The Implementation of the revised Brazilian Classification of Economic Activities

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The Brazilian Industry Classification – Classificação Nacional de Atividades Econômicas – CNAE is used throughout the Brazilian Statistical System for the variety of statistics and surveys requiring industrial activity classification (e.g., enterprise surveys, household surveys, employment surveys and the System of National Accounts) as well as in administrative registers and files.

Brazilian experience in the implementation of a standard industrial classification started with the first version of CNAE derived from ISIC 3 and published in 1994. The previous experience in Brazil was the use of non-standardized economic classifications. The progressive implementation of a national standardized classification in the Statistical System and in the Public Administration agencies, which has started in 1995, represented quite an improvement in terms of the possibilities of articulations among different national sources and of comparisons of Brazilian statistics at the international level.

A special feature of the Brazilian experience is the large use of CNAE by Public Administration in the organization of its records. For this purpose a fifth level in CNAE has been detailed for the specific use of tax administration and other regulation agencies in all levels of the Brazilian Public Administration organization (federal, state and local).

Following 2007 revision of ISIC IBGE as the custodian of CNAE was responsible to prepare and coordinate a revision program for the update of the national classification. The new version CNAE 2.0, discussed in the last three years, has its implementation starting from January 2007.

The main challenge in this process is to conduct a co-ordinated transition to the revised activity classification in the Statistical System as well as in the Public Administration databases.

This paper will present information on the revision process of CNAE 2.0 and on the steps of its implementation.
**CNAE 2.0 – the revision process**

The 2007 revision of CNAE aimed to provide the country with an updated classification of economic activities reflecting the changes in the national economic structure and answering the needs of users, besides keeping the pattern of relationship with the international standard classification.

Following ISIC 4 revision schedule, the discussions on the first revision of our national classification have started early in 2004. Based on the complete draft of ISIC 4 structure available in May 2004, discussions were first held at IBGE, involving the classification area and the Departments of economic surveys and National Accounts departments.

A first draft of the new version of CNAE structure was defined in October 2004 and was presented for discussion with groups of users of the classification, including enterprise associations, Public Administration agencies and other economic statistics producers. 78 external institutions were involved in the discussions of CNAE’s revision participating in working groups organized according to segments of economic activities. Besides resulting in the improvement of the classification these discussions contributed to guarantee the commitment of a synchronized implementation.

The Classification website in IBGE’s portal has been used to disseminate all documents produced during the revision process in view of informing and enlarging the participation of users in this work. The final draft of CNAE 2.0 and the necessary tools for its implementation were placed in the website in December 2006.

CNAE 2.0 is a classification hierarchically organized in five levels: 21 sections, 87 divisions, 285 groups, 672 classes and 1.301 subclasses.

The structure of CNAE 2.0 is the same of ISIC 4 at section and division levels (two digits). At three and four digit levels, CNAE 2.0 is more detailed, identifying 285 groups and 672 classes.

The fifth level in CNAE’s structure was defined according to the needs of Public Administration. This supplementary level named CNAE-subclasses, identified 1.301 subclasses in the current version of CNAE.
The definition of these subclasses was a joint work of IBGE and a Technical Subgroup whose members comes from Public Administration agencies, particularly from tax agencies.

As a result of this joint work Public Administration at federal and state level and a considerable number of local tax administration and others regulation agencies have already implemented CNAE in their registers or are in the process of adopting it, enlarging the movement towards the standardization of an industrial classification in the country.

The increase of the use of CNAE in administrative databases has resulted in a better articulation among them and with the official statistics. It has certainly contributed for the improvement of the quality of administrative data files and, consequently, a better support to decisions and actions of the Public Administration agencies, on the other hand, the use of a national standard economic activity classification has increased the possibilities of the use of administrative data for statistical purpose.

**Legal approval**

CNAE 2.0 was legally approved by the National Classification Commission in September 2006. The Commission defined the starting of CNAE 2.0 implementation at January 1st 2007.

**Instruments for supporting CNAE 2.0 implementation**

**Correspondence tables**

Detailed correspondence tables were developed linking the new version of CNAE to the previous version and to ISIC 4.

At four digit level, class level, the most detailed level used in IBGE’s Business Register, 65% of the codes of previous CNAE structure can automatically be converted to the new version.

At five digit level, subclass level, used in the administrative files, 80% of the codes can automatically be converted to the new version.

For the cases of splitted codes it was also defined the primary activity that is the activity that carries the major part of the content of the original code.
**Coding search software**
IBGE developed a software to help the users to search CNAE code based on activity descriptions. This software is available online and for download in IBGE classification website [http://www.cnae.ibge.gov.br/](http://www.cnae.ibge.gov.br/)

**Index of activities**
IBGE has developed and maintain, since the past version of CNAE, an updated database list of possible descriptions for the activities included in each CNAE code. Nowadays the index contains around 15 thousand descriptions.

The index updating is held twice a year. New activities and new descriptions captured from the economic surveys of the IBGE and from the classification hotline service are included in the index database.

The re-coding for CNAE 2.0 of the activities description in the activity index was done in the 2nd semester 2006.

**CNAE hotline service**
Considering that in Brazil businesses shall inform their CNAE code in the legal forms they have to report to public administration agencies, IBGE operates a hotline service through the electronic address cnae@ibge.gov.br to help in the identification of the CNAE code of principal activity of the business. After user’s own description of the activities of their business, CNAE hotline service defines the CNAE code. Otherwise, many of these descriptions are used to update the index database.

**Implementation Challenges**
The main challenge in the implementation of CNAE 2.0 is to coordinate a synchronized transition to the new version of CNAE in Statistical System and Public Administration databases which uses economic activity as reference.

Since 2006 the steps of the implementation of CNAE 2.0 has been discussed jointly by IBGE and by Public Administration agencies.

CNAE’s users were informed about the transition to the new version along this process. From January 1st 2007 all business have to inform their CNAE 2.0 codes (self-coding) in their reports to public administration agencies.
Main steps on the transition to CNAE 2.0 are reported below:

**Public Administration databases**
The implementation of the new version of CNAE 2.0 in the Public Administration databases, discussed along 2006, has started on January 1\textsuperscript{st}, 2007. From this date on all forms fulfilled by all kind of business should inform the activity code in CNAE 2.0 (self-coding).

Of special importance for the Statistical System is the database of the annual reporting of employment by the enterprises used as the main source for the updating of IBGE Business Register, specifically for the identification of new enterprises. Since 2007 the activity code informed by the enterprises for this database is referred to CNAE 2.0.

**IBGE Business Register**
The Business Register is the basis for the development of sample designs and for sampling procedures. It covers around 5 millions statistical units, the universe of economic units operating nowadays in Brazil (including autarchies, public administration agencies and non-profit institutions).

By the beginning of 2008 the Business Register of IBGE shall be totally converted to CNAE 2.0.

Around 53\% of that universe can be re-coded automatically. Besides, for the enterprises covered by production surveys – mining, manufacturing, construction and selected services – re-coding will be done on the base of a very detailed product list. For all other statistical units information on CNAE 2.0 code will come from the database of employment (self-coded) mentioned before.

For 2007 and 2008 units in the IBGE Business Register will be double coded, in CNAE1.0 and in CNAE 2.0.

**Statistical surveys**
The calendar on the production of statistics in CNAE 2.0 is still under discussion. Up to now IBGE works with the following schedule:
- the annual economic surveys collected in 2008 (reference year 2007) shall produce results in CNAE 1.0 and CNAE 2.0. For two years, reference years 2007 and 2008, the annual economic surveys shall produce results in both versions of CNAE;
- the studies are being developed to define the necessary adaptations on the annual economic surveys considering new concepts in CNAE 2.0, specially related to: coverage of tabulation categories; treatment of vertical integration and outsourcing;
- the studies for the sampling redesign are already been carried;
- for monthly economic indicators (mining, manufacturing and retailing) data on CNAE 2.0 shall be available in 2010;
- the implementation of CNAE 2.0 in the 2010 Population Census;
- the implementation of CNAE 2.0 in annual and monthly household surveys are in discussion;
- the implementation of CNAE 2.0 in National Accounts, base year 2010, shall be published in 2013.

The management of all the instruments and mechanisms for supporting CNAE 2.0 implementation is under the responsibility of IBGE.