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**COUNTRY REPORT FOR SINGAPORE**

**The Singapore Statistical System**

SINGAPORE DEPARTMENT OF STATISTICS  
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# THE SINGAPORE STATISTICAL SYSTEM

## I Introduction

This paper presents an overview of the government statistical system in Singapore. It describes the Singapore Department of Statistics' responsibilities as a national statistical authority and national statistical co-ordinator, the key initiatives in data collection and dissemination activities, as well as participation in the international statistical community.

## II Singapore's Government Statistical System

### Decentralised Statistical System

The decentralised statistical system has been adopted in Singapore since 1973. Under the decentralized system, official statistics were collected and compiled under the Statistics Act by the Singapore Department of Statistics as well as Research and Statistics Units (RSUs) in various government ministries and statutory boards.

The Singapore Department of Statistics has the widest scope of responsibility in the statistical system, being the national statistical authority for official statistics on the Singapore economy and population. The key areas of responsibility of the Department are as follows:

- Collecting, compiling and disseminating a wide range of economic and social data of national interest;
- Analyzing and monitoring trends of the economy and the society;
- Developing and maintaining national statistical databases on households, dwelling units, establishments and statistical time series; and
- Providing professional advice and consultancy services on statistical matters to government agencies and the public.

In a few government ministries and statutory boards, RSUs are gazetted under the Statistics Act to conduct surveys and compile statistics on specific sectors or subject matters. For most other ministries and statutory boards, informal statistical units undertake statistical compilation mainly as a by-product of the administrative and operational functions of the parent organisations. The statistics compiled by the Department and the RSUs are shown at Annex A.

## Co-ordination of Statistical Activities

With the decentralisation of statistical activities in the public sector, there is a need for a strong, central co-ordinating agency. This is essential to minimise duplication of efforts in data collection, facilitate optimal allocation of resources, ensure a high standard of statistical work and improve the efficiency and effectiveness of statistical activities and projects. As national statistical co-ordinator designated under the Statistics Act, the Department achieves these objectives in several ways:

- Conducting regular surveys of public sector organisations to monitor their statistical activities;
- Organising frequent meetings and discussions with relevant RSUs on statistical development issues;
- Providing professional advisory services on sample and survey methodology and utilisation and interpretation of statistics; and
- Developing national statistical standards and promoting the adoption of such standards.

## Statistical Legislation

The Statistics Act is the principal piece of legislation governing the collection, compilation and publication of statistics by the Singapore Department of Statistics and gazetted RSUs in the public sector.

Under the Statistics Act, the Singapore Chief Statistician and directors of gazetted RSUs have the authority to issue requisition for information and to compound offences committed by persons to whom requisitions have been issued. In addition, the Singapore Chief Statistician is empowered to direct the director of any RSU to furnish or supply to him information obtained under the Statistics Act and to direct any competent authority to furnish or supply to him any particulars or information as provided for and specified in the Statistics Act.

The Statistics Act assures the integrity of the statistical system through the emphasis on strict confidentiality of data in individual returns. In particular, information relating to individual returns furnished directly by the respondents or indirectly through competent authorities cannot be disclosed without the written consent of the respondents or the competent authority concerned.

The Statistics Act contains several provisions to promote national statistical co-ordination. These pertain to :

- Co-ordination of statistical activities in government departments, ministries and statutory boards;
- Provision of advice to government departments, ministries and statutory boards in the gathering, compiling, analysis and utilisation of statistics;
- Development of national statistical standards and standardization of definitions, classifications, terms, procedures and concepts for use in statistical activities;
- Promotion of the observance of approved national statistical standards by government departments, ministries and statutory boards.

### **III Data Collection, Processing and Compilation**

#### Data Collection and Processing

Over the last decade, active steps have been taken by various government agencies to streamline survey operations for data collection and processing. These include redesign and improvement of survey questionnaires, computerization of sample selection and introduction of on-line data entry system with built-in editing and verification features. The Singapore Department of Statistics has introduced more advanced techniques for data collection and processing, such as:

- Tri-modal data collection approach for the 2000 Census of Population, which involved Internet enumeration, Computer-Assisted Telephone Interviewing (CATI) and conventional fieldwork;
- Survey Answering Guide Expert (SAGE), a survey submission system for establishments which supports multiple modes of data submission via the Internet, fax and mail;
- Advanced Coding Environment (ACE), a software which uses artificial intelligence to improve coding accuracy and reduce labour-intensive operations in coding of occupations and industries.

The new technologies have greatly enhanced overall productivity in data collection, verification and compilation. Users of statistics, from both the public and the private sector, have benefited from easier, faster and greater availability of statistical data.

## Production of Quality Data

The quality of statistical data is constantly being improved, in terms of coverage, periodicity and timeliness. The development of new data sources and adoption of new and improved statistical concepts and techniques have contributed to the production of quality data.

In the arena of economic statistics, the Singapore Department of Statistics has progressively implemented new international statistical standards and frameworks such as the 1993 System of National Accounts and the IMF's Balance of Payments Manual (BPM5), and introduced several improvements and enhancements, to the Singapore official statistics. These include the following:

- Release of advance GDP estimates within 10 days of the end of the quarter;
- New data series on trade in services and external debt;
- Compilation and dissemination of an international investment position in compliance with the IMF's Special Data Dissemination Standards;
- Conducting ad-hoc surveys on services industries of interest to the economy to obtain benchmark statistics; and
- Compilation of more timely disaggregated services statistics.

In the area of population and social statistics, the Department has developed a comprehensive Household Registration Database (HRD) which provides up-to-date information on basic characteristics of households and the population. The database has facilitated the conduct of decennial Population Census where a register-based approach can be adopted. The HRD is continually enhanced to enrich its contents for population and social studies.

## **IV Data Dissemination and Accessibility**

As the custodian of Singapore official statistics, the Singapore Department of Statistics is committed to a consumer-oriented public service that delivers a wide spectrum of statistical products and services. A large number of dissemination media is used to cater to the increasing demand for statistics.

The strong level of demand for statistical information is reflected in the usage of the Department's Statistics Singapore Home Page (<http://www.singstat.gov.sg>).

The website has registered a monthly average of more than 300,000 page views and 15,000 visitors. The Home Page provides key Singapore statistics and serves as a convenient gateway to international statistical resources. The Singapore Business Directory and the SingStat [DataShop@govmall](mailto:DataShop@govmall) are two other internet services available through the Home Page.

While electronic data services have become more popular in recent years, conventional hardcopy publications remain a viable channel of dissemination of Singapore official statistics. General-purpose publications like the *Monthly Digest of Statistics*, *Yearbook of Statistics* and *Singapore Statistical Highlights* provide a comprehensive and current statistical record of key socio-demographic and economic characteristics of Singapore. For users who require more detailed statistical information and analyses, industry-specific survey reports and specialized statistical reports on economic and demographic statistics are also available.

Database services are also provided by the Department. These include on-line retrieval of time series data from the TREND Database which is available for public subscription as well as batch and online retrieval services for public sector organisations from the Commercial Establishment Information System. The list of the Department's statistical products and services is at [Annex B](#).

## **V Role of the International Statistical Community**

The international statistical community plays an important role in promoting knowledge generation, management and dissemination. International and regional statistical agencies like the UNSD, IMF Statistics Department, Eurostat, ESCAP and ADB have contributed significantly to Singapore's statistical development.

Singapore's official statistics adopt the basic principles and guidelines provided in international standards and frameworks. These include the United Nations' System of National Accounts (SNA 1993), the IMF's Balance of Payments Manual, 5<sup>th</sup> Edition (BPM5), UN's International Standard Classification of All Economic Activities, Revision 3 (ISIC Rev 3), ILO's International Standard Classification of Occupations (ISCO 1988), and WHO's International Classification of Diseases etc. The Singapore Department of Statistics also makes references to various manuals prepared by the international agencies on recommendations for statistics on international trade in services, international migration, census of population, labour statistics, consumer price indices, etc.

Since August 1996, Singapore has subscribed to the IMF's Special Data Dissemination Standards (SDDS). The purpose of the SDDS is to guide member countries in the provision of comprehensive, timely, accessible and reliable economic and financial statistics to the public. The SDDS comprises four dimensions, namely, coverage, periodicity and timeliness; access by the public; integrity of the disseminated data; and quality of the disseminated data. For each of these dimensions, the SDDS prescribes two to four good dissemination practices. These prescriptions are in line with Singapore's current statistical policy for dissemination.

International statistical conferences and workshops have provided the opportunity for Singapore to engage actively in the exchange of views on statistical issues with other countries. Singapore has benefited from discussions on national accounts, foreign direct investment statistics, services statistics, business indicators, consumer price indices and statistical classifications in these conferences and workshops.

## **VI Regional Statistical Cooperation**

The Singapore Department of Statistics has been actively involved in statistical cooperation since the early 1990s. Most of the activities undertaken by the Department in recent years were multi-lateral, with participation from countries in the Asian region and beyond. For example, the Department has jointly organised several international seminars with the international statistical agencies:

➤ *Consultative Seminar on Governance of National Statistical Systems*

This seminar was jointly sponsored by the UNSD and Statistics Department of IMF and was held in May 2002. The seminar discussed a core set of governance issues common to statistical offices and other agencies engaged in statistical activities, such as use of information technology, knowledge management, integrity, credibility, respondent relations and relevance, legitimacy and coordination and organizational models and strategic planning.

➤ *International Workshop on Consumer Price Indices*

The workshop was jointly organized by the Department and the Organisation for Economic Cooperation and Development (OECD) in June 2001. The main objective was to obtain feedback from national statistical offices on the draft of the revised ILO CPI manual before it was finalised.

➤ *Conference on the Measurement of E-Commerce*

The Conference was initiated under the auspices of the International Statistical Institute (ISI), and jointly organised in December 1999 by the Singapore Department, the National University of Singapore and Infocomm Development Authority of Singapore, in collaboration with the Australian Bureau of Statistics (ABS) and Berkeley Roundtable on the International Economy/University of California, Berkeley. It provided an important forum to address issues on the measurement of e-commerce activities and their economic impact.

The most common modes of bilateral cooperation are the exchange of data and study visits. For example, the Singapore Department of Statistics has been providing key Singapore official statistics to Asian Development Bank, Seoul Metropolitan Government, Malaysia Department of Statistics and other overseas statistical offices. Such data exchange facilitates inter-country comparison.

The Department has also hosted study visits by delegations from various national statistical offices in the region. Topics discussed cover statistics on the Singapore economy, business surveys, statistical databases, population and social statistics, and information technology (IT) applications in statistics. In turn, officers from the Department have visited our counterparts in the region to learn from their experiences and practices in statistics.

## THE SINGAPORE STATISTICAL SYSTEM

### Singapore Department of Statistics

NATIONAL STATISTICAL AUTHORITY	NATIONAL STATISTICAL CO-ORDINATOR
<ul style="list-style-type: none"> <li>• National Accounts and Balance of Payment</li> <li>• Economic Surveys on Commerce and Services and Micro-economic Analyses</li> <li>• Manpower and Socio-demographic Statistics</li> <li>• Wholesale Prices, Consumer Price and Household Expenditure Statistics</li> </ul>	<ul style="list-style-type: none"> <li>• Administration of Statistical Service</li> <li>• Co-ordination of Statistical Activities</li> <li>• Provision of Statistical Consultancy and Advisory Services</li> <li>• Development and Promotion of National Statistical Standards</li> </ul>

### RSUs in Ministries and Statutory Boards

Construction Industry Statistics	Manufacturing Statistics	Environmental Statistics
Money & Banking Statistics	Education Statistics	Health Statistics
Labour Statistics	Information & Communications Technology Statistics	

Statistics on Employment & Wages of CPF Members	External Trade Statistics	Statistics on Visitor Arrivals & Hotels	Statistics on Real Estate & Property Price
Civil Service Statistics	Air Transport & Cargo Statistics	Statistics on Community & Social Services	Public Housing Statistics
Productivity Statistics	Vessel & Cargo Statistics	Statistics on Sports Participation & Sports-related Activities	Statistics on Industrial Properties
Public Finance Statistics	Telecommunication & Postal Services Statistics	Statistics on Births & Deaths, Immigration, Public Order and Traffic Accidents	

## **List of Statistical Products and Services**

### E-Services

- (a) *Statistics Singapore Home Page* ([www.singstat.gov.sg](http://www.singstat.gov.sg)) on the Internet is the main channel for electronic dissemination for our press releases, key statistical information, papers and analyses. The Home Page represents a rich source of information and incorporates mechanisms to promote awareness of the data repository.
- (b) *SingStat DataShop@GovMall* which is the virtual shopfront for official statistics on Singapore. Users can use credit card to purchase softcopies of statistical reports online.
- (c) *Time Series Retrieval and Dissemination (TREND) System* which gives easy on-line access to over 30,000 time series data in the Department's public access database on subscription basis.
- (d) *Commercial Establishment Information System (CEIS)* which provides basic information on more than 650,000 'live' and 'non-live' establishments in Singapore. Batch and online retrieval services are available to subscribers in the public sector.
- (e) *Singapore Business Directory* which offers internet access to basic information of more than 230,000 establishments in Singapore. Users can search the Directory by name of company, business sector or type of product/service.
- (f) *Singstat Express* which is a web-based data delivery service providing the latest statistical data releases to subscribers via email.

### Statistical Publications

- (a) General purpose publications on current statistical record of socio-demographic and economic characteristics of Singapore (e.g. Monthly Digest of Statistics, Yearbook of Statistics, Statistical Highlights).
- (b) Subject matter reports with more in-depth analysis (e.g. Economic Survey Series, Input-Output Tables, Household Expenditure Survey Report, Population Trends Report).
- (c) Fact Sheets on overview of key topics which are of interest to the general public (e.g. Singapore In Brief, Singapore Data Sheet).

- (d) Occasional Papers on in-depth study and analysis for different topics.
- (f) Information Papers to explain basic statistical concepts, methodological changes and improvements in official statistics.
- (g) Articles in *Statistics Singapore Newsletter* to feature statistical activities, development or benchmarking experiences.

#### Personalized Services

- (a) Statistical Information Service which offers assistance to users who need data which are already in the public domain.
- (b) Customized data service which provides “data on demand” for non-sensitive items at cost-recovery prices.