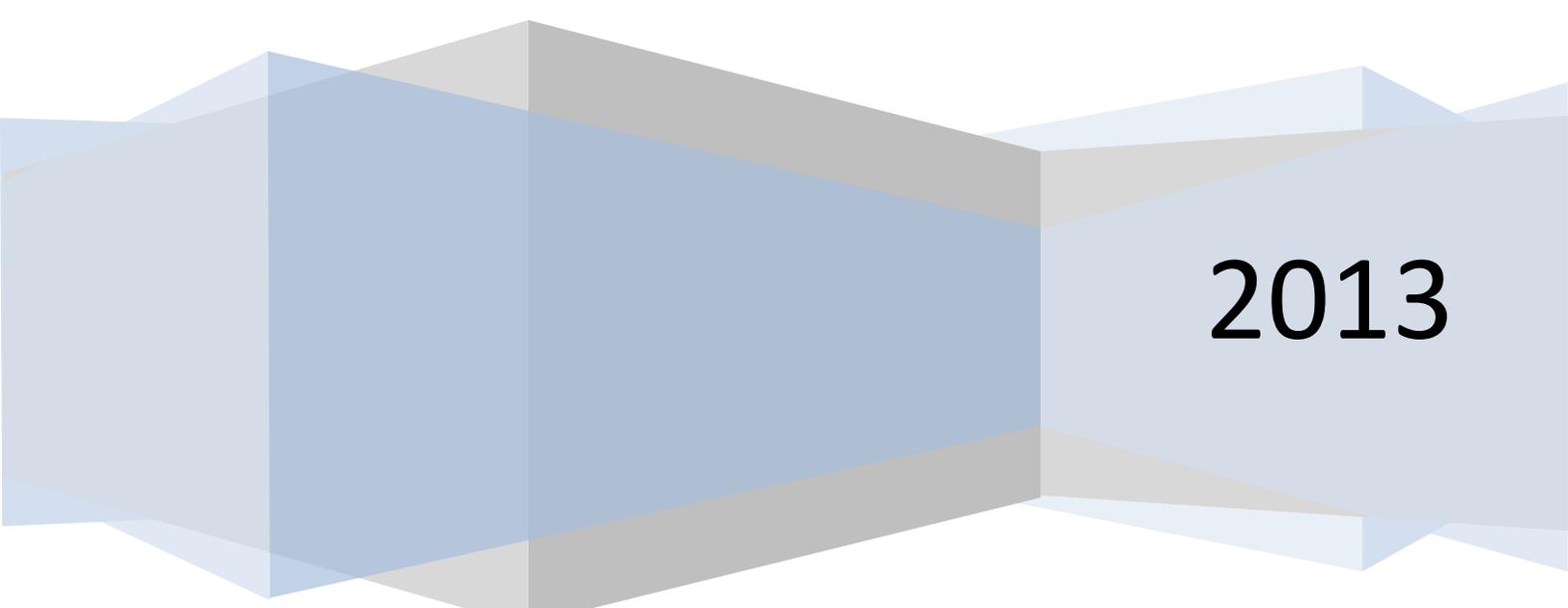


WORK IN PROGRESS

CARIBBEAN COMMUNITY (CARICOM)

BUSINESS REGISTER MANUAL: DEVELOPMENT AND MAINTENANCE



2013

ACKNOWLEDGEMENTS

The CARICOM Secretariat thanks representatives from the National Statistics Offices of Barbados, Dominica, Grenada, Jamaica, St Vincent and the Grenadines, Suriname, Trinidad and Tobago and Bermuda for their time and effort towards the achievement of this objective.

Further, the Secretariat also wishes to acknowledge and make special mention of the Technical Working Group Member from Trinidad and Tobago who was instrumental in presenting the first draft of the Statistical Business Register manual.

Special thanks also to the staff of the Regional Statistics Programme for supporting the production of this manual.

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1. Introduction

International statistical development is a key source behind the changes required to the statistical systems within the Caribbean Region. The development of the System of National Accounts 2008 (2008 SNA) represents a statistical improvement over the 1993 SNA, requiring CARICOM countries to make the required adjustments to conform to this latest standard. However, as more Caribbean countries seek to implement this system, there is greater recognition for the need for improved statistical infrastructure, including the need for comprehensive Statistical Business Registers (SBR).

To support the improvement of SBR in the Region, the CARICOM Secretariat held strategizing and assessment meetings aimed at creating a plan for the harmonized development of statistics in the Region with support provided by the Ninth European Development Fund (Ninth EDF). To this end, a Technical Working group (TWG) was proposed and formed, and examined this area as part of its meeting agendas. The TWG determined that key fields needed to be established as a starting point, as well as to develop a manual for the development and maintenance of the SBR. The TWG Member from Trinidad and Tobago was tasked with the development of the manual.

The draft manual was subsequently distributed to Member States for comments and feedback following its submission to the Secretariat. Based on information received, it was determined that the manual needed a comprehensive revision, which was initiated by the Secretariat. At a workshop that was held in Jamaica in early 2013 on the Implementation of the 2008 SNA, the CARICOM Secretariat provided information on the **Overview of statistical production process in an integrated economic statistics approach: Business Registers**. The contents of the Secretariat's presentation were as follows:

- ▶ Role of SBR;
- ▶ Conventional Definitions
- ▶ Issues for Consideration:
 - Definitions in the 2008 SNA;
 - Units of SBR :
 - Characteristics of SBR;
 - Sources of Data;
 - Maintenance of the SBR;
 - Format and Procedures;
- ▶ Background and Context of the SBR Manual;
- ▶ Review of SBR Manual
- ▶ Feedback and Proposed Work

While the CARICOM Secretariat's presentation provided the answer to "How to build an SBR", the presentation by Jamaica at the same workshop provided an illustrative example of an SBR. The Manual that is encompassed within this document builds on all of the above as well as the international standards and manuals in this area. It seeks to provide an understanding of the usefulness of the SBR, the sources of data that are important towards the compilation of the SBR, as well as describe the concepts which form part of the register.

2. Purpose

What is the Statistical Business Register?

The Statistical Business Register (SBR) is the central repository of information on businesses. It is a frame that essentially includes all businesses operating within a country, including those engaged in the production of goods and services. Once properly compiled, it provides statisticians with the highest quality frame in terms of coverage and data elements, as well as the composition of the population of businesses in the country in terms of organisational structure, industrial activity, size and geography. The accuracy of the coverage of the SBR is ensured through keeping track of demographic information including births and deaths of businesses, mergers or break-up, takeovers or other operational or ownership changes so as to properly reflect the status of the economy in question.

The statistical business register (SBR) fulfills several roles. One role is to support of construction and maintenance of an integrated economic information system. It also provides quality data needed for the compilation of economic statistics, such as retail trade index, Balance of Payments, Domestic Production Index, Producers Price Index, etc. The primary role of the SBR however, is to supply a framework for all economic surveys. Therefore it is designed to provide a means of coordinating the coverage of business surveys and of achieving consistency in classifying statistical reporting units. In addition, it the SBR plays a key role in ensuring coherence between the country's survey programs by reinforcing the fundamental principles of the System of National Accounts (SNA). This includes such notions as enterprise and establishment, SNA sectoring, and support of major standards related to economic surveys.

3. Concepts and Definitions

According to the 2008 SNA, the SBR is populated by the following units:

- An **Establishment**: is an enterprise or part of an enterprise that is situated in a single location and in which only a single productive activity is carried out or in which the principal productive activity accounts for most of the value added. Further, the SNA defines industries in terms of establishments, that is, consisting of a group of establishments engaged in the same, or similar, kinds of activity.
- An **Enterprise**: is the view of an institutional unit as a producer of goods and services. The term enterprise may refer to a corporation, a quasi-corporation, an NPI or an unincorporated enterprise. It typically controls more than one establishments, operates from more than one locations and has more than one economic activity.

One way to partition an enterprise is by reference to activities. A unit resulting from such a partitioning is called a **kind-of-activity unit** (KAU).

- A kind-of-activity unit is an enterprise, or a 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. Each enterprise must, by definition, consist of one or more kind-of-activity units.

Enterprises which operate from one location are therefore sometimes referred to local KAUs.

Relationships between Units

It is also important to note the relationships that exist between units as these can change in the future, and affect the way the unit is recorded. The relations can be divided in two groups, **financial relationships** (ownership and control) and **business relationships**. Financial relationships should be recorded in statistical business registers where possible. Business relationships are generally outside the scope of such registers, but can be studied by surveys.

The most important business relationships are subcontracting, outsourcing, strategic alliances, marketing partnerships, licensing agreement and franchising agreements. The basis for business relationships can vary from informal understandings to contractual agreements. Financial relationship refers to ownership or the control relationship.

4. Characteristics of SBR

4.1 Coverage

What does the SBR include?

In principle, SBR should record all establishments and enterprises that are active in the national economy, i.e. contributing to gross domestic product (GDP) at market prices. This may not always be possible in practice, often for cost reasons, but for the purposes of international comparison it is desirable that the coverage of business registers should meet agreed standards. It is up to Member States to determine the limits of a unit which is deemed a significant enough of a contributor to the economy. A commonly used factor to determine the significance of the establishment is the amount of people employed.

However, the use of amount of people employed can raise some issue with regards to the self-employed. Under-coverage in the registers is possible even though administrative sources covering at least some of these groups (e.g. social security sources, tax files on persons, files of Chambers of Crafts, lists of doctors, etc) are available. Unfortunately not all national statistical offices have the legal right of access to such files. Nevertheless, attempts should be made to include these units in the statistical business register wherever possible.

International recommendations suggest that households can be regarded as enterprises, and hence included in SBR, if their production is greater than that required for their own consumption, and the surplus is sold or traded in some way. Also, embassies, consulates, military bases, etc should not be included in the SBR of the host country as these are deemed to form part of the economic territory of another country.

There are also entities such as non-profit institutions which constitute an "organisational unit producing goods or services" and could, therefore, be regarded as enterprises and included in the registers. However, they may fail to meet the employment and turnover thresholds, and thus may not be included in the administrative sources used to maintain the register. These units can be included in the register, but updating such units might be difficult and very costly.

Establishments which have activities under agriculture, fishing and public administration can also be considered optional. In the case of Jamaica, establishments involved in agriculture and entities in Government are outside the scope of the SBR.

4.2 Fields or Variables of the Register

The units listed in the register can be described using three categories of variables:

- **Identification variables:** which includes an identity number, name of enterprise, name of the owner, address and legal status;

- **Stratification variables** (economic activity, number of employees, sales turnover, geographical location);
- **Demographic variables** (births, date of changes in economic activity, deaths).

Identification Variables

- **Identity Numbers**

It is recommended that the identity numbers do not change throughout the life of the unit identified. Although the characteristics attached to that unit may change during its life, its identity number must be independent of those characteristics. It can also be useful, where possible, to link the identity numbers of units in other business registers to the same unit in the SBR. Changes made to the unit as recorded by the particular administrative source can therefore be easily tracked and allow for updating of the SBR.

- **Name, address and contact details**

Each unit has a name and address that must be recorded. Where possible, addresses should be supplemented by any specific particulars stipulated by the postal regulations (post code, post office box number, etc.) and telephone, fax, e-mail and web address details.

In case where the unit is closely linked to an individual, it may be useful to maintain both a business and a personal address. The address should be recorded at the most detailed level possible.

In the cases of enterprises, it is not necessary to record the name that operates it, but a record should be kept of the link between the enterprise and that unit.

- **Legal form**

The legal form (also known as legal status) of a unit is very useful information not only for eliminating ambiguity in identification searches, but also as the possible criterion for selection or stratification of surveys.

The legal form is often linked to the fiscal records available. A code representing the legal form should therefore be recorded in accordance with the classification of legal forms or categories developed by each country.

Stratification Variables

Apart from location and legal form, the criteria used for selecting fields of inquiry and taking samples are activity, size and institutional sector.

- **Activity**

Enterprises and establishments should indicate the principal activity actually carried on within the unit. If several activities are pursued simultaneously in the same unit, the principal one is

determined by the percentage contribution of that activity to the entire revenue earned. Significant secondary activities should be recorded as this information is important for the purposes of the compilation of various statistics, particularly structural business data.

- **Size**

A size measure for statistical units is essential for sample design, and can be determined by employment, turnover, and amount of net assets. It is important that this indicator be updated annually for all units regardless of whether or not they were selected the previous year for inclusion in a survey sample.

1. Size based on employment: The register should record the actual number of persons occupied. Occupied persons are defined as 'must be engaged in an activity that falls within the production boundary of the SNA'.
2. Size based on turnover: For some surveys, mainly cyclical ones it may not be very appropriate to stratify according to employment. Thus, the size of enterprises should also be measured in terms of their turnover. The figure used should be the actual turnover or revenue generated by the unit.
3. Size based on net assets: For enterprises in the financial market sector, a relevant size criterion is the amount of the net assets. The amount of the net assets is based on company balance sheets and is taken as the net value of the assets (less depreciation) less the value of current debts.

- **The institutional sector**

Each enterprise must be classified in an institutional sector (and possibly sub-sector) for the purposes of the national accounts. Classifications organise units into groups according to a standard format defined according to the principles and criteria that have been used to construct them. Member States are encouraged to classify their units based on the United Nations (UN) International Standard Industrial Classification Rev. 4 (ISIC Rev 4).

Demographic Variables

Dates must be recorded for each unit to permit an initial demographic analysis of the population of units:

1. Date of creation
2. Date of cessation
3. Date of entry in the register

- **Date of creation**

The 'date of official recognition' may be the date on which an identification number is given, be it a VAT number or other. In general this is the prerequisite for a firm to engage in legal economic transactions. Given that a statistical register is usually fed with files from the social security, fiscal administration or similar sources, a date for an official recognition will always exist and should be stored in the business register.

For enterprises, the date of birth is in principle the date on which the first financial commitments are made, but in practice it may refer to the registration date in the administrative source.

- **Date of cessation**

This is the date on which the unit ceases its operations. This date is not easy to collect but probably the registration of the event is far more important than the precise day and month of its having taken place.

Between activity and death there will usually be a period of inactivity, in which the unit may be recorded as 'dormant'. A sign of such a situation would be the lack of employees (zero PAYE returns), the cessation of tax compliance or the inability to contact the unit after repeated efforts. Only after a prescribed period determined by the statistical office (for example, 24 months) of such a status may the unit be erased from the statistical business register and that is the date to be retained.

- **Date of entry in the register**

For certain purposes, e.g. the analysis of lags between real world events and their reflection on a statistical business register, it may be useful to hold information on the date of entry of the unit to the register.

Variables Showing Relationships Between Units

- **Organisational relationships**

The relationship between a unit and the enterprise that it has a relationship with should be clearly identified. An identity number should be included in the register for the enterprise on which the local unit is dependent. This number would illustrate the link between the local unit and the enterprise. This link can be included in the register by adding the identity number of the enterprise to the unit file.

For an Enterprise, the register should record the identity number(s) of the unit(s) legally responsible for the enterprise. This is not a problem for enterprises consisting of one unit. In case of complex enterprises the identity numbers of all units and their relations to each other have to be recorded.

- **Control relationships**

This is an important variable for globalisation statistics. As the exact information is difficult to obtain and update, an indication of the existence of a non-resident controlling unit would be useful to record.

- **Enterprise Groups**

Although the register centers on enterprises and their units, enterprises that are members of groups should also be taken into account. Membership of a group is an important stratification criterion for analyzing enterprise performance and behaviour, and this criterion will sometimes need to be taken into account in selecting fields of inquiry.

Thus, the group dimension may be recorded by the relationship between units rather than the relationship between enterprises. However, the challenge of historical monitoring of groups can require the introduction of the group into the register as an explicit unit with its own identity number.

5. Sources of Data

Data sources depend on the specific country situations, such as the availability of certain administrative data and registers, or the statistical system. However, the most common sources should be described and grouped into three categories:

- Administrative sources
- Statistical sources (incl. feedback from surveys)
- Other sources (e.g. private data suppliers)

Administrative sources have the advantage of covering the entire enterprise universe. It is essential for statistical and administrative bodies to employ a standardised activity classification system. Failure to do so may compromise the final quality of the results of surveys register. To avoid this problem, statistical offices should attempt to persuade the bodies that produce the main administrative records to use a single activity classification table.

Surveys offer more complete information, albeit for a more restricted population.

Register maintenance surveys are specifically undertaken to update an SBR. Some statistical agencies undertake the survey in cooperation with the primary registration authority. For small enterprises, including informal sector operators, register maintenance surveys are crucial.

5.1 Administrative Sources

5.1.1 Definitions of Administrative Sources

A traditional definition of administrative sources is that they are files of data collected by government bodies for the purposes of administering taxes or benefits, or monitoring populations. This narrow definition is gradually becoming less relevant as functions previously carried out by the government sector are, in many countries, being transferred partly or wholly to the private sector, and the availability of good quality private sector data sources is increasing. It is therefore necessary to consider a wider definition of administrative sources.

5.1.2 Why Use Administrative Sources?

The main advantage of administrative sources over survey data is usually cost. Surveys are very expensive, particularly if they are conducted as censuses, or involve the use of personal interviews. Administrative sources are often “free” as they mostly originate from the public sector.

Using data from administrative sources also helps to reduce the response burden on businesses. In addition, it gives a complete, or almost complete, coverage of the target population, whereas sample surveys often only directly cover a relatively small proportion. The use of administrative sources therefore eliminates survey errors, removes (or significantly reduces) non-response, and provides more accurate and detailed estimates for various sub-populations, e.g. businesses in small geographic areas.

5.1.3 Problems Using Administrative Sources

Data sharing can be problematic where public reluctance exists at the thought of data being shared around by government agencies. Possible approaches could include the publication of clear limits and rules regarding the use of data, ensuring that businesses understand that sensitive data will not be fed back to other parts of government (particularly tax agencies).

Another problem often encountered when using administrative sources is that the units used in those sources do not correspond directly to the definition of the required statistical units. Statistical offices must undertake the process of converting administrative units to statistical units.

Similarly, the classification systems used within administrative sources may be different to those used in the statistical world. Even if they are the same, they may be applied differently depending on the primary purpose of the administrative source. It is usually necessary therefore to construct correlation tables to map the codes in the administrative classification onto those required for statistical business registers.

Another common problem encountered when using data from administrative sources relates to timeliness. Data may either not be available in time to meet statistical needs, or they may relate to a period which does not coincide with that required for statistical purposes, e.g. a tax year may not coincide with the calendar year required for structural business statistics. Lags relating to births and deaths of enterprises are a major source of register coverage errors. If these lags can be measured, allowance can be made for them in any statistics based on register data.

Multiple sources can also be a problem where consistency between the sources can be an issue. Data from one source may appear to contradict those from another source. This may be due to different definitions, classifications or differences in timing, or simply to an error in one source. To resolve such conflicts it is necessary to establish priority rules, by deciding which source is most reliable for a particular variable.

6. Maintenance of Register

The maintenance of statistical registers should be an on-going process. New enterprises should be recorded in the business register as soon as information about them is available, preferably before they start trading, so that information about investment in new buildings and plant can be collected. Changes to the data necessary for the conduct of surveys, such as addresses of reporting units, should obviously be reflected on the register as quickly as possible.

The Effects of Demographic Events

- Births and deaths

The representation of births and deaths in business registers is straightforward: it amounts to creating a new identity number and deleting an existing one, respectively. It is more of a problem, however to determine the date of birth or the "date of commencement of activities of the enterprise".

- Changes within an enterprise, such as change of ownership, restructuring within an enterprise, change of group

Changes of ownership and restructuring within an enterprise are events that do not impact on the demographic variables relating to the enterprise. They will be reflected through changes to relationships or characteristics recorded in the register. The way a change of group is registered depends on the way the enterprise group itself is registered.

- Mergers and take-overs

In the case of a merger, all identity numbers of the enterprises existing before the event are deleted and an identity number for the emerging enterprise is created. In the case of a take-over, the enterprise that takes over the other enterprise(s) keeps its identity number, so no register creation takes place and only the identity numbers of the enterprises that are taken over are deleted in the register. The date from which the change is considered to take effect is the date on which the autonomy of decision-making, mentioned in the definition of the enterprise, is lost by the merging enterprises or the enterprise which is taken over.

- Break-ups and split-offs

Since break-ups and split-offs are the counterparts of mergers and take-overs, respectively, their registration in business registers is similar to the registration of mergers and take-overs. In the case of a break-up all identity numbers of the enterprises after the event are created and the identity number of the original enterprise is deleted. In the case of a split-off, a new identity number is only given to the split-off enterprise(s).

- Change of principal activity;

Although a change of principal activity is reflected in the business register by the change of the classification code at a certain date, the change often takes place gradually. Change of principal activity of the enterprise is in itself not enough to delete an existing enterprise record and create a new one in the business register.

- Change of main location;

An enterprise might cease its activities at its main location and resume its activities at another location within the national territory. The convention for the change of main location is that there is deemed to be continuity of the enterprise. Change of main location is in itself not enough to delete an existing enterprise record and create a new one in the business register. The new location must be recorded.

Reactivations

One of the most difficult problems in the maintenance of statistical business registers is that of temporary cessations of enterprises.

- An enterprise carrying out seasonal activities - the convention is that such enterprises retain their old identity after resumption of activities.
- Temporary suspension of activity - The convention in these cases is that the enterprise is deemed to retain its old identity number after resumption of its activities, unless the resumption takes place after a predetermined period. In that case the original enterprise is considered to have died, and a new one is born.
- Paralysis of production for external reasons - The convention in such cases is that the enterprise is deemed to retain its old identity number after resumption of its activities, unless the resumption takes place after a predetermined period.

The Effects of Changes to Identity Variables

- Changes to Identity Numbers

Identity numbers can change based on occurrences detailed above. Previous identity numbers should be recorded whenever possible, as this allows data to be linked through time. Such changes are normally associated with administrative creations and deletions, which result in new administrative units rather than changes to existing ones.

- Changes to names and addresses

This should be reflected in statistical business registers as soon as they are notified. These details are used for mailing survey forms and for geographical analyses of register data. For both of these purposes, up to date information is vital in order to meet user needs.

It should, however, be remembered that changes to one unit do not necessarily imply changes to other linked units. For example, a change in the address of a unit may be for purely administrative purposes, and may not mean that the enterprise has changed location. Similarly, for an enterprise with more than one unit, a change in the name of one of those legal units will not necessarily mean that the enterprise name should change.

Where other contact details, such as telephone or fax number, e-mail address etc. are stored, these should generally be updated as soon as a change is notified. There is again, however, the need for care when dealing with larger or more complex enterprises. There may be a need to record details of several different contacts for different purposes, e.g. the person supplying employment returns may be different to the one providing financial details. In this case there is a need to store multiple sets of contact details. This can cause problems for register maintenance, so one simple solution is to allow users the option to record details of their specific contacts within the business register, but ask that, in return, any users taking advantage of this facility should maintain any specific contact details themselves.

- **Changes to Legal Form**

This is important to address any changes can affect the consistency of survey samples and populations. This is particularly true where large units change their legal form. An example of this is where a particular activity previously carried out in the public sector, (e.g. in areas such as health or education) is transferred to the private sector. This would have a large impact on statistics on the market economy, and such a change may need to be treated and/or timed in a way that minimizes the disruption to statistical series.

Some changes to legal form may be accompanied by name changes. For example, if a previously unincorporated enterprise becomes a limited liability corporation, it would normally be expected to add certain initials to its name to indicate this (e.g. Ltd). This allows the possibility of a crosscheck between name and legal form, which can help to detect quality problems.

The Effects of Changes to Stratification Variables

Changes in these variables can affect the probability of a unit being included in a particular survey. It is therefore important to consider whether to update these variables as soon as new information is received, and risk increased volatility in survey samples and populations, or to hold them until a certain point in the annual cycle of surveys where the impact of changes on the consistency of results would be reduced.

- **Changes to size variables (persons employed, turnover and net assets)**

Large changes are often an indication that some sort of restructuring is taking place within the business, and should be a trigger for further investigation, possibly in the form of profiling.

For businesses engaged in certain activities, e.g. tourism, there is likely to be a seasonal pattern to the number of persons employed (and possibly also to net assets or short period turnover data). This means that data from a particular point in time could give a misleading view of the size of a business. It is therefore recommended that annual averages should be held for these variables.

Other Issues

1. **Timing of changes**

The traditional view of the quality of statistical business registers focused on the need to reflect the real world as accurately as possible. This implies that changes should be implemented on the register as soon as they are known. However, while accuracy may be important to some register

users, consistency can be equally important to others particularly those producing and using short-term statistics and those wanting coherent short-term and structural data.

To address these conflicting demands regarding the timing of changes it is suggested that two versions of key variables, one that is updated whenever new information is received, i.e. the “current” version, and one that remains constant for an agreed period, i.e. the “frozen” version be held. If this approach is followed, the frozen version should be updated from the current version at times, or in specific circumstances agreed with users. This update will generally tie in with the statistical survey cycle, so it could be annual, generally between the end of one survey year, and the start of the next.

2. Sources of information

Statistical business registers can be updated from a wide range of different sources. Several sources may provide information for register characteristics, implying that there will be a degree of conflict between the sources. It is therefore important to understand each source by looking at issues like the methods of data collection and validation, the time of collection, and the relative importance assigned to that variable by the source. Thereafter, these sources can be prioritized depending on criteria deemed important.

7. Quality

The survey frame is at the foundation of every survey program. The quality of the frame is therefore crucial to ensure the production of high quality estimates from each survey. Some countries conduct a quality assurance survey, which is a monthly telephone survey of a fixed number of establishments. This survey allows for the assessment of the quality of classification coding for all establishments on the Register, while at the same time determining the proportion of dead units. This approach provides on-going quality indicators and regular feedback on the impact of changes made to improve these indicators.

Quality Policy

Users of statistical business registers want those registers to be "of good quality". It is therefore important to establish what level of quality is required, and to have a policy to monitor, and where necessary, to improve the quality of the register. Therefore the quality of statistical business registers can be determined by the extent to which they meet user needs.

Priority of Users

Each user is likely to have different needs and priorities. It is critical to identify the users and to assess their relative importance. Usually official users, such as the national statistical institute and other government departments, are considered to be relatively important users, whilst occasional users of register data in the private sector may be seen as of lower importance.

Importance of User Needs

The needs of users may be well known and documented. This is likely to be the case for more important and regular users, whereas little may be known about the needs of occasional or potential users. As such, these needs can be prioritised depending on the number and importance of the users that express them. This will then allow the development of a framework of criteria for assessing the quality of statistical business registers.

Quality Criteria

a) Relevance

Statistical business registers should be relevant to the needs of their users. They should contain relevant units and variables, and should allow the derivation of relevant populations and samples for statistical surveys.

b) Accuracy

Accuracy, in terms of correctly reflecting reality, has previously been considered to be of great importance for the quality of statistical business registers. Some users however consider consistency and comparability over time to be of at least equal importance. Accuracy can therefore be assessed through register quality surveys and comparing businesses actually present in certain geographical areas with those held on the register. Similar checks by economic activity are also possible, and may be undertaken jointly with relevant trade associations.

c) Timeliness and Punctuality

The speed at which statistical business registers are updated to reflect real world events is important quality issue. As such, as mentioned before, it could be useful to hold two versions of certain variables, one that reflects the latest available information, and one that is frozen for a certain period of time, e.g. one year. Users can then choose the version best suited to their purposes.

d) Clarity and Accessibility

Accessibility reflects the ease with which users and potential users can access the information held on the register. Access can range from being able to view the data for individual records directly from the database holding the register, to being able to access outputs such as sample details or summary analyses. Direct access to information on individual records is often restricted by legal or policy considerations, so it may be the case that it is not possible to meet user needs in this respect. Indirect access to non-disclosive data is likely to cause fewer problems, so the ease of access to this type of data can be considered to be a component of quality.

e) Comparability

Comparability refers to the degree with which aspects of the register comply with international standards. This sort of comparability is important as statistical business registers are vital for many areas of business statistics. Comparable registers make the task of harmonising the statistics derived from them considerably easier.

f) Coherence

Coherence with respect to statistical business registers can be considered both in terms of internal coherence and coherence with other registers. Internal coherence refers to the consistent treatment of data within the register, e.g. the consistent application of profiling or updating rules. Coherence with other registers is best achieved through the use and storage of reference numbers. This allows the matching of data and units between these registers, e.g. storing the VAT reference number in the statistical business register can allow data from the VAT register to be linked relatively easily. The use of a common reference number across all official business registers (administrative and statistical) is one way to achieve greater coherence, though this may also prove restrictive, as the definitions of units may vary between registers according to the purposes those registers are used for.

g) Completeness

A statistical business register can be said to be complete if it includes all units in the target population, and all required variables. In reality, complete coverage is impossible to achieve, at least partly due to the issue of lags referred to above. Completeness should, however, be an aim, and measures of completeness should be compiled, which provide useful quality indicators.

Quality Measurement

Some ideas regarding quality measurement have already been considered under the quality criteria above. Quality measurement can be seen as a one-off exercise, but it is preferable to see it as an ongoing process, monitoring changes to a set of quality indicators over a period of time.

1. Control Surveys

The most traditional method of measuring the quality of a register is to conduct control surveys specially designed to measure register accuracy. This allows the measurement of errors in classification by activity or size and an estimation of the proportion of falsely active units. Surveys of enterprises using a random sample drawn from the register for other statistical purposes may often be substituted for quality control surveys. It is important, however, to deal fully with the question of nonresponse in order to find out whether units that do not respond have ceased trading or whether they are omitting or refusing to reply to the survey.

2. User Needs Surveys

This involves carrying out a survey of user needs to determine the aspects of quality that should be measured. Such a survey is not necessarily an easy task, identifying users can sometimes be problematic, and including potential users is even more difficult. It is therefore recommended to keep a record of users of the register, including the uses or outputs they are interested in, as well as a record of queries from potential users. This can then form a sampling frame for surveys of users, and even allows an element of stratification by type of user. Potential users should be asked why they did not use the register following their query.

3. Coverage Checks

Users of statistical business registers will require a certain level of coverage. Completeness refers to coverage of economic activity or coverage of units. To measure coverage, offices can undertake comparison with external records, use control survey, or an indirect check via employment.

4. Process quality audits

Quality audits are a useful tool to monitor the quality of clerical processing and automatic updates. They can be achieved through regular analyses of key variables, clerical checks of a representative sample of update actions, or preferably a combination of the two approaches. The analytical approach to quality audits should focus on regular monitoring of the effects of changes in the register. This can take the form of comparing counts of units tabulated by key variables before and after an update, to assess the impact of the update on different categories of units, and ensure that all changes can be adequately explained.

Sample checks of clerical updates are a useful way to monitor the quality of the clerical input to a register. These checks should be regular, as random as possible in nature, and should also cover a representative selection of updates.

5. Benchmarking

It can be useful to compare the quality of business registers in different countries. This gives an appreciation of relative quality and usually leads to quality improvements through the exchange of ideas and methods.

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