

Regional Course on Statistical Business Registers

Introduction to Statistical Business Registers

The role of an SBR as a live register

Statistical Business Registers

- Statistical business registers are built for statistical use.
- They play a central role in the production of economic statistics, both in terms of the way statistical units are defined, and in terms of the content and quality of the statistical data.
- The availability of SBRs is essential to the compilation of consistent and comparable economic statistics.
- They enable statisticians to retrieve a common set of units, across different subject areas, and referencing a specific date.
- This results in data that are timely, coherent, and comparable, and a data collection process that is facilitated in a cost-efficient manner.

SBRs as a Statistical Infrastructure

The SBR's main role is regular maintenance of a repository of data - a “live” register.

1. The validation and integration of data from various input sources
2. The alignment of definitions of the units between data sources, while keeping linkages to source units
3. The harmonization of the characteristics describing the units
4. Continuous updates of the information on the units, while keeping a history of their previous information
5. Extraction of data for further use

The role of an SBR as a live register

- **What is a live register?**
- The ability to extract subsets of data from the SBR.
- A foundation for creating frames for surveys aimed at the production of business and economic statistics.
- A live register is dynamic and is being updated constantly.

Live register

- Live register refers to the ability to extract subsets of data from the SBR. It serves as a foundation for creating frames for surveys aimed at the production of business and economic statistics. A live register is dynamic and is being updated constantly. Maintenance is a continuous process in which the composition and characteristics of units continuously change over time.

Essential Functions of a Live Register

- **To create and maintain statistical units.**
- In the live register, data from multiple sources are brought together and enable the NSO to continuously identify new statistical units, update information on existing units, and deactivate closed units in the population.
- Assigning unique SBR identifiers allows the SBR to track units throughout their lifecycle, and across different data sources, and helps avoid double counting.
- Integrating multiple sources helps improve the quality and richness of information in the SBR even before collecting data from surveys.

Essential Functions of a Live Register

- **To harmonize concepts and definitions.**
- With harmonization, data can be compared across domains.
- To assist in the production of business and economic statistics, SBRs need to match their coverage. This can be done if the populations for the domains are obtained and used similarly during processing.

Highlights from Live Register

1. The first function is to create and maintain statistical units. In the live register, data from multiple sources are brought together and enable the NSO to continuously identify new statistical units, update information on existing units, and deactivate closed units in the population.
2. Assigning unique SBR identifiers to statistical units allows the SBR to track them throughout their lifecycle and across different data sources, and helps to avoid double counting. Integrating multiple sources helps improve the quality and richness of information in the SBR even before collecting data from surveys.

Highlights from Live Register

3. The live register also functions to harmonize concepts and definitions. When the coverage and content of SBRs are harmonized in terms of concepts and definitions, even if each statistical domain is different, data can be compared across domains.
4. Business and economic statistics describe economic and financial production processes and transactions in various statistical domains. To assist in the production of these statistics, SBRs need to match their coverage. This can be done if the populations for the domains are obtained and used similarly during processing.

Snapshots and Frozen Frames

Snapshots

- Comprises all statistical units that are active, or potentially active, or active within the previous reference year.
- Includes administrative units that are linked to these statistical units.

Frozen Frames

- A subset of the snapshot which aims to include all units and all characteristics that are used by subsequent processes.
- A trimmed-down version of the snapshot that is easier to manipulate.

Frozen frame

- In some literature on this topic, a frozen frame is called a master frame, or a common frame. This is because, typically, several survey frames are derived from this single common extraction from the live register, thereby coordinating the survey frames at a particular point in time.

Example: Mongolia

- Created its first SBR from the result of the 1998 Establishment Census.
- Frozen frames are stored quarterly and used for quarterly dissemination of statistical units and statistics to the public, organization of enterprise-based sample survey, and cross-checking with the databases of other government organizations.
- Updated regularly from official data sources (establishment census, quarterly statistical report of the SBR, annual, quarterly, and monthly reports of economic statistics, etc.).
- The frozen frames contain indicators of statistical units (establishment and legal unit level or administrative units) retrieved from the taxation office.

enterprise name	identification number	location	address	activity status
economic activities	number of workers	income from the activity	asset value	

Historical Register

- When an SBR produces sets of frozen frames at various reference periods, they constitute a historical register, which allows statisticians to reconstruct the history of the units contained within.

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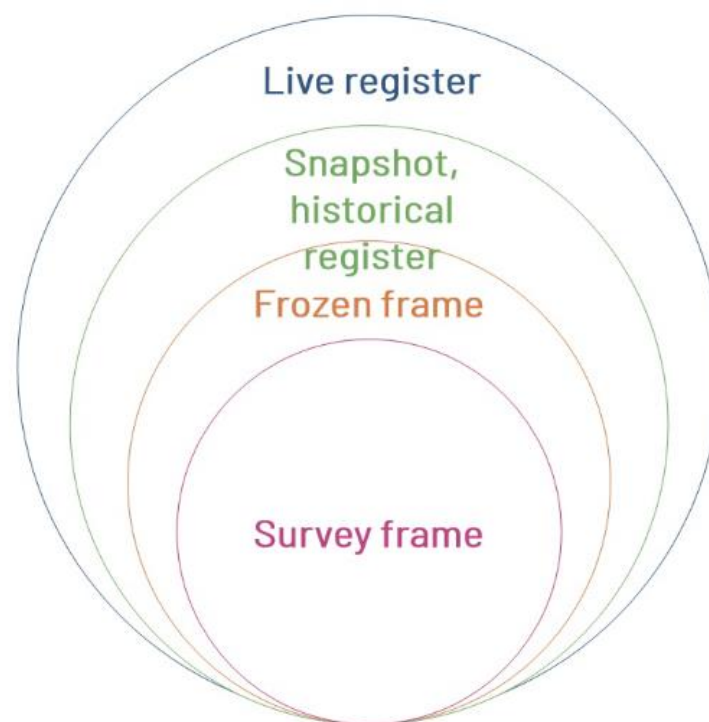
Introduction to Statistical Business Registers
The role of an SBR as a coordinator of surveys

Survey Frames

- Survey frames are **subsets of the frozen frame**, comprising the set of statistical and linked administrative units that match the specification of the survey target population and are active during the survey reference period.

Survey Frames

- A survey frame is a **listing** of statistical units in scope of a particular survey.
- It contains the **characteristics** of those units required for stratification and sampling, and, for the selected units, the information required to contact and communicate with them.



Frame specification

- The frame specification defines the reference period to which the frame should refer, the type of sampling unit, the population of units to be included, the data items that are required for sample selection, and (for the sampled units only) the contact data items required for conducting the survey.
- In the case of large and complex enterprises, the specification also includes the requirements for additional information about other types of statistical units associated with the enterprise.

Frame Specification

Frame Specification



The reference
period

Type of
sampling unit

Population
of units

Data items

Contact data
items

Large enterprises: the requirements for additional information about other types of statistical units associated with the enterprise.

Example

- A survey on employment will only include active units that are employers. Non-employers will be excluded.
- A survey on manufacturing will include active units that have a NACE code in the manufacturing group, whether they have employees or not.

Thus, the frames for different surveys for a given reference period are different from one to another, even though they are extracted from the same common set of units, namely the population in the master frame.

SBR Significance for Statistics

The main sources of information for any statistical analysis conducted on the business population.

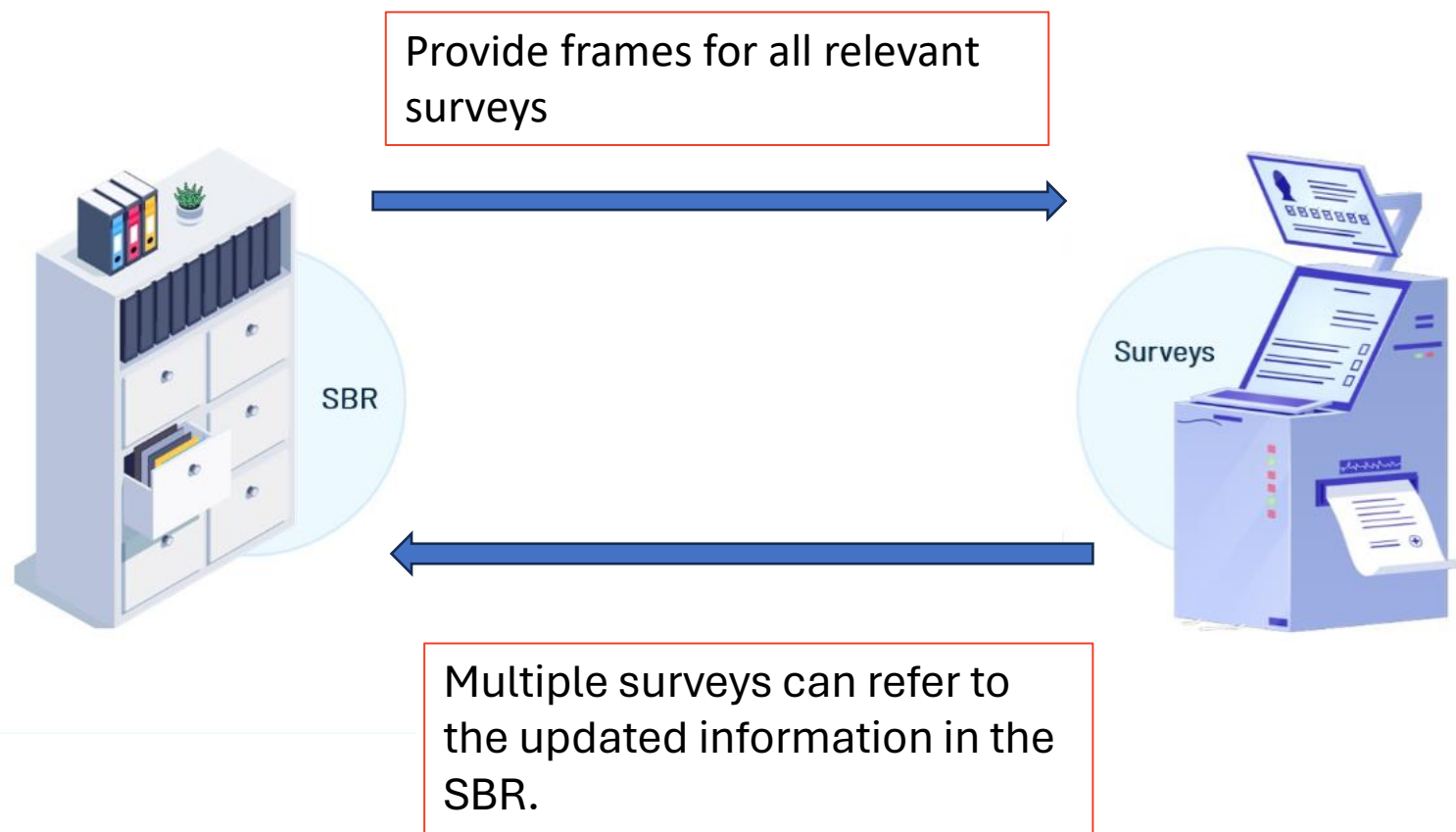
Useful to achieve consistency of statistics.

Supports the coordination, consistency, comparability, and efficiency of annual, quarterly, or monthly surveys.

Essential for establishing efficient statistical survey frames.

Helps make the national statistical system more efficient and reduce the reporting burden on businesses.

SBR Significance for Statistics



Mexico INEGI Example

- A frozen frame of the SBR is provided once a year to the technical department of the National Institute of Statistics and Geography of Mexico (INEGI) to be used as a master frame to derive survey frames for several surveys.

Surveys conducted by INEGI

- Establishment Level
 - Monthly Survey on the Manufacturing Industry
 - Monthly Survey on Services
 - Other Surveys

- Enterprise Level
 - Monthly Survey on Trading Enterprises
 - National Survey on Construction Enterprises
 - Other Surveys

Surveys conducted by other agencies

- Establishment Level
 - National Survey of Business Financing, by the National Banking and Securities Commission
 - Survey on Information and Communication Technologies, by the National Council for Science and Technology
 - Survey on Research and Technological Development, by the National Council for Science and Technology

Survey Support Functions

Data collection- provide information about the observation unit.

Registration - keep track of units participating in surveys.

Ownership - monitor submission of reporting units and response rates, administration of reminders.

Response burden management - reduce or spread the burden and survey holidays.

Data Collection

- Before the survey, SBRs provide information on the content of statistical units, including links with the administrative unit type (for example, legal units), observation and reporting units, and all information needed to contact and communicate with them.
- In addition to this, SBRs can store information that can be used to optimize the survey design.

Data Collection

- An observation unit is a unit about which data can be obtained. In most cases, a statistical unit is equal to a unit on which data are available in the bookkeeping systems of a business. In these cases, an observation unit is equal to a statistical unit.
- A reporting unit is a unit that reports data on certain observation units for a particular survey to a statistical institute. For each statistical unit, a reporting unit is assigned. A reporting unit can be another organization, for example, an accountancy firm.

Registration

- SBRs can also maintain a list of all the surveys in which any given enterprise has participated and has responded to, and determine the current status of these responses.

Ownership

- Monitoring submission status of reporting units, the overall response rates, and administration of reminders. To monitor the data collection processes, reporting units in the survey frame should be monitored throughout the collection process. The administration of reminders or attempts to contact reporting units may be recorded not only to ensure that follow-up is efficiently conducted, but also to support any potential subsequent enforcement of a response.

Response burden management

- SBRs can also monitor survey response status and durations, which can then be used to measure overall response burdens, which can be used later to alleviate them. Units that are involved in different surveys, or on repeated occasions in the same survey, can be the subject of a policy to reduce and/or spread the response burden.
- For example, there could be a policy to observe small enterprises only once every 2 years or to participate in no more than one survey per year. In addition, enterprises that have already participated in surveys may be given a survey holiday (a period in which they are excluded from data collection).