Revision of collecting the statistical data

Milan Tojagi
Central Bureau of Statistics, Transport Department
Ilica 3
Zagreb, Republic of Croatia

1. Introduction

According to the opinion of statisticians, collecting statistical data is the most exacted phase of statistical researches. If we imagine statistical research as a line of linked circles we must admit that the biggest circle is one that refers to the collecting data. It also means that this one is most sensitive. Phase of collecting data spends most of the available time, a great deal of human resources and a greater part of financial cake.

Each improvement in this statistical phase rises a quality of total research and gives a better quality of final results. Changes and additions in the phase of collecting data almost always bring a positive result, especially if the mass electronic processing is involved. Here we will describe changes in collecting data that have been done in the field of seawater transport in period 1985 - 1987. We also need to say that some similar changes have been done in other branches of transport.

2. The idea of introducing the changes and their realisation

The users of statistical data needed more and more and better and better statistical data so the statisticians from the former Yugoslavia started to introduce the innovations in statistical researches. In all republic statistical offices of that time there were no barriers to accept and realise good statistical ideas and the reporting units also accepted the ideas. Statistical data on seawater transport have been collected in some other ways.

Until that time data have been collected through numerous tables. Although their quality was not doubtful, the time of processing was too long so when finished the final data were too old. Several statisticians were working on this annual statistical research for at least 3 - 5 months. Reporting units were port authorities. As a help in making the reports statisticians in port authorities were collecting data through numerous number of auxiliary forms (about 200 000 in Croatia) and processing on the level of whole state lasted for about two months more.

The idea "one ship - one report" became a large statistical project which included statisticians from central and republic bureaus and reporting units, as well as greater number users of statistical data. After few months the test research has been carried out with the purpose to test the forms and to show the possible problems in collecting data. Test research showed that the characteristic features were clear and problem of number of turns of ferry boats and passengers ships was solved by additional question.

Republic statistical bureaus of that time had a good data processing machines so it was agreed that they will collect reports, enter the data and control the logical and calculating errors. Further flow of data was central bureau of statistics -republic bureau of statistics - reporting units -regional bureaus - users of statistical data. Today, after the old state fell apart and after new states began to exist data are processed by the Central Bureau of Statistics of the Republic of Croatia. Still the research functioned without any interruptions and today it is one of the best in the field of transport statistics as well as in total statistics.
3. Statistical forms and their role

As supplement for a great number of auxiliary forms and tables, two kinds of forms are introduced: one for entry of ships and one for exit of ships. For better orientation the forms are printed in two colours and each of them is separated in four parts. First part contains identification data and data which ports use for their own purposes. Second and third parts contain data on transport of passengers and transport of goods while fourth part contains data on ferryboats traffic.

When processing data, these parts of forms are recognisable as records and were anticipated as parts of proportional database. Although proportional database functioned several years, when old state fell apart, it could not be used any longer. There were two ways of filling in the statistical forms: rounding the alternative modalities or entering the numerical codes and real values. When entering data, international codexes are used as well as some others made especially for this research.

4. Positive results of changes in way of collecting data

From the present point of view there have been lots of positive results of introducing the new way of collecting data in seawater transport statistics. The greatest result is made in the time of processing data. The time of processing data is reduced a lot so the first results of annual processing can be seen just a month after the reporting year ended. The second positive result is a fact that the statistical staffs in reporting units is also reduced and surplus staff reorganised to some other tasks. Real price of research stayed at same level, or maybe went down a bit.

5. New role of reporting units, appearance of statistical units

Reporting units were slowly loosing their original meaning. Each of seaports becomes a new reporting unit as a natural frame containing new reporting units also called statistical units. So the idea "one ship - one report" slowly grows up into another statistical expression: "one ship - one statistical unit".

RÉSUMÉ

Des aptitudes à l'organisation, des connaissances méthodologiques et surtout un attachement aux statistiques, présentent des éléments de base pour un statisticien moderne. Il lui faut, aussi, un savoir-faire du domaine du traitement électronique. C'est, en bref, le message de ce petit exposé.