



Statistical Business Register: Objectives, Concepts and Methods

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Abstract

This paper describes statistical business register (SBR) concepts and methods as background for the following papers in the session. The paper draws material from the *Guidelines for Building Statistical Registers in Africa* published by the African Development Bank, and the international *Guidelines on Statistical Business Registers* shortly to be published by the United Nations Economic Commission for Europe. It explains why construction and use of an SBR is vital in harmonizing the economic statistics program and ensuring surveys have good coverage, and what additional provisions need to be made to measure the informal economy. It outlines how the System of National Accounts 2008 provides the conceptual framework. It describes the various types of units – legal, administrative and statistical - that are important to the SBR. Finally it outlines how an SBR can be best introduced, or enhanced, in a situation where limited information technology resources are available, through use of a generic SBR system.

Keywords: survey; frame; coverage; statistical unit.

1. Introduction

Harmonization of the individual surveys and administrative collections that constitute the economic statistics program of a national statistical office (NSO) depends upon the use of a common conceptual framework. Crucial in making this framework operational is to ensure that individual survey frames (i.e. lists of units and their characteristics) are properly harmonized. Survey frames are best acquired through the development and use of a single *statistical business register (SBR)*. The design, development, and implementation of an SBR is so important that it typically constitutes one of the core goals in a five-year *national strategy for statistical development* for most, if not all, African NSOs.

Against this backdrop, through its Statistical Capacity Building Program, the African Development Bank (AfDB) published *Guidelines for Building Statistical Registers in Africa (abbreviated SBR Guidelines)* in early 2014. The SBR Guidelines detail the essential elements of an SBR, thus providing a starting point for development and harmonization of SBRs across NSOs.

The aims of Special Topic Session 026, of which this is the first paper, are to illustrate the SBR Guidelines, by describing specific examples of their application, and to demonstrate the potential for further modernisation and industrialization of NSO statistical processes through use of a generic SBR system. This paper summarises the reasons for and content of an SBR. It sets the scene for the following papers in the session. The second paper presents an operational SBR as an example. The third paper describes enhancement of an SBR in accordance with the Guidelines. The fourth paper describes a generic SBR system that can, with minimal customisation, be adapted for use by any NSO.

2. Underlying Concepts

2.1 Conceptual Framework

Given the wide range of topics covered by an economic statistics programme, and the multiple sources (statistical and administrative) that are used, there is a considerable risk of an NSO producing data that are *not coherent*, i.e., not easy to relate to one another and to use in combination. This risk is greatly mitigated by collecting and processing data within a *common conceptual framework*.

The System of National Accounts 2008 (2008 SNA) is the core element of the conceptual framework recommended by the SBR Guidelines and most important harmonizing and integrating mechanism for

economic statistics. It defines the notion of *economic production* activities in which *institutional units* in their role as *enterprises* engage.

- An *institutional unit* is an economic unit capable of owning assets, incurring liabilities and engaging in economic activities and transactions. There are two types of institutional units: natural persons or groups of persons in households; and legal or social entities whose existence is recognized by law or society, independent of persons who may own them.
- *Economic production* is an activity under control of an institutional unit using labour, capital, goods and services to produce outputs that can be sold or provided by one unit to another with mutual agreement. It includes government activities, household production of goods for own final consumption, and informal, illegal and underground production.
- An *enterprise* is an institutional unit in its capacity as a producer of goods and services. It is the core unit for economic statistics and hence for the SBR.

There are four types of enterprise:

- *Corporation*: legal person (entity) created by law for purpose of producing goods and services that may be a source of profit for owners;
- *Non-profit institution*: legal or social entity created for purpose of producing goods and services, but not for financial gain of units that control or finance them; and
- *Unincorporated enterprise*: any other type of enterprise in the government or household sector. A household enterprise can be either a market enterprise (a sole proprietor or unincorporated partnership, such as a self-employed electrician) or a non-market enterprise (a household producing for its own consumption, for example, growing vegetables).
- *Quasi-corporation*: unincorporated enterprise operating like a corporation, for example, an enterprise owned by government unit, or a branch of foreign enterprise;

This 2008 SNA definition of enterprise is very important from the perspective of the SBR as it determines what is in scope for economic production statistics. It is very broad, including the very smallest economic entities. In principle, these very small enterprises should be included within the scope of all economic surveys. In practice, coverage of very small enterprises is best achieved by a different means.

2.2 *Informal Sector*

Small enterprises of particular interest, especially for employment purposes, are those designated as belonging to the *informal sector*. The SNA specifies use of the *1993 Resolution of International Conference of Labor Statisticians* in defining the informal sector. The resolution states that an enterprise can be defined to be in the informal sector if it has market production and (1) it is below a certain size threshold; and/or (2) it is not registered under any of a specified set of regulations. Thus, the resolution actually provides the *framework* for a definition, not a unique definition. Each NSO must specify its own particular definition within this framework. The SBR Guidelines strongly recommend use of the second (registration) criterion, which enables *the coverage of the SBR to be defined as coincident with the formal sector*, as the SBR is constructed from enterprises registered for administrative purposes. This approach limits the coverage of SBR to what can be practically achieved.

2.3 *SBR Coverage*

Figure 1 illustrates the recommended coverage of the SBR and the role that the SBR should play in acquiring economic production data. Coverage of the informal sector is not an SBR function. It is an important complementary function and needs to be discussed otherwise it might seem that the SBR is

deficient and it should somehow be extended to include the small enterprises in the informal sector, which is impractical as they are difficult to locate, they move and they go in and out of business.

Figure 1: Program for Acquiring Economic Production Data

Sector/ Activity Type*	Enterprise Type	In SBR	Recommended Method for Acquiring Production Data
Formal	General government	Yes	SBR based survey / administrative collection where data available (for example education, health)
	Financial corporations	Yes	
	Non-financial corporations	Yes	
	Not for Profit Institutions	Yes	
	Registered household enterprises	Yes	
Informal	Non-registered non-agricultural household market enterprises	No	Area-based household-enterprise survey/ estimation where value small
Informal Agriculture	Non-registered agricultural household market enterprises	No	Area-based agricultural survey
Own-use Production	Non-registered household non- market enterprises	No	Area-based agricultural survey, / estimation where value is small
Illegal*	Corporations and household enterprises	No	Ignore/ use experimental estimation within national accounts
Underground*	Corporations and household enterprises	No	Estimation within national accounts

*Note: Illegal and underground activities can occur in any of the sectors listed above.

Informal sector coverage is typically best achieved through a *two phase household based enterprise survey*, conducted as frequently as is warranted by the size of the informal sector. The survey can be in the form of a module attached to an existing household survey in which each household is asked if any of the household members have a business. If the answer is yes then the next question is whether the business is registered with any of the source on which the SBR is based. If the answer is no, a follow up survey of (a sample of) these businesses is conducted. This provides complementary coverage of the informal sector.

2.4 *Special Treatment of Large Enterprises*

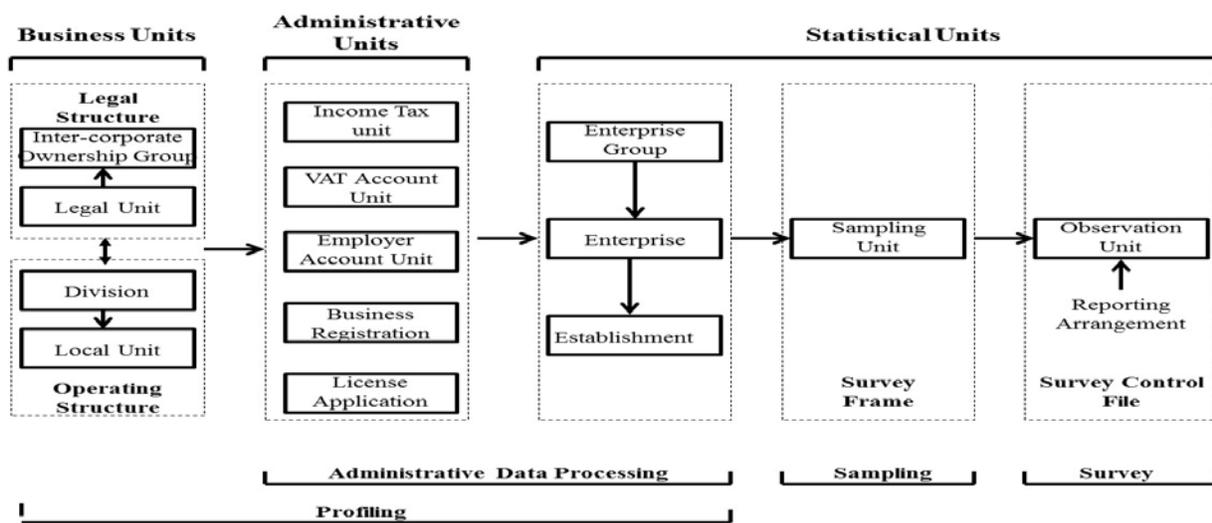
The SNA2008 notes that a large enterprise may be engaged in a range of different activities at a set of different locations. Thus, it recommends that large enterprises are divided into smaller, more homogeneous producing units that can be more precisely classified and that collectively represent the enterprise as a whole. Partitioning an enterprise by its economic activities defines its *kind of activity units*. Partitioning by its locations defines its *local units*. Partitioning by its economic activities and locations defines its *establishments* (also called *local kind-of-activity units*). In practice, for most purposes, this breakdown into three types of units is far more complicated than is needed. Thus the SBR Guidelines recommend breakdown of a large enterprise into a single type of unit having roughly the properties of an establishment. The process of dividing enterprises into establishments is referred to as *profiling*. Profiling also includes identifying enterprises that belong *enterprise groups* to by virtue of common ownership and/or control. Profiling is a resource intensive process. Only large complex enterprises are profiled. Only a very small number of enterprises have multiple establishments or belong to an enterprise group.

2.5 *SBR Units Model*

Figure 2 illustrates the units model recommended by the SBR Guidelines. The units are organized in three groups:

- *organizational (legal and operational) units* – comprising legal units and groups of legal units that own and control businesses and operational units that businesses create for their own purposes, independently of administrative regulations and statistical requirements;
- *administrative units* – comprising the types of units that businesses create in response to administrative regulations in order to comply with those regulations; and
- *standard statistical units* – the enterprise groups, enterprises and establishments created by the NSO itself for the purpose of collecting data from businesses, based on information it receives about organizational and administrative units.

Figure 2: SBR Units Model



The model is made complicated by the need to accommodate large enterprises. The vast majority of enterprises can be viewed in terms of a simplification of this model in which the legal entity, enterprise group, enterprise and establishment all coincide in a single unit.

3. Statistical Business Register Construction and Maintenance

3.1 Using Administrative Data

The set of enterprises within an SBR can be constructed in essentially two different ways: first, by field enumeration; and second by using data created for administrative purposes by other government departments and agencies. The first method, typically starting with an economic census, is both impractical and impossibly expensive. The SBR Guidelines recommend that the set of enterprises is created and maintained primarily by data from selected administrative sources.

Each government regulation relating to businesses results in: *registration data* contained in an *administrative register* of businesses bound by the regulation; and *transaction data* resulting from application of the regulation. These registration and transaction data are referred to collectively as an *administrative source*, or sometimes an *administrative register*. They are continually updated in accordance with ongoing application of the regulation. The first step in building an SBR is to select as the primary administrative source the one that most nearly provides the required SBR coverage and content.

As no single source is likely to provide everything required it is typically supplemented by data from secondary administrative sources. However, although there are a wide variety of possible sources, combining them is not easy, particularly if they do not share a common identification numbering system.

The SBR Guidelines recommend using a small number of carefully selected administrative sources. Jointly these sources determine the coverage of the SBR and define the formal sector. Field observation by NSO staff should not be used to expand the coverage thus provided, first, because it would be an inefficient use of resources, but mainly because the additional enterprises found by this method would mostly be transient or mobile and hence not worth trying to maintain

3.2 Using Statistical Sources

Although administrative sources provide the enterprises that define the coverage of the SBR, they are not sufficient to provide all the content required for survey frames. They do not provide the information required to define enterprise groups or establishments. In addition, they may not provide all the contact data or size measures required to produce survey frames.

Profiling is conducted to obtain more information about large enterprises. As it often involves face-to-face contact with senior staff (typically the chief accountant or secretary) in the enterprises concerned, it is resource intensive and is only worth doing for very large complex enterprises. For all other enterprises information are obtained by *SBR improvement surveys* and from *feedback of frame data from surveys*.

4. SBR Processes and Outputs

4.1 Provision of Survey Frames

Frames for economic surveys are the most important SBR output. The Guidelines recommend that all survey frames are produced in the same way.

- At a designated point in time (annually or quarterly) a *snapshot* is taken of all enterprises in the SBR. This provides a basis for quality checking and a historical record of the SBR.
- From the snapshot, a *common enterprise frame* comprising all active enterprises is extracted.
- From the common enterprise frame, a frame for each survey is produced.

4.2 Selection of Survey Samples and Creation of Survey Control Files and Databases

To ensure the SBR frame extraction process interfaces nicely with the subsequent functions that perform sample selection and initialize the survey control files, the SBR Guidelines recommend that all these functions are included within the *SBR complex*. For each sampled unit the corresponding identification, classification and contact information are written into the *survey control file*. Based on this file and the finalized *survey dataset* for the previous cycle (if any), the *survey dataset* for the current cycle is initialized. It comprises two logically separate parts:

- the *survey control file*, which holds data about the survey process and which is created by supplementing the survey control file with selected data items (but not units) carried forward from the finalised survey control file for the previous cycle; and
- the *survey master data table*, which is a table awaiting data from the current cycle; the table is initialised with zeros or blanks, and/or, in the case of units in both current and the previous cycles, by carrying forward data from the finalised master table for the previous cycle.

The survey control file and master data table are updated during the course of the survey and the final versions are fed back to the SBR to be used in its maintenance.

4.3 Production of Enterprise Counts and Demographics.

The SBR is a potential source for direct publication of counts of enterprises by economic activity, size and region, and of their births, deaths and changes. The quality of the data, in particular the numbers of apparently active enterprises that are actually inactive, limits what can be published.

4.4 Linkage of Enterprise Data from Administrative and Statistical Sources.

In addition to data about enterprises and establishments, the SBR includes data from the administrative sources that are used for statistical unit creation and maintenance, also links between the administrative and statistical data. The database can readily be expanded to include data obtained from surveys thus becoming a source of administrative and statistical data at unit (enterprise) level.

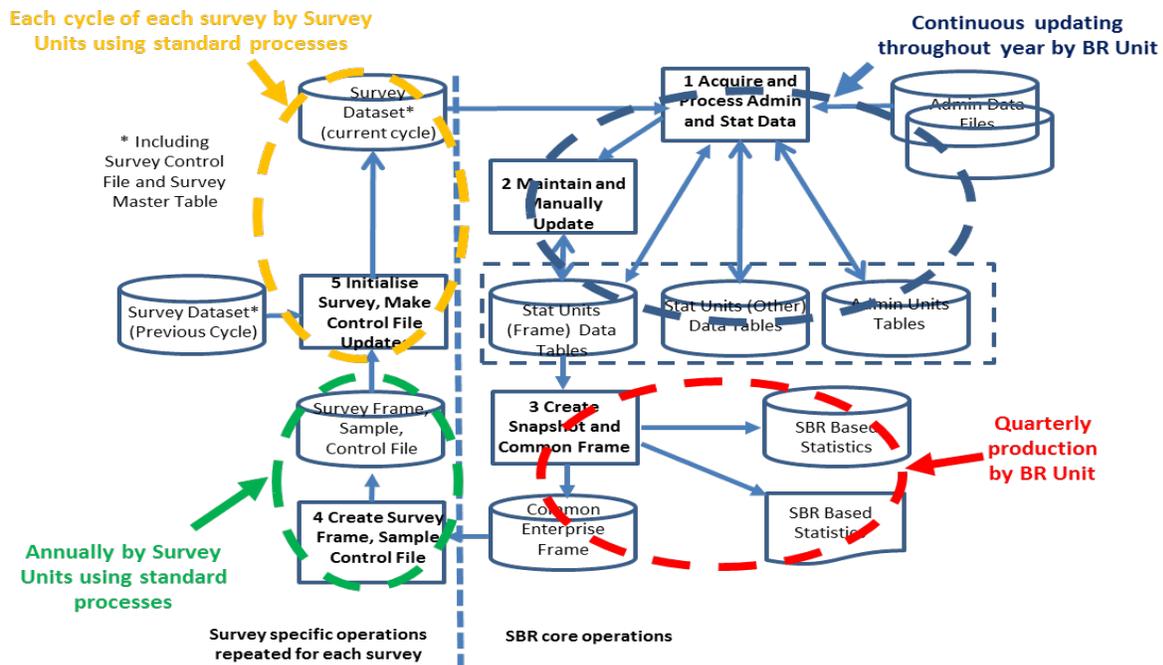
4.5 Respondent Burden Monitoring.

Through the SBR it is possible to list all the surveys to which any given enterprise has to report within any given year and the status of those reports. It is also informative to measure the respondent burden imposed on enterprises by individual surveys and by all surveys in total.

5. Generic SBR System

One of the main impediments to the introduction or enhancement of an SBR is the lack of staff with sufficient information technology skills to build a system capable of supporting the SBR functions. The AFDB has recently addressed this problem through the development of a generic SBR system that can be adapted with minimum customization to the particular environment and needs in any national statistical office. Figure 3 shows the core SBR processes that are provided by the system and how they interface with the SBR and survey functions.

Figure 3: Core SBR Processes



6. References

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