

The Evolution of National Statistical Systems: What Lessons Can We Learn?

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Introduction

In 2007, two events happened in official statistics that shared an interesting historical coincidence: in spring this year, Japan modernized her statistical system through a new Statistics Act after exactly 60 years, and over at the United Nations, the Statistical Commission celebrated its 60th anniversary.

In Japan, the new Statistics Act was approved earlier this year after more than two years of intensive discussion. The previous Statistics Act was formulated in 1947. It had given rise to the Japan Statistical System as we know it today: a decentralized system with statistical units located across the line ministries. In the course of the past sixty years, Japan has developed into one of the leading economies of the world. Throughout this period, its basic statistical system, despite some minor adjustments, remains more or less intact in its essential features. However, there have been concerns in the past few years that structural adjustments may be required to enhance the effectiveness of the system. This led to the formulation of a new Statistics Act in 2007, exactly sixty years after the first Act was promulgated. Much hope is now placed on this new Act and the momentum it generates to enhance the performance of the Japan Statistical System. In this context, I would like to take this opportunity to congratulate all the professionals who have worked so hard to ensure the passage of the new Statistics Act. I would also like to congratulate Professor Takeuchi for his appointment to the post of Chairman of Japan Statistical Commission, which has many challenges ahead, including the drafting the master plan on statistical development.

In 1947, the same year when Japan's modern statistical system was born, a global entity, the United Nations Statistical Commission, also came into existence. In March 2007, the Commission celebrated its 60th anniversary of building up the global statistical system. When the Commission first met in 1947, there was great concern for the need of professionalism in national statistical offices as well as for the development of internationally comparable statistical methodologies to guide our work. Today, 60 years later, we can see how a global statistical system has been put together and is beginning to work as a collective entity. One of the most important achievements in the work of the Commission was the adoption of the "Fundamental Principles of Official Statistics" in 1994. This set of principles has provided a globally accepted code of conduct for our work in official statistics. We have seen many examples around the world on how the principles are being used to guide the development of national statistical systems or to shield official statistics from unwanted interventions. With respect to the development of statistical methodologies, the Commission's work on standards and guidelines has greatly improved the quality and comparability of official statistics around the world. For example, the system of national accounts, from its original 1953 formulation to the present 2008 update, has been firmly established as the universal macro-economic accounting framework.

When the Statistical Commission celebrated its 60th anniversary this year, a series of commemorative events were held. One of the events was a seminar on the evolution of national statistical systems, where more than 130 countries gathered together to reflect on how national statistical systems have evolved over time. This reflection was timely, as the world has changed profoundly since 1947 and national statistical systems have evolved structurally and professionally to meet new challenges. The key presentations have now been published in the first issue of the Journal of Official Statistics.

Drawing from the discussion of the seminar, I would like to reflect on some best practices that have emerged and how Japan could learn from these. Three areas are of particular interest.

Development of Professionalism in Official Statistics

In order to anchor professionalism in their national statistical systems, many countries have found it useful to develop a specialized cadre of well-trained, professional statisticians at the core of their system, who embody the professional values of objectivity and neutrality. National statistical systems strive to retain their professional cadre by offering opportunities for career development within the statistical system. There are two main reasons why the development of professionalism is important.

First, as official statistics deal increasingly with complex subject matters which require specialized knowledge, the retention of knowledgeable staff becomes imperative for effective compilation and analysis. Consider, for example, the compilation and analysis of national accounts, of the consumer price index or of the performance indices of various industries. All these require a certain period of training to gain proficiency and to be able to improve the methodology. Professional official statisticians should be given the proper recognition for the knowledge and skills that they possess.

Second, as official statistics often become issues of political debate, it is critical that the statisticians strictly adhere to the professional standards and ethics associated with official statistics, such as objectivity and impartiality. The absorption and formation of these professional values takes time and it is important to ensure that such values are prevalent across the organization.

The recruitment and retention of professional staff is now being regarded as a key success factor for a national statistical system. In the 'peer review' of the European Statistical Offices which are currently underway, professional

independence, quality assurance frameworks, and human resources are key factors in the assessment. This review is initiated and coordinated by Eurostat to assure the compliance to the European Codes and Practice in official statistics.

Countries have adopted different models in addressing this issue. In some, the statisticians are recruited and managed through a 'Government Statistical Service'. There will be a chief statistician who is head of the service and manages the recruitment and deployment of staff. This scheme tends to work well in the case of a decentralized system as is the case of the United Kingdom. The advantage of a Government Statistical Service is that professional training, rotation and career development can be managed without a loss of expertise. This is particularly relevant for the smaller units where training and development opportunities may be limited.

In centralized statistical offices, the development of professionalism is generally easier, as these offices are managed as a single corporate entity. The recruitment of new staff, the development of professional expertise and the level of staff well-being are monitored and managed by dedicated human resource professionals. I should mention, in this context, that Statistics Finland has just been voted the best public organization in Finland as a developer of work community by promoting occupational well-being and management of human resources.

I am not too familiar with the Japanese system of human resource management. I am aware, however, that senior, experienced Statisticians are part of the 'Administrative Service'. As a result, they are subject to rotation to other administrative jobs. While this could be an enriching experience for an individual, it almost inevitably implies losing valuable experience and expertise in the various fields of official statistics. I must say that this has a devastating impact on the system and results in a severe drain of experienced statisticians. Very often, a newly rotated senior person would have to learn the tools of the trade from scratch, and to establish his professional credibility to the public. There is also a

loss of role model in professionalism for the younger statisticians who are just starting their career. I have mentioned in my previous speech in Japan that the Japanese Statistical System lacks human faces that we can identify with, especially looking in from the outside. May be this is because the experts who have built up a career or reputation are rotated out of the statistical portfolio. I believe that it is extremely important for the Japan Statistical Commission, in your discussion of the master plan, to consider this issue of recruiting and retaining a pool of permanent professional statisticians to be at the core of your statistical offices. The role of a 'Chief Statistician' should be quickly established and be held accountable to the development of this profession. I would add that the current global practice of the 'Chief Statistician' being concurrently the head of a central statistical office is an idea worth considering in Japan.

Development of a National Data Management System

Since the 1950s, and with the development of modern sampling theory, statistical offices have relied heavily in their data collection on the use of sample surveys as well as the occasional censuses. While surveys are still a popular method, countries are experiencing greater difficulties in getting respondent cooperation. Over the same period, we have also witnessed the rapid development of government data systems arising from various administrative functions. In recent years, a clear trend of increased use of administrative data sources in the compilation of statistical information can be observed in national statistical offices.

Associated with this is an important shift in the philosophy of how we manage our statistical offices: we are now more focused on the output, and less concerned about the sources of the data. In addition, managing data flows and aggregation have become equally important as skill sets among official statisticians, as the expertise of collecting data from the field through surveys. In some countries, notably the Nordic countries and Singapore, administrative sources have become just as important as traditional surveys.

There is a clear understanding that administrative sources can never replace direct data collection. Surveys and censuses give the statistical offices direct control to collect the data items that they deem important. Administrative data also have their limitations. But administrative sources, such as tax records, population registers, pension administrators, health insurance records, motor vehicle registers etc., offer a wealth of information. Through innovative data aggregation, valuable insights into social, economic and environment trends can be obtained. Thus, data aggregation must go beyond just combining census or survey data as well as administrative records to build a survey frame. Building a survey frame is only tapping a small part of the potential. As many countries have shown, data aggregation by tapping into multiple administrative or survey datasets and pooling of respondent information can help in many aspects of our data compilation work.

However, effective use of administrative data sources requires as prerequisite a conducive environment with enlightened policies and a legal framework that permit data aggregation or sharing of databases. In addition, it further requires the existence of a data management system in the country that enables the coordinated flow of administrative data. Such a system has the following elements: a set of rules that enable the flow the data under the necessary confidentiality guarantees, an adequate IT infrastructure, and appropriate personnel who manage the data flows. In a modern government with the full exploitation of IT in every aspect of its work, creating a data management system to take full advantage of available information is a logical outcome. In fact, many countries have already moved ahead in this aspect. Privacy concerns may sometimes curtail the extent of data exchange or impose additional guarantees or safeguards in the system. However, there is little doubt that having a data management system is a competitive advantage, as it fully exploits available information for policy formulation.

It is interesting to note that it seems to be easier for a centralized statistical office to take full advantage of data pooling, as it usually has the economies of scale

and the necessary infrastructure to enable efficient data management. The pooled data could also be used in a variety of data compilation work. While smaller statistical units in a decentralized system could also benefit from the use of new data sources, it is obvious that organizationally they would not be in as ideal a position as the larger units.

I understand in Japan efforts have been made to build a business survey frame drawing data from various sources. The new Statistics Act has provided a legal basis for such efforts. I hope that this initiative can be developed as soon as possible, and that this would soon lead to a fuller exploitation of the various data sources for statistical compilation. In your master plan, I hope due consideration will be given to the development of a data management system within the government for statistical purposes. The advantages of utilizing administrative data for official statistics are so great that it is imperative that the master plan gives full consideration to this topic.

Increasing Emphasis on Independence

At the seminar on the evolution of national statistical systems, a major theme discussed throughout was the autonomy of national statistical offices. Autonomy is expressed in two forms. One is organizational autonomy, where the statistical office is established separately from other government agencies or organs of the state. Recently, Mexico's statistical office INEGI has gained parliamentary approval to become an autonomous agency. We will also hear in this conference about the experience of the Office of National Statistics of the United Kingdom, which has just been conferred autonomy status, and about that of the Australian Bureau of Statistics, which has already been conferred such status sometime back.

Organizational autonomy is often associated with the second type of autonomy which is professional independence. However, there are some offices that are organizationally located in a ministry, but are professionally allowed total

independence. The general perception in the statistical community is that professional independence is of critical importance, but it also carries important accountabilities and responsibilities. Independence from political dynamics allows national statistical office to play its role as a national information provider, free from bias and influence. In a democratic governance framework, this information role towards the general population is critical. I need to mention that professional independence and the guarantee of impartiality are the key elements in the Fundamental Principles of Official Statistics. They are also the key items in the peer review in the European Code of Practice.

While organizational autonomy and professional independence are a priori two distinct dimensions, experiences around the world have shown that the existence of organizational autonomy does help the statistical office to fend off political influence and to gain professional independence. Given the fact that centralized offices tend to be able to bargain for greater autonomy, it also means that larger, centralized offices are in better position to exercise independence.

In Japan, I understand that the notion of 'neutrality' has been adopted as the core concept in the national statistical system. It is usually the smallest statistical units that face the greatest challenges in putting this notion into practice by not being subjected to undue influence from the parent ministry. In this regard, there must be a mechanism by which neutrality is being safeguarded in the entire decentralized system. I don't think the Japan Statistical Commission would be in a position to offer this safeguard, nor the present coordination mechanism, unless it is clearly provided for in the legislation. I am not sure at this time which organization has the responsibility to ensure neutrality in all statistics units. In other words, it remains to be seen if the notion of neutrality is indeed practiced across the entire range of statistical units in the system.

Concluding Remarks

At this critical juncture, as the Japan Statistical Commission and the statistics units look to the future and work on the master plan, I hope the three points mentioned above will be taken into consideration. Personally, I think the Japanese statistical system is too fragmented, as I have mentioned in my earlier speech at the Japan Science Council conference. Creating a stronger center by pooling some units is a logical solution to this fragmentation, as this center can provide professional and operational support to the others. At present, one of the largest national statistical units, the Japan Statistical Bureau, has a staff less than 500 persons. This is far too small to enjoy the economies of scale in operational matters, especially in taking full advantage of IT and other administrative system improvements. I personally believe that there is an urgent need to build a stronger, larger core statistical office to deal with the full range of social, economic, and environment statistics in an integrated manner. This notion of integration is indeed the theme of a special task force created by the United Nations Statistical Commission in view of the increasing importance of pooling data and topics together in an integrated manner. This report will be discussed at the coming United Nations Statistical Commission session in February. Integrated framework statistics require the backing of an appropriate organizational form. Thus, in Japan, it is important to review if the present organizational arrangements support an integrated approach to statistics.

In the discussion leading to the approval of the new Statistics Act, many professionals in Japan have actively participated in the discussion. This is very encouraging. I hope the drafting of the master plan would draw on the same level of professional support. I wish Professor Takeuchi and the Japan Statistical Commission every success in steering this process.

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