

The Census Systems of China: Formulation and Development

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Abstracts

This article gives a brief introduction of the formulation and development of the census systems of China, especially on their basic situation and process of constitution and improvement. Then it presents a concise analysis on the major problems and difficulties we faced in the implementation of these censuses. Also in this paper are some approaches and ideas from the author on multiple issues, including the perfection of census systems design, the improvement of the mode on organizing and implementing, the adoption of modern information technology and the deduction of censuses costs and respondents' burdens, etc.

Keywords: Censuses of China, Periodic Census Systems, Major Problems and Difficulties, Ideas of Perfection and Improvement

When recalling the history of China's censuses, sixteen national censuses have been completed, taking the National Industrial and Mining Enterprises Census in 1950 as the starting point. Generally speaking, the censuses of China have experienced a progressive development process that emerged from disorderly conducting to the establishment of census systems, from independent convergence to united conjunction, and from nonscheduled enforcement to periodic implementation.

1. Basic Situation of China's Census Systems

The history of the establishment and development of China's Census Systems can be roughly divided into the following three phases:

1.1 The initial establishment of the Census Systems (1949 - 1990)

This period of census work was in an exploratory and experience accumulation stage, with the characteristics of aperiodicity, considerable changes in the respondents and scope, poor continuity and comparability of census data, etc. Three industrial censuses and four censuses of population had been organized during this phase. According to the approval of the State Council in 1986, national censuses of population would be conducted once in ten years, starting from 1990 and all following years that end with number 0; and a 1% population sampling survey would be organized between two censuses. Thus, the periodic arrangements of the population census system in China had been roughly settled, while other censuses were still in nonscheduled condition.

1.2 The establishment and implementation of periodic census systems (1991 - 2000)

On the basis of concerned decisions of the State Council in 1994, periodic census systems was carried out, census items including population, industry, agriculture, tertiary industry and basic units, etc. Censuses of population, industry, agriculture and tertiary industry would be conducted every 10 years, respectively in years that end with number 0, 5, 7 and 3; basic units censuses would be launched every five years, in years that ending with number 1 or 6; all these changes were illustrated in the subsequent revision of Statistical Law. China's census systems in this phase laid the foundation for further integration and amelioration through more explicit legislation and regulations, the establishment and

implementation of first round periodic census systems, and the launching of five successive censuses.

1.3 The consolidation and amelioration of the periodic census systems (2001 -2010)

Due to excessive frequency, inconsistency with national development planning and incompleteness in industrial scope (not including Construction) of the first round of the periodic census systems, in 2003, China decided to adjust projects and cycle arrangements of national censuses: starting from 2004, Economic Censuses would be organized twice in ten years (including secondary and tertiary industries), in years ending with number 3 or 8; Agricultural Censuses and Population Censuses would be conducted every ten years, respectively in years ending with number 6 and 0. Five national censuses were launched during this phase.

China's census systems have been fully established by then, and meanwhile the regulations corresponding with every census item have also been enacted. The adjusted national census projects are simplified in amounts, more reasonable in cycle arrangements and more consistent with international practice. All these improvements reveal that China's censuses are developing towards a direction of institutionalization and legalization.

2. Major problems and difficulties in the implementing process of periodic census systems

By conducting periodic census systems, the foundational data that reflects national conditions and changes in development all-sidedly could be collected regularly, which provides important gist for China formulating medium- and long-term planning and making scientific decisions, and also lays the foundations for the improvement of national accounts quality, pushing forward the reform of the survey system, successful implementing of regular surveys and scientific conducting of sampling surveys. But there are also some difficulties and problems, mainly reflected in the following four aspects:

2.1 Heavy census burdens, high costs, difficulties in implementing and organizing.

The current arrangement of one decade contains three projects and four times of censuses, while each census costs an average of 3 - 4 years, from the initial preparation, organizing and implementing, to the final data dissemination. In this degree, decennial censuses are heavy-laden for statistic staff.

For most of countries in the world, economic census is comparatively rare, while population and agriculture censuses are predominant. However, the number of census subjects and the workload of organizing and implementing still cannot be compared with China. Meanwhile, higher costs of traditional way of surveying and lower cooperation from respondents make it increasingly difficult for the implementing of censuses. This is a universal problem facing the world.

2.2 The existence of overlapped censuses and the demand of strengthening coordination with regular surveys.

Some indices on population, employment and living conditions in the household questionnaire of Agricultural Census are mostly alike with the ones of Population Census. Convergence and coordination between censuses and regular surveys need to be further strengthened, in terms of questionnaire designing, respondents confirming, data collecting and utilizing, etc.

2.3 Overly miscellaneous in contents and insufficient in developing and utilizing data.

Diverse demands of all levels of statistical users need to be considered in the designing of census systems. This situation objectively caused the census to be over-contented, in term of excessive statements and indices, heavy burdens on survey respondents, more difficulties in data collecting, auditing and processing. However, continuous development and utilization of large amounts of data fetched through censuses are frequently insufficient.

2.4 Census methods lacking of diversity, relatively lagging behind in using new technologies.

National censuses of China still mainly depend on traditional methods, including printed census questionnaires and deployment of a large number of enumerators for household survey or for respondents' fundamental data collection. However, many countries have started their utilization of departmental administrative records, network and hand-held terminal for data submission, ways that bring about both reduction in costs and improvement on efficiency, from which China can learn a lot.

3 Ideas of Perfection and Improvement

In accordance with the ongoing reform of Integrated Questionnaire for Enterprises (IQE) and international advanced practices, many aspects of China's censuses need to be improved, in term of census systems design, mode on organizing and implementing, modern information technologies, etc.

3.1 Streamline census content, reducing burdens on respondents and census cost.

On census' focus, take the Economic Census as an example, comes an idea that one of the two censuses within a decade could be shifted to the figuring out of quantity and structure of survey units, namely, the perfection of basic units database. This is also one of principles for the upcoming Third National Economic Census.

What's more, on the detailed census content, various ways should be adopted so as to reduce the census cost and respondents' burden, thus to improve the efficiency and effectiveness of census; for instance, it may be considered that duplications in indicators between agricultural census and population census could be avoided through integrating.

3.2 Enhance the overall design and improve the degree of integration, not only between censuses, but also between censuses and regular surveys.

In accordance with the idea of integration, unified arrangements should be made for the division and coordination of various censuses, and that of censuses and regular surveys. Also, we would take full advantage of the achievements of reforms, such as the Integrated Questionnaire for Enterprises (IQE) and the Online Reporting System (ORS).

To be specific: during census years, indicators of census could be added into the Integrated Questionnaire for Enterprises (IQE), thus data could be collected through the Online Reporting System (ORS). Methods vary for different respondents, using complete survey for enterprises within the scope of IQE and sample survey for those without; while during non-census years, regular surveys would be adjusted under the principles of census, so as to improve their integrity and consistency of data with census.

3.3 Strengthen working basis and improve the degree of normalization and standardization.

Uniform metadata standards shall be established and brought into application, thus to provide standards and regulations for census systems management, data acquisition and processing, data exchange and sharing. Also, we need to formulate unified district

classification criteria and geographic information systems that are applicable to various censuses.

3.4 Improve organizing, creating innovations and technical means.

First, innovative thinking should be introduced into the design of census forms and the implementation of censuses. For example, the combination of long forms and short forms in the population census is quite an efficient attempt, in which around 10% of respondents are distributed with long forms to get detailed information for the enrichment of sample frame. Second, we would start more researches on the use of sample survey methods, departmental administrative records and existed investigative resources, making them effective complements to censuses. Last, but no least, we shall continue to accelerate the application of modern computer science, network technology and spatial information technology in censuses. During the sixth National Population Census, electronic maps, photoelectric inputting and other technical means had been successfully used. Electronic maps will be further improved in the coming third National Economic Census, combining with the use of the PDA for data collection.