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**USE OF THE CENSUSES AND ADMINISTRATIVE RECORDS AS SOURCES OF
STATISTICS FOR SMALL AREAS**

Supporting paper submitted by the National Institute of Statistics, Bulgaria¹

I. Introduction

1. Demographic statistics is one field of statistics which the Bulgarian NSI is proud of. It implies dealing with statistical data and dynamic series which it arranges, and the Population census was the first action which practically legitimated institutionally the statistics in the young Bulgarian state at the end of 19th century. The recently completed Population Census in Bulgaria in 2001 is the sixteenth one in the country. The censuses have been providing data on lowest territorial level (settlement) since the beginning of the 20th century.

2. We are also proud in this area with our achievements in providing quality population data by regular censuses and by well carried out current registration of the demographic events, especially during the last quarter of the 20th century. Realizing the necessity for cooperation between the different sources of data for the current state and changes in the population leads to the formation of special registers and their usage for statistical purposes. The most important of

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them - ESGRAON, which was established at the end of the 70s, ensured unified personal identification, which is an extremely important prerequisite for relations between the different administrative databases. In 1982 the integration of part of its administrative functions was accomplished with the production of information for statistical data by the complex ESGRAON-TDS (Current Demographic Statistics). Through it, and by means of harmonized nomenclatures and definitions, data of a very good quality for the basic demographic events are obtained. As may be seen from Scheme 1, the integration does not include the population base which is included in the register for it is obtained by periodical population censuses.

3. During the last five years a step towards building up new registers was made, which has to help the current changes in a number of social systems - social security, health services, employment and unemployment, taxation and others. Thus a wealth of information has been built up, but it calls for the necessity of methodological coordination of the information exchange. Despite the good results, problems with providing data at a low territorial level have remained, mainly during the last decade of the 20th century.

II. From the point of view of regional distribution, censuses, like registers, provide data at the lowest level (even intrasettlement): What are the problems in this and the possibilities for overcoming them?

4. The main problem is that there are different views of one and the same object - the population (see Scheme 1). The problem is objective, owing to the different specific destination of the registers. Its overcoming passes through combining its administrative and its statistical function with respect to the fundamental principles of statistical activity. The statistical data that are obtained from the registers and the statistical surveys have their own specifics, which have to be known and taken into consideration with their further usage. In fact the question is not how these sources will provide data for low territorial levels, but how to overcome the defects of each of the sources when providing the information.

a) Problems of the registers

5. For registers the problems are:

- with “overcoverage”. Due to problems with keeping them up to date, mainly due to events like migration, persons that have dropped out of the respective aggregation usually remain included in the register. The procedures for excluding the non-actual units are clumsy;
- describing the legal status. The above problem to a great extent is due to the concept of establishing the registers. With the higher mobility of the population, documenting these events remains out of scope, but due to lack of such documentation, the population base in the register cannot be updated;
- specific methodological treatment. Each register has its own specific purpose, which in many cases defines the concepts in a different way by statistical criteria. An example of this is migration;
- a short list of indicators. The different definitions and the specific characteristics of the different registers very strongly narrows the number of indicators which may be used for statistical purposes.

b) *The problem of censuses*

6. Problems here are:

- their unknown scope. Although complete censuses are taken to be comprehensive, it is clear that they always have some degree of under-enumeration or double enumeration. This permits a number of researchers to consider the census as one “big sample”. The problem is how to define precisely enough the errors, which are made during the census;
- transitory and rapidly aging data. The census is an expensive observation, which cannot be carried out annually. Between two censuses, however, a lot of time passes, which does not satisfy the consumers;
- a limited number of indicators. Although the census describes the population in a much more versatile manner than any register does, the need for data and the consumers are always larger than the data which are available from the census.

7. Even though the list of indicators that are used to examine the population during the census often expands, it always would be insufficiently large to satisfy the consumers' demands. That is why it is necessary to organize on-going surveys to study specific problems. As they usually are extracts, this limits the territorial level at which the data may be developed.

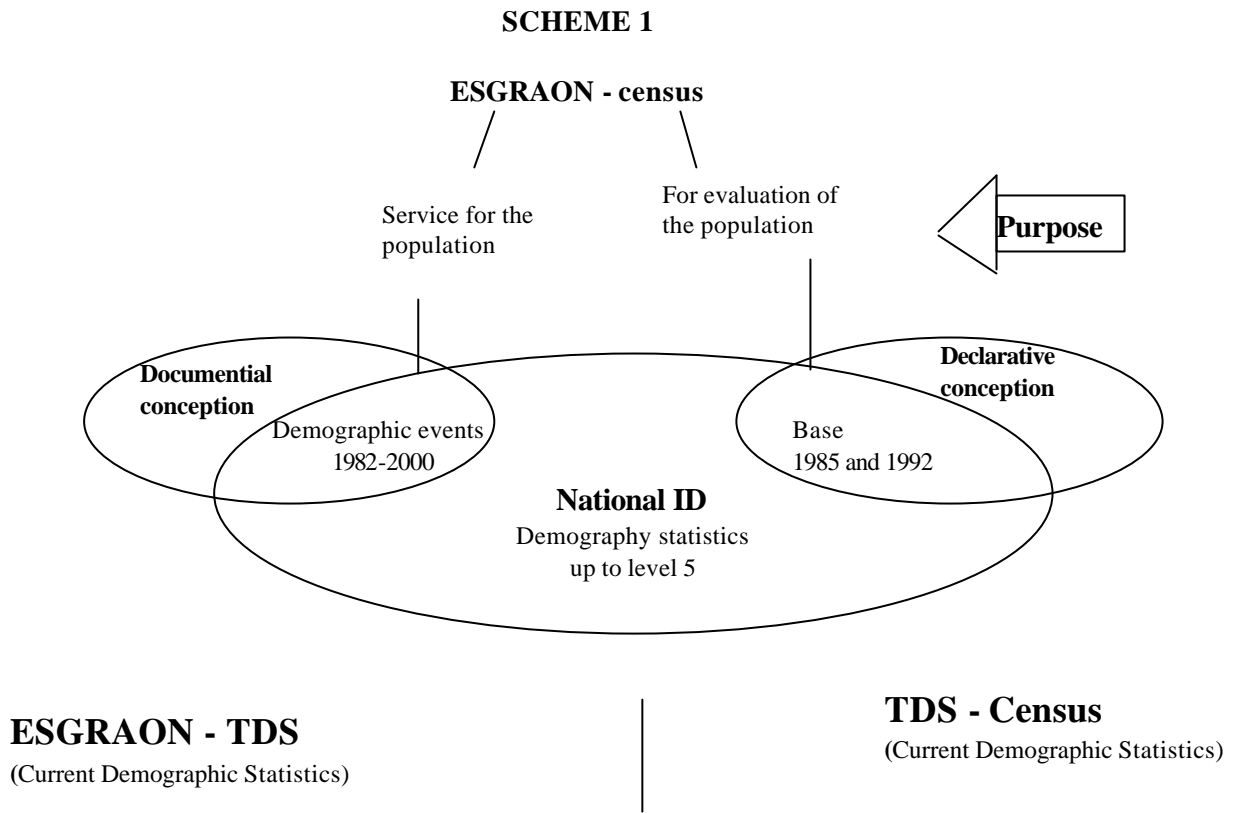
c) *Problems of integration*

8. Problems here include:

- the population base. To the extent that the integrated observation of demographic events (without migration) provides information of a very good quality, there remains the problem of evaluating the size of the population and its structures;
- keeping methodological uniformity. This problem, as with the problem of classifications and nomenclatures, depends very much on the place and the role of official statistics within the sphere of the state administration. In Bulgaria a reform of the national statistical system was undertaken in 1999 and this resulted in acknowledging most of the administrative sources of statistical data and binding them to coordinate methodological problems with the NSI. This coordination is the most successful one in the stage of designing a register, when it is carried out with the cooperation of the NSI;
- classifications and nomenclatures.

d) *The current decision*

9. With the coexistence of two sources of information for the population, one of the possible decisions is their integration. Through this integration, we are trying to combine the advantages of the two sources. This means, in particular, that the data for demographic events are taken from the register, and those for the population are taken from the latest population census. The last ones serve as a base, on which the population is enumerated annually until the next census.



10. The problem is that such integrated complexes are quite sensitive with regard to sharp movements of population. This happened in Bulgaria in 1989. On the other hand efficient mechanisms for covering and registering migration still have not been developed. As a result, the cooperation and the mutualness of the separate sources have to be used here.

11. The prospective (which seems solved for some problems) is to change the census's role by having an up-to-date register, for this would provide more detailed information than the lacking population strictures in the register.

12. Steps in this direction were undertaken in Bulgaria in 2000 and the first half of 2001 during the change of the population's personal ID documents.

e) Possibilities for improvement

13. These include:

For registers:

- binding together the interests of persons and institutions. The conception for large comprehensive registers is no longer acceptable, because it doesn't match the interests of the

participants in the information exchange. Specialized registers are based on common interests and that is why they have a better scope and more up-to-date data;

- multiplication of the registers. These are already being established or have been established, but they need more time to work well together efficiently. This increases the NSI's role as a methodological coordinator;
- use of actual uncodified information for the state of statistical units (buildings, homes, street names and others) after their enumeration during the census;
- relationship. The basic thing in this case is the use of common concepts, definitions and nomenclatures. As close as this can be to the establishment of the register, the much easier and efficient it is.

For the censuses:

- use of the registry information in the preparation stage of the census. Bulgarian practice during the censuses is to prepare preliminary lists for the questionnaire. The extent to which these lists are up-to-date closely depends on the actuality of the information, which usually comes from the population register;
- specification and evaluation of the scope after the census. Our tradition for examining the scope and the accuracy of registration during censuses has been to use special questionnaires after the census. Aside from them, however, this information can be obtained by comparing the questionnaire and the registry information.
- GIS. The use of GIS is a proven means that improves the scope of the population that has to be enumerated. In this case cooperation with cadastral and other infrastructural registers and systems is compulsory.

f) Legal basis

14. Having in mind the above mentioned problems, the NSI has undertaken actions for their legal coverage with the passing of the Statistical law in 1999. In it problems were treated, which guarantee the leadership of NSI in methodology when establishing registers and informational systems. The partial decentralization of the official statistics by separation of statistical bodies out of the NSI, reinforces the requirements towards the coordination role of the NSI.

III. Conclusion

15. What can integration bring for providing data for small regions?

- i) Greater accuracy when maintaining the general population (base), on which all further estimations are made. The main population registry is ESGRAON;
- ii) Providing data, which has a direct influence on the size of the population. The population register provides data with very good scope for most demographic events (births, deaths, marriages, divorces);
- iii) Providing data for the population structures or groups from censuses. The identification part of ESGRAON is also a means for commitment with the census and with other administrative sources, which provide data for other events, related to change in the status of the persons (unemployment, health and social security, education and others).
