

Decision on using more administrative data: problems and challenges faced by the Brazilian Institute of Geography and Statistics

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Introduction

To enlarge the use of administrative sources in the statistical production process has always been in discussion in IBGE. But in recent years has become a strategic objective given the pressures to make savings in costs and staff resources, to reduce the burden placed on the respondents to statistical surveys and to answer the growing demand for information.

This strategic purpose highlights several issues to be addressed in this paper. Some of them are related to the role of IBGE in the National Statistical System and others are related to the insertion of the National Statistical System in the Brazilian State.

This paper therefore proposes to describe how the Brazilian Statistical System is organized and the current use of administrative data in the production of statistical information as well as the legal, ethical and privacy issues involved in the decision of intensifying the current use of them.

The Brazilian National Statistical System

In Brazil several organizations of statistics were created since the second half of the nineteenth century, but only in 1871 the General Directorate of Statistics was established with the main purpose of conducting the population census every ten years. This organization can be considered the first national coordinator of statistical information in Brazil.

The General Directorate of Statistics was reformulated in 1907 and replaced by the Statistical Superior Council, established as the central statistical agency with the role of guiding the production of statistical information by others agencies of the public administration at federal, state and municipal level. This could have been the first step in the constitution of a national statistical system, but has failed due to the federative government system, then current, which guaranteed to each public administration at state level the freedom and the right of organizing their own administrative system.

Only in 1934 it was established the National Statistical Institute - INE, as the core of the national statistical system. The act that has created the INE has modeled it with the necessary autonomy to coordinate the production of statistics of the federal, state and municipal governments. In 1938, following the extinction of INE, the Brazilian Institute of Geography and Statistics – IBGE was created.

The creation of IBGE was in a historical context of a centralized, bureaucratic and dictatorial government, which intended to eliminate regional powers. One of the signs of the centralization of power in that period was the establishment of many administrative agencies of regulatory character, and IBGE can be

considered one among them.

At that time IBGE has constituted a "central administrative body with the task of organizing and increasing the flows of information in the whole Brazilian territory, and had the flexibility to intervene, through technical and scientific procedures, in the process of inserting the political-administrative structures which were being created in a perspective of national integration."¹

Currently, the Brazilian Statistical System is regulated by a legislation that deals with the mandatory nature of the provision of information by respondents, the statistical confidentiality and the definition of a program for the production of statistical and geographical information.

Although the composition of the National Statistical System has not been formally defined, the official statistics are being produced nowadays by IBGE, Central Bank, ministries and statistical state agencies. There are also some private foundations that produce official statistics.

IBGE is ruled according to the Law n. ° 5.878, of May 11th, 1973, and the Statute - Decree n. ° 3.740, of June 13th, 2003. It is linked to the Ministry of Planning, Budget and Administration, with the role of coordinating the Brazilian Statistical System and being the main producer of official statistics in Brazil. There is not Statistical Council in Brazil in operation, although the statistical legislation predicts a Technical Council composed by representatives of government agencies and by other citizens of recognized technical and professional competence in the area of the production or use of geographical and statistical information.

Current situation on the use of administrative data

The two main uses of administrative data in the production of statistical information in IBGE are as a data source and for updating the Central Business Register - CEMPRE and as a data source used in the estimates the tables of the system of national accounts.

CEMPRE, the reference business register for the selection of the samples for the manufacturing, retail, services and construction businesses surveys, uses as the main source of data for the maintenance and updating of its information, two administrative files from the Ministry of Labor and Employment – MTE: the Social Security Administrative Record (RAIS) and the General Register of Employed and Unemployed Persons (CAGED). These data sources have a coverage rate of over 90% of CEMPRE active records.

CEMPRE is updated annually using RAIS for the inclusion of the new businesses and for providing information on births and deaths, to update addresses and data on employment and wages.

Besides the maintenance of register information of businesses and other formal organizations, RAIS information are also used in the annual publication of Statistics of CEMPRE. The publication presents information on total employed persons, employed wage earners, total of wages and compensations and monthly average wages measured in terms of the national minimum wage. The publication also presents indicators of diversification and spatial distribution of economic activities and concentration of total employed persons, referred to the manufacturing, retail and services activities.

In relation to the System of National Accounts, the economic and financial data from the Tax Authorities, such as the Declaration of Economic and Fiscal Information - DIPJ are mainly used for the construction of the institutional sector accounts of non-financial enterprises. The Federal Revenue of Brazil - RFB, to avoid the identification of the respondent, aggregates DIPJ information according to economic activity. These informations are received with a delay of approximately 15 months in relation to the reference year.

These information allow the elaboration of Integrated Economic Accounts, from the process of production and distribution of income account to the use of income and capital accumulation account to the institutional sectors of non-financial enterprises and non-profit institutions serving households – ISFLSF. They also allow the coverage of activities that are not part of the scope of the business surveys of IBGE, as, for instance, electricity, health and education in the Table of Resources and Uses.

An important improvement in the integration between the administrative data and the production of

¹ IBGE, Penha Eli Alves. pág. 41

statistical information was the creation of the Social Statistics Committee. This Committee has two objectives:

- . To diagnose and to define the demand for social statistics; and,
- . To establish the cooperation among producers of administrative records, social surveys, censuses and other sources, in order to strengthen and to improve the official social statistical information, aiming to enlarge their use, their variety and the quality of this kind of information.

IBGE representatives and the main ministry producers of administrative social data compose the Committee, created by Ministerial Decree No. 424 of December 6th, 2007.

Problems and challenges

Many national statistical offices, all over the world, are seeking for a way to increase the use of administrative records from various ministries and governmental agencies in order to produce statistical information.

The search of an alternative way for obtaining these kinds of data is related to the rationalization of the production process of statistical information, given the pressures to increase the production of statistical information with reduction of costs, human resources, and of the response burden on the respondents.

Facing this situation that also happens in the Brazilian Statistical System, IBGE has defined as one of its strategies for the 2010-2020 period to enlarge the use of administrative data in the production of statistical information as one of the main goals in the project of the Revision of Business Statistics.

Several issues have to be considered in this strategic decision. The main ones are concerned to the Brazilian legislation, to the organization of the National Statistical System and to its insertion in the society.

Legal aspects

One of the main barriers for the accomplishment of this strategy is the access to administrative records. Differently from the countries that have clear resolutions about the access to the administrative records for official statistical purposes, the Brazilian statistical legislation only assures to IBGE that:

Art. 1º Every person or legal person of public right roof private right under the jurisdiction of the Brazilian law is obliged to provide the information requested by IBGE for the implementation of the National Statistics Plan.

(Decree-Law nº 161, February, 13th 1967, , art. 2nd, § 2nd).²

The compulsory nature of the provision of information by legal entities of public right conflicts with others laws that preserve confidentiality of personal information, for example, the banking and fiscal confidentiality.

The fiscal confidentiality is regulated by Brazilian laws, which include some exceptions but do not mention the compulsory nature of the provision of this kind of information to IBGE. In the negotiation between IBGE and the Tax authority -RFB, which has been established for more than ten years, the justification for not allowing IBGE to access individualized administrative data is the interpretation that the legislation that regulates the fiscal confidentiality overlaps the statistical legislation.

Banking confidentiality disposed by the Complementary Law 105/2001 ensures that financial institutions are obliged to protect their customers' data. This law is used by the Central Bank to avoid the use of individualized data on foreign trade in service transactions by IBGE.

IBGE would need to have a more central and independent position in the Public Administration to effectively carry out the coordination role of the Statistical System, turning the System more coherent and efficient.

The image of IBGE in the Brazilian society as the main producer of reliable official statistics is strong today, but the perception of its role as the coordinator of the Statistical System is weak. In order to play the role of coordinator it is necessary, many times, to rely on the collaboration and participation of the other

² Law No. 5534 of November 14, 1968.

producers of official statistics.

The establishment of the Social Statistics Committee, previously described, and of the National Classification Commission – Concla³ constitute good examples of IBGE's initiative in the performance of the role of coordinator, but the adequate functioning of these forums depends on the will of participation of the members representing the organs involved.

The justification of respect of the current legislation by the producers of administrative records for not allowing IBGE to access individualized data shows lack of recognition by Brazilian State of the need of an efficient Statistical System coordinated by a central agency, with its assignments explicitly defined by law.

To mention another example of the lack of understanding by the Public Administration of the role of IBGE is that some producers of administrative records, in order to supply IBGE with their data, want to receive individualized information produced by IBGE. This lack of understanding of IBGE's role and principles of statistical confidentiality, in some cases, interrupts negotiations for technical cooperation or for the reception of administrative data by IBGE.

Ethics and privacy

In several countries, significant segments of society are committed to prevent the control of the society by the State and to guarantee the preservation of the privacy of the informant.

In Brazil the right to privacy is protected by the Constitution in its Article art.5, X, where it is written "... the intimacy, the private life, the honor and the personal images are inviolable..".

Most of the Brazilian population has not expressed concern about the preservation of this constitutional guarantee, especially on the possibility of crossing information from administrative databases. However it is noticed in recent years the growing concern with the safety of collection, storage, access, use and transmission of their personal data by IBGE.

This debate in the Brazilian society is more related to the circulation of personal information in Internet and the exchange of information on personal identification by private companies. As the result of countless actions in the justice, enterprises have been preparing documents describing their policies and their actions with regard to the privacy of users and customers.

In relation to administrative records, many IBGE's respondents, mainly the enterprises covered by the business surveys, argue IBGE why it doesn't obtain the requested data from other Public Administration databases for which they have already reported the same information.

It can be noticed a great difference referred to the right of privacy in the provision of mandatory information to public entities and volunteer information to private entities. When the provision of information is mandatory, citizens believe that the exchange of databases would be a natural practice among governmental agencies, and that would provide an exemption for them. When the information is provided to private entities there is a concern about the possible inadequate use of them.

The trade-off between the increase of the use of administrative data in the production of statistical information and the possible expansion of the monitoring of citizens by the State doesn't constitute a problem for the Brazilian Statistical System nowadays.

The pressure experienced by IBGE is of another kind. The conflict that the agency has been constantly debating is between the right of privacy of the respondents versus the right of the users to obtain information.

There is a growing request for disaggregated data and in this context it is offered, for instance, a service enabling the access to microdata. This service is not available to the public in general, but is permitted and controlled to give access of special users/researchers. This service is provided in a specific room for the accessing to restricted data. The room is provided with computers with locked networks

³ Concla was created in 1994 for monitoring, setting the standards for use and standardization of national statistics classifications. Concla is composed by IBGE and sixteen ministries, and the presidency and executive secretary are conducted by IBGE.

avoiding the transfer of data and the deactivation of external disks and database especially prepared (encrypted data) for the user to develop his project, through procedures that were prepared to ensure the confidentiality of individual information.

Besides this service, it is also offered to the users the possibility to carry out projects with more disaggregated information than those published, through the request to IBGE of special tabulations.

All these services require an additional work of the staff involved with the production of the surveys, which is a verification of data disclosure. However, even with the supply of such services, many users are still unsatisfied and demanding more disaggregated data.

The current dilemma to be faced considering this dilemma is the demand for geographical referred statistical data. IBGE has some experiences on the integration between statistical and spatial data.

In the operation of the agricultural census of 2007 IBGE has used 80 thousand handheld computers with GPS to ensure quality control during the interview and the supervision in real time in the aggregation of municipal data. This procedure allowed collecting location coordinates of rural establishments, schools and health establishments in rural areas. In the population census of 2010 the improvement was even greater remarkable as the addresses were connected to the blocks in the digital maps of the enumeration areas. With this resource the relationship between census data and different parts of the territory were available, enabling the dissemination of statistical information by streets and blocks always taking account disclosure restrictions.

IBGE besides its functions in the Statistical System is also the main producer of geoscientific information and has the role of coordinating the National Cartographic System. One of the main projects of the production of geoscientific information is the construction of the National Spatial Data Infrastructure - INDE. The purpose of the INDE is to catalog, to integrate and harmonize geospatial data from the Brazilian government institutions, producers and sponsors of this kind of data, so that these data can be easily located, accessed and used for several uses and for any user who has Internet access.

IBGE is responsible for the construction, provision and operation of the Brazilian Geospatial Data Site - SIG Brazil, as well as for the management of the Brazilian Directorate of Geospatial Data - DBDG. It is also responsible to prepare the proposals for obtaining the necessary resources for the implementation and maintenance of INDE.

One of the objectives of the INDE is the dissemination of georeferenced statistical information on SIG Brazil. On the other hand, the increase of the analytical possibilities considering the association of the geospatial information with statistical data results in a great challenge to the IBGE, because of the risk of disclosure of individualized units due to the dissemination of georeferenced statistical information. The experience with the service that allows the access to microdata in a specific room for accessing restricted data, which currently operates a smaller database, shows that besides good technological solutions, it will be necessary a very strong integration between the staff involved in the production of statistical information and the staff involved in the production of geoscientific information for reconciling the principle of confidentiality and the availability of disaggregated and georeferenced statistical data.

Final Comments

The strategic purpose of IBGE to enlarge the use of administrative sources in the statistical production process highlights issues related to the role of IBGE in the National Statistical System and the insertion of the National Statistical System in the Brazilian State.

One of the main barriers for the accomplishment of this strategy is the access to administrative records. The banking and fiscal confidentiality regulated by Brazilian laws, for example, are used by the Central Bank and the Tax Authority for not allowing IBGE to access individualized administrative data.

The argument of respect to the banking and fiscal confidentiality for not allowing IBGE to access

individualized data highlights lack of recognition by Brazilian State of the need of an efficient Statistical System coordinated by IBGE.

In relation to the concern about the preservation of the right to privacy, that is not a problem in Brazil. The Brazilian citizens believe that the exchange of databases would be a natural practice among governmental agencies, and that would provide an exemption for them.

The pressure experienced by IBGE is of another kind. The conflict that the IBGE has been constantly debating is between the right of privacy of the respondents versus the right of the users to obtain information. The increasing demand for disaggregated data imposes the challenge of finding solutions to prevent the disclosure of the respondents through the association of confidential data, being necessary the all moment to clarify users about the need to preserve confidentiality.

REFERENCES

S. FILHO, José Ayres et all. Registro administrativo como fonte de informações estatísticas. Rio de Janeiro: Revista Brasileira de Estatística, 34 (134): 305-312, abr./jun. 1973.

IBGE. Report of the National Statistical and Geographical Institute of Brazil on global geographic information management: towards better global coordination and integration with statistical information.

<http://unstats.un.org/unsd/statcom/doc10/2010-13-Brazil-GGIM-E.pdf>

IBGE. Sistema de Contas Nacionais – Brasil, Referência 2000. Nota metodológica nº 3. Disponível em

http://www.ibge.gov.br/home/estatistica/indicadores/pib/pdf/03_basedados.pdf

PENHA, Eli Alves. A criação do IBGE no contexto da centralização política do Estado Novo. Rio de Janeiro: IBGE, Centro de Documentação e Disseminação de Informações, 1993.

SENRA, Nelson. Informação estatística: direito à privacidade versus direito à informação. Transinformação, Campinas, 17(1):17-29, jan./abr., 2005.

ZACHARIAS, Maria Luiza Barcellos Cadastros Estatísticos de Empresas Construídos a partir de Registros Administrativos, ONU/CEPAL, mimeo, Segunda reunião da Conferência de Estadística das Américas CEPAL/ONU Santiago do Chile, 18 a 20 de Junho de 2003.