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THE CANADIAN EXPERIENCE IN DEVELOPING AND USING THE TOURISM SATELLITE ACCOUNT

By

M. Scott M. Meis

CANADIAN TOURISM COMMISSION

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Abstract: *Governments throughout the world are under increasing pressure to give special treatment to tourism in terms of distinct recognition in the structures of government, devoted programs and funding, subsidies and public-sector promotion. In Canada, the development of the Tourism Satellite Account (TSA) was an important step in obtaining such recognition and support. This article summarizes the results obtained from the TSA and their uses as well as the lines of investigation taken in developing the Canadian TSA: the basic concepts, the methodological approaches and challenges. It then examines how Canada's national tourism industry and the national tourism agency, the Canadian Tourism Commission(CTC), have used the results of the TSA, and what benefits emerged from their use? Next, it reveals what extensions have been developed beyond the basic account and what results and further implications have emerged from these extensions. The final section examines further future developments envisaged in the Canadian context.*

1. Introduction

Two major challenges confronting any national government or national industry organization related to tourism have been, first, to develop a coherent, shared and defensible view of what it represents--a national tourism industry sector-- with clear definition and scope; and second, to credibly measure the current situation of the sector in the national economic context. Formerly, this task seemed particularly daunting because, statistically speaking “the tourism industry”, or more precisely, the “collection of tourism industries identified in the tourism sector” does not exist as a distinct entity in the statistical system. The data on various aspects of the economic activities associated with tourism are present in the statistical infrastructure, but they are fragmented and dispersed. Thus, they are transparent, disintegrated and incoherent as a whole.

In response to this challenge, in July, 1994, Statistics, Canada released a new analytical tool for the Canadian tourism industry, the Tourism Satellite Account (TSA). In taking this step, Canada followed and extended the earlier work of France in formulating the concept of satellite accounts in general, and piloting a satellite account for tourism in particular.

The study, completed in 1994 by Statistics Canada, established definitively that tourism is an important sector of activity in the Canadian economy:

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- It revealed, for the first time, the full scope and inter-related structure of the collection of tourism products and industries that make up the economic activity of the tourism sector.

- It showed that tourism contributed a greater share of the value generated by the Canadian economy than was previously believed.

- It also showed that tourism represents a significant export sector for Canada.

- Additionally, it showed that the employment effects of tourism were proportionately even greater than its share of gross revenues or value added.

- Finally, the study suggested that joint marketing alliances with non-traditional partners could play a more important role than previously understood in promoting the competitiveness of Canadian tourism products.

This article provides an overview of the Canadian experience with its new instrument the Canadian Tourism Satellite Account (TSA) and presents the results obtained and their uses as well as some of its significant features including the approach adopted, the basic concepts, and the methodological challenges. It then examines how Canada's national tourism industry and the national tourism agency, the Canadian Tourism Commission(CTC) have used the results of the TSA, what benefits have been received from its development. Next, it presents supplementary extensions to the core account developed since 1994 and describes the results and further implications emerging from these extensions. The final section outlines further developments envisaged for the future.

2. History and rationale of the Canadian TSA

Canada's interest in this new tool dates back to 1984 when a broader Canadian vision of the French concept of "satellite accounts" first emerged as a conceptual proposal of the Canadian National Task Force on Tourism Data. Initiated by the Canadian industry and key government stakeholders, including representatives from the industries, associations, government agencies and academic institutions interested in tourism, the Task Force was formed to develop the programs and mechanisms to ensure the provision of the required information for enhancing the strategic planning, marketing management and profitability of the industry. Based on a successful feasibility study completed as a working paper, the 1989 final report of the Task Force recommended that Statistics Canada develop a Tourism Satellite Account (TSA). This recommendation was driven by the need for a statistical instrument which would provide an accurate means of measuring and assessing the importance of tourism and, that would also allow valid comparisons with other industries.

Several years of research work led to a proposal on a set of detailed guideline for the creation of a Canadian Tourism Satellite Account. These guidelines were presented at the International Conference of Travel and Tourism Statistics held in Ottawa (Canada) in June 1991. In its broadest form, the Canadian Tourism Satellite Account was envisaged as a comprehensive multi-layered information system which collects, orders and interrelates statistics describing all significant statistical aspects of tourism. However, it does this in a very special way. It collects and organizes that tourism data according to the "real world" economic transactions between producers and consumers of tourism products from which they originate, such as the purchase of a hotel room or an airplane seat. In 1993, the World Tourism Organization and the United Nations Statistical

Commission adopted the Canadian vision as a recommended conceptual starting point for future work in developing tourism satellite accounts as a distinct comprehensive system for ordered socio-economic data pertaining to tourism linked with the System of National Accounts.

3. Key results and findings of the Canadian TSA

The magnitude of tourism's influence has long been underestimated in national economic data used by government and private sector decision-makers. As mentioned previously, one reason is that tourism industry does not exist in the system of National Accounts (SNA). This is because in the SNA, industries are created based on their output, not based on their customers (i.e. local residents, visiting tourists or day visitors); whereas the phenomenon of tourism is defined by the characteristics of consumers at the moment of consumption.

Further, tourism consumption includes both "tourism" and "non-tourism" goods and services. It cuts across various "characteristic" tourism and non-tourism industries; such as travel services, accommodation, transportation food and beverage services, in the first instance; and retail trade, in the second instance. This is why we call it a "synthetic" or "hybrid" industry sector. Because the contribution of tourism was scattered throughout the national data, the true direct value of tourism in the economy was previously invisible and unknown. As a result, most estimates of the economic effects of the industry and its benefits for Canada, and the being of Canadians as a whole, have been either too low or to high to be believable.

The 1994 Statistics Canada TSA study showed that tourism was a significant generator of revenues in the Canadian economy.

The study provided a way to measure directly both the totality of tourism consumption, and the added value to the economy from tourism, both within the tourism sector itself and outside the collection of tourism industries. The Canadian TSA is statistically and conceptually consistent with the Canadian system of national accounts used to calculate gross domestic product (GDP), the measure of industry value added, or in other words the net output of goods and services in the Canadian economy.

For the first time, the initial results based on 1998, the most recent year for which the maximum amount of data was available, revealed the full details of tourism's position in the national economy in that year:

- Tourism consumption totalled $30.3 Billion in 1988, of which $22.7 billion was part of final demand and $7.6 billion was intermediate consumption *(such as business travel)*.
  For comparison purposes only, this $30.3 billion CDN was approximately 4% of total GDP.
- Tourism contributed about $13.3 billion or about 2.5 percent to the total value generated by the Canadian economy in 1988, ranking roughly twelfth in the Canadian economy.
- In 1988 tourism contributed $3.7 billion in commodity taxes to all levels of government in Canada, representing a disproportionately high 7 percent of all commodity taxes.
- Tourism is a significant export sector in the Canadian economy at $6.5 billion in 1988, representing 4 percent of the total exports, and 37 percent of Canadian service exports.
- Nevertheless, while exports are important and growing, Canada is a net importer of tourism services with tourism imports of $12.4 billion in 1988, amounting to nearly to 60 percent more than tourism exports, resulting in a net tourism balance of payments of $3.9 billion (not the travel account).
- At the same time, domestic spending at $23.8 billion in 1988, representing 80 percent of total tourism

consumption, is the mainstay of economic activity in the sector.

- Tourism is a labour intense sector such that tourism demand generates a disproportionately large 5 percent share of total employment in the business sector of the Canadian economy amounting to over 467,000 persons-at-work in 1988.

As further illustration of the more labour intensive character of tourism activity, the study found that the labor income portion of the value added attributed to tourism was about 12 percent higher then the corresponding figure for non-tourism activities—66 percent for tourism activities verses 54 percent for non-tourism activities. The biggest job creators were accommodation at 129,000 (27.6 percent of total), food and beverage services respectively at 26.5percent followed by transportation at 16.5 percent and recreation and entertainment at 5.4 percent.

At the same time that it is labor intensive, however, tourism suffers from relatively low levels of labor productivity. With only $29,000 of value added per full time equivalent job, tourism compared poorly with the overall average value added per job at $49,000 for all industries combined. Nevertheless, the tourism sector was not uniform in this respect. Some industries in the sector compare favorably while others do not. The sectors' breakdown of average value added per job ranges from a high of $54,000 in the transportation industry to a low of $16,000 for the food and beverage industry.

In summary, the release of the initial results of the TSA, Canada's new statistical instrument for analyzing the economic significance of tourism, also demonstrated that the concept of a tourism industry is no longer merely an abstract theoretical idea that could not be measured or demonstrated in the economy. The results showed that tourism has a legitimate, visible and significant standing in the Canadian national economy. Furthermore, the fact that these results were released separately by Statistics Canada provided the objectivity and credibility for both the results themselves and the associated findings and conclusions.

4. Qualifications & Limitations

It is important to note that the Canadian TSA only estimates the economic activity of the tourism industry directly attributable to tourism consumption. As a result only (32 percent of the total value added generated by tourism industries in Canada in 1988 is included in the aggregate estimates of tourism's economic effect. These estimates should not be confused with supply side estimates that include all consumption from tourism industries (eg. travel services, transportation, accommodation, food services, recreation and entertainment) by consumers or other end users, this much larger final demand amounted to14.7 percent of GDP in Canada in 1988. Nor does the Canadian TSA include total "travel" related consumption in the Canadian economy. Its definitions of tourism demand are limited to, and consistent with, the new WTO definitions of tourism adopted in 1993.

It is also important to note that the Canadian TSA does not yet include several key additional components of tourism demand outlined in the World Tourism Organization's new concepts of tourism consumption and tourism final demand. For example, interns of the conceptual framework, the Canadian TSA does not yet include tourism gross capital formation, as part of tourism final demand nor vacation homes, as part of tourism consumption due to lack of appropriate data.

Further, it is important to recognize that consistent with the proposed WTO conceptual framework Canadian

TSA only includes measures of the “direct” effects of tourism expenditures on the economy. Of course, we recognize that the full contribution of tourism to the economy does not stop here. Tourism also has indirect effects on “upstream” industries which supply commodities and services to enterprises which serve visitors directly. In addition to that it also has an induced effect on the “downstream” purchases of enterprises and employees resulting from their business activities and earnings created by the original effects of visitor expenditures. In our opinion, the appropriate means of estimating these aspects of tourism’s influence is through economic impact models linked with the account.

5. The Canadian System of National Accounts and the Input-Output Tables

As noted above, tourism industries and commodities are not identified separately and distinctly in the Canadian statistical system, nor is tourism a existing demand category in the Canadian System of National Accounts. However, the feasibility study of the Canadian Task Force had determined that prerequisite information was available in sufficient quantity and quality in a dispersed form in the National Accounts and in the Canadian statistical system to develop or construct what is considered a special purpose extension, or satellite account, to the main system. The main purpose of this tourism satellite is to identify and estimate these separate parts and assemble them into an integrated framework. What the TSA provides, therefore, is a methodology or “tool” by which data from demand-side surveys in the national statistical system (eg. household surveys on travel) are brought together in a tourism specific framework with data from various supply-side business surveys in the national statistical system for the industries supplying tourism commodities, such as hotel rooms, transportation services, food and beverage services, etc., and other commodities, such as groceries and clothing.

Of all the different accounting frameworks in the SNA, the Input-Output tables were selected because they provide the greatest articulation of the economy, providing industry intermediate inputs and gross output by commodity, as well as final demand and primary inputs of GDP. They were the only accounting framework of the SNA which describes and interrelates all current production, consumption and investment activities in the economy. Measuring tourism consumption, the production of tourism industries and the domestic supply of tourism commodities was essential to obtaining the desired comprehensive view of tourism in the economy.

The close linkage to the Input-Output Accounts was of particular benefit to tourism for several reasons. It provided, even imposed, a consistent set of classifications and definitions across the satellite account. It allowed comparisons between the tourism industry and other major industries in terms of size, performance and contribution to Gross Domestic Product. It eliminated or reduced the unnecessary and costly duplication of work by using already available data. And finally, it added to the credibility of the resulting estimates.

6. Major steps in building the Canadian TSA

The methodology of the new Canadian satellite account for tourism has been fully described in Appendices A and B of the release publication "The Tourism Satellite Account" published in National Income and Expenditure Accounts, Quarterly Estimates, Second Quarter 1994 (Catalogue No. 13-001).

The use of monetary value in the core account, rather than physical quantities such as visits or room-nights, as a central focal point was a key initial step leading to the development of the core module of the Canadian Tourism Satellite Account. It was a prerequisite to using the Input-Output Tables as the primary reference point of the core account module. Monetary value was used in the core account to describe all types of tourism activities and provide a common basis through which different activities could be compared or put into perspective.

a. Definitions

As in any accounting system, the various definitions of the quantities included in the account played a key initial role. The most important concept used in developing the account is that of "tourism" itself. Here the Canadian TSA turned to the demand side definition adopted by the World Tourism Organization and the United Nations Statistical Commission in 1993 as follows... "the activities of persons traveling to and staying in places *outside their usual environment* for not more than one consecutive year for leisure, business and other purposes." This definition is more inclusive than merely leisure travel. It includes travel for business purposes, to visit friends and relatives or for personal reasons such as health treatment. Excluded, on the other hand, are commuting, travel for study purposes, travel to obtain employment in a new location, and travel by migrants, diplomats and armed forces on military assignments. In Canada, the distance criterion was used for defining domestic tourism. That is, travel of less than 80 kilometers (one way) or fifty miles, was not considered *"outside the usual environment"* or "tourism" in the Canadian account. However, crossing and international border was considered in all cases to be "travel outside the usual environment". Thus, the Canadian distance criterion did not apply to international tourism measures in the account.

The next most important concept of the TSA is that of tourism expenditures. Following from the World Tourism Organization and United Nations definitions of tourism again, the TSA defines tourism expenditures as the sum of goods and services purchased by visitors before, during and after a trip. This includes both same-day visitors, and tourists (overnight visitors), as well as business and government employee travellers. This again excludes certain types of travel expenditures such as travel expenditures by diplomats, military and immigrants.

The commodities (or goods and services) purchased by those tourism expenditures were divided into "tourism commodities" (or tourism goods and services) and "non-tourism commodities". Commodities were identified as tourism commodities if a significant part of their total demand in Canada was consumed by tourists and same-day visitors. Similarly, a "non-tourism commodity was defined as a product or service not characteristic of tourism. In these cases, the examination of the total demand for these commodities reveals relatively low and statistically insignificant tourism consumption rates. Examples include clothing, including t-shirts, suntan lotion, and toothpaste.

Similarly, a tourism industry was defined as an industry which supplies goods and services directly to visitors and which, without tourism, would cease to exist or would continue to exist only at a significantly reduced level of activity. Examples include air passenger transportation and food and beverage services. Non-tourism industries include all industries which do not supply goods or services directly to visitors or which, if there were no tourism, would continue to exist and would continue to do so without a significant reduction in their level of activity. Respective examples include the construction industry and the retail food stores industry. The construction industry does not provide services to visitors. The retail food industry would continue to exist without tourism without a significant reduction in its level of activity, even though food purchases by visitors may be important for this industry in certain Canadian locations.

Tourism employment was a measure of employment attributable to tourism demand in both tourism and non-tourism industries. It was based on an estimate of “persons at work” rather than “hours of work”. Consequently, someone who works 15 hours a week counts for as much, by this measure, as someone who works 40 hours a week.

Several important implications emerged here in the way that the TSA views the economic activity associated with the consumers of tourism. First, not all goods and services purchased by tourists and same-day visitors are tourism commodities. In addition to passenger air transportation and accommodation, visitors also purchase clothes and groceries. Conversely, many tourism commodities, such as meals, are also purchased by non-visitors. Again, from an industry perspective, many tourism industries also supply non-tourism commodities. For example, the accommodations services industry also produces revenues from the sale of goods and equipment which is a non-tourism commodity. In this case too, the converse also applies. Meals are supplied to visitors by cafeterias in retail stores as well as in licensed restaurants and hotels.

b. Detailed classification system for commodities and industries

The commodity information available in the existing Canadian Input/Output tables was the basis of selection of what constitutes the list of tourism commodities. Further dis-aggregations or aggregations of the I/O list were required to derive the tourism list. However, a concordance between the two lists was established in order to achieve a high degree of consistency.

In terms of industries, the TSA focused on the production activities of only those industries that had an important role in tourism. An industry, again drawn from the existing I/O framework, was included in the list if it met the definition mentioned previously. Industry information was already available at the output, intermediate consumption and value added level.

c. Identify data from non-Input-Output sources

While the I/O accounts represented a good initial source of data on supply-side activities, in a number of cases, it lacked sufficient detail in certain parts of its commodity and industry classifications. In these cases, supplementary estimates are drawn from reference publications and special tabulations from relevant business surveys. Examples included the survey of travel agencies, tour operators and tour wholesalers as well as survey of accommodations establishments and the consumer price index.

d. Identify data from non-Input-Output sources

Information on the demand-side consumption of visitors originated mainly from two surveys of domestic and international travel. The first, collects data on travel by Canadian residents. The second, collects information on Canadian residents traveling outside the country and on non-residents traveling within Canada. In addition, supplementary information on commodities, *(both domestically produced and imported)* purchased by Canadian residents in preparation for, or after a trip. These results were derived from a national consumer survey of family expenditures.

e. Balance between the demand-side and the supply-side

Balancing the demand and supply estimates was a very, if not the most important step in the initial development study. In practice, this meant that estimates of visitor and non-visitor expenditures on various commodities were compared to the revenues (plus any taxes) of industries producing those commodities. Tourism demand was reconciled, balanced and made consistent with tourism supply for every commodity as well as between the inputs and outputs of every industry. The total supply of each tourism or non-tourism commodity had to equal the sum of its tourism and non-tourism demand. Similarly, for each tourism and non-tourism industry, gross output, which corresponds to the sum of all revenues, must equal the sum of all inputs or production costs, including returns to both labor and capital. Finally, through a further estimation process involving the assignment of all revenue by activity (ie. *tourism or other*) both for tourism and non-tourism industries, the linkage between the TSA and the input-output framework also provided the necessary basis for estimating the value added and GDP of tourism in Canada. This exercise was performed using an iterative process. Through these calculations and comparisons, all estimates were cross validated several times.

7. Difficulties and Challenges

One of the major methodological challenges encountered in building the Canadian TSA had to do with the availability, quantity and quality of data from existing sources. First, the statistics originating from existing data sources possessed varying degrees of accuracy and levels of detail. Furthermore, the underlying concepts and definitions in these data sources did not, in some cases, correspond to the intended uses of the TSA. As a result, these statistics required more data manipulations and adjustments before their incorporation into the satellite account. These transformations were necessary to ensure the consistency and integrity of the account.

Information also had to be present in all cells of the account for the same reference year in order to achieve a commodity balance between production and use. However, a number of data cells could not be filled with current data based on available survey information. Consequently, an estimate had to be derived using related indicators, ad hoc studies or administrative data such as a company's financial reports.

A key feature of the account was the level of detail for which the calculations were performed. For instance, demand was broken down into the major forms of tourism -- domestic, foreign, business, non-business as well as the types of goods and services purchased. At the same time supply was sub-divided into the various commodity and industry groupings.

This fine level of detail presented both a difficulty and a benefit. It severely tested the coverage and depth of data on all aspects of tourism demand and supply within the statistical system. Any major gaps in both content and the coverage soon became evident. In some cases, it limited the full development of the account or the level of detail presented in some of its tables. The benefit here, however, is that the same detailed approach could be implemented at a higher level of aggregation in the first stages, while maintaining the overall conceptual framework. Depending on the availability of reliable data and analytical resources, further refinements can be introduced. One example would involve calculating "total demand" first, and breaking it down between business and non-business demands at a later date.

Another methodological challenge also emerged from the development of the TSA. The TSA, like the Input/Output tables, required that the supply and demand data be balanced, as mentioned previously. One consequence of such a process is the discovery of weaknesses in the national statistical system-- data inconsistencies, data gaps, or conflicting results. These problems can threaten the confidence of traditional producers and users of the various results and data sets involved.

The positive side of both situations was that, once exposed, these data limitations in turn have become areas where energy, time and resources were devoted to improve the primary and secondary data sources. For example, a specific discoveries of this kind have led to efforts to improve the coverage and content of various business surveys in the accommodation, travel agents and attractions industries. They also stimulated subsequent improvements in various calculation processes in other parts of the national accounts.

8. Organizational requirements to developing the TSA

The partnership between the various stakeholders has been a key element of the successful development and application of the Canadian TSA. A long-standing positive working relationship has existed between the various key partners for the full life of the project--both between the various divisions inside the central statistical agency, as well as between Statistics Canada and the industry end users, and the Canadian Tourism Commission (formerly Tourism Canada). The essential components of this effective working relationship include the development of a partnership concept based on a mutual understanding of, and respect for, the overall interests, goals and objectives of each participating organization involved in the project as well as frequent and open consultation between the partners. The partners have learned to recognize their interdependence and the importance of each one's role while sharing the benefits in achieving common goals and objectives relating to the TSA project.

Statistics Canada's mandate and objectives are to collect and publish statistical information on the nature and conduct of households, businesses, institutions and governments of Canada for the purposes of research, policy development, program administration, decision-making and general information. It to works with other stakeholders within the framework of a broader national statistical system to enhance the scope, usefulness and use of that system, and to provide related professional expertise and coordination services. It provides an independent, professionally credible and continuing organizational home for the account.

The Canadian Tourism Commission was formed in 1995 as national marketing agency and successor to Tourism Canada. Unlike its government predecessor, it is a national alliance of business enterprises, industry associations and public sector agencies. Its goal is to ensure that the tourism industry remains a dynamic and profitable sector of the Canadian economy. Its objectives are to stimulate and promote tourism in Canada through joint private and public sector marketing initiatives as well as the development and communications of shared, reliable and timely business information. It provides the other key organizational prerequisites for the Canadian TSA: a strong industry champion, a client user committee and a source of development funds to update, enrich and extend the account.

The range of data sources and the extensive data preparation, calculations and analyses required to build the TSA demanded substantial human and financial resource commitments within the central statistical agency. Within the primary working unit, the various tasks involved required a team analysts and technicians operating at both micro and macro levels. Each new segment of information had to be examined and assessed for its accuracy, comprehensiveness and comparability before adding it into the account. Such care was essential in order to maintain the overall integrity and credibility of the account.

Constant consultation between the various team members was another key element of success. Working definitions and boundaries had to be harmonized between the various team members and users. In addition, developers had to create a comprehensive computer structure that maintained clear relationship among the many measured variables and allowed the myriad calculations to be duplicated. Finally, given the length of time involved in building the account and the number of different analysts and technicians involved at various stages, developers had to document their work as they progressed, both for other team members and and general users as well.

9. Uses and benefits of the Canadian TSA

In addition to testing and recommending the development of the Canadian Tourism Satellite Account, the 1989 Final Report of the Canadian National Task Force on Tourism Data also identified the original industry reasons for wanting information from the TSA: advocacy, planning and awareness; marketing; investment, operations and management; and manpower, education and training. To date, most of the applications and benefits in Canada have been concentrated around the first two generic uses of the resulting information.

As mentioned earlier, the results of the Canadian TSA for the reference year 1988 provided for the first time, credible answers to an number of questions. What is the contribution of tourism in the economy? How much direct value added is generated from satisfying tourism demand? Which industries directly benefit from tourism? What are the main goods and services purchased by visitors and how important is that tourism demand to the total?

With the release of the Canadian TSA study in 1994, the industry in Canada finally had results to support its advocacy arguments for government recognition for tourism as a key strategic sector in the national economy. The ability to make direct comparisons with the economy in total as well as the results for other industries in the national economy is one of the key benefits of the account for industry advocacy and inclusion in national economic development policies and programs.

The timing of the 1994 release of the new Canadian TSA coincided with the presentation to parliament of a proposal to create a new national marketing organization. It substantiated the arguments for the creation of the new industry-government partnership agency. Within two months the new government of the day announced a plan to replace Tourism Canada, a small branch reporting to the Minister of Industry, with a distinct new private-public sector special operating agency, the Canadian Tourism Commission (CTC). Within four months it established the Commission with a mixed private-public board of Directors. The TSA provided guidance as to the composition of that board. The TSA also influenced a change in economic policy emphasis of a new federal government. Within two months tourism was also identified as a key strategic industry in the new micro-economic development strategy of the new government.[2]

Results from the 1988 TSA also revealed for the first time the internal structure of this amalgam of tourism industries and tourism commodities and services that make up the economic activity of tourism. Thus, this new

[2] *As defined by the World Tourism Organization and the United Nations, the term "Visitor" encompasses all Tourism Consumers Tourist overnight visitors and same day visitors.*

tool demonstrated, for the first time, how the goods and services provided to visitors by all the various tourism and non-tourism industries fit together. Seen from the new TSA perspective, some products and industries in the tourism sector were major players, others less so. The commodity mix of the $30.3 billion in tourism receipts showed that over 40 percent of these tourism dollars was spent on commercial and private transport (almost half of this was on air travel at $6.0 billion), 13 percent on accommodation, 19 percent on food and beverage services, 8 percent on other tourism goods and services such as recreation, entertainment and travel agency services, and 16 percent was spent on other commodities such as groceries, souvenirs, clothing, and camping equipment.

The new tool also revealed, for the first time, which industries were heavily supported by tourism and which were less dependent on visitors for their existence. Some industries, such as travel agency services (98 percent of domestic supply), passenger transport (92%), accommodation (90%), and vehicle rentals (83%), were heavily supported. Other industries in the sector, however, were less dependent on tourism with a lessor but still significant share of their total domestic supply purchased by visitors. Examples include taxis (29%), recreation and entertainment, (28%); and food and beverage services (i.e., restaurants and bars at 26%).

These new results matched perfectly with the emerging information requirements of the new industry partnership structure and mandate of the CTC. In fact, they were influential in the determining the initial range and composition of private industry representatives named to the new mixed private-public sector board of directors of the new industry body. Within six months, the government also increased federal funding to tourism by five times its previous level and issued a challenge to the industry and other levels of government to match those funds. Within a year the industry, bolstered by its new sense of identity and self confidence, met that challenge--the combined partnership budget was now at $100 million, almost ten times the original budget.

Adding consumption of non-tourism commodities to the TSA enlarges the view of the total scope of the influence of tourism on the economy. Surprisingly, the 1994 study revealed that only 75 percent, or $10.0 billion, of all tourism GDP came from industries in the Canadian tourism sector. The other 25 percent, or $3.3 billion, came from visitors' purchases of commodities in other non-tourism industries. This suggested a previously untapped potential for non-tourism marketing alliances with enterprises in other sectors of the economy.

Within two years the Commission had begun to apply this new knowledge to its marketing activities developing new alliances with "non-traditional partners" such as retail stores, car manufacturing companies, banks and credit card companies and including them in each of its seven coordinated national private-public multi-year strategic plans: [3]

10. Extensions to the Core Account

a. The National Tourism Indicators

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[3] *The CTC produces seven annual strategic plans: one each for the various target market regions or segments (i.e. business travel); as well as, one for industry development, and one for Research.*

One limitation of the new TSA was the perceived lack of timeliness of the results. While the CTC and the Canadian tourism community applauded the TSA, nevertheless 1988 data released in 1994 were considered too dated to be relevant to current business decisions. The industry wanted more timely and frequent results. Tourism stakeholders, needed something more immediate to track the evolution of tourism in Canada for purposes of analysis, planning, promotion, and management decision purposes. Industry analysts also needed to understand how the phenomenon, and the industry itself, are evolving in, response to changing external conditions.

But, the extensive data preparation and calculations required to build a Tourism Satellite Account, had taken a long time to develop. A new updated TSA was unlikely to be available until at least four to five years after the reference. Thus, the first extension of the TSA system developed by Canada involved a shift from a static statistical portrait to a more dynamic view of tourism--a time series of multiple snapshots. To remedy the situation, Statistics Canada, with financial support from the Canadian Tourism Commission, conceived and developed a major extension of the TSA–a new set of time series estimates, known as the National Tourism Indicators (NTIs). In June 1996 Statistics Canada and the Canadian Tourism Commission (CTC) began to jointly publish National Tourism Indicators (NTIs). These new NTIs provide quarterly and annual data from 1986 to date for most components of the Canadian TSA. They consist of over 300 time series of data on tourism demand in Canada (both domestic demand of Canadians and export demand of foreign visitors), the supply of tourism commodities, and employment generated by tourism.

b. Other developments

In addition to the major extension to the core TSA involved in developing the National Tourism Indicators, two other more modest extensions have been developed. One involved a supplementary module to estimate total government revenues and taxes directly attributable to tourism in Canada. The other involved developing estimates, of the total number, and distribution of businesses within the Canadian tourism sector.

Results of the first phase of the government revenues project, measuring approximately 75 percent of all incoming revenues, indicate that tourism’s share of government revenues is significant and larger, in fact, than their over all share of national GDP. Tourism shares of overall government revenues for each level of government are respectively estimated as 5.3 percent, each for both the federal and provincial levels, and 2.1 percent at the municipal level. In the reference year of 1992 these estimates worked out to a total of approximately $23.00 on every $100 tourism dollars spent in Canada, or approximately 30 cents on every dollar if we assume that the unmeasured portion will generate the same revenue yield as the portion of government revenue sources we have measured to date. The emergence of these new results from the TSA in the fall of 1996 helped sustain current federal funding levels and support another major incremental increase in national federal funding to the new industry marketing agency, at a time when almost all other departments were being cut back as a part of the government's overall deficit reduction policy. The government upped its contribution to tourism another incremental $15 million over the original budget. Again, within another year industry met that target and exceeded it. The combined partnership budget now exceeded $130 million in annual collective funding commitments, more than ten times the level three years previously.

Similarly, preliminary results from tourism business establishments project emerged in mid 1997. These results, based on the Canadian version of the 1980 Standard Industrial Classifications system placed the total size of the sector in Canada for the year 1995 at approximately 96,000 establishments. Of these, a majority of 57 percent were in the food and beverages industry, followed by recreation and entertainment at 19 percent and accommodation at 12 percent, and then transportation (6%), travel services (5%), and the combination of all other lessor tourism industries at 1 percent. When these results are compared to other TSA results with respect to tourism revenues and tourism related employment in industries within the sector it became obvious that one of Canada's current economic development priorities, small and medium size businesses in tourism, are concentrated within the food and beverages and recreation-entertainment industry grouping of the sector.

11. Future developments and conclusion

The considerable body of work reported to date from the Canadian Tourism Satellite account is still only the beginning. A number of further improvements and expansions are currently in progress, being planned, or foreseen for the future. One immediate priority for the next year is to release a new benchmark or the account that updates the reference year of the account to 1992. This will allow us to examine for the first time structural changes in the production functions of the industry.

Sometime in the future, Statistics Canada will also release a final version of another extension of the TSA, a Tourism Economic Impact Model (TEIM) associated with the account. This supplementary tool provides a means of capturing the indirect economic affects associated with the industry, while still remaining within the same economic framework as the TSA. It also permits full examination of the upstream leakages associated with the supply side of the industry. While this new product has yet to be fully applied to industry decisions, preliminary work has used to carry out sensitivity analyses of altering the mix of strategic marketing programs and target groups. This application involves customized client-specified impact analyses of the economic benefits of promotion to alternative target markets such as domestic Canadians compared with French tourists; Americans, German or Japanese.

Another major new development, currently under consideration, is the downward extension of the account to provide similar results for sub-national regional units of the economy. Preliminary results of a Canadian feasibility study suggest that such an extension is indeed possible within the Canadian statistical infrastructure, for all provinces and territories. The major problem appears to be that due to data limitations and confidentiality constraints for some of the smaller provinces, the degrees of commodity and industry detail would be more limited in the provincial accounts than at the national level.

Other further developments currently being explored include expanding the account to include the other layers and modules-- particularly, employment and capital formation--as described in the original concept paper presented to the World Tourism Organization conference in 1991.

Looking even further into the future, there is the possibility of developing a parallel series of "micro-economic indicators", or financial performance statistics based the industry structure of the account. These new indicators would profile the evolving status of typical enterprises within the various tourism industries. Separate profiles could be produced for small, medium and large enterprises within each industry and region. Such measures would allow business decision makers to compare and evaluate their own performance against these industry norms. Similarly, the banking industry could use such measures as a tool for improving their assessments of risk associated with business investments and loans to entrepreneurs in the various tourism industries.

As more products emerge from the Canadian Tourism Satellite Account, and similar projects in other countries, we will no doubt gain new knowledge of the tourism industry and discover many new applications. At the moment, our situation is a bit like that of Galileo and the telescope -- the potential is exciting, we are learning new things everyday, but still only a few of the possibilities can be foreseen at this time. Five years after the initial Canadian TSA release, analysts are still discovering the significance and utility of some of those initial results. We are still discovering new ways to use the our new tool for analysing economic aspects of tourism.

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