Airlines resumed daily flights between Christchurch and Singapore.
- Qantas resumed services from Brisbane and Melbourne to Queenstown.
- Cathay Pacific restarted flights from Auckland to Hong Kong.
- Jetstar restarted services from Christchurch to the Gold Coast; Christchurch to Melbourne; Wellington to the Gold Coast, Queenstown to the Gold Coast; and Queenstown to Sydney. The airline also resumed flights from Auckland to Rarotonga.
- In July, Air New Zealand resumed its non-stop services from Auckland to Honolulu and Auckland to Houston.
- Air New Zealand restarted services from Christchurch to the Gold Coast, and from Christchurch to Fiji.
- Air New Zealand also restarted services from Auckland to Cairns, Auckland to Adelaide, Auckland to Hobart, Auckland to Papeete, and Auckland to Noumea.
- Air Vanuatu resumed twice-weekly direct flights from Auckland to Port Vila.
- Hawaiian Airlines restarted its Auckland to Honolulu service.
- In August, the first cruise ship to sail to New Zealand since the COVID-19 pandemic arrived in Auckland.
- Air New Zealand increased the frequency of services between Auckland and Los Angeles from seven to 10 services per week during August to October.
- Air New Zealand services between Auckland and Seoul increased to two a week between September and October.
- In September, Air New Zealand launched its non-stop flight service connecting Auckland and New York.
- In October, Air New Zealand resumed its non-stop Auckland to Chicago service.
- In October, United Airlines resumed its non-stop Auckland to San Francisco service.
- American Airlines, in partnership with Qantas, restored its seasonal New Zealand link, from Auckland non-stop to Dallas Fort Worth.

- China Airlines commenced flying trans-Tasman services with its Auckland to Taipei via Brisbane service.
- In November, Air Canada resumed its seasonal service between Auckland and Vancouver.
- AirAsia X began an Auckland to Kuala Lumpur via Sydney service.
- Virgin Australia resumed flights from both Sydney and Brisbane to Queenstown.
- In December, Emirates resumed its non-stop Auckland to Dubai service.
- In late January, regions across the upper North Island of New Zealand experienced widespread catastrophic floods caused by heavy rainfall, with Auckland being the most significantly affected as the Auckland Anniversary holiday weekend began.
- In mid-February, Cyclone Gabrielle caused widespread disruption, damage, and devastation across Northland, Auckland, Coromandel, Gisborne district, and Hawke's Bay.
- In response to Cyclone Gabrielle, Air New Zealand launched a temporary Gisborne to Napier service.
- In March, Air New Zealand resumed its seasonal, non-stop Auckland to Bali service.
- Emirates recommenced its Christchurch to Dubai via Sydney service.
- China Southern Airlines services between Guangzhou and Auckland increased from four per week to seven per week.
- China Eastern Airlines services between Shanghai and Auckland increased from three per week to seven per week.
- Air New Zealand services between Auckland and Shanghai increased from four per week to five per week.

Key events that influenced tourism for year ended March 2022

Here are the significant events that influenced tourism in the year ended March 2022.

- On 19 April 2021, quarantine-free travel between New Zealand and Australia – 'the Trans-Tasman bubble' – was established.
- Air New Zealand commenced a direct jet service between Auckland and Hobart.
- On 16 May at 11.59pm, a two-way quarantine-free travel bubble from New Zealand to the Cook Islands commenced.
- Air New Zealand recommenced a direct jet service between Auckland and Adelaide.
- In June, Air Chathams resumed direct flights to Norfolk Island.
- On 23 June, Wellington moved to alert level 2 at 11:59pm following the detection of a Delta case in a visiting Australian traveller. The rest of New Zealand remained at alert level 1.
- On 26 June, a 72-hour pause to quarantine-free travel from Australia was announced by the New Zealand Government.
- On 29 June, Wellington moved to alert level 1 at 11:59pm. All of New Zealand was now at alert level 1.
- On 23 July, the trans-Tasman bubble with Australia was suspended but managed return flights for Kiwi citizens and residents were enabled.
- On 17 August, all of New Zealand moved to alert level 4 at 11:59pm following the detection of a Delta community case in Auckland. The Cook Islands travel bubble was suspended.

- On 31 August, all of New Zealand south of Auckland moved to alert level 3 at 11:59pm. Auckland and Northland remained at alert level 4.
- On 2 September, Northland moved to alert level 3 at 11:59pm. All of New Zealand (except Auckland) was now at alert level 3. Auckland remained at alert level 4.
- On 7 September, New Zealand (except Auckland) moved to alert level 2 at 11:59pm. Auckland remained at alert level 4.
- In September, Air New Zealand established a temporary daily service between Kerikeri and Wellington to help connect Northland to the rest of the country.
- On 21 September, Auckland and Upper Hauraki moved to alert level 3 at 11:59pm. The rest of New Zealand remained at alert level 2.
- On 25 September, Upper Hauraki moved to alert level 2 at 11:59pm. Auckland remained at alert level 3. The rest of New Zealand remained at alert level 2.
- On 3 October, Raglan, Te Kauwhata, Huntly, Ngāruawāhia, Hamilton City, and some surrounding areas moved to alert level 3 for five days from 11:59pm. Auckland remained at alert level 3. The rest of New Zealand remained at alert level 2.
- On 5 October, alert level 3 restrictions in Auckland were eased from 11:59pm. Raglan, Te Kauwhata, Huntly, Ngāruawāhia, Hamilton City, and some surrounding areas remained at alert level 3. The rest of New Zealand remained at alert level 2.
- On 7 October, Waikato alert level 3 boundary was extended from 11:59pm to include Waitomo district, including Te Kuiti, Waipa district, and Ōtorohanga district. Auckland remained at alert level 3 with some restrictions eased. The rest of New Zealand remained at alert level 2.
- On 8 October, Northland moved to alert level 3 at 11:59pm. Auckland and parts of Waikato remained at alert level 3. The rest of New Zealand remained at alert level 2.
- On 19 October, Northland moved to alert level 2 at 11:59pm. Auckland and parts of Waikato remained at alert level 3. The rest of New Zealand remained at alert level 2.
- On 27 October, the parts of the Waikato at alert level 3 moved to step 1 of alert level 3. Auckland remained at step 1 of alert level 3. The rest of New Zealand remained at alert level 2.
- On 2 November, Upper Northland moved to alert level 3. The parts of Waikato at alert level 3 step 1 moved to alert level 3 step 2 from 11:59pm. Auckland remained at step 1 of alert level 3. The rest of New Zealand remained at alert level 2.
- On 9 November, Auckland moved to alert level 3 step 2 at 11:59pm. Upper Northland remained at alert level 3. Parts of Waikato remained at alert level 3 step 1. The rest of New Zealand remained at alert level 2.
- On 11 November, Upper Northland moved to alert level 2. Auckland and parts of Waikato remained at alert level 3 step 2. The rest of New Zealand remained at alert level 2.
- On 16 November, parts of the Waikato moved to alert level 2. Auckland remained at alert level 3 step 2. The rest of New Zealand remained at alert level 2.
- On 2 December, the COVID-19 Alert Level System ended. At 11:59pm New Zealand moved to the COVID-19 Protection Framework, or traffic light system. Northland, Auckland, Taupo, Rotorua Lakes, Kawerau, Whakatane, Ōpōtiki, Gisborne, Wairoa, Rangitikei, Whanganui, and Ruapehu districts moved to Red. The rest of the North Island, and the South Island, moved to Orange.

- On 14 December, Auckland boundary lifted at 11:59pm. People travelling out of Auckland needed to be vaccinated or have had proof of a negative test.
- On 16 December, the first confirmed Omicron border case was detected. The international traveller tested positive soon after arriving on 10 December. Genome sequencing then detected Omicron.
- On 30 December, Auckland, Taupo, Rotorua Lakes, Kawerau, Whakatāne, Ōpōtiki, Gisborne, Wairoa, Rangitikei, Whanganui, and Ruapehu districts moved to Orange at 11:59pm. Northland remained at Red.
- On 14 January, the Cook Island travel bubble resumed.
- On 17 January, Auckland boundary-crossing rules ended. People travelling out of Auckland no longer needed proof of vaccination or a negative test.
- On 20 January, Northland moved to Orange at 11:59pm.
- On 23 January, the first confirmed Omicron community cases were detected. All of New Zealand moved to Red at 11:59pm.
- On 26 January, the Government introduced Omicron phases, with different approaches to testing and isolation as case numbers grew.
    - Phase 1: focused on stamping out small outbreaks, with PCR testing and 14-day isolation period for COVID-19 cases.
    - Phase 2: focused on slowing the spread and protecting those most at risk of getting seriously ill. Contact tracing switched to online self-assessments, isolation period dropped to 10 days.
    - Phase 3: focused on safely managing COVID-19 at home, with self-testing kits of rapid antigen tests (RATs) and isolation only for people who tested positive and their household contacts.
- On 3 February, face mask rules changed for Red at 11:59pm.
- On 10 February, the Close Contact exemption scheme began for workers in key sectors.
- On 16 February, All of New Zealand moved to phase 2 of the Omicron response at 11:59pm.
- On 24 February, All of New Zealand moved to phase 3 of the Omicron response at 11:59pm.
- On 11 March, the isolation period for COVID cases dropped from 10 to 7 days at 11:59pm.
- On 25 March, changes to traffic light settings at 11:59pm included:
    - indoor gathering limits at the Red setting increased from 100 to 200 people
    - no more limits on numbers at outdoor gatherings in any traffic light setting
    - contact tracing and record-keeping requirements ended for businesses and other organisations.
- In late March, LATAM airlines resumed direct air connections with South America and Auckland, and Air New Zealand resumed services to Singapore.
- Building on the success of the International Air Freight Capacity (IAFC) package, the Government established a replacement scheme called Maintaining International Air Connectivity (MIAC) to support continued air services. The MIAC scheme began in May 2021 and was scheduled to end on 31 March 2022.

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.

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 2020–2023

Product	Year ended March						
	2020	2021	2022	2023P	2021	2022	2023P
	$(million)				Annual percentage change		
Accommodation services	3,321	2,200	2,084	2,769	-33.8	-5.3	32.9
Food and beverage serving services	4,982	2,446	2,480	4,147	-50.9	1.4	67.2
Air passenger transport	5,285	1,731	1,822	3,726	-67.2	5.3	104.5
Other passenger transport	3,173	2,311	2,384	3,101	-27.2	3.2	30.1
Imputed rental on holiday homes	831	878	934	1,016	5.7	6.4	8.8
Cultural, recreation, travel, and tour services	2,343	1,166	1,224	2,329	-50.2	5.0	90.3
Retail sales – alcohol, food, and beverages	2,530	2,443	2,334	2,590	-3.4	-4.5	11.0
Retail sales – fuel and other automotive products	2,224	1,360	1,486	1,886	-38.8	9.3	26.9
Retail sales – other	7,928	6,110	6,319	7,838	-22.9	3.4	24.0
Education services	1,284	648	643	1,065	-49.5	-0.8	65.6
Other tourism products	3,762	2,583	2,689	3,702	-31.3	4.1	37.7
Total tourism demand excluding GST	**37,664**	**23,876**	**24,400**	**34,170**	**-36.6**	**2.2**	**40.0**
GST paid on purchases by tourists	3,858	2,637	2,601	3,524	-31.6	-1.4	35.5
Total tourism expenditure	**41,521**	**26,513**	**27,001**	**37,693**	**-36.1**	**1.8**	**39.6**

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 2023 have been updated.

Symbol:

P provisional

Source: Stats NZ

Table 11 shows that for the year ended March 2023:

- total tourism expenditure increased 39.6 percent, following an increase of 1.8 percent in 2022, and a 36.1 percent decrease in 2021.
- the largest changes in tourism expenditure were in:
  - air passenger transport, an increase of $1.9 billion (104.5 percent).
  - food and beverage serving services, an increase of $1.7 billion (67.2 percent)
  - retail sales – other, an increase of $1.5 billion (24.0 percent)
- GST paid on purchases by tourists increased $923 million (35.5 percent).

The main products tourists purchased were retail sales and other tourism products and services, which contributed 36.0 percent and 20.6 percent, respectively. Tourists spent 20.2 percent of their budget on accommodation, and food and beverage serving services. They spent 20.0 percent on passenger transport, and 3.1 percent on education services (see figure 9, which presents the share of tourism expenditure, excluding GST).

Figure 9

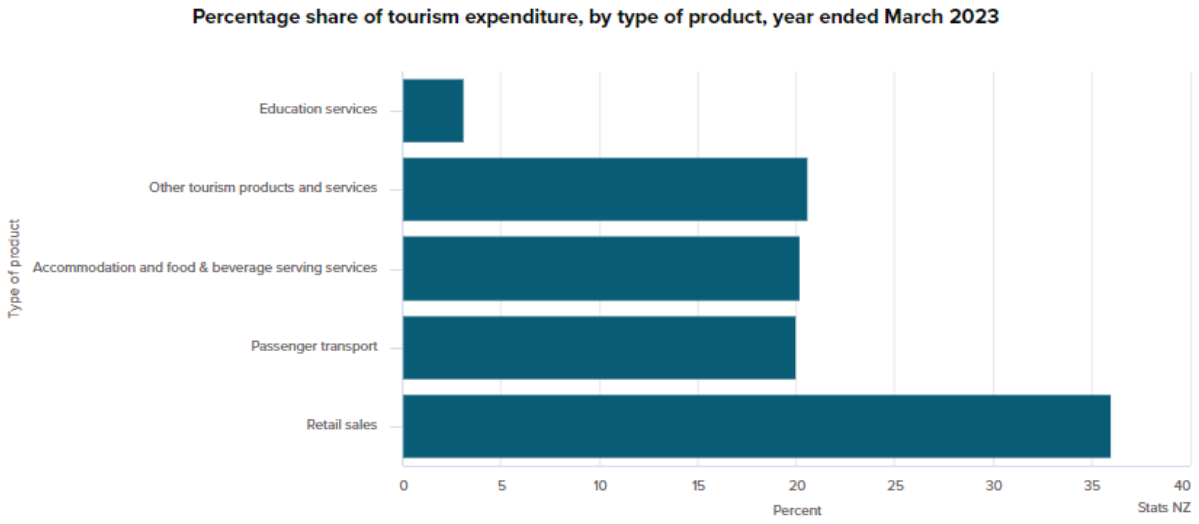


Table 12 presents tourism expenditure by type of product and by type of tourist for the years ended March 2020–2023. The tourism product ratio is the proportion of total supply (national production plus imports) of each product that tourists purchase.

For the year ended March 2023:

- total household tourism expenditure increased 2.8 percent ($576 million), following a decrease of 2.3 percent the previous year.
- the largest increase in household tourism expenditure was in cultural, recreation, travel, and tour services, up $479 million, followed by food and beverage services, up $196 million, and retail sales – alcohol, food, and beverages, up $133 million.
- accommodation services, down $0.5 billion, was impacted by Managed Isolation and Quarantine (MIQ), and the use of traditional accommodation providers for emergency housing, while air passenger transport was down $70 million.
- between 2020 and 2023, total household tourism spending increased 17.5 percent. Over the same period, total household consumption expenditure increased 20.2 percent.
- business and government tourism expenditure increased 26.5 percent ($1.2 billion), following an increase of 12.5 percent the previous year.
- the increase in business and government tourism expenditure was largest in cultural, recreation, travel, and tour services, up $260 million from the previous year, other passenger transport up $259 million, and accommodation services, up $254 million.
- total spending by international tourists in New Zealand increased 456.9 percent ($8.9 billion), following an increase of 30.8 percent in the March 2022 year.
- the largest increases in international tourism expenditure were in air passenger transport, up $1.8 billion, retail sales – other, up $1.5 billion, and food and beverage serving services, up $1.4 billion.

Table 12

Tourism expenditure,[1][2] by type of product and type of tourist, year ended March 2020–2023

Product	Domestic demand		International demand	Total demand	Total supply	Tourism product ratio
	Business and government demand	Household demand				
	$(million)					
2020						
Accommodation services	694	682	1,945	3,321	3,576	0.93
Food and beverage serving services	511	1,700	2,772	4,982	11,562	0.43
Air passenger transport	1,669	925	2,691	5,285	5,325	0.99
Other passenger transport	1,284	989	900	3,173	5,421	0.59
Imputed rental on holiday homes	0	831	0	831	831	1.00
Cultural, recreation, travel, and tour services	656	894	793	2,343	4,068	0.58
Retail sales – alcohol, food, and beverages	0	2,046	484	2,530	75,862	0.03
Retail sales – fuel and other automotive products	834	645	745	2,224	12,791	0.17
Retail sales – other	0	4,942	2,986	7,928	59,060	0.13
Education services	0	490	794	1,284	7,060	0.18
Other tourism products	355	1,666	1,741	3,762	60,068	0.06
Total tourism demand excluding GST	**6,004**	**15,810**	**15,849**	**37,664**	**...**	**...**
GST paid on purchases by tourists	7	2,013	1,838	3,858	...	...
Total tourism expenditure	**6,011**	**17,823**	**17,687**	**41,521**	**...**	**...**
2021						
Accommodation services	840	1,283	77	2,200	2,871	0.77
Food and beverage serving services	507	1,800	139	2,446	10,314	0.24
Air passenger transport	416	1,184	131	1,731	1,754	0.99
Other passenger transport	1,143	1,088	80	2,311	4,624	0.50
Imputed rental on holiday homes	0	878	0	878	878	1.00
Cultural, recreation, travel, and tour services	326	774	65	1,166	2,722	0.43
Retail sales – alcohol, food, and beverages	0	2,310	133	2,443	74,997	0.03
Retail sales – fuel and other automotive products	581	707	72	1,360	9,087	0.15
Retail sales – other	0	5,856	254	6,110	57,873	0.11
Education services	0	633	15	648	6,719	0.10
Other tourism products	345	1,855	383	2,583	60,634	0.04
Total tourism demand excluding GST	**4,158**	**18,369**	**1,350**	**23,876**	**...**	**...**
GST paid on purchases by tourists	5	2,496	136	2,637	...	...
Total tourism expenditure	**4,163**	**20,864**	**1,486**	**26,513**	**...**	**...**

Table continues next page

Table 12 continued

Tourism expenditure,[1][2] by type of product and type of tourist, year ended March 2020–2023

Product	Domestic demand		International demand	Total demand	Total supply	Tourism product ratio
	Business and government demand	Household demand				
	$(million)					
2022						
Accommodation services	928	1,028	128	2,084	3,146	0.66
Food and beverage serving services	549	1,746	186	2,480	11,164	0.22
Air passenger transport	475	1,146	200	1,822	1,835	0.99
Other passenger transport	1,252	1,018	113	2,384	5,116	0.47
Imputed rental on holiday homes	0	934	0	934	934	1.00
Cultural, recreation, travel, and tour services	361	779	85	1,224	3,002	0.41
Retail sales – alcohol, food, and beverages	0	2,179	155	2,334	81,837	0.03
Retail sales – fuel and other automotive products	738	654	94	1,486	12,035	0.12
Retail sales – other	0	6,007	312	6,319	70,141	0.09
Education services	0	607	36	643	7,225	0.09
Other tourism products	376	1,859	453	2,689	66,588	0.04
Total tourism demand excluding GST	**4,679**	**17,958**	**1,763**	**24,400**	**...**	**...**
GST paid on purchases by tourists	5	2,416	180	2,601	...	...
Total tourism expenditure	**4,684**	**20,374**	**1,943**	**27,001**	**...**	**...**
2023P						
Accommodation services	1,182	524	1,063	2,769	3,263	0.85
Food and beverage serving services	651	1,942	1,555	4,147	12,650	0.33
Air passenger transport	639	1,076	2,011	3,726	3,757	0.99
Other passenger transport	1,511	1,024	566	3,101	6,592	0.47
Imputed rental on holiday homes	0	1,016	0	1,016	1,016	1.00
Cultural, recreation, travel, and tour services	621	1,258	449	2,329	4,497	0.52
Retail sales – alcohol, food, and beverages	0	2,312	278	2,590	92,476	0.03
Retail sales – fuel and other automotive products	871	742	273	1,886	12,964	0.15
Retail sales – other	0	5,999	1,839	7,838	76,473	0.10
Education services	0	632	434	1,065	7,402	0.14
Other tourism products	443	1,946	1,313	3,702	72,862	0.05
Total tourism demand excluding GST	**5,918**	**18,471**	**9,780**	**34,170**	**...**	**...**
GST paid on purchases by tourists	6	2,479	1,038	3,524	...	...
Total tourism expenditure	**5,924**	**20,950**	**10,819**	**37,693**	**...**	**...**

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 2023 have been updated.

Symbols:

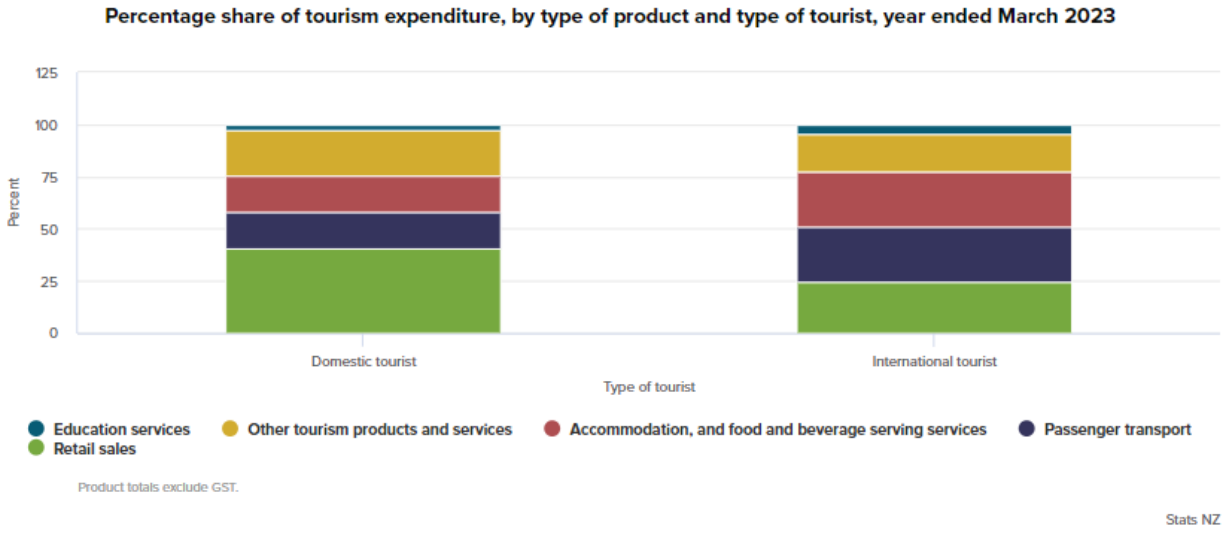
P provisional

... not applicable

Source: Stats NZ

The biggest share of domestic demand was retail sales, at 40.7 percent, while international tourism's demand of retail represented only 24.4 percent of international spending. International tourists spent the remainder of their budget primarily on accommodation, and food and beverage serving services (26.8 percent), passenger transport (26.3 percent), and other tourism product and services (18.0 percent) – (see figure 10).

Figure 10



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 2023, 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 2020–2023.

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, the tourism product ratio for accommodation services in the year ended March 2023 was 0.85. This means that much of the accommodation available was purchased by tourists. In contrast, tourists purchased only 0.15 of retail supplies of fuel and other automotive products.
- tourism supply increased 40.0 percent in the March 2023 year while total supply rose 11.8 percent.
- imports sold directly to tourists represented 12.5 percent of total tourism supply in the March 2023 year, compared with 14.0 percent in the year ended March 2022.

Table 13

Derivation of tourism supply from total supply,[1][2] year ended March 2020–2023

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	2,930	645	0	3,576	0.93	2,722	600	0	3,321
Food and beverage serving services	10,270	1,292	0	11,562	0.43	4,449	533	0	4,982
Air passenger transport	5,246	79	0	5,325	0.99	5,207	78	0	5,285
Other passenger transport	5,004	416	0	5,421	0.59	2,924	249	0	3,173
Imputed rental on holiday homes	0	831	0	831	1.00	0	831	0	831
Cultural, recreation, travel, and tour services	3,802	266	0	4,068	0.58	2,224	119	0	2,343
Retail sales – alcohol, food, and beverages	2,149	66,315	7,398	75,862	0.03	342	1,834	354	2,530
Retail sales – fuel and other automotive products	3	8,711	4,076	12,791	0.17	1	1,518	705	2,224
Retail sales – other	301	33,472	25,287	59,060	0.13	59	4,687	3,181	7,928
Education services	19	7,041	0	7,060	0.18	4	1,280	0	1,284
Other tourism products	2,609	57,459	0	60,068	0.06	348	3,414	0	3,762
Total supply of products	**32,335**	**176,528**	**36,761**	**245,624**	...				
Total tourism supply of products						**18,281**	**15,143**	**4,240**	**37,664**
2021									
Accommodation services	2,274	597	0	2,871	0.77	1,743	458	0	2,200
Food and beverage serving services	9,069	1,245	0	10,314	0.24	2,172	273	0	2,446
Air passenger transport	1,685	69	0	1,754	0.99	1,663	69	0	1,731
Other passenger transport	4,223	401	0	4,624	0.50	2,105	206	0	2,311
Imputed rental on holiday homes	0	878	0	878	1.00	0	878	0	878
Cultural, recreation, travel, and tour services	2,480	242	0	2,722	0.43	1,075	91	0	1,166
Retail sales – alcohol, food, and beverages	1,817	66,233	6,946	74,997	0.03	332	1,840	271	2,443
Retail sales – fuel and other automotive products	2	6,248	2,836	9,087	0.15	0	892	467	1,360
Retail sales – other	285	34,299	23,289	57,873	0.11	81	3,730	2,300	6,110
Education services	9	6,709	0	6,719	0.10	3	645	0	648
Other tourism products	2,385	58,249	0	60,634	0.04	287	2,296	0	2,583
Total supply of products	**24,229**	**175,171**	**33,072**	**232,473**	...				
Total tourism supply of products						**9,461**	**11,377**	**3,038**	**23,876**

Table continues next page

Table 13 continued

Derivation of tourism supply from total supply,[1][2] year ended March 2020–2023

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)			
2022									
Accommodation services	2,495	651	0	3,146	0.66	1,653	431	0	2,084
Food and beverage serving services	9,729	1,434	0	11,164	0.22	2,191	290	0	2,480
Air passenger transport	1,757	78	0	1,835	0.99	1,744	78	0	1,822
Other passenger transport	4,669	447	0	5,116	0.47	2,168	216	0	2,384
Imputed rental on holiday homes	0	934	0	934	1.00	0	934	0	934
Cultural, recreation, travel, and tour services	2,740	263	0	3,002	0.41	1,134	90	0	1,224
Retail sales – alcohol, food, and beverages	2,080	72,257	7,501	81,837	0.03	320	1,603	412	2,334
Retail sales – fuel and other automotive products	3	8,265	3,767	12,035	0.12	0	967	519	1,486
Retail sales – other	303	38,844	30,994	70,141	0.09	69	3,763	2,487	6,319
Education services	10	7,215	0	7,225	0.09	3	640	0	643
Other tourism products	2,470	64,118	0	66,588	0.04	208	2,480	0	2,689
Total supply of products	**26,256**	**194,506**	**42,262**	**263,023**	**...**				
Total tourism supply of products						**9,490**	**11,492**	**3,418**	**24,400**
2023P									
Accommodation services	2,596	666	0	3,263	0.85	2,203	565	0	2,769
Food and beverage serving services	11,062	1,587	0	12,650	0.33	3,662	485	0	4,147
Air passenger transport	3,672	85	0	3,757	0.99	3,642	84	0	3,726
Other passenger transport	6,086	506	0	6,592	0.47	2,868	233	0	3,101
Imputed rental on holiday homes	0	1,016	0	1,016	1.00	0	1,016	0	1,016
Cultural, recreation, travel, and tour services	4,206	291	0	4,497	0.52	2,223	106	0	2,329
Retail sales – alcohol, food, and beverages	2,535	81,293	8,648	92,476	0.03	350	1,729	511	2,590
Retail sales – fuel and other automotive products	3	8,618	4,343	12,964	0.15	1	1,205	681	1,886
Retail sales – other	351	40,385	35,736	76,473	0.10	81	4,665	3,092	7,838
Education services	17	7,386	0	7,402	0.14	4	1,061	0	1,065
Other tourism products	2,922	69,940	0	72,862	0.05	344	3,358	0	3,702
Total supply of products	**33,450**	**211,773**	**48,728**	**293,951**	**...**				
Total tourism supply of products						**15,379**	**14,507**	**4,284**	**34,170**

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 2023 have been updated.

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 2020–2023.

Table 14

Direct tourism value added,[1] year ended March 2020–2023

	Year ended March						
	2020	2021	2022	2023P	2021	2022	2023P
	$(million)				Annual percentage change		
Published GDP	323,075	327,992	358,602	388,189	1.5	9.3	8.3
Less GST, import duties, and other taxes on production	27,295	26,387	29,194	31,603	-3.3	10.6	8.3
Gives **contribution to GDP from production**	**295,780**	**301,605**	**329,408**	**356,587**	**2.0**	**9.2**	**8.3**
Tourism output of tourism-characteristic industries	18,281	9,461	9,490	15,379	-48.2	0.3	62.1
Less tourism intermediate consumption of tourism-characteristic industries	10,310	5,531	5,560	10,070	-46.4	0.5	81.1
Gives **direct tourism value added of tourism-characteristic industries**	**7,970**	**3,931**	**3,931**	**5,309**	**-50.7**	**0.0**	**35.1**
Plus direct tourism value added of all other industries	8,148	6,198	6,204	7,957	-23.9	0.1	28.3
Gives **total direct tourism value added**	**16,118**	**10,130**	**10,135**	**13,266**	**-37.2**	**0.0**	**30.9**
	Percent						
Direct tourism value added as a percentage of total industry contribution to GDP	**5.4**	**3.4**	**3.1**	**3.7**	...	...	...

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

Note: Figures for all years prior to 2023 have been updated.

Symbols:

P provisional

... not applicable

Source: Stats NZ

Point to note from table 14:

- in 2023, direct tourism value added (also referred to as tourism's direct contribution to GDP) increased 30.9 percent while the contribution to GDP from domestic production increased 8.3 percent.

Total expenditure on goods and services by tourists ($37.7 billion in 2023) consists of three components:

- goods and services worth $29.9 billion produced in New Zealand and directly purchased by tourists.
- imports of $4.3 billion sold directly to tourists by retailers.
- GST of $3.5 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 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. 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, 2023).

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 2023, these imports increased 59.6 percent, and direct tourism value added increased 30.9 percent.

Table 15

Tourism expenditure by component,[1] year ended March 2020–2023

	Year ended March						
	2020	2021	2022	2023P	2021	2022	2023P
	$(million)				Annual percentage change		
Direct tourism value added	16,118	10,130	10,135	13,266	-37.2	0.0	30.9
Indirect tourism value added	11,042	6,726	6,697	8,822	-39.1	-0.4	31.7
Imports sold to tourists[2]	10,504	7,020	7,568	12,081	-33.2	7.8	59.6
GST paid on purchases by tourists	3,858	2,637	2,601	3,524	-31.6	-1.3	35.4
Total tourism expenditure	**41,521**	**26,513**	**27,001**	**37,693**	**-36.1**	**1.8**	**39.6**

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 2023 have been updated.

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 2020–2023.

Table 16

Share of tourism expenditure by component,[1] year ended March 2020–2023

	Year ended March			
	2020	2021	2022	2023P
	Percent			
Direct tourism value added	38.8	38.2	37.5	35.2
Indirect tourism value added	26.6	25.4	24.8	23.4
Imports sold to tourists[2]	25.3	26.5	28.0	32.1
GST paid on purchases by tourists	9.3	9.9	9.6	9.3
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 2023 have been updated.

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 2020–2023

	Year ended March						
	2020	2021	2022	2023P	2021	2022	2023P
	Number				Annual percentage change		
Total employment							
Employees	2,309,382	2,232,417	2,265,498	2,347,860	-3.3	1.5	3.6
Working proprietors	458,877	460,896	462,687	471,288	0.4	0.4	1.9
Number of people employed	**2,768,259**	**2,693,310**	**2,728,188**	**2,819,148**	**-2.7**	**1.3**	**3.3**
Tourism employment							
Tourism employees	193,449	124,830	109,956	164,619	-35.5	-11.9	49.7
Tourism working proprietors	27,417	20,355	18,027	24,813	-25.8	-11.4	37.6
Number of people directly employed in tourism	**220,863**	**145,185**	**127,980**	**189,432**	**-34.3**	**-11.9**	**48.0**
	Percent						
Number of people directly employed in tourism as a percentage of the total number of people employed	**8.0**	**5.4**	**4.7**	**6.7**	...	...	...

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, except for the provisional year.
3. Percentage calculations are from unrounded employment numbers.

Note: Figures for years prior to 2023 have been updated.

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 189,432 people in the year ended March 2023, an increase of 48.0 percent (61,452 people) from the previous year.
- the number of tourism employees was 164,619 – an increase of 49.7 percent (54,663).
- the number of tourism working proprietors was 24,813 – an increase of 37.6 percent (6,786).
- as a share of the total number of people employed in New Zealand, direct tourism employment was 6.7 percent, an increase of 2.0 percentage points from the previous year.
- the total number of people employed in the New Zealand economy increased 3.3 percent (90,960).
- both total and tourism employment in the year ended March 2022, 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 2023, for example, direct tourism value added increased 30.9 percent, while the number of people employed directly in tourism increased 48.0 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 11 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 (2022).

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 output,[1][2] year ended March 2018–2022

Industry	Year ended March				
	2018	2019	2020	2021	2022
	Percent				
Tourism-characteristic industries					
Accommodation	24.1	25.3	25.6	25.1	29.0
Food and beverage services	13.4	12.6	15.8	14.8	20.5
Road, rail, and water transport[3]	16.7	14.7	15.9	18.4	18.3
Air and space transport	11.0	9.2	7.3	-4.3	-6.3
Other transport, transport support, and travel and tour services	24.5	26.3	23.1	21.1	24.2
Rental and hiring services	43.4	42.8	42.3	42.3	46.1
Arts and recreation services	18.2	19.6	19.1	20.9	18.8
Total tourism-characteristic industries	**18.5**	**18.1**	**18.1**	**18.2**	**20.1**
Tourism-related industries					
Retail trade	23.9	23.1	23.3	30.5	29.4
Education and training	16.8	16.9	17.9	21.5	21.7
All non-tourism-related industries	**26.3**	**25.0**	**26.2**	**27.1**	**26.5**
Total industry	**21.3**	**20.6**	**21.0**	**23.1**	**23.8**

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.

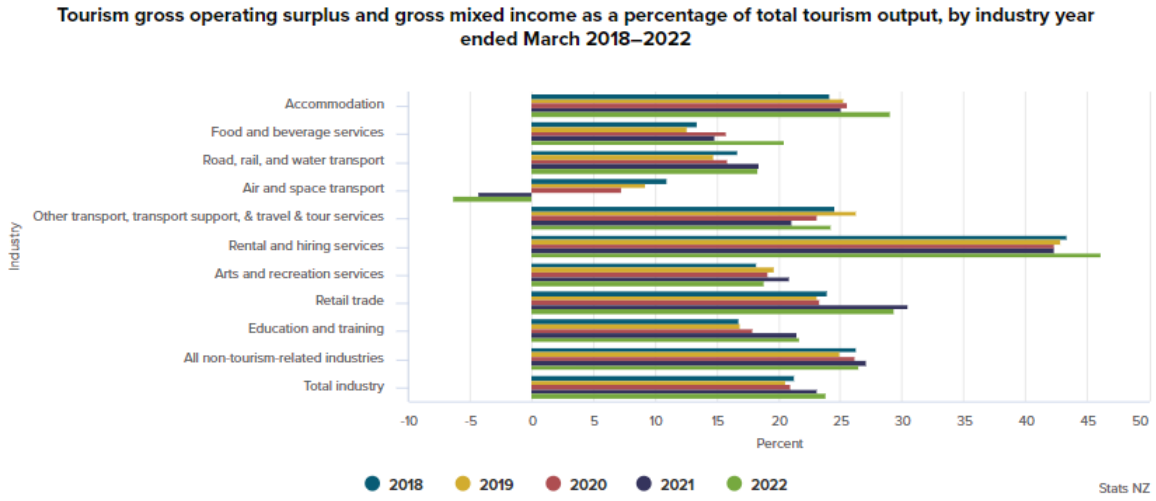
Note: Figures for all years prior to 2022 have been updated.

Source: Stats NZ

Points to note from table 18:

- the profitability of total tourism-characteristic industries for the year ended March 2022 increased 1.9 percentage points compared with the year ended March 2021.
- in both the year ended March 2022 and year ended March 2021, the air and space transport industry recorded negative profitability.
- the biggest increase in profitability in the year ended March 2022 compared with the year ended March 2018 was in the food and beverage services (7.1 percentage points) compared with the biggest decrease in air and space transport (17.3 percentage points).
- at a total industry level, profitability increased 2.5 percentage points in the year ended March 2022 compared with the year ended March 2018.

Figure 11



Detailed product and industry tables, year ended March 2022

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 2022, 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 2022

20 New Zealand System of National Accounts production accounts, by industry, year ended March 2022

21 Sales by type of product and industry, year ended March 2022

22 Derivation of tourism product ratios, year ended March 2022

23 Derivation of tourism industry ratios, year ended March 2022

24 Derivation of direct tourism value added, year ended March 2022

25 Direct tourism employment, by industry, year ended March 2022

26 Gross fixed capital formation and net capital stock, by industry, year ended March 2022

Table 19

Tourism expenditure, by type of product and type of tourist,[1][2] year ended March 2022

Product	Domestic demand			International demand	Total demand
	Business demand	Government demand	Household demand		
	$(million)				
Tourism-characteristic products					
Accommodation services	634	294	1,028	128	2,084
Food and beverage serving services	418	131	1,746	186	2,480
Road, rail, and water passenger transport[3]	254	69	530	102	955
Air passenger transport	300	175	1,146	200	1,822
Travel agency services	216	145	298	27	686
Motor vehicle hire or rental	772	158	488	12	1,429
Imputed rental on holiday homes	0	0	934	0	934
Libraries, archives, museums, and other cultural services	0	0	105	14	119
Other sport and recreation services	0	0	376	44	420
Total tourism-characteristic products	**2,593**	**972**	**6,652**	**712**	**10,929**
Tourism-related products					
Retail sales – alcohol	0	0	762	13	775
Retail sales – clothing and footwear	0	0	1,320	88	1,408
Retail sales – food, beverages, tobacco, and other groceries	0	0	1,417	142	1,559
Retail sales – fuel and other automotive products	538	200	654	94	1,486
Retail sales – retail medicines, toiletries	0	0	571	14	584
Retail sales – tourism consumer durables	0	0	2,013	31	2,045
Retail sales – other shopping	0	0	2,103	179	2,282
Financial services	28	4	1	1	34
General insurance (incl travel insurance)	97	12	110	12	231
Social and health-related services	0	0	896	18	914
Gambling services	0	0	178	10	188
Education services	0	0	607	36	643
Other tourism-related services	195	41	479	396	1,111
Other personal services	0	0	196	16	212
Total tourism-related products	**858**	**257**	**11,306**	**1,050**	**13,471**
Total tourism demand excluding GST	**3,450**	**1,229**	**17,958**	**1,763**	**24,400**
GST paid on purchases by tourists	5	1	2,416	180	2,601
Total tourism expenditure	**3,455**	**1,229**	**20,374**	**1,943**	**27,001**

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 2022

	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	...	...	...	...	...	...	...	...	...	...	**358,602**
Less GST, import duties, and other taxes on production	...	...	...	...	...	...	...	...	...	...	**29,194**
Contribution to GDP from production	**1,743**	**4,896**	**5,781**	**269**	**5,126**	**3,059**	**4,098**	**16,985**	**15,489**	**271,962**	**329,408**
Equivalent to total output	3,714	10,758	12,725	2,715	7,782	5,207	7,771	27,240	20,698	599,025	697,635
Less intermediate consumption	1,971	5,861	6,944	2,446	2,656	2,148	3,674	10,255	5,210	327,063	368,227
Components of GDP											
Compensation of employees	928	4,042	3,160	935	2,254	700	2,140	9,756	12,605	121,829	158,348
Gross operating surplus and gross mixed income	1,076	2,208	2,387	- 170	2,990	2,400	1,556	7,960	2,990	140,365	163,762
Taxes on production and imports	72	65	1,110	22	182	62	776	176	110	16,059	18,633
Less subsidies	333	1,418	876	518	300	102	374	908	216	6,290	11,334

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 2022

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	1,559	864	0	0	1	0	70	0	479	172	0	3,146
Food and beverage serving services	1,639	7,652	27	0	46	1	365	498	212	724	0	11,164
Road, rail, and water passenger transport[4]	43	0	1,893	0	239	2	4	1	38	52	0	2,273
Air passenger transport	0	0	0	1,756	1	0	0	1	67	10	0	1,835
Travel agency services	15	0	2	9	617	4	8	0	3	36	0	694
Motor vehicle hire or rental	0	0	18	132	5	2,332	0	17	0	339	0	2,843
Imputed rental on holiday homes	0	0	0	0	0	0	0	0	0	934	0	934
Libraries, archives, museums, and other cultural services	0	0	0	0	0	0	444	0	39	24	0	506
Other sport and recreation services	48	0	0	0	13	68	1,511	0	43	119	0	1,802
Total tourism-characteristic products	**3,305**	**8,516**	**1,940**	**1,898**	**922**	**2,407**	**2,403**	**517**	**880**	**2,410**	**0**	**25,197**
Sales of tourism-related products												
Retail sales – alcohol	296	1,033	0	0	0	0	0	300	0	5,654	666	7,950
Retail sales – clothing and footwear	0	0	0	0	0	0	0	2,551	8	1,231	3,380	7,170
Retail sales – food, beverages, tobacco, and other groceries	26	721	0	0	3	0	0	6,083	1	60,218	6,834	73,887
Retail sales – fuel and other automotive products	0	0	3	0	0	0	0	969	0	7,297	3,767	12,035
Retail sales – retail medicines, toiletries	0	6	0	0	0	0	0	1,600	0	3,323	4,107	9,036
Retail sales – tourism consumer durables	0	0	1	0	0	0	0	4,439	1	8,152	13,435	26,027
Retail sales – other shopping	0	0	0	0	3	270	22	7,244	98	10,199	10,072	27,908
Financial services	0	0	0	0	0	0	0	4	1	4,224	0	4,228
General insurance (incl travel insurance)	0	0	0	0	0	0	0	0	0	7,544	0	7,545
Social and health-related services	0	0	0	0	0	0	6	0	4	16,821	0	16,830
Gambling services	0	15	0	0	0	0	2,014	1	0	22	0	2,052
Education services	0	0	1	3	5	0	1	0	6,159	1,056	0	7,225
Other tourism-related services	0	9	70	2	318	20	4	647	20	32,432	0	33,522
Other personal services	0	0	0	0	0	12	0	0	0	2,398	0	2,411
Total tourism-related products	**322**	**1,785**	**75**	**5**	**329**	**302**	**2,048**	**23,836**	**6,292**	**160,571**	**42,262**	**237,826**
Sales of all domestically produced non-tourism-related products	**87**	**457**	**10,710**	**812**	**6,528**	**2,472**	**3,327**	**2,887**	**13,538**	**436,065**	…	**476,882**
Total sales	**3,714**	**10,758**	**12,725**	**2,715**	**7,779**	**5,181**	**7,777**	**27,240**	**20,710**	**599,047**	**42,262**	**739,905**
Other output items	**0**	**0**	**0**	**0**	**3**	**26**	**-5**	**0**	**-11**	**-22**	…	**-9**
Less imports of tourism-related products[5]	…	…	…	…	…	…	…	…	…	…	**42,262**	**42,262**
Total industry output	**3,714**	**10,758**	**12,725**	**2,715**	**7,782**	**5,207**	**7,771**	**27,240**	**20,698**	**599,025**	…	**697,635**

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 2022

Product	Total demand (from table 19)	Total supply (from table 21)	Tourism product ratio[3]
	$(million)		
Tourism-characteristic products			
Accommodation services	2,084	3,146	0.66
Food and beverage serving services	2,480	11,164	0.22
Road, rail, and water passenger transport[4]	955	2,273	0.42
Air passenger transport	1,822	1,835	0.99
Travel agency services	686	694	0.99
Motor vehicle hire or rental	1,429	2,843	0.50
Imputed rental on holiday homes	934	934	1.00
Libraries, archives, museums, and other cultural services	119	506	0.23
Other sport and recreation services	420	1,802	0.23
Total tourism-characteristic products	**10,929**	**25,197**	**...**
Tourism-related products			
Retail sales – alcohol	775	7,950	0.10
Retail sales – clothing and footwear	1,408	7,170	0.20
Retail sales – food, beverages, tobacco, and other groceries	1,559	73,887	0.02
Retail sales – fuel and other automotive products	1,486	12,035	0.12
Retail sales – retail medicines, toiletries	584	9,036	0.06
Retail sales – tourism consumer durables	2,045	26,027	0.08
Retail sales – other shopping	2,282	27,908	0.08
Financial services	34	4,228	0.01
General insurance (incl travel insurance)	231	7,545	0.03
Social and health-related services	914	16,830	0.05
Gambling services	188	2,052	0.09
Education services	643	7,225	0.09
Other tourism-related services	1,111	33,522	0.03
Other personal services	212	2,411	0.09
Total tourism-related products	**13,471**	**237,826**	**...**
Total tourism demand excluding GST	**24,400**	**263,023**	**...**
GST paid on purchases by tourists	2,601	...	...
Total tourism expenditure	**27,001**	**...**	**...**

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 2022

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	1,033	573	0	0	1	0	46	0	317	114	2,084
Food and beverage serving services	384	1,693	6	0	12	0	96	88	49	152	2,480
Road, rail, and water passenger transport[5]	17	0	736	0	163	1	2	0	16	20	955
Air passenger transport	0	0	0	1,743	1	0	0	1	67	10	1,822
Travel agency services	15	0	2	9	610	4	8	0	3	35	686
Motor vehicle hire or rental	0	0	9	67	2	1,172	0	9	0	170	1,429
Imputed rental on holiday homes	0	0	0	0	0	0	0	0	0	934	934
Libraries, archives, museums, and other cultural services	0	0	0	0	0	0	104	0	9	6	119
Other sport and recreation services	11	0	0	0	3	16	352	0	10	28	420
Total tourism-characteristic products purchased by tourists	**1,460**	**2,265**	**753**	**1,819**	**792**	**1,193**	**608**	**98**	**471**	**1,469**	**10,929**
Tourism-related products											
Retail sales – alcohol	54	184	0	0	0	0	0	71	0	466	775
Retail sales – clothing and footwear	0	0	0	0	0	0	0	581	1	825	1,408
Retail sales – food, beverages, tobacco, and other groceries	5	77	0	0	0	0	0	283	0	1,194	1,559
Retail sales – fuel and other automotive products	0	0	0	0	0	0	0	126	0	1,360	1,486
Retail sales – retail medicines, toiletries	0	1	0	0	0	0	0	179	0	404	584
Retail sales – tourism consumer durables	0	0	0	0	0	0	0	551	0	1,493	2,045
Retail sales – other shopping	0	0	0	0	0	64	4	659	15	1,540	2,282
Financial services	0	0	0	0	0	0	0	0	0	34	34
General insurance (incl travel insurance)	0	0	0	0	0	0	0	0	0	231	231
Social and health-related services	0	0	0	0	0	0	0	0	0	913	914
Gambling services	0	1	0	0	0	0	184	0	0	2	188
Education services	0	0	0	1	1	0	0	0	397	243	643
Other tourism-related services	0	0	7	0	13	0	0	66	1	1,023	1,111
Other personal services	0	0	0	0	0	1	0	0	0	211	212
Total tourism-related products purchased by tourists	**59**	**263**	**8**	**1**	**15**	**65**	**189**	**2,517**	**415**	**9,939**	**13,471**
Direct tourism sales	**1,519**	**2,529**	**760**	**1,820**	**807**	**1,258**	**798**	**2,615**	**886**	**11,408**	**24,400**
Total industry output	**3,714**	**10,758**	**12,725**	**2,715**	**7,782**	**5,207**	**7,771**	**27,240**	**20,698**	**599,025**	**697,635**
Tourism industry ratio	**0.41**	**0.24**	**0.06**	**0.67**	**0.10**	**0.24**	**0.10**	**0.10**	**0.04**	**0.01**	**...**

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 2022

	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	**0.41**	**0.24**	**0.06**	**0.67**	**0.10**	**0.24**	**0.10**	**0.10**	**0.04**	**0.01**	**...**
Direct tourism value added	**713**	**1,151**	**338**	**180**	**397**	**739**	**413**	**1,603**	**593**	**4,008**	**10,135**
Equivalent to tourism output	1,519	2,529	760	1,820	807	1,258	798	2,615	886	7,991	20,982
Less tourism intermediate consumption	806	1,378	422	1,640	410	519	385	1,012	293	3,983	10,847
Contribution to GDP from production	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**329,408**
					Percent						
Direct tourism value added as a percentage of total industry contribution to GDP	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**3.1**
					$(million)						
Components of direct tourism value added											
Tourism compensation of employees	379	950	182	627	299	169	218	915	419	1,537	5,695
Tourism gross operating surplus and gross mixed income	440	519	139	- 114	195	580	150	770	192	2,121	4,993
Tourism taxes on production and imports	30	15	61	15	15	15	83	16	6	466	722
Less tourism subsidies	136	333	44	347	112	25	38	99	25	115	1,274

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 2022

	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		
Number											
Total employment											
Employees	24,462	125,223	42,705	10,158	22,737	10,536	37,089	219,657	194,535	1,578,396	2,265,498
Working proprietors	3,651	16,773	8,424	237	2,790	2,478	8,802	25,959	8,625	384,948	462,687
Number of people employed	**28,116**	**141,996**	**51,129**	**10,395**	**25,524**	**13,014**	**45,888**	**245,616**	**203,163**	**1,963,344**	**2,728,188**
Tourism industry ratio[4]	**0.41**	**0.24**	**0.06**	**0.67**	**0.10**	**0.24**	**0.10**	**0.10**	**0.04**	**0.01**	**...**
Tourism employment											
Tourism employees	10,008	29,436	2,505	6,810	4,716	2,544	3,861	20,355	7,029	22,698	109,956
Tourism working proprietors	1,494	3,942	471	159	1,293	600	759	2,499	1,284	5,529	18,027
Number of people directly employed in tourism	**11,502**	**33,378**	**2,973**	**6,969**	**6,006**	**3,144**	**4,617**	**22,851**	**8,313**	**28,230**	**127,980**
Percent											
Number of people directly employed in tourism as a percentage of the total number of people employed[5]	...	...	...	...	...	...	...	...	...	...	**4.7**
$(million)											
Total employment earnings[6]											
Employees	952	3,718	2,867	C	1,688	623	1,912	9,289	11,761	C	143,147
Working proprietors	219	903	449	C	196	175	437	1,752	424	C	36,248
Total earnings	**1,171**	**4,620**	**3,316**	**C**	**1,883**	**799**	**2,348**	**11,041**	**12,184**	**C**	**179,395**

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 2022

	Tourism-characteristic industries							Total tourism-characteristic industries	All other industries[6]	Total industry
	Accom-modation	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	2	2	29,030	29,032
Non-residential buildings	642	138	133	27	211	1,152	484	2,787	7,062	9,849
Other construction	0	6	293	0	4,562	10	4	4,874	7,617	12,491
Land improvement[7]	3	1	0	0	1	5	9	19	802	821
Transport equipment	12	47	884	121	198	1,056	44	2,363	4,600	6,963
Plant, machinery, and equipment	248	150	76	45	454	829	302	2,102	13,804	15,906
Intangible assets	22	53	70	27	126	45	168	510	12,720	13,230
Total gross fixed capital formation	**927**	**394**	**1,456**	**219**	**5,552**	**3,096**	**1,012**	**12,657**	**75,635**	**88,292**
Net capital stock										
Total net capital stock	**8,665**	**5,052**	**10,155**	**3,593**	**89,384**	**14,187**	**15,972**	**147,008**	**1,032,203**	**1,179,212**

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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Stats NZ. Tourism satellite account, for 2016 onwards. Available from www.stats.govt.nz.

Appendix 1: Conceptual framework

Definitions

Tourism satellite account: Year ended March 2023 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 2023* 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:

	Output (produced goods and services)
less	intermediate consumption (purchased goods and services required to produce outputs)
equals	value added.

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
less	GST
equals	tourism demand
less	imports sold directly to tourists by retailers
equals	tourism output
less	tourism intermediate consumption (including goods for resale)
equals	direct tourism value added
	Tourism intermediate consumption (including goods for resale)
less	imports used in production of goods and services sold to tourists
equals	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.oedc.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 updates 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 and 2022.

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 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. In the year ended June 2021 and June 2022, 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. For the year ended June 2023, Stats NZ did not produce cruise ship expenditure or visitation estimates.

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 2023* 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 2023 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 2009–2023. 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 2023*. 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.

For the year ended March 2021, 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 measurement year.

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.

For the year ended March 2023, ongoing challenges remained in enabling a household tourism spending derivation. In the absence of any BNZ customer-based data, Stats NZ and Marketview used comprehensive analysis of merchant-based card transaction activity from Worldline applying the same 40km household tourist definition radius to distinguish between local resident and household tourist spending. This radius was concentrated to the largest urban centre within a customer (cardholder's) territorial authority, instead of a customer's actual address, together with any spending outside the cardholder's home territorial authority. In each case, spending was specific to that which is consistent with existing tourism and HTEE-defined ANZSIC industries and determined across the time series.

Annual movements were analysed and compared to that of the customer-based data which were in close alignment to both the detailed industry and aggregate levels. From the resultant 2022 and 2023 merchant-derived household tourist spending levels, the 2022/2023 industry movements were applied to the 2022 HTEE (the base year) to determine a 2023 provisional HTEE dataset. Associated proportions were carried across from the 2022 year to the 2023 year.

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 2022 is weighted according to the 2021 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 2009–2023. At the time of compilation, AES data was available to the 2022 financial year. To produce the HTEE through to 2023, Marketview estimated the value of each industry in the 2023 provisional year by applying movements for each industry from additional Stats NZ data sources, including GST data, to the 2022 AES data.

For example, Marketview took annual movements in spending for ANZSIC06 industry G4110 from the Retail Trade Survey. They applied this to the 2022 AES data to determine a 2023 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 updated 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 2023*, 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
less	GST
equals	tourism demand
less	imports sold directly to tourists by retailers
equals	tourism output
less	tourism intermediate consumption (inclusive of goods for resale)
equals	direct tourism value added

	Tourism intermediate consumption (inclusive of goods for resale)
less	imports used in production of goods and services sold to tourists
equals	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 2023*. 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 2023*.

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 2023

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 2022 at the time of publication, *Tourism satellite account: Year ended March*

2023 provides aggregate level estimates for the year 2023. 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 2023 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 2022 LEED employee industry data.
- Working proprietor estimates for 2023 are derived by applying the year ended March (quarterly mean) annual Household Labour Force Survey (HLFS) industry movements to 2022 LEED working proprietor industry data.
- From here, provisional year ended March 2023 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. Khloé holds three part-time jobs in Queenstown – at a tourist attraction, in a restaurant, and at an accommodation provider. During the year Khloé'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. Kobe 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 Kobe 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. Kim and Shaquille live together in Wellington on the understanding that Kim is the breadwinner and Shaquille is the homemaker. Kim operates her own small business selling music souvenirs to tourists during the week, while on the weekends she works for the local holiday park. Shaquille helps at the holiday park in the month of February – his only employment for the year. Kim's highest earnings were generated from her retail business, therefore she would be allocated to the retail trade industry. Shaquille's employment would be allocated to the accommodation industry.

   Under the LEED-based measures this equates to:

   - number of people employed = 2 (1 Kim and 1 Shaquille)
   - number of filled jobs = 3 (2 Kim and 1 Shaquille).

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

TSAs 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). TSAs 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.oedc.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

Table continues next page

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			All other ANZSIC06 industries

Note: ANZSIC06 – Australian and New Zealand Standard Industrial Classification 2006

Source: Stats NZ