

AN ESTIMATE OF TRAVEL EXPENDITURE BY NON-TASMANIANS IN TASMANIA AND BY TASMANIANS OUTSIDE TASMANIA, 1952-53 TO 1956-57

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A. EXPENDITURE BY NON-TASMANIANS IN TASMANIA

Expenditure on travel by non-Tasmanians in Tasmania can be broken up into two parts: expenditure by visitors who stay for more than one day and expenditure by day-visitors, the latter consisting almost conclusively of passengers on those overseas liners which call at Hobart for one day on their way from Sydney to the United Kingdom via Melbourne. Separate estimates have been made for each of these two parts of the total for the years in question and a detailed description of the methods used follows.

1. Expenditure by Visitors Who Stayed for more than One Day.

This was estimated in two stages. To begin with, the *number* of visitors who stayed for more than one day was estimated for each of the years concerned. Then, for each year, an estimate was made of the *per capita expenditure* in Tasmania of this type of visitor; and finally, this per capita figure was multiplied by the number figure estimated at the first stage to arrive at the total expenditure figure. Each of these two stages will now be described in turn.

(a) *The Number of Visitors Who Stayed for more than One Day*

Visitors to Tasmania who stayed for more than one day constitute one element of the "arrivals" figure collected by the Deputy-Commonwealth Statistician. The other two elements are (1) Tasmanians returning home after a visit outside the State, and (2) people migrating to Tasmania from overseas or from other Australian States, including Tasmanians who are returning home after a period of residence elsewhere. Thus, the number of visitors to Tasmania who stayed for more than one day can be obtained by subtracting from the Statistician's arrivals figure the sum of (1) and (2) above. This was the method used. We shall now set out the arrivals figure for each of the years of interest and explain how (1) and (2) were estimated for these years.

The arrivals series, as supplied by the Statistician, is set out in Table 1.

TABLE 1.—*Number of Arrivals in Tasmania*

Year.	No.
1952-53	125,514
1953-54	127,679
1954-55	133,298
1955-56	138,407
1956-57	148,295

To estimate the number of Tasmanians returning after a visit outside the State it was assumed, first of all, that the number of Tasmanian visitors returning in each year was the same as the number departing in that year,⁽¹⁾ and an estimate was then made of the number departing.

For this purpose use was made of a survey conducted by the Tasmanian Government Tourist Office during the 1953-54 tourist season. The survey procedure adopted by the Tourist Office was to provide every person leaving Tasmania during the month of November, 1953, and during the period 18th January to 20th February, 1954, with a questionnaire which he was requested to complete. Questions were asked about a number of matters, including place of residence, reason for visiting Tasmania, amount spent on the visit under various heads and so on. The questionnaire was addressed primarily to non-Tasmanians who were returning home after a visit to the State, but there were a few questions which were applicable to Tasmanians also and Tasmanians receiving the questionnaire were asked to complete it as far as possible.

⁽¹⁾ This amounts to assuming, for each year, that the number who returned in the year, having departed in some previous year, was equal to the number who departed in the year but returned in some later year. This can be seen fairly easily with the help of five symbols, namely:—

- (a) The number departing and returning in a particular year.
- (b) The number departing in a particular year and returning in some subsequent year.
- (c) The number returning in a particular year who departed in some previous year.
- (d) The total number returning in a particular year.
- (e) The total number departing in a particular year.

In terms of these symbols our assumption is that, for each year, $(d) = (e)$. But $(d) = (a) + (c)$ and $(e) = (a) + (b)$.

Thus, our assumption is that, for each year, $(a) + (c) = (a) + (b)$, which amounts to assuming that, for each year, $(c) = (b)$.

The questionnaire was completed by 1308 persons in the first period (of whom 274 were Tasmanian residents) and by 1980 persons in the second period (of whom 160 were Tasmanian residents). These two sets of persons can be regarded as two samples, of size 1308 and 1980 respectively, from the population consisting of all persons departing from Tasmania during the 1953-54 tourist season.

In the case of the first sample, the proportion of "Tasmanian Departures" to "Total Departures" was $\frac{274}{1308}$ and, in the case of the second, $\frac{160}{1980}$.

For the two samples combined, the proportion was $\frac{274 + 160}{1308 + 1980}$ or 0.132⁽²⁾.

$\frac{274 + 160}{1308 + 1980}$

We are now in a position to explain the way in which the survey just discussed was used to estimate the number of Tasmanians visiting places outside the State during each of the years 1952-53 to 1956-57. The method used to make this estimate was simply to obtain from the Statistician the figure for total departures from the State in each of these years and multiply this figure by 0.132, this being the proportion of Tasmanian departures to total departures as estimated from the two samples of departures taken by the Tourist Office during the 1953-54 season.

As explained earlier, it was assumed that the number of Tasmanian visitors *returning* in each of the years 1952-53 to 1956-57 was the same as the number departing. Thus, from the calculations described in the preceding paragraph, an estimate was obtained for the number of Tasmanians *returning* to Tasmania after a visit outside the State in each of the years of interest. This estimate is set out in Table 2.

TABLE 2.—*Number of Tasmanians Returning after Visit Outside State*

Year.	No.
1952-53	16,088
1953-54	16,753
1954-55	17,514
1955-56	18,388
1956-57	19,208

As explained earlier, the method used to estimate the number of visitors to Tasmania who stayed for more than one day was to deduct from the Statistician's arrivals figure (1) the Tasmanians returning home after a visit outside the State, and (2) the people migrating to Tasmania from overseas or from other Australian States, including Tasmanians returning home after a period of residence elsewhere. Having set out the arrivals series and explained how the series (1) was estimated, it now remains to explain the estimation of the series for (2).

People migrating to Tasmania consist of (a) non-Australian-born and (b) Australian-born. The number in each of these two groups was estimated separately.

The number in (a) was estimated by Mr. T. O. Mellor, of the Commonwealth Immigration Department, from information in his department's files. Mr. Mellor's estimates are set out in Table 3.

TABLE 3.—*Number of Non-Australian-Born Migrating to Tasmania*

Year.	No.
1952-53	2,498
1953-54	1,399
1954-55	1,957
1955-56	1,308
1956-57	1,797

The estimate of the number of Australian-born who migrated to Tasmania was based on information contained in a paper entitled "Some Interesting Trends in Tasmania's Population", which was read to the Tasmanian Branch of the Economic Society of Australia and New Zealand in 1956 by Mr. J. C. Stephen, Deputy Commonwealth Statistician for Tasmania. From this paper (Table 4) it was learned that the number of Australian-born, other than Tasmanians, who were enumerated in Tasmania in the 1947 Census was 18,978. The corresponding figure for the 1954 Census supplied by Mr. Stephen was 24,575. Thus, at the 1954 Census date, the number of non-Tasmanian Australian-born who were in Tasmania was greater than at the 1947 Census date by 5,597.

To estimate the number of Australian-born who migrated to Tasmania in each of the years 1952-53 to 1956-57 we assumed, to begin with, that the above figure of 5,597 represented the total number of Australian-born who migrated to Tasmania between 30th June, 1947, and 30th June, 1954. We next assumed that this total was spread evenly over the seven years between the two Census dates and so arrived at the figure of 800 for the number of Australian-born who migrated to Tasmania in each of the years 1947-48 to 1953-54. Finally, we assumed that this figure held for each of the last three years of our period as well as for the first two.

The procedure just outlined suffers from a number of fairly obvious weaknesses. In the first place the total number of Australian-born who migrated to Tasmania in the years 1947-48 to 1953-54 may differ from the figure 5,597 (the difference between the number of non-Tasmanian Australian-born in Tasmania at 30th June, 1954 and 30th June, 1947) for the following two reasons:—

(a) The figure 5,597 is the difference between the number of non-Tasmanian Australian-born who were *enumerated* in Tasmania at 30th June, 1954 (24,575) and at 30th June, 1947 (18,978). Both the figures, 24,575 and 18,978 therefore, contain a certain number of non-Tasmanian Australian-born who were not living in Tasmania at the Census date i.e., had not migrated to Tasmania, but who were merely paying a visit. The figure 5,597 differs, on this account, from the figure we take it to be unless the number of visitors happened to be the same on both Census dates.

(b) The figure 5,597 almost certainly understates the number of Australian-born who migrated to

(2) This figure is, in effect, a weighted arithmetic average of the two sample figures.

Tasmania in the seven years beginning 1947-48, since the manner of its calculation is such that no account is taken either of (a) those non-Tasmanian Australian-born who migrated to Tasmania during the period and left it again before the end of the period, or of (b) those Tasmanians who returned home during the period after a period of residence elsewhere.

The discrepancy, if any, attributable to (1) could be offset by that attributable to (2), since (1) could as well lead to an overstatement as to an understatement, but there is no real reason to expect that this off-setting has occurred.

The second fairly obvious weakness of the procedure used to estimate the number of Australian-born who migrated to Tasmania in the years 1952-53 to 1956-57 lies in the assumptions that the total number of Australian-born migrants for the seven years beginning 1947-48 was spread evenly over those years and that the figure which applied for the years 1952-53 applied also for the years 1953-54 to 1956-57. These assumptions are baseless. On the other hand, there is no reason to think that they are very wide of the mark, and, even if they are (percentage-wise), they cannot be far out absolutely so long as the figure which has been used for the 1947-48 to 1953-54 total (the figure 5,597) is anywhere near right.

As already indicated, the number of Australian-born who migrated to Tasmania in each of the years 1952-53 to 1956-57, as estimated by the procedure just discussed, was 800. Using this information, together with that shown in Table 3, we can construct Table 4, which shows the total number migrating to Tasmania in each of the years of interest.

TABLE 4.—*Total Number Migrating to Tasmania*

Year.	No.
1952-53	3,298
1953-54	2,199
1954-55	2,757
1955-56	2,108
1956-57	2,597

We can now subtract the figures shown in Tables 2 and 4 from those shown in Table 1 to get a figure for the number of visitors to Tasmania who stayed for more than one day, which figure is our immediate objective. The result of the subtraction is set out in Table 5 below.

TABLE 5.—*Number of Visitors to Tasmania Who Stayed More than One Day*

Year.	No.
1952-53	106,128
1953-54	108,727
1954-55	113,027
1955-56	117,911
1956-57	126,490

(b) *Per Capita Expenditure of Visitors who Stayed for More than One Day*

The per capita expenditure of visitors who stayed for more than one day was estimated in two stages. The first was to estimate the figure for the year 1953-54 and the second was to use this figure and

certain additional information to estimate the figure for each of the other years of interest. Let us take these two stages in turn.

The starting point for the first stage was the second of the two sample surveys conducted by the Tasmanian Government Tourist Office during the 1953-54 tourist season, to which we have already referred⁽³⁾. This survey produced information about the total expenditure on their holiday undertaken by 1715 visitors to the State in that year—the 1820 visitors who returned the questionnaire, less 69 who returned it incomplete as regards expenditure.

Some of this expenditure was, of course, undertaken before the visitors in question left. All of them, presumably, paid for their passage to Tasmania before leaving, some of them for their return passage and some for their accommodation and transport in Tasmania (for example, those coming to the State on a Pioneer Tour); and the first step in stage one was to deduct the amount of their expenditure which was thus prepaid from the total expenditure figure produced by the survey.

The best that could be done in this direction was to deduct one-half of the total expenditure on fares undertaken by the visitors concerned, the figure for which was also produced by the survey⁽⁴⁾. This gave a figure of £72,471 for the total expenditure undertaken in Tasmania by the 1715 visitors or £41.39 per head.

The latter figure represents the per capita expenditure in Tasmania of a sample of the visitors who came to the State for more than a day during the year 1953-54. The final step of the first stage, the determination of the figure for 1953-54, was to assume that the per capita figure for all visitors who came to the State for more than one day in that year was the same as for the sample of 1715, an assumption which should not cause much trouble in view of the fact that the sample is quite a large one.

So much for the first stage of our estimate of the per capita expenditure of visitors to Tasmania who stayed for more than one day. The starting point for the second stage was the figure for 1953-54, together with information provided by the Government Tourist Office which indicated that the cost of the most popular "round tour" of the State had increased at the rate of about 3% per annum over the period 1952-53 to 1956-57.

On the basis of this information, it was assumed that the per capita expenditure of those visitors to the State who stayed for more than one day increased by 3% per annum over the period in which we are interested, and this assumption, together with the figure for 1953-54, was sufficient to give us the per capita figure for each of the other years.

The complete series, estimated in the manner just described, is set out in Table 6.

⁽³⁾ See above, page 159.

⁽⁴⁾ This amounts to assuming that the only prepayments were in respect of the outward passage. As we have already indicated, there were, in all probability, prepayments in respect of the return passage and in respect of accommodation in Tasmania as well.

TABLE 6.—*Per Capita Expenditure in Tasmania by Visitors Who Stayed for More than One Day.*

Year.	£
1952-53	40.18
1953-54	41.39
1954-55	42.63
1955-56	43.91
1956-57	45.23

(c) *Total Expenditure by Visitors Who Stayed for More than One Day*

By multiplying the figures in Table 5 by those in Table 6 we arrive at the total expenditure in Tasmania by visitors who stayed for more than one day. This is shown in Table 7.

TABLE 7.—*Total Expenditure in Tasmania by Visitors Who Stayed for More than One Day*

Year.	£
1952-53	4,264,223
1953-54	4,500,211
1954-55	4,818,341
1955-56	5,177,472
1956-57	5,721,143

2. *Expenditure by Day-Visitors*

Total expenditure by day visitors was taken to be identical with the total cost of the all-inclusive tours arranged by the Government Tourist Office for non-disembarking passengers on overseas liners calling for one day at Hobart en route to the United Kingdom. This information, supplied by the Tourist Office, is shown for each of the years 1952-53 to 1956-57 in Table 8.

TABLE 8.—*Total Cost of Tours Arranged for Passengers on Overseas Liners calling at Hobart.*

Year.	£
1952-53	1,025
1953-54	1,220
1954-55	2,291
1955-56	2,292
1956-57	4,014

In fact, the above figures slightly understate the total expenditure by day visitors for two reasons. In the first place, they do not include the expenditure on sundries, e.g., sweets, incurred in the course of the tours by the people for whom they were arranged. Secondly, they do not include the expenditure resulting from the visits of passenger ships to Tasmanian ports other than Hobart, of which there were a few during the years 1952-53 to 1956-57.

3. *Total Expenditure in Tasmania by Non-Tasmanian Visitors*

Total expenditure in Tasmania by non-Tasmanian visitors can now be found by adding the figures in Tables 7 and 8. The result is set out in Table 9.

TABLE 9.—*Total Expenditure in Tasmania by Non-Tasmanian Visitors*

Year.	£
1952-53	4,265,248
1953-54	4,501,431
1954-55	4,820,632
1955-56	5,179,764
1956-57	5,725,157

B. *EXPENDITURE BY TASMANIANS OUTSIDE TASMANIA*

Expenditure by Tasmanian visitors outside Tasmania consists of (a) expenditure in the rest of Australia, and (b) expenditure outside Australia. Each of these was estimated separately.

1. *Expenditure by Tasmanian Visitors in the Rest of Australia*

Expenditure by Tasmanian visitors in the other Australian States in each of the years 1952-53 to 1956-57 was estimated, first of all, by estimating the number of Tasmanians who visited each of the other States in each of these years and then by estimating the per capita expenditure which they undertook there, multiplying the two and adding. Each of these two stages in the final estimate will now be described in turn.

(a) *The Number of Tasmanians Who Visited Each of the Other Australian States*

The first step here was to find the number of Tasmanians who visited all of the other States combined in each of the years 1952-53 to 1956-57. To do this we took the estimate of the number of Tasmanians who left Tasmania on a visit in each of these years, presented in Table 2 above, and deducted the number of Tasmanians who visited other countries in each year.

The latter was taken to be identical with the number of new passports issued to, and old passports renewed by Tasmanians in each year, information as to which, supplied by Mr. T. O. Mellor, is presented in Table 10.

TABLE 10.—*Number of New Passports Issued To, and Old Passports Renewed by Tasmanians*

Year.	No.
1952-53	485
1953-54	505
1954-55	641
1955-56	688
1956-57	725

Actually, the figures set out in Table 10 may not be identical with those for the number of Tasmanian visitors to other countries since there will, presumably, be some visitors to overseas countries who do not require either the issue of a new passport or the renewal of an old one—those who hold a current passport, mainly business-men who travel abroad frequently—and some applicants for the issue or renewal of a passport who do not intend to travel abroad—those, mainly New Australians, who feel safer, somehow, if they hold a current passport. These two types of error work in opposite directions, however, and there is a good chance that they will offset each other more or less exactly.

The number of Tasmanians who visited all of the other Australian States combined was found, then, by deducting the figures in Table 10 from those in Table 2. The result is shown in Table 11.

TABLE 11.—*Number of Tasmanians Who Visited All Other Australian States*

Year.	No.
1952-53	15,603
1953-54	16,248
1954-55	16,873
1955-56	17,700
1956-57	18,483

The next step was to determine, for each year, the proportion of the Tasmanian visitors to the mainland States who went to each of them. Here again use was made of the second of the two sample surveys undertaken by the Tasmanian Government Tourist Office during the 1953-54 season. This survey covered 1756 visitors from the mainland States (the 1820 visitors who completed the questionnaire less 64 from overseas countries), and provided information about the home State of each of them. From this information it was possible to construct Table 12, which shows the proportion of the 1756 mainland visitors returning the questionnaire who came from each State.

TABLE 12.—*Proportion of 1756 Mainland Visitors Returning Questionnaires Who came from State*

State.	%
Victoria	0.5615
New South Wales	0.2887
South Australia	0.08485
Queensland	0.03588
Western Australia	0.02221
Aust. Capital Territory	0.00683

In order to find, for each year, the proportion of Tasmanian visitors to the mainland States who went to each of them it was assumed (1) that, in 1953-54, the proportion of all mainland visitors to Tasmania who came from Victoria was 0.5615 (the figure which applied in the sample of 1756), the proportion who came from New South Wales was the sample figure of 0.2887 and so on for each of the other States; (2) that in 1953-54 the proportion of Tasmanian visitors to the mainland who went to Victoria was the same as the proportion of mainland visitors to Tasmania who came from Victoria (that is 0.5615 by virtue of assumption (1)) and similarly for each of the other States; and (3) that the proportion of Tasmanian visitors to the mainland who went to each of the six mainland States was the same in each of the other years of interest as in 1953-54.

The combined effect of these three assumptions, none of which is likely to be far out, is that the figures in Table 12 give, for each year, the proportion of Tasmanian visitors to the six mainland States who went to each of them.

The final step in estimating the number of Tasmanians who visited each of the other Australian States in each of the years 1952-53 to 1956-57 was to apply the proportions in Table 12 to the figures in Table 11. The result is shown in Table 13.

(b) *Per Capita Expenditure by Tasmanian Visitors in each of the Other Australian States*

To estimate the per capita expenditure of Tasmanian visitors to each of the mainland States in those States, use was made again of the second of the Tourist Office's 1953-54 sample surveys.

It will be recalled that, in the course of this survey, 1,751 visitors to Tasmania provided information about the total expenditure which they had incurred in relation to their holiday in Tasmania⁽⁵⁾. Of these, 962 were from Victoria, 487 were from New South Wales, 146 from South Australia, 57 from Queensland, 34 from Western Australia, 10 from A.C.T., and the remaining 55 from overseas countries.

As a first step, the per capita expenditure in Tasmania of the 962 Victorian visitors was arrived at by dividing the total amount which they spent on their holiday, less one-half of their fares⁽⁶⁾, by 962—the resulting figure being £32 4s., and similarly for the other six States.

It was next assumed (1) that the per capita expenditure in Tasmania of all Victorian visitors in 1953-54 was £32 4s., the figure for the sample of 962, and so on for each of the other States; (2) that the per capita expenditure of Victorian visitors grew at the rate of 3% per annum during the period 1952-53 to 1956-57 and similarly for visitors from each of the other mainland States⁽⁷⁾; and (3) that the per capita expenditure in Victoria of Tasmanian visitors to that State was identical, in each of the years 1952-53 to 1956-57, with the per capita expenditure in Tasmania of Victorian visitors to Tasmania, as given by assumptions (1) and (2), and so on for each of the other States.

The figures for the per capita expenditure in each of the other Australian States by Tasmanian visitors arrived at in this way, are shown in Table 14.

(5) See above, page 159.

(6) See above, page 159.

(7) See above, page 159.

TABLE 13.

Year	Number of Tasmanians who Visited—					Total	
	Vic.	N.S.W.	S.A.	Q'land	W.A.		A.C.T.
1952-53	8,760	4,505	1,320	560	347	107	15,603
1953-54	9,123	4,691	1,379	583	361	111	16,248
1954-55	9,475	4,871	1,432	605	375	115	16,873
1955-56	9,938	5,111	1,502	635	393	121	17,700
1956-57	10,378	5,337	1,568	663	411	126	18,483

TABLE 14.

Year	Per Capita Expenditure of Tasmanian Visitors to—					
	£ Vic.	£ N.S.W.	£ S.A.	£ Q'land	£ W.A.	£ A.C.T.
1952-53.....	31.46	49.64	45.03	53.71	59.14	38.06
1953-54.....	32.40	51.13	46.38	55.32	60.91	39.20
1954-55.....	33.37	52.66	47.77	56.98	62.74	40.38
1955-56.....	34.37	54.24	49.20	58.69	64.62	41.59
1956-57.....	35.40	55.87	50.68	60.45	66.56	42.84

(c) *Expenditure in the Rest of Australia by Tasmanian Visitors*

The Total expenditure in the rest of Australia by Tasmanian visitors was now arrived at by multiplying each figure in Table 13 by the corresponding figure in Table 14 and summing over States for each year. The results are shown in Table 15.

TABLE 15.—*Expenditure in Other States by Tasmanian Visitors*

Year.	£
1952-53	613,330
1953-54	658,830
1954-55	703,739
1955-56	760,384
1956-57	809,158

2. Expenditure in Overseas Countries by Tasmanian Visitors

Expenditure outside Australia by Tasmanian visitors was estimated in two steps. The first was to estimate the number of Tasmanians who visited other countries in each of the years 1952-53 to 1956-57 and the second was to estimate their per capita expenditure in those countries. The manner in which the number of Tasmanians who visited other countries was estimated has been explained already and the estimate itself presented in Table 10. Thus, it only remains to explain how we arrive at our estimates of the per capita expenditure in overseas countries of Tasmanian visitors to those countries.

This estimate was made with the assistance of Mr. I. H. Smith, of the Travel Department of the Bank of New South Wales. From the applications for foreign currency for purposes of travel, made by customers of the bank under exchange control regulations, Mr. Smith was able to estimate that the per capita expenditure in overseas countries undertaken by customers of the bank for the purpose of travel there, was approximately £A360 in each of the years 1952-53 to 1956-57.

Since something like 100 customers of the bank travelled abroad in each of these years, this per capita figure of approximately £A630 relates to a sample of Tasmanian visitors to overseas countries which is quite large, both absolutely and in proportion to the number of the population. There is considerable justification, therefore, for assuming that the per capita figure for the population was the same as that for the sample constituted by the customers of the Bank of New South Wales; and this assumption was, in fact, made. In this way we arrived at a figure of £A630 for the per capita expenditure undertaken in overseas countries by Tasmanian travellers in each of the years 1952-53 to 1956-57.

By applying this figure to each of the passport figures presented in Table 10 we arrived at the total expenditure undertaken in overseas countries by Tasmanian visitors to those countries in each of the years 1952-53 to 1956-57. This set of figures is set out in Table 16.

TABLE 16.—*Expenditure in Overseas Countries by Tasmanian Visitors*

Year.	£
1952-53	305,550
1953-54	318,150
1954-55	403,830
1955-56	433,440
1956-57	456,750

3. Total Expenditure Undertaken Outside Tasmania by Tasmanian Visitors

By summing the figures presented in Tables 15 and 16, the figures for the total travel expenditure undertaken outside Tasmania by Tasmanian visitors which are shown in Table 17, were arrived at.

Year.	£
1952-53	918,880
1953-54	976,980
1954-55	1,107,569
1955-56	1,193,824
1956-57	1,265,908