Policy on standards (Revised July 14, 2004)

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Introduction

Statistics Canada aims to ensure that the information it produces provides a consistent and coherent picture of the Canadian economy, society and environment, and that its various datasets can be analyzed together and in combination with information from other sources.

To this end, the Agency pursues three strategic goals:

- 1. The use of conceptual frameworks, such as the System of National Accounts, that provide a basis for consolidating statistical information about certain sectors or dimensions of the Canadian scene;
- 2. The use of standard names and definitions for populations, statistical units, concepts, variables and classifications in statistical programs;
- 3. The use of consistent collection and processing methods for the production of statistical data across surveys.

This Policy deals with the second of these strategic goals. It provides a framework for reviewing, documenting, authorizing, and monitoring the use of standard names and definitions for populations, statistical units, concepts, variables and classifications used in Statistics Canada's programs. Standards for specific subject-matter areas will be issued from time to time under this Policy as required.

Policy

Statistics Canada aims to use consistent names and definitions for populations, statistical units, concepts, variables, and classifications used in its statistical programs. To this end:

- 1. Statistical products will be accompanied by, or make explicit reference to, readily accessible documentation on the definitions of populations, statistical units, concepts, variables and classifications used.
- 2. Wherever inconsistencies or ambiguities in name or definition are recognized between related statistical units, concepts, variables or classifications, within or across programs, the Agency will work towards the development of a standard for

the statistical units, concepts, variables and classifications that harmonize such differences.

- 3. Standards and guidelines covering particular subject-matter areas will be issued from time to time and their use will be governed by the provisions of this Policy.
- 4. Where departmental standards have been issued, program areas must follow them unless a specific exemption has been obtained under the provisions of this Policy.
- 5. Programs should, to the extent possible, collect and retain information at the fundamental or most detailed level of each standard classification in order to provide maximum flexibility in aggregation and facilitate retrospective reclassification as needs change.
- 6. When a program uses a population, statistical unit, concept, variable or classification not covered by a departmental standard, or uses a variation of a standard approved as an exemption, it shall use a unique name for the entity to distinguish it from any previously defined standard.
- 7. Clients of Statistics Canada's consultative services should be made aware of and encouraged to conform to the standards and guidelines issued under this Policy.
- 8. The Agency will build up a database of names and definitions used in its programs and make this database accessible to users and other players in the statistical system.

Scope

This policy applies to disseminated data however collected, derived or assembled, and irrespective of the medium of dissemination or the source of funding. This policy may also be applied to data at the stage of collection and processing at Statistics Canada.

Guidelines for the development and documentation of standards

A. Introduction

These guidelines describe the requirements and give guidance for the development and documentation of standard names and definitions of populations, statistical units, concepts, variables and classifications. Section B defines the terminology; guidelines follow in Section C.

B. Terminology

For purposes of these guidelines the following terms are used.

Population: The set of statistical units to which a dataset refers.

Concept: A general or abstract idea that expresses the social and/or economic phenomenon to be measured.

Statistical unit: The unit of observation or measurement for which data are collected or derived. The following list provides examples of standard statistical units that have been defined.

Person Census family Economic family Household Dwelling Location Establishment Company Enterprise

Variable: A variable consists of two components, a statistical unit and a property. A property is a characteristic or attribute of the statistical unit.

Classification: A classification is a systematic grouping of the values that a variable can take comprising mutually exclusive classes, covering the full set of values, and often providing a hierarchical structure for aggregating data. More than one classification can be used to represent data for a given variable.

Example:

The following is an example of the variable: Age of Person.

Concept: Based on the subjects used by Statistics Canada to organize its statistical products and metadata, the variable Age of Person is listed under the concept of Population and Demography.

Statistical unit and property: The statistical unit and property that define this variable are Person and Age respectively. Person refers to an individual – this is the unit of analysis for most social statistics programmes. Age refers to the age of a person (or subject) of interest at last birthday (or relative to a specified, well-defined reference date).

Classification: Different classifications can be used to represent data for this variable. These classifications include: <u>Age Categories, Five-year Age Groups</u>; and <u>Age</u> <u>Categories, Life Cycle Groupings</u>.

The standard names and definitions of populations, statistical units, concepts, variables and classifications will be stored in the Integrated Metadatabase (IMDB). In the case of variables, the name stored in the IMDB will include a representation type, in addition to the statistical unit and property. In the age example given here, the full name of the variable in the IMDB would be Category of Age of Person. The representation type Category indicates that it is a categorical variable, which will be represented by a classification of age groups.

C. Guidelines

Each standard should have the following characteristics:

- describe the concept that the standard addresses when appropriate;
- identify the statistical unit(s) to which it applies;
- provide a name and definition of each variable included in the standard;
- provide the classification(s) to be used in the compilation and dissemination of data on each variable.

The most detailed level of a classification will always be included in a standard. Recommended and optional aggregation structures may also be present.

Concepts shall be described in relation to a framework when possible.

Every variable shall be given a name, in both official languages, which, once given, cannot be used to denote any other variable. Variables shall be defined with explanatory notes in terms of a property and the statistical unit to which it applies. Additionally, in the IMDB, the representation type will be defined.

Every classification shall be given a name, in both official languages, which, once given, cannot be used to denote any other classification. Classifications shall be defined, with exclusions listed and explanatory notes given, where required.

Every class shall be given a name, in both official languages, which, once given, cannot be used to denote any other grouping for the referenced variable within a given "family" of classifications (i.e. a given classification and all its variants). Classes shall be defined, with exclusions listed and explanatory notes given, where required.

The most frequently used populations shall be given a name, in both official languages, which, once given, cannot be used to denote any other population. These populations shall be defined with explanatory notes.

Every statistical unit shall be given a name, in both official languages, which, once given, cannot be used to denote any other statistical unit. Statistical units shall be defined with explanatory notes.

A standard shall be accompanied by a statement of conformity to relevant internationally recognized standards, or a description of the deviations from such a standard and, where possible, a concordance with the referenced standard.

Where a standard replaces an earlier one, a concordance between the old and the new shall be given.

A standard shall include a statement regarding the degree to which its application is compulsory. The different degrees are, in descending order of compulsion:

- **departmental standard:** a standard that has been approved by the Policy Committee, and the application of which is therefore compulsory, unless an exemption has been explicitly obtained under the terms of this policy;
- **recommended standard:** a standard that has been recognized by the Methods and Standards Committee as a recommended standard, with or without a trial period of a specified duration, after which it may be declared as a departmental standard;
- **program-specific standard:** a standard adopted by a statistical program, and which is registered with Standards Division, to ensure consistency in a series over time periods.