

Table 50 – Confidence intervals - 2003/04

VISITORS			NIGHTS			EXPENDITURE		
estimate of adult visitors	lower limit visitors	upper limit visitors	estimate of nights	lower limit nights	upper limit nights	estimate of expenditure (\$ '000)	lower limit (\$ '000)	upper limit (\$ '000)
1,000	590	1,410	40,000	25,217	54,783	1,500	740	2,260
2,000	1,504	2,496	60,000	43,268	76,732	2,000	1,190	2,810
3,000	2,418	3,582	80,000	61,332	98,668	5,000	3,891	6,109
4,000	3,332	4,668	100,000	79,408	120,592	8,000	8,395	11,605
5,000	4,246	5,754	150,000	124,649	175,351	10,000	12,902	17,098
6,000	5,160	6,840	200,000	169,963	230,037	20,000	17,413	22,587
7,000	6,075	7,925	300,000	260,809	339,191	30,000	26,444	33,556
8,000	6,990	9,010	400,000	351,939	448,061	40,000	35,489	44,511
9,000	7,905	10,095	500,000	443,349	556,651	50,000	44,546	55,454
10,000	8,821	11,179	600,000	535,031	664,969	60,000	53,615	66,385
15,000	13,401	16,599	800,000	719,189	880,811	80,000	71,792	88,208
20,000	17,986	22,014	900,000	811,653	988,347	90,000	80,898	99,102
25,000	22,576	27,424	1,000,000	904,365	1,095,635	100,000	90,017	109,983
30,000	27,172	32,828	1,100,000	997,320	1,202,680	150,000	135,779	164,221
40,000	36,379	43,621	1,200,000	1,090,512	1,309,488	200,000	181,809	218,191
50,000	45,606	54,394	1,300,000	1,183,934	1,416,066	300,000	274,574	325,426
60,000	54,852	65,148	1,400,000	1,277,580	1,522,420	400,000	368,119	431,881
70,000	64,118	75,882	1,500,000	1,371,445	1,628,555	500,000	462,252	537,748
80,000	73,402	86,598	2,000,000	1,843,834	2,156,166	600,000	556,778	643,222
90,000	82,705	97,295	2,500,000	2,320,777	2,679,223	1,073,482	1,003,803	1,143,161
100,000	92,026	107,974	3,000,000	2,801,522	3,198,478			
150,000	138,886	161,114	3,500,000	3,285,312	3,714,688			
200,000	186,134	213,866	4,000,000	3,771,396	4,228,604			
250,000	233,718	266,282	4,500,000	4,259,017	4,740,983			
300,000	281,587	318,413	7,074,624	6,765,802	7,383,446			
350,000	329,688	370,312						
400,000	377,971	422,029						
450,000	426,382	473,618						
500,000	474,872	525,128						
739,827	706,907	772,747						

Why estimates may differ from the “real” number?

The estimates in this report are based on information obtained from a **sample** of visitors coming to Tasmania. As with all surveys, the estimates are subject to sampling variability. This means the survey results may vary from the results that would have been produced, if **all** visitors could have been interviewed.

Therefore, it is often prudent to talk about results in a range, rather than as a single figure. These ranges are called “**confidence intervals**”. In other words, the true result lies within a range, to which a level of confidence can be given. The above table shows ranges for visitors, nights and expenditure estimates. Statistically, we are 95 percent confident that the actual result lies somewhere within the lower and upper limits of these ranges.

A basic assumption is that the bigger the sample (i.e. the more visitors that were interviewed), the smaller the range can be. Conversely, results based on a small number of interviews are less reliable, meaning the size of the range is bigger to compensate. This means that smaller estimates are less reliable than larger estimates.

How to interpret TVS statistics using confidence intervals – examples:

Visitors example (bottom figure, left hand table). The TVS estimated that 739,827 scheduled air and sea visitors came to Tasmania during 2003/04. The lower range of this result is 706,907, and the upper range is 772,747. Therefore, there are 19 chances in 20 (i.e. we are 95 percent confident) that the true number of visitors to Tasmania during 2003/04 was somewhere between 706,907 and 772,747 visitors.

Expenditure example (top figure, right hand table). When a group of visitors returns a result that they spent \$1,500,000, we are 95 percent confident that they spent somewhere between \$740,000 and \$2,260,000 in 2003/04.

Non sampling error

Non-sampling errors may occur due to such things as non-response and imperfections in reporting by surveyed visitors. Every effort has been made to keep non-sampling error to a minimum by careful design and testing of TVS questionnaires, efficient interviewing procedures and appropriate sampling methodology.

For further information on interpreting TVS statistics please contact:

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