

TOURISM SATELLITE ACCOUNTS. THE AUSTRALIAN EXPERIENCE

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Abstract. As for most countries, the nature and composition of tourism in Australia have been dictated by the unique location and geography of the country.

Australia is an island country, with no land borders with other countries, and located far from those countries which were the early major sources of mass tourism. In particular it is located far from those countries with which it has traditionally had its closest cultural and social ties. As a result, Australia's tourism has historically been strongly dominated by domestic tourism. In 1970 international tourism was negligible in relation to domestic tourism and to the size of the economy.

Because domestic tourism was not perceived as an industry nor as an economic contributor in its own right, neither was the whole tourism sector.

I. INCREASING RECOGNITION OF TOURISM'S ECONOMIC IMPORTANCE

Attitudes toward tourism changed during the 1980s, as significant growth rates in international tourism — accompanied by very successful overseas marketing campaigns — attracted attention to tourism's potential as an export earner and to its possible role as a significant economic contributor. For the first time, tourism was starting to be seen as an important "industry".

With international tourism more than doubling every ten years in the 1980s and 1990s (and expected to continue to do so during the current decade), this change in the perception of tourism as a major economic contributor is strengthening.

The change in attitude was manifested in a number of ways in the late 1980s and into the 1990s. Specifically, there was seen to be a growing need to measure tourism activity in a credible and objective way. This led to a period of significant developments in the area of tourism statistics and research.

Amongst the many activities taking place, was the production by various bodies of estimates of tourism's economic contribution. These estimates were of varying degrees of credibility and, while widely used, none of them enjoyed the widespread acceptance which official national accounts' measures provided for the more traditional industries. With the continuing strong growth of tourism in the 1990s, and the tourism industry developing in size and sophistication, there was felt to be an increasing need for an

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official economic measure of the activity. This was felt to be important both by the industry, primarily for advocacy purposes, and by government, for a better understanding of tourism's role in the economy and for policy development.

In the early 1990s when this was becoming an increasingly important issue, a number of relevant developments were happening overseas. Canada was pioneering the development of a credible tourism satellite account, and the World Tourism Organisation and the OECD, together with other international agencies, were starting work on development of the international standard tourism satellite account.

Encouraged by these developments, Australia was quick to pick up on this new concept.

In March 1995, following representations from tourism industry and government bodies, a committee of the House of Representatives (i.e. the lower house of the Federal Parliament) in a report into the impact of Australia's taxation regime on the tourism industry, recommended:

"the Australian Bureau of Statistics... be provided with the resources to develop a statistical system for quantifying the significance of tourism in Australia as a matter of priority."

In 1996, the Federal Government's Industry Commission, in a report on its enquiry into Tourism Accommodation and Training, recommended:

"that the Australian Bureau of Statistics be

asked to hasten the development of Tourism Satellite Accounts. Data collected for this purpose will have a wide range of uses within both government and the private sector."

A series of seminars was held to explain the concept of tourism satellite accounts. As a result of these, and considerable discussions, the main industry bodies strongly supported the production of an account. The widespread support from industry and a number of government agencies was a major factor in the decision to go ahead with the development of the Australian Tourism Satellite Account (ATSA).

II. PRE-IMPLEMENTATION PROCESS

In December 1996, following discussions between the Australian Bureau of Statistics (ABS) and the Office of National Tourism — now the Tourism Division of the Federal Department of Industry, Tourism and Resources (ITR) — the ABS presented ITR with a Business Plan for the development of the ATSA.

The Business Plan was accepted, with a costing of around \$AUS1 million. ITR would contribute two-thirds of the cost with the ABS funding the remainder.

The timetable was for a September 2000 release of the account, which would relate to the year 1997-98. This was the earliest possible reference year, taking account of:

- the data collection required to be undertaken:
- the need for and availability of a reliable

and comprehensive national input-output table for 1997-98 (which would not become available until mid-2000); and

– the availability of the necessary national accounts expertise in the ABS.

The availability of the required expertise was a significant factor as the ABS national accounts area was committed to a number of significant and resource intensive developments, viz. the implementation of revised international standards of national accounting (SNA93) and the compilation of the Australian National Accounts using an input-output framework.

III. COST ESTIMATES

Estimating, the cost of the ATSA in 1996 was a difficult exercise. At that time the lack of practical experience in developing a satellite account hindered an accurate assessment of the resources and data which would be required. The precise extent to which data (for which there would be no cost) would meet the total data requirements was not known. Indeed the total data requirements were somewhat uncertain, as many conceptual issues, as well as methodological issues, relating to the model were unresolved at that time. (The international standards were still being developed at that time.)

The largest part of the cost was expected to be for data collection. However, due to the availability of a very significant amount of the required data, particularly on the demand side, it was possible to minimise this cost (which was estimated to be 56% of the total cost). The National Visitor Survey and the

International Visitor Survey — conducted by the Bureau of Tourism Research (BTR), a tourism research unit within ITR and jointly funded by the Federal and States/Territories' governments — were found to provide almost all of the data needed on visitors' expenditure. A small number of questions to obtain some more detailed data on expenditure and composition of packages were added to these surveys.

On the supply side, the ABS's ongoing programs of Economic Activity Surveys and Service Industry Surveys were expected to provide a considerable amount of the required data. However, the Economic Activity Surveys normally collect data at a broader classification level of ANZSIC (i.e. the Australian version of ISIC) than was required to identify data for lower level, more tourism-focused industries. Consequently the sample sizes of some of these surveys had to be increased to provide the finer level of data required. While this sample expansion accounted for the major part of the data collection cost, some new data items relating to income and expenditure had also to be added to the surveys.

While these collections covered most of the data required for the compilation of the ATSA, a number of other ABS collections were also used as sources. These included the Retail Census, the Public Finance System, Balance of Payments and other national accounts sources. Use of these sources involved no extra cost.

(While we would expect that other countries may also find the cost of data collection to be main cost component in producing a TSA, this would depend, not

only on the availability of detailed tourism statistics, but also on the level of detail in their national input-output tables and the level of detail they wish to produce in the TSA.)

The other major cost component (40%) of the ATSA was the salaries involved in coordination, development and compilation of the account, as the ATSA took about 7.5 staff years to prepare. The remaining 4% of costs related to computing costs and travel costs associated with educational seminars and workshops.

IV. PRE-PUBLICATION ACTIVITY

Compilation of the account took place during 2000. Prior to its publication, periodic meetings were held between the ABS and ITR to discuss how the ATSA was progressing and to report on the progress being made internationally to resolve the outstanding conceptual issues.

Because of the short time period between the receipt of the supply-use data for the reference year 1997-98 and the publication date for the ATSA, a preliminary account was prepared to build up the systems and to highlight where data inconsistencies and definitional/conceptual issues could be expected. In this preliminary TSA, the BTR demand side data was reconciled with ABS supply side data within a projected supply and use table for 1997-98. During this stage, there was considerable liaison between the ABS and the BTR in order to resolve discrepancies and to provide the ABS compilers with additional insights into the tourism sector.

Leading up to the release date a number of seminars were held by ABS and ITR to explain to industry and other interested bodies what the account was about and what information it would contain. This was felt to be necessary as it had become clear that unfamiliarity with the concept of a satellite account was causing confusion about the nature and content of the account. The seminars were held to ensure that expectations of the account would be realistic. An erroneous expectation had developed within some quarters of the industry that a TSA would include a whole range of data right down to the micro level, that could be used in planning and decision-making at the small area level. A substantial effort had to be put into the education process to dampen these expectations. In retrospect, the program of educational seminars might have been commenced earlier and expanded to better address the uncertainty surrounding what the account could do.

As the development of the ATSA methodology had taken place simultaneously with the development of the international standard TSA methodology, the Australian TSA is consistent with the international standard.

V. PROBLEMS AND DIFFICULTIES

The estimates were prepared from a wide range of statistical sources. Some of these sources were closely related to the desired national accounting basis, but others were not completely satisfactory in various respects, including coverage, concepts and timing. Many of the tourism-related industries and products identified in the ATSA were at a

more detailed level than — or did not directly accord with — the industry and product details in the national supply-use tables.

While every effort was made to improve the survey coverage of the finer level tourism-related industries, the accuracy of the estimates was subject to a higher degree of error than that generally pertaining to the broader level estimates published in the national accounts.

There was very little information, for example, on the allocation of expenditure within package tours to the component tourism products. This was overcome by requesting additional information from some of the major players in the industry. The split of package tours into the various tourism products remains an area of weakness in the estimates. Any errors in the allocations used affects the product distribution rather than the aggregate of tourism consumption, but they could also impact to a minor degree on tourism value added and tourism GDP.

One advantage of the supply-use approach is that independent data for the supply and use of tourism products can be compared. Resolving the discrepancies was a challenge, and the cooperation of the data suppliers was crucial in understanding the differences.

Supply and demand side data was not always available for a consistent reference period. The National Visitor Survey began in 1998 and so data on domestic tourism demand for the first half of the 1997-98 reference year had to be estimated using indicators.

ABS has strict rules to maintain survey

respondent confidentiality, which resulted in some constraints on what could be published. In particular, because of the concentrated nature of the air transport industry in Australia it was not possible to publish data relating to the air transport industry separately. (It was combined with the water transport industry.) Given the importance of air travel in the tourism industry, this was an unavoidable but less than ideal compromise.

The ATSA does not include any information on gross fixed capital formation. The available data was not considered to be of sufficient quality at the detailed industry or asset-type level to publish. Moreover, operating leases are included in the industry of the lessor, not the lessee, in both business accounts and the national accounts. This could have significant impact on estimates for the transport industry, for example, as gross fixed capital formation data may not fully reflect the actual usage of capital by the tourism sector. However, it is hoped to further investigate the possibility of providing estimates in future updates of the ATSA.

Since international debate on certain issues was still in progress throughout the period during which the ATSA was being compiled, the intention of the draft international standards available at the time was not always clear. As a result, other statistical organisations that had compiled a TSA, as well as other recognised experts, were consulted for clarification and advice.

VI. RESULTS

The account was finally released on 16 October. (The original planned September

release was changed to October to avoid clashing with the Sydney 2000 Olympics).

It showed that:

a) In 1997-98, visitors consumed a total of \$AUS58.2 billion worth of goods and services.

b) Of the total tourism consumption, 78% (\$AUS45.4 billion) was by domestic visitors while 22% (\$AUS12.8 billion) was by international visitors.

c) International visitors' consumption accounted for 11.2% of total exports.

d) Tourism GDP amounted to \$AUS25.2 billion. This represented a direct contribution of 4.5% of total GDP.

e) Tourism's contribution to gross total value added was 4.3%.

f) This is just lower than mining (4.7%), but higher than agriculture, forestry and fishing (3.3%), communication services (3.2%) and electricity, gas and water (2.7%).

g) The account found that there were 513,000 persons directly employed in tourism generated employment. This was 6% of total employment, showing that tourism is a relatively labour intensive industry. Because many of the jobs were part-time, this converts to an equivalent of 389,000 persons employed full-time.

h) The account identifies "Tourism characteristic/connected industries and shows how important tourism demand is to these

industries. It shows that tourism demand accounts for

- 97% of "Travel agency and tour operator services" GVA;
- 89% of "Accommodation" GVA.
- 64% of "Air and water transport" GVA,
- 53% of "Motor vehicle hiring" GVA;
- 38% of "Taxi transport" GVA; and
- 30% of "Cafes, restaurants and takeaway food outlets.

i) The account also shows how much the tourism related industries contribute to total tourism gross value added. The largest contributors were "Air and water transport" (15%), "Accommodation (11%) and "Cafes, restaurants and takeaway food outlets" (10%).

VII. INDUSTRY AND GOVERNMENT REACTIONS

The release of the account was strongly welcomed by industry and Federal and State/Territory government agencies. Following the release, ABS and ITR gave a further series of seminars to promulgate the results and assist interested organisations in understanding the account.

There were a number of initial reactions:

- industry and government bodies widely welcomed the availability for the first time of an official measure of tourism's economic

role, which acknowledged tourism as one of our major economic contributors;

- strong interest from State/Territory government agencies in developing a satellite account at State/Territory level;

- strong interest in finding ways to update the data (particularly due to the unknown implications of the introduction in July 2000 of a new national tax system whose main components were replacement of wholesale sales taxes with a new consumption tax and reduction in income tax rates);

- strong interest in developing compatible estimates of tourism's indirect effects on the economy;

- debate — and some concern by some bodies — that the ATSA results showed a lower economic contribution by tourism than had previously been estimated. (This necessitated something of an education campaign to explain why there were differences.)

There was particularly strong demand from State/Territory governments for help in trying to develop their own accounts which would be compatible with the national TSA. A workshop was held by ABS, with ITR and all State/Territory tourism and treasury departments participating. This workshop identified that the lack of input-output tables and State/Territory level data would be the major impediments for States/Territories in developing their own tourism satellite accounts.

There was some interest in comparing

Australia's results with those of other countries, but this has been difficult. At the time of publication only a limited number of countries had released an official TSA, and no other countries had implemented the new international standards. While there is a large degree of commonality in the concepts and approaches adopted in other TSAs, there are some differences between them, especially in the details of what is covered in tourism consumption. A further factor complicating comparisons is that full TSAs have generally only been compiled on a one-off or irregular basis, so that a common reference year is not available. However, the implementation of the new international standards by countries now developing accounts will greatly contribute in the future to an understanding of tourism's role in the global economy and in how individual countries' tourism compare and differ.

To enable some international comparisons, adjustments were made to Australia's results, to provide broad comparisons with the results of TSAs from New Zealand, Canada and the United States of America, who had produced TSAs in recent years. The Australian results, for a small number of variables, have been adjusted, in line with the differences in definitions, to make some general comparisons.

Broadly, tourism's share of gross value added is higher in Australia than in Canada or the USA, but lower than in New Zealand. However, tourism's share of total employment is higher in Australia than in the other three countries. The comparison shows a different composition of tourism demand, with nearly half of tourism demand in New

Zealand resulting from international visitors. Canada also shows a relatively high proportion of total demand coming from international visitors, while in Australia and the USA international tourism accounts for a smaller proportion of total tourism demand.

VIII. FOLLOW-UP ACTIVITIES

VIII.1. Up-dates

As noted above, one of the reactions to the publication of the account was to stimulate interest in more up-to-date results and to monitor how tourism's role in the economy is changing over time.

Following discussions between ITR and ABS on possible options for addressing this interest, a program of annual up-dates to the main results has been agreed. This program involves model based estimates of the main results every year, with a full benchmark TSA produced every three years. (This cyclic period is considered to be the most practical as it fits in with the ABS's cycle of tourism-related Service Industry Surveys and thus minimises the cost for extra data collection.) The annual model-based updates utilise a mixture of actual data and coefficients from the latest available full ATSA (currently 1997-98). These annual up-dates will be re-benchmarked when the later full ATSA becomes available, thus providing a seamless time series of annual data back to 1997-98. However, only those variables for which the estimates are considered to be of reliable quality would be published. This includes: tourism industry output, tourism industry gross value added, tourism industry GDP, tourism industry GDP as a percentage of total

GDP, tourism GDP by type of visitor, tourism consumption, tourism exports, import of tourism goods and services, and tourism employed persons.

Under this program, the annual up-dates are available around ten months after the end of the reference year. It is hoped that this timing can be improved with further experience. (This would depend on the demand side data from the NVS and IVS becoming available earlier.) In April 2002, annual up-dates of the main results were produced for the years 1998-99, 1999-2000 and 2000-01. The next full ATSA, which will be used to rebenchmark the annual model-based estimates, will relate to the year 2000-01 and will be available in 2003. ITR will continue to be the major funder of this program.

VIII.2. State/Territory level accounts

The ATSA provides a benchmark measure of tourism's role in the national economy. There is a very strong interest in developing comparable measures of tourism's role at lower level jurisdictions, particularly at the level of Australia's eight States and Territories.

All States and Territories have expressed strong support for the national ATSA. All accept that this now provides, for the first time, an official measure of tourism's contribution to the national economy. The ATSA results are increasingly being used by the State/Territory government tourism agencies in policy development and speeches. While the data relates only to the national level, this is seen as providing a credible and

well accepted benchmark against which the effects of tourism on the States'/Territories' economies can be considered. The national ATSA is seen to have provided tourism with a level of economic credibility which it had not previously enjoyed.

The wide acceptance and support in the States/Territories for the national ATSA has extended into a demand for a TSA for every State/Territory. Government tourism agencies in all States/Territories support the development of a TSA for their State/Territory. Most of them strongly support the idea of a national agency, i.e. the ABS, producing State/Territory accounts with the status and credibility of national account. Importantly, it would also ensure comparability between States'/Territories' accounts, which can only be achieved by one agency producing all the accounts.

However, there are a number of problems hindering this. A primary issue is that the ABS does not have input-output tables for each of the States/Territories. At this stage there are no plans for the ABS to develop such tables. Should a decision be made for the ABS to develop input-output tables for all of the States/Territories — and it would be expected that such tables would only be developed for all, rather than some, States/Territories — it would take a number of years between the time of the decision and the availability of the tables. The development of tourism satellite accounts — again, for all, rather than some, State/Territories — would then take a further number of years. The considerable cost as well as the availability of the required expertise involved in this would also be major issues needing to be addressed.

In the absence of a national agency producing State/Territory TSAs, responsibility for any such development rests with the State/Territory government agencies. One State — Queensland, where tourism is a particularly important component of the economy — has already developed its own TSA. Unlike the other States/Territories, Queensland Treasury produces its own input-output tables, which it has based its TSA on. The Queensland TSA is broadly comparable with the national ATSA. A number of other States/Territories have commissioned projects which measure tourism's role in their economies, some using the national ATSA as a benchmark. However, in the absence of official input-output tables, and with various concepts, definitions and assumptions used, these cannot be described as official TSAs.

It is difficult, at this stage, to see how the issue of the development of official State/Territory TSAs can be resolved. Technically, the absence of official, comparable input-output tables for each of the States/Territories prevents such development. Compiling the input-output tables would be a resource intensive exercise and the development of all the TSAs would require a level of manpower — with the relevant expertise and skills — which is not currently available. This is an issue which will need to be addressed over the coming years.

VIII.3. Indirect effects

The publication of the first account also stimulated interest in a better understanding of tourism's complete role in the economy, i.e. its indirect contribution as well as its direct contribution.

The ABS considered that calculation of tourism's indirect effect was beyond the scope of its responsibilities and following discussions between the major stakeholders the BTR agreed to include this exercise in its ongoing work program.

In November 2001 the BTR produced "*Research Paper Number 6: Tourism's Indirect Economic Effects 1997-98*".

This reinforced the importance of tourism's role in the economy. Some of the main results identify the significance of tourism's contribution:

– Tourism's indirect contribution to GDP was 4.2% (total direct and indirect contribution: 8.6%);

– Tourism's indirect contribution to GVA was 4.4% (total direct and indirect contribution: 8.7%);

Tourism's indirect contribution to employment was 4.0% (total direct and indirect contribution: 10.0%).

With the annual up-dating of the ATSA results by the ABS, the BTR will up-date its estimates of the indirect effects annually.

VIII.4. Other activities

To date the main use of the ATSA has been for advocacy purposes, with industry and government bodies increasingly using and quoting the ATSA results as the definitive measure of tourism's economic contribution. This has become increasingly so during the two years since publication of the

first account, as awareness and understanding of the account have grown. Some initial concern in some quarters about the account's results has been replaced by a general and widespread acceptance of the results as the official and objective measure of tourism's economic role.

Together with this increasing awareness and acceptance of the data, the account is increasingly being used as a basis for further research into tourism activity. Both public and private sector bodies are making use of the data as input to research projects. For example, ITR used the data as the basis of research into productivity and profitability in the tourism sector, compared with the major industries and the total economy.

Some of the data has also been used in tourism forecasts, particularly in forecasts of tourism export earnings. ITR makes significant use of the results as input into policy development proposals and in Ministerial, Departmental and industry briefings.

However, despite the increasing use of the ATSA results, there is still a long way to go to exploit the full potential of the account. Government, industry and academic bodies are still going through a learning phase in identifying ways in which the data in the account may be fully utilised.

IX. LESSONS LEARNED

The development of the ATSA was a very considerable learning experience for all involved. Apart from the many new technical issues which were faced, a number of major

lessons were learned which we consider are crucial to the successful development and acceptance of a tourism satellite account. The major such lessons were:

– First, for credible results, it is crucial that good basic demand and supply side statistics are available.

– Second, by linking the TSA to the national accounts, a more reliable measure of the economic contribution of tourism is developed. Importantly, as the estimates are compiled on a consistent basis to that used for other industries in the economy, proper comparisons can be made with other sectors of the economy both at a point in time and over time. The results will also have the objectivity and standing of official national accounts estimates.

– Third, the importance of good communication networks between the compiling agency and the main stakeholders

and data providers should not be underestimated. It is important that the stakeholders understand what the TSA is and what output it will deliver. An effective education campaign is essential, both before the account is developed and after it is produced. Effective liaison with the suppliers of the main data sources is also crucial, especially when confronting supply and demand estimates.

– Fourth, by adhering to the international standards, as far as is possible, this provides a framework and justification for the treatment of particular items. It also enables comparisons to be made between countries—or between sub-national regions—on a consistent basis. Where the intention of the international standards is unclear or it is felt that guidance would be useful on a particular issue, WTO, OECD, or other statistical organisations that have been through the process, should be consulted for clarification.