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REGIONAL POPULATION INFORMATION ACTIVITIES

IN

LATIN AMERICA AND THE CARIBBEAN:

THE ROLE OF CELADE

POPULATION INFORMATION ACTIVITIES IN LATIN AMERICA AND THE CARIBBEAN
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1. OBJECTIVES AND ORIENTATIONS

Activities as diverse as the modelling of the future transportation needs of a city, establishment of an education programme in a rural municipio, the formulation of a national development plan, the operation of a maternal and child health clinic or the design of a marketing survey, all require the manipulation and use of population as well as other information. To this end, the Latin American Demographic Centre (CELADE), as the institution entrusted with the regional population programme of the Economic Commission for Latin America and the Caribbean (ECLAC), provides national institutions with the technical cooperation, training, services and technology required to utilize population information in planning, action programmes, teaching and research.

In the field of population information, CELADE is concerned primarily with information for professionals and decision makers and focuses on the storage, retrieval and processing of two general categories of information: (a) numerical data and (b) written materials such as books, articles, reports and other documentation [1]. Activities involving the second category are encompassed within the Latin American Population Documentation System, CELADE/DOCPAL.

While CELADE carries out a variety of activities in both areas of information, the present report focuses primarily on the work and implications associated with two key objectives which are directed toward fostering the integration of population factors into development planning and projects in the region. These objectives are to:

a) Make population information available to an extended audience in diverse fields, at national and local levels, working in govern mental, academic and private-sector institutions, who use appropriate population information, even though they may not be involved in population activities, per se (such as in housing or industrial planning);

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[1] Presently, CELADE's information activities are not explicitly oriented to the general public. Note CELADE's publication programme is not treated here.

b) Improve the ease with which population information can be utilized
through appropriate information technology that decreases the
dependence of planners, demographers and others on documentalists,
programmers and large computers.

2. POPULATION DATA PROCESSING AND STORAGE

Although the processing of entire censuses and major surveys of the
larger countries still requires trained programmers and mainframe computers,
CELADE has shifted 2/ much of its attention to the development and use of
microcomputer-based systems that are designed to give the user direct control
over data retrieval and utilization and which are especially relevant to
smaller and poorer countries.

2.1. Microcomputer-based software development and adaptation.

CELADE has identified five areas for user-friendly microcomputer
software development and/or adaptation:

a) Geographically disaggregated data for planning (the REDATAM system);
b) Economic-demographic models;
c) Demographic analysis and projections;
d) Processing of census (particularly the 1990 round) and survey data;
e) Bibliographic storage and retrieval (described in Section 3 below).

The target microcomputers are IBM PC family or compatible machines, by far the
most common in the region. Unless otherwise mentioned, the work is supported
jointly by Canadian International Development Agency (CIDA) and UNFPA grants.

The REDATAM system for small area census data

The interactive user-friendly REDATAM System for "REtrieval of census
DATa for small Areas by Microcomputer" has been developed, with funds from the
International Development Research Centre (IDRC) and support from UNFPA, to
assist physical and social service planning agencies, investment companies,
and others concerned with the spatial location of population (Conning, 1985).

Microdata of the entire population and housing censuses of a country,
large region or city are stored hierarchically in a database on a hard disk or
on low-cost, write-once optical laser disks. CELADE assists countries to
create their census databases, but the databases are normally available only

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2/ Between around 1975 and 1981 CELADE developed such mainframe systems
such as CONCOR for data editing and an interface between SPSS and the Statis-
tics Canada statistical database management system, RAPID.

in the countries 3/.

Users can quickly select any areas of interest down to parts of city blocks, or any area built up from smaller units, and rapidly produce tabulations from any original, recoded or derived variables, including those hierarchically calculated. ' Selected areas can be downloaded with the dictionary information required for SPSS, SL-MICRO or REDATAM. A possible interface with a geographic information system to work with maps is being considered.

REDATAM is now in use in the national statistical offices of St.Lucia (around 125,000 census population), Chile (around 11 million census population and 4 million households compressed onto three laser disks), Costa Rica (around 2,400,000 census population and household survey), Uruguay (a census sample), Guyana (demographic survey) and Dominica (around 80.000 census population). Demonstration copies of English and Spanish versions with their User Manuals (CELADE, 1987) and sample database are available.

Economic-demographic modelling software

CELADE is endeavouring to make economic-demographic models more widely available in the Latin American and Caribbean region by adapting them from their original mainframe environments to microcomputers and making them known through technical seminars and in-country workshops. A microcomputer version of the Long Range Planning Model (LRPM2), originally designed by the US Bureau of the Census, has been adapted for the microcomputer to improve its user-friendliness. The package has eight interconnected modules for population and economic projections and a module projecting the demand for family-planning services.

Demographic analysis and projection software

An interactive "Microcomputer Demographic Analysis Package", PANDEM, and its manual (CELADE 1985) were written for estimating fertility and mortality by indirect methods. The system is available in Spanish and English.

2.2. Census and survey processing

Disconnecting the processing of survey data from mainframe computers and programmers is an extremely important means of increasing the ease of utilizing population data. For example, QUANTUM, developed by CELADE for

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3/ However, the CELADE Data Bank continues to acquire and make available microdata of samples of the 1960, 1970 and 1980 censuses (CELADE, 1986c).

improving primary control over the input of data collected in a survey or census, and CHECKEDIT developed for verifying and correcting the data, both of which use DBASE3, have been tested under difficult conditions in a Demographic Survey of 40,000 cases in Guyana. REDATAM and SPSS-PC were used for obtaining results.

Given the efforts being devoted to increasing the long-term utilization of census data through REDATAM and the work done by other CELADE Divisions, particular attention is being placed on the 1990 round of censuses. Taking into account the experience gained in assisting the countries of the region with mainframe census data editing and elaboration (78 missions were conducted to 18 countries in preparing for or processing the 1980 round of censuses) and the accumulating knowledge of microcomputer hardware and software, CELADE will examine a wide variety of data processing technology over the next two years with a view to advising Governments on what is appropriate for their 1990 censuses (see Silva, 1986 and CELADE, 1986b).

3. POPULATION DOCUMENTATION (CELADE/DOCPAL)

The Latin American Population Documentation System (CELADE/DOCPAL) in its twelfth year is in very different conditions from when it began. There is now increasing recognition by national institutions of the need to use the accumulating population literature, particularly that in the DOCPAL regional database, to improve the utilization of materials in their own libraries through the use of the standardized DOCPAL methodology and to apply new technology involving microcomputers. On the other hand, DOCPAL, which began work in 1976 with 11 full-time staff members, now maintains its database of 28,000 documents, increasing by 1500 to 2000 documents per year, furnishes its regional services and selected technical assistance and training to the countries, while also providing library services to CELADE staff and students, with a full-time staff of 3 persons.

As a description of the database, services and other regular DOCPAL activities is given in the POPIN Bulletin (United Nations, 1982 and 1984), this report will concentrate on the approaches underway for taking advantage of the changing situation in the region to increase the audience and facilitate the

utilization of population documentation in national institutions.

3.1. Strategies to meet information needs during the next decade

Since the inception of DOCPAL there has been an important increase in the number of national institutions in Latin America carrying out research and action in the field of population, usually working in other fields of well. Furthermore, while 12 years ago CELADE was almost alone in teaching demography at a university level, now there are various universities offering advanced degrees in population (see Rodríguez, 1985, for further information on institutional changes in the population field in Latin America).

Of particular importance to the work of DOCPAL, and CELADE in general, is the creation in 1986 of PROLAP (Latin American Population Activities Programme), a permanent association of around 50 research, action and academic institutions including CELADE and various of the 13 DOCPAL participating centres which use DOCPAL procedures and the POPIN Thesaurus.

3.2 Latin American and the Caribbean Population Information Network

A Seminar on Population Information for Development, which took place in Santiago, Chile, 28 to 31 of July 1987, was the first regional meeting convened by CELADE/DOCPAL and was justified by the creation of PROLAP and the expanded utilization of population documentation, coupled with the increasing availability of low- cost technology for computerizing information storage and retrieval in national institutions. The joint CELADE-PROLAP meeting was attend by 58 representatives, of 17 countries of Latin America and the Caribbean, working in 42 governmental, inter-governmental and private institutions, active in the field of population and economic and social development. It was funding by IDRC and the Rockefeller Foundation with the support of UNFPA and CIDA of Canada.

The major recommendation of the CELADE-PROLAP seminar was the organization of a regional decentralized network together with specific activities on data processing, training and dissemination of both bibliographical and numerical population information.

The network will act as an umbrella under which CELADE and PROLAP will work together over the next three to five years on the following activities:

a) To promote and coordinate the development of national networks.

b) To give technical assistance to key centers, which in turn will be in charge of repeating the assistance to other centers in the same country.

c) To enlarge the thematic content of the PROLAP Bulletin so that it becames the publication for reporting activities accomplished by the network.

d) To use the CELADE/DOCPAL database to input bibliographical information compiled by the national networks and to disseminate the information at the regional and international levels.

After fixing the general strategies of the network, the Seminar elaborated specific projects and activities to be accomplished by its members:

a) <u>Standardization.</u> To facilitate the exchange of information among members it was recommended the use of the MICROISIS, the methodology of the ECLAC Bibliographical System (employed by DOCPAL) and the POPIN Multilingual Thesaurus.

b) <u>Training.</u> These activities should cover two aspects for the better dissemination of information:

Training of <u>documentalists and other information specialists</u> in national and regional courses on the application and use of computarized packages to process numerical and bibliographical data, preparation of teaching materials, including tutorials to apply microcomputer programs, and in-service training in well-endowed centers.

Training of <u>users</u> incorporating "How to use information" into regular programs teaching population; editing of manuals and other instructional materials to allow users to take advantage of the existence of bibliographical databases, numerical analysis and retrieval tools.

c) <u>Communications.</u> The use of telecommunications should be explored to facilitate the exchange of information among the participating centers.

d) <u>Gathering of population information</u>. The national networks with the corresponding national focal points should be strenghtened in the collection of "gray or non-published information", sending copies to the regional focal point: CELADE/DOCPAL.

e) <u>Dissemination of information</u>. Activities on two major points were suggested:

Bibliographical information. Enlargement of the use of the regional CELADE/DOCPAL database, exploring the possible use of

microfiches, diskettes, CD-ROM and other new technologies.

Numerical information. A pilot project for a better distribution of data using new microcomputer technology; reinforcement of working relations among public and private institutions to produce better use and knowledge of results of census, surveys and other sources of numerical data.

f) Referencial data base containing information on institutions, researcher, teachers and other specialists working on population, was also recommended.

Finally, the Seminar approved two more recommendations on the funding of information units: from 3 to 5% of the general budget of the institutions should be devoted to information activities in each center and funding institutions should include (information) as an important component of new projects submitted to these agencies.

3.2. New services

Since 1987 DOCPAL has included in its in-service training program some working session on the use of the MICROISIS. Such training is normally provided to around 4 to 6 persons per year, although, needless to say, other approaches will have to be found if many of the 50 PROLAP centers are interested.

On an experimental basis, downloading of a portion of the records in the CELADE/DOCPAL database has been started this year. Thus, when an institution computerizes, using the ECLAC methodology and the POPIN Thesaurus, the centre can begin with the population documents selected from the DOCPAL database, increasing its access to the literature and probably saving cataloging and data entry of many of its own documents.

Since the possession of bibliographic information without access to the documents, themselves, is usually insufficient, DOCPAL has always been ready to provide a paper copy of any document requested in its database. To further facilitate this service, particularly with the forthcoming possibility of downloading, DOCPAL in 1985 began to microfiche documents, first for an exchange with the computerized SEADE/DOCPOP system in Sao Paulo, Brazil, and now the process has been established on a continuing basis primarily for documents entered in recent years. The microfiche are made available at the cost of reproduction.

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To further increase the ease of using the DOCPAL database in the countries, DOCPAL has produce the equivalent of a master catalogue on Computer Output Microfiche (COM) of part of its database with the corresponding indices. This catalogue will be distributed free of charge to participating institutions and also will be sold on a subscription bases. The complete catalogue will be ready by March 1988.

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BIBLIOGRAPHY

CELADE, 1987.   Informe Final del Seminario Conjunto del CELADE y el PROLAP,
"Información sobre Población para el Desarrollo", Santiago de Chile, 28 al
31 de julio de 1987. Santiago, CELADE, 1° de septiembre de 1987. 23 págs.
LC/DEM/R.51 (Sem.1/41).

1986a. REDATAM (Version 1.00) User's Manual. CELADE, Santiago.

_____, 1986b. Algunas reflexiones sobre los censos del 90: Posibles áreas de
colaboración (Some thoughts on the 1990 censuses: Possible areas for col-
laboration). Paper presented at the IX Interamerican Statistical Confer-
ence, Rio de Janeiro, 15-18 September 1986. LC/DEM/R.5.

_____, 1986.   CELADE Boletin del Banco de Datos (Bulletin of the CELADE Data
Bank). CELADE, Santiago. No. 11 (April 1986). (Spanish and English text).

_____, 1985. Manual para usuarios del Paquete para Análisis Demográfico por
Microcomputador: PANDEM Versión 1.00. (User Manual for the Microcomputer
Demographic Analysis Package: PANDEM Version 1.00). CELADE, Santiago,
LC/DEM/R.6 (30 May 1986).

Conning, Arthur, 1985. "Geographically disaggregated census data for planning
in developing countries". Proceedings of the International Population Con-
ference of the International Union for the Scientific Study of Population
(IUSSP), Florence, 5-12 June 1985. Vol 3, pp.343-353.

ECLAC, 1984. Sistema de Información Bibliográfica: Uso de Hojas de Trabajo
(HDB y HAC) y Tarjeta de Registro Bibliográfico (TRB): Manual de Proce-
dimiento No.1 (Bibliographic information system: Use of the Worksheets (HDB
and HAC) and the Bibliographic Record Card (TRB): Procedure Manual No.1).
ECLAC, Santiago. E/CEPAL/G.1224.

Rodríguez, Daniel, 1985. Evolución y situación actual de las instituciones que
realizan actividades académicas en población y desarrollo en América Latina
(Evolution and present situation of Latin American institutions involved in
academic activities in population and development). PISPAL. Mexico (June,
1985).

Silva, Ari, 1986.   "El procesamiento de los censos de población de América
Latina en la década de 1990: un vistazo al futuro" (The processing of the
Latin American censuses in the 1990 decade: a look into the future). Notas
de Población. No.41 CELADE, Santiago (in press).

United Nations, 1982. "Population information activities of the United Nations
Secretariat and the regional commissions: ECLAC/CELADE", POPIN Bulletin,
No.1 (January). Pp.20-27.

POPULATION INFORMATION ACTIVITIES IN LATIN AMERICA AND THE CARIBBEAN
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_____, 1984.   Section on CELADE/DOCPAL. Pp.10-12 in the "Report on
developments and activities related to population information during the
decade since the convening of the World Population Conference, Bucharest,
1974", POPIN Bulletin, No.5 (June).LC/DEM/R.7

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