

Reflection on Quality Assurance of Government Statistic Data

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Abstract—Government statistical data is an important basis for the objective description of economic and social development. It can reflect national conditions and strength, and reveal the rules of economic operation. It is an important basis for macroeconomic regulation and control, scientific decision-making and scientific management. It should build a moderately prosperous society in all aspects and promote the development of social economy, politics and culture. Under this condition, the high - quality statistical data is fundamental guarantee for improving the efficiency of the government, and optimizing the decision - making and scientific management. This paper discusses the authenticity, accuracy, completeness and timeliness of government statistics data based on the "statistical law". And it puts forward the ideas and methods to guarantee the quality of government statistic data.

Keywords—*statistic data; authenticity; accuracy; integrity; timeliness*

I. INTRODUCTION

Government statistics reflect the national conditions and strength in all aspects. Also, government statistics objectively show the development of society and economy, and accurately reveal the rules of economic operation. It is an important basic work for the implementation of macroeconomic regulation and control, scientific decision-making and scientific management. With the improvement of the construction of social economy, politics and culture, and the construction of service-oriented government, statistical data is the basic content of statistical work to provide quality service. Statistics departments provide quality data. And then, they can provide quality statistical services for the party and the government and the public. And the statistic data can provide scientific supports for the national decision-making arrangements.

Since the birth of statistics, the ancients kept records by tying knots and wrote statistics on the papers. And then, the problems of data quality appeared. The control and management activities of data quality already existed. In order to give full play to the statistical information in administrative decision-making and social policy, foreign countries have attached great importance to the management of data quality, especially in developed countries. Many international organizations such as the European Bureau of Statistics, the International Monetary Fund Statistics and

national statistical agencies have identified their own data quality standards. These standards are important content and basis for the national government statistical agencies to make the detection and supervision on the data quality.

The first rule of the statistics law in China is to make clear the purpose and theme from the very beginning. This Law is formulated to scientifically and effectively organize statistical work, and to ensure the authenticity, accuracy, completeness and timeliness of statistical data. It plays an important role in understanding the national conditions and strength and the development of the economy and society. Also, it has promoted the development of the socialist modernization construction. It fundamentally clarifies the four basic standards of the quality of Chinese government statistics. They are respectively authenticity, accuracy, completeness and timeliness.

II. AUTHENTICITY

The so-called authenticity refers to the fact that the statistical data can objectively and accurately reflect the quantitative characteristics of the investigation object, and the error should be within a reasonable range. In a word, it should ensure the objectivity and credibility of the values of the index.

The concept "the authenticity is the statistical life" has been proposed early. Due to the deficiency of the current statistical management system, the statistical work of the government at all levels is subject to the leadership of the higher level statistical authority. However, personnel administration is directly limited to government leaders at the same level. It is difficult to independently carry out statistical business works. In the diversification of economic interests and the level of government management at all levels of the assessment requirements, the government statistic data often becomes a direct reflection of leadership performance. And it is inevitably affected by a variety of human factors. The current system of statistical report is widely used in the statistical practice with many interference factors. The report data is filled with artificial wills. With the executive will, the grass-roots statistical departments are often difficult to be independent. Even, some government departments help a villain do evil. Due to the fake, it naturally leads to data distortion. From the current situation, the simple pursuit of GDP assessment is the important

reason of statistical water injection fraud for the government at all levels.

To maintain the authenticity of statistical data, it should thoroughly implement the "Opinions on deepening the reform of statistical management system to improve the authenticity of statistical data", and establish the idea of governing with the rule of law, and severely punish statistical fraud with legal weapons. Also, it should strengthen the publicity of "statistical law" to enhance people's statistical legal concept. The statistical authorities must strengthen law enforcement. And the point is to exclude human interference, inflate profits and other statistical violations. The statistical authorities must be able to enforce the law, and be good at law enforcement, and maintain the dignity of statistical law. The statistical law enforcement work should be firmly based on the idea of "the fraud in statistical data is the largest corruption in the statistical field". The work should be developed on the statistic. And it wouldn't tolerate a variety of statistical violations in any cases. It should improve the accountability system and responsibility system, clear the main responsibility, and supervise the responsibility. It can expose the major statistical data fraud case and seriously investigate and affix the responsibility for the relevant personnel. It should establish a responsibility system of full coverage, traceability and strict accountability to prevent and punish the statistical fraud. For the enterprises with serious dishonesty in statistics, it should also publicize its dishonesty information, and published statistical blacklist of the dishonesty. It is necessary to establish joint disciplinary mechanism to punish the dishonesty enterprises with the help of media forces. And it should report the statistical cases in a timely manner. And then, the illegal behaviors may cause public pressure and increase the cost of illegal statistics. Then, it would form a good social atmosphere that doesn't want to fake, not fake, can't fake, and to count the integrity statistic with the law. For the counterfeiters, it must implement the policy "zero tolerance" and "one vote veto". Then, it would ensure the authenticity of the statistic data. The government can make the right decisions and safeguard the vital interests of the people. To uphold the concept of the rule by law, it can really improve the statistical ability, data quality and government statistics credibility. And then, it can speed up the construction of modern service-oriented statistics with the new normal adaptation.

III. ACCURACY

The accuracy of statistical data will directly affect the effectiveness of macro-control and scientific decision-making. The accurate statistical data is the soul of statistical work, and to do the accurate statistics is the statistician's duty. All of the government statisticians should put the accuracy of statistical data in the important position of the work. They should improve the accuracy of statistical data with scientific methods, perfect procedures, responsible attitudes and full control, etc.

Article 16 of the statistical law clarifies the statistical survey system. To collect and collate the statistics, it should be based on a cyclical census. It should use a comprehensive

survey, key surveys and other methods, take a regular sample survey as the main body, and make full use of administrative records and other information. It is a clear guide for us to obtain the accurate statistics. However, there are some shortcomings and deficiencies in the current statistical methods and statistical systems. The method of comprehensive statistical reporting has been used for many years. And it needs to report something level by level. Due to the complexity of the statistical objects, it hasn't been adapted to the needs of statistical information in modern social and economic development. They make the reports level by level. And then, the statistic would inevitably be interfered by all levels. Also, the statistic data would be polluted. It should strive to make the reform and improvement of collection and distribution of the new normal statistical data. Also, it should give the corresponding status, conditions, means and legal protection to statistical departments. Then, it can ensure the independence of the national professional statistical agencies and various sectors of the industry statistic organizations in the statistical development, production and distribution process. It can effectively maintain the accuracy of statistical data.

The accuracy of the statistical data is firstly determined by the original record of the statistical data, and the quality of the original record has a decisive influence on the accuracy of the statistical data. Only a true and accurate original record and an accurate and standardized statistical account can provide a solid basis for the completion of statistical data. And then, it can ensure that the statistics are accurate. Nowadays, a series of tables can show the reports on the network directly. And the enterprises should further do the top design and system design. Then, all kinds of annual reports, quarterly, monthly and other direct work would be more standardized, independent and scientific. Secondly, it must strengthen the rationality of investigation and preparation in the data production process. It should ensure the scientificity and consistency of connotation and caliber of statistical indicators. Finally, it must ensure the accuracy of measurement tools for the technical statistics to prevent personal calibration. The ministry of environmental protection has made supervision and inspection on the operation and management of pollution monitoring and control facilities in the first half of 2015. And it found and exposed seven cases of data fraud. This technical data is not accurate and can be hidden more easily. And it can't be overlooked.

IV. INTEGRITY

The statistical data must meet the needs of researches on social and economic development and macro-economic decision-making and social economy. And the integrity usually includes accessibility and applicability. Accessibility refers to the degree of convenience that users can obtain data from the statistical department. Applicability refers to the degree that information is adapted to the service object. It can be seen as the relative comprehensiveness of statistical data. From this, it can see whether meet the needs of decision-making and research. In the era of large-scale

information, the integrity of the data is particularly important in the construction of information society.

At present, in the term of the availability of statistical data, on the one hand, there is a lack of effective coordination among the various statistical agencies of the government. Self-contained, self-reliance standards and fragmented industry statistics cause the inconformity in statistical standards, index settings, caliber of index and interpretation of index among the industries or various types. The data can't be compatible with others. Also, it is difficult to compare with others. And it can't make a unified and complete explanation on the same kind of phenomenon, lacking of sharing. On the other hand, the users don't have a clear and easy access to obtain data information effectively. The publicity of statistic data in some local government and industries still lags behind. With the lack of timeliness, some departments even hide the so-called internal data information. And it has made a great deal of inconvenience to the users. To ensure the availability of data, firstly, the national statistical supervisory is required to fully coordinate the statistical work of the industry and local statistical offices at all levels. It should do the statistical work in the national wide, and develop unified index standards, a unified statistical table and graphic form to deal with the similar issues. It should ensure the comparability of the same statistical index of data in time and space. It will not only improve the efficiency, but also be more conducive to the use of data management. Secondly, it is necessary to establish the government and industry statistics catalog system to search and query for the users. Finally, it is necessary to establish statistical data sharing system. And this system should be convenient for format and distribution channels of the general user.

In terms of adaptability of statistical data, it usually ensures that the data is enough. Under the premise, it achieves the best input-output ratio as much as possible. This is also a manifestation of the quality of statistical data in the cost-effectiveness of statistical data. Government statistics is often lacking the concept of the cost-effectiveness. It has made benefit accounting on the specific statistical projects. There are the miscellaneous projects in a wide range, the complexity of index and redundancy in the statistical investigation, and so on. And then, it increases the cost of the statistic data. To ensure the adaptability of statistic data, in the statistical practice, the statistical department should be in charge of the macro control, and establish the investigation project. It is necessary to orderly and efficiently organize the implementation of statistical survey. It should carry out investigation project together as much as possible. And it should make full use of the existing data to do the statistical projections on the relevant projects. Statistical data is collected with non-comprehensive survey methods such as sample surveys, key surveys or typical surveys. It can basically meet the needs. Then, it needn't to conduct a comprehensive survey. With the statistical data obtained from existing administrative records, it needn't to have periodic investigation as far as possible. These initiatives and methods should be perfected and solidified in practice.

V. TIMELINESS

Timeliness is effectiveness. It refers to the interval between the occurrence of socioeconomic phenomena and the availability of such data. Timeliness is the embodiment of the statistical data quality in the time value of statistical information, which is the requirement of statistical data efficiency. The development of economic policies or the study on economic and social phenomena often requires up-to-date statistical data, which requires statistical data to be available or published as soon as possible in the shortest possible time.

On the current situation, various types of macroeconomic statistics are released by the national statistical departments quickly, timely and greatly. It meets the needs of all parties. The release system is relatively sound, and the distribution channels are relatively smooth. However, the situations of the provinces (municipalities and autonomous regions) are uneven. On the basis of investigation and research, the competent national statistical departments shall formulate uniform and normative standards for the contents, procedures, channels and methods of publishing the statistical tables, statistical bulletins and other socio-economic data in various regions and industries in light of the actual situation of our country. On the basis of improving the construction of the national statistical information, and it should gradually improve the standards of the construction of statistical information to meet the needs of today's rapid economic and social development.

After China joined the GDDS (Data Dissemination General System) developed by the International Monetary Fund, it should establish and improve the statistical data release support system within international standards as soon as possible, and improve the intelligent and cloud computing Interactive mode with multimedia as a medium, network for the connection, the database as the core. Network direct reporting units transmit statistical data in the specified time directly to the designated server through the national statistical network direct reporting platform. To report the statistical data directly should be highly standardized. And then, it achieves instantaneous data sharing of the entire statistical information system.

VI. CONCLUSION

To sum up, the government statistic quality is the core of statistical work, and it is directly related to the success or failure of statistical work. The quality of statistical data determines the statistical services, consulting and supervision. Historically, important national statistics in the country have made specific and clear requirements on the quality of statistics. However, statistical fraud in the practical statistical work is difficult to avoid. For example, statistics bureau of the national bureau of statistics has found that there are still many acts of statistical fraud in the third economic census of China. "Notice of the state council on carrying out the third national agricultural census" has put forwards clear regulations on the implementation of the general survey on issues of agriculture, farmer and rural area. It should seriously investigate and punish the illegal

work in the census. And it should ensure that the census work is smooth. The quality of census data should be high. It is the focus of the census work.

To improve the government statistic quality has a long way to go. On the basis of strengthening the statistical rules and regulations of the construction of statistical legal system, it can learn from the successful experience and try to form an independent statistical data quality assessment institution. The audit institutions monitor the accounting data. And it is the same to the audit institutions. Based on scientific and reasonable data quality assessment methods, it is responsible for the statistical data assessment, implementation and management of the statistic data quality. On the technical level, the government statistical data quality control system should be combined with the statistical data quality assurance system of the government statistical data production process and the organization and management with the establishment of a new model of the new industry. And the quality of statistical data should be transformed from the supervision of the providers and the investigators consciously to the control of statistical department. It can fundamentally improve the government statistical data management and data quality. In the positive practice of modern service statistics under the new normal, the establishment of modern standards of statistical data is the premise and foundation of statistical services. There is no high-quality statistical data, and it can't talk about the service statistics. All kinds of statistical personnel firmly adhere to the statistical professional ethics, cherish posts and devote wholeheartedly to work, do a solid work, and make quality service. Usually, to uphold the quality of statistical data is the first task of statistical work that will prevent and punish statistical fraud. And the statistic fraud should be put into the work of government agencies and statistics institutional staff according to law and the scope of duties. And it should effectively protect the authenticity, accuracy, integrity, and timeliness of statistics. At the same time, it should vigorously promote the statistical reform and innovation to speed up the construction of national governance system and the modernization of the ability. Then, it would adapt to the requirements of the statistical management system. Also, it can make efforts to enhance the scientificity and authoritative of statistical work.

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