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**Utilization of Research in  
Dominican Republic**

**The Case of the National  
Fertility Survey of 1975**

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The World Fertility Survey (WFS) is an international research programme whose purpose is to assess the current state of human fertility throughout the world. This is being done principally through promoting and supporting nationally representative, internationally comparable, and scientifically designed and conducted sample surveys of fertility behaviour in as many countries as possible.

The WFS is being undertaken, with the collaboration of the United Nations, by the International Statistical Institute in co-operation with the International Union for the Scientific Study of Population. Financial support is provided principally by the United Nations Fund for Population Activities and the United States Agency for International Development. Substantial support is also provided by the UK Overseas Development Administration.

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# Utilization of Research in Dominican Republic

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## The Case of the National Fertility Survey of 1975

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# Preface

The main aim of the World Fertility Survey programme is to assist countries to describe and interpret their fertility. Thus, the main concentration of activity has been on data collection and analysis. However, the data collected under the programme are obviously intended for use by policy-makers in determining and monitoring policies on population and related matters, and the WFS has therefore a close interest in stimulating and encouraging dissemination and research activities which can enhance this utilization.

The actual means by which this dissemination is best achieved, and the practical indications of actual utilization, will clearly vary between countries, depending on their circumstances. However, as with other aspects of its activities, a major contribution of the WFS programme stems from its cross-national character, whereby countries can observe the experience of others and hopefully benefit from them.

Manuel M. Ortega has documented the experience of one participating country, Dominican Republic, following the National Fertility Survey of 1975, and his study was published in Spanish in 1980 by the Instituto Tecnológico de Santo Domingo, under the title *Utilización de Investigaciones en República Dominicana*. This study, the first of its kind in relation to the WFS programme, describes the problems encountered in Dominican Republic and makes recommendations arising from the experience of the WFS survey and three other surveys in comparison.

The WFS has felt that the material brought together in this study would be of interest and value to other participating countries, and indeed to all who are involved in the dissemination of survey data. This abridged version in English has therefore been prepared for publication in the WFS *Occasional Papers* series. It highlights the main points of the Dominican Republic experience and the conclusions which Manuel M. Ortega draws therefrom.

The WFS is grateful to Manuel M. Ortega for agreeing to the publication of this abridged version of his report and for checking the text. The WFS is also grateful to the Rockefeller Foundation for undertaking the initial translation of the Spanish text into English.

HALVOR GILLE  
Project Director

# Acknowledgements

The present study was conducted by the Research Centre of the Technological Institute of Santo Domingo (INTEC), financed by the Rockefeller Foundation of New York. It was directed by Manuel M. Ortega, who designed the research methodology, conducted the in-depth interviews, analysed the data and wrote the present report. Andrea Soriano assisted in the project, reviewing the Dominican publications analysed in the study.

Radhamés Piña conducted the survey of the auxiliary personnel of the National Fertility Survey of 1975, and prepared its preliminary tabulations. Lucero Arboleda de Roa assisted in compiling the bibliography. Vivian M. Mota and María E. Córdoba read this report and made valuable criticisms and suggestions. Robert M. Batscha acted as a consultant for methodological matters. We are also grateful for the assistance of Mary M. Kritz, program officer at the Rockefeller Foundation in charge of project monitoring. Sheila K. de Bobadilla was responsible for the administrative and secretarial work involved. The Dominican Association for Family Welfare (PROFAMILIA) made available its collection of press cuttings from the national daily press. Finally, mention must be made of the co-operation of those who kindly agreed to be interviewed.

The authors are indebted to all those whose contributions, both intellectual and material, made possible the present research project.

## Note on the English Edition

The English edition is an abridged version of the original Spanish work, *Utilización de investigaciones en República Dominicana: el caso de la encuesta nacional de fecundidad de 1975* (Santo Domingo, Instituto Tecnológico de Santo Domingo, 1980). In particular, the English version shortens substantially the introductory chapter which provides an overview of relevant studies done before on the dissemination and utilization of the applied research in the Third World and develops a unified set of technical terms used in researching the inter-relationship between scientific information and policy-making. It also omits the four appendices, which included tables containing the year-by-year results of the review of Dominican newspapers in the last decade; a list of the auxiliary personnel of the National Fertility Survey of 1975; tables from the survey conducted on the personnel; and a list of all those who were interviewed for this study, with their respective positions in government, planning, the private economic sector, and the academic world. The present bibliography has also been abridged, and readers are advised to consult the Spanish edition for the full bibliography, available from Biblioteca, Instituto Tecnológico de Santo Domingo (INTEC), Apartado 249-2, Santo Domingo, Dominican Republic.

# 1 Introduction

## 1.1 BACKGROUND

Although much research has been done in the past three decades on the socio-economic and political development of the Third World, the results of this research have always not been utilized in political and economic decision-making. In some cases, this is due to the poor quality of the research itself; in others, to the political systems prevailing. But often the research is never adequately made known to the individuals and organizations responsible for decision-making. Since the mid-1950s there has been some concern as to whether the results of research are being properly utilized, mainly in Third World countries.

## 1.2 OBJECTIVES OF THE STUDY

This report is an evaluative study of the dissemination and utilization of data from the National Fertility Survey of 1975 (the Encuesta Nacional de Fecundidad, or ENF) and its five specific objectives are to present the following:

- 1 An account of how the National Population and Family Council of the Dominican Republic (CONAPOFA) disseminated the results of the ENF, and its methods of data storage and retrieval, including a comparison between the dissemination of the results of the ENF, the National Population Census of 1970, the National Demographic Survey of 1969-71 (the Encuesta Demográfica Nacional or EDN), and the Diágnos Survey of 1974.
- 2 An account of the use which had been made of ENF data, up to the end of 1979, by CONAPOFA's national population programme and other Dominican agencies, again including a comparison between the use made of ENF data and those of the other three demographic surveys.
- 3 An examination of research done up to 1979 based on data from the ENF, and from the 1970 Census, the EDN and the Diágnos Survey.
- 4 An examination of the subsequent use of the personnel who had been hired and, in most cases, specially trained for the ENF.
- 5 Finally, recommendations as to how demographic research can be utilized in the future.

## 1.3 METHODOLOGY

The methodology used in the present study included a review of relevant literature on the dissemination and utilization of development research, on the four surveys themselves,

the ENF, the 1970 Census, the EDN and the Diagnos Survey, and on the relationship between research and planning in the private and public sectors in Dominican Republic. The most important publications on these three areas are given in the bibliography.

We also examined the coverage of the ENF and the 1970 Census, the EDN, and the Diagnos Survey in the Dominican newspapers between 1 January 1970 and 31 March 1979, using cuttings from the archives of the Dominican Association for Family Welfare (PROFAMILIA), which consisted of 112 files, and from the present author's own archives, which included 1054 press cuttings. During this period, the following newspapers were published in Dominican Republic: the morning papers *El Caribe*, *Listin Diario*, *El Sol*, and *El Tiempo* (no longer in existence) in Santo Domingo; the evening papers *El Nacional de ¡Ahorc!*, *La Noticia* and *Ultima Hora* in Santo Domingo; and the afternoon paper *La Información* in Santiago de los Caballeros. These two collections of cuttings did not contain all the material on population which had appeared in the daily press during the 1970s, but they gave none the less an adequate indication of the coverage of the four demographic surveys.

We further examined all mention, whether brief or extensive, of the ENF in 11 contemporary Dominican scientific journals in the period January 1970–March 1979, if this issue was already in circulation by 31 December 1979, our cut-off date.

Table 1 shows the names of the journals we reviewed and the number of issues of each.

**Table 1** Dominican scientific journals included in the study and number of issues reviewed

**1 University journals**

*Aula* (Universidad Nacional Pedro Henríquez Ureña, UNPHU): 18 issues.

*Ciencia* (Universidad Autónoma de Santo Domingo, UASD): 9 issues.

*Ciencia y Sociedad* (Instituto Tecnológico de Santo Domingo, INTEC): 5 issues.

*Derecho y Política* (UASD): 2 issues.

*EME-EME Estudios Dominicanos*: (Universidad Católica Madre y Maestra, UCCM): 40 issues.

*La Revista de Ciencias Económicas y Sociales* (UASD): 1 issue.

**2 Para-university journals**

*Estudios Sociales* (Centro de Investigación y Acción Social, CIAS): 33 issues.

*Nuevo Rumbo*: 13 issues.

*Política* (Partido Revolucionario Dominicano, PRD): 11 issues.

*Realidad Contemporánea*: 6 issues.

**3 Professional journals**

*Salud Pública* (Secretaría de Estado de Salud Pública y Asistencia Social, SESPAS): 34 issues.

Eleven journals with a total of 172 issues were examined. This excludes *Nuevo Rumbo* no 5, *Política* no 10, and *Salud Pública* no 5, which were not available in the libraries consulted; and the professional journal, *Revista CODIA*, likewise unavailable.

We analysed the utilization of the ENF and the other three demographic surveys made in the publications of the National Planning Office of the Dominican Republic (ONAPLAN). We looked at material published in the period 1 January 1970–31 December 1979, i.e. the two volumes of the *Versión preliminar del plan nacional de desarrollo*, 1974, plus numbers 5–39 of the PLANDES series, excluding the issues 35 and 36, which were unavailable.

We examined the re-employment of the ENF auxiliary personnel, the quality of their original training and the experiences gained from their work with the ENF. Our results in this case have proved useful not only to CONAPOFA but also to the different research organizations in Dominican Republic. The survey of the ENF auxiliary personnel took place in April–June 1979, using a schedule of 14 questions, almost all of which were open ended. Those who lived in Santo Domingo were interviewed personally, the rest by post. Of a total of 65 persons, 47 were located, i.e. 72 per cent of the total. Of these 47, 40 were interviewed personally and 7 replied by post.

In March–July 1979 a series of in-depth interviews was held with a representative group of researchers and planners, who are present or potential users of data from the ENF, the 1970 Census, the EDN and the Diagnos Survey, and other studies relevant to planning. These interviews were aimed at obtaining information about data storage and retrieval systems, and the dissemination, cost, and utilization of survey results. The interviews also sought opinions from those professionally qualified to give them on the factors which may influence how research-based scientific information is received by planners. This second series of questions on the relationship between research, planning and political decision-making forms the basis of a second complementary study, to be published in 1982.

Forty-one people were interviewed, 40 by the director of the study, and one interview was taped from a television programme. The interviews ranged from 45 minutes to almost four hours. The questions asked were based on the experiences acquired during surveys conducted before by a joint project initiated under the auspices of the Organization for Economic Co-operation and Development (OECD) (Batscha 1976: 188–90; Souza Costa Barros and Figueiredo 1977: 90–1) and on the model questionnaire designed by Manoel Costa and Robert T. McLaughlin for a research project in Brazil (1975: annex B).

Our interviews consisted of 54 batteries of open-ended questions, which were used selectively, according to the category of the person interviewed (researcher, manager,<sup>1</sup>

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<sup>1</sup> Managers are defined as those who are sponsoring a survey and who usually play a supervisory role during the survey itself.

'social communicator', ie journalist, or utilizer). All those interviewed were told that their personal opinions were being solicited and that the institutions to which they belonged would in no way be compromised. They were also assured of complete confidentiality.

In order to produce this report, we analysed and edited information from all these sources.

## 2 Analysis and Results

In this study, we compared the use which has been made of the National Fertility Survey of 1975 and compare it with the 1970 Census, the National Demographic Survey 1969–71 and the Diagnos Survey 1974. All the surveys were conducted in the 1970s (except for the EDN, whose first survey phase took place in December 1969), the principal objective being to determine some of the basic demographic variables: population size, growth, composition and distribution. They were all based on research methods of recognized scientific merit, with fully adequate material and human resources, and although international consultants were used, the surveys were directed by Dominican nationals, with the senior officials from Dominican institutions. Finally, all of these studies were geared to obtaining statistical data which could be applied to the country's socio-economic development.

The present study is concerned primarily with the ENF. The other three surveys are presented for the purposes of comparison. All four surveys are described below.

### 2.1 COMPARISON OF THE SURVEYS

#### The 1970 Census

The 1970 Census took place on 9 and 10 January 1970. Although it was a census of both population and housing, we are concerned here with its coverage of population. It was conducted by the National Office of Statistics (Oficina Nacional de Estadística, or ONE) with the technical and financial assistance of the Organization of American States (OAS) and the US Agency for International Development (AID). Its specific aims were to determine the general characteristics of the Dominican population, such as sex, age, and legal and common law civil status; the principal educational characteristics, such as literacy, level of education, and school attendance; economic and work status; and certain characteristics regarding fertility and migratory status.

The questions referring to sex, age, legal and common law civil status, literacy, level of education, and school attendance were applied to the entire census population, while the questions referring to economic and work status, fertility, and migration were applied to only 50 per cent of the urban population and 25 per cent of the rural population. These percentages were selected by statistical sampling.

The preliminary figures on the total population and by urban and rural zones in all the provinces, municipalities, and municipal districts of the country were officially published by Executive Decree no 5225 on 14 July 1970, six months after the completion of the census. One and a half years later, in December 1971, additional preliminary data were published based on a 20 per cent sample of the census schedules relative to all the demographic characteristics of the total population. This information was later analysed in a Symposium on the Use of the 1970 Census Population Data, organized by ONE in May 1972. In 1976, ONE initiated the publication of the final census data, based on 100 per cent of the census schedules and corresponding to the different demographic characteristics investigated (in some cases presented only by province, and in others by province, municipality, and municipal district). By January 1980, however, only two volumes containing the final data of the 1970 Census had appeared: the first, on the general characteristics of the population, was published in March 1976; and the second, on educational characteristics, was published in March 1978.

### The EDN

The EDN was carried out jointly by ONE and the State Secretariat of Public Health and Social Assistance (Secretaría de Estado de Salud Pública y Asistencia Social, or SESPAS), and financed by the UN Fund for Population Activities (UNFPA), CONAPOFA and the Fund for the Advancement of the Social Sciences. It was carried out in four stages of survey visits between December 1969 and March 1971, and was based on a national sample of approximately 37 000 households for the first and fourth stages; and a subsample of approximately 14 000 households for the second and third stages.

The EDN stemmed from the desire to evaluate the 1970 Census and to produce reliable vital statistics, and its original objective was to determine the birth, infant and general mortality, and abortion rates. Very soon, however, further objectives were added, ie to study fertility in relation to certain socio-economic characteristics; to collect information on knowledge, attitudes, and practice of family planning; and, finally, to relate the internal migration patterns of the heads of Dominican households and their status in the labour force to other demographic and educational characteristics.

However, the original aim of determining mortality and abortion rates had to be abandoned eventually because of certain difficulties encountered during fieldwork.

The first results to be analysed related to fertility and family planning. This information, which had been collected during the four stages of the survey from a subsample of 14 000 households, was published by ONE in December 1973. The data on internal migration and work status of heads of household, obtained in the fourth stage and based on a sample of 37 000 households, were not published until November 1977. Publication was made possible by the financial aid of CONAPOFA and the Fund for the Advancement of the Social Sciences.

## **The Diagnos Survey**

In 1974 SESPAS, with funds from an AID loan, carried out an evaluative study of health called Diagnosis of the Health Sector. The Diagnos Survey was one of the four surveys carried out during the study and had the specific objective of supplying a series of primary data on health, which up till then had been fragmentary and unreliable. The survey's original budget was slightly more than \$87 000.

For the first time within a single survey in Dominican Republic, the Diagnos results presented comparable data on births; mortality and morbidity; and the demand for and actual use of the health services. The survey also included questions on family composition, housing and environmental health, education and employment, fertility (including family planning and abortion), and internal and external migration.

The survey was based on a stratified sample of approximately 25 000 households throughout the entire country. The data were collected in June and July 1974, using two questionnaires. The first (which included questions on family composition; housing and environmental health; socio-economic variables; births; fertility; and internal migration) was applied randomly to 50 per cent of the households surveyed; the second (which contained questions on mortality and morbidity; demand for and actual use of the health services; and external migration) was applied to all of the households in the sample.

The preliminary data from the Diagnos Survey were tabulated manually almost immediately and were included in the preliminary report of Diagnosis of the Health Sector, presented to SESPAS and AID at the end of 1974. These data were later keypunched, edited, and transcribed on computer tapes.

Nevertheless, a great many organizational and financial difficulties delayed the computerized production of the definitive results of the Diagnos Survey for two more years. It was only at the end of 1976 when, through an agreement with AID, the US Census Bureau of Washington produced the cross-tabulations of the investigation.

No final report on Diagnos Survey, including its background, methodology and tabulations, had been published by January 1980. Likewise, the findings of the Diagnosis of the Health Sector have appeared only in a preliminary draft, in approximately half a dozen typed copies. Nevertheless, the information produced by the Diagnos Survey has been used both in Dominican Republic and abroad in several seminar papers; in studies, including some theses; and in official documents.

## **The ENF**

The ENF of Dominican Republic was conducted as part of the World Fertility Survey (WFS), an international research programme administered by the International Statistical

Institute (ISI) in collaboration with the International Union for the Scientific Study of Population. Financed principally by the UNFPA and AID, the WFS represents the first co-ordinated effort to determine the present state of fertility on a world level.

The ENF was the responsibility of CONAPOFA, which completed the study in 27 months, from August 1974 to October 1976. Its total cost was DR\$200 300; 77 per cent of which was provided by UNFPA and the remaining 23 per cent by CONAPOFA.

The study was directed by a team of national researchers who received valuable technical assistance, notably from the WFS and the Population Council of New York.

The general objectives of the ENF were to determine recent patterns, levels and trends of fertility, fertility differences according to populational strata, and the principal factors affecting fertility; to obtain information on knowledge and use of contraceptive methods within and outside CONAPOFA's national family planning programme and information on the incidence of abortion; to provide basic data for the programming and subsequent evaluation of the CONAPOFA programme; to contribute, by means of a clearer identification of demographic trends, to the formulation of adequate policies for the country's socio-economic development; to supply SESPAS with information on the coverage of its maternal and child care programme; and to develop national demographic research capabilities, by training Dominican personnel.

The fieldwork took place in April–July 1975. For the purpose of data collection, the ENF employed a system of double samples: the first consisted of nearly 12 000 households, which were given household questionnaires similar to those used by the censuses; the second was made up of approximately 3200 women of fertile age selected randomly from among the members of the households in the first sample.

The extensive individual questionnaire given to the women was divided into nine sections, covering (a) respondent's background; (b) maternity history; (c) contraceptive knowledge and use; (d) history of sexual life during the last year; (e) maternal and child care; (f) marriage history; (g) fertility regulation; (h) work history; and finally (i) work history of the current or last husband. Seven of these nine sections were adapted from the basic questionnaire designed by the WFS; the sections on sexual history in the past year and on maternal and child health care were designed by the ENF researchers themselves.

For the purpose of data processing, the survey directors received the assistance of the US Census Bureau and the Latin American Demography Center (Centro Latinoamericano de Demografía, or CELADE), which has its headquarters in both Santiago, Chile and San José, Costa Rica.

When CONAPOFA published the *Informe general* of the ENF in October 1976, Dominican Republic became the first country in Latin America to make public the results

of its participation in the WFS. The format of the *Informe general* is basically the one recommended by the WFS. Of a predominantly descriptive nature, this volume, of slightly more than 600 pages, contains the background and objectives of the ENF; its methodology, including a comparison of some of its data with the results of the 1960 and 1970 censuses; a brief analysis of the most important findings; and, finally, all the tables available at the time of publication.

## 2.2 DATA STORAGE AND RETRIEVAL SYSTEMS USED BY THE ENF

The storage and retrieval systems<sup>2</sup> used in a survey play an important part in either expediting or obstructing the dissemination and utilization of the findings. If these are published and made available in easily accessible libraries and documentation centres, and if the basic data can be stored in a computerized retrieval system, then the chances of the data being used are vastly increased.

The ENF data are available as follows. The methodology, base tables, and initial analyses are to be found in the First Country Report, the *Informe general*. Of a total of 1000 copies, about 400 were sent abroad, with approximately 100 to the WFS and the remainder to libraries, documentation centres, research institutes and the donor agencies. The remaining copies of the *Informe general* have been distributed within Dominican Republic, with CONAPOFA sending the majority, unsolicited, to libraries, documentation centres, official and private organizations concerned with population and socio-economic planning; and the rest have been distributed to individuals and organizations upon request. CONAPOFA still has copies of the *Informe general* which may be obtained upon request, and ISI also has copies, both as bound volumes and on microfilm. The ENF basic data, revised and edited, are available on magnetic tape. In Dominican Republic there are copies of these tapes in DATO CENTRO, SA and in CONAPOFA. Elsewhere, there are copies in the WFS, the US Census Bureau, the Population Council, and the CELADE headquarters in Santiago, Chile and San José.

The ENF tapes are not yet available through any direct-access computer system, national or international. But both WFS and CONAPOFA offer ample facilities for the use of these tapes. The WFS, before responding to a request to consult the data, seeks authorization from CONAPOFA. CONAPOFA also offers, free of charge in Dominican Republic, additional tabulations to individuals or organizations that can justify their request and have a clear idea of the type of data and tables they require for their research.

CONAPOFA collects material related to the ENF, either produced in Dominican Republic or in other countries, especially publications relating to national fertility surveys in other countries in the area

<sup>2</sup> Data storage systems are libraries, documentation centres and computerized data banks. Data retrieval systems include both manual retrieval systems (using, for example, the Dewey Decimal Classification) and computer systems (using programs such as FORTRAN, COBOL and RPG).

The storage and retrieval of ENF data has been found to be adequate since, as we have seen, the *Informe general* is available inside and outside Dominican Republic in a large number of libraries and institutes, with copies available free of charge from CONAPOFA or from WFS, who also supply magnetic tapes on request.

The data storage and retrieval of the ENF compare favourably with the other three surveys. The Diagnos Survey has still not published its final report, and there has been no systematic publishing of its findings, while the 1970 Census has published only two of the four proposed volumes. The Diagnos Survey data exist on magnetic tape in the possession of its two principal investigators and three US institutions. ONE has the complete tapes of the 1970 Census and CELADE has a sample of these tapes in its data bank. The EDN, however, has neither tapes nor computer cards of its data, so that at present it is impossible to retrieve its basic data.

Moreover the 1970 Census, the EDN and the Diagnos Survey did not receive the assistance which CONAPOFA and WFS gave to the ENF, enabling data storage and retrieval to be set up. Although ONE began to organize a national bank of computerized statistical data in June 1978, the system is not yet in operation. ONE also suffered until 1978 from economic constraints, resulting in staffing and administration problems and a long delay in the publication of national statistics. The Diagnos Survey and its report were handled by non-SESPAS technicians, so that the majority of SESPAS officials have not recognized or supported the findings, and in addition, AID's support seems to have come to an end with the funds granted to produce its cross-tabulations at the end of 1976.

## 2.3 DISSEMINATION OF THE ENF RESULTS

### Methods of Dissemination

The *Informe general*, the First Country Report, was published and distributed only 15 months after the completion of the survey. The publication costs were DR\$ 9000, a sum equivalent to 4.5 per cent of the ENF budget. Both before and after publication, CONAPOFA press releases appeared from time to time in the Dominican newspapers and on radio news programmes, highlighting aspects such as the main objectives of the ENF, the survey's progress, its most important findings and their implications.

CONAPOFA's Executive Secretary held several press conferences at various stages of the survey. On 17 April 1975, he announced the imminent start of the survey; on 19 November 1976, he informed the press of the recent publication of the *Informe general* and explained the principal findings of the survey; and on 23 February 1977, he announced CONAPOFA's financing of the first research projects to analyse specific ENF data. In addition, several radio and television programmes featured the ENF in interviews and discussions whose panels included the Executive Secretary of CONAPOFA and the director of the ENF.

On the publications side, in 1976 CONAPOFA published in Spanish and English the pamphlet *Ocho años del Consejo Nacional de Población y Familia (CONAPOFA), 1968-1976 (Eight Years of National Population and Family Council Existence (CONAPOFA) 1968-1976)*, which describes its objectives and achievements. Three hundred copies were printed in each language. A brief section of this booklet discusses the ENF, its objectives, and some of its preliminary findings. In 1978 CONAPOFA began to publish a quarterly bulletin *Población y Familia*, with a circulation of 1000 copies. Although none of the seven issues of *Población y Familia* which have appeared to date are devoted exclusively to the ENF, all of them except one have included material on the ENF. The bulletin is distributed to the country's mass media; CONAPOFA personnel; SESPAS officials, including the regional directors and supervisory personnel; universities; interested students; and, finally, official and private institutes involved in population activities both in Dominican Republic and elsewhere.

In March 1976, several months before the publication of the *Informe General*, a one-day seminar was held in Santo Domingo. Its object was to explain to a specialized audience the scope and methodology of the ENF and the variables it used. Participants were invited by CONAPOFA to present research projects which would analyse specific ENF data. The seminar was attended by 35-40 social scientists.

A few months later, in May 1976, CONAPOFA held a two-day seminar in Santo Domingo. The event, organized jointly with the National Planning Office (Oficina Nacional de Planificación, or ONAPLAN), had the collaboration of the Population Council. Technicians from the planning departments of several state institutions were invited to attend. The seminar aimed to show how to produce and utilize population forecasts in development planning, and elaborated a series of new demographic projections based on preliminary data of the ENF. The seminar made a contribution to publicizing the survey results among Dominican government planners.

In 1977, WFS published a summary of the principal findings of the ENF in English, Spanish and French. It also published a list of the tables contained in its *Informe general*, and this material is distributed free of charge by WFS. The WFS itself has published or co-published First Country Reports of participating countries, as well as its regular series of publications, such as *WFS Scientific Reports* and *WFS Comparative Studies*, a number of which feature Dominican Republic. At international meetings members of WFS staff and WFS consultants have presented papers dealing with the ENF.

#### Comparison of the Dissemination of ENF Data and Data from the Other Three Demographic Surveys

In order to make this comparison, we have looked at the coverage given to the four demographic surveys in the national press; and at the knowledge of these surveys found among a group representative of the primary and secondary audiences<sup>3</sup> of this type of research.

<sup>3</sup> Primary audiences are defined as the principal utilizers of survey results, those with decision-making powers and their advisors, ie politicians, executives in the private sector, middle-level government officials and international development agencies. Secondary audiences are those in a position between the researchers and their primary audiences and include academics, pressure-groups, the media and other interested parties who influence public opinion.

Examining the collections of press cuttings described earlier, we classified coverage of the surveys as follows:

- (I) Any mention of a survey, at any stage in its progress, and any mention of survey reports and follow-ups.
- (II) Any mention of survey results, and tables or graphs published.
- (III) Any editorial comments on the surveys.
- (IV) Any discussion of government policy or decision-making based on survey data.

Categories (I) and (II) of this classification cover simply information, while categories (III) and (IV) cover editorial comment and evaluation.

Tables 2 and 3 present the numbers and percentages produced by this classification.

The total coverage of the four surveys (253 press mentions) is not very large compared to the total number of cuttings examined in the two collections (112 files in the collection of the Dominican Association for Family Welfare (PROFAMILA), and 1054 cuttings in my own collection, making a total of at least 3000 cuttings). Although not all press mention of population issues was included in the cuttings, we may conclude that the four surveys did not attract much attention from the newspapers.

Table 2 Number of mentions of each survey found in the two newspaper collections (January 1970–March 1979), according to the classification adopted

	I	II	III	IV	Total
1970 Census	30	87	19	30	166
EDN	7	2	1	3	13
Diagnos	3	4	1	1	9
ENF	27	24	4	10	65
Total	67	117	25	44	253

Table 3 Percentage of mentions given to each survey found in the two newspaper collections (January 1970–March 1979), according to the classification adopted

	I	II	III	IV	Total
1970 Census	45	74	76	68	66
EDN	10	2	4	7	5
Diagnos	4	3	4	2	4
ENF	40	21	16	23	26
Total	26	46	10	17	

Press coverage solely conveying information predominates over editorial comment, taking all four surveys together (73 as against 27 per cent of the mentions, respectively). This predominance is even greater in the case of the ENF (78 as against 22 per cent).

There is a significant difference between the coverage of the 1970 Census (66 per cent) and the ENF (26 per cent), on the one hand, and the coverage of the EDN (5 per cent) and the Diagnos Survey (4 per cent), on the other. The first two surveys represented 91 per cent of all press mentions. It is not surprising that the coverage of the 1970 Census exceeded the coverage of the other three surveys, since a population census which occurs once every ten years is something of a national event, and census data is constantly used and publicized. The very sparse press coverage of the EDN and the Diagnos Survey reflects the delays of both surveys in publishing their findings, and the lack of interest from ONE and SESPAS in the case of both surveys.

The press coverage of the 1970 Census was greater than the coverage of the ENF, whether comparing the number of mentions received during the entire decade (the Census received 166 mentions and the ENF only 65) or the number of mentions of each survey during the four-year period immediately following its completion (110 for the Census between 1970 and 1973, and 65 for the ENF between 1975 and 1978).

Although in relative terms the ENF obtained the second largest coverage given to the four surveys, in absolute terms the 65 mentions it received in the four-year period after its completion can be considered low. This can be attributed to the fact that CONAPOFA, despite its occasional press releases and press conferences, never planned, much less implemented, a systematic publicity campaign.

The groups and individuals who can potentially make use of population surveys are politicians involved in decision-making; executives in the private sector; government technicians and planners; the representatives and advisors of international organizations; academics and researchers; and 'social communicators' or journalists.

We interviewed 41 people considered representative of the groups, and compared the answers given by 30 who had not participated in any of the surveys in response to questions on the extent of their knowledge of the four surveys. Table 4 shows the number and

Table 4 Interviewees who knew of the existence of each survey

	N	%
1970 Census	30	100
EDN	20	67
Diagnos	27	90
ENF	28	93

the percentage distribution of the interviewees who stated they had knowledge of the existence of each of the surveys.

Although the 30 interviewees stated without exception that they knew of the existence of the 1970 Census ('inevitably' so, according to one of the interviewees), the majority were not familiar with its findings. In reply to a question about the two volumes of definitive statistics published by ONE, only 11 of them (37 per cent) said they were familiar with the first volume on the general characteristics of the Dominican population, which had been published in an edition of 2000 copies in 1976. Only five interviewees (17 per cent) were familiar with the second volume on educational characteristics, published in an edition of 1000 copies in 1978. This lack of knowledge can be attributed to the processes of publication and distribution of the 1970 Census results, described in some of the replies as 'poor', 'late' and 'disorganized'.

The EDN was by far the least known survey. According to table 4, only 20 interviewees (67 per cent) knew of its existence. Moreover, only 10 interviewees (33 per cent) were familiar with the ONE report on its fertility and family planning findings, 1000 copies of which were published at the end of 1973. Although 22 interviewees (73 per cent) responded that they were familiar with the monograph containing the EDN findings on migration and work status, published by CONAPOFA and the Fund for the Advancement of the Social Sciences in 1977, 15 of them did not know of the relationship between the monograph and the EDN.

Although, according to table 4, 27 of the 30 interviewees (90 per cent) said they knew of the existence of the Diagnos Survey, six of them confused it with the Diagnosis of the Health Sector or with the other studies concerning agriculture and nutrition. The absence of a final report on the Diagnos Survey, which was lamented by several of the interviewees, must have contributed to this confusion.

Twenty-eight interviewees (93 per cent) knew of the existence of the ENF; however, more detailed questions on the distribution of its *Informe general* produced the following results:

- 1 Eighteen interviewees (60 per cent) knew of the existence of the *Informe general*.
- 2 Fourteen interviewees (47 per cent) had read or glanced through it.
- 3 Ten interviewees (33 per cent) had their own copies.
- 4 Six interviewees (20 per cent) had been sent, unrequested, a copy by CONAPOFA.

Also included was a question on whether or not they were familiar with CONAPOFA's bulletin, *Población y Familia*, since material on the ENF has appeared in almost all of its issues. Fifteen interviewees (50 per cent) replied that they knew of its existence. Twelve of them (40 per cent) stated that CONAPOFA had been sending them the bulletin unrequested.

In conclusion, the results indicate that the ENF data have reached concerned groups and individuals satisfactorily, as compared with the other three surveys.

### Shortcomings in the Dissemination of the ENF Results

The process of dissemination has suffered from a number of shortcomings. First, the principal directors of the ENF and CONAPOFA, when interviewed, agreed that there had been no master plan to disseminate the results of the survey nationally. The study's potential audience had not been identified, nor had the most efficient channels of communication been systematically selected. Some interviewees contrasted the absence of any planning of media communication in the ENF with the professional handling of the design and methodology of the survey itself, on the advice of the WFS.

Because of the absence of any professional planning or expertise in this kind of publicity and media communication, attempts to disseminate ENF results were completely makeshift, lacking the necessary continuity, and unable to reach key sectors of the primary and secondary audiences of the survey. At no time was the person in charge of CONAPOFA's Information and Education Unit, who had appropriate professional training, invited to participate in planning the dissemination activities of the ENF. This lack of co-ordination between the different units of CONAPOFA may have been the main cause of these missed opportunities.

In any event, the ENF results could certainly have been more publicized. One interviewee was of the opinion that the results of the ENF should have been 'marketed' among its potential utilizers through articles periodically prepared for the national press, a greater number of press conferences, meetings with the directors of newspapers and radio and television stations, editorial and feature writers with the greatest influence on public opinion, and with government technicians and high officials, and finally, small, attractively produced pamphlets explaining the principal results of the ENF and highlighting its practical implications.

There was felt to be a lack of proper communication with certain important groups or audiences. The one-day seminar held in Santo Domingo in March 1976 was not sufficient to reach enough academics. This type of meeting should have been held in all the main universities.

Likewise, the single seminar held in May 1976, organized jointly with ONAPLAN, which focused on demographic forecasts was insufficient for planners and technicians in official organizations outside the area of population. According to many of those interviewed, government planners and technicians are unaware of the ENF or only vaguely aware of it; they do not know how to utilize its tables and data and, at best, quote from the ENF but cannot relate it to their specific professional fields. More meetings similar to the seminar on forecasts could have taught one of the ENF's most important primary audiences how to utilize the survey's basic data within their area of specialization.

It would have been productive to hold seminars for SESPAS officials and the directors of the Dominican Medical Association (the Asociación Médica Dominicana, or AMD) and its regional offices, in order to present, in the words of one interviewee, 'in non-technical language, those who are not specialists in demography with ENF's results of the greatest relevance to the medical profession, explaining the importance of the fertility rate for the country and its repercussions in the demand for and the costs of health services'.

Finally, there is reason to believe that the *Informe general* was too technical for most of those who received it. For example, in the words of the interviewee quoted above, it 'was not easily intelligible to Dominican health professionals'. Another interviewee stated that 'reading the *Informe general* was difficult even for academicians, because of its subtle style which opened the possibility of different interpretations in many places in the report'. No one objected to the publication of a technical report on the ENF as such, but the suitability of the report was questioned. Several interviewees criticized its size, format, binding, and type, and the ratio of text to tables. It was suggested repeatedly that if the report had been published in several volumes or independent parts, it would have been more 'digestible'.

Let us now turn to the possible causes of these defects of omission and commission. The WFS collaborated very closely on the design of the ENF and on data collection, but terminated its technical and financial aid with the publication of the *Informe general*. The team which had conducted the ENF then disbanded, as there were no further funds. The WFS did not give any support to the final phase of disseminating the survey results, and CONAPOFA was left with the sole responsibility.

Forward planning is not characteristic of Dominican Republic where, as an interviewee noted, 'things are normally improvised'. There is moreover general inexperience, both in Dominican Republic and world wide, as to the most efficient way of disseminating survey results. In addition, the very nature of the ENF, as a basic research project, could have discouraged CONAPOFA from disseminating its data in a more systematic way.

Were these failures due to a lack of enthusiasm in CONAPOFA, who found the subject too dull and technical? Or were those responsible for disseminating ENF data satisfied too soon, with too little? Perhaps it is unrealistic to have expected different results in Dominican Republic when no other country has achieved more. However, it is useful to keep in mind the lessons learnt from the ENF, and this is referred to again in chapter 3 on conclusions and recommendations.

## 2.4 UTILIZATION OF THE ENF RESULTS

### Participation of Managers and Utilizers

Managers and indeed all potential utilizers of a survey's results are more likely to be receptive to using survey data if they have been consulted on the design of the survey.

The questionnaire was designed by the ENF leadership team, using the core questionnaire recommended by the WFS. Advisors from the WFS and the Population Council collaborated with the ENF's team of national researchers.

When the ENF questionnaire was being designed, the views of CONAPOFA, especially those expressed by its Medical Division, were taken into account, and also the wish of the Maternal and Child Division of SESPAS to include a section on maternal and child care. No other potential utilizer of the ENF – ONAPLAN, ONE, or any academic group – participated in the design of the survey. In the opinion of one of the researchers who directed the ENF, 'given the very specialized nature of this research, the procedure adopted was correct'.

We may ask, however, if this failure to consult potential utilizers more widely might have contributed to the unsubstantial use made of ENF data by individuals and organizations. According to one of the principal directors of the ENF, some of these expectations were as follows:

It was expected that ENF data would be utilized extensively in the health sector. There was a conviction that the study would greatly aid CONAPOFA and SESPAS in their respective family planning and maternal and child care programmes which at the time had no reliable statistical bases. In regard to socio-economic planning and national decision-making, it was expected – despite the very specific objectives of the ENF – that its data on demographic trends would serve to update the country's population forecasts, clarifying some of their characteristics. This would have been very useful to socio-economic planning, since highly reliable demographic information is a pre-requisite for the planning of solutions to the problems of development. For example, in order to know the magnitude of the unemployment problem, one must know labour force trends; in order to take proper action in the areas of constructing schools and training teachers, one must have reliable forecasts of the school age population; and in order to solve the problems created by urban-rural distribution, one must know the magnitude of internal migration.

The designers of the 1970 Census asked a number of organizations about the questions they would like to see included in the census schedules. Something similar was done in the case of the EDN, but the only organizations consulted were SESPAS and CONAPOFA. The two questionnaires of the Diagnosis Survey took into account opinions expressed by AID and CONAPOFA, but neither the SESPAS technicians nor the advisors of the Panamerican Health Organization (PAHO) contributed to the survey design, although they had been officially invited to participate in the work of the wider study, Diagnosis of the Health Sector. The attitude of the representatives of PAHO was extremely cold, not to say totally hostile.

## Use Made of the ENF and the Other Three Surveys

We may talk of the *use* made of survey data when they have directly influenced a decision or policy. This concept means that the survey in question has been taken into consideration and adopted, ie some of its recommendations have been accepted. We now examine the practical use made of data from the ENF and the other three demographic surveys up to the end of 1979.

### *ENF*

The information produced by the ENF has had a significant influence on the policies of CONAPOFA and PROFAMILIA. However, no use of the ENF's results was made by other Dominican organizations outside of the field of population.

There was a consensus among the interviewees familiar with CONAPOFA on the effects of the ENF on CONAPOFA programmes. For example, the surprisingly high proportion of Dominican women who, as shown by the ENF, sought sterilization using their own financial resources contributed decisively to female sterilization being included in CONAPOFA's official programme, as CONAPOFA itself has stated. Sterilization as a contraceptive method had not been offered previously, since it had been considered 'politically taboo', according to one of the interviewees.

Ninety-seven per cent of the women interviewed by the ENF had heard of at least one efficient contraceptive method which led, according to CONAPOFA interviewees, to a re-orientation of its information policy, so that priority would be given in the future to teaching the correct use of the methods and how to confront the problem of side-effects.

The results of the ENF showed the different use of contraceptives in rural and urban areas and helped to accelerate the installation of family planning services in rural areas, a trend already in evidence before the ENF. Finally, according to the interviewees who were in a position to give informed answers, the data on maternal and child care from the ENF influenced CONAPOFA and the international organizations advising it – UNFPA and the Population Council – to intensify the integration of family planning and maternal and child care so that both could eventually be provided by a single unified programme.

The considerable effect of the ENF on PROFAMILIA, which is affiliated to the International Planned Parenthood Federation (IPPF), is admitted by its directors. PROFAMILIA decided to begin a female sterilization programme in the light of the ENF results. On the other hand, the high percentage of women who reported that they knew of family planning methods convinced PROFAMILIA that 'it should stop acting blindly and introduce modifications in its information and education campaigns, since it was evident that there was no longer any need to stress information on family planning in general, but that it was necessary to move to a higher level of knowledge on the use of contraceptive methods and their side-effects'.

The continuing fertility decline at the national level reported by the ENF 'has convinced PROFAMILIA that an integrated view of family planning is the correct one for Dominican Republic today and that there is a need to re-orient its programme towards improving the quality of life, instead of emphasizing the limiting of population growth'. Additionally, data on the early mean age for entry into first unions, as shown in the ENF 'had deeply concerned PROFAMILIA', although 'programmes have still not been designed to confront efficiently the problem of adolescent pregnancies'.

The interviewees with knowledge of Dominican organizations outside the field of population expressed conflicting opinions about the impact of the ENF results, especially on ONAPLAN. While most of them denied the existence of any influence, a small number were of the opinion that the ENF data had influenced both ONAPLAN and other organizations. However, no interviewee was able to give a single example of actual use, nor have the researchers of the present study been able to do so. ENF data, it is true, were utilized in the seminar on demographic forecasts which was jointly organized by CONAPOFA and ONAPLAN in 1976, and in the seminar entitled *Toward an Employment Policy in Dominican Republic*, which was held at La Romana under the auspices of ONAPLAN and ONE in June 1979. But so far there have been no practical results from either of these two events, in terms of policy or concrete activity.

Several factors help to explain the considerable difference in the use of ENF data between the population and family institutions and other Dominican organizations, both public and private. One of them is the understandable emphasis placed by the ENF on family planning. On the other hand, three years was considered by one interviewee as too short a period to assess the influence of the ENF on organizations not concerned with population. Moreover, to quote one of its principal researchers, the ENF 'necessarily had to concentrate first on the basic tabulation plan of the WFS, which notably delayed the production and analysis of other tabulations of a less complex format and of much more immediate and practical interest' on a national level. Finally, as already stated, there was no systematic attempt to disseminate ENF results among its primary and secondary audiences.

Whatever the ultimate reason for this difference in use between population and other organizations, the fact remains, as one interviewee noted, that 'the ENF's most important long-term objective has still not been reached - that of contributing to the formulation of adequate policies in the field of economic and social planning through the identification of demographic trends'.

#### *1970 Census*

Overall, ample use has been made of this study, 'on the level of basic census information by diverse national sectors' according to one interviewee. 'They seem to have, at last, become aware of the situations and problems uncovered by the census figures, for example, illiteracy and unemployment. Some of the sectors have repeatedly quoted the

1970 Census and even made some superficial analyses of its data.' This may have been partly due to the Symposium on the Use of the 1970 Census Population Data, held in Santo Domingo on 24–26 May 1972 with a view to encouraging participants to use the census data as a basic reference in socio-economic planning.

The Dominican government's central planning unit, ONAPLAN, have frequently used the census data as a statistical base for their development plans. This is hardly surprising, since, to quote one of the interviewees, 'a census is of mandatory daily consultation in any self-respecting planning office'. However, although the interviewees agreed on the utilization made of the basic statistics contained in the census, not one pointed to it as a source of information which had directly influenced planning decisions or policies in the last decade. This is no doubt due to the inexcusable delay in the publication of the definitive figures, to the extent that two of the four volumes remain unpublished ten years after the census was taken.

#### *EDN*

The practical use made of EDN data appears to have been insignificant. 'I do not know of anything at all that has happened because of the EDN', stated one interviewee categorically. One of the directors of CONAPOFA was somewhat less categorical when he affirmed that 'although practically nothing has been used from its final section on internal migration, some data from the first section on fertility and family planning have been taken into consideration by CONAPOFA for its training and information and education programmes. However, I am not speaking of definite influences on this or that programme, I mean only taken into consideration'. Among the data so utilized, he pointed to 'the fertility differentials among different sectors of women, the manner in which the women interviewed had learnt of contraceptive methods, and their preferences as to how to receive information on the subject'.

It is not surprising that the EDN which experienced so many difficulties during the fieldwork, suffered from serious methodological shortcomings, and was inadequately publicized afterwards has had virtually no use made of its findings.

#### *The Diagnos Survey*

The Diagnos Survey was an integral part of the larger study Diagnosis of the Health Sector, to which it contributed primary data of great importance. We must bear this in mind, since most of the time the Diagnos Survey has been used as part of the wider Diagnosis study.

The influence of the Diagnos Survey was restricted to the area of public health. In the opinion of one interviewee, this survey 'created awareness as to the existence in the Dominican Republic of a serious health problem'. The data supplied by the Diagnos Survey were, according to the same interviewee, 'shocking'. In the words of another, 'this information was so compelling that it was socially impossible to conceal. One would have to be very stubborn to attempt it'.

As an important part of the wider study, Diagnosis of the Health Sector, the Diagnos Survey assisted AID in earmarking its loan of DR\$ 4.8 million (granted to SESPAS in October 1975) for the funding of an important nationwide rural health programme. As a result of this loan and pressures from AID, the Dominican government was encouraged to adopt a series of recommendations from the Diagnosis study. Thus the Diagnos results had an indirect influence on SESPAS in the introduction of modifications in its health programmes, including an important low-cost health services delivery system for the rural areas called 'Basic Health Service'. Finally, according to one interviewee familiar with the Dominican university scene, the Diagnos and Diagnosis results 'had a general influence in effecting a change in orientation in favour of social and preventive medicine in the existing medical school programmes of the country's leading universities'.

The influence of the Diagnos Survey seems unexpected. The survey has still not produced its final report, and its findings were disseminated only to a limited extent, but it has had a significant impact on the national health sector. This may be attributed to the very active role played by AID as manager, audience and principal utilizer of the survey results. Above all, AID vigorously promoted the implementation by SESPAS of some of the most important recommendations of the Diagnosis study. This is not the first time that AID has played a decisive part in helping to implement survey recommendations in Dominican Republic.

To summarize, of the four surveys, the ENF has had the greatest impact on programmes in the field of population, and the Diagnos Survey the greatest impact in the field of health, while there has been little practical use of data from the 1970 Census or the EDN in so far as decision-making is concerned.

#### Utilization of the ENF and the Other Three Surveys by Dominican Scientific Journals

We have discussed earlier how our researchers looked at the use made of the four surveys in 11 Dominican scientific journals (see table 1). We considered everything from a simple mention of any of the surveys to detailed articles on them, and included citations or brief analyses of the surveys in articles on other subjects. We classified the results into two categories.

- (I) Articles which include some mention of a survey, and any citations or brief analysis; and articles which discuss survey results as part of a substantive or methodological argument.
- (II) Articles which are wholly devoted to one or more of the surveys.

Table 5 presents the results of this classification.

The four demographic surveys are not widely utilized. Of a total of 11 journals and 172 issues covered during the period under review, only 46 cases of utilization were found. This is particularly low when we remember that only specialist journals most likely to publish the results of demographic surveys were selected for review.

**Table 5** Number of times the ENF and the other three demographic surveys were utilized in 11 Dominican university, para-university, and professional journals (January 1970–March 1979), according to the classification adopted

	I	II	Total
1970 Census	30	3	33
EDN	3	—	3
Diagnos	4	2	6
ENF	2	2	4
Total	39	7	46

Table 5 shows that citations or brief analyses were the most frequent type of utilization. This type of mention exceeded the number of articles wholly based on the four surveys by 39 mentions to 7. In other words, category I exceeded category II by a ratio of more than five to one. Moreover, three of the seven cases reported in category II referred to the same article, one published in *EME-EME Estudios Dominicanos*, based on the 1970 Census, the Diagnos Survey and the ENF (Moya Espinal, Taveras and Díaz 1979). There have been virtually no monographs produced by Dominican academics containing detailed analyses of the four surveys. At present population studies in Dominican Republic are seriously under-using the data available.

In category I, the 1970 Census was by far the most utilized, but there is no significant difference between the census, the Diagnos Survey and the ENF in category II. Overall the Diagnos Survey and the ENF received similar mention, though it should be remembered that the Diagnos data were available by the end of 1974, while ENF data were not available until October 1976. The EDN was found to be the least utilized study, despite the fact that its first report was published at the end of 1973.

#### Utilization of the ENF and the Other Three Surveys in the Official Publications of ONAPLAN

ONAPLAN is the government agency which assists the Executive in socio-economic planning. We examined a total of 35 ONAPLAN publications, and classified utilization of survey data as follows.

- (I) ONAPLAN publications which included citations, data, tables, graphs, or brief commentaries on one or more of the surveys.
- (II) ONAPLAN publications which included a more detailed analysis using data from one or more of the surveys.

Table 6 presents the results of this review.

**Table 6** Cases of utilization of the ENF and the other three demographic surveys found in the official publications of ONAPLAN (January 1970–December 1979), according to the classification adopted

	I	II	Total
1970 Census	14	6	20
EDN	—	—	—
Diagnos	3	—	3
ENF	4	—	4
Total	21	6	27

As expected, the most utilized study was the 1970 Census, exceeding the other three both in the total number of utilizations and in the number of more detailed commentaries or analyses (category II). As an agency of national planning, ONAPLAN is likely to use 'official' statistics, obtained through a survey of the total population, ie through a census, rather than through research based on sampling. As one of the interviewees put it, 'a census is absolutely indispensable in planning at the national, regional or local level'.

There was no significant difference between the degree of utilization by ONAPLAN of Diagnos and ENF data. This finding coincides with the results of the review of the 11 Dominican scientific journals presented earlier. Here, too, it should be remembered that Diagnos data were available almost two years before ENF data. The EDN was found to have had no influence in ONAPLAN publications, and not a single case of utilization was identified.

It should be noted that starting with PLANDES, volume 19, which appeared in 1974, we detected a greater interest among ONAPLAN planners in attempting to relate demographic data to socio-economic analyses, rather than following the practice of just citing those data in a formal way at the start of ONAPLAN publications. A number of more recent PLANDES volumes, eg 19, 22, 23, 26, 29 and 32, carry rather detailed analyses of the implications of demographic variables.

## 2.5 SUBSEQUENT RESEARCH ACTIVITIES BASED ON THE ENF

### Repercussions of the ENF within Dominican Republic

In the one-day seminar held in March 1976, national researchers interested in population were invited to undertake analyses based on ENF data, with CONAPOFA pledging technical assistance and funding. In response to this invitation eight or nine projects were submitted, of which five were approved by CONAPOFA. However, to date, only three of them have been completed and handed in for publication. The five approved projects are:

- 1 'La mortalidad en la República Dominicana según características sociales y geográficas', by Frank de Moya Espinal, Marina Taveras, and Sonia Díaz. This monograph, completed in 1978, is ready for publication. A preview of this work, consisting of the complete text minus the appendices, appeared in 1979 in the journal *EME-EME Estudios Dominicanos*.
- 2 'República Dominicana: la fecundidad y su relación con algunas variables socio-demográficas', by Marisela Duval, José Miguel Guzmán, and Irma Nicasio. This monograph was completed in December 1977 and is now ready for publication.
- 3 'Análisis de los servicios de salud materno-infantil: cobertura y calidad', by Abel Abreu and Minerva Bretón. This work was completed and handed in to CONAPOFA but has still not been published.
- 4 'Evaluación de la eficacia del programa oficial de planificación familiar en la República Dominicana', by Pablo Tactuk. This project has come to a halt, and it is not known if the author will complete it.
- 5 'La fecundidad y la planificación familiar en la ciudad de Santo Domingo', by Méjico Angeles. This project is still at an early stage and it is not known if it will be completed.

It is not surprising that CONAPOFA has felt discouraged by the response to its invitation to Dominican researchers to produce monographs based on ENF data. The total number of projects proposed – fewer than ten – was extremely small, and only five of them reached the minimum standard for approval by CONAPOFA. Of these only three have been completed. However, these three monographs have made a valuable contribution to the study of demographic and health problems, utilizing ENF data not published in the *Informe general*, and including additional tabulations elaborated at the request of the authors.

In 1977 *EME-EME Estudios Dominicanos* published a brief monograph analysing the negative relationship between the educational level of women and their fertility, shown by ENF data. The principal author, Dr Donald W. MacCorquodale, was at the time in charge of the population, health and nutrition areas of the AID mission in Santo Domingo.

Using ENF data and other sources, and a number of methodological procedures, CONAPOFA has formulated reasonable hypotheses about future trends in fertility, mortality and external migration, for the period 1970–2000. A summary of the methodology, hypotheses and results appeared in the June–July–August 1978 issue of *Población y Familia*. These new figures, based on the results of the ENF, have already begun to be utilized at the international level by AID and the US Census Bureau, among others.

In order to complement the basic tabulations of the ENF, published as an appendix in the *Informe general*, the survey team designed a series of additional tabulations. These included tables of more immediate interest to CONAPOFA and its national population programme. According to one of the ENF directors, who designed the tabulations, 'between 70 and 80 per cent of the plan has been completed'. However, not all tabulations

were completed, and some 'were not used to the maximum through the application of recently developed statistical techniques'.

In order to remedy this specific weakness, CONAPOFA, with the technical assistance of the WFS, prepared a project of in-depth analysis of ENF data. The preliminary version of this project was prepared at the end of 1977 and the final draft received the financial approval of UNFPA at the end of the following year. During the whole of 1979, however, the project was shelved, mainly because two or three qualified researchers who were needed to work on it full time for eight to ten months could not be found.

In May 1979, CONAPOFA began preliminary work for a second-round national fertility survey whose questionnaires, both household and individual, were applied during the first half of 1980. One of the main objectives of the second survey was to determine the evolution of fertility, five years after the ENF.

Finally, it should be mentioned that CONAPOFA's Demographic Studies Unit was launched in May 1978, having received the approval and necessary funds from UNFPA. The unanimous opinion of the directors of the ENF and the executives of CONAPOFA who were interviewed was that this unit should be viewed as the result, at least in part, of the ENF. The leadership team of the ENF had prepared the proposal which was presented to UNFPA and revised it several times; in addition, according to the interviewees, 'the unit was created because the country had a group of persons who demonstrated through the ENF that other demographic studies could be conducted'. One interviewee stated that the ENF 'created the capacity and the expectations of achieving more'; another stated that 'without the ENF, CONAPOFA would not have had any basic support to solicit funds for the creation of the unit; nor would anyone have risked lending funds if it were not for the fact that the ENF had demonstrated the existence of human resources with methodological capabilities in Dominican Republic'.

The Demographic Studies Unit, during its brief existence, has been conducting a series of research activities. These include Dominican population forecasts based on ENF data; a survey on migration to Santo Domingo and Santiago de los Caballeros, begun in May 1978; a study begun in November 1978 which, based on existing reports, analyses the relation between nuptiality and fertility; and, finally, the new national fertility survey of 1980, whose data have not yet been published.

#### Repercussions of the ENF outside Dominican Republic

Several monographs have been published under the auspices of CELADE, from 1977 onwards, providing an in-depth analysis of specific ENF data or utilizing the results of the survey to test a specific hypothesis or model. In some cases, the authors of these works were Dominican nationals. The most important of these publications are as follows:

- 1 *La mortalidad en los primeros años de vida en países de la América Latina: República Dominicana, 1970-1971*, by Hugo Behm and Francisco de Moya. Published in 1977,

this study deals with infant and child mortality, between birth and two years of age, in Dominican Republic in 1970-1. The analysis is based on percentages of deaths reported by women interviewed in the ENF. The second author, Francisco de Moya, is Dominican.

- 2 *República Dominicana: evaluación de los registros de defunciones y construcción de una tabla de mortalidad por sexo y edad, 1970*, by Francisco Cáceres Ureña. This monograph, which has so far been distributed only within CELADE, was the final research project presented by the author in the Basic Demographic Analysis Course held in 1977 by CELADE in San José, Costa Rica. Retrospective data on mortality derived from the ENF are included. The author is Dominican.
- 3 *República Dominicana: estimación de la mortalidad basada en la encuesta nacional de fecundidad, 1975*, by José Miguel Guzmán. Published in 1978, this monograph analyses different aspects of mortality in Dominican Republic, based on ENF data. The author is Dominican.
- 4 *La fecundidad en la República Dominicana, 1960-1975, calculada a partir de los datos de la encuesta nacional de fecundidad*, by Johannes Bartlema. Published in 1978, this monograph analyses the fertility data from the ENF household schedule, comparing them with the information contained in the individual questionnaire. This work was the first to analyse the information from the ENF household sample.
- 5 'Experiencia de nupcialidad por cohortes resumida por un modelo biológico', by Albino Bocaz. This article was published in *Notas de Población* in 1979. It uses nuptiality data from the ENF to test a specific theoretical model, the biological, which compares the changes in the proportion of women exposed to the risk of pregnancy and the fertility estimates.

So far, the WFS has published three analyses:

- 1 'The Dominican Republic Fertility Survey: an Assessment', by Nelson Ramírez, Pablo Tactuk, Ellen Hardy and Martin Vaessen. The English version of this work, in which those mainly responsible for conducting the ENF comment on their positive and negative experiences, was published by the WFS in their *Occasional Papers* series. The Spanish version was handed in to CONAPOFA so that Dominican researchers could benefit from its methodology, but it has still not been published.
- 2 José Miguel Guzmán prepared a monograph evaluating the quality of ENF data on nuptiality, fertility and infant and child mortality, published in 1980 under the title 'Evaluation of the Dominican Republic National Fertility Survey 1975', as *WFS Scientific Reports* no 14.
- 3 The WFS published a third analysis in 1982, 'The Analysis of Repeat Fertility Surveys: Examples from Dominican Republic', by John Hobcraft and Germán Rodríguez, *WFS Scientific Reports* no 29.

One of the principal investigators of the ENF who was interviewed stated that he 'had the impression that in regard to subsequent analyses and methodological questions, the ENF has been utilized more outside than inside Dominican Republic'. By December 1981, CONAPOFA has received eleven requests of authorization for the WFS to supply copies of ENF data tapes to foreign institutions and researchers.

## Repercussions of the Other Three Surveys

### *1970 Census*

The most important research deriving from the census was presented at the Symposium on the Use of the 1970 Census Population Data, held in May 1972, and published the same year.

In addition, three analytical papers on demographic trends using census data, by Nelson Ramírez were published in 1974 and 1975. The papers were first presented at the Symposium on Population and Development in the Dominican Republic, held in September 1973, and the Seminar on Population Problems of the Dominican Republic, in January 1975.

Census data has formed the basis of official estimates of the Dominican population – by sex, five-year age groups, and urban and rural zones in all the provinces, municipalities, and municipal districts of the country – made by ONE each year between 1970 and 1980.

Finally, CELADE has published two works which analyse the census data: *República Dominicana: estudio de la evolución demográfica en el período 1950–1970 y proyecciones de la población total, período 1970–2000*, by Agustín García, in 1974; and *República Dominicana: análisis de la evolución de la población económicamente activa, 1960–1970*, by José Polo Nájera, in 1979.

### *EDN*

There has been no research arising directly from the survey, either inside or outside the country. However, Nelson Ramírez utilized some EDN data in one of the papers he presented to the 1975 Seminar on Population Problems of the Dominican Republic.

### *The Diagnos Survey*

Special data from the Diagnos Survey were the basis for the study 'Aspectos de las migraciones dominicanas' by Fidelina Thorman de Aguilar and her collaborators, Amiro Pérez Mera and Méjico Angeles, published in *Salud Pública* in 1977.

Antonio Ugalde and a team of collaborators from the University of Texas have been analysing Diagnos data on Dominican international migration. So far, this has resulted in the publication of only one article, in the *International Migration Review*, Summer 1979.

A case study of Dominican Republic contained in the report *Health Sector Financing in Latin America: Conceptual Framework and Case Studies*, prepared in 1976 by Dieter K. Zschock, Robert L. Robertson and John A. Daly, utilizes Diagnos data without, however, citing the Diagnos Survey as one of its sources.

The most important in-depth analysis published to date which utilizes the Diagnos

results is the doctoral dissertation presented by Martita Marx at the University of California at Los Angeles (UCLA) in 1978, entitled 'The Effect of Medical Services on Health Status in a Developing Nation'.

It is worth noting that upon completion of the Diagnosis of the Health Sector, AID notified the study directors that \$25 000 was available to fund a group of national demographers who would analyse Diagnosis data from a demographic point of view. This opportunity, however, was lost because of budgetary disagreements and some confusion as to the nature of the work to be done.

## 2.6 SUBSEQUENT USE OF ENF AUXILIARY PERSONNEL

Of a total of 65 people who formed the auxiliary personnel of the ENF, 47 (or 72 per cent) were located and interviewed.

Because of its intimate nature, the ENF used only women as survey interviewers and supervisors, so that, of the 65 employees, 51 were women and only 14 were men, ie 78 and 22 per cent respectively. Of the 47 who were interviewed for the present study, 39 were women and 8 were men, ie 83 and 17 per cent, respectively. Thus there is no great difference in the sex distribution between the total auxiliary personnel and the 72 per cent who were interviewed.

Between 71 and 100 per cent of personnel were interviewed in each of the nine categories of auxiliary personnel in the ENF (data-map verifiers, interviewers, supervisors, coders, data editors, coding and verification supervisor, artist, statistical assistant, and statistical auxiliary), with the exception of the data-map verifiers, of whom only one of the seven could be found. In the other categories, 9 of 31 interviewers; 1 of 12 supervisors; 1 of 8 coders; and 1 of 4 data editors did not respond.

All but two of those interviewed had a university level of education when they began working in the ENF. Eleven of them, ie 23 per cent, were graduate professionals. The principal disciplines of the university-level personnel were statistics (36 per cent), medicine (27 per cent) and sociology (13 per cent). Only 18 of those interviewed, ie 38 per cent, had not received any research training or worked on any survey before the ENF. This very high level of education (96 per cent) and high degree of previous research experience (62 per cent) reflect the high standards of recruitment.

The opinions of the personnel on the training they had received were very positive. Of the 46 interviewed who had received specific training from the ENF, none considered it poor, only one considered it adequate, and the remaining 45 considered it good, very good, or excellent. A breakdown of the positive opinions expressed by 98 per cent of the personnel showed that 15 per cent considered it good; 67 per cent, very good; and 15 per cent, excellent.

The responses received regarding the subsequent utilization of the ENF auxiliary personnel were also very positive. Thirty of those interviewed (65 per cent of those who received training) said they had later used what they had learnt in the ENF. Thirty-six (77 per cent of the total) said they had participated in one or more surveys after the ENF.

A total of 18 people, ie 38 per cent, said that after the ENF they had played a leading part in a research activity. Of these, 16 have been directors or members of a leadership team in one or more surveys since the ENF. The other two had authored or co-authored a degree thesis.

The research activities of the ENF's former personnel have benefited a total of 24 institutions, both inside and outside Dominican Republic. Our survey showed that those interviewed had worked on surveys carried out by ten Dominican government organizations, three Dominican universities, three national non-profit organizations, four private profit-making Dominican organizations, three international organizations; and one government institution of another Latin American country.

Breaking down the number of times which this personnel has worked in research for these organizations, those interviewed had conducted research 58 times for Dominican government organizations; 37 times for Dominican universities; 11 times for Dominican non-profit private organizations; 15 times for private profit-making Dominican organizations; 7 times for international organizations; and 4 times for foreign government institutions. The total number of times which they had participated in surveys more recent than the ENF is 132.

All those interviewed were asked if they considered that the ENF had provided professional advancement. Forty-three, ie 91 per cent, replied that they did. Only 4 persons, ie 9 per cent, responded negatively to the question.

The survey asked all personnel to give detailed answers to the question. Of the 43 who had responded affirmatively, the most frequently given reason (by 86 per cent) was that the ENF had helped them to become more familiar with their own society. This answer was followed very closely (81 per cent) by the statement that the ENF had facilitated their work in subsequent jobs. A third reason given (by 44 per cent) was that the ENF had helped them to obtain those jobs.

Of the four who were of the opinion that the ENF had not helped them professionally, three responded that after the ENF they had engaged in other types of activity. The other person – the artist hired by the ENF – said that the survey had not given him new knowledge or skills, rather that he had offered his own skills to the ENF.

During the in-depth interviews we carried out, the leader of the ENF and the principal executives of CONAPOFA were asked their opinions on the training given to the auxiliary personnel and on the subsequent utilization of this training by CONAPOFA and other Dominican institutions. There is a striking agreement between the answers given by the auxiliary personnel and the opinions of its managers and principal investigators.

The managers and principal investigators of the ENF believe, without exception, that in general the auxiliary personnel were satisfied with their participation in the ENF and that they had learnt much from it. More than one executive said he had heard that the auxiliary personnel 'had been satisfied'. Two executives stated they had been personally thanked by some of the staff. Another pointed out that the auxiliary personnel 'include their participation in the ENF in their curricula and job applications'.

The managers and principal investigators considered that the survey interviewers and supervisors had learnt 'the theory and techniques of fieldwork', and the practical lesson of 'how to work as a team', and a sense of responsibility in obtaining high quality data, which at times encouraged them to make 'efforts beyond the call of duty'. The supervisors had learnt 'not to cover the errors' of their subordinates, and during training, 'collective discussion' was encouraged and 'criticisms were accepted' which were at times extremely pertinent. Nevertheless, one of the interviewees stated that the same spirit of collective work and responsibility was not present among the coders: 'There was no time to teach them to work together; therefore, discipline problems arose and some people had to be dismissed'. A similar problem was experienced with the data-map verifiers at the beginning and some of them also had to be dismissed. However, the directors of the ENF and CONAPOFA stated that in general the work of the auxiliary personnel had been excellent. One of them said that their good work 'has been recognized by the directors of the centres or surveys in which this personnel has worked since the ENF'.

According to some of the managers interviewed, it was not only the previous academic education of the auxiliary personnel, but also the training they received which influenced the later employment of the personnel: 'the cost of training them was a good investment', and they are still being utilized several years later. For one of the interviewees the main beneficiaries of the training given have been 'the national institutions in which they have worked or are working today'. Another interviewee stated, however, that 'CONAPOFA did not plan how to make later use of this personnel'. The fact remains that a small number of the personnel have participated in demographic research undertaken by CONAPOFA since the completion of the ENF.

The managers and researchers also stated that the ENF 'has been useful or has motivated' the auxiliary personnel 'in their subsequent professional careers'. Three of them have undertaken graduate work outside Dominican Republic in fields related to their experiences in the ENF, demography in two of the cases and social sciences research in the third.

## 2.7 RELATIONSHIP BETWEEN DEMOGRAPHY AND SOCIO-ECONOMIC PLANNING

The dissemination and utilization of ENF results has depended not only on the communication techniques and channels used, but also, to a large extent, on the characteristics of the socio-economic and political systems of Dominican Republic during the 1970s, notably the degree of receptiveness of the national planning organizations towards demographic data and their capacity to utilize the data. What interaction has existed in the 1970s between demography and socio-economic planning?

Of the 41 people interviewed in depth for this study, 24 were questioned on this specific topic. Their responses were surprisingly uniform, since 21 of them stated that demographic data are still not being taken into account in the analysis of socio-economic problems nor have they been integrated into the planning process. Of the remaining three interviewees, one said that he lacked sufficient information to give an opinion and the other two did not respond clearly.

Four of the interviewees stated, however, that in recent years there has been some advance in increasing the utilization of demographic variables in planning. This confirms our observation of the greater use of demographic data since 1974 in the publications of the PLANDES series.

Three different views on the relations of demography and planning can be distinguished in the 21 responses. The first view holds that the scant attention given by Dominican planning officials to demographic variables has no practical importance, since traditionally Dominican governments have ignored planning in making political or economic decisions. 'One neglect cancels out the other', was the somewhat ironic comment of one interviewee. Although the present government, which has been in office since August 1978, has begun to attach greater importance to official planning institutions and to increase their resources, little or nothing has been done to incorporate demographic variables into planning.

The second view, held by four interviewees, all of them with long professional experience in the Technical Secretariat of the Presidency, believes that demographic variables, by their very nature, will inevitably continue to be, for some time at least, a secondary input into the country's planning activities. According to a former ONAPLAN official, 'the intrinsic applicability of demographic studies is much less than that of other types of studies; since demography is by definition a "basic" variable, whose application depends on the use given to it by other professional fields'. A professional demographer with long experience of working in ONAPLAN was even more radical. 'Some demographic fanatics,' he said, 'erroneously believe that demography is the most relevant factor in planning, when economics is really the most important. Because of pressure from the institutions which finance population studies, there is an unrealistic expectation

as to the role played by demography in planning'. A third interviewee stated that 'the population variable is in the eyes of ONAPLAN just a datum which is useful, for example, to assess the behaviour of per capita income or to measure the growth of the labour force; but it is not an "objective" variable that we try to manipulate, at least at present'. The fourth interviewee was also pessimistic about the possibilities of demography being utilized more widely by planners in the near future: 'Giving consideration to the demographic variable implies a very consolidated planning mechanism, in which short-term needs have already been taken care of so that we can project our vision more accurately to the more distant future, which is where the effects of a population policy, within an integral development policy, can be taken into account'.

The third view, which was held by the majority of the 24 interviewees, considers that the lack of attention given to demography is due to factors which could and should be immediately corrected. Some of the causes are to be found in the Dominican planning sector, while others are rooted in certain characteristics of the demographic field itself.

According to several interviewees, economics has had a strong sway over planning. ONAPLAN, they said, is 'in the hands of economists'. This is not surprising, since 'the centres of higher education where planning is taught are actually centres of economic studies', where curricula are inevitably oriented towards economics. One interviewee stated that economics has not been noted for its skills in communication. 'The most dramatic case of a lack of interprofessional communication', said this interviewee, 'is that of the economists vis-à-vis other members of the social sciences. Some of our best economists, because of a professional deformation, think that social problems are concentrated exclusively in the economy and that, therefore, their opinions as economists are sufficient. They view the other social variables as very volatile'.

Another interviewee stated that economists 'tend to greatly underestimate' social factors, including the demographic ones. Finally, one of the interviewees called attention to the fact that 'this way of thinking in terms of economics, without paying sufficient attention to social tasks, has been reinforced by the very power structure in our country for whom national problems must be solved by the economists'.

Excessive specialization in the ~~various~~ disciplines was deplored and we recorded the following statement: 'There is a tendency to do superspecialized work which is not very intelligible to other branches of science.' 'I believe the problem is one of sealed-off compartments: one is a pure sociologist; another, a pure economist; another, a pure demographer.' 'The universities impart training, and mistraining, in separate disciplines. They do not turn out students receptive to viewpoints other than those of their own discipline.' 'There should be no "Babel tower-like interdisciplinary scheme" in which several different disciplines are combined with each one speaking in its own tongue with no mutual understanding between them. On the contrary, the success of a solution is actually based on taking into account all the variables of the problem in hand. Only then can we speak of a genuinely interdisciplinary solution.'

The disorganization of ONAPLAN during most of the previous administration, that of President Joaquín Balaguer (1966–78), was also blamed by several interviewees. According to one of them, the absence of integration between demography and planning was due in large part to the fact that 'for many years ONAPLAN did not have the resources which would have allowed it to confront the programmes it considered important. For more than ten years it virtually depended on resources from international organizations which generally are channelled through specific programmes'. Another interviewee stated that in the beginning ONAPLAN was unaware of the relevance of demography, but the problem now is the lack of skilled personnel and material resources. Demography 'is a specialized area which not everyone can handle. It is not sufficient, as some think, to master the rate of compound interest', as one interviewee said. One attempt to increase skills was the seminar held under the joint sponsorship of CONAPOFA and ONAPLAN in May 1976, to teach planning technicians how to utilize demographic forecasts. This seminar, however, did not have any immediate practical results. Nor has a proposed collaboration between CONAPOFA and ONAPLAN for the provision of demographic data from CONAPOFA and their inclusion in the decision-making process by ONAPLAN been implemented much beyond the official signing ceremony, which took place on 15 September 1977.

According to some interviewees, the relationship between demography and planning has been adversely affected by 'the false idea held by many economists and other Dominican social scientists that demography and population policy are synonyms of family planning or birth control', which, according to one interviewee, has discredited demographic planning, and explains the reluctance 'in certain sectors, especially among the economists, to confront the demographic problem, since they do not want to become the target of any ideological criticisms that may be aroused'. Another interviewee confessed that he 'feared that technicians seem to think that institutions such as CONAPOFA are appendices of the United States and that they lack credibility, since whatever they might think or do has an ulterior motive'. This interviewee and others insisted on the need to refute these erroneous notions.

Seven interviewees, on the other hand, emphasized that demographers in Dominican Republic are viewed as 'a race apart', whose scientific research is 'difficult to understand' for non-specialists. Two interviewees described the group of Dominican demographers as 'a private club [who] communicate, make analyses and commentaries with each other, but have no dealing with anyone outside'. Another interviewee complained that CONAPOFA's efforts to communicate with professionals in areas outside the population field have not been followed by demographers themselves.

The language used by demographers is felt to be unnecessarily esoteric: 'demographic terms are not understood by those outside the demographic circle'; 'although they make good use of the most modern research methods, demographers do not know how to present them attractively'; 'the way they present their data is stereotyped and should be changed'; 'people are not accustomed to the type of graphs, pyramids, curves, etc that they use'.

The largely mathematical training of demographers makes their work inaccessible to non-specialists. According to one interviewee, 'demographers create veritable arabesques with their mathematical formulas, their tables and their rates'. This complaint was not made by the economists interviewed, whose professional training has equipped them to understand mathematical formulations.

Finally, there is a tendency among Dominican demographers to be somewhat vague about the practical implications of their studies. One interviewee stated, 'I think they qualify their opinions so much that in the end no one knows what they really are'. Another interviewee stated, 'in general, my impression of demographic students is that they do a great deal of work and have a great sophistication, but in the end I am not clear as to what is applicable from what they say, nor what measures can be taken based on these studies. In short, they seem not to have their feet on the ground'.

The views of these 24 interviewees suggest the need for the following practical measures. The strengthening of the national planning system, initiated by the present government in August 1978, should be continued and even intensified. This measure would benefit not only ONAPLAN, but also the planning offices which had been neglected. ONAPLAN should incorporate into its technical team more professionals from branches of the social sciences other than economics, enabling it to give adequate attention to social variables, including the demographic ones.

Both CONAPOFA and other Dominican organizations active in the population field should endeavour to correct the unfortunate idea that demography and population policy are synonyms of birth control.

Demographers and economists should be encouraged to abandon their ivory towers. Demography must not be reduced to mere 'statistical graphs of the population', in the words of one interviewee, and demographers should expand the scope of their activities and acquire a more 'macro' vision of the society which they are studying. A practical way of achieving this would be to promote social and economic demography.

Finally, the proposed collaboration between CONAPOFA and ONAPLAN should be implemented. Actually, CONAPOFA's Demographic Studies Unit, which has been in operation since May 1978, has the twin objectives of increasing knowledge of the relationship between demographic and socio-economic variables, and creating the basis for the integration of population studies and planning.

### 3 Conclusions and Recommendations

The principal conclusions and recommendations of our analysis may be summarized as follows.

1 The storage and retrieval systems of the ENF were found to be adequate. The ENF's *Informe general* is available inside and outside Dominican Republic in a large number of libraries, documentation centres, and institutions; copies are also available free of charge from CONAPOFA and from WFS. Both organizations have well-established procedures by which the ENF's magnetic tapes can be made available to individuals and organizations that can justify their interest in retrieving unpublished or unanalysed ENF data.

2 In Dominican Republic, CONAPOFA undertook the dissemination of ENF results, while the WFS publicized the results of the ENF outside the country. Within Dominican Republic, different potential audiences of the ENF were not, however, fully reached.

3 There was no master plan to disseminate the results of the ENF on a nationwide basis; and there was no systematic selection of the most efficient communication channels to use. There was a contrast between the meticulous, professional attention given to the design and methodology of the ENF and the absence of any planning as to the dissemination of its results.

4 The ENF's First Country Report, *Informe general*, was too specialized for the majority of its audience. The opinions given as to its size, format, type, and ratio of text to tables were unfavourable.

5 Press coverage of the ENF, generally speaking, was poor.

6 Although CONAPOFA and the Maternal and Child Care Division of SESPAS were consulted over the design of the questionnaire, there is reason to believe that if more interested groups had been consulted, greater use might subsequently have been made of the survey results.

7 Although the ENF has had a clear influence on organizations concerned with population, we were unable to identify a single example of its influence on other organizations.

8 Very little utilization, to date, has been made of the ENF by those Dominican scientific journals most likely to contain demographic information. The same is true of the publications of ONAPLAN.

9 In Dominican Republic and elsewhere, the ENF has given rise to a series of research studies, but there was a poor response to CONAPOFA's attempts, in March 1976, to encourage Dominican researchers to produce monographs using unpublished ENF data.

10 According to a survey made by this study of 72 per cent of the auxiliary personnel of the ENF, almost all of them had benefited professionally from the training they had received in the ENF, and had subsequently contributed to the work of a large number of private and state organizations.

11 The comparison of the dissemination and utilization of data from the ENF and the other three demographic surveys showed that:

- (a) The ENF's system of storing and retrieving data was better than that of the other three surveys.
- (b) The press coverage of the ENF was much poorer than that of the 1970 Census, but much better than that of the EDN and the *Diagnos* Survey.
- (c) There are indications that the dissemination of ENF data among its primary and secondary audiences compares favourably with that of any of the other three surveys.
- (d) The ENF was most utilized within the Dominican population sector; but the *Diagnos* Survey had the greatest impact in the public health sector.
- (e) The utilization of ENF data made by Dominican scientific journals and by official ONAPLAN publications was much smaller than that of the 1970 Census, very similar to that of the *Diagnos* Survey, and much greater than that of the EDN.
- (f) The ENF compares very favourably with the other demographic studies in its capacity to promote subsequent research activities.

12 The present study was not able to analyse the cost/benefit of the dissemination of the ENF results, as it was impossible to obtain the necessary figures from CONAPOFA, and the only specific figures obtained were those of the budgeted cost of the *Informe general*.

13 The present study asked the interviewees if they considered that the ENF was a worthwhile investment. The general consensus among the ENF's managers and researchers was positive. Of the 16 potential utilizers of the ENF who answered this question, eleven said that it had been worthwhile; two were doubtful; one felt that he could not give an informed answer; and two answered the question with a qualified yes.

The three main reasons given by the majority as to why the ENF was a good investment were that it documented a significant decline of fertility, a fact of national importance; it was the first survey to provide really reliable data on fertility; and it was 'sound business', since 77 per cent of its financing came from international funds, and it had provided employment and training for Dominican nationals.

14 The utilization of ENF data cannot be fully evaluated yet, as the period under review

is only three years, from the end of 1976 to the end of 1979, and it is too early to determine all its possible influences on a conceptual level.

15 A factor which has influenced and inhibited the dissemination and utilization of ENF data is the traditionally weak relationship between demography and socio-economic planning in the country.

16 The principal recommendation arising from these conclusions is that it would be extremely useful for CONAPOFA to hire communications experts to evaluate the dissemination and utilization of the ENF data in order to learn a practical lesson from CONAPOFA's past experience. The following points might profitably be covered: an examination of the coverage of the ENF in both Dominican newspapers and in scientific journals and ONAPLAN publications; an *a posteriori* identification of the different primary and secondary audiences of a survey such as the ENF; a review of the communication channels available in Dominican Republic; and finally, an evaluation of what was achieved, and what, with hindsight, might have been achieved.

This exercise would be practical, as well as academic, and surveys subsequently conducted by CONAPOFA, such as the survey on migration to Santo Domingo and Santiago or the second-round national fertility survey 1980 would benefit, as would other organizations. The present method of improvisation would be replaced by more rational and efficient methods of communication.

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