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THE CENSUS SAMPLE OPERATION PROGRAMME
(OMUECE) OF THE LATIN AMERICAN
DEMOGRAPHIC CENTRE (CELADE)

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BIBLIOTECA "GIORGIO MORTARA"
CENTRO LATINO-AMERICANO
DE DEMOGRAFIA

CENTRO LATINOAMERICANO DE DEMOGRAFIA (CELADE)

Sede: José M. Infante 9, Casilla, 91. Teléfono 495071
Santiago (Chile)

Subsede: Ciudad Universitaria Rodrigo Facio. Casilla, 5249
San José (Costa Rica)

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I. Antecedents

The United Nations Seminar on Evaluation and Utilization of Population Censuses Results in Latin America was held in Santiago, Chile in the year 1959. During this Seminar "the usefulness of keeping a sample of the punch cards (of the population censuses) with which additional tabulations could be prepared once the basic programme of tabulations is finished in order to serve needs not foreseen at the initial formulation of such programme, was pointed out".

The Latin American Demographic Centre (CELADE), under whose guidance the Seminar was organized, deemed important the above mentioned recommendation, considering that when carrying it out, it would be possible to obtain tabulations that would allow the comparative analysis of demographic aspects of great interest in Latin America. The idea seemed especially attractive, considering the lack of basic information required to meet in an appropriate manner the growing needs of demographic analysis.

In this connection, CELADE took the initial steps to promote among the institutions responsible for taking the population censuses in the countries of the region, the preparation samples of punch cards with the information gathered from the censuses taken from 1960 on. It was stated that the elaboration of the sample would be of interest to the countries mainly in connection with the following aspects:

- a) to enlarge the tabulation programme prepared by the office responsible for the carrying out the national census plan;
- b) to prepare advanced tabulations which could make possible the publication of certain results, while the basic programme of complete tabulations is carried on.
- c) to prepare tabulations that, due to its nature, do not demand the utilization of the cards corresponding to the total population;
- d) to prepare tabulations which, although not included in the tabulation programme, are requested by certain institutions for the study of specific aspects of their particular interest;

e) to secure the future availability of basic and detailed information on the population census, in such a way that it would demand a smaller filing space than the original schedules or the punch cards for the whole population;

f) to allow certain national institutions interested in scientific research to carry out analytical studies on the basis of census data, facilitating them, through certain financial arrangements, to acquire the sample or a subsample of the punch cards, and

g) to facilitate the carrying out of projects on demographic research, based on census data and containing inter American comparisons by means of the concentration at the Latin American Demographic Centre (CELADE) of samples or subsamples of punch cards corresponding to several Latin American countries.

If on the whole the project was favourably received, some countries pointed out that they would need technical assistance in order to design and select the sample. In these cases, CELADE provided such countries with the services of its sampling specialist, or when it was more convenient, CELADE established the necessary contacts so that the regional adviser on sampling of the Economic Commission for Latin America (ECLA), would render the required assistance.

These arrangements proved to be very satisfactory, since actually all the countries that took population censuses during the 60's were able to elaborate their respective samples.

Although the duplicating of such samples and their transportation to CELADE headquarters in Santiago took more time than it was originally foreseen, until the end of the year 1967 the samples of 14 out of the 16 countries which had agreed to provide a copy of such material had been gathered. Only the samples of Venezuela and Brazil were missing, the first of which had been already sent from Caracas; it was expected that Brazil would send a duplicate of its information during the year 1968.

Unfortunately, it was not possible to get for CELADE a duplicate of the cards from Nicaragua and Peru. In the first case, this was due to the fact

that the population census cards were irreparably damaged; in the second case, to difficulties of formal nature. Nevertheless, the Bureau of Statistics from Peru, has showed itself willing to send to this Centre the tabulations which make it possible the inclusion of the data from Peru in the programme of comparative studies.

As it is stated in e) above in connection with the objectives aimed at with these samples, they will be of great value for comparisons with more recent census information tabulated in the same countries in classifications not foreseen in the present programmes of data elaboration.

As time went by, and as the programme was being structured, it was given the name of OMUECE -abbreviation which corresponds in Spanish to "Census Sample Operation"- designation which will be used from now on in this document in which the essential characteristics of the project, the contents and characteristics of the samples gathered and the first programme of comparative tabulations for demographic analysis purposes are described.

II. OMUECE's general aspects

As it has already been said, this is a project in 16 Latin American countries cooperating at present (See Annex I), being Peru able to integrate itself to it directly with the tabulations. Its duration is to a certain extent indefinite, since there exists the possibility of making use of them for a long term in future as there are no difficulties to keep in good conditions the collected samples.

Apart from the tabulations that CELADE can prepare for its programmes of comparative demographic studies, other institutions, both of national and international character, have access to the information concentrated in Santiago by requesting the preparation of specific tabulations according to their particular needs or by duplicating the sample cards with the authorization of national institutions responsible for the respective censuses. In this respect, experience has already been gained with such institutions -the Economic Commission for Latin America, among others- having CELADE provided the requested information.

III. Sample contents and characteristics

The samples contain information on a variable number of individuals in each country, depending on the total number of persons enumerated and on the sampling rate adopted in each case. In most cases, the samples are of individuals, not of complete households, which can eventually limit the range of tabulations.

With the only exception of Puerto Rico, in which case the U.S.A. Bureau of the Census decided to omit the datum on place of residence when duplicating the cards, in all the other cases the information contained in the cards or tapes is exactly the same as that gathered in the population censuses. Annex I indicates the items investigated in each country, the date to which the information is referred, which is the same as for the census, the approximate sampling rate, the number of individuals which constitute the sample whether it is on cards or on tape and the processing system (IBM or Remington Rand) in which the original material was sent to CELADE.

All the samples selected are systematic and self-weighted and, as it is obvious, they have been selected from the information gathered in the national censuses. Annex II presents a brief description of the national frame used in each case and the type of sample design used for OMUECE.

IV. Preparatory work for the utilization of the samples

The sample material arrived in CELADE in the same way (card or tapes) and system (IBM or Remington Rand) in which it was prepared in the countries of origin, situation that, together with the variety of the codes used and different location of the subjects in the punch card, made the preparation of the tabulations to be programmed very complex. The convenience of giving the collected material a more homogeneous character, in order to make the tabulation stage more expeditious, was evident.

The first decision adopted to simplify the procedure was to convert the cards or tapes which had been received -either to be interpreted in IBM or Remington Rand equipment to a unique system of interpretation. To this effect,

all the available information was transformed to the IBM 360/40 system, this being the electronic equipment available at the University of Chile, Institution to which the Latin American Demographic Centre is connected. As such electronic equipment operates indistinctly with IBM cards or tapes, it was decided to transfer all the information to tapes, considering that if it was true that this process was more expensive at the beginning, in the long run the utilization of tapes would reduce the processing costs of the tabulations; besides it would make it possible to keep the information thus stored in better conditions and for a longer period of time.

The greatest difficulty for this transformation into common system is to be found in the cases in which samples have been processed in an electronic equipment other than IBM; nevertheless, it is now foreseen that all the technical inconveniences that may arise can be overcome, although they will naturally affect the project costs.

The convenience of ordering the different items investigated, according to a common sequence for all the countries, was also seen. Nevertheless, this proved to be advantageous only when the respective item had been investigated by all or at least a great number of the countries taking part in the programme and, when the categories of the expected answers could be uniformly recorded in a comparable and simple scheme.

Thus, the field assigned to each person on the tape was divided into two parts: First, that in which following the same sequence for all the countries there is common information for all of them with classification criteria which are the same in every case (even if the given category is sometimes absent) and second, in which the original census information is registered in the same order and with the same codes as it was done by the National Bureau of the Census.

Annex I presents separately the items that in every case have been transferred into each one of the fields; corresponding the first one to all those that form part of the present OMUECE tabulation programme and that probably will be also studied in other programmes of comparative research.

Only in very few cases the information of an item will be exactly repeated

in the two fields since generally, for the sake of uniformity, it will often be necessary to modify the available codes by grouping categories. The procedure, on the other hand, guarantees that no detail from the original information which may be useful for demographic studies to be programmed in future will be lost.

The extension of this document does not allow to detail the classification criteria that have been maintained for each item in the first field. Nevertheless, Annex III presents the classification criteria used in the tabulations until now programmed which, as can be understood, in their greatest detail correspond on the whole to the categories in which the information is presented in the first field. Thus, for instance, the categories of marital status that will be included in that field will have to be those of "single", "married", "in consensual union", "widowed" and "separated or divorced" (greatest detail foreseen in Annex III), to serve all tabulations in which occurs that attribute with such degree of detail.

For the second field, as it is obvious, the classification criteria used in the censuses of each country were maintained.

Lastly, it must be pointed out, that, in order to make the analysis of the tabulations to be made with the information more expeditious, it was decided to revise those item in which there appear not very high frequencies with unknown data, and that may be inferred with relative accuracy on the basis of the remaining information available for the individual in the same card or that can be statistically assigned at random. The item that on the whole presented such characteristics were: age, sex, relationship to the head, marital status and urban or rural condition. For all of them a procedure was adopted to eliminate the unknown cases. For the item for which there was less information on which to base the assignment of the unknown datum (all the others), no attempt was made at all to modify the original information.

V. First programme of comparative tabulations

From the moment when samples started to be received in Santiago, some tabulations for specific countries have been elaborated, be it at the request of other institutions or to satisfy needs of demographic analysis within CELADE. These tabulations have embraced preferably the field of fertility having been it possible to carry out with them certain analysis on differential

fertility.^{1/} Besides, some cross-classifications which have constituted the basis of some documents prepared for scientific meetings,^{2/} have also been made in reference to internal migration. Nevertheless, such tabulations aimed at particular objectives of specific analyses, without forming part of an organic plan of exploitation of the data gathered, as it was foreseen in the basic objectives (see c and g above).

Later on a basic programme of tabulations which embraces the following topics was defined with such aim: mortality, nuptiality, economically active population, education, fertility and internal migration. This programme considers, for each subject, the possibility of developing a programme of comparative analysis with data from all the countries that have provided information for OMUECE and that have investigated the subject. The possibility remains open, therefore, of programming new tabulations that aim at other types of analysis of these subjects, above all in the specific cases of countries for which additional census information concerning the corresponding subject is available.

The OMUECE tabulation programme avoids to repeat tabulations that have already been elaborated at a national level by the respective Census Bureaus, since generally classifications differing from those traditionally used are utilized. That is the case, for instance, of the classification in "capital city, other urban and rural".

Annex IV presents the tabulation programme to be carried out at a first stage, aiming at the programme of basic comparative analysis. For the programme there remains only to define the one corresponding to internal migrations.^{3/} Apart from the title and subject to which each one of the 22 tabulations foreseen for this first stage are referred Annex IV describes also,

- ^{1/} Lattes, A.: "La fecundidad efectiva en la República Argentina, según algunas características de la madre"; CELADE, C/96; 1967.- Cerisola, E.: "Fecundidad diferencial en la República del Paraguay, según condición de ruralidad y nivel de instrucción de la mujer"; CELADE, C/101; 1967.
- ^{2/} Elizaga, J.C.: "Assessment of Migration Data in Latin America". The Milbank Memorial Fund Quarterly, January 1965; Vol. XLIII, N° 1.
- ^{3/} The OMUECE Programme sporadically publishes Informative Bulletins, in the first of which tabulations for the basic comparative analysis programme which is examined in this document are described. In the next Informative Bulletin, tabulations for the analysis of internal migrations will be described.

by means of symbols, the specific composition of each one of these tabulations.

That is to say, through such symbols, whose meaning is explained in Annex II, (see explanation below) the exact contents of each table are described as to the degree of detail foreseen for the classification of each one of the attributes considered. This form of presentation, makes it easier to compare and locate the existing differences between two or more tables in which one, two or more attributes are considered which, according only to the title, will seem but successive amplifications of other tables.

By way of example, let us take tabulations N^{os} 18 and 19 on fertility; according to the titles of both tables, the second one would also be an amplification of the first, since 19, apart from the variables that are included in 18, contains only the item: "enumeration area" (Capital city, other urban and rural). Nevertheless, if the column "composition" is observed, it can be seen that tabulation 18 gives in greater detail the number of children ever born and the age of the women (without modifying the classification of marital status) than that of tabulation 19; that is to say, the lesser classification of some variables diminishes the table size (expressed in number of cells) and make it possible to add a new variable which is of interest for the analysis of the behaviour of the dependent variable (in this case the number of children ever born to the women). Naturally that variable could also have been added to the table with such degree of detail as it is present in tabulation 18. But in such case the number of cells would have increased in such a way that it would make the analysis practically impossible because of the smallness of figures. In the already mentioned Annex IV, the number of mutually exclusive cells that will be contained in each table is also presented. They are exclusive in the sense that each individual falls into a cell and only in one cell without counting, therefore, those corresponding to totals or subtotals. This datum on the number of cells was used for setting a limit to the frequent tendency of asking more and more detailed information for deeper analysis, taking into account that not always the frame of the available information allows the number of necessary minimum frequencies within different cells that make the analysis free from a large error possible. Once the quantity of absolute values of the sample individuals and the approximate distribution of frequencies by cell are known, according to the tabulation

which is being dealt with, it is possible to establish with a certain margin, of course, the maximum size that the tables should have.

Naturally, once the figures corresponding to each tabulation have been obtained, it will be possible and often advisable, to group frequencies within larger intervals in order to allow a more accurate analysis.

Considering that the OMUECE tabulation programme takes into account the small size of some of the national samples, it has been thought that the great volume of cards available in the samples from some countries would allow also a regional analysis; this could be the case of Brazil and Mexico, countries in which the sample contains more than half a million individuals and in which important geographical and economical differences are presented.

Annex III includes the classification criteria used with the symbols assigned to each attribute. In every case, the capital letter of a symbol refers to the attribute and the Arab number that follows it is related to the classification that is made for each attribute. When it does not indicate any number at all, it means that for such attribute only one classification criterium has been used in the tabulations which has been expressed only with the corresponding letter.

Each one of the classes resulting from the classifications is separated from the following by a semi-colon, with the exception of the last but one which is separated from the last one by the preposition "and" preceded by a comma. If it is true that this form of punctuation is not always the orthodox, it proved to be practical, due to the fact that sometimes the last class contained more than one category (for instance, "separated and divorced"). For the sake of clarity, at the extreme right hand side column in the Annex, the total number of classes which corresponds to each one of the criteria is specified.

In spite of the great value that OMUECE has, not only to facilitate the comparative study of demographic data of general interest but also to stimulate the adoption of uniform procedures of data processing, the programme has developed with a certain slowness due partially to the fact that it has had a somewhat poor financing. CELADE wants, to state, nevertheless, that all the

disbursements made until now in connection with the programme have been possible thanks to the availability of funds granted by the Centre for the aims of its research programme.

VI. Some lessons derived from OMUECE

Apart from being at present the most complete bank of Latin American census data available, with the evident possibilities for comparative demographic analysis that have been thus created, both at present and in the future, the OMUECE Programme, has pointed out the convenience of adopting some measures that may contribute to make the utilization of the results from population censuses within the region more opportune and efficient. These measures are related to:

- a) the opportunity of the processing programme;
- b) the utilization of sampling in order to produce advanced results;
- c) the availability of international technical assistance to solve problems of data processing and sample design to get advanced results;
- d) the possibility of adopting a census schedule, that will be uniform not only in connection with basic contents, but also with the order in which subjects are included; and
- e) the advisability of using comparable codes and uniform designs of punch cards which eventually would allow the utilization of uniform processing programmes.

During the period in which CELADE negotiated with the countries the acquisition of the samples of cards the centre became aware that most of countries faced serious difficulties when developing their data processing programmes apparently it is not enough, to recommend to the countries a set of uniform tabulations. It is essential that the national bureaus, apart from including within their census plans the above mentioned purpose of carrying out such tabulations, would have qualified personnel in techniques of data processing and a suitable equipment. These, obviously, were missing in many cases and the countries would have been able to utilize international technical assistance to spare some of these difficulties but such assistance does not seem to have been available within an organic scheme that would have been known opportunely by the countries and utilized in a coordinated way.

Although, as it can be seen from this document, 18 countries have or have had, punch card samples based on the data from the censuses taken during the 60's, not all them used it to produce advanced results. Several of them produced it when all the information gathered had already been edited, coded, punched and sometimes tabulated. Thus, they missed not only the possibility of anticipating results which are often requested with urgency, but also they failed to make use of the opportunity that the advanced processing of part of the material offers to train editors, coders, punchers, etc. and to test the plans for data processing. If, as in the case of tabulations programmes, the countries received a certain amount of technical assistance in the design of the sample especially from the ECLA Regional Adviser on Sampling and from a specialist from CELADE, it is true that in this aspect a concerted action from the pertinent international organizations was missing.

The preparation of comparative tabulations based on the cards of the OMUECE Programme has forced CELADE to examine critically most of the data gathered, which has allowed this Centre to appreciate the order of importance which for purposes of demographic analysis can be attributed to the data being processed in the Latin American population censuses. It is obvious that some of these data have only a relative value, while others not normally included in the censuses would be of great usefulness in demographic research. CELADE expects to be able to report its experiences on this matter in another document.

As it has been described in Section IV, CELADE had to make a series of conversions and transfers of the information to a uniform tape design in order to carry out comparative tabulations. It was evident when trying to achieve this uniformity that, in spite of the fact that the countries have generally followed the international recommendations on the topics to be studied, there exists a very broad variety as to the order in which these subjects appear on the census schedules and therefore, in which they are transferred to punch cards and, in connection with the codes used and the detail with which they are applied. The adoption of a census schedule and a punch card with uniform

designs, as well as the utilization of comparable codes for the different topics included, would allow the programming of tabulations, as a joint undertaking making it possible the coordinated action of the international assistance which could be rendered through regional computation centres.

CELADE, of course, offers its collaboration for the development of any activity which would tend to make more effective the utilization of population census data for purposes of demographic analysis.

ANNEX I

I. TOPICS INCLUDED IN THE CENSUSES TAKEN BY COUNTRIES PARTICIPATING IN THE OMUCE PROGRAMME

	ARGENTINA	BRASIL	COLOMBIA	COSTA RICA	CHILE	ECUADOR	EL SALVADOR	GUATEMALA	HONDURAS	MEXICO	PANAMA	PARAGUAY	PUERTO RICO	REP. DOMINICANA	URUGUAY	VENEZUELA
CENSUS DATE	30-09-60	1-09-60	15-07-64	1-04-63	29-11-60	25-11-62	2-05-61	18-04-64	17-04-61	8-06-60	11-12-60	14-10-62	1-04-60	7-02-60	16-10-63	26-02-61
APPROXIMATE SAMPLE SIZE (%)	0.6	1.3	2	5.0	1.2	3.0	1.0	5.0	1.0	1.5	5.0	5.5	10.0	6.7	5.0	2.0
NUMBER OF CASES (IN THOUSANDS)	127.0	900.0	350.0	66.0	86.0	134.6	24.0	212.0	18.9	525.0	53.7	100.0	240.0	200.0	129.0	150.0
CARD (C) OR TAPE (T)	C		T	C	C	C	C	T	C	T	C	C	T	C	C	C
SYSTEM	IBM	RR	IBM-1460	IBM	IBM	IBM	IBM	IBM-360	IBM	IBM-360	IBM	IBM	IBM-360	RR	IBM	RR
NUMBER OF TAPES			2					1		3			5			
<u>TOPICS INCLUDED IN OMUCE</u>																
<u>TABULATIONS</u>																
AGE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SEX	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MARITAL STATUS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LITERACY	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SCHOOL ATTENDANCE	X	X		X	X	X	X	X	X		X	X	X	X	X	X
EDUCATIONAL ATTAINMENT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TYPE OF ACTIVITY	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MAIN OCCUPATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OCCUPATIONAL STATUS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TYPE OF INDUSTRY	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PLACE OF RESIDENCE (U-R)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CHILDREN EVER BORN	X	X			X			X		X		X	X			X
PLACE OF BIRTH	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PLACE OF FORMER RESIDENCE	X	X	X	X	X	X		X		X	X	X				
DURATION OF MIGRATION	X	X	X	X	X	X		X		X	X	X	X		X	
TRANSIENT					X	X					X	X				

OTHER TOPICS

PLACE OF RESIDENCE 5 YEARS AGO

PLACE OF RESIDENCE 1 YEAR AGO

FOR FOREIGNERS:

PLACE OF FIRST RESIDENCE

YEAR OF ARRIVAL

NATIONALITY

NATURALIZATION

PLACE OF ORIGIN (U-R)

HABITUAL RESIDENCE

RELATIONSHIP TO HEAD

TITLE OR DEGREE

CAUSE OF SCHOOL DESERTION

ENROLLMENT IN PRIMARY SCHOOL

SECONDARY OCCUPATION

TIME WORKED

REMUNERATION

PROFESSION

UNEMPLOYMENT

DEPENDENCY BY TYPE OF INDUSTRY

SEEKING WORK

AGE AT FIRST CHILD

AGE AT MARRIAGE

LANGUAGE SPOKEN

SPEAKS ENGLISH

SPEAKS SPANISH

RELIGION

ETHNIC GROUP

TYPE OF SHOES WORN

WEARS INDIAN COSTUME

PHYSICAL DISABILITY

AFFILIATED TO SOCIAL SECURITY SYSTEM

PLACE OF WORK

ARGENTINA

BRASIL

COLOMBIA

COSTA RICA

CHILE

ECUADOR

EL SALVADOR

X

X

X

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GUATEMALA	HONDURAS	MÉXICO	PANAMÁ	PARAGUAY	PUERTO RICO	REP. DOMINICANA	URUGUAY	VENEZUELA
					X			X
X	X	X	X			X	X	X
				X	X	X		
X	X	X	X	X	X	X	X	X
				X				X
X	X	X	X		X		X	
		X			X	X		X
X		X						X
X				X				X
X		X		X	X			X
X		X		X		X		
X						X		
X		X						
X				X				
X			X					
				X				
					X			

ANNEX II

NATIONAL FRAMES FOR THE SAMPLES AND TYPE OF DESIGN FOR OMUECE

Country	Sampling frame	Type of design
Argentina	Individual files containing census schedules	Partial duplication (127/814) of the cards of the national sample with variable sampling subfraction, taking it to the lesser rate for administrative divisions, corresponding to the city of Buenos Aires (1/155).
Brazil	Extended schedules (1/4 out of the total number of schedules)	Complete duplication of the national sample, selected in order to advance results.
Colombia	Punch cards	Complete duplication of the national sample. Complete duplication of cards corresponding to private households included in the sample and 1/2 of collective households.
Chile	Census schedules	Partial duplication (86/160) of the cards of the national sample with variable sampling subfraction, taking it to the minor rate for administrative divisions, corresponding to the area of Gran Santiago.
Dominican Republic	Census schedules	Partial duplication (2/3) of the cards of the national sample, with constant sampling subfraction.
Ecuador	Individual files containing census schedules	Complete duplication of the national sample.
El Salvador	Census schedules	Partial duplications (24/123) of the cards of the national sample, with constant sampling subfraction (1/5 out of the cards for families and 1/10 out of non family groups).

Country	Sampling frame	Type of design
Guatemala	Census schedules	Complete duplication of the national sample.
Honduras	Punch cards	1/100 out of the total number of cards punched for the census.
Mexico	Boxes containing punch cards	Complete duplication of the national sample.
Panama	Census schedules	Complete duplication of the national sample.
Paraguay	Census schedules	Complete duplication of the national sample.
Puerto Rico	Extended schedule (1/4 out of the total number of schedules)	2/5 out of the total number of punch cards obtained from the sampling frame.
Uruguay	Punch cards	Complete duplication of the national sample.
Venezuela	Punch cards	1/50 out of the total number of punch cards of the census.

ANNEX III

CLASSIFICATION CRITERIA

Attribute	Symbol*	Classes	N° of classes
Type of activity	A	Economically active; non-economically active and not stated.	3
Occupational Status	C1	Employer; own account worker; employee; unpaid family worker and person not classifiable by status.	5
	C2	Female employer and employee, and own account worker and unpaid family worker.	2
	C3	Own account worker; unpaid family worker and paid worker.	3
Marital status	D1	Single; married; in de facto union and separated and divorced.	5
	D2	Single married and in de facto union; and widowed, separated and divorced.	3
Educational attainment	E1	Pre-school and with no year of primary school approved; primary by years of study approved (7 classes); intermediate by years of study approved (7 classes) and university and higher by years of study approved (7 classes).	22
	E2	No year of study approved; 1-3 years approved; 4-6 years approved; 7-9 years approved; 10-12 years approved; 13 years and more approved and years of study not stated.	7
	E3	Less than 4 years of study approved; 4-9 years of study approved; 10 years and over of study approved and years of study not stated.	4
Literacy	F	Literate, illiterate, and not stated.	3
School attendance	G	Attends; does not attend, and not stated.	3

* The Symbol is that used in Spanish.

Attribute	Symbol*	Classes	N° of classes
Occupation	01	Professional, technical and related workers; administrative, executive and managerial workers; clerical workers; sales workers (excluding street vendors); farmers, fishermen, hunters, loggers and related workers; miners, quarrymen and related workers; workers in transport and communication occupations; spinners, weavers and related workers; other craftsmen and production process workers; physical work labourers (including street vendors); housekeepers, cooks, maids, and related workers; service, sport, and recreation workers; armed forces and other non specified workers in other categories and workers in non identified or non stated occupations.	14
	02	<u>Non manual workers:</u> professional, technical and related workers; administrative, executive and managerial workers; clerical workers and sales workers (excluding street vendors);	
	03	<u>Manual workers:</u> Miners, quarrymen and related workers; service, sport and recreation workers (excluding housekeepers, cooks, maids and related workers); housekeepers, cooks, maids and related workers; other labourers (non specified in other categories) including street vendors; farmers, fishermen, hunters, loggers and related workers; other workers and workers in non identified or non stated occupations (including armed forces).	

* The Symbol is that used in Spanish.

Attribute	Symbol*	Classes	N° of classes
Branch of economic activity	R	Agriculture, silviculture, hunting and fishing; exploitation of mines and quarries; manufacturing industries; electricity; gas, water and sanitary services; building; trade; transport, storing and communications; services (personal); other services and non clearly specified activities.	10
Sex	S	Man and woman.	2
Age	x1	0, 1..... 99, 100 and over.	101
	x2	0-4, 5-980-84, 85 and over.	18
	x3	0-4, 5-955-59, 60 and over.	13
	x4	5,6,...24; 25-29, 30-34...., 60-64, 65 and over.	29
	x5	10, 11 ...24; 15-29, 30-34...45-49; 50,51,.. 59; 60-64, 65-69... 80-84, 85 and over.	36
	x6	12, 13,...49; 50-54, 55-59,...., 80-84, 85 and over.	46
	x7	-15, 15-19, 20-29, 30-39, 40-49, 50-59, 60 and over.	7
	x8	10-14, 15-19, 20-24, 25-29, 30-39, 40-49, ..., 70-79, 80 and over.	10
	x9	Under 16 years, and 16 years and over.	2
Enumeration zone	Z	Capital, other urban and rural.	3

* The Symbol is that used in Spanish.



ANNEX IV
OMUECE TABULATIONS

Subjects	N°	Composition	Title	Cells
Mortality and nuptiality	1	Z, s; x1	Population area of enumeration and sex, according to age.	606
Nuptiality	2	D1, S; x6	Population by marital status and sex according to the age.	460
	3	D1,S;Z,x2	Population by marital status and sex, according to area of enumeration and age.	540
Economically active population	4	A,S;x5	Population 10 years and over by type of activity and sex, according to the age.	216
	5	A,S;Z,x2	Population 10 years and over by type of activity and sex; according to area of enumeration and age.	288
	6	Cl,S;Z,R	Economically active population 10 years and over by occupational status and sex; according to area of enumeration and type of industry.	300
	7	R;Z,S,x7	Economically active population 10 years and over by type of industry, according to area of enumeration and age.	420
	8	Cl,S;Z,O1	Economically active population 10 years and over, by occupational status and sex; according to area of enumeration zone and occupational group.	420
	9	Z,A,C2;D2,x8	Female population 10 to 69 years, by area of enumeration, activity and occupational status according to marital status and age.	432
	10	Cl,S;Z,x3	Economically active population 10 years and over, by occupational status and sex, according to area of enumeration and age.	330

Subjects	N°	Composition	Title	Cells
	11	R; S, 01	Economically active population 10 years and over, by type of industry, according to sex, and occupational groups.	280
Economically active population and education	12	Z,E2;S,x3	Economically active population 10 years and over, by area of enumeration and educational attainment, according to sex and age.	462
	13	Z,E2;S,02	Economically active population 10 years and over by area of enumeration and educational attainment, according to sex and occupational group.	378
	14	S,C3,03;x9,F	Economically active population in low productivity activities by sex, occupational status and occupation, according to age and literacy.	216
Education	15	F,S;Z,x4	Population 10 years and over, by literacy and sex, according to area of enumeration and age.	432
	16	G,Z;S,x4	Population 5-24 years by school attendance and area of enumeration, according to sex and age.	360
	17	Z,E1;S,x3	Population 5 years and over, by area of enumeration and educational attainment, according to sex and age.	1 320
Fertility	18	H1;D2,x6	Female population 12 years and over, and children ever borned by marital status and age.	2 346
	19	D2,H2;Z,x2	Female population 12 years and over, and children ever borned by marital status, according to area of enumeration and age.	432
	20	E2,H2;D2,x2	Female population 12 years and over and children ever borned by educational attainment, according to marital status and age.	1 008

Subjects	N°	Composition	Title	Cells
	21	Z,E3,H2;D2,x8	Female population 12-59 years, and children ever borned by area of enumeration and educational attainment, according to marital status and age.	756
	22	A,C2,H2;Z,D2,x8	Female population of 12 to 59 years, and children ever borned by activity and occupational category, according to census zone, marital status and age.	1 134
