



Information system of the official statistics – regional approach

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Abstract

With the approval of the Lisbon Treaty the scope of cohesion policy has changed — social and economic issues have been complemented by a territorial aspect. During the ongoing discussion on this topic it is necessary to more strongly emphasize the role of official statistics as a data source, essential for the policy objectives' creation, monitoring and evaluation. The presentation outlines the key directions of Polish regional statistics development — from organizational change to actions and initiatives. Organization of regional statistics in Poland constantly adapts to the changing needs of stakeholders. The basis for providing effective information services is the integrated co-operation of many public statistics service units. Therefore, Regional Surveys Centres in all voivodships were established. The methodological works undertaken in the field of regional statistics should also be mentioned. In the context of monitoring and implementation of development policy strategic objectives an important initiative is developing a new typology of communes, already in the final phase. Other works concern the development of indicators. Constant improvement of publicly accessible databases like System for Monitoring Development Policy (STRATEG) and Local Data Bank should not be forgotten. The summary of the presentation will be an attempt to reflect on the challenges determined not only by changing of socio-economic or political issues, but also resulting from new technical possibilities (GIS tools).

Keywords: regional statistics, cohesion policy, territorial dimension.

1. Introduction

An important segment of the public statistics information system is a system of regional statistics, providing the necessary information to communities and to the smooth functioning of the organizational units in a particular locality or region. This is an important determinant of the development of the information society. Such a system should be user-friendly, not only by providing the information that a specific user seeks to obtain, but also helping the user in making the information needs and their formulation. The level of development of such system determines whether and to what extent the national social and economic information security is ensured.

2. Specific character of the regional research in public statistics

The regional statistics in the public statistics system is characterised by the three elements: territorial approach instead of a sectoral one, regional and local scale of the conducted research and methods aiming at showing relations between general processes and local conditions. Territorial approach involves a reference to a specific fragment of space, having certain characteristics. The implementation of the territorial approach, however, requires the identification of the area and social or economic problems present within it, and then – delimitation of the area which requires support. It would not be possible, if the public statistics represented only the sectoral approach, which focuses on defining the pattern of particular domains of human activity in the macro scale. Therefore, the territorial approach forces conducting research on a regional and, more and more often, also local scale. A growing interest in the low levels of territorial division of the country derives, among others, from the decentralization of the state and development of local administration.

In the regional statistics research, the data from statistical research or other sources, such as for example administrative registers are used. An important contribution of this approach is the processing of secondary data in order to show the spatial diversity of phenomena. For this purpose, apart from

statistical techniques, also the methods of spatial analysis applied in geography are used – these are GIS techniques and methods of cartographic presentation.

The availability of data is conditioned by the research methodology, the number of individuals covered by the research, frequency of the surveys, sources and costs of information. Full research covers the whole population, giving its accurate image. They are, however, very expensive and absorbing for the participants, which is why partial surveys are often conducted, covering only a random group of respondents. In this way, the abovementioned defects are avoided, but the data are obtained for relatively high territorial levels. Obtaining information for lower territorial levels requires a significant increase in the number of respondents, which proportionally increases the workload and costs. However, it is worth mentioning that currently the researchers try to limit these inconveniences by taking up works on the application of methods for the statistics of small areas in order to estimate the results of partial research.

The research is conducted with a varying frequency, matching the characteristics of a phenomenon. The continuous research, such as, for example, testing the economic situation, is performed in monthly, quarterly or annual cycles. If such a high frequency is not required, the data are obtained in long-term cycles – up to 10 years in the case of population and housing census, up to several-year periods in the cases of commuting to work or modules of Community Labour Force Survey (LFS). In special circumstances, immediate surveys are conducted – pilot testing, identifying the results of natural disasters, etc.

Apart from the conducted research and registers, the public statistics uses external information sources. They include administrative registers carried out by administration units of various levels, reporting data provided by the ministries, spatial data collected by the General Surveyor of the Country, etc. The use of these data in the works of regional statistics research has a two-way realisation. The values obtained in the representative surveys are broken down into the lowest levels of the territorial division, while the data from registers are aggregated.

3. Evolution of regional statistics research in Poland

Regional statistics is not a new branch of the national statistics. It was developed in Poland also before 1989; then, its only important characteristic feature was the shift of the scope of interests towards the research on spatial relations of the statistically measurable phenomena. Since the beginning of the transition period, it has become one of the priority areas covered by the reconstruction processes, which resulted, among others, from the growing needs for new local administration structures. A milestone in the development of regional statistics in Poland was Poland's accession to the European Union (EU) and the growth in the demand for information necessary to implement the principles of the cohesion policy.

The works in the field of regional statistics conducted in Poland before 1989 aimed largely at carrying out the delimitation of functional and administrative units. The examples of such studies are the divisions of agglomerations of 1968 and 1972 according to the number of inhabitants and the structure of employment, prepared by the Central Statistical Office. On the basis of the population and housing census of 1978, the boundaries of industrial districts were determined using data concerning the distribution of the employed and commuting to work. The research methods used in the case of commuting to work were developed also in later works. System changes and restructuring of the economy limited, and sometimes prevented, conducting research in the previous scope and using the already developed methods. The information aspect of the surveys turned out to be significantly more important. The demand for statistical data describing the functioning of communes increased. The information needs related to the availability of the EU support increased as well. However, Poland's accession to the EU proved to be a real breakthrough.

Before the EU accession, the representatives of public statistics participated in preparing the projects of strategic documents. One of the tasks of the Central Statistical Office was the implementation of the Nomenclature of Territorial Units for Statistical Purposes (NTS). It was also necessary to conduct works aiming at the supplementation of the surveys in spatial sections, e.g. with regard to the regional accounts of GDP, population and labour market, agriculture and environment

statistics. These works got additionally complicated by the reform of the administrative division of the country, which forced the introduction of changes in the National Official Register of the Territorial Division of the Country (TERYT). During this period, a recalculation of statistical data according to the new administrative division and NTS implemented in 2000 was performed. The results of the recalculations were set forth in the modernised Local Data Bank (BDL). Also, the databases maintained by Eurostat were supplemented. In this way, access to information on Polish territorial units improved significantly. A year before the accession to the EU, first Polish cities were covered by the monitoring of the socio-economic situation under the project Urban Audit conducted by Eurostat. That year, the Regulation of the European Parliament and the Council on determining the common Classification of Territorial Units for Statistics (NUTS) was issued.

Accession to the EU represents a turning point in the development of regional statistics research in Poland. However, in 2004, a very important step for academic communities was made; for the first time, in BDL, the whole collected information was made available free of charge. In the next years, the Bank was subject to modernization, its English version was developed and additional modules were incorporated into it. Gradually, the external conditions of functioning of the statistics changed. The belief about the need to systematise the development policy was one of the premises of adopting the Act on the terms for conducting the development policy.

Organizational changes took place also in the structures of statistical offices. New provincial (voivodship) centres of the regional statistics were established, whose primary goal is testing and satisfying the information needs concerning the region. For this purpose, they cooperate, among others, with the marshal offices and regional territorial observatories developed in their structures. At the same time, statistical offices started the implementation of tasks at the national level, specializing in specific fields.

In the years 2011-2012, the Central Statistical Office signed agreements on cooperation regarding regional surveys with the Committee for Spatial Economy and Regional Planning of Polish Academy of Science (KPZK PAN) and the Ministry of Regional Development (MRR). They were not only a symptom of the formalization of existing relations, but also a confirmation of the significance of the two groups of recipients of statistical information — the academic community and administration. The result of cooperation with MRR was the implementation of the system of monitoring the development policy by the team of public statistics employees. The STRATEG database was launched in September 2013. In 2014, the programme "Statistics for the cohesion policy" was started. The purpose of this initiative, financed from European funds, is the implementation of a series of works necessary for the development of the regional research methodology, thanks to which further extension of the scope of published information will be possible.

4. Monitoring as a new role of the statistics

Monitoring can be identified as all actions aiming at a regular acquisition of information and data on the examined processes, using a uniform methodology, processing them, and defining, on this basis, the tendencies of changes in the course of the process. The goals of monitoring are the current surveillance of the condition and changes of the studied matter and monitoring the implementation of the principles of strategic documents. On the other hand, the goal of monitoring is not only recording the general condition, but also the processes, through formulating a series of diagnoses enabling the specification of expected directions and intensity of changes. The results of monitoring should make it possible to compare the territorial units.

In recent years, along with the evolution of the strategic management system, development and increasingly stronger focus of public policies on the territorial dimension, the changes of expectations towards public statistics can be observed. The regional statistics is perceived not only as the main source of official data, but also as a partner having a potential of an expert. Incorporation of the Central Statistical Office to the works on the MRR project "Strategic management development – improvement in the quality of governing in Poland" was aimed at the improvement in the monitoring and programming process of the development policy by ensuring an integrated information system for the purpose of monitoring the implementation of the development strategies and public policies,

programming and monitoring of a new perspective of the cohesion policy for the years 2014-2020, monitoring trends and development processes in their territorial aspect, establishment of a consistent set of data and metadata, as well as sharing modern tools of analysis and visual presentation of phenomena.

The publicly available STRATEG system offers a set of accordingly selected and systematically updated indicators, which enable all interested users to obtain information required for the monitoring of the effects of the development policy – both on the national and territorial dimension. The reasons of launching the system are also concentration, direction, coordination and monitoring of public intervention, as well as enabling the conduct of a policy based on facts. A rich set of methodological information, presented in an accessible manner – in the form of metrics of indicators – constitutes an educational element which explains the importance of indicators in analysing the phenomena.

5. Directions of development

The primary goal of the development of statistics and regional analyses in the Polish public statistics is to ensure the data necessary to make right decisions on development and initiatives in the regions. In order to satisfy the users' information needs, the development activities are undertaken, covering the following methodological issues: enlargement of the scope of research, obtaining data from administrative sources and application of new methods. The improvement of the forms of sharing data and testing the users' needs is considered very important. It is accompanied by initiatives aiming to popularize the knowledge about the methodology of obtaining data, possibilities of their application and interpretation.

The conducted works aim to extend and deepen the conducted regional analyses. It is worth mentioning that along with the activities undertaken in the country, the regional statistics meets obligations arising from the European law. It actively participates in the projects implemented under the supervision of Eurostat and OECD.

The development of regional statistics research depends to a large extent on the cooperation with the academic community. In the past, the cooperation took different forms, and currently, its basis is the agreements between academic units and the Central Statistical Office or regional statistical offices. At the central level, such kind of cooperation is the cooperation agreement between the Central Statistical Office and Committee for Spatial Economy and Regional Planning at the Polish Academy of Sciences (KPZK PAN), concerning the cooperation in the form of research and analyses, as well as exchange of experience and good practices with regard to new regional and local surveys, problems of spatial development, and the territorial dimension of social and economic phenomena. The basic objectives of this cooperation are the determination of research priorities and solving methodological problems, in particular a broader application of new representative surveys and combining data from various sources, including administrative units.

New sources of data would provide full information, especially on the subject of the low levels of the territorial division. However, their application brings about important problems, e.g. the structure of official registers which in many cases were not prepared for an efficient obtaining of data useful for public statistics. An example of such a barrier is a non-uniform manner of recording information on address data, which hinders the aggregation of data. Placing such information, providing a spatial reference, in the sources, would enable a broader application of the GIS tools, which would then make it possible to perform any operation of geoprocessing and, as a result, would enable an efficient calculation of data for any functional spatial units.

Public statistics also conducts works on the application of geometric networks as systems of references to the presentation of data. The substitution of territorial division units with a geometric network provides a variety of new possibilities, including much greater spatial resolution of information, insensitiveness to the changes in the course of boundaries of units, which involves improving the comparability of phenomena over time. Obtaining information in geometric networks also enables the application of tools for modelling phenomena in the space. It has a crucial meaning for spatial planning and forecasting its directions. Another example of applying such information is



the analysis of the service areas, which is more and more important in the context of analysing the provision of public services.

An important challenge is improving the methods of sharing the data. In the recent past, an important step was making the complete resources of the Local Data Bank available on the internet. Currently, such an event is launching the STRATEG database, which has been supported by additional elements, such as the English interface. The development of BDL is also planned.

A long-term project is the "Support for the system of monitoring the cohesion policy in the financial perspective 2007-2013, and programming and monitoring the cohesion policy in the financial perspective 2014-2020", implemented in cooperation with the Ministry of Infrastructure and Development (MIR), covering, among others, the tasks in preparation and implementation of the system of monitoring the development processes and strategic goals of the development policy and implementing the cohesion policy, conducting new surveys, preparation of estimation methods for selected categories of data, works with regard to the delimitation of functional areas, development of new measures, as well as works involving the use of unit data for the purposes of conducting the evaluation of counterfactual interventions.

6. Conclusions

Building a coherent and common accessible and comprehensive information system for regional statistics is one of the priority tasks of official statistics in Poland. Information service-oriented system of individual targets groups, including regional and local authorities, providing information at the time of adequate to the needs of the audience – to be able to make decisions in the process of governance, and not just to analyze past events and based on high-quality statistical data, obtained from the different (but integrated) public sources (statistical and beyond statistical). The condition for the success of this venture is close cooperation of the interested groups, i.e. local government units, organizations, as well as owners of the data.

Owing to the evolution of the strategic management of development and focusing of public policies on the territorial dimension, monitoring of the development became one of the most important objectives of regional statistics.

Apart from the research on the regional aspect of phenomena related to the social and economic development and environmental protection, in the future years, the subject matter of regional statistics will concern selected thematic circles, including migration of population, delimitation and monitoring of functional areas, research on the areas with specific features: municipal, rural, cross-border, metropolitan areas, peripheral areas or areas covered by revitalisation processes.

Further development of research will be also determined by the progress in methodology. Therefore, programs are implemented aiming at the use of new methods of obtaining and processing data. Also, works related to the development and use of geospatial information, covering the use of GIS software for spatial analyses and fulfilment of any obligations resulting from the INSPIRE directive, are conducted.