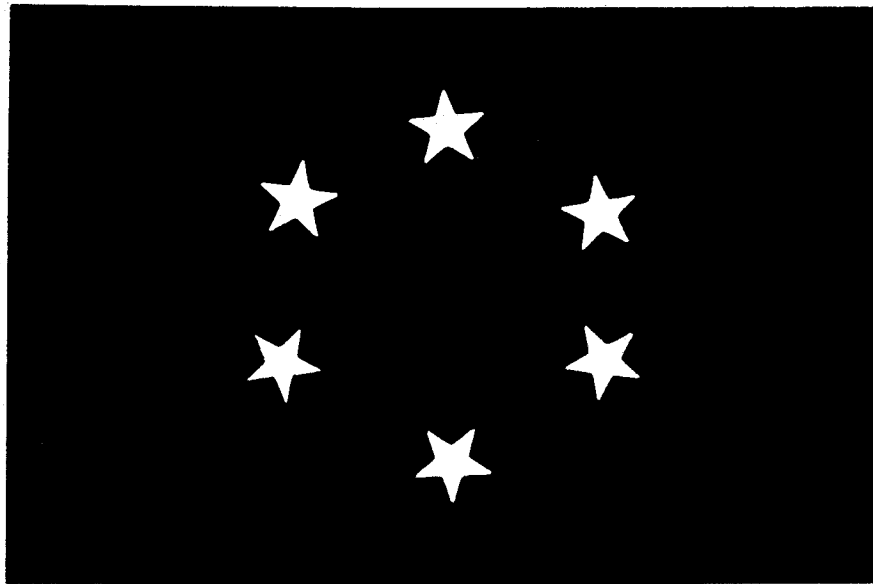


# **K.A.P. SURVEY**



*Trust Territory  
of the Pacific Islands*

A STUDY OF KNOWLEDGE, ATTITUDE AND PRACTICE OF CONTRACEPTION  
IN THE TRUST TERRITORY OF THE PACIFIC ISLANDS

1970

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August 1971

This Survey was made possible through the cooperation of the Department of Health Services, Trust Territory of the Pacific Islands, and the School of Public Health, University of Hawaii, partially with the support of Grant No. AID ea 32.

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#### ACKNOWLEDGEMENTS

We would like to express our grateful appreciation to staff of the Headquarters Department of Health Services, particularly Dr. William M. Peck and Dr. Arobati Hicking, and to all the District Directors of Health Services, all the District Administrators and all the other government officials in the districts for their assistance and cooperation.

We particularly want to thank the doctors, nurses, the women who worked as interviewers, and all the many other people who worked directly with the University of Hawaii field supervisors on the survey. Their assistance was invaluable.

To the field supervisors, Marjorie Benning, Patricia Goodale and Thomas Holmes, we express our appreciation for the work they did.

Most of all, thanks also to the many people in the Trust Territory who made our stay a pleasant one.

## NOTES ABOUT THIS REPORT

Although the Trust Territory of the Pacific Islands is politically a single territory there are obvious and significant demographic and cultural differences between the districts. For this reason, we have prepared parallel but independent reports for each of the five district surveys (no survey was done in the district of Palau).

After a discussion of the methodology of the survey and a brief summary description of findings for the Trust Territory as a whole, the five district reports are included, ordered alphabetically.

Each district report follows the same pattern: a discussion of background information, a brief description of the survey in the district, a discussion of the findings: 1) fertility and fertility trends, 2) fertility control. Tables and graphs for each section are included after the text.

Where appropriate, statistical significance of findings reported in the tables is indicated. Figures and percentages are rounded off to the nearest whole number.

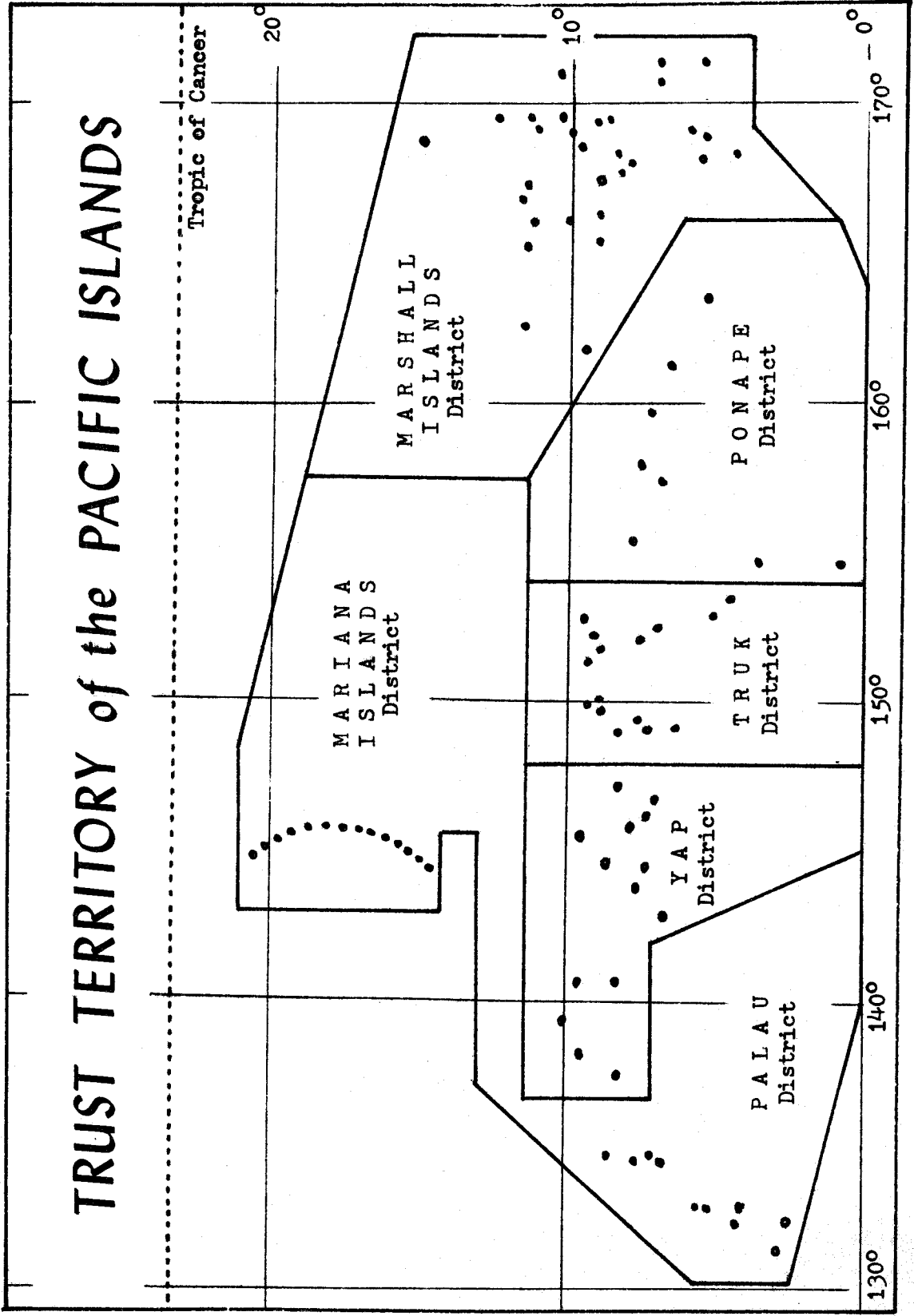
Findings and figures reported are, of course, only a fraction of the available information: we have presented only those findings that we judged to be important.

Just before this report went to press, we received a copy of the Annual Report of the Trust Territory of the Pacific Islands Department of Health Services for 1970. Unfortunately it was impossible at that time to substitute 1970 figures for the figures we had available when preparing the report (1968

and 1969). An inspection of the latest figures, however, does not indicate significant differences with the figures reported in this report.

We appended the results of a "Survey of Trust Territory Physicians" which was done in February of 1971. This was a mail survey, and so, essentially different from the five KAP surveys reported here. Nevertheless the findings compliment the information obtained from the sample of the female populations of the districts.

# TRUST TERRITORY of the PACIFIC ISLANDS



## I. INTRODUCTION

As in other parts of the world, population size and population growth are becoming one of the major concerns of those responsible for planning in the Trust Territory of the Pacific Islands. The area is beginning to show economic advancement, and it is hoped that this improvement can be accelerated. At the same time it is estimated that population will increase significantly in the next few decades and this could well jeopardize development.

In addition to growth, the population is also changing. In many districts there are significant shifts in population from the outer islands to the district centers and the more developed islands. This migration is probably a result of the increasing services and opportunities available today--such migration, however, further threatens to negate improvements.

Early in 1970 the Population and Family Planning Studies Unit of the School of Public Health, University of Hawaii, received a request from the Trust Territory Department of Health Services to conduct a survey among a sample of women to determine attitudes and beliefs concerning fertility and contraception, with a view of utilizing such information in the planning of a territory-wide family planning service.

First preparations for the survey were made by staff and faculty members of the School of Public Health and members of the Department of Health Services. The survey was planned for June, July, August 1970 when university personnel could be available.

The format of the survey was similar to surveys done by the School of Public Health elsewhere: personally conducted interviews by trained local interviewers of a carefully selected random sample of women 15-45 (or 15-49).

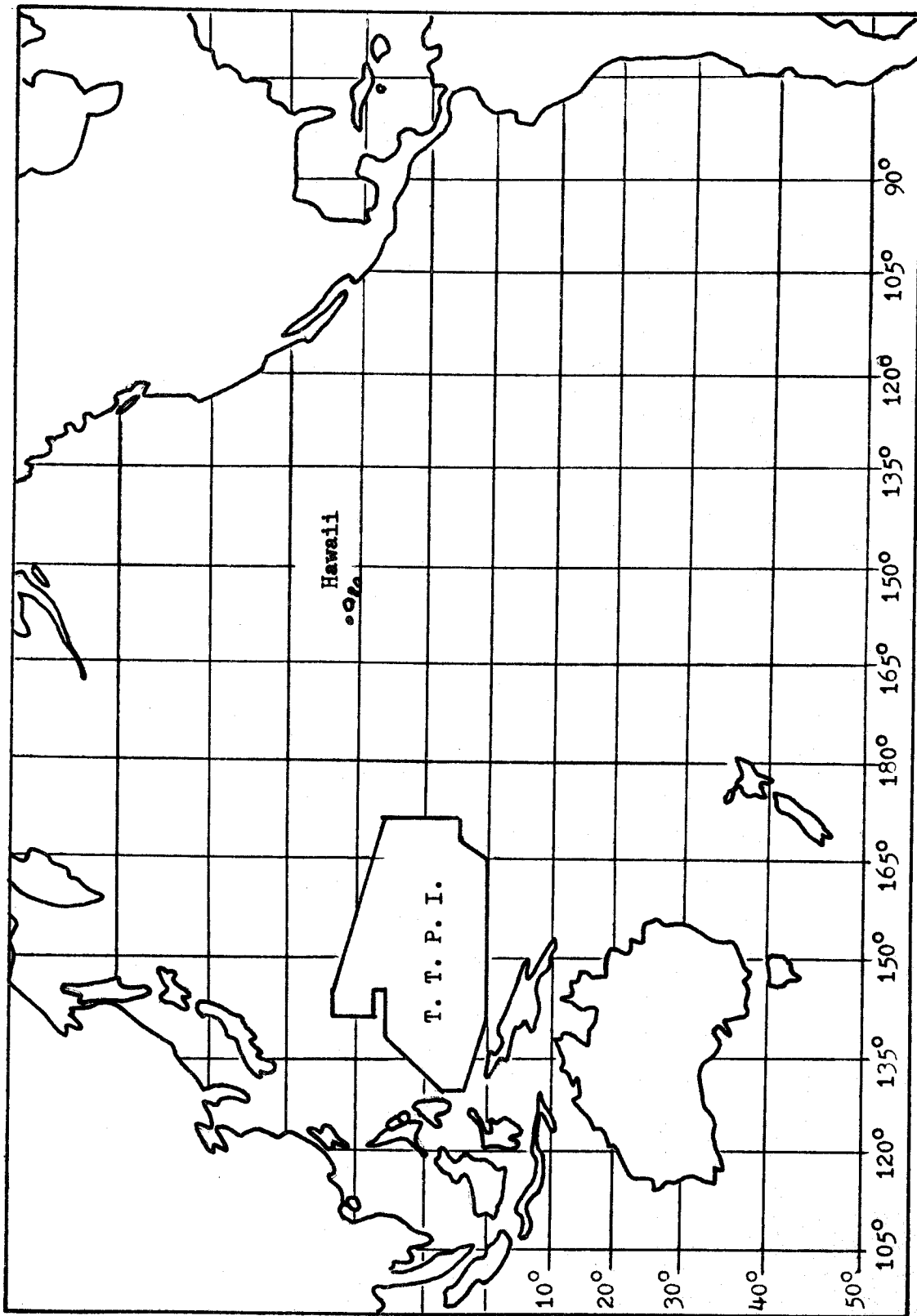
Our experience elsewhere had shown us that information obtained through such interviews is more valid and probably more reliable than information collected in other ways. In areas such as the Trust Territory, basic health statistics are not too reliable at best and a mail survey is out of the question in an area where few people are sufficiently literate and mail service is largely nonexistent.

Dr. Robert J. Wolff and Miss Rosemary DeSanna of the faculty of the School of Public Health were the supervisors and coordinators of the field team which was sent out from the University. Team members received training first in Hawaii, then for a final week of orientation in Guam at the University of Guam, with consultation from Dr. Scott Wilson and others. Each of the team members was assigned one of the districts of the Trust Territory, and was given the task of working in close cooperation with the medical director of the district and his staff in developing the interview schedule, and in the selection, training and supervising of interviewers (who were hired locally through the health department).

In Palau the District Director of Health Services and the District Administrator, in response to a petition by a number of private citizens in the district center, requested that the survey not be conducted because they feared an unfavorable reaction from certain factions of the population, who had expressed the opinion that "family planning was such a controversial subject that even asking questions about it might induce people to behave immorally."

This report, therefore, includes only the results and discussions of data collected in the remaining five districts.





## II. GENERAL DESCRIPTION

The Trust Territory of the Pacific Islands covers approximately 3,000,000 square miles north of the Equator in the Western Pacific Ocean between Hawaii and the Philippines. (See Map, page 4.) Micronesia, as it is also known, encompasses 2,100 islands with a total land area of 699 square miles. Only about 100 of the islands are inhabited. The islands form three major archipelagoes: the Carolines, the Marshalls and the Marianas. They range in size from substantial volcanic islands to tiny coral islets which help form coral atolls. Within the Caroline archipelago lie the four districts of Palau, Yap, Truk and Ponape. The Mariana Islands and the Marshall Islands form separate districts of their respective names. (See Map, page 1.)

### Government

The Trust Territory is administered by the United States through the Department of the Interior under a 1947 Trusteeship Agreement with the United Nations. The government of the Trust Territory consists of the Office of the High Commissioner (Executive), the Congress of Micronesia (Legislative) and the High Court (Judicial). For administrative purposes there are six districts which, by and large, correspond to broad cultural divisions. At the district level there is a district administrator, who is a representative of the High Commissioner's office, and a district legislature. The Provisional headquarters of the Trust Territory Administration remains in Saipan, in the Mariana Islands District.

### The People

The present Micronesian people probably originated in Southeast Asia, migrating gradually from what is now Malaysia to the Pacific Islands about four thousand years ago. Although the resemblances and interrelationships are many, there are recognized differences in language, technology, social organization and religion among the six district groups. There are nine major languages, all having a common Malayo-Polynesian origin. Most of the people know only the language of their home island, except in the district centers where some English is spoken.

### Demography

The population of the Trust Territory is approximately 100,000. The Population Profiles for 1967 list 97% of the population as native-born. The 1969 official government figures list the birthrate as 33.9/1000 and the death rate as 5.4/1000, making the rate of natural increase 2.8 which means that the population will double in 25 years. If present population trends continue, the population will reach one-quarter million by the end of the century.

With a total land area of 699 square miles, the population density for the Trust Territory now is 146 persons per square mile, based on the 1970 population estimate. (See Table TT-1.)

### Education

The educational system in the Trust Territory is based on the educational system of the United States; however, since Japan was administering the Territory until the end of World War II, some of the older women in our samples were educated under the Japanese system. For this survey no attempt was made to determine whether the women had attended primary, intermediate or secondary schools, or had had their education in the American or Japanese systems.

### III. SURVEY METHODOLOGY

Conducting a "KAP survey" in an island territory such as Micronesia has some unique aspects. As in other Pacific islands, populations are widely and thinly scattered, for the most part homogeneous culturally and economically, with no minorities living among them. Micronesians are Christian with rather fundamentalist beliefs. Few Micronesians speak English fluently, and of course, a survey designed to elicit attitudes and opinions must, therefore, be carried out in the native language by native speakers; few Micronesians, however, have ever been interviewed before, so that the interviewing situation itself appeared threatening at times. In addition, the concept of prevention of pregnancy was for some so alien that no clearcut attitudes or opinions existed.

#### The Interviews

In all five districts where the survey was completed questionnaires were constructed locally in one or more of the local languages. All interviews were conducted in the local language.

Questionnaires were translated in English to enable coding and analysis of the data at the University of Hawaii in Honolulu. The efforts of the counterparts assigned to work with the University of Hawaii team, and others, was of course, absolutely essential. Interviewers (all women) were recruited and hired locally in the five districts. They were health personnel or people with some health training but not currently employed and some were teachers, ex-teachers or private citizens.

The training of interviewers took place in the district centers, under the direction of a University of Hawaii team member and the counterpart, conducted in the local language.

### Sampling

The above cultural and social circumstances as well as the logistics of travel to isolated and sometimes inaccessible islands, the difficulties of locating people once an area had been reached, as well as sometimes limited facilities available at the district centers, made it necessary to make decisions regarding sampling and interviewing which were a reflection of what it was possible to do under the circumstances, rather than what was desired.

Personally conducted interviews take time and effort and pose a serious problem in an island territory. Because of limitations imposed by time available to supervisory personnel, but particularly by the physical impossibility of traveling to very small outlying islands, this survey was confined primarily to the most populous islands, usually the district centers and neighboring islands. Even here the logistics of transportation often proved very difficult.

In all districts a prior exclusion was made of islands and groups of islands that were judged to be inaccessible within the time allotted to the survey. The sampling frame for each district thus was limited to populations living on islands within a feasible distance from the district center. Since this included the majority of the populations of the districts, and since it certainly included that portion of the district's population which could reasonably be expected to have access to medical services, it was felt that under the circumstances this limitation would nevertheless allow meaningful generalizations to be made.

The first of these is the fact that the population of the United States is increasing rapidly. This is due to a number of factors, including a high birth rate, a low death rate, and immigration from other countries.

Another factor is the fact that the population is becoming more urbanized. This is due to the fact that people are moving from rural areas to cities in search of better jobs and living conditions.

The third factor is the fact that the population is becoming more diverse. This is due to the fact that people from many different countries are immigrating to the United States.

These factors are all contributing to the growth of the United States population. It is important to understand these factors in order to plan for the future of the country.

The sample was drawn on the basis of available information and since information was not uniform, the samples are somewhat different in character. In some districts an adequate household roster was available; in some districts area samples had to be done; in all districts sample units were households, and interviewers were instructed to interview all women of child-bearing age within sample households.

Samples in all districts are quite small: smaller than would have been desirable. The main reason for the restricted size of samples was the considerable difficulties of reaching small isolated groups of people. In view of the homogeneity of island populations, however, we feel that even these relatively small samples yielded significant information. No attempts were made to make the sample size proportionate to the population of the district. We attempted to get about 200 interviews completed in each district. This number was arbitrarily decided on as a more or less minimum sample which, given the homogenous nature of the populations, was expected to yield sufficient information. We knew that limitations of time (two to three months in the field), logistic, technical and human difficulties would make it impossible to aim for larger samples, even though that would have been better.

The district samples are not equally representative. Particularly, the sample in the Marshall Islands District obviously underrepresents the youngest age group (15-19). We think that this was primarily the result of interviewer "bias," and that this expresses a certain hesitation in interviewing young, unmarried girls. In the other age groups, however, even the Marshall District sample is acceptably representative. The other samples follow the age distributions as reported in the annual reports reasonably closely.

Because of limitations, the sample cannot be considered representative of the total population in any district. We are satisfied, however, that despite the small size of most district samples, generalizations can be made for women in the childbearing years. The report, we feel, is useful for planning purposes. A more detailed discussion of each of the samples is included in the reports for each of the districts.

#### Validity of the Sample

Since basic demographic information is largely lacking or at best is of unknown accuracy, the major test of the representability of interview samples has been the age distribution. For comparison we used figures from the Trust Territory Health Department Annual Report for 1968. At the time this report was prepared the latest population figures available to us were those reported in the 1968 Report. The 1970 Annual Report was made available to us too late to incorporate the latest figures. However, the differences between age distributions in 1968 and 1970 are, for the most part, not significant and do not essentially change the findings reported here.

From other indices too, we think that the district samples are sufficiently reliable and representative. Particularly, the women in the most fertile years are adequately represented. We are satisfied that the survey findings are an accurate description of fertility and of the attitudes and opinions of the women of the Trust Territory as a whole. Consequently, it seems valid to form generalizations and to make plans on the basis of findings reported here.



The first part of the report deals with the general situation of the country. It is a very interesting and detailed study of the economic and social conditions of the country. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the knowledge of the country.

THE ECONOMIC SITUATION

The economic situation of the country is one of the most important factors in determining its future. It is a complex and multifaceted problem which requires a thorough and objective analysis. The author has done this in a most excellent manner. He has examined the various aspects of the economy, from agriculture to industry, and has shown how they are interrelated. The report is a masterpiece of economic analysis and is a must-read for anyone interested in the country's future.

The author's analysis is based on a solid foundation of facts and figures. He has not only collected a vast amount of data, but he has also analyzed it in a most thorough and objective manner. The result is a report that is both informative and enlightening. It is a true masterpiece of economic writing and is a valuable contribution to the knowledge of the country's economic situation.

#### IV. FINDINGS

##### Fertility

If we accept information obtained in the interviews as adequate, a distinct population profile emerges for each of the districts surveyed and for the Trust Territory as a whole (five of the six districts). The Palau District was not covered.

The population of the Trust Territory is young, and there is every indication that it will continue to have a predominance of young people in the foreseeable future. This means specifically that even with a low fertility rate the population will include a large proportion of women in childbearing ages.

Fertility, however, is high. In all districts, except Yap, fertility rates suggest reproduction rates unchecked by any "control" other than the natural controls of mortality.

Both fetal wastage (fetal mortality) and infant and child mortality are relatively high.

Nevertheless, the total number of children produced during a woman's lifetime is so high that the number of surviving children of women 40 and over is still on the order of seven, or eight in some districts. This means a very considerable population increase in the immediate future.

It is reasonable to expect the present rate of growth to increase. The population of the Trust Territory at present is young, which means that the number of women of childbearing age will increase in the future. In addition, it can be expected that with improving medical services and parti-

cularly with a wider availability of such services to a larger proportion of the population, mortality rates will decrease--particularly fetal mortality rates and infant mortality rates.

The Government and leaders of the Trust Territory will be interested in planning for this expected population growth. In some of the districts, furthermore, there will be not only an increase in absolute numbers of people but a further shift of population from outlying islands to the district center, creating a greater burden on existing and future facilities and services.

It would go beyond the scope of this survey to provide accurate estimates of expected population size in future: too many variables are unknown at this time. However, it is certain that with present rates of reproduction, with a young population, and in some areas a shift of population to the already more populated centers, the accelerating rate of increase in population will cause severe strains on limited land, resources, and services.

#### Control of Fertility

In many of the districts surveyed there is already some interest in controlling natural fertility. Although at present the use of modern contraceptives is severely limited, it appears that on the whole no great barriers exist in the attitudes of people toward contraceptive use if information and services were to be made available.

In all districts, about one-third of all women can be considered "refuse" contraception at present. A majority of these "refusers," however, refuse because they want more children. Since in all districts there is some idea of an "ideal" number of children, and since in all districts this ideal is exceeded, it seems reasonable to suppose that the "refusers" can become acceptors, once they have reached what they consider an "ideal" number of children.