

Convention Activity Survey Year to December 2013 report

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**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
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Overview

A total of 522,000 delegates attended 5,100 conferences for around 1.1 million delegate days in the year ended December 2013. This compared to 538,000 delegates, 5,800 conferences and 1.2 million delegate days in the year ended December 2012. Around 27 per cent of multi day conferences and 31 per cent of one day conferences were held in Auckland in the year ended December 2013.

Over all events excluding special occasions, 3,164,000 delegates attended 38,000 events for around 4.0 million delegate days in the year ended December 2013. This compared to 2,577,000 delegates, 36,700 events and 3.5 million delegate days in the year ended December 2012. Thirty per cent of all events were held in Auckland.

Introduction

The Convention Activity Survey (CAS) measures event activity at qualifying venues in New Zealand. The event activity measured includes meeting/seminar, incentive activity, conference/convention, trade show/exhibition, and special occasion, commonly known as MICE activity. The CAS is part of a broader Convention Research Programme, in which the Convention Delegate Survey measures the annual contribution of multi-day convention and conference activity to the New Zealand economy.

This is a re-issue of the CAS report to December 2013 published on 14 March which was found to contain some errors. The main difference is that changes made in that report to the capacity of some venues in the Auckland and Hamilton/Waikato regions for December 2013 have now also been applied to the September 2013 and previous quarters. One additional Auckland venue did not meet the CAS criteria and has been removed from the reporting including for historical years.

The region market share of special occasion activities for the year ended December 2012 shown in Appendix 1 has also been updated. Hawkes Bay in the December 2013 quarter is now correctly

CAS participants

Convention Bureaux

Thirteen Convention Bureaux participate in the Convention Research Programme out of the 19 Bureaux that there are in total. As such, the CRP is not a national programme but covers a significant majority of conference/convention activity in New Zealand. The participating Convention Bureaux are Auckland, Bay of Plenty, Hamilton and Waikato, Rotorua, Taupo, Hawke's Bay, Manawatu, Wellington, Marlborough, Nelson, Christchurch and Canterbury, Dunedin and Queenstown.

Changes in this report since the YE September 2013 report

Since the September 2013 quarter report, fifty-one venues have been removed from the CAS after advice from bureaux that they did not qualify or were no longer operating.

Venues that do not meet the criteria were also removed from previous quarters' data in order to maintain the validity of comparisons over time. The ones that were eligible but have closed since the survey started still have their data included up to their time of closure.

There are also a number of venues that have had a change to their reported capacity level, some up, some down. The capacity changes made in December 2013 are corrections to the reported figures and do not represent actual changes to the respective venues. Accordingly for this reason these capacity changes have been applied back to the survey's beginning.

Please note that CAS pivot tables and reports published previously are now not comparable with the December 2013 report. In order to make comparisons between quarters, people need to use the current pivot table or refer to the current report.

For example, the effect of removing venues is that the events associated with those venues are also removed. Flowing on from that is that the market share shown for regions where venues were removed will tend to go down compared to what was reported previously.

Qualifying CAS Venues

The Convention Bureaux and the Ministry of Business, Innovation and Employment have agreed that to qualify for inclusion in the Convention Activity Survey, a venue must

- promote their venue as suitable for a range of business-related MICE activities, especially conventions/conferences and meetings
- have theatre-style *minimum* capacity of 50
- aim or plan to host a minimum of 12 conventions and/or business related events each year

Venues are also classified in five different types, as follows:

- **Event or Convention Centre:** Venue whose primary function is hosting conventions, conferences and other large business events.
- **Stadium/showground:** Facility usually designed for large events, for example trade shows, exhibitions, conferences and other business events.
- **Hotel:** An establishment that provides accommodation and has onsite conference and other function facilities such as meeting rooms.
- **Other Accommodation (Motel, Motor Lodge etc.):** Other primarily accommodation establishments with conference facilities not classed as a hotel.
- **Other Venues:** Other establishments that provide conference and function facilities but not accommodation, for example restaurants, vineyards, and theatres.

The delegate capacity for a venue is defined as the largest number of MICE delegates that can be comfortably hosted at one time in spaces regularly used to host MICE events within the venue. The estimate is based on minimal partitioning and theatre style set up of free-form spaces. The capacity of spaces used only for non-MICE events (for example, concerts and sporting events) is excluded from the reported delegate capacity.

Venues do not have to be a member of the Convention Bureau in their area, nor do they have to agree to submit data in order to be included in the venue population list. Each Convention Bureau is asked to identify the entire population of qualifying CAS venues in its area.

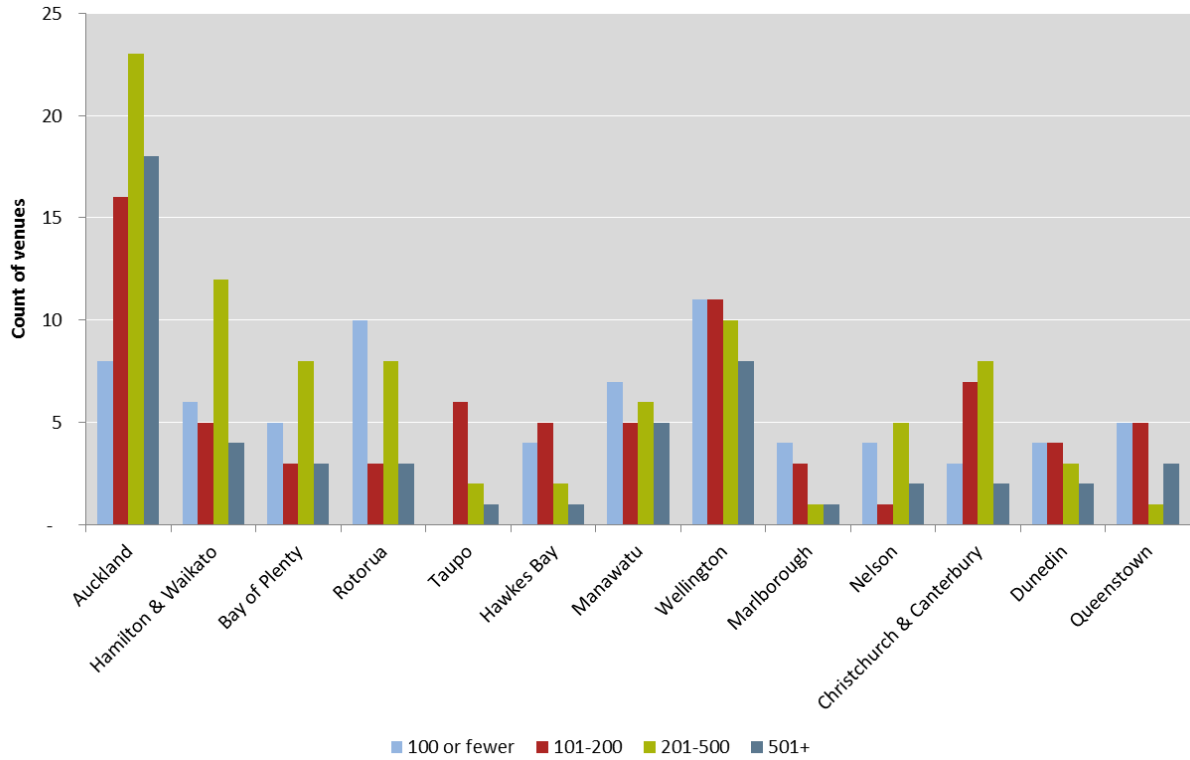
In the December 2013 quarter, event activity was recorded or estimated for a total of 287 venues in the 13 regions. Of these, 140 venues with 61% of the recorded capacity submitted data for at least one of the three months. The number of venues actively contributing data to the CAS has remained relatively constant over the last two years, ranging between 135 and 147 venues each quarter.

Table 1 Comparing venue participation rates for 2013 Q3 and 2013 Q4

Region	Venues submitting as % of those identified in region		Capacity of venues submitting as % of capacity in region	
	2013Q3	2013Q4	2013Q3	2013Q4
Auckland	43%	42%	70%	62%
Hamilton & Waikato	33%	44%	42%	46%
Bay of Plenty	30%	26%	20%	9%
Rotorua	33%	33%	36%	79%
Taupo	56%	44%	75%	47%
Hawkes Bay	50%	42%	70%	68%
Manawatu	30%	30%	40%	40%
Wellington	63%	58%	88%	79%
Marlborough	60%	56%	81%	80%
Nelson	50%	58%	73%	77%
Christchurch & Canterbury	74%	70%	85%	73%
Dunedin	64%	92%	43%	97%
Queenstown	79%	79%	59%	81%
Total	48%	49%	60%	61%

The distribution of the venues by size is shown in Figure 1 below. Sixty-five venues (23%) are located in Auckland.

Figure 1 Number of venues by delegate capacity and region (2013 Q4)



Overview of event activity for the year ended December 2013

An estimated total of about 48,000 events occurred in the 13 regions in the year ended December 2013. Sixty four per cent of these were meetings/seminars. Table 2 shows 36% of the delegate days for the year ended December 2013 were in Auckland.

Table 2 National overview of MICE activities (YE December 2013)

Region	Single day Events	Multi-day Events	Total Events	Delegates (all events)	Delegate days		
					Count	Market share	Change in market share from December 2012
Auckland	11,236	2,942	14,178	1,692,403	1,989,694	35%	-2%
Hamilton & Waikato	4,150	753	4,903	504,998	581,873	10%	1%
Bay of Plenty	2,109	454	2,562	259,127	300,798	5%	1%
Rotorua	2,002	706	2,709	189,048	274,246	5%	No change
Taupo	696	338	1,034	49,576	83,235	1%	No change
Hawkes Bay	1,340	166	1,507	104,354	124,535	2%	No change
Manawatu	3,518	654	4,172	421,354	484,337	9%	No change
Wellington	6,218	1,829	8,047	560,884	730,736	13%	-3%
Marlborough*	640	92	732	41,064	54,266	1%	NA
Nelson	1,320	209	1,529	119,920	156,367	3%	-1%
Christchurch & Canterbury	3,357	715	4,072	447,420	506,826	9%	2%
Dunedin	1,075	264	1,339	119,944	160,938	3%	1%
Queenstown	587	457	1,045	108,936	175,822	3%	No change
Total	38,248	9,579	47,827	4,619,027	5,623,672		

*Marlborough joined the programme in July 2012, so only one year of activity is recorded.

There were about 5.7 million delegate days in the year ended December 2013. Table 3 shows the split in delegate days for different event types for the last four quarters. The variation by season can clearly be seen. Over all event types combined, there was a peak in the September quarter and a trough in the March quarter. However the December 2013 quarter was the peak season for special occasions.

Table 3 Delegate days by event type for each quarter during the year to December 2013

Event type	2013Q1	2013Q2	2013Q3	2013Q4	Total
Meeting/seminar	309,318	421,190	479,993	425,798	1,636,299
Incentive activity	30,499	33,237	27,243	22,853	113,833
Conference/convention	232,866	257,037	297,884	307,973	1,095,759
Trade show/exhibition	167,723	284,709	541,853	192,953	1,187,238
Special occasion	285,261	325,986	352,940	538,464	1,502,650
Don't know	25,532	26,668	34,332	1,361	87,892
Total	1,051,199	1,348,826	1,734,245	1,489,403	5,623,672

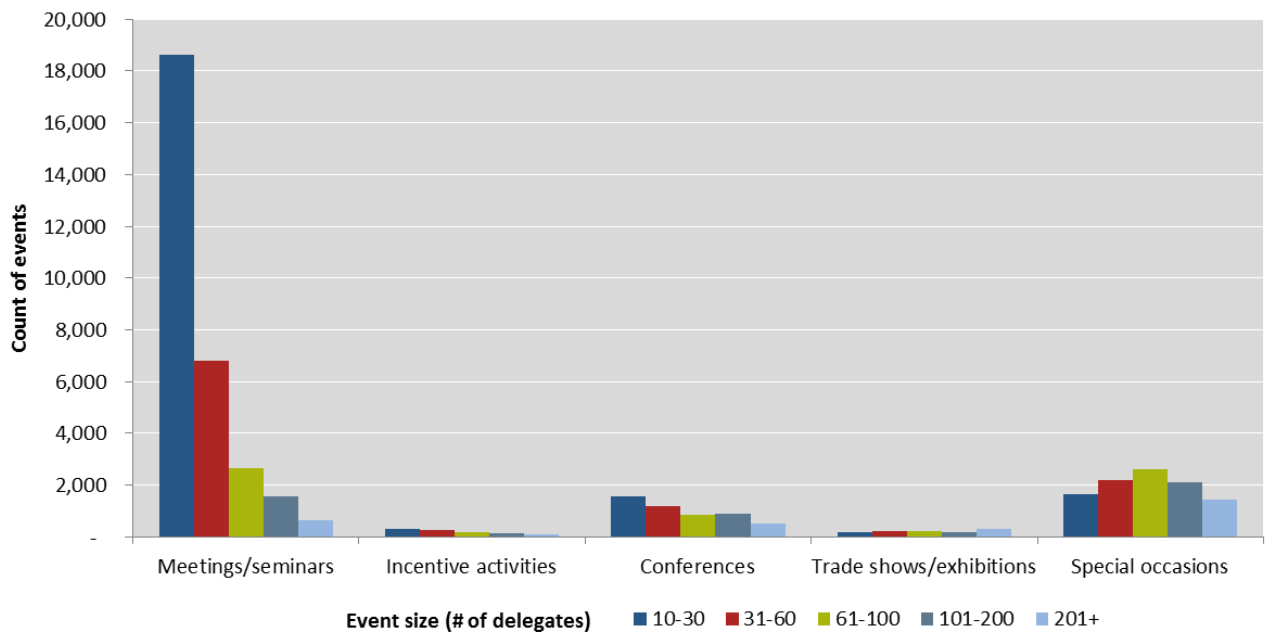
Table 4 shows that most events in the year ended December 2013 were commissioned by businesses, with associations and government entities coming a distant second and third.

Table 4 Type of organisation commissioning an event

Events run for...	2013Q1	2013Q2	2013Q3	2013Q4	Total
Associations	1,290	2,059	2,244	1,921	7,514
Business	4,297	5,740	6,616	6,703	23,356
Government	1,041	1,573	1,644	1,389	5,647
Education	754	1,025	1,253	1,028	4,060
Personal	1,450	931	807	1,118	4,305
Other/don't know	447	656	903	1,011	3,016
Total	9,280	11,984	13,466	13,169	47,898

With the exception of special occasions, small events with fewer than 60 delegates attending dominate MICE activity in the year ended December 2013 (refer Figure 2). Small meetings/seminars formed 54% of all events, with over 18,000 meetings having 10-30 delegates and about 6,800 meetings with 31-60 delegates. Smaller conferences also dominated conference activity, with 31% having 10-30 delegates and a further 24% having 31-60 delegates.

Figure 2 Number of events by event type and event size (YE December 2013)



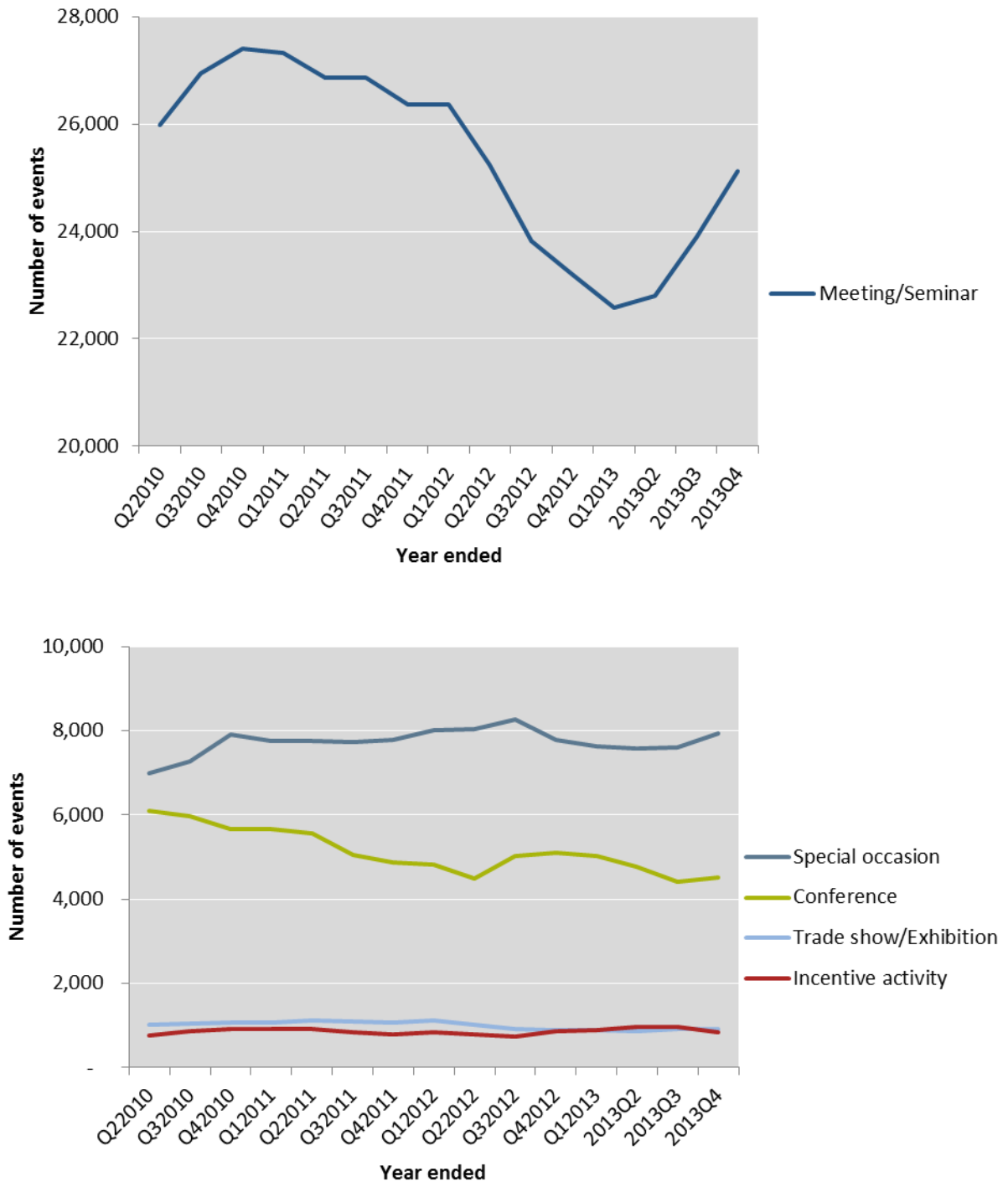
Trends in the number of events reported since YE June 2010

Since June 2010 quarter, it has been possible to construct rolling annual totals for different variables. Figure 3 shows variation or trend for the number of events (meetings, incentive activities, conferences, trade shows/exhibitions, and special occasions) reported for each year ended quarter from June 2010 to December 2013. Note that Bay of Plenty, Hamilton & Waikato and Marlborough have been excluded because they have not been contributing data for the whole period shown in the chart.

As can be seen, the annual number of meetings/seminars increased in the year ended December 2013 and is now almost back to the same level as it was for the year ended June 2012. Special occasions have picked up again after falling off from their peak in the year ended September 2012.

Conference/convention activity increased slightly during the year ended December 2013.

Figure 3 Trend in number of events by event type (YE June 2010 through to YE September 2013). Bay of Plenty, Hamilton & Waikato and Marlborough are excluded.



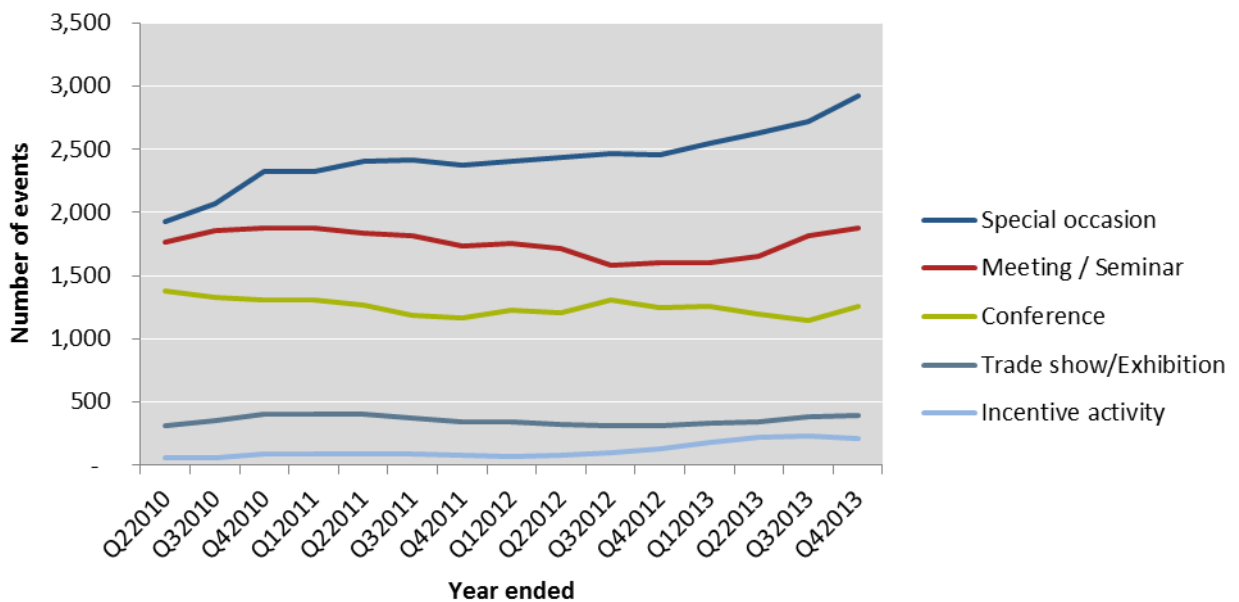
Trends in larger events (>100 delegates)

It appears that there has been an increase in large special occasion events (100+ delegates) since the CAS started in July 2009. Over the same period, the number of larger conferences has declined but shows an increase for the latest 12 month period.

While the number of large meetings/seminars also dropped for some time, this has recently recovered to its initial level, almost back to its peak of late 2010/early 2011. Trade shows/exhibitions have been reporting a roughly similar number of events over the period while the number of incentive activity events has generally risen although falling off slightly in the latest 12 month period.

Note that this trend analysis excludes Hamilton & Waikato and Bay of Plenty (joined the CAS in 2011Q3) and Marlborough (joined the CAS in 2012Q3).

Figure 4 Number of Events with >100 delegates from YE June 2010 to YE December 2013 (excludes Hamilton & Waikato, Bay of Plenty and Marlborough)



Conference/Convention activity for year ended December 2013

In this section the focus is solely on conferences/conventions which account for 11% of all events and 20% of the delegate days in the year ended December 2013.

Table 5 shows that 3,247 (64%) of the conferences held in the year ended December 2013 were multi day events, with just under half of these (1,570) being two days in duration.

Table 5 Number of conferences and delegate days by conference duration and region (YE December 2013)

Region	Duration of Conference			Market share of multi day conferences	Conference Delegate days		Market share of Multi day conference delegate days
	One day	Two days	>2 days		Single day	Multi-day	
Auckland	557	427	448	27%	71,410	262,979	29%
Hamilton & Waikato	133	106	110	7%	14,168	82,127	9%
Bay of Plenty	81	52	65	4%	7,861	31,031	3%
Rotorua	151	133	160	9%	11,006	82,568	9%
Taupo	29	82	79	5%	2,492	31,542	3%
Hawkes Bay	32	20	28	1%	2,193	14,658	2%
Manawatu	96	147	100	8%	9,574	54,629	6%
Wellington	353	331	323	20%	34,824	143,357	16%
Marlborough	34	18	19	1%	2,975	13,320	1%
Nelson	39	32	50	3%	2,162	30,099	3%
Christchurch & Canterbury	226	124	105	7%	11,645	64,350	7%
Dunedin	45	40	54	3%	5,061	39,806	4%
Queenstown	32	60	138	6%	2,423	68,257	7%
Total	1,807	1,570	1,677	100%	177,792	918,723	100%

Auckland hosted the greatest proportion (27%) of multi-day conferences, with 29% of the delegate days, followed by Wellington with 20% of the multi-day conferences and 16% of the multi-day conference delegate days.

Table 6 indicates that in the year ended December 2013, 39% of the multi-day conference delegates were reported to be from the local region, with a further 51% travelling to the conference from another region. Ten per cent of multi-day conference delegates were from Australia or other overseas locations.

Note that the delegate origin is no longer a compulsory question in the survey, as this information is not always available to the venues recording the data.

This means that, for some reporting venues, the delegate numbers by origin do not sum to their total number of delegates.¹ They also do not sum for non-reporting venues where imputation is required because the imputation process is done independently for sub-categories and category totals. The end result is that the regional total delegate numbers shown in Table 6 do not match the regional sum of delegates by origin.

Table 6 Mix of *multi-day* conference delegates by region (YE December 2013)*

Region	Local	Regional	Australian	Other International	Total
Auckland	48,796	26,291	5,688	3,779	108,155
Hamilton & Waikato	11,712	13,323	497	1,022	30,392
Bay of Plenty	3,880	6,528	433	494	11,494
Rotorua	3,200	19,043	2,809	834	26,822
Taupo	360	8,727	710	117	10,492
Hawkes Bay	2,915	2,602	97	12	5,591
Manawatu	10,962	6,614	606	918	22,396
Wellington	21,773	32,917	1,588	1,027	59,555
Marlborough	801	2,494	120	34	3,638
Nelson	2,139	6,064	383	613	9,271
Christchurch & Canterbury	8,108	12,142	1,082	652	21,882
Dunedin	2,814	5,440	932	1,398	11,082
Queenstown	2,411	12,858	4,903	1,214	21,998
Total number of delegates	119,870	155,043	19,848	12,114	342,767

*Based on estimates by venues (as opposed to the conference organisers who handle conference registration).

For the year ended December 2013, Statistics New Zealand² reported that a total of 58,512 international visitors reported that their main reason for visiting New Zealand was to attend a convention/conference (either single or multi-day). Of these, 37,584 (64%) were Australian. This was up from the previous year ended December 2012, when 51,376 international visitors stated their main reason for visiting New Zealand was to attend a convention/conference, and 31,408 (61%) were from Australia.

Trends in multi-day conferences

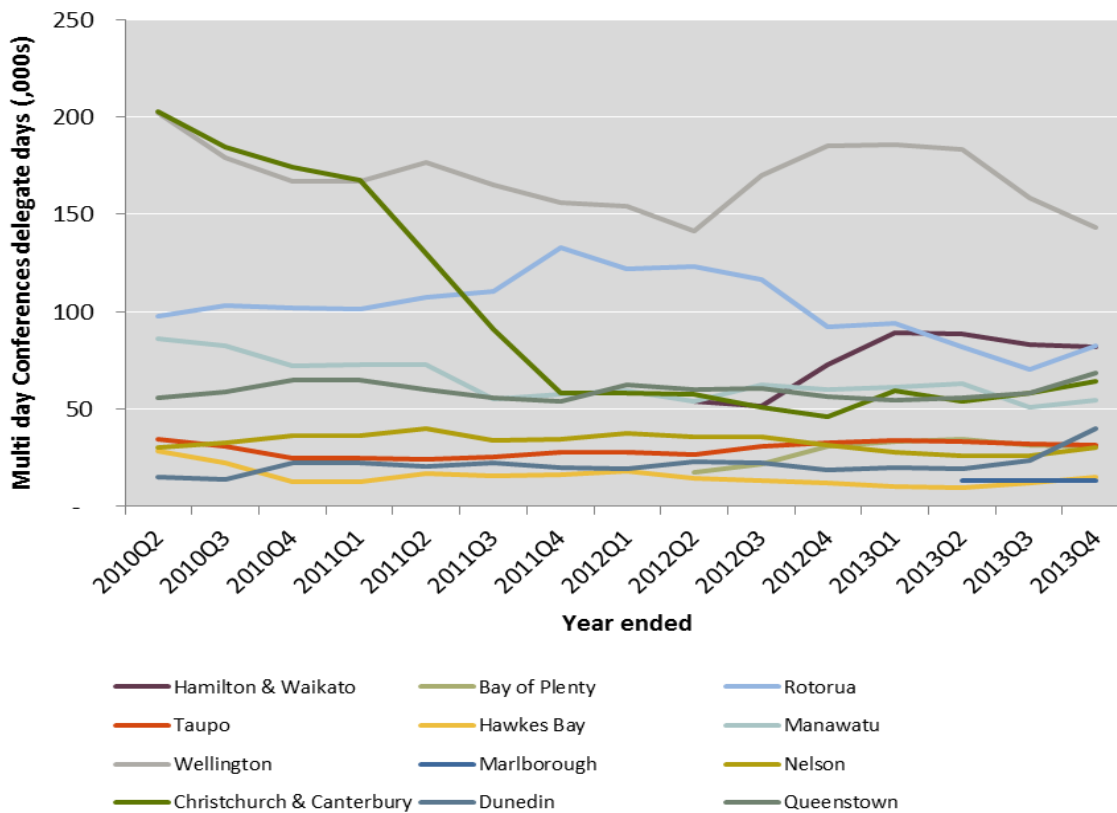
Figure 5 shows there has been quite a significant variation in the number of delegate days for multi-day conferences over the period from the year ended June 2010 through to the year ended December 2013.

¹ Of the 142 venues that submitted data in the December 2013 quarter, 43 did not report on delegate origin for at least one event and 18 did not report delegate origin for any of their events. Twelve per cent of all events in the December 2013 quarter had no numbers recorded for delegate origins.

See Appendix 2 for a description of the imputation process.

² Statistics New Zealand International Travel and Migration. Data available from <http://www.stats.govt.nz/infoshare/>

Figure 5 Comparing multi-day Conference delegate days by region (YE June 2010 to YE December 2013)



Bay of Plenty and Hamilton & Waikato have seven quarter-year-ends included in this chart since they joined the Convention Research Programme in the September 2011 quarter. Marlborough joined in the September 2012 quarter so has three quarter-year-ends included.

Appendix 1 – Regional results

This appendix includes reports on regional level activity for the year ended December 2013. Each table presents information on specific type of MICE activity, namely:

- Meetings/seminars
- Incentive activity
- Conference/Conventions
- Trade Shows/Exhibitions
- Special Occasion.

Further data and comparisons may be made using the excel pivot tables available from the MBIE website (<http://www.med.govt.nz/sectors-industries/tourism/tourism-research-data/other-research-and-reports/convention-research/activity-survey>).

Meetings/seminars – Year ended December 2013

A meeting or seminar is defined as a formal gathering of people to discuss matters of shared interest, usually within a single session.

Region	Count of meetings for YE December 2013		Market share of multi day meetings		Total delegate days	Count of meetings/seminars by event size (# of delegates) for YE December 2013				
	Single day	Multi-day	YE December 2012	YE December 2013	YE December 2013	10-30	31-60	61-100	101-200	201+
Auckland	7,531	1,945	38%	37%	620,671	5,341	2,196	882	619	322
Hamilton & Waikato	2,891	429	9%	8%	145,176	2,177	652	306	143	45
Bay of Plenty	1,332	227	4%	4%	75,763	978	352	163	86	31
Rotorua	1,310	303	5%	6%	77,981	1,021	409	112	40	18
Taupo	453	128	3%	2%	24,430	435	91	37	19*	
Hawkes Bay	832	90	2%	2%	37,867	574	206	81	43	15
Manawatu	2,403	276	7%	5%	117,138	1,730	595	237	103	51
Wellington	4,145	1,063	18%	20%	270,861	3,117	1,171	418	270	80
Marlborough	338	41	NA	1%	15,534	273	67	19	13	6
Nelson	738	85	2%	2%	33,880	534	187	66	34	8
Christchurch & Canterbury	2,182	392	8%	7%	144,531	1,596	573	236	134	58
Dunedin	696	136	2%	3%	42,118	516	195	77	30	8
Queenstown	316	166	3%	3%	30,351	330	99	32	16	7
Total	25,168	5,280	100%	100%	1,636,299	18,622	6,793	2,668	1,531**	647**

* Cells with fewer than 5 events have been merged to protect venue confidentiality.

** Excludes Taupo.

Incentive activities – Year ended December 2013

An incentive activity is defined as an activity occurring at a CAS venue that incentivises or rewards the invited event delegates for exceptional business achievement.

Region	Count of Incentive activities	Market share of incentive activities		Total delegate days	Count of incentive activities by event size (# of delegates) for YE December 2013		
	YE December 2013	YE December 2012	YE December 2013	YE December 2013	10-30	31-60	61+
Auckland	178	23%	17%	18,533	54	42	78
Hamilton & Waikato	108	9%	11%	10,293	28	34	47
Bay of Plenty	62	4%	6%	6,358	16	17	28
Rotorua	49	4%	5%	5,445	30	13	10
Taupo	15	3%	1%	1,510	8	8*	
Hawkes Bay	24	3%	2%	2,184	12*		11
Manawatu	101	7%	10%	18,521	10	14	75
Wellington	207	18%	20%	22,970	47	43	88
Marlborough	29	NA	3%	2,053	12	13	7
Nelson	67	5%	7%	8,732	27	22	17
Christchurch & Canterbury	88	12%	9%	7,910	28	25	34
Dunedin	35	4%	3%	2,535	17	10	8
Queenstown	63	7%	6%	6,791	32	17	14
Total	1,027	100%	100%	113,833	302**	249**	406**

* Cells with fewer than 5 events have been merged to protect venue confidentiality.

** Excludes Taupo and Hawkes Bay.

Conferences/Conventions – Year ended December 2013

A conference or convention is described as a formal gathering of people at a CAS venue to discuss matters of shared interest involving multiple sessions and speakers.

Region	Count of conferences/conventions for YE December 2013			Market share of multi day conferences		Total single-day conference delegate days	Total multi-day conference delegate days	Count of conferences/conventions by event size (# of delegates) for YE December 2013				
	Single day	Two day	>2 days	YE Dec 2012	YE Dec 2013	YE Dec 2013	YE Dec 2013	10-30	31-60	61-100	101-200	201+
Auckland	557	427	448	32%	27%	71,410	262,979	375	338	212	293	215
Hamilton & Waikato	133	106	110	6%	7%	14,168	82,127	121	71	53	57	48
Bay of Plenty	81	52	65	3%	4%	7,861	31,031	51	44	40	42	23
Rotorua	151	133	160	8%	9%	11,006	82,568	134	119	84	68	36
Taupo	29	82	79	4%	5%	2,492	31,542	73	42	34	31	10
Hawkes Bay	32	20	28	1%	1%	2,193	14,658	26	22	15	8	9
Manawatu	96	147	100	7%	8%	9,574	54,629	137	69	56	46	36
Wellington	353	331	323	23%	20%	34,824	143,357	274	268	169	193	84
Marlborough	34	18	19	NA	1%	2,975	13,320	24	14	14	13	7
Nelson	39	32	50	3%	3%	2,162	30,099	35	26	25	23	13
Christchurch & Canterbury	226	124	105	5%	7%	11,645	64,350	221	98	65	58	17
Dunedin	45	40	54	2%	3%	5,061	39,806	33	34	35	25	15
Queenstown	32	60	138	5%	6%	2,423	68,257	45	51	59	53	23
Total	1,807	1,570	1,677	100%	100%	177,792	918,723	1,549	1,196	860	909	534

Trade shows/exhibitions – Year ended December 2013

Trade shows and exhibitions are defined as a showcase of goods and services held for the benefit of a specific industry or interest group.

Region	Count of trade shows/exhibitions	Market share of trade shows/exhibitions		Total tradeshow/exhibitions delegate days	Count of trade shows/exhibitions by event size (# of delegates) for YE December 2013				
	YE December 2013	YE December 2012	YE December 2013	YE December 2013	10-30	31-60	61-100	101-200	201+
Auckland	302	24%	27%	455,680	48	63	45	53	91
Hamilton & Waikato	135	10%	12%	181,798	15	30	32	18	38
Bay of Plenty	62	7%	5%	92,164	9	19	12	5	18
Rotorua	74	5%	7%	32,513	18	18	12	11	15
Taupo	11	2%	1%	2,690	11*				
Hawkes Bay	40	4%	4%	7,626	8	10	7	6	6
Manawatu	109	9%	10%	134,018	12	19	27	16	27
Wellington	173	16%	15%	46,599	30	53	38	25	32
Marlborough	23	NA	2%	1,927	6	9*		6*	
Nelson	36	5%	3%	35,636	10	7*		5	14
Christchurch & Canterbury	94	8%	8%	142,321	18	9	14	18	39
Dunedin	42	6%	4%	25,275	8	10	9	6	10
Queenstown	26	4%	2%	28,991	10*		9*		8
Total	1,126	100%	100%	1,187,238	187	243	214	173	302

*Cells with fewer than 5 events have been merged to protect venue confidentiality.

Special Occasion activities – Year ended December 2013

Special occasion activities are defined as a social gathering or celebration, for example a gala dinner, ball, graduation, cocktail party, birthday party, or wedding.

Region	Count of special occasion activities	Market share of special occasion activities		Total special occasion delegate days	Count of special occasion activities by event size (# of delegates) for YE December 2013				
	YE December 2013	YE December 2012	YE December 2013	YE December 2013	10-30	31-60	61-100	101-200	201+
Auckland	2,787	30%	29%	543,559	393	565	685	645	555
Hamilton & Waikato	969	10%	10%	136,920	140	218	268	206	138
Bay of Plenty	639	7%	7%	80,865	94	156	187	128	85
Rotorua	496	4%	5%	59,342	82	140	112	100	62
Taupo	213	3%	2%	17,677	57	60	60	33	7
Hawkes Bay	416	6%	4%	56,447	47	67	154	103	62
Manawatu	846	10%	9%	139,186	128	192	260	168	141
Wellington	1,431	15%	15%	204,216	280	321	391	320	166
Marlborough	233	NA	2%	17,554	95	57	42	31	11
Nelson	397	4%	4%	41,309	105	108	94	64	18
Christchurch & Canterbury	839	8%	9%	126,953	130	193	214	168	128
Dunedin	269	3%	3%	43,856	43	57	79	65	28
Queenstown	238	2%	2%	34,766	44	56	51	59	31
Total	9,772	100%	100%	1,502,650	1,637	2,191	2,595	2,089	1,432

Appendix 2 – Method for estimating unrecorded MICE activity

This section describes the imputation methodology used to estimate MICE activity for venues that are included in the CAS but have not supplied data.

For the 2009-2012 period, a simple method of estimating the missing data was used. Basically, the weighting was based on the reported capacity for the region. The weight was applied at the regional level, and was calculated as:

$$\frac{\text{(The total reported delegate capacity for the region)}}{\text{(The delegate capacity of the venues that submitted data)}}$$

In general, this calculation generated an average weight of around 1.4 across the 12 Convention Bureaux regions. This meant that the recorded activity (events, delegates, delegate days) would be multiplied by 1.4 to estimate the total activity for the region.

In 2013, the nearest neighbour method was chosen to estimate the missing venue data. The weighting or estimation is based on venues rather than individual events. Thus, the individual events recorded by a venue are aggregated to months, then to the quarter. This data is then combined with the full list of venues so that the dataset includes those venues who have registered with CAS and supplied data, and those who have registered without data and those that have not CAS registered.

Imputation uses the nearest neighbour classification in SPSS to calculate the likely responses for count of events, sum of event days, type of event, sum of delegate days, sum of delegates and all of the associated subgroups. The imputed values are the means of the five nearest neighbours based on the delegate capacity, region and venue type as shown in Table 7. Regions were combined into five strata in order to create a sufficient pool of 'nearest neighbours'.

Table 7 Nearest neighbour criteria for estimation of missing venue data

Feature	Population (across all Bureaux)
Capacity	<ol style="list-style-type: none"> 1. <101 2. 101-200 3. 201-400 4. 401-1000 5. 1001+
Regions	Five strata of regions: <ul style="list-style-type: none"> • Auckland, Wellington • Bay of Plenty, Hamilton & Waikato, Hawkes Bay, Manawatu • Christchurch & Canterbury, Nelson • Dunedin, Queenstown • Rotorua, Taupo
Venue type	<ul style="list-style-type: none"> • Hotels • Convention/event centres • Stadiums/show grounds • Other

As is shown in Table 8, the estimation process provides results that are quite consistent with the data reported by venues – the mean number of events, delegates and delegate days are not dissimilar. It also reveals that smaller venues do not necessarily hold fewer events, but the events they do host tend to have much fewer delegates and delegate days than those of larger venues.

Table 8 Comparison of mean counts per quarter for venues reporting / not reporting for the CAS

Venue capacity	Reporting venue figures					Estimated figures for non-reporting venues				
	100 or fewer	101-200	201-500	501-1000	>1000	100 or fewer	101-200	201-500	501-1000	>1000
	Measure (mean # per quarter per venue)									
Delegate days	1,266	2,190	5,301	6,738	18,126	1,189	2,057	4,458	10,260	22,503
Multi-day events	7	10	16	9	7	7	8	12	10	10
Single day events	18	31	51	40	31	17	31	43	41	43
Total delegates	863	1,590	3,933	5,221	14,767	852	1,639	3,374	8,406	18,559
One day conference delegate days	45	79	247	353	298	62	88	178	465	430
Multi-day conference delegate days	238	507	1,244	1,561	3,406	281	331	924	1,909	4,275

Imputation is more appropriate than weighting for data of this sort. We have a range of information on characteristics of non-reporting venues such as their number, capacity and venue type that was not taken into account in the old weighting method. Much better use of this information is made with imputation.