Statistics New Zealand
TATAURANGA AOTEAROA

Tourism Satellite Account: 2013

The contribution made by tourism to the New Zealand economy

New Zealand Government

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1 About the tourism satellite account

Purpose

Tourism Satellite Account: 2013 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 years ended March 2011–13 and detailed results for 2010.

Developed and published by Statistics New Zealand, the tourism satellite account is compiled under a United Nations World Tourism Organization framework and funded by the Ministry of Business, Innovation, and Employment. It is one component of a core set of tourism data that provides base information for understanding and monitoring the changing levels and impact of tourism activity in New Zealand. Other elements of the core dataset include surveys of spending by international and domestic visitors, visitor arrival and accommodation statistics, and forecasts of tourist numbers and expenditure.

What is a tourism satellite account?

A tourism satellite account integrates data about the supply and use of tourism-related goods and services into a single format. It provides a summary measure of the contribution tourism makes to production and employment, 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 the rearrangement of 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 1993* (Inter-Secretariat Working Group on National Accounts, 1993).

We present both final and provisional estimates in *Tourism Satellite Account: 2013*. The supply and use framework provides a detailed picture of the economy broken down by industry, product, primary input, and final demand categories. It provides the starting point for deriving final accounts. In order to give a more timely picture of the impact of tourism, provisional TSAs are prepared using fewer data sources than final year estimates. The provisional estimates are presented in a less detailed format, and are subject to revision as relevant data sources subsequently 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 are able to replace provisional results with final year estimates.

Tourism Satellite Account: 2013 presents results for the years ended March 2011–13 at the aggregated provisional estimate level in current prices. Appendix 5 contains detailed results for the latest final account year (year ended March 2010).

Value added

Value added is the ‘value’ businesses add to the goods and services they purchase (intermediate inputs) and use in the process of 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 those businesses that have a direct relationship with tourists. Additional value added comes from tourism through the production of the intermediate inputs used in the production of 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.

2 Summary results

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

Key results for the year ended March 2013 are:

- Total tourism expenditure was $23.9 billion, an increase of 2.3 percent from the previous year.
- International tourism expenditure increased 2.2 percent ($213 million) to $9.8 billion and contributed 16.1 percent to New Zealand's total exports of goods and services.
- Domestic tourism expenditure increased 2.4 percent ($328 million) to $14.2 billion.
- Tourism generated a direct contribution to GDP of $7.3 billion, or 3.7 percent of GDP.
- The indirect value added of industries supporting tourism generated an additional $9.8 billion for tourism, or 5.0 percent of GDP.
- The tourism industry directly employed 110,800 full-time equivalents (FTEs) (or 5.7 percent of total employment in New Zealand), an increase of 1.8 percent from the previous year.
- Tourists generated $1.3 billion in goods and services tax (GST) revenue.
- Overseas visitor arrivals to New Zealand decreased 0.3 percent.

Key events that influenced tourism activity in the year ended March 2013 included the world premiere of the Hobbit trilogy, visitors from China exceeding 200,000 for the first time, the introduction and discontinuation of some route services by airlines, strong growth in cruise liner and cruise passenger visitation, and the ongoing effects of the global financial crisis. However, *Tourism Satellite Account: 2013* does not separately identify the impact on tourism expenditure at either a domestic or international level for these events.

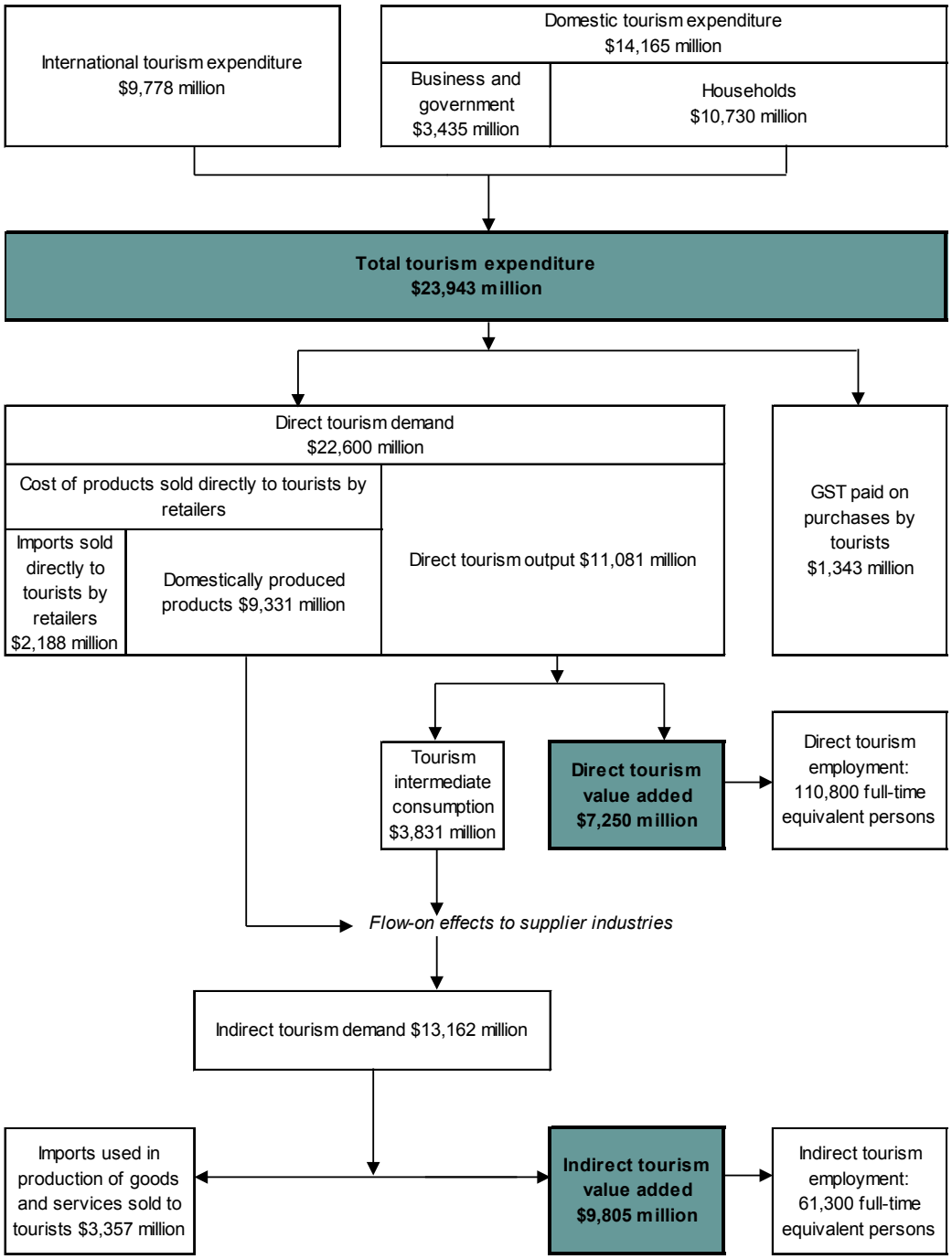
Tourism Satellite Account: 2013 also does not incorporate the revisions to the International Visitors Survey series. These revisions are to be incorporated in the National Accounts (Income and Expenditure) and Balance of Payments and International Investment Position releases in November and December 2013, respectively. The *Tourism Satellite Account: 2014* edition will include the revised series.

Figure 1 traces the flows of tourism expenditure through the New Zealand economy for the year ended March 2013. It shows the value tourism adds to the New Zealand economy, both directly and indirectly, the GST received by government, the imports of goods and services, and direct and indirect employment.

Figure 1

Flows of tourism expenditure through the New Zealand economy[1] [2]

Year ended March 2013



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

Source: Statistics New Zealand

Key results by topic for the year ended March 2013

Tourism expenditure

Total tourism expenditure increased 2.3 percent to $23.9 billion, following an increase of 2.3 percent in the March 2012 year.

Tourism expenditure generated $7.3 billion of direct value added, representing a 3.7 percent contribution to GDP. A further $9.8 billion of indirect value added activity was recorded (see table 1 and figure 2).

Table 1

Tourism expenditure by component[1]

Year ended March 1999–2013

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	4,052	5,058	4,670	835	14,615	4.2	5.2	9.4
2000	4,196	5,584	4,728	879	15,386	4.1	5.4	9.5
2001	4,659	6,070	4,479	921	16,129	4.3	5.6	9.8
2002	5,194	6,203	4,590	968	16,955	4.4	5.3	9.7
2003	5,655	6,494	4,850	1,029	18,029	4.6	5.3	9.9
2004	5,915	6,832	5,009	1,075	18,831	4.5	5.2	9.7
2005	6,147	7,532	5,020	1,132	19,832	4.4	5.3	9.7
2006	6,454	7,676	5,318	1,178	20,625	4.3	5.2	9.5
2007	6,549	8,014	5,700	1,227	21,490	4.2	5.2	9.4
2008	7,080	8,046	5,806	1,268	22,200	4.2	4.8	9.0
2009	6,537	8,760	5,926	1,276	22,499	3.8	5.1	9.0
2010	6,349 R	8,941 R	5,820 R	1,271 R	22,381 R	3.6 R	5.1 R	8.7 R
2011	6,572 R	9,341 R	5,674 R	1,292 R	22,878 R	3.6 R	5.1 R	8.6 R
2012	6,951 R	9,428 R	5,704 R	1,318 R	23,402 R	3.6 R	4.9 R	8.6
2013P	7,250	9,805	5,545	1,343	23,943	3.7	5.0	8.7

1. Individual figures may not sum to stated totals due to rounding.
2. Results from input-output tables for 1996 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.

Symbols:
P provisional
R revised

Source: Statistics New Zealand

Figure 2

Annual percentage change of tourism expenditure by component

Year ended March 2004–13

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

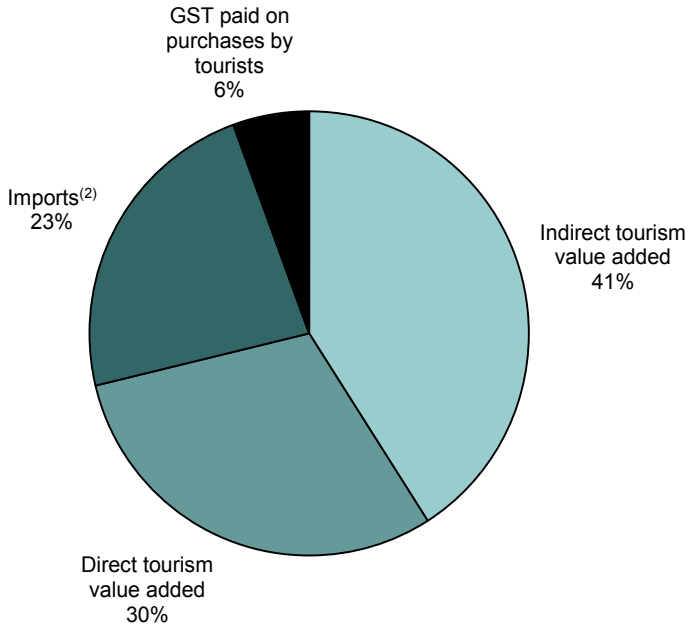
Source: Statistics New Zealand

Direct and indirect tourism value added, when combined, accounted for 71 cents for every dollar spent by tourists, while GST accounted for 6 cents for every dollar spent by tourists. The remainder represents imports (see figure 3).

Figure 3

Share of tourism expenditure by component(1)

Year ended March 2013



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

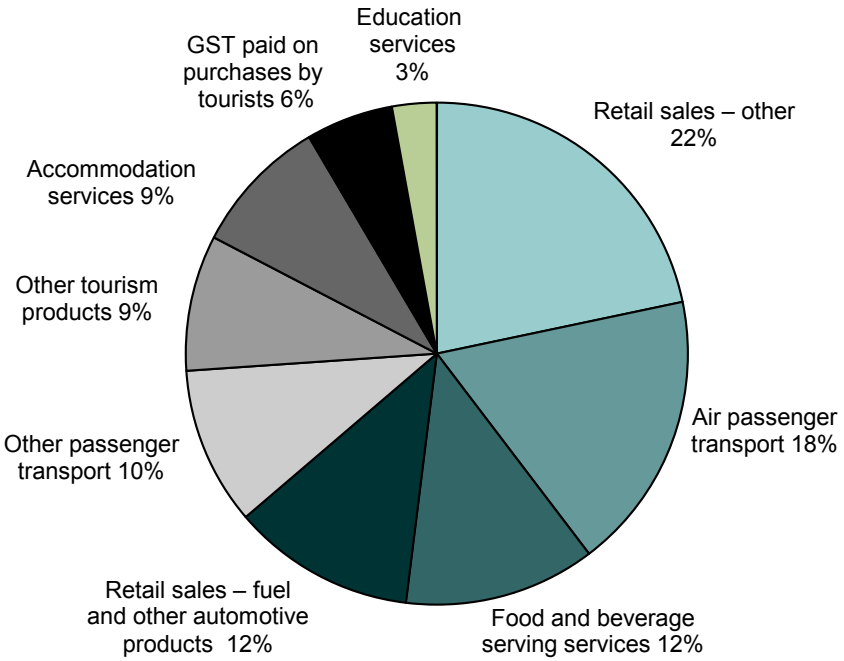
Source: Statistics New Zealand

The main products purchased by tourists were retail goods (including fuel and other automotive products) and air passenger transport, contributing 34 percent and 18 percent, respectively. Tourists spent 12 percent of their budget on food and beverage serving services and 10 percent on other passenger transport (see figure 4).

Figure 4

Share of tourism expenditure by type of product[(1)]

Year ended March 2013



1. Individual percentages my not sum to 100 due to rounding.

Source: Statistics New Zealand

International tourism expenditure increased 2.2 percent while domestic tourism expenditure increased 2.4 percent (see table 2 and figure 5).

Table 2

Tourism expenditure by type of tourist[1]

Year ended March 1999–2013

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	6,086	…	8,529	…	14,615	…	30,567 R	19.9 R
2000	6,398	5.1	8,989	5.4	15,386	5.3	33,752 R	19.0 R
2001	6,864	7.3	9,265	3.1	16,129	4.8	41,395 R	16.6 R
2002	7,277	6.0	9,678	4.5	16,955	5.1	43,967 R	16.6 R
2003	7,698	5.8	10,331	6.7	18,029	6.3	42,887 R	17.9 R
2004	8,103	5.3	10,728	3.8	18,831	4.4	41,033 R	19.7 R
2005	8,619	6.4	11,213	4.5	19,832	5.3	43,785 R	19.7 R
2006	8,871	2.9	11,754	4.8	20,625	4.0	44,216 R	20.1 R
2007	9,188	3.6	12,303	4.7	21,490	4.2	48,667 R	18.9 R
2008	9,388	2.2	12,812	4.1	22,200	3.3	52,176 R	18.0 R
2009	9,344	-0.5	13,155	2.7	22,499	1.3	58,248 R	16.0 R
2010	9,252 R	-1.0 R	13,129 R	-0.2	22,381 R	-0.5 R	53,773 R	17.2 R
2011	9,428 R	1.9 R	13,450 R	2.4	22,878 R	2.2	59,360 R	15.9 R
2012	9,565 R	1.4 R	13,837 R	2.9 R	23,402 R	2.3 R	62,816 R	15.2 R
2013P	9,778	2.2	14,165	2.4	23,943	2.3	60,667	16.1

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

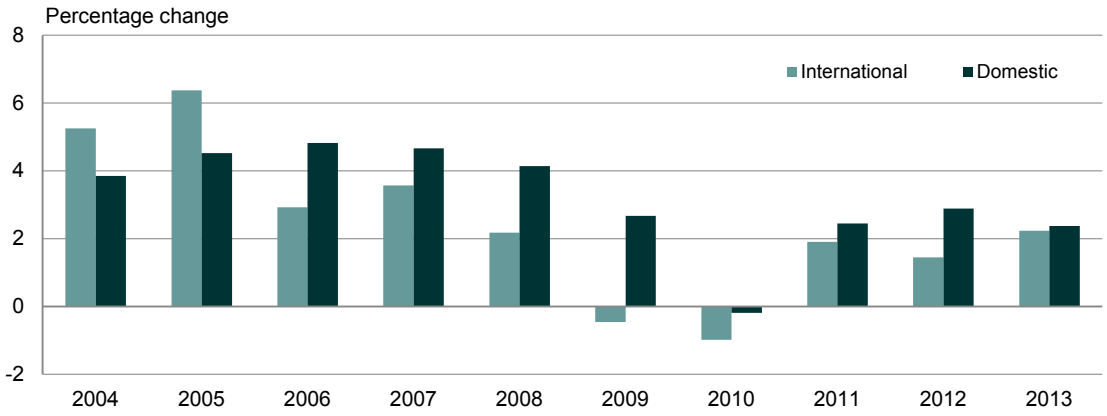
Symbols:
P provisional
R revised
… not applicable

Source: Statistics New Zealand

Figure 5

Tourism expenditure by type of tourist

Year ended March 2004–13



Source: Statistics New Zealand

Exports

International tourism continued to be a major export earner for New Zealand compared with other traditional export products (see table 3 and figure 6).

In the year ended March 2013, international tourism's contribution to total exports was $9.8 billion (16.1 percent of exports). It remains behind the export receipts from dairy products, including casein, which totalled $12.3 billion (20.4 percent of exports).

Note that international tourism is compared against primary exports in figure 6.

Table 3

International tourism expenditure compared with selected primary exports

Year ended March 2010–13

Selected export[1]	Year ended March			
	2010	2011	2012	2013P
	$(million)			
International tourism	9,252 R	9,428 R	9,565 R	9,778
Dairy products, including casein	8,972	11,576	12,704	12,349
Meat and meat products	4,997	5,199	5,389	5,279
Wood and w ood products	3,604	4,403	4,319	4,383
Seafood	1,201	1,350	1,388	1,369

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

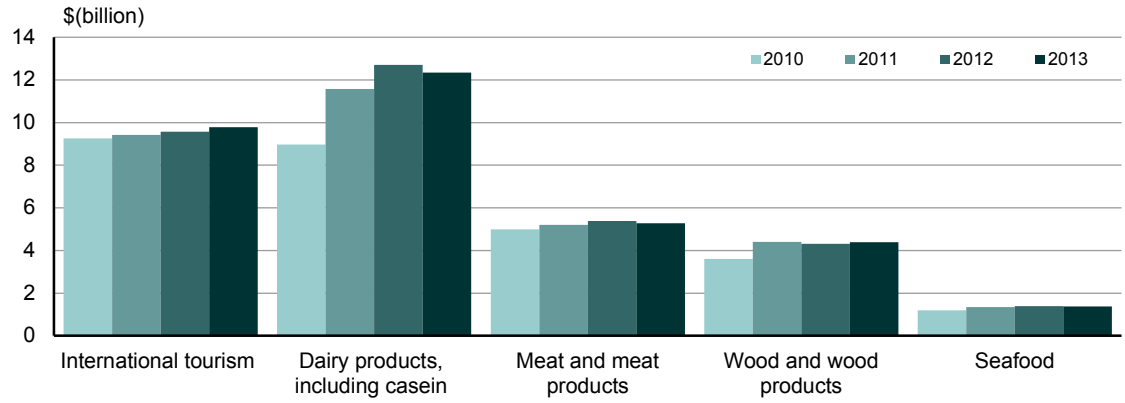
Symbols:
P provisional
R revised

Source: Statistics New Zealand

Figure 6

International tourism expenditure compared with selected primary exports[1]

Year ended March 2010–13



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

Source: Statistics New Zealand

Employment

In the year ended March 2013, tourism directly employed 110,800 full-time equivalents (FTEs) (see table 4 and figure 7).

Tourism activity directly generated 5.7 percent of total employment in New Zealand (see table 4). This compares with tourism generating 3.7 percent of direct value added to GDP. 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.

Table 4

Tourism employment[1] [2] [3]

Year ended March 2001–13

Year ended March	Employment (FTEs)[4]			Employment (FTEs) in tourism as a percentage of total employment in New Zealand		
	Direct employment in tourism	Indirect employment in tourism	Total tourism employment in New Zealand	Direct employment in tourism	Indirect employment in tourism	Total tourism employment in New Zealand
				Percent		
2001	86,000 R	50,500 R	136,500 R	5.4 R	3.2 R	8.6 R
2002	87,400 R	50,900 R	138,300 R	5.3 R	3.1 R	8.4 R
2003	91,100 R	53,200 R	144,300 R	5.4 R	3.2 R	8.5 R
2004	91,500 R	53,000 R	144,500 R	5.2 R	3.0 R	8.3 R
2005	91,900 R	51,900 R	143,800 R	5.1 R	2.9 R	7.9 R
2006	95,500 R	54,300 R	149,800 R	5.1 R	2.9 R	8.1 R
2007	96,800 R	54,200 R	151,000 R	5.1 R	2.9 R	8.0 R
2008	99,000 R	55,600 R	154,600 R	5.2 R	2.9 R	8.1 R
2009	100,300 R	56,100 R	156,400 R	5.2 R	2.9 R	8.1 R
2010	105,400 R	58,700 R	164,100 R	5.6 R	3.1 R	8.7 R
2011	104,900 R	58,500 R	163,400 R	5.4 R	3.0 R	8.5 R
2012	108,800 R	60,700 R	169,500 R	5.6 R	3.1 R	8.7 R
2013P	110,800	61,300	172,100	5.7	3.1	8.8

1. As a result of a change in methodology, this data is only available from 2001. For more details refer to appendix 2.
2. Individual figures may not sum to stated totals due to rounding.
3. Percentage changes are calculated from unrounded employment numbers.
4. FTE is an abbreviation for full-time equivalent.

Symbols:
P provisional
R revised

Source: Statistics New Zealand

Figure 7

Employment in tourism (FTEs)

Year ended March 2004–13

Source: Statistics New Zealand

Overseas visitor arrivals

Table 5 presents the breakdown of international visitors by region of last permanent residence and by purpose of visit for the years ended March 2010–13 (see figure 8).

Table 5

Overseas visitor arrivals[1] [2]

Year ended March 2010–13

	Year ended March						
	2010	2011	2012	2013	2011	2012	2013
	Number				Annual percentage change		
By region of last permanent residence							
Oceania and Antarctica	1,250,028	1,242,179	1,309,748	1,311,872	-0.6	5.4	0.2
Asia	403,800	454,768	475,608	528,624	12.6	4.6	11.1
Europe	482,993	442,427	457,044	405,856	-8.4	3.3	-11.2
The Americas	275,146	269,706	266,780	264,576	-2.0	-1.1	-0.8
Other[3]	75,014	85,678	101,680	88,880	14.2	18.7	-12.6
Total[4]	**2,499,102**	**2,506,639**	**2,617,930**	**2,611,377**	**0.3**	**4.4**	**-0.3**
By purpose of visit							
Holiday/vacation	1,205,457	1,191,853	1,221,440	1,204,080	-1.1	2.5	-1.4
Visit friends/relatives	796,351	777,009	851,372	859,744	-2.4	9.6	1.0
Conference/convention	48,331	58,995	50,744	54,160	22.1	-14.0	6.7
Business	236,289	249,412	249,312	250,752	5.6	0.0	0.6
Education/medical	54,128	54,630	52,360	50,640	0.9	-4.2	-3.3
Other[5]	146,425	162,859	185,632	180,432	11.2	14.0	-2.8

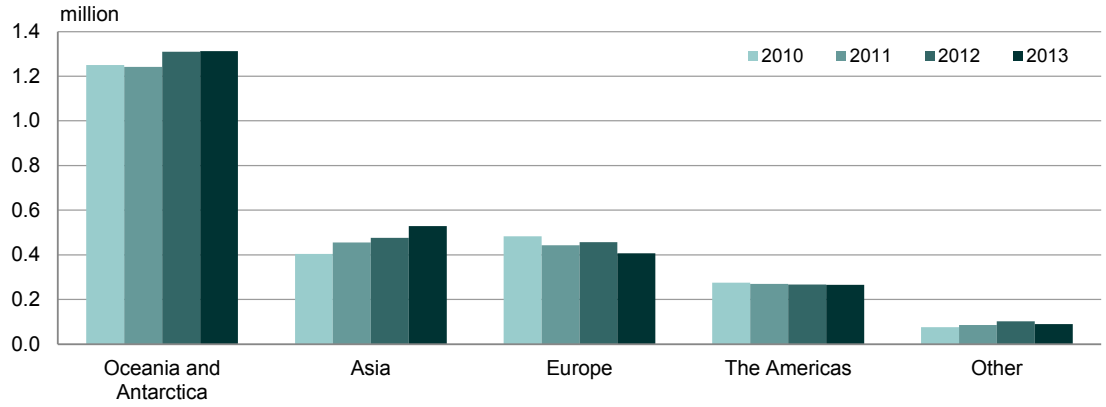
1. Intended length of stay in New Zealand is less than 12 months.
2. Individual figures may not sum to stated totals due to rounding.
3. Includes not stated.
4. These totals are actual counts, and may differ from the sum of individual figures for different countries, which are derived from samples.
5. Includes unspecified.

Source: Statistics New Zealand

Figure 8

Overseas visitor arrivals by region of residence

Year ended March 2010–13



Source: Statistics New Zealand

The number of international visitors decreased 0.3 percent (6,553), following an increase of 4.4 percent in the previous year. Visitor numbers from Oceania and Antarctica as well as from Asia increased, while visitor numbers from Europe, the Americas, and the 'other' visitor category fell.

The number of visitors from Asia increased 11.1 percent (53,016), following a 4.6 percent increase the previous year. The number of visitors from Europe decreased 11.2 percent (51,188) whilst visitors from the Americas decreased 0.8 percent (2,204) for a fifth consecutive year.

The decrease in short-term visitor arrivals to New Zealand was due to visitors in the education/medical, 'other', and holiday/vacation visitor categories decreasing 3.3 percent, 2.8 percent, and 1.4 percent, respectively.

Categories recording growth in short-term arrivals to New Zealand included conferences/conventions increasing 6.7 percent, visiting friends and relatives increasing 1.0 percent, and visitors arriving for business increasing 0.6 percent.

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 resident travel agency commissions) are included in domestic travel expenditure, as well as off-trip purchases of tourism-specific consumer durable goods (such as sleeping bags).

Key events that influenced tourism for years ended March 2010–13

The following is a summary of key events that influenced the tourism industry in New Zealand in the March years 2010–13:

- The world premiere of the first film of the Hobbit trilogy occurred in the March 2013 year.
- Visitors from China exceed 200,000 in the March 2013 year.
- Air New Zealand discontinued services between Beijing and Auckland whilst increasing services between Shanghai and Auckland in the year ended March 2013.

- Hawaiian Airlines commenced direct services between Honolulu and Auckland in the year ended March 2013.
- Jetstar acquired additional aircraft and increased domestic and trans-Tasman services in the year ended March 2013.
- Qantas discontinued services between Los Angeles and Auckland in the year ended March 2013.
- China Southern Airlines commenced direct services between Guangzhou to Auckland in the year ended March 2012.
- Strong growth in cruise liner and cruise passenger visitation occurred in the March 2010-13 years.
- The 2011 Rugby World Cup occurred in the March 2012 year, though the expenditure impact of this event is not separately identifiable.
- Ash from the eruption of the Puyehue-Cordón Caulle volcano in Chile disrupted air travel in the March 2012 year.
- A damaging earthquake struck the Canterbury region in September 2010, followed by a devastating earthquake in February 2011 in Christchurch. The expenditure implications/impacts of these events are not separately identifiable.
- The global financial crisis contributed to a decline in economic activity, including that of tourism, particularly in the March 2010 year.
- Air New Zealand purchased a stake in Virgin Australia in the March 2011 year and acquired additional stakes in the March 2012 and March 2013 years.
- Air Asia introduced low-cost flights between Kuala Lumpur and Christchurch beginning April 2011 and discontinued services in May 2012.
- Pacific Blue exited the domestic aviation market in the March 2011 year. Jetstar introduced low-cost flights between Singapore and New Zealand beginning March 2011.
- Swine flu, or the influenza A(H1N1) pandemic, caused instability in the international travel environment in the March 2010 year.
- During the March years 2010–13, cheap trans-Tasman airfares and a high New Zealand dollar maintained the strong growth in the number of New Zealanders holidaying in Australia and other overseas destinations.
- Statistics NZ's Accommodation Survey recorded 31.8 million guest nights spent in short-term commercial accommodation in the year ended March 2013, a 0.2 percent increase compared with the year ended March 2012. This follows a decrease of 0.5 percent in the year ended March 2012, a 1.3 percent decrease in the year ended March 2011 and an increase of 2.0 percent in the year ended March 2010.
- The Easter holidays occurred twice in the year ended March 2013 as Easter in 2012 was 'later' than usual (in April). By comparison, Easter did fall in the period covered by the 2011 and 2010 TSAs.
- More than 50 films and telefeatures were filmed completely, or in part, in New Zealand between the March years of 2010 and 2013.

3 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.

Table 6 presents tourism expenditure (or direct tourism demand) by type of product.

Table 6

Tourism expenditure by type of product[1] [2]

Year ended March 2010–13

Product	Year ended March						
	2010	2011	2012	2013P	2011	2012	2013P
	$(million)				Annual percentage change		
Accommodation services	2,034 R	2,060 R	2,068 R	2,121	1.3 R	0.4 R	2.6
Food and beverage serving services	2,774 R	2,818 R	2,875 R	2,948	1.6	2.0 R	2.5
Air passenger transport	3,877 R	4,039 R	4,174 R	4,301	4.2	3.3	3.0
Other passenger transport	2,414 R	2,419 R	2,406 R	2,435	0.2 R	-0.5 R	1.2
Retail sales – fuel & other automotive products	2,468 R	2,571	2,735 R	2,819	4.2 R	6.4 R	3.1
Retail sales – other	4,921 R	5,024 R	5,123 R	5,194	2.1 R	2.0	1.4
Education services	641	645	664 R	689	0.6 R	2.9 R	3.8
Other tourism products	1,981 R	2,009 R	2,039	2,094	1.4 R	1.5 R	2.7
Total tourism demand excluding GST	**21,111 R**	**21,586 R**	**22,084 R**	**22,600**	**2.3 R**	**2.3 R**	**2.3**
GST paid on purchases by tourists	1,271 R	1,292 R	1,318 R	1,343	1.7 R	2.0 R	1.8
Total tourism expenditure	**22,381 R**	**22,878 R**	**23,402 R**	**23,943**	**2.2**	**2.3 R**	**2.3**

1. All values are in producers' prices.
2. Individual figures may not sum to stated totals due to rounding.

Symbols:
P provisional
R revised

Source: Statistics New Zealand

Table 6 shows that for the year ended March 2013:

- Total tourism expenditure increased 2.3 percent, following an increase of 2.3 percent in 2012 and a 2.2 percent increase in 2011.
- The strongest growth in tourism expenditure was in education services, increasing 3.8 percent, retail sales – 'fuel and other automotive products' increasing 3.1 percent, and air passenger transport increasing 3.0 percent.

Table 7 presents tourism expenditure by type of product and by type of tourist for the years ended March 2010–13. The tourism product ratio is the proportion of total supply (national production plus imports) of each product that tourists purchase. International tourism expenditure includes spending by foreign students studying in New Zealand for less than 12 months.

Table 7

Tourism expenditure[(1) (2)]

By type of product and type of tourist

Year ended March 2010−13

Product	Domestic demand		International demand	Total demand	Total supply	Tourism product ratio
	Business and government demand	Household demand				
	$(million)					
2010						
Accommodation services	314 R	610 R	1,110 R	2,034 R	2,118 R	0.96
Food and beverage serving services	135 R	1,039 R	1,600 R	2,774 R	6,685 R	0.41 R
Air passenger transport	1,155 R	668 R	2,054 R	3,877 R	3,940 R	0.98
Other passenger transport	1,014 R	512 R	888 R	2,414 R	3,960 R	0.61 R
Retail sales – fuel and other automotive products	475 R	1,643 R	350 R	2,468 R	11,650 R	0.21
Retail sales – other	0	3,491 R	1,430 R	4,921 R	58,883 R	0.08
Education services	0	12	629	641	4,181 R	0.15 R
Other tourism products	84 R	1,186 R	711 R	1,981 R	37,314 R	0.05
Total tourism demand by type of tourist excluding GST	**3,177 R**	**9,161 R**	**8,773 R**	**21,111 R**	…	…
GST paid on purchases by tourists	14	777 R	480 R	1,271 R	…	…
Total tourism expenditure by type of tourist	**3,191 R**	**9,938 R**	**9,252 R**	**22,381 R**	…	…
2011						
Accommodation services	321 R	621	1,118 R	2,060 R	2,162 R	0.95 R
Food and beverage serving services	138 R	1,057 R	1,623 R	2,818 R	6,768 R	0.42 R
Air passenger transport	1,191 R	688	2,160 R	4,039 R	4,130 R	0.98
Other passenger transport	1,025 R	518	877	2,419 R	3,983 R	0.61 R
Retail sales – fuel and other automotive products	495 R	1,713 R	364 R	2,571	11,837 R	0.22
Retail sales – other	0	3,577 R	1,447 R	5,024 R	61,233 R	0.08
Education services	0	12	633	645	4,298 R	0.15 R
Other tourism products	87 R	1,200 R	722 R	2,009 R	38,312 R	0.05
Total tourism demand by type of tourist excluding GST	**3,256 R**	**9,386 R**	**8,944 R**	**21,586 R**	…	…
GST paid on purchases by tourists	14	794 R	484	1,292 R	…	…
Total tourism expenditure by type of tourist	**3,270 R**	**10,180 R**	**9,428 R**	**22,878 R**	…	…

Table continues next page

Table 7 continued

Product	Domestic demand		International demand	Total demand	Total supply	Tourism product ratio
	Business and government demand	Household demand				
	$(million)					
2012						
Accommodation services	329 R	627	1,111 R	2,068 R	2,187 R	0.95
Food and beverage serving services	141 R	1,083 R	1,651 R	2,875 R	6,744 R	0.43
Air passenger transport	1,230 R	732	2,212 R	4,174 R	4,247 R	0.98
Other passenger transport	1,028	513 R	865 R	2,406 R	4,042 R	0.60 R
Retail sales – fuel and other automotive products	529 R	1,817 R	389 R	2,735 R	12,178 R	0.22
Retail sales – other	0	3,661 R	1,462 R	5,123 R	63,801 R	0.08
Education services	0	13	651 R	664 R	4,482 R	0.15 R
Other tourism products	89 R	1,214 R	736 R	2,039 R	39,508 R	0.05
Total tourism demand by type of tourist excluding GST	**3,347**	**9,661 R**	**9,075 R**	**22,084 R**	…	…
GST paid on purchases by tourists	15	814 R	489 R	1,318 R	…	…
Total tourism expenditure by type of tourist	**3,362**	**10,475 R**	**9,565 R**	**23,402 R**	…	…
2013P						
Accommodation services	338	647	1,137	2,121	2,229	0.95
Food and beverage serving services	145	1,115	1,688	2,948	6,819	0.43
Air passenger transport	1,256	755	2,290	4,301	4,371	0.98
Other passenger transport	1,044	519	871	2,435	4,102	0.59
Retail sales – fuel and other automotive products	545	1,874	400	2,819	12,596	0.22
Retail sales – other	0	3,714	1,480	5,194	66,108	0.08
Education services	0	13	676	689	4,577	0.15
Other tourism products	92	1,260	742	2,094	40,461	0.05
Total tourism demand by type of tourist excluding GST	**3,420**	**9,897**	**9,284**	**22,600**	…	…
GST paid on purchases by tourists	15	833	494	1,343	…	…
Total tourism expenditure by type of tourist	**3,435**	**10,730**	**9,778**	**23,943**	…	…

1. All values are in producers' prices.
2. Individual figures may not sum to stated totals due to rounding.

Symbols:
P provisional
R revised
… not applicable

Source: Statistics New Zealand

Table 7 shows that for the year ended March 2013:

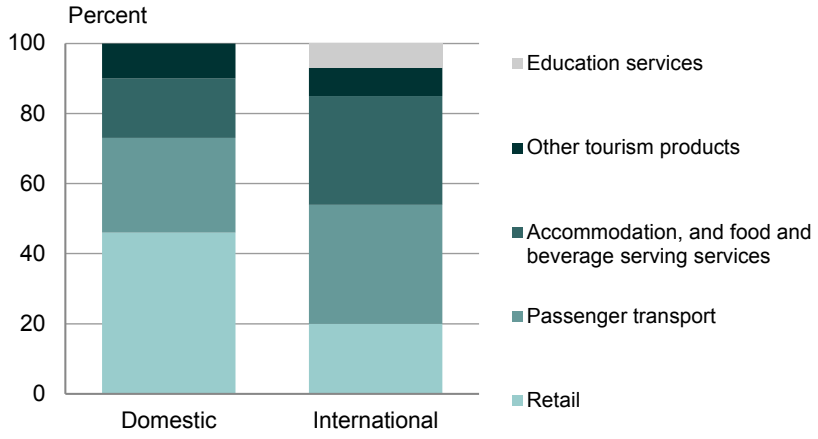
- Household tourism expenditure increased 2.4 percent, following an increase of 2.9 percent the previous year.
- The increase in household tourism expenditure was strongest in retail sales (including fuel and other automotive products), up $109 million, while other tourism products, increased $46 million from the previous year.
- Between 2010 and 2013, household tourism spending increased 8.0 percent. Over the same period, total household consumption expenditure increased 12.4 percent.
- Spending by international tourists in New Zealand increased 2.2 percent, following an increase of 1.4 percent in the March 2012 year and an increase of 1.9 percent in the March 2011 year.
- International tourist expenditure on air passenger transport increased 3.5 percent ($78 million) following an increase of 2.4 percent in the March 2012 year.

Figure 9 presents the share of tourism demand.

Figure 9

Share of tourism demand by type of product and type of tourist[(1)]

Year ended March 2013



1. Product totals exclude GST.

Source: Statistics New Zealand

As figure 9 shows, the biggest share of domestic demand was retail, at 46 percent, while international tourism's demand on retail was only 20 percent of total international spending. International tourists spent most of their budget on passenger transport (34 percent) and accommodation, food, and beverage serving services (30 percent).

4 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 years ended March 2011–13, an initial value of supply by product by industry for the same period was derived from a variety of sources (covered in detail in appendix 2 ‘Methodology’). In table 8, supply by product is shown only for tourism-characteristic industries.

Total supply and tourism supply by product are shown in table 8 for the years ended March 2010–13.

Points to note from table 8:

- 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. In 2013, for example, the tourism product ratio for accommodation services was 0.95. This means that almost all accommodation available was purchased by tourists. In contrast, tourists purchased only 22 percent of retail supplies of fuel and other automotive products.
- Tourism supply increased 2.3 percent in the March 2013 year. From 2010 to 2013, tourism supply increased at a slower rate than total supply (7.1 percent compared with 9.7 percent over this three-year period).
- Imports consumed by tourists represented 9.7 percent of total tourism supply in the March 2013 year, with the remainder provided by domestic industries.

Table 8
Derivation of tourism supply from total supply[1] [2]

Year ended March 2010−13

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)			
2010									
Accommodation services	1,672	446 R	0	2,118 R	0.96	1,605 R	429 R	0	2,034 R
Food and beverage serving services	4,872 R	1,813 R	0	6,685 R	0.41 R	2,022 R	752 R	0	2,774 R
Air passenger transport	3,889 R	51	0	3,940 R	0.98	3,827 R	50	0	3,877 R
Other passenger transport	3,774 R	187 R	0	3,960 R	0.61 R	2,300 R	114 R	0	2,414 R
Retail sales – fuel & other automotive products	17 R	7,059 R	4,574 R	11,650 R	0.21	4	1,496 R	969 R	2,468 R
Retail sales – other	602 R	46,027 R	12,254 R	58,883 R	0.08	42	3,855 R	1,024 R	4,921 R
Education services	3	4,178 R	0	4,181 R	0.15 R	1	641 R	0	641
Other tourism products	4,309 R	33,005 R	0	37,314 R	0.05	627	1,354 R	0	1,981 R
Total supply of products	**19,138 R**	**92,766 R**	**16,828 R**	**128,732 R**	**…**				
Total tourism supply of products						**10,427 R**	**8,690 R**	**1,993 R**	**21,111 R**
2011									
Accommodation services	1,706 R	456 R	0	2,162 R	0.95	1,626 R	434 R	0	2,060 R
Food and beverage serving services	4,932 R	1,836 R	0	6,768 R	0.42 R	2,054 R	764 R	0	2,818 R
Air passenger transport	4,077 R	53	0	4,130 R	0.98	3,987 R	52	0	4,039 R
Other passenger transport	3,796 R	188 R	0	3,983 R	0.61 R	2,305 R	114	0	2,419 R
Retail sales – fuel & other automotive products	17 R	7,172 R	4,648 R	11,837 R	0.22 R	4	1,558	1,010 R	2,571 R
Retail sales – other	626	47,864 R	12,743 R	61,233 R	0.08	43	3,935 R	1,045 R	5,024 R
Education services	4 R	4,294 R	0	4,298 R	0.15 R	1	645	0	645
Other tourism products	4,424 R	33,888 R	0	38,312 R	0.05	630 R	1,379 R	0	2,009 R
Total supply of products	**19,582 R**	**95,751 R**	**17,390 R**	**132,724** R	**…**				
Total tourism supply of products						**10,650 R**	**8,881 R**	**2,055 R**	**21,586 R**

Table continues next page

Table 8 continued

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)			
2012									
Accommodation services	1,726 R	461 R	0	2,187 R	0.95	1,632 R	436 R	0	2,068 R
Food and beverage serving services	4,915 R	1,829 R	0	6,744 R	0.43	2,096 R	780 R	0	2,875 R
Air passenger transport	4,192 R	55	0	4,247 R	0.98	4,120 R	54	0	4,174 R
Other passenger transport	3,852 R	190 R	0	4,042 R	0.60 R	2,293 R	113	0	2,406 R
Retail sales – fuel & other automotive products	18	7,379 R	4,781 R	12,178 R	0.22	4	1,657 R	1,074 R	2,735 R
Retail sales – other	653	49,871 R	13,277 R	63,801 R	0.08	44	4,013 R	1,066 R	5,123 R
Education services	4	4,478 R	0	4,482 R	0.15 R	1	663 R	0	664 R
Other tourism products	4,562 R	34,945 R	0	39,508 R	0.05	633	1,406	0	2,039
Total supply of products	**19,920 R**	**99,209 R**	**18,058 R**	**137,188 R**	…				
Total tourism supply of products						**10,822**	**9,121 R**	**2,140 R**	**22,084 R**
2013P									
Accommodation services	1,760	470	0	2,229	0.95	1,674	447	0	2,121
Food and beverage serving services	4,969	1,849	0	6,819	0.43	2,149	800	0	2,948
Air passenger transport	4,315	57	0	4,371	0.98	4,245	56	0	4,301
Other passenger transport	3,909	193	0	4,102	0.59	2,320	115	0	2,435
Retail sales – fuel & other automotive products	18	7,632	4,945	12,596	0.22	4	1,708	1,107	2,819
Retail sales – other	676	51,675	13,757	66,108	0.08	47	4,066	1,081	5,194
Education services	4	4,573	0	4,577	0.15	1	688	0	689
Other tourism products	4,672	35,788	0	40,461	0.05	642	1,452	0	2,094
Total supply of products	**20,323**	**102,236**	**18,703**	**141,263**	…				
Total tourism supply of products						**11,081**	**9,331**	**2,188**	**22,600**

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.

Symbols:
P provisional
R revised
… not applicable

Source: Statistics New Zealand

5 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 9. For reasons of confidentiality and practicality, only the working level of calculations is presented in this report.

The tourism industry ratio is calculated 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.

Tourism industry ratios are multiplied through each production account for all industries to produce direct tourism value added. This is summarised and presented in table 9 for the years ended March 2010–13.

Table 9

Direct tourism value added[1]

Year ended March 2010–13

	Year ended March						
	2010	2011	2012	2013P[2]	2011	2012	2013P
	$(million)				Annual percentage change		
Published GDP	189,718 R	199,113 R	206,546 R	211,019	5.0 R	3.7 R	2.2
Less GST, import duties, and other taxes on production	14,299 R	14,954 R	15,427 R	15,915	4.6 R	3.2 R	3.2
***Gives* contribution to GDP from production**	**175,419 R**	**184,159 R**	**191,119 R**	**195,104**	**5.0 R**	**3.8 R**	**2.1**
Tourism output of tourism-characteristic industries	10,427 R	10,650 R	10,822	11,081	2.1	1.6 R	2.4
Less tourism intermediate consumption of tourism-characteristic industries	6,152 R	6,322 R	6,385 R	6,425	2.8 R	1.0 R	0.6
***Gives* direct tourism value added of tourism-characteristic industries**	**4,275 R**	**4,328 R**	**4,437 R**	**4,656**	**1.2 R**	**2.5 R**	**4.9**
Plus direct tourism value added of all other industries	2,074 R	2,244 R	2,514 R	2,594	8.2 R	12.0 R	3.2
***Gives* total direct tourism value added**	**6,349 R**	**6,572 R**	**6,951 R**	**7,250**	**3.5 R**	**5.8 R**	**4.3**
	Percent						
Direct tourism value added as a percentage of total industry contribution to GDP	3.6 R	3.6 R	3.6 R	3.7	…	…	…

1. Individual figures may not sum to stated totals due to rounding.
2. Due to the GDP from production and its components for 2013P being unavailable at the time of publication, GDP expenditure has been used.

Symbols:
P provisional
R revised
… not applicable

Source: Statistics New Zealand

Point to note from table 9:

- Between 2010 and 2013, direct tourism value added (also referred to as tourism's direct contribution to GDP) increased 14.2 percent, a faster rate than the contribution to GDP from domestic production, which increased 11.2 percent.

As shown in figure 1, total expenditure on goods and services by tourists ($23.9 billion in 2013) consists of three components:

- Goods and services worth $20.4 billion produced in New Zealand and directly purchased by tourists. Direct tourism output consisted of $3.8 billion of intermediate inputs, and $7.3 billion of direct tourism value added.
- Imports of $2.2 billion sold directly to tourists by retailers.
- GST of $1.3 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, *Tourism Satellite Account: 2013* reports on indirect tourism value added (or tourism's indirect contribution to GDP). This broader measure goes beyond the value added generated by producers directly supplying tourism products, and embraces the total value added of all producers both directly and indirectly.

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

For example, the intermediate purchases of the 'accommodation' and 'cafes and restaurants' 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) in order to produce the items they sell to the accommodation and cafes and restaurants industries. So the sequence continues, until all intermediate purchases can be directly accounted for, either as value added or imports.

Measuring indirect tourism 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 *Quarterly gross domestic product: sources and methods* (2008).

Table 10 summarises the relationship between the various components of tourism expenditure.

Table 10

Tourism expenditure by component[1]

Year ended March 2010–13

	Year ended March						
	2010	2011	2012	2013P	2011	2012	2013P
	$(million)				Annual percentage change		
Direct tourism value added	6,349 R	6,572 R	6,951 R	7,250	3.5 R	5.8 R	4.3
Indirect tourism value added	8,941 R	9,341 R	9,428 R	9,805	4.5 R	0.9 R	4.0
Imports sold to tourists[2]	5,820 R	5,674 R	5,704 R	5,545	-2.5 R	0.5 R	-2.8
GST paid on purchases by tourists	1,271 R	1,292 R	1,318 R	1,343	1.7 R	2.0 R	1.8
Total tourism expenditure	**22,381 R**	**22,878 R**	**23,402 R**	**23,943**	**2.2**	**2.3 R**	**2.3**

1. Individual figures may not sum to stated totals due to rounding.
2. Imports used in production of goods and services sold to tourists; imports sold directly to tourists by retailers.

Symbols:
P provisional
R revised

Source: Statistics New Zealand

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 10 shows that in the year ended March 2013 these imports decreased 2.8 percent, while total tourism expenditure rose 2.3 percent.

Tourism expenditure can also be presented by the share of each component, as shown in table 11 for the years ended March 2010–13.

Table 11

Share of tourism expenditure by component[1]

Year ended March 2010–13

	Year ended March			
	2010	2011	2012	2013P
	Percent			
Direct tourism value added	28.4 R	28.7 R	29.7 R	30.3
Indirect tourism value added	39.9 R	40.8 R	40.3 R	40.9
Imports sold to tourists[2]	26.0 R	24.8 R	24.4 R	23.2
GST paid on purchases by tourists	5.7	5.6	5.6	5.6
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.

Symbols:
P provisional
R revised

Source: Statistics New Zealand

6 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 12 shows the number of total full-time equivalents (FTEs) directly employed in tourism.

These are shown in terms of paid employees and working proprietors, and are broken down into full-time and part-time positions. In the absence of data on hours worked, a part-time employee is assumed to equate to 0.5 of a full-time equivalent. An FTE is an employee who works 30 or more hours a week, while a part-time employee is one who works fewer than 30 hours a week as per Statistics NZ's employment definition.

Points to note from table 12:

- There were 110,800 FTEs directly employed in tourism in the year ended March 2013, an increase of 1.8 percent from the previous year.
- Direct tourism employment increased 5.1 percent between 2010 and 2013. The total number of FTEs employed in New Zealand increased only 2.7 percent over the same period.
- The number of FTEs employed in tourism does not necessarily correlate with movements in total tourism expenditure or direct value added. In 2013, for example, direct tourism value added increased 4.3 percent, while FTEs directly employed in tourism increased 1.8 percent. This difference may be the result of a number of factors. There may be a lag between growth in a given industry and decisions to employ new staff. Alternatively, there may be a shift in the number of hours worked, or in output for each FTE. Also, defining a part-time employee's hours as equivalent to 0.5 of an FTE's hours may not necessarily be a true representation of the differences in hours worked.

Tourism industry ratios have been used 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.

Table 12
Direct tourism employment[1] [2] [3]

Year ended March 2010–13

	Year ended March						
	2010	2011	2012	2013	2011	2012	2013
	Number				Annual percentage change[4]		
Total employment							
Full-time employees	1,404,600	1,430,500	1,436,400	1,450,800	1.8	0.4	1.0
Part-time employees	409,500	401,600	415,200	407,800	-1.9	3.4	-1.8
FTE[5] employees	1,609,400	1,631,300	1,644,000	1,654,700	1.4	0.8	0.7
Full-time working proprietors	251,100	255,600	262,100	253,500	1.8	2.5	-3.3
Part-time working proprietors	72,900	76,700	83,300	79,900	5.2	8.6	-4.1
FTE working proprietors	287,600	294,000	303,800	293,500	2.2	3.3	-3.4
Total FTEs employed	**1,896,900**	**1,925,300**	**1,947,800**	**1,948,200**	**1.5**	**1.2**	**0.0**
Tourism employment							
Tourism full-time employees	66,400 R	66,600 R	69,400 R	71,500	0.4 R	4.1 R	3.1
Tourism part-time employees	48,500 R	48,700 R	51,300 R	49,900	0.4 R	5.5 R	-2.7
Tourism FTE employees	90,600 R	91,000 R	95,000 R	96,500	0.4 R	4.5 R	1.5
Tourism full-time working proprietors	13,000 R	12,200 R	12,000 R	12,400	-6.1 R	-1.6 R	3.6
Tourism part-time working proprietors	3,500 R	3,500 R	3,600 R	3,800	-1.0 R	2.6 R	5.3
Tourism FTE working proprietors	14,700 R	13,900 R	13,800 R	14,300	-5.5 R	-1.1 R	3.8
Total FTEs directly employed in tourism	**105,400 R**	**104,900 R**	**108,800 R**	**110,800**	**-0.5 R**	**3.7 R**	**1.8**
	Percent						
FTEs directly employed in tourism as a percentage of total FTEs employed in New Zealand	**5.6 R**	**5.4 R**	**5.6 R**	**5.7**	**…**	**…**	**…**

1. Employment numbers are rounded to the nearest hundred. Individual figures may not sum to stated totals due to rounding.
2. Total employment numbers and tourism working proprietor numbers (excluding unpaid family workers and unspecified) are sourced from the Household Labour Force Survey and are averages for the year ended March.
3. Tourism employee numbers are sourced from the Quarterly Employment Survey and are averages for the year ended February.
4. Percentage changes are calculated from unrounded employment numbers.
5. FTE is an abbreviation for full-time equivalent.

Symbols:
R revised
… not applicable

Source: Statistics New Zealand

7 Tourism industry profitability

A measure of 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 13 and figure 10 show gross operating surplus 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.

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

Table 13

Tourism gross operating surplus as a percentage of total tourism output[1] [2]

Year ended March 2006–10

Industry	Year ended March				
	2006	2007	2008	2009	2010
	Percent				
Tourism-characteristic industries					
Accommodation	17.5	18.9	20.2	18.9	16.8
Food and beverage serving services	12.5	14.7	15.5	14.5	14.8
Road, rail, and water passenger transport[3]	15.2	17.2	18.0	15.7	15.6
Air transport	11.6	11.4	11.3	-3.4	4.3
Other transport, transport support, & travel and tour services	33.9	38.3	38.1	39.0	39.8
Rental and hiring services	45.4	48.7	49.1	49.7	46.7
Arts and recreation services	21.8	21.8	22.8	21.1	22.3
Total tourism-characteristic industries	**18.2**	**19.3**	**19.5**	**13.3**	**16.2**
Tourism-related industries					
Retail trade	18.9	20.1	20.5	19.0	21.7
Education and training	9.7	8.7	8.3	8.1	8.3
All non-tourism-related industries	**30.8**	**32.0**	**31.8**	**30.5**	**21.1**
Total	**19.2**	**20.2**	**20.3**	**15.4**	**16.6**

1. Tourism gross operating surplus 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 passenger transport are combined for confidentiality reasons.

Source: Statistics New Zealand

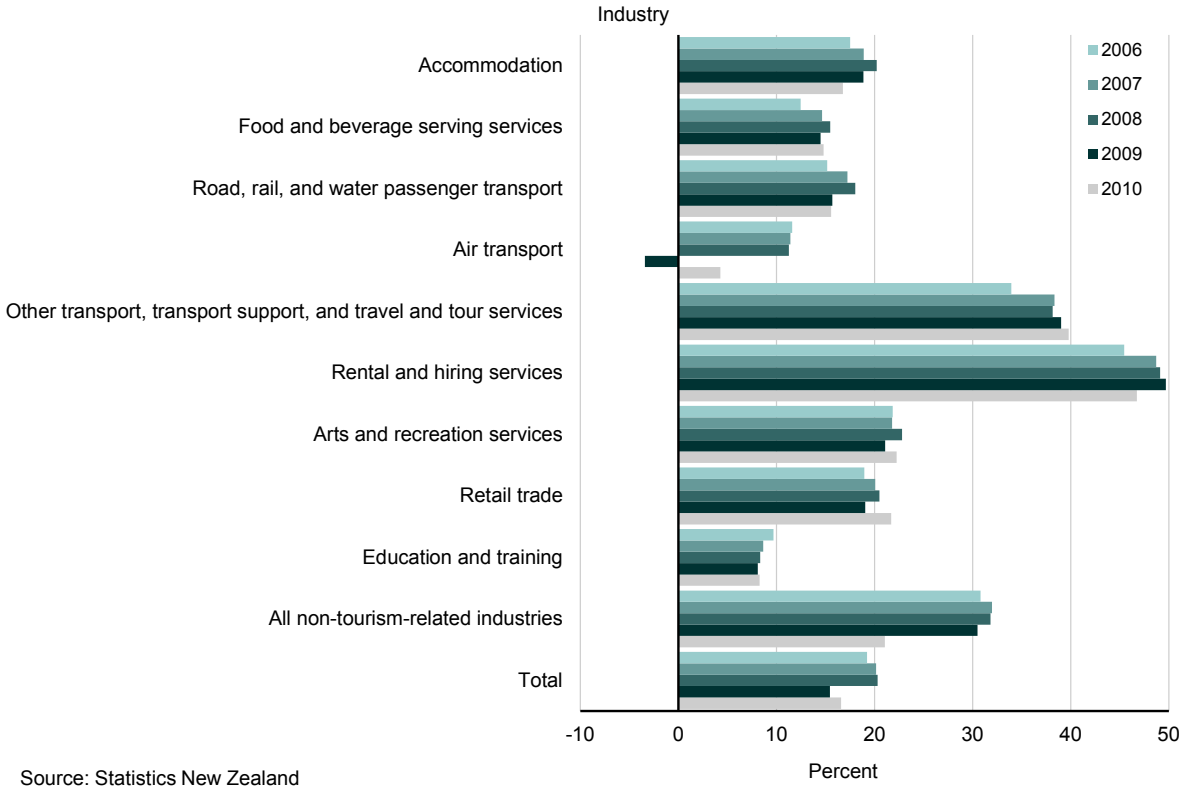
Points to note from table 13:

- The profitability of tourism-characteristic industries (total) for the year ended March 2010 increased 2.9 percentage points compared with the year ended March 2009.
- The tourism-characteristic industries of 'food and beverage serving services', 'air transport', 'other transport, transport support, and travel and tour services' and 'arts and recreation services' each recorded higher profitability ratios than in 2009.
- Comparing the broad tourism-characteristic industry categories for the year ended March 2006 with 2010, only the accommodation and air transport industries recorded decreased profitability ratios.

Figure 10

Tourism gross operating surplus as a percentage of total tourism output

Year ended March 2006–10



Source: Statistics New Zealand

Appendix 1: Conceptual framework

Definitions

Tourism Satellite Account: 2013 is based on the methodology produced by the United Nations World Tourism Organization (UNWTO) in its publication *Tourism satellite account: Recommended methodological framework 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 that is based on the international standard *System of National Accounts 1993*. Definitions used in *Tourism Satellite Account: 2013* 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 1993*, 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, course 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 particular 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, in purchasing 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.

Information from the Domestic Travel Survey was also collected on this basis.

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 (eg meals or souvenirs), or is travel related (eg 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 of 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, producers', and purchasers' 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.

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.

A full list of tourism-characteristic and tourism-related products is found in table 14, appendix 3 ‘Tourism product classification’.

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 14 in 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:

- at least 25 percent of the industry's output is purchased by tourists, or
- 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 percent 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. The tourism-characteristic and tourism related industries are identified 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 – 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 (ie, 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.

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 6, 7, 8, and 9 detail the process used to measure direct tourism value added. This involves the following steps:

- Table 6 presents tourism expenditure by type of product. (It is further dissected by type of tourist in table 7.)
- Tourism expenditure by type of product is matched with the total supply of products in the annual supply and use tables of the New Zealand economy. The tourism product ratio for each product is derived by dividing the value of tourism expenditure by total supply of the product.
- Each industry's supply by product is multiplied by the tourism product ratio, to calculate tourism supply by industry. Table 8 presents tourism supply for tourism-characteristic industries, all other industries, and imports.
- Tourism supply is then divided by total output by industry, to give tourism industry ratios – the proportion of each industry's total output that is purchased by tourists.
- The tourism industry ratios are multiplied through each industry's production account. The resulting series are summed to obtain total tourism value added. Table 9 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. There are three main reasons for this:

- 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 the derivation of input data for final and provisional accounts are outlined in the following sections.

Calculating tourism expenditure

Table 7 presents tourism expenditure by type of product and by type of tourist: international (international visitors and international students); household; and business and government. Descriptions of how expenditure by the three types of tourist are calculated as outlined below.

International tourism expenditure

International tourism expenditure comprises both international visitors' and international students' expenditure.

Final accounts

Expenditure by international tourists in New Zealand is derived from the International Visitors Survey (IVS) published by the Ministry of Business, Innovation, and Employment. This sample survey is extrapolated up to full population estimates using migration data. 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 a number of supplementary sources are also used. TSA totals are obtained after excluding people who are visiting New Zealand specifically to obtain medical treatment (an adjustment needed because of a conceptual difference between TSA and BoP statistics). These totals are then broken into tourism products. The initial breakdown comes from the IVS, which groups expenditure into 10 major groups (for example, transport, meals, sightseeing). These expenditures are then further split into TSA tourism products, using proportions from balanced supply and use accounts. These splits are compared with other data sources, and refinements made where additional estimates are 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. The breakdown derived for the latest final account is used 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').

Tourism expenditure by international students

Tourism expenditure by international students studying for less than 12 months in New Zealand is calculated using the following steps:

- Total international student numbers are obtained from the Ministry of Education.
- The number of international students studying in New Zealand for less than 12 months is derived as a proportion of total student numbers by using short-term passenger arrivals visiting New Zealand for education or medical purposes.
- Expenditure on course fees is calculated using the Ministry of Education's Export Education Levy data, which is a census of international students studying in New Zealand. It includes average course fees for students studying at schools, tertiary education institutes, and private tertiary establishments (such as English language schools).
- Expenditure on living costs (including accommodation costs) is calculated consistent with that of BoP. This involves rating forward average course fee data using predetermined living cost ratios, on a per student basis.

- Expenditure on airfares by short-term students is calculated by multiplying the numbers 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).
- Total tourism expenditure by international students in New Zealand for less than 12 months is the sum of expenditure on course fees, living costs, and airfares.

Household tourism expenditure

Household tourism expenditure, shown as household demand in table 7, consists of four components. These are:

1. Household domestic travel expenditure

The Domestic Travel Survey (DTS) measures the expenditure and behaviours of domestic travellers within New Zealand. It provides information on the nature of domestic travel activity, including the origin and destination of domestic travellers. DTS data collection began in 1999, and data is available as both quarterly and annual series.

The DTS data supplied by the Ministry of Business, Innovation, and Employment to Statistics NZ is categorised by purpose of travel, expenditure type, and length of trip (either day trip or overnight trip). The four travel purposes are: holiday, visiting friends and relatives, business, and other. The eight expenditure categories are: transport, accommodation, food, alcohol, gifts and souvenirs, recreation, other shopping, and gambling. DTS expenditure levels are available by purpose of travel, expenditure category, and length of trip.

The DTS captures approximately 80 percent of domestic household expenditure in the TSA. The remaining 20 percent is calculated using separate estimates for outbound travel purchased from New Zealand-resident firms, off-trip purchases of tourism-specific consumer durable goods, and imputed rental on holiday homes.

Final accounts

The DTS is a key data source in calculating domestic household expenditure in the TSA. Data obtained from the DTS is supplemented with data from the Household Economic Survey (HES) and other sources.

DTS business expenditure data and data from the other three DTS travel purpose types are used to estimate part of TSA domestic household expenditure. For each of the eight expenditure categories mentioned above, a predetermined proportion of the DTS business expenditure is included within TSA domestic household expenditure. For example, 67 percent of DTS business expenditure on alcohol is considered to be within the scope of TSA domestic household expenditure, which reflects the business tourist paying for 67 percent of their alcohol consumption without being compensated by their organisation. The remaining 33 percent is considered to be consumption for which the business tourist is compensated by their organisation. This amount is therefore not classified as TSA domestic household expenditure.

Provisional accounts

Total domestic household expenditure for provisional March years is calculated by applying movements from the March year DTS data to the latest final domestic household expenditure values. Other data sources, such as annual reports and the HES, are also incorporated into the calculations. This mechanism provides the initial product expenditure levels, which are subsequently modified during the balancing process (covered in more detail later in this appendix, see ‘Balancing tourism expenditure and tourism production’).

2. Outbound travel purchased from New Zealand-resident firms

Final accounts

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. This expenditure is estimated from a variety of sources, including BoP data, the HES, and company annual reports.

Provisional accounts
Household outbound tourism expenditure for provisional accounts is calculated by using product breakdowns from the latest final account, to split household consumption expenditure groupings. For example, household tourism expenditure on travel insurance is rated forward by using total household consumption expenditure on insurance. Annual movements in the appropriate household consumption expenditure category are used to estimate expenditure, based on the latest final account. Expenditure estimates are subject to modification during the supply and use confrontation (covered in more detail later in this appendix, see 'Balancing tourism expenditure and tourism production').

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

Final accounts
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 from the HES 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'. Further discussion on consumer durables in the TSA is in the 'Special treatments' section later in this appendix.

Provisional accounts
Domestic household purchases of tourism-specific consumer durables for the provisional years are calculated by using household consumption expenditure groupings, to split products down to a detailed level. Annual movements in the household consumption expenditure groupings are used to estimate expenditure at the detailed product level, for each provisional account. The detailed product level is then reaggregated to the published tourism product level. Expenditure estimates are subject to modification during the balancing process (covered in more detail later in this appendix, see 'Balancing tourism expenditure and tourism production').

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. The total number of holiday homes is calculated using data from the Census of Population and Dwellings. The imputed weekly rental price is calculated using census data, movements in the appropriate consumers price index, and accommodation survey occupancy rates. This is multiplied by the number of weeks in the year to give an annual imputed rental price. The number of holiday homes is then multiplied by the annual imputed rental price to give the total imputed rental value.

Business and government travel expenditure

Final accounts
Business travel expenditure is drawn from intermediate consumption, by product, of private sector industries in the balanced supply and use accounts. This is supplemented by other data sources, including the Annual Enterprise Survey. DTS business expenditure data are not used to derive the TSA business expenditure estimates. To avoid double-counting, the DTS business expenditure categories that are included within TSA domestic household expenditure (such as 67 percent of the alcohol category mentioned earlier in this appendix, see 'Household tourism expenditure') are not incorporated into the TSA business expenditure estimates.

Travel expenditure by local authority and central government agencies and departments (ie, non-market units) is sourced from a sample of agencies, and the results are applied across all authorities and agencies. Travel expenditure by local and central government market units uses the same supply and use method as for business travel.

Provisional accounts
Travel expenditure is part of the intermediate consumption of businesses and government. In the absence of balanced supply and use accounts, intermediate consumption is first derived using a variety of data sources, including GST purchases, annual reports, and results from the Annual Enterprise Survey. The ratio of travel expenses to total intermediate consumption from the latest final account is then applied. This provides the initial product breakdown, which is subsequently modified during the balancing process (covered in more detail later in this appendix, see 'Balancing tourism expenditure and tourism production').

As with the final accounts, DTS data is not used in estimating TSA business and government expenditure.

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, each industry's output and intermediate consumption are broken down into products. Final demand categories such as household consumption expenditure and exports are also broken down by product. For the TSA, output product data from balanced supply and use tables are rearranged to focus on tourism-characteristic and tourism-related products. Total sales by each industry are arranged 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, total output by industry is derived using a variety of indicators, including GST sales, the Retail Trade Survey, the Annual Enterprise Survey, the Accommodation Survey, and annual reports. This output is then broken down 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 is subsequently modified during the balancing process (covered in more detail in 'Balancing tourism expenditure and tourism production', see below).

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, 1993). 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. Adjustments are made 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. Similar checking of supply and use by product, which underlies Statistics NZ's annual supply and use models, was also performed in the TSA.

The TSA begins with the balanced supply and use tables, so all products are balanced in terms of their total supply and total use. These 'product accounts' are broken down further into their tourism and non-tourism components. The resulting tourism supply and tourism use may no longer be balanced as a consequence of the methodology used to make this split. The same type of data confrontation used in supply and use balancing is then used in the TSA to ensure that tourism supply is equal to tourism use.

A typical example of how this process is undertaken is as 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, changes are incorporated. In areas where no data is available, iterative changes are made to these products, keeping particular areas of confidence 'locked'. This process is continued 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 also 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.

Tourism supply by product by industry is derived by applying the tourism product ratio (from table 7) to the supply of that product by each industry. Total tourism supply by each industry is then calculated by summing tourism supply for all products.

For example, the tourism product ratio for accommodation services was applied to the output of all industries supplying this product. This gave tourism supply of accommodation services by each industry. Tourism supply by each industry was then divided by total industry output, to give the tourism industry ratio. It is worth noting that although the accommodation industry is the dominant supplier of accommodation services they are not the sole supplier as other industries can also supply this product.

While the calculation of 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 8 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 tourism value added can be calculated, provisional production accounts for each industry are derived. Data from a variety of sources, including GST sales and purchases, annual reports, and the Annual Enterprise Survey, are used 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.

A major assumption is made in the compilation of the TSA relating to the use of the tourism product ratio and the tourism industry ratios. 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 12), 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.

Employee numbers (people employed full-time, part-time, or full-time equivalent) by each industry are sourced from the Quarterly Employment Survey (QES). Exceptions are the water transport and agriculture industries, as the QES does not survey employment for some parts of these industries. Their employee numbers come from the Household Labour Force Survey (HLFS).

Working proprietor numbers (people employed full-time, part-time, or full-time equivalent) by each industry are sourced from the HLFS. The QES is not suitable as a data source because it counts only working proprietors with employees.

Before the *Tourism Satellite Account: 2004*, the tourism employment series was compiled mainly from the Annual Frame Update Survey (AFUS). From 2003 the AFUS was unable to provide a comprehensive full-time/part-time employment split. As a consequence, the TSA tourism employment series from 2004 (subsequently back-cast) uses QES and HLFS data. The series currently available is for all years from 2001.

Tourism industry profitability

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

The derivation of imports used in producing goods and services sold to tourists and indirect tourism value added are discussed below.

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.

The value of imports used in producing products sold to tourists is calculated using the table of cumulated import coefficients of industries, and categories of final demand, from 1996 input-output tables. This is the most recent cumulated import coefficients table available. 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 from 1996 input-output tables, the most recent total requirements table available.

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

The numbers of full-time equivalent (FTE) employees indirectly employed in tourism are presented in table 4.

Final accounts

Indirect tourism employment takes, as its starting point, indirect tourism value added by industry. The ratio of indirect tourism value added to direct tourism value added is calculated, and multiplied by direct tourism employment, to give indirect tourism employment by industry. These industry estimates are summed to calculate the total FTE employees indirectly employed 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, the ratio of total indirect tourism value added to total direct tourism value added, by industry, is calculated for the latest final year. This is multiplied by total direct tourism employment, to give the total FTE employees indirectly employed in tourism.

Supply and use framework

Final accounts

The TSA is a rearrangement of the NZSNA. More specifically, the tables for final accounts are derived 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, derived tables may be produced 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 impacts first on industries that directly supply tourists, and then on 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 (eg 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, aggregated supply of products sold to tourists by industry are calculated. This involves:

- deriving the output of each industry (as outlined earlier in this appendix)
- 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 is subsequently modified 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.

Special treatments

This section details a number of 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 using 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 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 makes some attempt 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 defined a 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, the assumption is made that it is available to be used all year, and therefore the rental from owning the holiday home is allocated to tourism expenditure.

For a TSA, demand for holiday homes is assumed to come solely from domestic recreational tourists, due to a lack of data on the origin of holiday homes. Total supply of holiday homes is set 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

There are two major ways in which travel agents obtain their income. Firstly, income is earned 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). There are special treatments in TSAs for each of these means of generating income:

- Where travel agents have sold travel to travellers, then travellers are recorded as having bought travel (from the travel provider) and travel agency services (the travel agent's margin).
- Where travel agents have received commissions, providers are assumed 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 consumed by tourists

The New Zealand TSA does not include an imputation for the provision of 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 1993* (Inter-Secretariat Working Group on National Accounts, 1993). However, this has been only partly implemented (local government has not been fully split). In areas that have been split, the breakdowns are not sufficiently detailed for TSA purposes.

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 14 shows these distinctions. The inclusions and exclusions are not exhaustive, but are intended to clarify coverage from a tourism perspective.

Table 14

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 (eg student hostels)
Food and beverage serving services	Food and beverage serving services	Takings from meals (including takeaways), beverage serving services for consumption on the premises	
Air passenger transport	Air passenger transport	Scheduled and unscheduled air passenger transport, rental services of aircraft with operator	Air freight transport

Table continues next page

Table 14 continued

Tourism product classification			
Tourism product for provisional tourism satellite accounts	**Tourism product for tourism satellite accounts**	**Includes**	**Excludes**
Other passenger transport	Road passenger transport	Bus and taxi passenger transport, 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
	Travel agency services	Booking services, ticket selling	Freight agency services
	Motor vehicle hire or rental	Hiring of cars, trucks, buses, and campervans	Taxis, hiring of motor vehicles with drivers, machinery hire
Retail sales – fuel and other automotive products	Retail sales – fuel and other automotive products	Diesel, motor oils	
Retail sales – other	Retail sales – alcohol	Alcoholic beverages purchased from liquor stores, supermarkets, and other retail outlets	Alcohol sold for consumption on premises
	Retail sales – clothing and footwear		
	Retail sales – food, beverages, tobacco, and other groceries		
	Retail sales – retail medicines, toiletries		

Table continues next page

Table 14 continued

Tourism product classification			
Tourism product for provisional tourism satellite accounts	**Tourism product for tourism satellite accounts**	**Includes**	**Excludes**
Retail sales – other (continued)	Retail sales – tourism consumer durables	Tents, sleeping bags, luggage, skiing equipment, climbing/tramping equipment, diving equipment, motor vehicles, pleasure and sporting boats	
	Retail sales – other shopping		
Education services[1]	Education services[1]	Spending on education by international students studying in New Zealand for less than 12 months	Spending on education by international students studying in New Zealand for more than 12 months
Other tourism products	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	
	Libraries, archives, museums, and other cultural services	Zoos, nature reserves	
	Financial services	Issuing and negotiating foreign cash and non-trade financial instruments	Financial intermediation services indirectly measured
	General insurance	Travel insurance, other general insurance	Life insurance, superannuation, and health insurance
	Social and health-related services	Health and medical services, social services	

Table continues next page

Table 14 continued

Tourism product classification			
Tourism product for provisional tourism satellite accounts	**Tourism product for tourism satellite accounts**	**Includes**	**Excludes**
Other tourism products (continued)	Gambling services	Gambling at the casino, other gambling services	
	Other tourism-related services	Telecommunications, postal and courier services, other tourism products	Health and medical services
	Other personal services	Laundry services, film processing, hairdressing, beauty services	
1. Before the *Tourism Satellite Account: 2005*, education services was included within other tourism-related services. **Source:** Statistics New Zealand			

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. This is shown in table 15.

Table 15

Tourism industry concordance				
Tourism industry category for provisional tourism satellite accounts	**Tourism industry category for tourism satellite accounts**	**Tourism industry component**	**ANZSIC industry subdivision/ group code**	**ANZSIC industry subdivision/group title**
Tourism-characteristic industries	Tourism-characteristic industries	Accommodation	H44	Accommodation
		Food and beverage services[(1)]	H45	Food and beverage services[(1)]
		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

Table continues next page

Table 15 continued

Tourism industry concordance				
Tourism industry category for provisional tourism satellite accounts	**Tourism industry category for tourism satellite accounts**	**Tourism industry component**	**ANZSIC industry subdivision/group code**	**ANZSIC industry subdivision/group title**
Tourism-characteristic industries (continued)	Tourism-characteristic industries (continued)	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
All other industries	Tourism-related industries	Retail trade	G39	Motor vehicle and motor parts retailing
			G40	Fuel retailing
			G41	Food retailing
			G42	Other store-based retailing

Table continues next page

Table 15 continued

Tourism industry concordance				
Tourism industry category for provisional tourism satellite accounts	**Tourism industry category for tourism satellite accounts**	**Tourism industry component**	**ANZSIC industry subdivision/group code**	**ANZSIC industry subdivision/group title**
All other industries (continued)	Tourism-related industries (continued)	Retail trade (continued)	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 non-tourism-related industries			All other ANZSIC industries

1. Before the *Tourism Satellite Account: 2005*, the food and beverage services industry was combined with the accommodation industry.

Note: ANZSIC – Australian and New Zealand Standard Industrial Classification

Source: Statistics New Zealand

Appendix 5: Detailed tables, year ended March 2010

Tables 16–23 in this section provide details of the tourism satellite account for the year ended March 2010, the latest year for which balanced supply and use tables are available. Tables 16–23 are also available in Excel format from the Statistics NZ website (www.stats.govt.nz).

Appendix 5 tables

Detailed tables for the years ended March 2011, 2012, and 2013 will be available on www.stats.govt.nz when the balanced supply and use tables for these years are compiled.

Table 16

Tourism expenditure[1] [2]

By type of product and type of tourist

Year ended March 2010

Product	Domestic demand			International demand	Total demand
	Business demand	Government demand	Household demand		
	$(million)				
Tourism-characteristic products					
Accommodation services	197	116	610	1,110	2,034
Food and beverage serving services	91	44	1,039	1,600	2,774
Road, rail, and water passenger transport[3]	115	57	239	248	659
Air passenger transport	823	332	668	2,054	3,877
Travel agency services	484	90	207	269	1,049
Motor vehicle hire or rental	71	196	67	371	706
Imputed rental on holiday homes	0	0	426	0	426
Libraries, archives, museums, and other cultural services	0	0	44	86	130
Other sport and recreation services	0	0	232	174	407
Total tourism-characteristic products	**1,782**	**837**	**3,531**	**5,912**	**12,062**
Tourism-related products					
Retail sales − alcohol	0	0	142	103	245
Retail sales − clothing and footwear	0	0	243	237	480
Retail sales − food, beverages, tobacco, and other groceries	0	0	1,466	406	1,872
Retail sales − fuel and other automotive products	471	4	1,643	350	2,468
Retail sales − retail medicines, toiletries	0	0	95	77	172
Retail sales − tourism consumer durables	0	0	1,070	52	1,122
Retail sales − other shopping	0	0	475	555	1,030
Financial services	9	2	14	12	37
General insurance (incl travel insurance)	30	3	14	13	60
Social and health-related services	0	0	136	6	142
Gambling services	0	0	76	57	133
Education services	0	0	12	629	641
Other tourism-related services	38	1	213	333	585
Other personal services	0	0	31	30	61
Total tourism-related products	**548**	**11**	**5,629**	**2,861**	**9,049**
Total tourism demand by type of tourist excluding GST	**2,330**	**847**	**9,161**	**8,773**	**21,111**
GST paid on purchases by tourists	13	1	777	480	1,271
Total tourism expenditure by type of tourist	**2,343**	**847**	**9,938**	**9,252**	**22,381**

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: Statistics New Zealand

Table 17

New Zealand System of National Accounts production accounts[1] [2]

By industry

Year ended March 2010

	Tourism-characteristic industries							Tourism-related industries		All non-tourism-related industries	Total
	Accommodation	Food and beverage services	Road, rail, and water passenger transport[3]	Air 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	...	...	...	...	...	...	...	...	...	...	**189,718**
Less GST, import duties, and other taxes on production	...	...	...	...	...	...	...	...	...	...	**14,299**
Contribution to GDP from production	**1,163**	**2,564**	**3,070**	**976**	**2,978**	**1,771**	**2,783**	**8,757**	**8,749**	**142,607**	**175,419**
Equivalent to total output	2,593	5,252	7,211	4,332	4,252	2,956	5,438	15,006	12,319	302,127	361,486
Less intermediate consumption	1,430	2,688	4,142	3,356	1,274	1,185	2,655	6,248	3,570	159,521	186,066
Components of GDP											
Compensation of employees	706	1,743	1,715	779	1,243	364	1,286	5,406	7,615	64,532	85,388
Gross operating surplus	435	778	1,124	185	1,692	1,382	1,210	3,258	1,019	70,288	81,371
Taxes on production and imports	25	61	501	13	45	27	313	117	121	8,104	9,326
Less subsidies	3	17	270	1	2	2	26	23	6	317	666

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.

Symbol:
… not applicable

Source: Statistics New Zealand

Table 18

Sales by type of product and industry[1] [2]

Year ended March 2010

Product	Tourism-characteristic industries							Tourism-related industries		All non-tourism-related industries	Imports	Total supply
	Accommodation	Food and beverage services	Road, rail, and water passenger transport[3]	Air 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	1,398	275	0	0	6	0	23	0	305	111	0	2,118
Food and beverage serving services	842	3,535	0	0	54	0	406	1,435	141	271	0	6,685
Road, rail, and water passenger transport[3]	33	0	1,069	62	56	0	1	1	32	12	0	1,265
Air passenger transport	0	0	0	3,866	17	0	0	1	43	13	0	3,940
Travel agency services	14	0	95	3	916	1	1	0	2	39	0	1,071
Motor vehicle hire or rental	0	0	10	34	0	1,481	0	6	0	92	0	1,624
Imputed rental on holiday homes	0	0	0	0	0	0	0	0	0	426	0	426
Libraries, archives, museums, and other cultural services	0	0	0	0	0	0	427	0	31	19	0	477
Other sport and recreation services	43	0	0	0	34	22	851	0	32	77	0	1,058
Total tourism-characteristic products	**2,330**	**3,810**	**1,174**	**3,965**	**1,082**	**1,505**	**1,709**	**1,443**	**585**	**1,061**	**0**	**18,665**
Sales of tourism-related products												
Retail sales − alcohol	189	353	0	0	0	0	0	134	0	2,436	341	3,454
Retail sales − clothing and footwear	0	0	0	0	0	0	0	560	7	304	1,531	2,403
Retail sales − food, beverages, tobacco, and other groceries	42	53	0	1	2	0	0	3,523	0	28,995	2,651	35,267
Retail sales − fuel and other automotive products	0	0	0	18	0	0	0	526	0	6,532	4,574	11,650
Retail sales − retail medicines, toiletries	0	0	0	0	0	0	0	749	0	956	1,823	3,527
Retail sales − tourism consumer durables	0	0	0	0	0	0	0	975	0	1,345	3,626	5,947
Retail sales − other shopping	0	0	1	0	1	0	6	1,462	17	4,515	2,283	8,285
Financial services	0	0	0	0	0	0	0	3	1	3,034	0	3,038
General insurance (incl travel insurance)	0	0	0	0	0	0	0	0	0	2,245	0	2,245
Social and health-related services	0	0	0	0	1	0	3	0	2	7,808	0	7,814
Gambling services	0	175	0	0	0	0	2,268	0	0	72	0	2,515
Education services	0	0	0	0	3	0	0	0	3,820	359	0	4,181
Other tourism-related services	0	18	13	0	242	4	92	3,095	12	14,860	0	18,337
Other personal services	0	0	0	0	0	3	0	0	0	1,401	0	1,404
Total tourism-related products	**231**	**599**	**15**	**19**	**249**	**7**	**2,370**	**11,028**	**3,861**	**74,861**	**16,828**	**110,067**
Sales of all domestically produced non-tourism-related products	**27**	**839**	**6,007**	**344**	**2,881**	**1,439**	**1,345**	**2,379**	**7,830**	**226,112**	**…**	**249,204**
Total sales	**2,588**	**5,248**	**7,195**	**4,329**	**4,212**	**2,952**	**5,425**	**14,849**	**12,276**	**302,034**	**16,828**	**377,936**
Other output items	**5**	**4**	**16**	**4**	**40**	**5**	**13**	**156**	**43**	**94**	**…**	**378**
Less imports of tourism-related products[4]	…	…	…	…	…	…	…	…	…	…	16,828	16,828
Total output	**2,593**	**5,252**	**7,211**	**4,332**	**4,252**	**2,956**	**5,438**	**15,006**	**12,319**	**302,127**	**…**	**361,486**

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

Symbol:
… not applicable

Source: Statistics New Zealand

Table 19
Derivation of tourism product ratios[1] [2]

Year ended March 2010

Product	Total demand (from table 16)	Total supply (from table 18)	Tourism product ratio[3]
	$(million)		
Tourism-characteristic products			
Accommodation services	2,034	2,118	0.96
Food and beverage serving services	2,774	6,685	0.41
Road, rail, and water passenger transport[4]	659	1,265	0.52
Air passenger transport	3,877	3,940	0.98
Travel agency services	1,049	1,071	0.98
Motor vehicle hire or rental	706	1,624	0.43
Imputed rental on holiday homes	426	426	1.00
Libraries, archives, museums, and other cultural services	130	477	0.27
Other sport and recreation services	407	1,058	0.38
Total tourism-characteristic products	**12,062**	**18,665**	**…**
Tourism-related products			
Retail sales − alcohol	245	3,454	0.07
Retail sales − clothing and footwear	480	2,403	0.20
Retail sales − food, beverages, tobacco, and other groceries	1,872	35,267	0.05
Retail sales − fuel and other automotive products	2,468	11,650	0.21
Retail sales − retail medicines, toiletries	172	3,527	0.05
Retail sales − tourism consumer durables	1,122	5,947	0.19
Retail sales − other shopping	1,030	8,285	0.12
Financial services	37	3,038	0.01
General insurance (incl travel insurance)	60	2,245	0.03
Social and health-related services	142	7,814	0.02
Gambling services	133	2,515	0.05
Education services	641	4,181	0.15
Other tourism-related services	585	18,337	0.03
Other personal services	61	1,404	0.04
Total tourism-related products	**9,049**	**110,067**	**…**
Total excluding GST	**21,111**	**128,732**	**…**
GST paid on purchases by tourists	1,271	…	…
Total tourism expenditure by type of tourist	**22,381**	**…**	**…**

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 20. 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: Statistics New Zealand

Table 20
Derivation of tourism industry ratios[1] [2]

Year ended March 2010

Product	Tourism-characteristic industries							Tourism-related industries		All non-tourism-related industries; imports sold directly to tourists by retailers [4]	Total
	Accommodation	Food and beverage services	Road, rail, and water passenger transport[3]	Air 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	1342	264	0	0	6	0	22	0	293	106	2,034
Food and beverage serving services	349	1467	0	0	22	0	169	595	59	113	2,774
Road, rail, and water passenger transport[3]	17	0	556	32	29	0	1	0	17	6	659
Air passenger transport	0	0	0	3805	16	0	0	1	42	13	3,877
Travel agency services	14	0	93	3	897	1	1	0	2	38	1,049
Motor vehicle hire or rental	0	0	4	15	0	644	0	3	0	40	706
Imputed rental on holiday homes	0	0	0	0	0	0	0	0	0	426	426
Libraries, archives, museums, and other cultural services	0	0	0	0	0	0	116	0	9	5	130
Other sport and recreation services	16	0	0	0	13	8	327	0	12	30	407
Total tourism-characteristic products purchased by tourists	**1,739**	**1,731**	**654**	**3,855**	**984**	**654**	**636**	**600**	**432**	**778**	**12,062**
Tourism-related products											
Retail sales − alcohol	13	25	0	0	0	0	0	10	0	197	245
Retail sales − clothing and footwear	0	0	0	0	0	0	0	112	1	367	480
Retail sales − food, beverages, tobacco, and other groceries	2	3	0	0	0	0	0	187	0	1679	1,872
Retail sales − fuel and other automotive products	0	0	0	4	0	0	0	112	0	2354	2,468
Retail sales − retail medicines, toiletries	0	0	0	0	0	0	0	37	0	136	172
Retail sales − tourism consumer durables	0	0	0	0	0	0	0	184	0	938	1,122
Retail sales − other shopping	0	0	0	0	0	0	1	182	2	845	1,030
Financial services	0	0	0	0	0	0	0	0	0	37	37
General insurance (incl travel insurance)	0	0	0	0	0	0	0	0	0	60	60
Social and health-related services	0	0	0	0	0	0	0	0	0	142	142
Gambling services	0	9	0	0	0	0	120	0	0	4	133
Education services	0	0	0	0	0	0	0	0	586	55	641
Other tourism-related services	0	1	0	0	8	0	3	99	0	474	585
Other personal services	0	0	0	0	0	0	0	0	0	61	61
Total tourism-related products purchased by tourists	**16**	**38**	**1**	**4**	**8**	**0**	**124**	**921**	**590**	**7,348**	**9,049**
Direct tourism sales	**1,755**	**1,769**	**654**	**3,859**	**992**	**654**	**760**	**1,521**	**1,022**	**8,126**	**21,111**
Total industry output	**2,593**	**5,252**	**7,211**	**4,332**	**4,252**	**2,956**	**5,438**	**15,006**	**12,319**	**302,127**	**361,486**
Tourism industry ratio	**0.68**	**0.34**	**0.09**	**0.89**	**0.23**	**0.22**	**0.14**	**0.10**	**0.08**	**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 passenger 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.

Symbol:
… not applicable

Source: Statistics New Zealand

Table 21
Derivation of direct tourism value added[1] [2]

Year ended March 2010

	Tourism-characteristic industries							Tourism-related industries		All non-tourism-related industries	Total
	Accommodation	Food and beverage services	Road, rail, and water passenger transport[3]	Air transport	Other transport, transport support and travel and tour services	Rental and hiring services	Arts and recreation services	Retail trade	Education and training		
$(million)											
Tourism industry ratio	**0.68**	**0.34**	**0.09**	**0.89**	**0.23**	**0.22**	**0.14**	**0.10**	**0.08**	**0.01**	**...**
Direct tourism value added	**787**	**864**	**279**	**870**	**695**	**392**	**389**	**887**	**726**	**461**	**6,349**
Equivalent to tourism output	1,755	1,769	654	3,859	992	654	760	1,521	1,022	1,079	14,064
Less tourism intermediate consumption	968	905	376	2,989	297	262	371	633	296	617	7,715
Contribution to GDP from production	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**175,419**
Percent											
Direct tourism value added as a percentage of total industry contribution to GDP	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**3.6%**
$(million)											
Components of direct tourism value added											
Tourism compensation of employees	477	587	156	694	290	81	180	548	632	208	3,852
Tourism gross operating surplus	294	262	102	165	395	306	169	330	85	227	2,335
Tourism taxes on production and imports	17	21	45	11	10	6	44	12	10	26	203
Less tourism subsidies	2	6	24	1	0	0	4	2	1	1	41

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.

Symbol:
… not applicable

Source: Statistics New Zealand

Table 22

Direct tourism employment and compensation of employees[1] [2] [3]

By industry

Year ended March 2010

	Tourism-characteristic industries							Tourism-related industries			
	Accommodation	Food and beverage services	Road, rail, and water passenger transport[4]	Air transport	Other transport, transport support and travel and tour services	Rental and hiring services	Arts and recreation services	Retail trade	Education and training	All non-tourism-related industries	Total persons employed
Number											
Total employment											
Full-time employees	11,300	30,600	24,100	6,900	12,900	5,500	17,100	88,500	95,400	1,112,300	1,404,600
Part-time employees	16,500	52,200	6,400	1,400	2,800	2,700	13,400	77,200	49,600	187,200	409,500
FTE[5] employees	19,600	56,700	27,300	7,600	14,300	6,900	23,800	127,100	120,200	1,205,800	1,609,300
Full-time working proprietors	4,200	9,500	7,600	100	1,800	600	5,300	3,700	18,300	200,100	251,100
Part-time working proprietors	1,200	1,000	1,600	- -	800	400	3,200	3,400	3,700	57,600	72,900
FTE working proprietors	4,800	10,100	8,400	100	2,200	800	6,900	5,400	20,100	228,900	287,600
Total FTEs employed	**24,400**	**66,700**	**35,700**	**7,700**	**16,500**	**7,700**	**30,700**	**132,500**	**140,300**	**1,434,700**	**1,896,900**
Tourism industry ratio[6]	**0.68**	**0.34**	**0.09**	**0.89**	**0.23**	**0.22**	**0.14**	**0.10**	**0.08**	**0.01**	**…**
Tourism employment											
Tourism full-time employees	7,700	10,300	2,200	6,200	3,000	1,200	2,400	9,000	7,900	16,600	66,400
Tourism part-time employees	11,200	17,600	600	1,300	700	600	1,900	7,800	4,100	2,800	48,500
Tourism FTE employees	13,300	19,100	2,500	6,800	3,300	1,500	3,300	12,900	10,000	18,000	90,600
Tourism full-time working proprietors	2,800	3,200	700	100	400	100	700	400	1,500	3,000	13,000
Tourism part-time working proprietors	800	400	100	- -	200	100	400	300	300	900	3,500
Tourism FTE working proprietors	3,300	3,400	800	100	500	200	1,000	500	1,700	3,400	14,700
Total FTEs employed in tourism	**16,500**	**22,500**	**3,200**	**6,900**	**3,800**	**1,700**	**4,300**	**13,400**	**11,600**	**21,400**	**105,400**
Percent											
FTEs employed in tourism as a percentage of total persons employed in New Zealand	…	…	…	…	…	…	…	…	…	…	5.6
$(million)											
Tourism compensation of employees[6]	**477**	**587**	**156**	**694**	**290**	**81**	**180**	**548**	**632**	**208**	**3,852**
($)											
Average compensation per tourism FTE employee[7]	35,900	30,700	62,200	102,000	87,900	53,700	54,500	42,500	63,200	11,600	42,500

1. Employment numbers are rounded to the nearest 100. Individual figures may not sum to stated totals due to rounding.
2. Employee numbers by industry are sourced from the Quarterly Employment Survey (QES) and are averages for the year ended February. Employee numbers for the water transport and agriculture industries are not available from the QES, as parts of each industry are not surveyed. As a result, employee numbers for these industries are sourced from the Household Labour Force Survey (HLFS). Total persons engaged are sourced from the HLFS and are averages for the year ended March.
3. Working proprietor numbers by industry are sourced from the HLFS and are averages for the year ended March.
4. Road, rail, and water passenger transport are combined for confidentiality reasons.
5. FTE is an abbreviation for full-time equivalent.
6. The tourism industry ratio and compensation of employees rows are sourced from table 21.
7. Calculated as tourism compensation of employees divided by tourism FTE employees and then rounded to the nearest 100.

Symbols:
- - amount too small to be expressed
… not applicable

Source: Statistics New Zealand

Table 23

Gross fixed capital formation and net capital stock[1] [2] [3]

By industry

Year ended March 2010

	Tourism-characteristic industries							Total tourism-characteristic industries	All other industries[5]	Total
	Accommodation	Food and beverage services	Road, rail, and water passenger transport[4]	Air 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 building	0	0	0	0	0	0	3	3	8,693	8,696
Non-residential building	166	120	65	8	46	97	285	786	4,217	5,003
Other construction	0	0	-2	0	2472	0	58	2528	4,497	7,025
Land improvement[6]	1	1	0	0	0	0	60	63	942	1,005
Transport equipment	5	15	382	293	73	325	23	1115	1,375	2,490
Plant, machinery, and equipment	73	116	75	12	789	16	190	1270	7,736	9,006
Intangible assets	8	15	21	5	45	5	40	140	2,883	3,022
Total gross fixed capital formation	**253**	**266**	**540**	**318**	**3,425**	**443**	**659**	**5,904**	**30,342**	**36,246**
Net capital stock										
Total net capital stock	**3,914**	**3,325**	**5,895**	**2,303**	**39,594**	**5,579**	**8,094**	**68,705**	**518,707**	**587,412**

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. Road, rail, and water passenger transport are combined for confidentiality reasons.
5. The all other industries column includes all tourism-related and non-tourism-related industries.
6. Land improvements are shown in gross fixed capital formation, but do not form a part of net capital stock.

Source: Statistics New Zealand

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 utilised 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, hydro-electric 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 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 the deduction of depreciation, direct taxes, dividends, interest paid and bad debts, and before the addition of interest and dividends received.

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, in order to take delivery of goods or services at the time and place required by the purchaser. The purchaser price of goods is inclusive of 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 on the basis of 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 also 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

AFUS: Annual Frame Update Survey

ANZSIC: Australian and New Zealand Standard Industrial Classification

BoP: balance of payments

CPI: consumers price index

DTS: Domestic Travel Survey

FTE: full-time equivalent

GDP: gross domestic product

GST: goods and services tax

HES: Household Economic Survey

HLFS: Household Labour Force Survey

IVS: International Visitors Survey

NZSNA: New Zealand System of National Accounts

QES: Quarterly Employment Survey

OECD: Organisation for Economic Co-operation and Development

TSA: tourism satellite account

UNWTO: United Nations World Tourism Organization

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