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TRAINING, CAPACITY BUILDING AND DEVELOPMENT AT IBGE — THE ROLE OF THE NATIONAL SCHOOL OF STATISTICAL SCIENCES

The National School of Statistical Sciences — ENCE is a federal graduation institute, integrating IBGE's organizational structure. The School promotes research activities, and is accountable for the capacity building and training activities of IBGE's servants, operating at three levels of education, while offering updating and non-degree courses. Among its educational programs, the following stand out:

1) Undergraduate Courses

Bachelor's Degree in Statistics (since 1953)

2) Graduate Courses (Lato Sensu)

Environmental Analysis and Territory Management (since 1997)

3) Master's Degree Courses (Stricto Sensu)

Population Studies and Social Research

4) Skills Building and training for IBGE's Personnel

Training Annual Plan (PAT)

The unique link between ENCE and IBGE provides access to data and information surveyed by IBGE, in addition to the frequent exchange among the professionals involved on researching these data and information, who work on ENCE while acting as faculty members and instructors, targeting a solid theoretical training, anchored by good professional practice.

The Undergraduate course in statistics at ENCE has the purpose of forming professionals with solid and up-to-date knowledge, who are able to deal with problems common to the statistician's working area: planning, data collection and organizing, as well as model fitting. Besides, in all the professional's activities, the search for new knowledge, an ethical behavior in facing facts and the ability to solve new problems must be present. The professional graduated by ENCE is able to work in partnership with other professionals of the most varied areas, towards the resolution of problems involving statistical methodology.

The undergraduate course in statistics at ENCE was created in March 1953, targeting the formation of a statistical staff guided to the production of National Statistics, being the first statistics college in Brazil and Latin America, and its curricular framework is still a pattern for Statistics Courses in Brazilian and Latin American universities.

It is worth recalling that ENCE has a pioneer position on statistical education in Brazil. in 1961, its curricular framework greatly influenced the setting of a minimum curriculum, working towards the arrangement of undergraduate courses in several universities in Brazil.

Since its creation until December 2007, ENCE graduated 1,617 Bachelors in Statistics, and today, has 311 students enrolled, thus being accountable for the graduation of an expressive number of professionals in this specific labor market.

Sixty places are offered at each term, in regular periods that vary among morning and evening turns.

Considering that ENCE integrates the Brazilian Institute of Geography and Statistics — IBGE, inserted on the context of production and analysis of demographic, statistical and geospatial information on the areas of Social and Economic Sciences, the course framework emphasizes, in addition to the basic disciplines of statistical training, areas such as: Economic Analysis, Social Analysis, Planning, Research and Statistical Modeling. Therefore, the professional trained by ENCE is able to act primarily in Public Institutions of Planning and Research, Marketing Research Companies, Statistical Advisory, Banks and Insurance Companies, as well as in Industries.

The graduation program has the purpose of contributing to the production, analysis, interpretation, safeguarding and dissemination of statistics and information that increase the knowledge of demographic, economic, social, territorial and environmental reality of Brazil, forming professionals and training people to act in these activities, either for IBGE or for the labor market in general.

In 2007, the master's degree course had a total of 130 essays, presented since its creation in 1998.

ENCE has four researching guidelines, as described next:

<u>Population Dynamics, Living conditions and Public Policies</u>: focus the analysis of population changes, mainly those occurred in Brazil, their links with social dynamics and their interrelation with public policies.

Statistical Methodology for the Census, Sampling Researches and Administrative Records: focus on the development, implementation and critical assessment of statistical methods for planning and analysis of the Census, sample surveys and administrative records, economic, social, population, territorial and environmental studies, including sampling and estimation, methods of measurement and observation, modeling, analysis and interpretation of data with complex structures.

Statistical and Geographic Information Systems: focus on the analysis of concepts, classifications, methods and techniques used in the construction of statistical and geographical information, especially in Brazil, and on development and innovative application of methods for use and interpretation of such information for the construction of indexes and for support to the formulation, monitoring and evaluation of public policies.

<u>Society, Economy and Territory in Contemporary Brazil</u>: focus on the understanding of continuities, changes and prospects of social, economic, territorial and environmental reality, mainly in Brazil, referring to the integration of the country in the process of globalization.

ENCE's master's degree course also has an important role on skills building and development at IBGE, since a good part of the graduate students is made up of servants from the Institute.

ENCE has also implemented several activities in partnership with national and international organisms, of which we enhance:

The construction of Human Rights indexes for the Brazilian Government. The proposal has its foundations on the right for food, education, health, housing and rural land, environment and on the right for living, in all its dimensions.

Together with the United Nations Population Fund and the United Nations Development Fund for Women, there is a research on the feasibility of including indexes related to gender and race in the Multi-Year Plan MYP: 2008-2011 aimed at monitoring implemented programs and public policies having as a goal the reduction of social inequities, especially those related to gender and race. Additionally, by preparing these studies, some strategies for policy action in the short-term, medium-term and long-term will be searched as measures to be proposed by the Legislative and Executive Federal Powers for the inclusion of indicators in the Multi-Year Plan 2008-2011.

Participation in studies developed by other planning institutes of the Brazilian Government, especially in Welfare areas.

Research projects have been developed for many years, in partnership with the University of Southampton in England, with which ENCE has a long tradition in exchanging experiences.

ENCE takes part in international associations and committees, being, since 2005, a member of CICRED - Committee for International Cooperation in National Research in Demography and, since 2004, being the headquarters of ALAP — Latin American Association of Population.

The work of ENCE with those institutions and associations facilitates and encourages the development of partnership projects, in which are involved servants from all locations of IBGE, greatly contributing to its development by fostering the exchange of knowledge and experiences.

The School has a leading role in training and capacity building for IBGE's servants, performing the actions of Personnel Development Policy on IBGE, issued by the Training Coordination Committee, a strategic and formulating instance, linked to the high administration of the Institute.

The targets of this policy are aligned to the purposes of the Personnel Development Policy effective for the entire Brazilian public service, as follows:

- a) improved efficiency and quality for the public services provided to the citizens;
- b) permanent development for the public servant;

- c) the fitting of competencies required from the servants to meet the objectives of the organizations, with the Multi-Year Plan as reference;
- d) the dissemination and management of training activities, and
- e) rationalization and effectiveness of expenditures on training.

The Annual Training Program – PAT, guided to IBGE's servants has as its objectives the valorization of people and the elevation of its productive potential, expanding the opportunities for training and reducing costs, providing transparency for the investments on training. It is also concerned about improving the internal communication by standardizing the language and knowledge acquired.

Strategic, comprehensive and flexible, the Annual Training Program plays an important role in the development process for IBGE's human resources, reflecting the evolution of processes and labor guidelines, while expressing the goals that the institution seeks to achieve each year.

Until recently, the Program linked two lines of training, each one having its own characteristics: the Course of Skills Development in Research — CDHP with two editions each year, and the summary courses of short duration.

CDHP has the purpose of presenting its members to the main concepts and stages of development and performance of a household sampling survey. It is held in six weeks full-time, summing 240 hours, including data collecting activities — seven to ten days of fieldwork — usually in Rio de Janeiro. Adapted from Statistics Canada's Survey Skills Development Course (SSDC), CDHP has trained more than 20 groups, including, besides IBGE's servants, employees from the National Statistics Institutes in African countries, whose official language is Portuguese, integrating these institutes and their employees. Its curricular framework includes notions of Probability Sampling and Survey Methodology, Tabular Plan, Preparation and Analysis of the Statistical Consistency of Questionnaires, Data Collection and Analysis Systems, Survey Budget and Management and Operation of Fieldwork, offering a broad view of the planning and operation process of a household sampling survey.

The short-term trainings of the Annual Training Program, most of them with 30 hours of work, are offered continuously in the areas of knowledge in which they are classified: Technical (addressing areas of Statistics, Economics and Geosciences), Information technology, administrative and managerial courses.

Given the continental dimensions of the country, and the high costs of training servants presentially throughout the national territory, IBGE implements, gradually, skills development courses in the format of Distance Training. The main objective is the increased use of this methodology for the training program.

Under the training project for the Census, prepared in 2006 for the Agricultural Census and the 2007 Population Counting, this teaching mode was used successfully, even exceeding the

number of servants presentially trained, increasing expectations for the use of distance learning on the training of teams specialized in the implementation of survey questionnaires performed by IBGE, as well as in other training activities.

The quality of the work developed by ENCE and its peculiar connection with IBGE, throughout these 53 years since its foundation, play a fundamental role in IBGE's accreditation as an excellence institution nationally and internationally. It is this quality that makes ENCE increasingly demanded in terms of providing highly qualified human resources to government and society.

