

Regional Workshop on Statistical Business Registers and Industrial Classifications Amman, Jordan, 25 – 27 June 2024

Session 2 (continued): More Concepts Concerning the SBR Zhiyuan Qian, UNSD









Outline of the Presentation

- Units in the SBR
- Characteristics of units
- Maintenance of the SBR
- Survey Frame Methodology







Units in the SBR







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Different Units (1)

Legal Unit: a unit that is recognized by law or society, independently of the persons or institutions that own it.

Enterprise: a legal unit (or the smallest set of legal units) that produces goods or services and that has autonomy in respect of financial and investment decision-making.

Enterprise group: a set of legal units bound together by legal and/or financial links under the same control







Different Units (2)

Kind-of-activity unit: an enterprise or part of an enterprise that engages in only one kind of productive activity or in which the principal productive activity accounts for most of the value added.

Local unit: an enterprise or a part of an enterprise (e.g. a workshop, factory, warehouse, office, mine or depot) that engages in productive activity at or from one location. Local kind-of-activity unit (Establishment): an enterprise or part of an enterprise that is situated in a single location and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added.

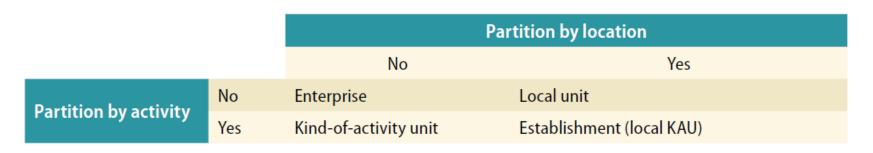






Conceptual Framework on the Different Types of Units

2008 SNA/ISIC Rev. 4 statistical units model



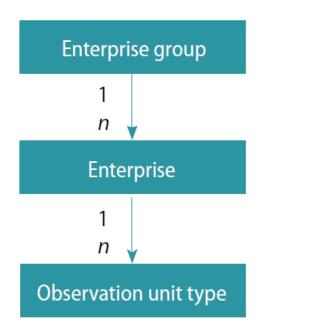
- The enterprise is the basic unit
- All other units are defined by partitioning the enterprise
- Not all types of statistical units are included in the SBR







Recommended Statistical Units Model



- It is a simplification and extension of the 2008 SNA model
- Based on 2008 European Union business register regulation
- Comprises three hierarchically organized statistical units

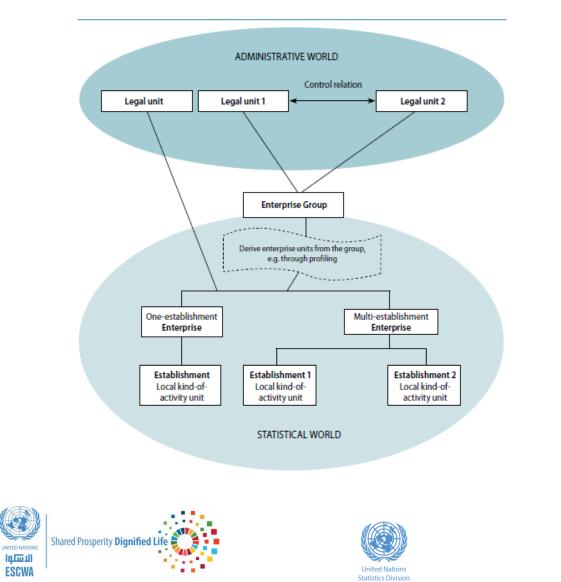




 $(n \ge 1)$



Link between statistical and administrative unit





Characteristics of the Units







Characteristics of the Units – Core vs Non-Core

Core: indispensable characteristics in maintenance and use of the SBR. Examples include:

Identification number	Contact Details		
Name	Type of unit (enterprise, establishment, etc.)		
Address	Industry (Principal economic activity)		
Date of birth	Number of persons employed		
Turnover	Relationships and links between units		
Legal form	•••		

Non-core: characteristics are those that are optional and can be added in a later stage, such as geographical coordinates to supplement addresses.







Maintenance of the SBR

- Data Sources
- Maintenance Strategy
- Demographic Events and Continuity Rules
- Profiling maintenance of units







Demographic Events

A demographic event is defined as an event that has an impact on the existence of a statistical unit, or on links between statistical units.

- Changes of existence of combinations of production factors (e.g. births and deaths)
- Changes in the distribution of production factors (e.g. merger, takeover, split)
- Redistribution of the production factors within one enterprise group (e.g. insourcing)
- Redistribution of the production factors of more than one enterprise group (e.g. outsourcing)







Demographic Events That Are Covered in the Principal Indicators

- Birth: the creation of a combination of production factors with the restriction that no other enterprise is involved in the event
- Death: the dissolution of a combination of production factors.

The Manual on Principal Indicators also included the indicators related to young enterprises (< 5 years old), survival (age of an enterprise), high-growth (>10% annually for three consecutive years), and a combination of age and growth (gazelles)







Demographic Events

Event	Real, obser	Business register		
	Number of enterprises before the event	Number of enterprises after the event	Number of creations	Number of deletions
Birth	-	1	1	-
Death	1	-	-	1
Change of ownership	1	1	-	-
Merger	n	1	1	n
Takeover	n	1	-	n–1
Break-up	1	n	n	1
Split-off	1	n	n–1	기사가 전사가 위해 드라지 않는다.
Creation of a joint venture	n	n+1	1	-
Cessation of a joint venture	n	n–1	-	1
Restructuring within an enterprise	1	1	-	_
Restructuring within an enterprise group	n	n	0 or more	0 or more
Change of group	1	1	-	-
Complex restructuring	n	n	0 or more	0 or more

Note: n = 2 or more.







Definition of Profiling

"Profiling is a **method** to analyze the legal, operational and accounting **structure** of an **enterprise group** at national and world level, in order to establish the **statistical units** within that group, their links, and the most efficient structures for the collection of statistical data"

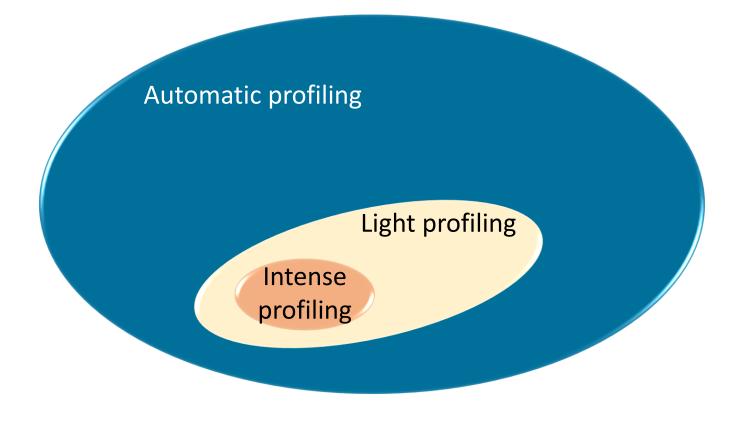
European business statistics methodological manual for statistical business registers







Different Approaches to Profiling









Light profiling - approach

- Profilers maintain the structure of the statistical units in the business register
- Profilers are responsible for relationship management within their own panel
- Statistical departments edit survey data and are responsible for consistent data
- Profilers and statistical analysts exchange information







Intensive profiling - approach

One multi-disciplinary team, that consists of:

- Account managers, responsible for relationship management and consistent data
- Profilers, who maintain the structure of the enterprise groups in the business register
- Analysts, that edit survey data and assist in assessing the consistency
- International trade specialists







Sources for profiling

- Trade register
- Tax register
- Other registers
- Annual reports
- Information from statistical departments
- Account management
- Statistical data
- Internet, press releases, financial/business websites







Profiling – when to begin

 Triggered by updating procedures which affects the structure of a relevant statistical unit

2. Triggered by incoherence in data collection to prevent inconsistencies







Active and reactive approach

- Active create cluster of control and delineate (national) Enterprise Group; check the consolidation cluster
- Create enterprises and link the legal units
- Make a report of the research and the results
- Reactive continuously ongoing process
- Change in sources what are the consequences for structure and statistics?
- Frame errors ISIC, size and sector code







Key success factors for good profiling (1)

- Define a population of important groups
- Create a reactive procedure
- Update profiles regularly
- Profile on level of national EG, preferably on Global EG
- Delineation of units should be suitable for statistics and for the company
- Establish a good contact with the EG







Key success factors for good profiling (2)

- Results of profile/corrections should be implemented in BR asap in a coordinated way
- Communicate with the statistical users and send profile reports to all stakeholders
- Create the best view on the EG before contact the EG
- Use the top-down method
- Stay in contact with FATS







Survey Frame Methodology







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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.

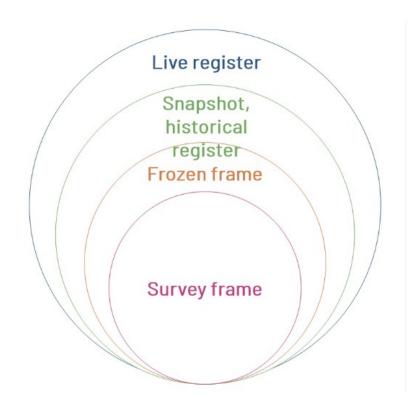






Survey Frames

- 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

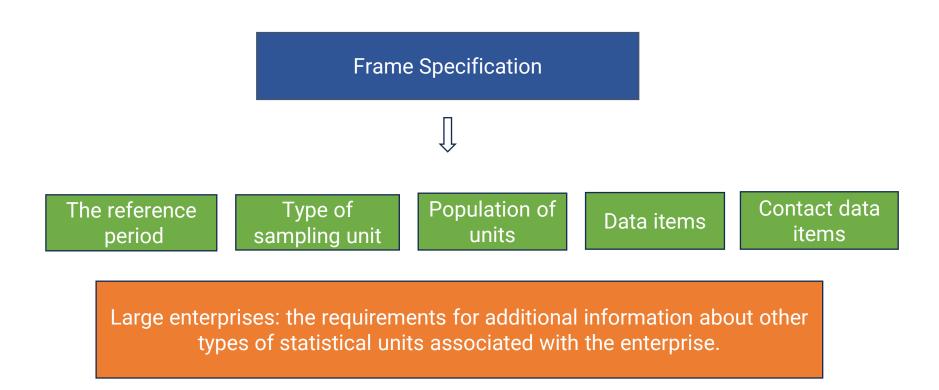
- The frame specification defines the reference period to which the frame should refer, the type of sampling unit, the population of units to be included, the data items that are required for sample selection, and (for the sampled units only) the contact data items required for conducting the survey.
- 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









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 an industry 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.







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.







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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.









• 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).







Thank you!

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