

# TVS Analyser

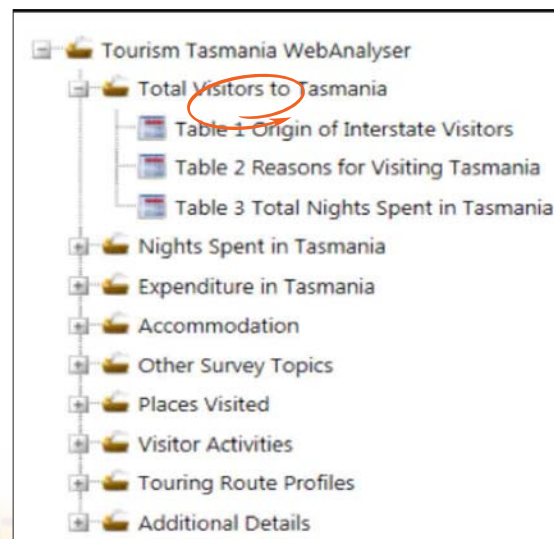
## User Guide and Confidence Intervals

### How do I access TVS data via TVS Analyser?

- 1 Click on the logo found on our research page on the Tourism Tasmania Corporate website at <http://www.tourismtasmania.com.au/research/tvs> or type into your browser <http://ttas.webreporter.com.au>



- 2 Once you've accessed the online database click on the  symbol on the left of screen
- 3 Expand folders to show the data reports, then click on a table to open the report.



# Customise the data report

## Filter options

You can tailor your report using the following filter options within each table including:

- Reporting period
- State of visitor origin
- Mode of travel to Tasmania (air/sea)
- Purpose of visit.

The screenshot shows the Asteroid Analyser interface. On the left is a navigation tree with categories like 'Total Visitors to Tasmania', 'Table 1 Origin of Interstate Visitors', 'Table 2 Reasons for Visiting Tasmania', 'Table 3 Total Nights Spent in Tasmania', 'Nights Spent in Tasmania', 'Expenditure in Tasmania', 'Accommodation', 'Other Survey Topics', 'Places Visited', 'Visitor Activities', and 'Touring Route Profiles'. The main area displays a table titled 'Table 1 Origin of Interstate Visitors' for the 'TASMANIAN VISITORS SURVEY - JULY 2010 - SEPTEMBER 2013'. The table shows visitor numbers and percentage growth for various states of origin across four 12-month periods. A 'Customise' button in the top right corner is circled in red.

	12 MONTHLY PERIODS				YTD %
	Apr 2010 - Mar 2011	Apr 2011 - Mar 2012	Apr 2012 - Mar 2013	Apr 2013 - Mar 2014	
Victoria	35185	35216	31600	37155	+12.3%
N.S.W.	18124	19893	17024	19167	+12.4%
Queensland	11331	11068	12054	11633	-3.4%
South Australia	5515	4710	3984	4438	+12.3%
Western Australia	4493	4416	4900	4906	+6.5%
A.C.T.	2013	2321	2061	2273	+6.3%
N.T.	848	852	863	710	+16.1%
Australia - no state given	1271	1080	869	575	-14.0%
<b>Total Travellers (ST)</b>	<b>91263</b>	<b>91384</b>	<b>84755</b>	<b>93075</b>	<b>+16.1%</b>

## Measurement options

Data can be viewed as visitor numbers or as the % share of annual totals.

To access the filter and measurement options, click on the 'Customise' button in the top right of each table.

Use the drop down box menu and select your desired filters and measurement options

Click on 'Apply' to update the table.

The screenshot shows the 'Customise' dialog box. It has a 'Year Ending' dropdown set to 'September' and a 'Population Measures' dropdown set to 'Visitor Estimates'. Below these are three more dropdowns: 'State of Origin' set to '- All -', 'Main Purpose of Trip' set to '- All -', and 'Mode of Travel' set to '- All -'. At the bottom right, there are three buttons: 'Close', 'Reset', and 'Apply', with the 'Apply' button circled in red.

## TVS Confidence Interval Tables (at 95%)

TVS Visitors			TVS Visitor Nights			TVS Expenditure		
Estimate of Adult Visitors	Lower Limit	Upper Limit	Estimate of Nights	Lower Estimate	Upper Estimate	Estimate of Expenditure (\$'000)	Lower Limit (\$,000)	Upper Limit (\$,000)
1,000	689	1,310	40,000	23,285	56,714	1,500	811	2,188
2,000	1,525	2,474	60,000	40,043	79,956	2,000	1,151	2,848
3,000	2,402	3,597	80,000	56,769	103,230	5,000	3,190	6,809
4,000	3,278	4,721	100,000	75,395	124,604	10,000	6,848	13,151
5,000	4,157	5,842	150,000	121,961	178,038	15,000	10,506	19,493
6,000	5,060	6,939	200,000	164,757	235,242	20,000	15,089	24,910
7,000	5,963	8,036	300,000	252,297	347,702	30,000	24,051	35,948
8,000	6,867	9,132	400,000	341,273	458,726	40,000	33,013	46,986
9,000	7,770	10,229	500,000	431,163	568,836	50,000	41,956	58,043
10,000	8,673	11,326	600,000	521,052	678,947	60,000	50,906	69,093
15,000	13,231	16,768	800,000	696,213	903,786	80,000	68,805	91,194
20,000	17,929	22,070	900,000	783,930	1,016,069	90,000	77,783	102,216
25,000	22,627	27,372	1,000,000	871,648	1,128,351	100,000	86,747	113,252
30,000	27,325	32,674	1,100,000	959,366	1,240,633	150,000	132,310	167,689
40,000	36,721	43,278	1,200,000	1,047,083	1,352,916	200,000	178,136	221,863
50,000	46,118	53,881	1,300,000	1,140,263	1,459,737	300,000	272,787	327,212
60,000	55,514	64,485	1,400,000	1,233,494	1,566,505	400,000	368,189	431,810
70,000	64,910	75,089	1,500,000	1,326,725	1,673,274	500,000	463,591	536,408
80,000	74,306	85,693	2,000,000	1,792,881	2,207,118	600,000	557,693	642,306
90,000	83,702	96,297	2,500,000	2,266,430	2,733,569	800,000	746,841	853,158
100,000	93,098	106,901	3,000,000	2,744,257	3,255,742	1,000,000	935,990	1,064,009
150,000	140,079	159,920	3,500,000	3,222,084	3,777,915	1,200,000	1,124,292	1,275,707
200,000	186,831	213,168	4,000,000	3,684,179	4,315,821	1,300,000	1,218,646	1,381,353
250,000	233,657	266,342	4,500,000	4,147,559	4,852,441	1,400,000	1,313,000	1,486,999
300,000	279,110	320,889	5,000,000	4,610,939	5,389,061	1,500,000	1,407,353	1,592,646
350,000	327,537	372,462	5,500,000	5,085,528	5,914,472	1,600,000	1,501,707	1,698,292
400,000	375,965	424,034	6,000,000	5,565,214	6,434,785	1,700,000	1,596,060	1,803,939
450,000	424,392	475,607	6,500,000	6,044,900	6,955,099	1,800,000	1,690,414	1,909,585
500,000	472,820	527,179	7,000,000	6,524,587	7,475,413	2,264,044	2,128,256	2,399,831
600,000	569,675	630,324	8,000,000	7,483,960	8,516,040			
700,000	666,530	733,469	10,329,180	9,718,512	10,939,848			
800,000	763,385	836,614						
900,000	860,240	939,759						
1,000,000	957,095	1,042,904						
1,269,638	1,218,253	1,321,022						

## 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 per cent 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 (left hand table)

If the TVS estimated that around 1,269,638 scheduled air and sea visitors came to Tasmania. The lower range of this result is 1,218,253 and the upper range is 1,321,022. Therefore, there are 19 chances in 20 (i.e. we are 95 per cent confident) that the true number of visitors to Tasmania was somewhere between 1,123,520 and 1,212,321 visitors.

### Expenditure example (right hand table)

If the visitors return a result that they collectively spent a total of \$2,264,044 we are 95 percent confident that they spent somewhere between \$2,128,256 and \$2,399,831.

### 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 contact:

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