D.2. Household type surveys: learning from experience

On this page:

- D.2.1. Issues specific to the observation of domestic tourism using households surveys
- D.2.2. Factors affecting statistical design and the grossing up of the sample
  - D.2.2.1. Propensity to travel varies throughout a territory, among households and over time
  - D.2.2.2. Securing the required number of in-scope trips
  - D.2.2.3. Calibration
- D.2.3. Making tourism understandable to interviewers

3.114. Most of the experience in using household surveys to measure and analyse the tourism behaviour of resident populations comes from countries with a highly developed statistical infrastructure. Increasingly, however, some of the less advanced countries are also recognizing the importance for their economies of domestic tourism – often greater than inbound tourism in terms of tourism consumption – and are beginning to adopt such statistical procedures as well.

3.115. Countries have been using the following approaches to measuring domestic tourism:

- Specifically designed surveys to estimate the tourism activity of the resident population through comprehensive questionnaires or light telephone surveys (CATI). Questions in the latter case need to be simpler and more direct.
- Inclusion of a tourism module – a set of interconnected questions designed to elicit more information about certain characteristics of visitor behaviour – as part of a multipurpose survey (HI/ES or other continuous surveys), sometimes based on a panel design. Such modules (see para. 3.107) could also include an articulated set of questions about trips to vacation homes or trips for specific purposes, such as health and medical care or education and training.

3.116. Domestic tourism can also be observed using the procedures described for dealing with inbound tourism: surveys at accommodation establishments or at popular tourism sites (see sect. C.2.2.2). Nevertheless, as in the case of inbound tourism, some trips (e.g., those in which visitors cannot be captured through such procedures. Additionally, information can be obtained only on certain segments of a trip, but not on the trip as a whole.

Box III.30

2009 Domestic tourism survey: example of Egypt

Number of rounds: 4

Sample size of each round:

- 6,000 households distributed to represent all the governorates of Egypt. Total numbers of households 24,000
- 500 non-Egyptian resident households

Coverage or reference period: three months prior to the round

Dates of rounds: 09 April, 09 July, 09 October and 10 January

Units of analysis:

- Household
- Household member
- Trip

Weighting method:

- The 2006 population census is used and number of households and population size are projected to cover 2009 (the reference year)
- Average expenditure on domestic tourism per household member derived from the survey is applied to the projected population size in 2009 to estimate the weighted total expenditure on domestic tourism per round

Source: Ministry of Tourism of Egypt (2011).

Based on the experience to date, the design of surveys whose aim is to generate tourism statistics should take into account the following aspects of tourism behaviour: tourism movements are unevenly distributed over the national territory (people living in cities often move about more than their rural counterparts); higher-income persons tend to travel more than lower-income persons; persons who own vacation homes take frequent trips to those homes; specific instruments may be needed to cover frequent same-day visits; and in as much as the number of persons who have taken a tourism trip in a given period of time may be small, the number of households to be observed needs to be sufficiently large to ensure a reasonable number of observations. Some of these considerations will be explored in the following sections.

D.2.1. Issues specific to the observation of domestic tourism using households surveys
3.117. In the design of questionnaires and the processing of the information collected, it is important to keep in mind that tourism is an activity engaged in by individuals, not by the households to which they belong. The household serves only as a cluster through which individuals can be observed, since every individual belongs to one household and only one. The individual can take one or even more than one trip in the period of reference. Therefore, compiler of tourism statistics should keep in mind that it is the trip, not the individual, that is the statistical unit. There are certain exceptions in the case of collective households (hospitals, prisons, convalescent homes, homes for the elderly), but it is assumed that members of such households do not travel and hence they are de facto excluded from the frame.

3.118. These considerations generate certain specific requirements in the design of the questionnaire and in the extraction and tabulation of information, which differ from those associated with the usual procedure for household surveys. All trips should be counted and, in the case where the various members of a household travel together, the counts should include as many trips as persons travelling, and each of the trips should be characterized.

3.119. Persons in a travel party who belong to another household should be excluded from the count, since the probability of their selection in the sample is different and is related to that of the household to which they belong (see paras. 2.46-2.47). They should be taken into account, however, in determining the average value of each item of the common expenditure.

3.120. It might also be of interest to associate with tourism trips, not only the characteristics of the individual but also those of the household to which he or she belongs: for example, the economic activities, level of income and level of education, of its members.

Box III.31

Characterizing the household to which persons who are taking trips belong

The bases for the analysis of the tourism phenomenon are usually the individual (visitors) and the number of events (trips/nights). Another important focus for the study of tourism is the travelling household.

In paper by Baiocchi and Dattilo (2008), domestic and outbound tourism flows of residents in Italy are analysed from the demand side. The paper makes use of data produced through the CATI quarterly telephone survey entitled “Holidays and trips”, carried out by the National Statistical Office of Italy (ISTAT).

Through the application of a specific data procedure that identifies household typologies and through analysis of the kinship relations within the nucleus of the households become the core of the tourism flows, therefore making it possible to study their strategic role and how they affect this sector of the national economy. Indeed, travel behaviours viewed from a household point of view may exhibit characteristics that can reveal new features of tourism demand.

D.2.2. Factors affecting statistical design and the grossing up of the sample

3.121. The present section examines some of the factors affecting the quality and significance of data collected through household surveys for the purpose of measuring domestic tourism. With these factors in mind, it is strongly recommended that countries where NTAs have limited statistical experience entrust the statistical design of such surveys to their NSOs.

3.122. The statistical design of the sample should take into consideration various factors, as summarized below.

D.2.2.1. Propensity to travel varies throughout a territory, among households and over time

3.123. Not all residents of a country will have the same propensity to travel and the sample design should take this reality into account, if the objective is to analyse behaviour as it relates to other factors.

3.124. For instance, it is clearly harder for persons involved in agriculture or animal husbandry to leave their usual environment for any extended period of time, given the demands of their daily tasks. Such persons will tend to travel less for tourism than others, at least during periods of major agricultural activity. On the other hand, persons living in an urban environment will tend to travel more, to escape their possibly stressful and unhealthy surroundings, and also because in, such an environment holiday travel is a way of life.

3.125. Highincome persons usually have a higher propensity to travel, e.g., for recreation and conferences, than the rest of the population.
Box III.32

Determining the propensity to travel from surveys of domestic tourism of households: example of Argentina

In Argentina, the Household Travel and Tourism Survey (Encuesta de Viajes y Turismo en Hogares Argentinos (EVyTH)), which covers the largest urban cities of the country encompassing a total of 25 million inhabitants, registered 29 million tourists in 2012, which translates into a ratio of about 1.2 tourists per inhabitant. However, not all residents travelled during the year and some travellers made more than one trip.

With a view to estimating the proportion of the population that has made at least one overnight trip, a special module is implemented along with the EVyTH during February and May of each year, which is designed to register the number of people who made at least one overnight trip in the previous calendar year.

Thus, for 2012, after surveying 10,000 households composed of over 30,000 persons, EVyTH concluded that 43.6 percent of the population had made an overnight trip. The survey also analysed how the ratio varied with different socioeconomic characteristics, including region of residence, gender and age, educational level, income level and economic activity status.

In this regard, the gaps in access to tourism consumption were examined through comparison of the 20 percent of the population with the highest income (highest quintile) with the 20 percent of the population with the lowest income (lowest quintile). The table below illustrating the share of the highest quintile (Q5) and of the lowest quintile (Q1) in tourism as measured by the total number of tourists and sameday visitors and tourist expenditure for the years 2006 and 2012. In 2012, the share in consumption of the highest quintile compared with that of the lowest was 5.0 times higher for the flow of tourists, 2.6 times for sameday visitors and 9.0 times higher for total tourism expenditure. In the interval between those two years, the decline in the inequality of income distribution observed in Argentina had a clear correlation with the decline in inequality in access to tourism.

<table>
<thead>
<tr>
<th>Unit of tourism consumption</th>
<th>Year 2006</th>
<th>Year 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ratio (%)</td>
<td>Ratio (%)</td>
</tr>
<tr>
<td></td>
<td>Q5</td>
<td>Q1</td>
</tr>
<tr>
<td>Tourist</td>
<td>46.4</td>
<td>6.1</td>
</tr>
<tr>
<td>Same-day visitor</td>
<td>35.0</td>
<td>8.3</td>
</tr>
<tr>
<td>Expenditure</td>
<td>66.8</td>
<td>2.6</td>
</tr>
</tbody>
</table>

| Per capita income            | 13.6 | 9.8 |

Through its conclusion of cases where people responded that they had not taken an overnight trip during the previous year, EVyTH has enabled the main reasons behind such a decision to be investigated and allowed the gathering of the key data needed to plan public policies in order to incentivize domestic tourism.

In the case of household surveys based on methodologies different from that used in EVyTH (i.e., independent random sampling), such as the tracking of a panel sample throughout a given calendar year (as used, e.g., in la encuesta de movimientos turísticos de los españoles (Familitur) (Spain)) or implementation of a simple annual data survey using the full previous year as the reference period (the previous EVyTH methodology, applied only in 2006), travel information for each person (with or without overnight trips) may be recreated from data on tourist trips collected during the survey. If it was discovered that a person had not travelled throughout the previous year, a question could be included on the reasons behind his or her decision not to travel.

Source: Ministry of Tourism of Argentina (2013).

3.126. It should also be noted that travel for tourism purposes, be it for recreation, visits to family and friends, religious purposes or even business, is not evenly spread over the year. In every country, there are periods that are particularly important – for family festivities (e.g., Christmas, Thanksgiving in the United States of America, the new year in Asian countries), for religious celebrations (on specific dates), for winter sports and for recreation (summer). Tourism statistics should mirror this seasonality. As a consequence, measurements need to be adjusted to account for high and low seasons.

3.127. Such particularities might need to be considered in designing the sample so as, to ensure that a sufficient number of useful records are obtained to provide answers to related questions. Further, while visiting a household in which nobody has travelled in the period of reference might be perceived as a waste of time and money, in fact, it could yield valuable information on factors that hinder the taking of tourism trips.
D.2.2.2. Securing the required number of in-scope trips

3.128. In many countries, the number of households in which at least one member has taken a trip during a short period of time (such as a month) may be quite limited.

3.129. Three solutions are possible in such cases:

- Selection of a larger sample of households so that a sufficient number of the observations needed to characterize tourism can be obtained, which is an efficient but sometimes costly solution. On the other hand, it is important to know how many persons belong to households whose members never travel.

- Adoption of a statistical design that takes into consideration the previously mentioned fact that propensity to travel varies throughout a territory. This would lead to the application of a stratified sampling approach with different predefined clusters, such as urban population versus rural population, higher-income versus lower-income households.

- Expansion of the period of reference, e.g., by requesting information on trips taken during the previous quarter (some countries even extend the period to one year) rather than restricting the reference period to the past month.

3.130. This last solution might be more appealing, since it allows a much larger number of observed trips to be included (and is less resource-intensive than the others). However, it also has drawbacks, which have been extensively studied by various analysts and compilers (see Box III.34).

3.131. It is therefore recommended that countries refrain from using long observation periods, notwithstanding the apparent advantage of then bringing more trips to light than do shorter periods, because of the memory effects, which can be extremely important. Another consideration is the seasonal character of tourism, which makes it necessary to repeat the observation process at various times during the year. Testing for the existence and extent of recall bias and adjusting for it (if warranted) constitute a useful practice in any country.

3.132. In short, unique observations (e.g., during one month, for the purpose of analysing tourism for an entire year) should be avoided. Observations should be made repeatedly throughout the year, each observation covering a short period of time. Overlapping measurements could help secure a sense of any recall bias (if the measurements are carried out so as to provide a good estimate of the number of trips). In the case of Computer Assisted Telephone Interviews, sending an information letter to respondents beforehand could help to reduce recall effect.
3.133. Recall problems do not relate only to remembering having taken a trip. An interviewee may remember having taken a trip after a considerable amount of time has elapsed; however, the greater the interval, the greater will be the difficulty of his or her remembering the details of that trip. This is particularly so in relation to obtaining good data on details of expenditure. Recall is even more a problem for people trying to remembering day trips and the details of those trips.

D.2.2.3. Calibration

3.134. Calibration refers to the statistical process by which sample characteristics expected to have a major effects on the results of a survey (travel behaviour) are aligned with the same characteristics in the universe. A good calibration process requires reliable and up-to-date knowledge of the relevant characteristics of the universe and selection of the right ones, i.e., those that correlate closely with the variables being observed. However, these requirements cannot always be fulfilled. For example, some population registers from which samples are selected are incomplete (young people or immigrants might be missing, for instance). Accordingly, one of the first processes that need to be implemented is in rectification of the completeness of the information related to the universe of selection.

D.2.3. Making tourism understandable to interviewers

3.135. Other points to be considered in designing observation procedures include the following:

- Questionnaires should not be difficult to understand: respondents should be able to complete them without the assistance of an interviewer. In countries where interviews are conducted by telephone (CATI) (in many cases for reasons of cost, such countries should consider the need for:
  - Guidelines for interviewers
  - Inclusion of dynamic texts in CATI, so that interviewers can better guide respondents through the questionnaire, with regular reminders about key or difficult concepts
  - Training for interviewers
  - Supervision
  - Plausibility checks to be incorporated as part of the questionnaire.

Box III.35

The reporting system in Austria

In Austria, standardized reports on interviewers are used to check the quality of the computer-assisted telephone interviews. The reporting system enables standardized reports on agent level. The reports concerning e.g., the log and response times, can be used to identify interviewers whose work is not correct (e.g., interviewers who did not read the entire standardized text). Additional random quality checks (e.g., through listening to audio files or dummy calls) are also conducted.

__________________________

Source: Statistics Austria.

- In the case of face-to-face interviewing, the completion of questionnaires may require several visits by the interviewer. On the first visit, the persons available to provide details of the household’s characteristics may not be familiar with the travel activities of other household members who are not present. Interviewers sometimes must return for such details.

[1] In Colombia, where the period of reference the 2003 Domestic Tourism Survey was a whole year, it was observed that the propensity to travel was approximately 3 times smaller than that observed in other countries of the region.