Tourism Incomes and Expenditures Surveys in Belarus

Natallia Sakovich

Belarus State Economic University, e-mail: sakovich-n@rambler.ru

Abstract

The main information sources of Tourism Statistics are considered. They include: 1) tourism industry enterprises, entities reports; 2) Households Sample Survey; 3) Labour Force Survey. For each of them the purposes, content, sample design, data collection mode, possible ways of surveys improvement are analysed

Keywords: tourism, incomes, expenses, satellite account, sample surveys

1 Introduction

The national System of Tourism Statistics (STS) as past of the National System of Statistics (NSS) is viewed as basic framework for coordination of statistical information on tourism as produced by all types of stakeholders. The STS is a set of interconnected statistical components comprising:

- statistical sources;
- data derived from those sources: statistical drawn from surveys, administrative records, statistic of the more synthetic nature, such as those integrated into and derived from tourism statistical activity, and the related data derived from adjacent statistical areas, like the balance of Payments and the National accounts;
- the specific tools and instruments used at certain stages of process (concepts, definitions, databases), Households surveys, tourism industry entities surveys are the main methods of tourism expenditures and income estimation.

2 Household Sample Survey

Households (HH) Sample Survey is conducted since January, 1995. Its main purpose is to get the information about the welfare of all population and particular demographic groups, detailed income and expenditure data. Main components of the survey are: baseline interview, four-quarterly interviews, four two-week interviews, which HH receives every quarter. More than 10 000 variables are investigated in the survey.

Survey object is households. Survey is carried out in all country regions and separately

in Minsk. Annually the survey covers 0,2 % or 6000 HH. In this survey three-stage probabilistic territorial sampling is used: 1) at the first step sampling units are cities and village councils; 2) at the second step – local-polling districts in city and data of the soviet account in village councils; 3) at the third – HH.

The methodology of weighing and extrapolation data on a general population is based on assignment of each finite unit (HH) the corresponding weight (B_i):

$$B_i = \frac{1}{p_1 \cdot p_2 \cdot p_3} \tag{1}$$

where p_1 - the probability of selecting each city and rural soviet; p_2- the probability of selecting each polling district in cities, zones and rural soviets; p_3 - the probability of selecting each household within the polling station or zone.

Base HH weights are corrected on uninhabited apartments and non-responses by using mathematical methods.

The sample program assumes filling in daily and quarterly questionnaires: expenses on food and nonfood, payment of services etc. Specific questions on tourism:

- Did you make tourism trips?
- What were general parameters of your tourism trip (purpose; domestic, inbound or outbound; number of households members; durations)?
- Did you have tourism expenditures during reference quarter?
- What kind of the tourism expenditures did you have (package travel, package holidays and package tours; accommodation; food and drinks; local transport; international transport; recreations, culture and sporting activities; shopping; others)?

Household-based data provide significant types of information that the other cannot suitably supply. Current population characteristics, for example, are obtained either from household surveys.

3 Labour Force Survey

In Belarus Labour Force Survey (LFS) is conducted since 2012. One of the purposes is: to obtain statistics on employed by kind of activity, including tourism. Frequency of the results: quarterly and annual.

Sample frame is based on the 2009 Census and includes: set of cities in each region; set of village councils in each region; census enumeration districts in each selected city; villages in each selected village council; the households in each selected unit.

Sample size. The size of the sample is perhaps the most important parameter of the sample design, as it affects the precision, cost and duration of the survey more than any other factors. Used key indicator is the real unemployment rate. Target groups are economically active population (rural, urban, by regions, 5-year groups). Calculation

results by different variants have shown that required sample size is 26-29 thousand of households, or in average – 28 thousand. Without taking into account non-responses sample size is 22 thousand. Sample fraction is 0,6% HH.

Sample design. Survey object is the private households in urban and rural areas for each region, resident persons aged 15-74 years. Territorial three-stage sample is used. Primary unit – city or village council; secondary unit – census enumeration district or village; final sampling unit – household. At each stage units are selected with systematic selection with the probability, that is proportional population number or household number. Variables for stratification are: administrative districts, urban/rural.

Weighting procedure is connected with HH's weights and individual's weights. HH weights are calculated as inverse of overall sample probabilities. There are 25 census enumeration districts in cities and 16 village councils (zones). Individual's weights are based on iterative weighting:

<u>Iteration I:</u> a) weights are calculated by sex, five-year groups design; b) the first correction coefficient (k_1) is calculated; weighted variables are: region, sex, rural/urban; c) the second correction coefficient (k_2) is calculated; variables are: region, sex, 11 five-years groups. Weight is equal within each region, five-year groups in urban or rural area.

<u>Iteration II:</u> final individual weights for each five-year group:

$$K_i = B_b \cdot k_1 \cdot k_2$$

$$(3)$$

where: $B_b = \dfrac{S_j}{s_j}$; $k_1 = \dfrac{S_t}{S_E}$; $k_2 = \dfrac{S_{jt}}{S_{E2}}$; S_j, s_j – population size in j-th sex-age group based on the result of the Census and survey; S_t – population size in t-th group by rural (urban), sex (on the Census data); S_E – extrapolated population size in t-th group (by B_b); S_{jt} – population size in j-th sex-age rural (urban) group; S_{E2} – extrapolated population size in jt-th group (by B_b and k_1).

Household-based surveys definitions of employment comprises paid workers, self-employed persons and contributing unpaid family workers who worked at least one hour or more during the reference period. The household survey provides information on the work status of the population without duplication (employed, unemployed or not in the labour force). Employed persons holding more than one job are counted only once. The household survey measures the earnings of paid workers in all occupations and industries in both the private and public sectors. The LFS covers hours worked by employees and self-employed persons. However, the LFS only estimates the employment within the borders of a given country and does not usually capture for example cross bolder workers or foreign seasonally workers.

4 Establishment-based Survey

Tourism activity is a complex, demand driven phenomenon. The tourism sector reflects this complexity by classifying comprehensive but fragmented set of industries of

tourism this complexity poses challenges for many domains within official statistics as it requires a fine level of disaggregation of activity with more details than usually produced. The typical tourism products are: accommodation of visitors, services of public catering entities, air transport, transport, used to cross land borders (railways, other public transport by land, private transport by land, pedestrians), river transport, rent of transport, tourism industry entities, culture services, sporting and others.

There are the following groups of primary data sources in labour statistics, business-statistics, statistics by kind of activity: 1) Establishment-level data (measuring labour demand); 2) Administrative records, such as: employment office registers, social security files, tax records, etc.

An Establishment is an enterprise, or part of an enterprise, that is situated in a single location and in which only a single productive activity accounts for most of value added. Establishment surveys are establishment censuses and establishment-based sample surveys, including small business surveys. The priority is given to the continuous reporting.

There are a large variety of establishment surveys, each designed to obtain specific information: production, export, employment, average earnings, etc. Detailed industrial classifications are much more reliably derived from establishment reports.

5 Conclusions

The experience of households survey and establishment surveys has shown following:

- main problems are: small sample localization; non-responses (20-30%); building of regional subsamples; the usage of methods combination to extrapolate each indicator from questionnaire becomes inadequate in some cases; different weighting schemes; structural parameters of employment estimation (for LFS);

- data from two sources (Households surveys and establishment-based surveys) differ from each other because of variations in definitions and coverage, source of information, methods of collections, estimating procedures. Sampling variability and response errors are additional reasons for discrepancies;

- additional specific tourism surveys are planned to use (informal tourism sector, telephone surveys, tourism employment).

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