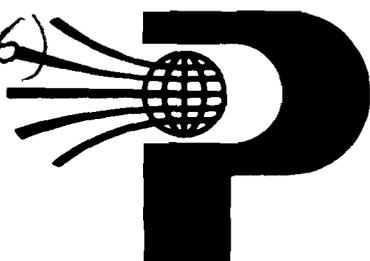


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TOWARDS THE UPDATING OF THE CENSUS PROGRAMME
AT THE THRESHOLD OF THE 1990s

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TOWARDS THE UPDATING OF THE CENSUS PROGRAMME
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I. Introduction

Recently, on the occasion of the delivery of last census data to the President of a Latin-American country, he declared he wished "this time the census did not become a cemetery of numbers". That wish clearly summarized a belief generalized among the ruling classes, planners, managers and other medium-rank officials with different degrees of political decision. They regard Population and Housing censuses as huge institutional and budgetary efforts dedicated to the collection of data which are later on 'buried' without actually justifying such an effort. Many of these people feel this is a disproportionate undertaking compared with its outcome and the way census information is used in the every-day life of public administration.

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Similarly, many Chief Statisticians argue that during census preliminary stages, some national institutions and potential users urge them to host new questions in the questionnaires, followed by various complex and high-cost tabulations, which end up in some registry office where nobody ever consult or even analyze them. Thus, at official grounds, there is the widespread belief that census is not properly exploited, and that there is an asymmetric interest in collecting data which does not match with their further utilization.

Another unsatisfactory aspect, this time from the side of the users, is the usually long period elapsed between the census taking and the time its results are available. Although statistics authorities endeavors to reduce those periods, and release preliminary results and anticipated tables derived from samples, the feeling in Latin America is that one is always dealing with obsolete data, and that something does not work as it should once the enthusiasm of the census day is gone. In addition, there is the idea -deeply rooted among managers and medium-rank officials- that census outcomes soon become outdated since they usually refer to a three

or four-year-old situation. What they really need is updated data on the current status of the population. Besides, time required for the elaboration of census data compete here with those of the government, usually shorter, specially in the case of regimes with periodic renewals.

Another remarkable aspect arises from the repeated complain of governors and majors who claim they are not provided with enough disaggregated data referred to their community. The statistical centralism influences the use and disaggregation, so they have to manage with global or aggregated data, somehow useful as general background but highly inappropriate for the management within their own boundaries. It has been amazing to confirm, in recent meetings with those authorities, the need of information and the remote awareness they have on the possibility of an effective access to census data. Thus, the census as a tool among provincial governments and majors is almost unknown.

A forth element to be taken into consideration is related with the technical -but basically financial- cooperation that most Latin-American countries have received on the occasion of their census programmes.

Certainly, without that help, the number of countries which have carried out successive censuses from 1950 on, would be dramatically reduced. Paradoxically, that help -often determining for the accomplishment of a census- important as it is, has generated some biases. Among them we should stress, first of all, the strong concentration of resources in preliminary and data collection stages; however, this is followed by little emphasis on the follow-up required for the elaboration and publication of the results and reports about demographic situation. These two last components should be implemented as rigorously as those already mentioned. Secondly, we find the relatively little interest the international cooperation has paid to the integration of analysis teams which would allow a more intensive exploitation of the new data. Painfully, national analysts working in government offices and universities or private research centers devote themselves to the task of getting to the bottom of the social-demographic situation of their countries; and we say 'painfully' because, at this stage, funds are scarce or even non-existent. Thus, time passes by and institutional motivation fades, feeding again the belief that, when dealing with censuses, you always work with outdated data. To support this idea, it is

enough to compare the collected material and set of tables available in any country with the analytical work derived from them. Usually, the gap is amazing, and clearly shows the need of a long-term, organized, harmonic and financially supported effort in order to get, eventually, the best possible advantage from such information. It could be said that rulers and managers can rightfully blame population analysts for all work which has not been carried out lately; an analysis which should be, of course, conceived and tailored to be used at different governmental levels. However, there is some comfort in the thought that such material will help some historian, in one or two centuries from now, to rebuild the demographic evolution of our times.

A third aspect arisen also from the international financial help is related to the way in which money flows through specific projects with preestablished deadlines. With the arrival of foreign funds a short-lived period of prosperity begins; however this is followed by a kind of collapse which, among other things, implies a dismantling of ad-hoc teams that cannot be supported by regular national budgets. Consequently, the census task is discontinuous, which implies that the implementation of medium-term or

intercensal continuous work programmes is almost non-existent, with the consequent waste of experience accumulated from each census. Thus, tradition and census experience fall in the hands of individuals, rather than in those of institutions.

There is a different range of considerations as regards Latin-American demographer's contribution in the censuses carried out during the last three decades. The minimum isolated presence of the 1960s, turns into an increasing participation and an often important influence in the following two decades. But those influences have been mostly concentrated on census schedule content. Most of them aimed to the implementation of indirect techniques that allow the derivation of fertility and mortality estimates, based upon censuses as single source of information. Also, similar proposals and efforts have been developed in order to improve the knowledge of internal migration, inquiring the population on the place of residence at an intermediate point of census intervals.

Within the above contributions, we should also mention those associated with the incentive and direct involvement of several demographers in

experimental censuses. Such censuses have turned, since the middle 1960s, into an unavoidable step of the preliminary works of the census programme. Certainly, this does not imply they did not exist before, they did, but their present nature and rationale have been emphasized in recent decades. Another advance where the influence of the demographer is quite clear can be found in the tabulations plans focused on the use of data generated by new questions. The set-up of systematic and continuous analysis programmes referred to different demographic variables should also be mentioned.

It should also be recalled that there has been hard discussions regarding the wording of questions and what kind of lay-out to be adopted for the census form. Neither should be omitted the spite with which the convenience of using sampling techniques to collect data instead of doing it via hundred percent enumerations, has been dealt with.

Now, beyond this presence in highly specific matters associated with quantization and analysis of given variables, demographers declared themselves users of information generated by others. Then, they

keep distance from all remaining stages and complexities involved in the census programme from its very beginnings till the end of the procedure. From the statisticians' point of view, this has a significant importance since the experience with Latin-American censuses clearly shows that their main challenges do not come from the application of a given questionnaire format or from the inclusion or exclusion of certain topics, but from the organization and fulfillment of technical and administrative responsibilities in every stage of the census calendar. Furthermore, in those countries where the basic questionnaire has worked successfully in previous censuses, the argument 'What's the use of innovating?' acquires a non-negligible weight.

The last of these preliminary considerations refers to the significance of the accelerated advances of the computer on the census strategy. From punch cards to laser disks, in every census all countries have tried to incorporate the top-line technology available. This was not always successful, and sometimes, the inaccuracy of its handling meant -against its own raison d'etre- the lost of such data. Also, there are examples in which an unwise application of validation and correcting

packages made real irregularities disappear, distorting reality and making the census itself unreliable.

We have the feeling that the accelerated acquisition and installation of new equipments- sometimes originated by an excessive eagerness for being fashionable or some kind of snobbery, without being provided with qualified staff- caused an 'indigestion' during the processing stage of censuses, proved by the time it has taken for many countries to get the final results.

Tentatively, one could say that with the appearance of first generation electronic computers, the main difficulties of the processing phases have concentrated on the programming. During the 1970s, the crucial point resided in the validation, assignation and automatic correction processes conceived to deliver clear and coherent data. In last censuses, the delays were caused basically by data-entry strategies.

In this review, the greed of hardware manufacturers and the aggressiveness of the salesperson in front of an inexperienced clientele

should not be omitted.

By the end of the 1980s, there are some signs that show the situation is changing. Consequences derived from previous difficulties and the fact that at present, countries are provided with skilled experts and have accumulated knowledge originate this process. A share of sound judgement should also be credited to the international cooperation. Nowadays, any census director knows that the newest equipment is not enough and that sometimes, it is better to remain a step behind.

II. PROPOSALS

These considerations, and others not mentioned here referred to different stages of the census programme (i.e. cartography, training, field supervision, decentralization, budgetary implementation, files creation, etc.) lead us to believe that Population and Housing censuses are at the threshold of a deep conceptual and technical transformation. This is a consequence -but also a summary- of the successive improvements and partial advances accumulated during the last 30 years in the different stages of censuses preparation.

It seems it is time to make an attempt -at least- to get a synthesis of all this fragmentary progress, not only to overcome failures but, more important, to fulfill, through the census, present data requirements, calling up to all technological tools available and trying always to economize efforts and money as well. This accumulation of partial improvements will not produce automatically the required qualitative transformation. The challenge is more attractive if we intend to use these new data in the development of political, social and technical sceneries anticipated for the following decades.

According to that, Population and Housing censuses should collect a repertory of minimum data. That information would supply the inventory of three kinds of basic units:

- Dwelling units
- Individuals
- Sociological units

First of all, we would like to emphasize the idea of minimum data associated with the notion of inventory. Up to now, the tendency has been to complicate the basic form adding new questions.

Although all of them have been duly justified by their promoters, in the long run they congest the census procedure as a whole. In that sense, the arguments put forward by public national or international institutions supporting new high-priority items, are well known.

Now, we would like to argue in favour of a deep change towards the opposite direction, so as to design a basic and universal schedule containing only those questions capable of grasping the minimum information to supply the three inventories mentioned above. Therefore, only those items with a previously justified usefulness and the data of which are obtained necessarily from a census will remain. Thus, two tasks should be undertaken from the very beginning: to decide which information -much less than the present one- should be drawn from a population census to meet the inventory condition; and then, the approach -one or more- to get additional characteristics according to the requirements and peculiarities of each country.

The first complete register deals with private housing or group quarters (dwelling units), just as it has been done up to now. The innovation is that

the number of questions will be reduced considerably, leaving only those capable of handling in a simple way the housing stock of a country. Thus, such matters as a separate description of floors, ceilings and walls should be reviewed. The same with those questions on appliances and other housing equipments. The contribution of architects, urban planners and designers will be crucial, since they are the most unsatisfied with the available data. By the way -and this remark is valid throughout this paper-, the fact that we refer to a reduction in the number of questions does not mean we are against the inquiry on such topics. Simply, we support a simplification of the basic questionnaire. Nevertheless, the removed items -and others- will be included in additional operations. Such complementarity may be either simultaneous, or it can be attained through additional sample surveys at any time.

The second inventory corresponds to the Population census itself. Actually, the only thing to add is that, coherently with the notion of minimum register, we are in favour of a considerable reduction of items and characteristics to be gathered through a complete enumeration. In fact, there will remain only the questions on:

- Name
- Sex
- Age or date of birth
- Place of birth (including year of arrival for aliens)
- Place of residence X years ago
- Marital status
- Highest degree ever attained

Some questions with long tradition are not included. Later on we will go back to the issue of degree of kinship. Regarding the group of questions on economic characteristics of the population (occupation, work status, branch), we propose its inclusion in an additional schedule applied to a sample.

During the last 20 years, Latin-American market has experienced deep transformations which brought about new modalities for earning personal incomes. These modalities alter the traditional concept of employment and contractual links with an employer (establishment or firm). Latin-American jargon expresses these changes through terms such as

'informal market' or 'underground economy'. All these situations lack the administrative mechanisms which regulate labor relationships, and they do not incorporate those workers into social security systems, unions, etc.

Given the magnitude and duration of the process, it must be admitted that it cannot be classified as a conjunctural situation any more, but that it is a new institutionalized form of earning an income. Thus, beyond the boundary of formal employees, there is a considerable and increasing group of economically active population who are not socially recognized as such. Traditional questions on economic activities give no information on them or include that group as an erroneous category.

In other words, as an expression of the deep changes in the productive system and national economy in Latin America, an increasing number of people attain their money through arrangements which do not fulfill the traditional concepts reflected on the census schedule. Thus, there is only a partial -and therefore incomplete- vision of all the necessary features in the description of the economic activity profile for each individual. They are not enough to

create the inventory and, therefore, lose their qualification to remain in the hundred percent enumeration questionnaire. Besides, this partial count affects the correct compilation of the national account system.

Recent works performed in CELADE (1983-1985-1986) show there is a considerable gap between these partial registers and reality, specially in some sectors of the population. From this research, it follows that it would be advisable to move questions about economically active population from the basic schedule to a complementary one. This will be filled in on a sampling basis and will include not only traditional questions but those allowing the retrieval of the new modalities already mentioned of which we only have circumstantial information.

Due to several reasons, we also suggest the exclusion of questions on literacy, school attendance and all those conceived to deriving indirect estimates on fertility and mortality.

Reviewing the use given to literacy tables -or rather to their complement- it has been proved that just a few percentages and few cross-tabulations by

age and geographical areas are used. We wonder, then, if the cost and effort brought about by such lean information is justified. Furthermore, there is another argument specially valid for those countries where illiterate percentage is evolving and concentrating in advanced age groups. Thus, it appears as a residual value which follows extinguishing cohorts. In this case, there is little justification there for a complete enumeration directed to a small sub-population highly concentrated in certain age groups. This reasoning is less conclusive for countries where illiteracy is still considerably high. It would be useful to maintain such questions there. In any case, the ability to read and write is an ambiguous notion that censuses record superficially. On the other hand, due to the widespread access to mass media, the handicaps of illiteracy have faded.

All ministries and educational departments of Latin-American countries are provided with their own statistic system. One of the purposes of such systems is to collect current educational statistics at different cycles. Theoretically, the question on school attendance is not entirely justified, except when used as an additional source of information

before a chronic failure of registers that do not fulfill their raison d'etre. Actually, this -among other things- should be reverted in order to protect the census itself. Latin-American censuses have suffered the consequences of failure in different kinds of registration records or registration statistics.

Similar arguments are valid for questions on children ever born and surviving, and orphanhood. Here, the situation worsens because, from 1960s on, Latin-American demography has neglected -with some remarkable exceptions- the problems that afflict vital statistics systems, favouring as a shortcut, the inclusion of palliatives in the censuses. This should not be misunderstood, retrospective questions are very useful when information is unreliable or non-existent. Somewhat different is the intention of giving them a permanent place in the census complete enumeration basic questionnaire.

Once individual characteristics have been recorded, data are grouped according to common criteria, which allow the obtention of tables. This selection and collectivization process from irreducible units leads to the notion of population.

Those concepts are also studied by some knowledge domains and are transcendent not only to the individual characteristics but to existence itself of the original units.

However, between the individual and the grouping set-up there is some kind of sociological unit which disappears or is erroneously assigned during the interview. This is not properly retrieved during the data processing. Nor is it used to describe or understand certain demographic behaviours, or eventually explain them.

In the heart of this unit -family, no matter the definition now- operates the value system, influence networks, interactions and decisions to be found in the origin of all demographic behaviours of a society. Matters as important as the consequences of demographic aging cannot be approached just through the point of view of a decline of fertility or the lengthening of average individual life. If this were so, we would only be in a position to grasp the global dimension of the phenomenon. But very little could be explained and almost nothing suggested.

Postponement of marriage, new modalities for the

constitution of couples, changes in the age patterns at first marriage -in brief, the replacement of families established according to certain patterns by others created on the basis of new schemes- lie in the origin of demographic aging, migration, rural dispersion processes that constitute today a major interest for the governments.

Although it has not been proved, we believe some demographic aspects are better perceived through a register of changes occurring in the process of constitution, duration and dissolution of families, rather than through the analysis of individual data, independent of the links that relate them.

According to the above reasons, the third of the basic inventories proposed should deal with families. The same as with individual and dwelling units, we have to design one dealing with quantity, kind, characteristics and distribution of these units from which society is organized in a given moment.

Prima facie it could seem a complex and troublesome task. However, it would be enough to record the number of families that occupy the dwelling, having already adopted a clear definition

of family. Then, everything should be reorganize starting from the kinship among members of the same family that instead of linking everybody with the head of the household -as has been done in the past- would do it within each detected family.

A slight touch on the wording and comprehension of those questions would enable the desired registration. Furthermore, in order to prevent wrong reports, all members of a family would receive the same one-digit code, which would facilitate the identification, specially when its members have not been registered in strict order.

Actually, the most creative task is the stage of tables elaboration and the proposal of a programme for the analysis of these units. As in the case of other innovations, experimental censuses will play a decisive role in testing the different options to be proposed.

II.2 Heterogeneity vs. Homogeneity

Twenty years ago, regional and international organizations involved in census programmes devoted considerable efforts searching for a format and

content uniformity of basic schedules. At that time, it seemed that the most proper way of obtaining comparable data between countries was through a common device. Such an ambition did not succeed due to various hindrances; from the 'census nationalism' which opposed the levelling of countries with a census tradition with others lacking it, to real difficulties inherent from the cultural differences noticeable in the region.

The main advantage of these efforts might have been precisely to demonstrate that, in order to ensure the comparability, there is no need of a uniform strategy or a common schedule; it is enough to handle categories and codes which are indeed comparable. In that way, there was a remarkable improvement, through continuous technical assistance to the countries, inducing the adoption of uniform codes, similar criteria in data correction and validation and comparable programmes for elaborating different sets of tables.

The proximity of the 1990s censuses provides the opportunity of approaching the subject, in order to advance a little farther regarding the convenience of adopting flexible systems and solutions applicable to

different needs, geographical conditions and cultural peculiarities -not only among countries but within the same country-, rather than to go back over homogeneity.

Within this setting, we should admit first of all, that the discussion between those supporting the complete enumeration and those who support the use of samples for studying certain items has been largely settled. There are neither winners nor losers; reality -more powerful than any theoretical argument- has proved that one procedure fits better than the other given certain conditions, and the other way around. Also, field work conditions, technological resources, census cultures and, above all, needs are not static. Maybe what could not be done two or three censuses ago, can be done today.

It seems as if the creative challenge goes through another way. Given a certain country and taking into account its data requirements, its resources and shortages which solution could be suggested?

Experience shows there is a series of factors with different weights but all of them important,

which influence the adoption of a given approach.

These are some of such factors:

- Territorial dimension
- Population size
- Demographic dispersion and concentration
- Communication or topographic hindrances
- Coverage and quality of cartographic frame
- Quality of vital statistics
- Coverage and quality of a Household Survey Programme
- Degree of centralization of the statistical system

Some theoretical situations could be used as examples. Thus, in a large country with several millions of inhabitants, large cities but also empty areas with poor means of communication and with a very low demographic density, imbalance in the distribution of wealth, cartography of uneven quality according to areas, vital statistics with unequal coverage, inadequate disaggregation issued with delay and a decentralization more theoretical than real; a

uniform solution, apart from being very expensive, would be too much in certain areas and too little in others.

In the case of this hypothetical country, those distant or isolated territories, where the most difficult thing is to get there, should be delimited. There, a universal census with a common schedule containing all possible questions (including those on fertility and mortality, economic activities, educational status, etc.) would be the most appropriated. Since the displacement in those regions will be slow and difficult, the time spent in the census taking itself is not relevant, it could take several weeks. The work there would be led by the premise 'once there, collect all possible information'. It can also be suggested that the interviewers -few people, but bold and experienced- be accompanied by cartographers so as to get simultaneously a mapping as meticulous as possible.

In the remaining territory, a basic, universal and minimum schedule would be applied, aimed to feeding the three proposed inventories. Meanwhile, another additional questionnaire would be used in order to collect more complex data based on a simple

designed sample.

Now, this amplifying questionnaire does not need to be the same for each geographical area or region, on the contrary, a diversified content according to information requirements and the peculiarities of each area is suggested. Thus, in large cities they would concentrate on topics such as housing-congested conditions, marginality- transportation, migration, etc. They would open a whole range of possibilities for the study of urban demography and it will be possible to provide town authorities with data closer to their specific duties.

In poorer rural areas, they would deal with health conditions, family, migration, social security and employment, seasonal moves, etc.

At the other end of these hypothetical settings, there is a small country with no more than 5 or 6 million inhabitants, without large topographic difficulties and with one or two important cities. Maybe in situations like this it would be better not to innovate, carrying out a complete census through a unique schedule without major modifications, except those destined to generate the three basic

inventories. In between, it is possible to find all the conceivable situations at the rate of one per country.

Just for the sake of information and according to demographic projections for 1990s, 6 Latin-American countries similar to that of the first example, will have a population of approximately 345 million people, around 77 percent of the total population of that region.

Up to now, the prevailing criterion -it could be said, the only one- was to adopt a uniform solution applicable throughout the country, independently of its internal diversity. Now that criterion is questioned not only because of budgetary or technical reasons but because societies are developing with an increasing heterogeneity which is reflected in governmental actions and programmes and, even more in the concept of public administration itself. The change in the approach to reality intends to widen the scope of census data in order to better serve different needs without increasing costs.

It could be said that, instead of simplifying the census burden, it becomes more complex and

troublesome with all the risks that involves. There is no doubt that the total amount of field work is reduced, since it will be extended only when needed, and with differentiated criteria. During the processing, no additional difficulties are foreseen. Moreover, if these changes come with a movement of decentralization of responsibilities -as proposed above- the terms for the delivery of data could be reduced and the number of users increased.

II.3 The census as part of a statistic system

In many Latin-American countries, legislation supports the National Statistics Systems destined to organize, harmonize and make the production of data on the different fields more efficient.

A quick overview of its current performance reveals chronic failures which cause the uneasiness of both users and heads of different statistical units.

There are only two issues to discuss here. The first one is related to the contrasting imbalance found in many countries between the development

achieved in recent censuses and the attention paid to vital statistics. Thus, it is not unusual to find countries in which accurate and reliable censuses live together with vital statistics delivered with great delay and a very unsatisfactory presentation. As a result of this deterioration, its effective use is constrained. Internal routines within the different departments seem to be immersed in rigid schemes and afflicted by a strong inertia. They are resigned to handling over 'what they have' and their attitude towards users is far from being receptive. This situation -in some extreme cases, somewhat difficult to understand- has had repercussions on the censuses themselves that are slowly forced to include new questions that are only palliatives to the failures of the current statistics. That resigned attitude of users and generators before this problem makes them accept an interim solution as permanent.

An objective hint of this tendency to leave aside vital statistics can be found in reviewing the research works carried out in Latin America recently. They clearly show that data from such sources are scarcely used for research purposes.

Beyond its essential importance, the rescue of

vital statistics -improving the accuracy when recording specific items (female activities, place of residence, birth order, etc.), updating them and presenting them properly disaggregated in order to better fulfill the requirements of demographic analysis- becomes some kind of prerequisite for the crucial proposals presented here to be accomplished successfully. An important factor lies in the necessity of holding an effective leadership of the maximum national statistic authority, sometimes weakened due to administrative restraints or rusted habits of medium-rank officials. All these can also be applied to educational and migration statistics. In these cases, the situation is even worse.

The other aspect refers to cartography. In the same way as in previous paragraphs we have supported the line of heterogeneity for the data collection, we propose now the implementation of a standard and common cartography to be applied in any work aimed to data gathering, no matter the agency involved.

Of course, this is a census cartography enhanced and updated to serve for multiple purposes. The advances as regards computerized cartography and generation of organized files on geographic criteria,

which enable the retrieval of data for small areas, neighbourhoods or even blocks or census tracks, using the computer -as in the case of REDATAM (CELADE, 1987) have revolutionized the previous conception of files. They open new possibilities for the interactive handling of data base with a different origin as long as they are referred to a uniform and stable geographical unit identified with a common code.

Boards of national statistics are quickly exploring the possibilities involved in these advances as regards the use and analysis of disaggregated data. Governors, majors and county authorities have not realized yet the potentiality of this technical improvement in connection with the support census data can provide in their work field. Once more, the main challenge would lie in the decision to overcome bureaucratic and administrative rigidity, rather than in the technical component. As always happens, the above mentioned factors weight with a negative sign when dealing with innovation.

III. Single actions

No matter the echo of the above proposals, the

following aims to focus the attention on a series of components of the census programme, the performance of which shows chronic failures that have been detected again in last experimental and national censuses.

Obviously there are more, but for the time being the reflections are focused on:

- cartography
- field work supervision
- data files
- decentralization of statistical offices

Even if cartographers do their best to improve the output, there is often a lack of certain basic indications in the charts which could expedite the field work and improve its quality.

Thus, in flat rural areas without any distinctive geographical sign, it is extremely difficult to find the assigned enumeration district. The inclusion of accurate references could help, first of all, to get there and then to locate oneself inside it. The detailed description of the starting point and the route to be followed by the enumerator

should become a habit. In other words, each map of the enumeration district should contain references enabling the reproduction of field work step by step. The absence of such hints in urban marginal areas, without clear-cut block definition and with rough dwellings built anywhere, complicates the census taking and lead on to undercounts and misreports.

However, there are further consequences, for instance, when using that cartography as the sample framework for different kinds of survey. A few recent studies performed in some Latin-American countries paid a high price for these negligences. In the enumeration districts included in the random sample located in marginal neighbourhoods, the identification of the household selected and the interviews were hampered due to the lack of indications in the charts on the route followed during the census enumeration. This lack of clear references may be the cause of considerable biases in these kinds of survey. Specially where locating the proper selected dwellings is a crucial point.

If, as it is foreseen, countries are understanding the advantages of having a basic, consistent and updated cartography to be used by all

data collectors, the solving of the mentioned negligences becomes a high-priority issue.

Within the census team, there is a character whose duties and responsibilities should be carefully reviewed. This is the field-work supervisor, a medium-rank official formally defined in the instruction manuals, but whose exact functions during the census day and immediately after are neither weighted nor monitored.

Observing his performance in the last experimental and national censuses, it has been found some kind of process of dispersion of his duties, under the erroneous pretension of being everywhere but, at the same time, without being where he is more needed. In this way, his work has turned superficial and routinist, allowing the appearance of important errors such as time lost in locating his team on the assigned area, lack of effective monitoring to ensure the complete coverage avoiding omissions within the enumeration district, absence of references in the cartography assigned to him. Failures tend to increase at crucial moments such as the end of the day, when gathering all obtained material and examining the list of addresses recorded in the

different census areas. Here, serious omissions have been detected (complete absence of addresses, of the route followed by interviewer inside the area, starting point, etc.) that reveal such superficiality. Such a material, aside from its significance for the census itself, would not be a reliable sample framework for other studies.

The organization and implementation of censuses have not escaped the delays caused by highly concentrated bureaucratic systems. Apart from a few exceptions, whenever there are provincial or departmental statistical branches, they play a subsidiary role in some specific tasks. After the census has been processed, they become another user with little possibilities of performing a creative work in the processing, retrieving and delivering of data or in their analysis.

Suggested cartographic improvements, the use of differentiated questionnaires, the new approach on files, use of disaggregated data at provincial and municipal level, would be extremely enhanced by a consistent decentralization policy of census tasks. Obviously, such policy would be wisely and carefully started according to the conditions of each area.

Finally, the extension of the meaning of the verb retrieve to intangible entities is a good indicator of the sudden changes, as regards the existing concept on data files. These innovations are so deep and dramatic that next census could be called the 'files revolution census'.

From rigidity to almost unlimited flexibility. From grouping administrative units to disaggregation. From high cost for a special cross-tabulations to low cost or eventually free procedures. From long delays to quick answers. From thick and heavy volumes to light fascicles or non-expensive mini-diskettes with complete series of cross tabulations, available in the Census Office itself. From tedious comparisons between two or more censuses, to interactive registers and longitudinal studies, and so on.

However, this conceptual and technological transformation also implies a deep refreshment in the attitude and work styles, at least, at three levels.

First of all, within the census offices themselves and in their external relations. In the same way today there are cartography and demographic

analysis sections, the establishment of a unit specialized in census data retrieval is foreseen. This unit would be supported by a more or less explicit policy of data delivery, the limits of which would be, theoretically, determined by the responsibility of maintaining the anonymity of individuals, but nothing more.

Also, it will be necessary to undertake a guiding or training task, directed to the now more demanding users. The official sector itself will be able to access through its internal microcomputer networks to the disaggregated data or interactive series, providing the census with a new application unknown today.

As a result of this process, the demographic knowledge itself and the demographers will be impelled to open the scope of their tasks aiming towards less explored directions. Closer to the conjuncture and less resigned to global or general trends studies.

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Résumé

Organisé sur trois chapitres ce document vise la mise à jour des recensements de la population et du logement qui seront pris en Amérique Latine au cours de la prochaine décennie.

Depuis les années 50 on a pu constater des progrès divers, mais toujours partiels, au sein des programmes d'enregistrement et de traitement des données. Il semble, le moment est arrivé pour une transformation qualitative et innovatrice faisant appel, non seulement, aux éléments techniques et conceptuels mais aussi les besoins d'information d'une clientèle plus diversifiée et exigeante.

Le recensement conçu comme un enregistrement exhaustif, devrait tout d'abord fournir les données indispensables, dans le sens strict, afin d'obtenir trois inventaires de base. C'est à dire ceux qui concernent les logements (unités physiques), les individus et les familles (unités sociologiques). A cet égard on suggère une réduction des questions que d'habitude, parfois par tradition, ont fait parti de la feuille de ménage ou de la feuille de logement.

Ces dénombrements, très simples mais à échelle universelle, devraient s'accompagner d'un répertoire additionnel de questions, en s'appuyant sur le sondage. Certains sujets tels que la scolarisation, l'activité économique, la fécondité, la mortalité, etc. s'insèrent dans cette catégorie. Encore un peu plus loin, il n'y a pas pourquoi adopter le même critère d'élargissement pour tout le pays. Bien au contraire on propose le principe d'hétérogénéité sous lequel il y aurait des questionnaires différenciés selon divisions administratives ou grandes régions. Par exemple, un pour les grandes villes (migrations, transport public, logements surpeuplés, marginalité, etc.) et d'autre ou d'autres pour les zones rurales (conditions sanitaires, constitution de familles, déplacements saisonniers, etc.).

L'idée de différentiation des données est en rapport au processus parallèle et croissant, dans le domaine socio-économique qu'on constate chez les pays latinoaméricains.

