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SUMMARY

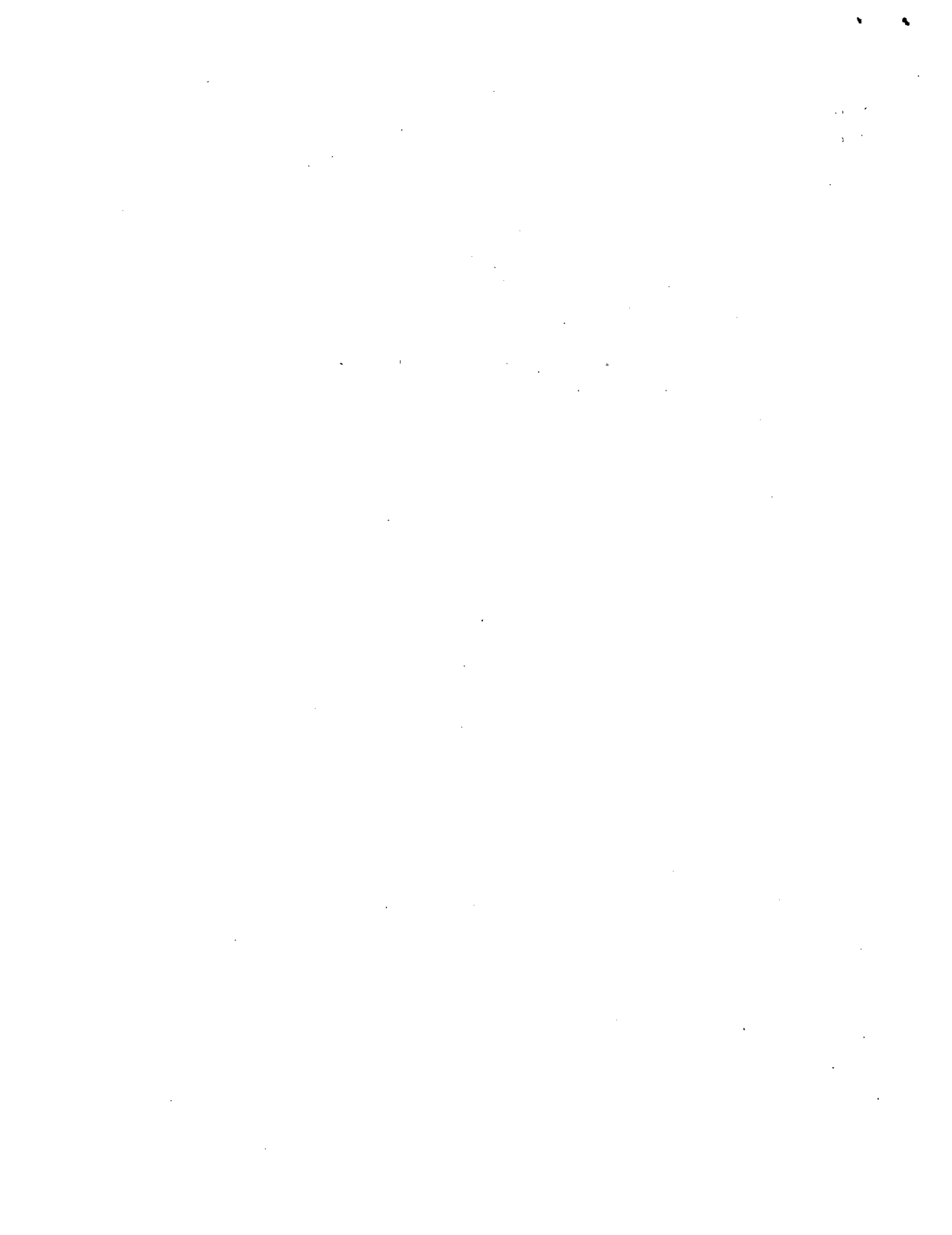
GUANABARA AND CAUQUENES-TYPE DEMOGRAPHIC SURVEY:
THE EXPERIENCE OF HONDURAS

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The opinions expressed in this study are the exclusive responsibility
of the author and may not coincide with those of the organization to
which he belongs.

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Introduction

The present document has been prepared for presentation at the meeting of the Expert Committee for the Improvement of Sources of Demographic Statistics, to be held in Buenos Aires from 25-29 March 1974, at which an analysis will be made of the following methods and procedures used to obtain data on natality and mortality:

- (a) Vital statistics obtained from the population register
- (b) Methods designed to obtain vital statistics from two independent sources: registers and surveys
- (c) Demographic surveys based on repeated visits, as sole sources of information for obtaining fertility and mortality data
- (d) Estimates on the basis of census questions.

If the registers of vital statistics were reliable, this would undoubtedly be the most suitable method of obtaining data on fertility and mortality, since it allows population changes to be measured in a continuing form and also provides data, such as mortality data by cause of death, which are difficult to secure by other means. But there are few countries in the area which have registers that are sufficiently complete to provide useful estimates for economic and social planning. In the United Nations Demographic Yearbook the registers of births and deaths are classified as "complete" or "incomplete" according to whether the approximate degree of estimated reliability is greater or less than 90 per cent. According to this classification, only 6 out of the 20 Latin American countries have complete registers, and these include countries such as El Salvador and Guatemala whose vital statistics are of a very doubtful degree of reliability. Even in the remaining four countries (Argentina, Costa Rica, Chile and Mexico), analysis of the registers by geographical areas **within** each country would show areas with large omissions.

In addition to errors of omission, the statistics collected are defective and are frequently published with considerable delay. In recent years efforts have been made to improve the quality of the registers, but it is difficult to secure major improvements

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over the short-term, since there are many problems to be solved, such as that of the organization of the registers, the technical training of the relatively large number of staff required, the establishment of modern measures to regulate their operation, and a budget more suited to their needs. The quality of registers of vital statistics probably depends to a greater extent than other sources on the economic, social and cultural situation of the country, and hence it is more difficult to achieve significant progress in the quality of the statistics of the most backward countries without a parallel improvement in their situation of backwardness.

In order to offset this lack of data, alternative methods of collecting data have been devised in the last 10 or 15 years, including independent survey checking, periodic visit surveys, and estimates on the basis of census questions (i.e., the methods mentioned in the first paragraph). In addition to these methods, there is the use of models or other analytical techniques to derive estimates from available fragmentary data, as for example when estimates of mortality are obtained from population statistics by sex and age in two successive censuses, or when the approximate birth rate or population growth rate is estimated on the basis of the age structure of a single census. These latter techniques are described in Manual IV of the United Nations ^{1/} and other sources.

Double register surveys do not appear to be a suitable solution for the countries of Latin America. In the opinion of William Brass ^{2/ 3/}, who has made an extensive analysis of these

^{1/} United Nations: Methods of estimating basic demographic measures from incomplete data, ST/SOA/Series A42, New York, 1968.

^{2/} Brass, W., Seminario sobre métodos para medir variables demográficas, CELADE, Series DS Nº 9, San José, Costa Rica, 1973, Chapter VIII.

^{3/} Brass, W., A critic of methods for estimating population growth in countries with limited data, CELADE, Series DS Nº 11, San José, Costa Rica, 1972.

methods, the independent checking survey carried out in Turkey, Pakistan and India have not been successful, for a series of reasons. Firstly, the method is very expensive, since a permanent survey has to be set up, plus the registers, plus a central organization responsible for the checking. Secondly, it requires an administrative organization of high efficiency which is difficult to achieve in developing countries. Thirdly, and most important, the theory does not work because the method requires the events recorded by the two sources to be independent, and this does not happen in practice. For a more detailed analysis the references quoted may be consulted.

The inclusion of retrospective questions in censuses and special surveys constitutes the most economical method of all those considered at the meeting. Questions of this type have been included in the majority of the population censuses made in the area during this decade, and they have provided valuable assistance in revising population estimates in the countries with less reliable data. The most usual questions are on children born, surviving children, children born during the last year, and motherless children. Paul Demeny ^{4/} mentions that the basic data can be better evaluated by separating children born alive and survivors by sex. The best estimates on the basis of such questions are obtained for infant and juvenile mortality and, to a lesser extent, for fertility. Indexes are also obtained for adult female mortality.

Repeated-visit surveys are undoubtedly more expensive and involve more effort than retrospective questions, but on the other hand they provide more varied and more precise data. They can also be combined with the previous method, as in Honduras (see below). Periodic-visit surveys, however, may suffer from serious omissions if the investigation is not conducted carefully. Comments on the application of this method in the National Demographic Survey of Honduras (EDENH) are given below.

^{4/} Demeny, P., Un programa para estimar medidas básicas de la fecundidad a partir de censos de población en los países asiáticos con estimaciones demográficas insuficientes, CELADE, Series D, Nº 76, Santiago, Chile, 1972.

Conclusions

The National Demographic Survey of Honduras has made it possible, in a relatively short period and at a reasonable cost, to obtain a series of demographic indicators which are useful for gaining an overall view of the demographic situation of the country. These estimates are of great value in a country like Honduras, where the registers of vital statistics show serious omissions amounting to as much as 70 per cent or more in the case of deaths of infants less than one year old.

Some features of these surveys make them very appropriate for developing countries. They contain just a few easily answered questions, they investigate what has occurred over short periods of time to persons previously registered, checks and verifications which improve the quality of the data can be made, and results can be obtained shortly after the completion of each round of the survey.

The main criticism usually made of these surveys is that they may omit a considerable proportion of vital occurrences. Double register surveys aim precisely at reducing omissions by the collation of both sources of data (survey and register). It seems more advisable, however, to carry out a survey by rigorously controlling the field-work but eliminating the double register and collation.

In the EDENH survey some precautions were taken to avoid omissions. First, a relatively small sample of 35 thousand persons was investigated. Consequently, only a small number of enumerators was employed and these were very closely supervised. Continuous assistance was provided by a United Nations expert who remained in the field for most of the time, and there were also sporadic visits by several CELADE staff members. As regards the register of births, a very useful checking question on pregnancies was included in the questionnaire in each round, and this gave advance notice of the births which took place. The same question made possible a check on deaths of infants, particularly those which took place within

a few days of birth ^{5/}. Perhaps the two related points which call for special precautions in order to avoid possible errors are domestic migratory movements and adult mortality. In the EDENH survey these movements were very frequent - around 17 thousand domestic migrants as opposed to 2,520 births and 725 deaths. If the study of migration is not carried out carefully, a person who has died may be counted as an emigrant. This may happen, for example, in the case of a person who leaves his lodging owing to illness and later dies, or in the case of the death of the head of the household or his wife, followed by the emigration of the rest of the family.

Lastly, a question which is of interest in view of the objectives of the meeting is whether the survey can be established in Honduras as a permanent means of collecting data. The experience of two years in Honduras points to the conclusion that it is not advisable to support the permanent continuation of the survey, if the field-work remains exclusively in the hands of local staff, since without the external contribution the operation would not produce such satisfactory results. Consequently, support is being given to surveys of a temporary nature in countries with the same conditions as those prevailing in Honduras when the survey was carried out. The time limit could be a year and a half between the beginning and completion of the field work, so that the population being studied would be under observation for one complete year.

^{5/} In Honduras deaths of infants less than 7 days old account for 15 per cent of deaths of all ages, according to the survey.

