

FEDERATED STATES OF MICRONESIA
2000 POPULATION and HOUSING CENSUS REPORT



National Census Report

MAY 2002

DIVISION OF STATISTICS
DEPARTMENT OF ECONOMIC AFFAIRS
FSM NATIONAL GOVERNMENT
PALIKIR, POHNPEI 96941
FEDERATED STATES OF MICRONESIA

**THE FSM 2000
CENSUS
OF
POPULATION
AND
HOUSING**

National Census Report

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**Division of Statistics
Department of Economic Affairs
FSM National Government
P.O Box PS-12
Palikir, Pohnpei 96941
Federated States of Micronesia**



The President
Palikir, Pohnpei
Federated States of Micronesia

President's Message

It gives me great pleasure to publicize the results of the 2000 FSM Census of Population and Housing and transmit to the people of the FSM the first volume of the census report.

The citizens of the FSM are our single most significant economic assets and the well-being of our future generations depends on better planning and sound decision-making processes undertaken today. These processes require full understanding and utilization of the 2000 FSM Population data as an important planning tool. The census data serve as benchmark information for both government and the private sector in terms of coordination and integration of essential social services with the growing population. The census data also serve in large measures in our daily efforts for developing domestic resources in a manner that would meet the aspirations of our people, and ensuring that everyone equitably benefits from the highest possible living standards. Nevertheless, this census monograph contains essential information that permits policy makers and planners to establish direction and improvement strategies in dealing with economic development to accommodate the ever expanding population.

I would like to take this opportunity to express my gratitude for the technical support provided by the United States Government and the Secretariat of the Pacific Community to the 2000 FSM Census project. It is extremely important to extend special appreciation to Dr. Michael Levin from the U.S. Bureau of the Census, International Programs Center, for actively taking part in the planning, training and analysis stages of the census project. A special appreciation is also extended to Mrs. Vilimaina Rakaseta from the Secretariat of the Pacific Community for actively taking part in the analysis stage of the census project. I certainly would also like to extend special recognition to Mr. Sebastian L. Anefal, Secretary of the Department of Economic Affairs and the staff within the Division of Statistics for bringing the 2000 FSM Census Project to a successful completion.

I, therefore, urge all end-users to fully utilize the 2000 FSM Census of Population and Housing monograph for better planning of any projects and programs directly or indirectly related to the development and well being of the FSM.

Once again, the Office of the President wishes to express its special thanks to you all by saying "Kam magarged", Kinisou Chapur", "Kalahngan" and "Kulo Malulap".

A handwritten signature in black ink, appearing to read "Leo A. Falcam".

Leo A. Falcam
President
Federated States of Micronesia



DEPARTMENT OF ECONOMIC AFFAIRS

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Acknowledgement

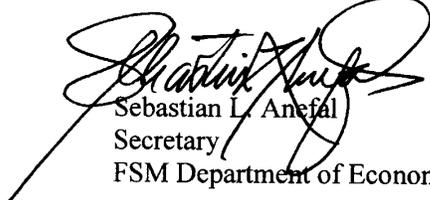
The 2000 National Census of Population and Housing of the Federated States of Micronesia (FSM) is the second monograph published by the Department of Economic Affairs, the first being the 1994 National Census. The data provided therein are critically important for planning, decision-making and research purposes in both government and the private sector. It contains a broad range of timely, useful information on the size, structure, distribution and socio-economic patterns of the FSM population.

In this regard, it is with great pleasure that I present this publication to the planners and policy-makers within the government for use as valuable reference tool in formulating future plans and policies relating to our growing population. In addition, I am confident it will be of considerable interest to all the citizens of the FSM.

I would like to join His Excellency Leo A. Falcam, President of the Federated States of Micronesia, in recognizing the tremendous support and assistance contributed towards the 2000 FSM Census Project by the United States Department of Interior, as well as all the international organizations that availed themselves to this effort. I would specifically like to acknowledge and extend our appreciation to the Congress of the Federated States of Micronesia for its financial support, without which the 2000 Census would have been difficult to complete.

It is also with great pleasure that I offer recognition to Mr. Eneriko Suldán, Assistant Secretary for Statistics in the Department of Economic Affairs, and to the tireless efforts of all the Statistics Division staff, technical experts, and enumerators involved in this major undertaking.

As we continue our efforts to improve the statistical program activities in the FSM and become more responsive to those who read and use this document, the Department of Economic Affairs welcomes any observations and constructive comments regarding the 2000 National Census of Population and Housing Report.



Sebastian L. Anefal
Secretary
FSM Department of Economic Affairs



DEPARTMENT OF ECONOMIC AFFAIRS

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PREFACE

The Division of Statistics, Department of Economic Affairs, FSM is the primary statistical arm of the government, which prepares for and conducts periodic censuses of population and housing. It also conducts surveys and research on various aspects of socio-economic conditions including national accounts, labor and employment and price situations in the country for the use of the government and the public. It also collects and processes data for statistical purposes from various offices and agencies of the government. More importantly, it enforces and carries out the provision of the FSM Public Law 5-77 in all statistical activities.

As demand for timely and reliable census of population and housing increased, it was decided to conduct another census count in the year 2000. The previous Censuses of the FSM were conducted in 1985, 1986, 1987, 1989 and 1994. The planning and preparation phases of the 2000 FSM Census of Population and Housing was conducted in 1999 mostly by the local staff within the Division of Statistics. The 2000 Census was the second to be organized and conducted at one point in time, therefore data from the two censuses are comparable. The third FSM Census of Population and Housing will be conducted by the year 2010.

During the 2000 Census, technical supports were received from the United States Bureau of the Census (USBC), International Programs Center, and the Secretariat of the Pacific Community (SPC). From the USBC, Dr. Michael Levin participated in the preparation phase until the final review of the census product. From SPC, Mrs. Vilimaina Rakaseta involved with the analysis phase. The Government of the FSM funded the 2000 Census with support from the United States Government. The FSM Congress appropriated \$500,000 for the project and the United State Government through U.S. Office of the Insular Affairs provided in-kind contributions.

The actual enumeration was conducted from April 1 to 17, 2000. The field staff consisted of 39 field supervisors in Chuuk, 8 in Yap, 25 in Pohnpei and 5 in Kosrae. For Enumerators, 48 were hired for Yap, 185 for Chuuk, 130 for Pohnpei and 32 for Kosrae. Those with a good fieldwork record were hired for the preliminary review, coding and keying operation. There were 44 editors and coders recruited to edit and code the remaining variables not covered during the preliminary process and these were retained and trained as computer operators. Text tables were designed for the preparation of the 5 analytical reports: one for each state and a consolidated set to cover the entire FSM. The Division of Statistics staff and State Field Supervisors coordinated the write up of the census analytical reports for the FSM and each of the four states. The experts from USBC assisted in the review process and made comments on the reports. It was agreed that the State Census Reports would basically adopt the format used in the National Census Report, but detailed to the municipality level for consistency and comparison purposes.

It is important to thank the individual staff that were directly involved and dedicated their efforts to the 2000 FSM Census project. Mr. Tilson Kephass was responsible for programming and supervising the data processing and production of the tables. Ms. Brihmer Johnson, Ms. Itoie Amond and Mr. Joston Edmond were dedicated workers in their assignments and Ms. Alice Bridge Ehmes played a key role in the final report writing. The four state field supervisors namely Mr. Anthony Albert from Chuuk State, Mr. Stoney Taulung from Kosrae State, Ms. Virginia Helgenberger from Pohnpei and Mr. Thomas Foruw from Yap State, all worked closely with the Division of Statistics staff from the planning and designing phase until the finalization of the report. Many other staff of the statistics office also assisted including Ms. Mary Rose Nakayama of the Chuuk Branch Statistics Office, who was involved in the final editing of the report, Mrs. Marsellie Obed who was responsible for the administrative work of the project, and Mr. Glenn McKinlay who currently serves as the Statistics Advisor, whose services are funded by the Australian Aid for International Development, and provided tremendous work during the final phase of the project. The individuals involved in the 2000 Census project are permanent staff of the Statistics Division. This project would not have been possible without these individuals' contributions.

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I also wish to extend a special appreciation to Dr. Michael Levin from the USBC, International Program Center, who has contributed a lot to the 1994 and 2000 FSM Censuses. The type of support given by Dr. Levin is superb and hopefully the good working relationship will be continued in future statistical activities.

The 2000 FSM Census project provided a wealth of information needed to monitor and evaluate many aspects of the progress in the FSM. Such a project can only be conducted occasionally. The questionnaire, operations and presentation of the 2000 Census were kept consistent with the 1994 Census to ensure that the 2000 information can be compared directly with the 1994 Census. Together, these two censuses provide a comprehensive record of changes that are occurring in our country at this time. It is a rarity for a Pacific Island country to have two consistent and comprehensive censuses conducted so close together in time. It is also the second for the FSM and we who have worked on this project hope that the information will be used to benefit our country.

"Kamagar", "Kinisou Chapur", "Kalahngan" and "Kulo Malulap"



Enefiko Suldan
Assistant Secretary for Statistics

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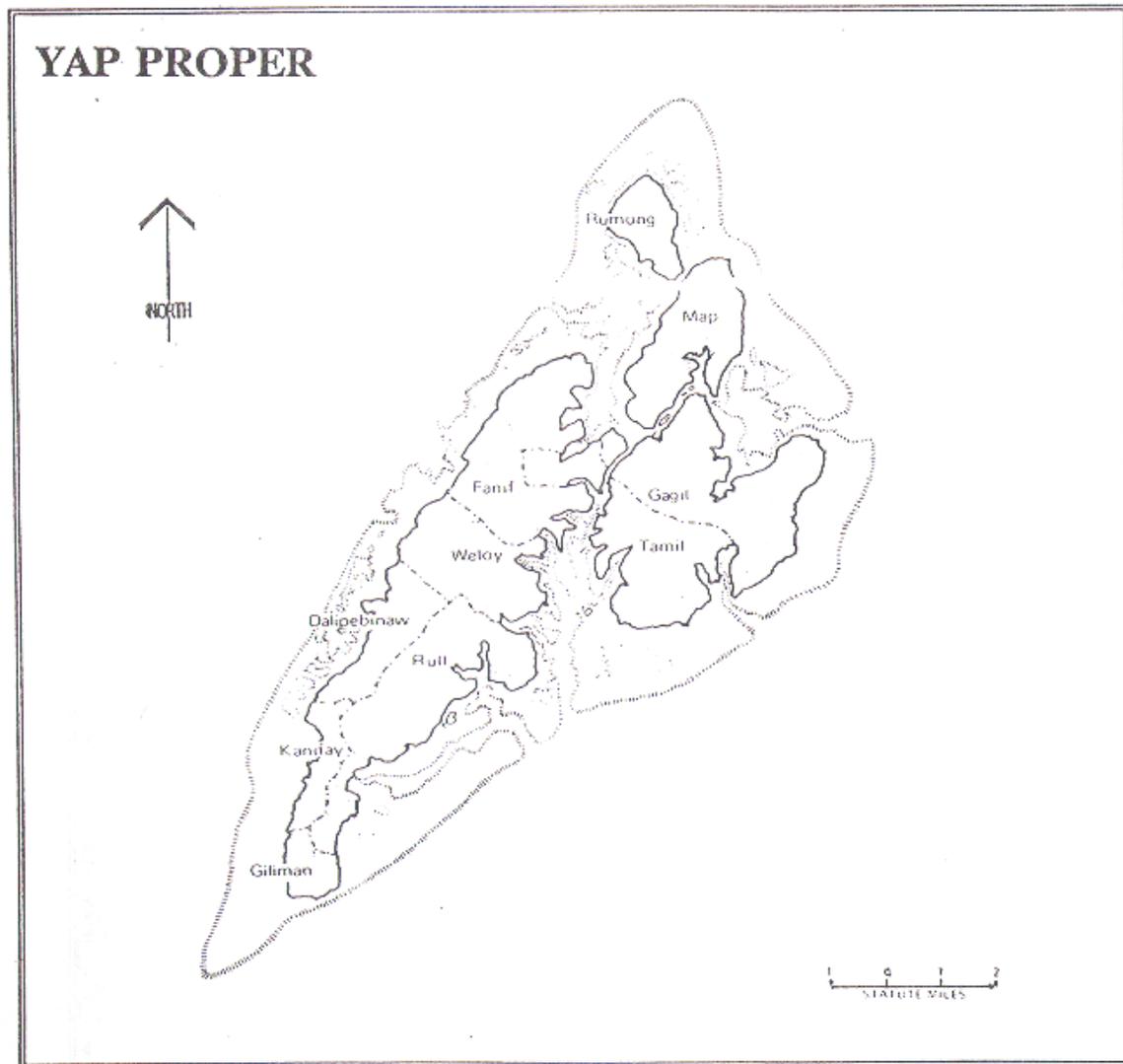
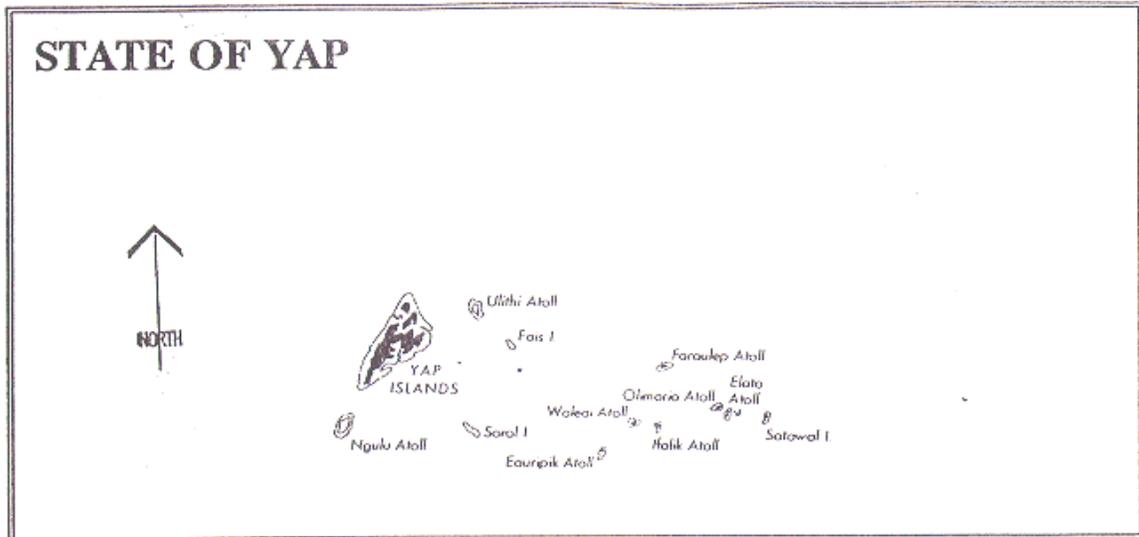
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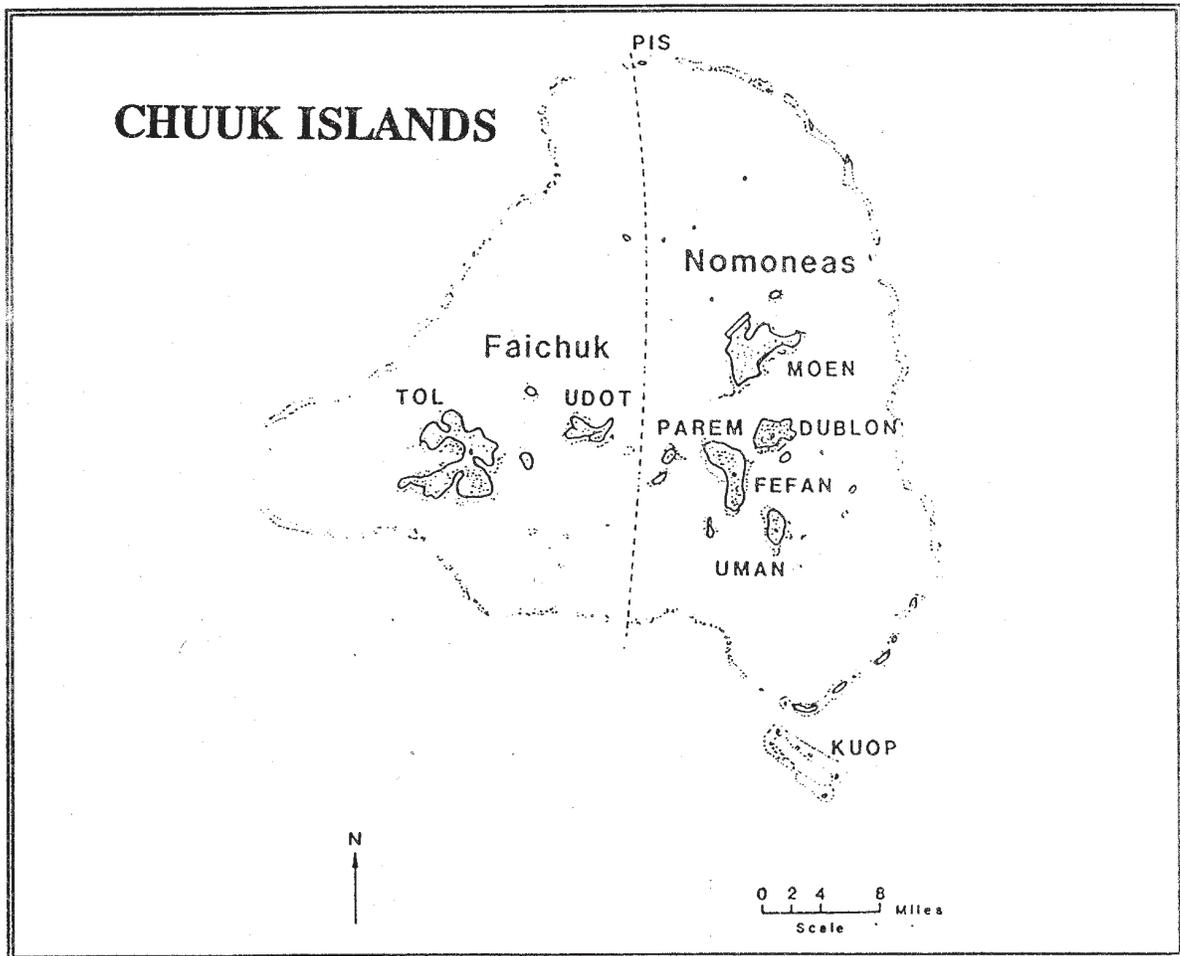
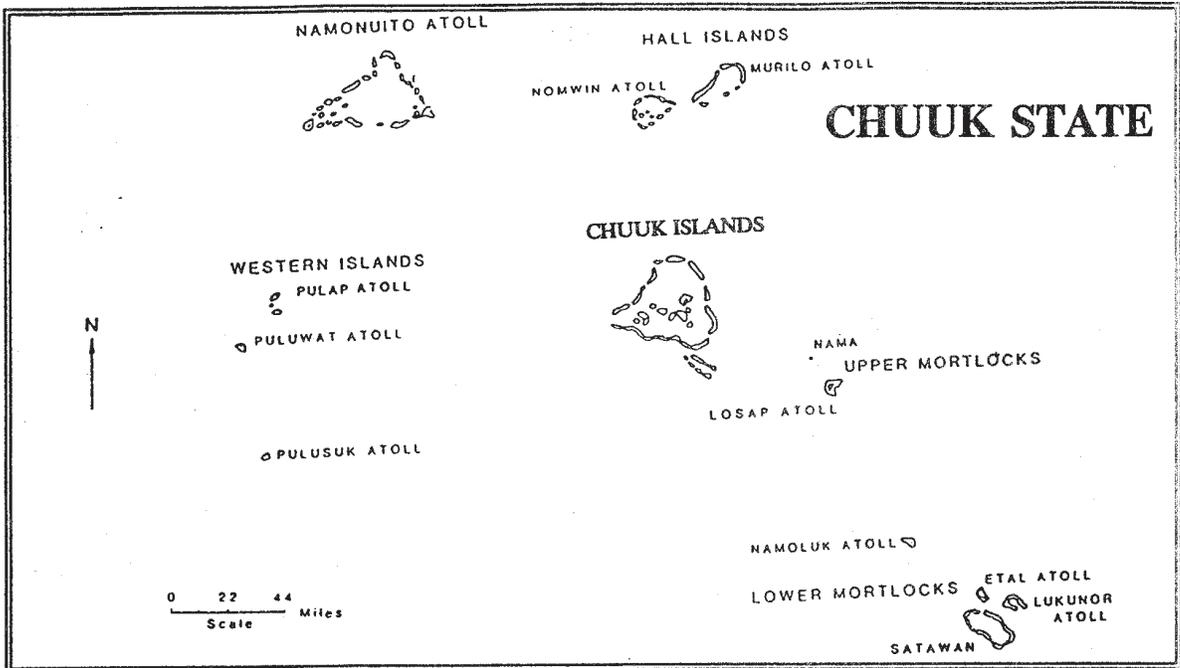
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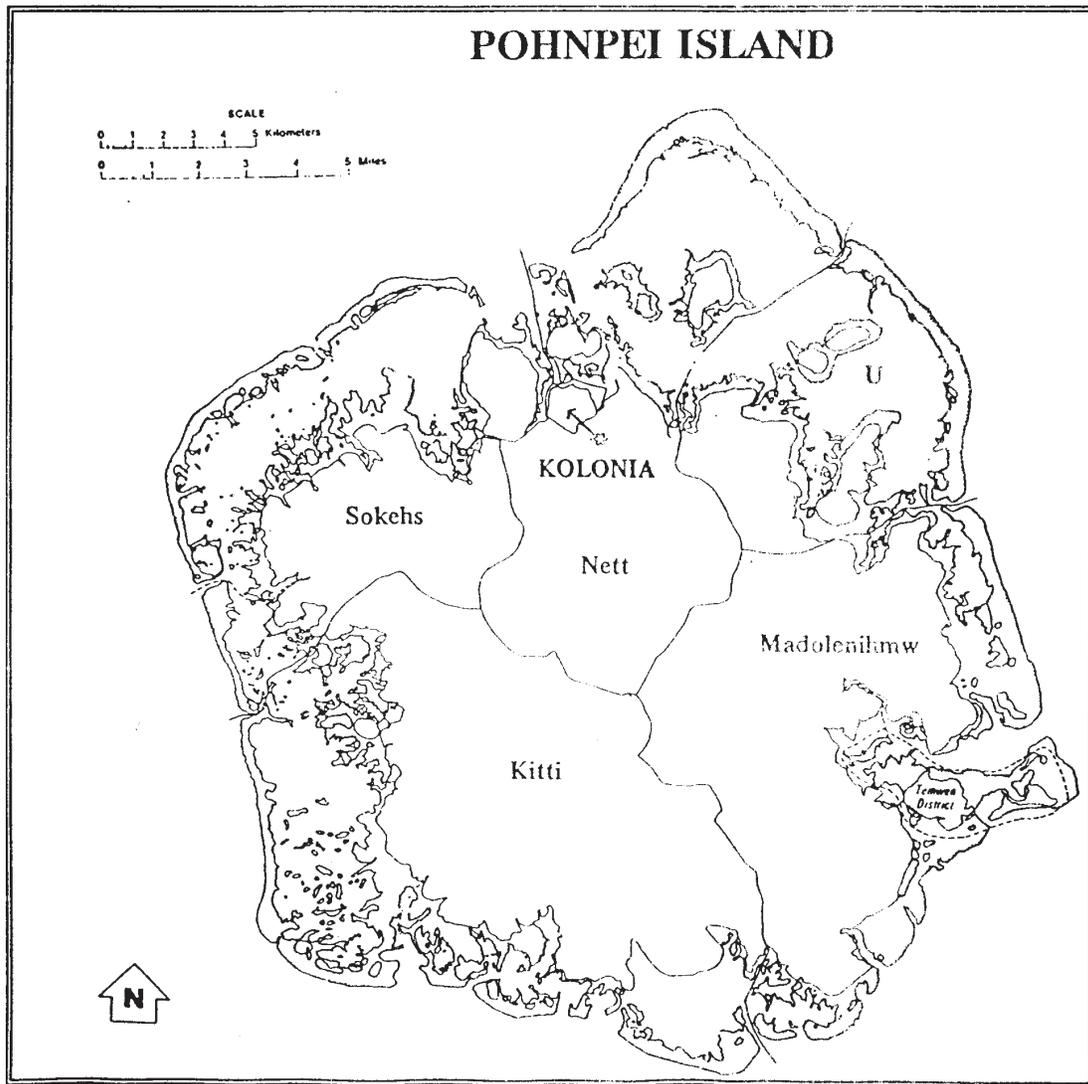
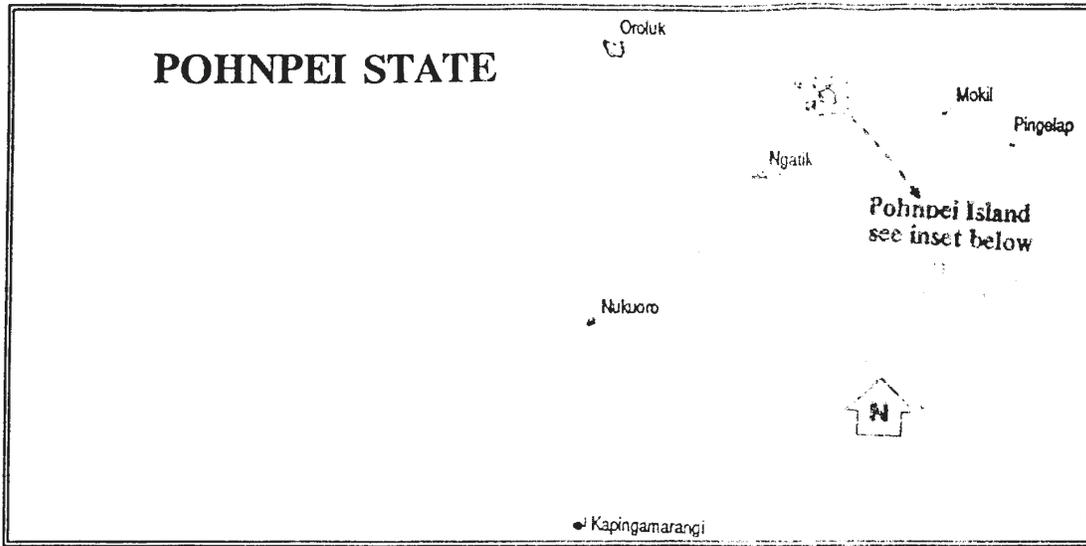
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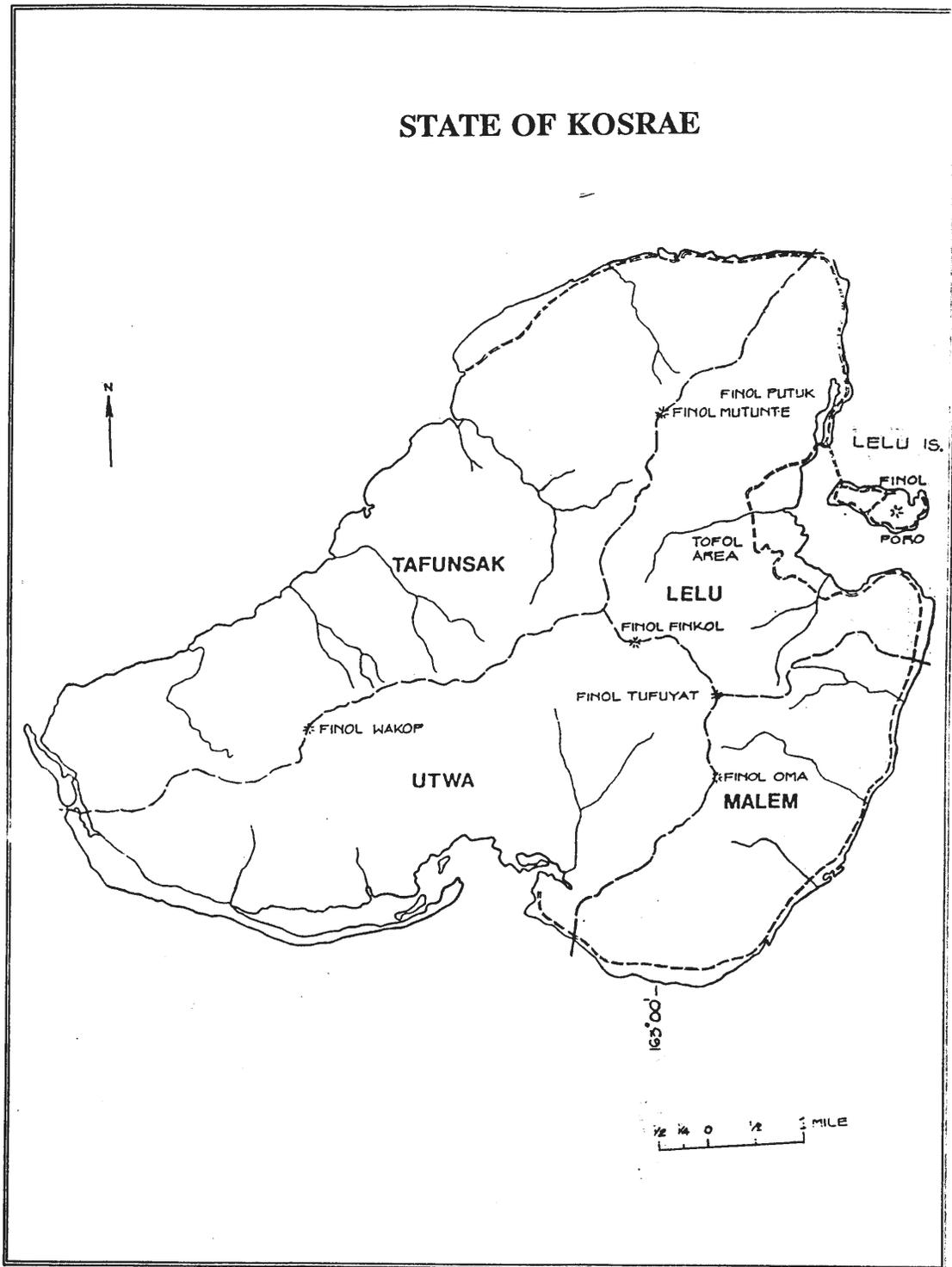
SYMBOLS

- . A dash "-" represents zero or a percent which rounds to less than 0.1
- . Three dots "..." mean not applicable, or information suppressed for reasons of confidentiality
- . **NA** means not available









EXECUTIVE SUMMARY

This report presents the 2000 FSM Census data, along with historical data from recent censuses. Information on the population's demographic, social, economic and housing conditions are briefly summarized. Apart from the obvious use of the report in planning, policy formulation, and in administration processes, the data presented in the report can also serve as a benchmark information in monitoring and evaluation activities.

The following paragraphs present a few of the major facts about the resident population of the FSM. These are only a few of the main outcomes and should not be viewed as the only information available.

Demographic Characteristics

Population size and growth. The population of the FSM increased from about 62,357 in 1973 to 105,506 in 1994 to 107,008 in 2000. The population growth rates had slowed from about 2.6 percent per year from 1973 to the mid 80's, to about 1.9 percent per year from the mid 1980's to 1994, and to 0.3 percent per year since 1994. The slowdown in the population growth rate reflected declining fertility and increasing emigration. The population by state in 2000 was 11,241 in Yap, 53,595 in Chuuk, 34,486 in Pohnpei and 7,686 in Kosrae.

Population density. The population density (persons per square mile) in the FSM in 2000 was about 395 persons per square mile (244 in Yap, 1,094 in Chuuk, 261 in Pohnpei and 179 in Kosrae). The corresponding density in the FSM in 1994 was 389 persons per square mile.

Median Age. The median age - the age at which half of the population is younger and half older - in the FSM in 2000 was 18.9 years, an increase of about 1.1 years from the 17.8 years in 1994. The median age suggested that the FSM had one of the youngest populations in the Pacific Island nations.

Sex Ratio. Most human populations have slightly more male than female births. As the population ages, the difference decreases because of higher male mortality. The sex ratio (number of males per 100 females) for the FSM in 2000 was about 103 (about 96 in Yap, 103 in Chuuk, 105 in Pohnpei, and 101 in Kosrae). The sex ratio in the FSM remained constant throughout the three decades preceding the 2000 Census. The sex ratio was also similar to most Pacific nations.

Households. The total number of occupied households increased from 15,230 in 1994 to 15,723 in 2000. By state, the total number of households reached 2,030 in Yap, 6,976 in Chuuk, 5,630 in Pohnpei and 1,087 in Kosrae. The average number of persons per household in the FSM decreased slightly from 6.8 in 1994 to 6.7 in 2000. Persons per household in 2000 were 5.3 in Yap, 7.6 in Chuuk, 6.0 in Pohnpei, and 7.0 in Kosrae.

Marital status. Adults in the FSM increasingly delayed marriage. The average age at first marriage in the FSM increased from about 22.8 years in 1973 to about 25.4 years in 1994 and to 26.3 years in 2000. The proportion of the population who were married decreased from about 60 percent in 1973 to about 54 percent in 1994 and down to about 52 percent in 2000. In 2000 the proportions of married persons were highest in Pohnpei (56 percent) and Kosrae (54 percent) and lowest in Yap and Chuuk (50 percent).

Fertility. Fertility decreased in the FSM in the three decades before the 2000 Census. The crude birth rate decreased from around 49 per 1,000 in 1973 to about 31 per 1,000 in 1994 and then to 28 per 1,000 in 2000. Likewise, the total fertility rate decreased, from just over 8.2 children per women in 1973 to about 4.7 children per women in 1994 to 4.4 children per women in 2000. Fertility rates in the states are now quite uniform. The total fertility rate in 2000 varied from 4.1 in Kosrae to 4.2 in Yap, and to 4.5 in Pohnpei and Chuuk.

Mortality. With the introduction of modern health care, mortality continued to decrease, resulting in longer life and lower infant, childhood and maternal mortality. Nevertheless, census data suggest that these improvements might have slowed down since the mid 1980's. For the FSM, the 2000 Census indirectly estimated an Infant Mortality Rate (IMR) of 40 per thousand and a life expectancy at birth of 67 years.

Birthplace. About 97 percent of FSM residents in 2000 were born in the FSM. The remaining 3 percent constituted the immigrants to the FSM. The largest proportion of foreign-born individuals came from Asia. The proportion of foreign-born was ranging from 7 percent in Yap, to 5 percent in Kosrae and Pohnpei, and to less than 1 percent in Chuuk.

Residence 5 years before the Census. The residence of the population 5 years before the census shows the level and patterns of short-term migration. Among the 2000 residents aged 5 years and over, slightly over two percent lived outside of the FSM during 1995 (7 percent for Yap, 4 percent for Kosrae, 3 percent for Pohnpei and 1 percent for Chuuk). The result further provided an estimation of migration per year between the FSM states. While Kosrae and Pohnpei experienced annual net gains from the other states of 2 to 3 per thousand, Yap and Chuuk had net loss of 1 per thousand.

Social Characteristics

Religion. Protestant and Roman Catholic were the two major religions in the FSM in year 2000. The Protestant religion dominated in Kosrae at 89 percent while Roman Catholic in Yap at about 83 percent. In Pohnpei and Chuuk, the proportion of Roman Catholic (both at 53 percent) was higher than that of the Protestant (between 37 and 43 percent, respectively). Other religions constituted less than 4 percent.

Ethnicity and Language Spoken at Home. About 97 percent of FSM residents were of local FSM ethnicities. The FSM had 6 major native ethnic groups. Over 96 percent reported a local language as their most commonly used language. English was reported by over 83 percent as the second most commonly used language.

School Enrollment. As the population of the FSM increased, the number of persons attending school in the nation also increased from about 19,000 in 1973 to about 35,000 in 1994 and down to 32,000 in 2000. In year 2000, about 8 percent of the students enrolled at primary school and 11 percent of those enrolled in high school were in private schools. Enrollment reached its peak at the ages of 9 to 11. Drop-out rates were quite high throughout the FSM starting from the age of 14 or 15 years.

Educational Attainment. In the FSM in 2000, more than half of all persons 25 years old and over were high school graduates, up from 1 in every 4 in 1980. The proportion of the population with no schooling decreased from about 25 percent in 1980 to about 15 percent in 1994 and to about 12 percent in 2000.

Economic Characteristics

Labor Force Participation. Labor force participation was compiled based on the current economic activity (that is, economic activities during a seven day reference period). The overall labor force participation rate of persons 15 years and over during the week before the census in the FSM was 58 percent in 2000, an increase of 15 percentage points since 1994. The male participation rate (67 percent) was higher than that of females (50 percent). The unemployment rate in the FSM in 2000, based on ILO classifications, was 22 percent. By state, unemployment was 4.1 percent for Yap, 34.2 percent for Chuuk, 12.3 percent for Pohnpei and 16.5 percent for Kosrae.

Subsistence. Out of about 29,000 employed persons in 2000, about 15,000 persons (that is, 52 percent) were engaged in agricultural, fishery or related activities. About 30 percent were engaged in market oriented agricultural, fishery, or related activities while the remaining 70 percent were in pure subsistence (did subsistence for household consumption only and did not sell).

Industry and Occupation. The formal work force in the FSM in 2000 was 13,959 (a 3 percent decrease since 1994). About 27 percent of the employed persons 15 years and over in the FSM were managerial and professional workers. Technicians and associate professionals (about 15 percent) and administrative support (about 16 percent) were also reported as major occupations.

Class of Worker. The percentage share of private workers in the FSM in 1994 was almost the same as that of the public sector. The majority of males were employed in the public sector while the majority of females were employed in the private sector.

Household Income. Out of the 15,723 households in the FSM in 2000, about 90 percent reported some cash income during 1999. The median household income was about \$4,618. The mean household income was higher at \$8,944.

The median income of individuals was about \$1,489. By state, median household income varied from \$2,776 in Chuuk to \$7,528 in Kosrae.

Housing. The total number of housing units increased from about 11,600 in 1980 to over 16,600 in 1994 and to over 17,300 in 2000. About 91 percent of all housing units were reported occupied in all of these censuses. The number of housing units with 5 or more rooms increased from about 8 percent in 1980 to about 19 percent in 2000.

Housing conditions in the FSM improved over the three decade. About half of all housing units were built between 1988 and 2000. In 2000 about 54 percent of the housing units had electricity, compared to 51 percent in 1994 and 28 in 1980. Fifty percent of all housing units had piped water as compared to about 44 percent in 1994 and about 6 percent in 1980. Similarly, of all housing units in 2000, over 44 percent had flush toilet and about 16 percent had bathtubs, compared to about 35 percent with flush toilet and about 15 percent with bathtubs in 1994.

Organization of Census Tables

Basic tables for the FSM are presented at the end of this report. Detailed tables for the FSM are available in a separate publication. For each state, a census report (including text and basic tables) and a separate volume of detailed tables will be published. The state reports and tables provide a breakdown of data by municipality.

CHAPTER 1 INTRODUCTION

The creation of the independent and sovereign nation of the Federated States of Micronesia (FSM) under the Compact of Free Association with the United States caused a growing need for social and economic development planning. Consequently, as in many developing countries, administrators and planners in the FSM, in their quest for social and economic development often contend with incomplete or unavailable information when it is needed. The 1994 and 2000 FSM Censuses were thus conducted as part of the overall effort to provide current and updated information required for planning and administrative purposes. This report presents basic analysis of the 2000 FSM Census data, including comparison against the 1994 FSM Census.

This chapter locates FSM geographically and presents a brief history and the population distribution of the FSM in selected Census years, along with some background on the 2000 FSM Census. Chapter 2 presents population change and structure. Chapter 3 presents the household and marital status. Chapters 4 to 6 discuss the population dynamics (fertility, mortality, and migration) of the FSM. Chapters 7 to 11 provide the basic analysis of social and economic characteristics. Chapter 12 discusses the housing characteristics. A separate publication presenting detailed tabulations of the 2000 FSM Census results has also been compiled and disseminated by the Division of Statistics. Census reports for each state present detailed analysis by state. Supplemental information and data from previous selected Censuses (1973, 1980, the mid 1980 State Censuses, and 1994) are used to present change over time.

Geographical location and a brief history of the FSM

Geographical location, climate, and size

The FSM consists of 607 islands spread through approximately a million square miles in the western Pacific Ocean lying between 1 degree south and 14 degrees north latitude, and between 135 and 166 degrees east longitude. Although the area encompassing the FSM, including its Economic Exclusive Zone (EEZ) is very large, the total land area is only 271 square miles with an additional 2,776 square miles of lagoon area. The 607 islands vary from large, high mountainous islands of volcanic origin to small atolls.

The FSM consists of four states: Yap, Chuuk, Pohnpei, and Kosrae. Yap is the westernmost state and has a total land area of 46 square miles including 12 inhabited island units. In addition to Yap's land area, the lagoon makes up 405 square miles. Chuuk consists of 7 major island groups. The largest is Chuuk Lagoon, which is a complex group of islands. It includes 98 islands, of which 14 are mountainous islands of volcanic origin, surrounded by a coral ring forming a lagoon of over 800 square miles. The total land area in Chuuk is 49 square miles with a lagoon area of 823 square miles. Pohnpei consists of 6 major island groups, and the largest is Pohnpei Island. The land area of Pohnpei is 132.2 square miles and lagoon areas make up 297 square miles. Kosrae has 43 square miles of land and no lagoon. The average temperature in the FSM is about 80 degrees Fahrenheit with little yearly variation. The FSM has some of the wettest places in the Pacific.

A Brief History

Spanish and Portuguese explorers came upon the Caroline Islands during the early sixteenth century, the former claiming the area as part of Spain's growing Pacific empire (Shinn, 1984, pp. 325-326). However, it was not until during the second half of the nineteenth century that Spain established small settlements mainly as a response to growing economic competition in the area from other nations. The Spanish administration lasted 13 years, from 1886 to 1899 (Hezel and Berg, 1979). But the first serious attempt to colonize the islands that currently compose the FSM was made by Germany, which purchased the Carolines from Spain in 1899 following the Spanish American War (Brown, 1977). The Germans ruled the islands from 1899 to 1914. Japan seized Germany's possessions in Micronesia in 1914 at the outbreak of World War I. The Japanese administration lasted from 1914 to 1945. The Japanese rulers had an enormous impact. Programs established in the islands mainly dealt with establishment of infrastructure (docks, roads, hospitals, school, etc.). Although the expatriate population mainly supervised these institutions, they provided services for the island people as well. The Japanese intention to "place a permanent Japanese imprint" in the islands was achieved.

These three nations were active in the FSM, though fundamentally different interests in the area led each to establish a markedly different presence. Following the Japanese administration, Micronesia was passed into the hands of the United States, and was a part of the United States Trust Territory of the Pacific Islands (TTPI) from 1947 until 1986. Like the Japanese, the Americans intended to develop the islands economically. Unlike the Japanese, any economic development that occurred was to benefit the local people and be subject to their control. The US administration undertook a massive buildup of education and health services. In May 1979 four island groups (Yap, Chuuk, Pohnpei, Kosrae) under the Trust Territory united to form the FSM, which became a sovereign independent nation under the Compact of Free Association between the FSM and the United States established in 1986. Despite this "independence", a major US presence remains in the area, mainly because of the funding and other interrelationships prescribed by the Compact (Compact of Hawai'i, 1989, p. 7; Compact of Free Association, 1982; Firth, 1982, p. 78).

History of Census Taking in the FSM

The population was counted during the periods before the American Administration. The Japanese collected the first systematic census data in 1920 for the areas which became TTPI, and continued to collect these data in 1925, 1930, and 1935. The TTPI High Commissioner's Office took a TTPI-wide census in 1958. The 1967 Census was the first census conducted during the American trusteeship to enumerate the population as of a specific date (March 26, 1967). In 1973, the TTPI administration collected another census after finding serious deficiencies in the 1970 Decennial Census. The 1980 Census was the second decennial Census. The reliability of the data of the 1980 Census was questioned particularly in the coverage of the population. However, these problems were mainly due to definition. As a consequence another census was commissioned under the law enacted by the Congress of Micronesia, and was conducted with the assistance of the South Pacific Commission. This Census however turned into four individual censuses, conducted in each state at different points in time, from 1985 to 1989. These censuses are often referred to as the mid-decade censuses. Although the results of these censuses were very accurate, the fact that they were conducted at different points in time and asked differing questions presented a problem in comparing and aggregating the figures to a national count. Hence the 1994 Census was initiated, and then followed by the 2000 Census.

The 2000 FSM Census

The 2000 FSM Census covered all persons usually residing in the FSM as of April 1, 2000. A census of the usual residents is a *de jure* count of the population. Only people who had resided or intended to reside in the FSM for six months or more prior to the Census were counted. Thus short-term visitors, staying for less than six months, were excluded. Usual residents who were overseas at the time of the census were included if they intended to return to the FSM within six months. FSM citizens who were away for more than six months were not considered to be usual residents of FSM and were excluded from the census.

The census also covered housing units (living quarters), both occupied and intended for occupancy (vacant) at the time of the census. Excluded were buildings for businesses, offices, institutions, and other structures not used as living quarters.

The 1994 and 2000 Censuses implementation phases are briefly summarized below:

Planning and Preparation

For 1994 due to limited experience in nationwide census planning in the country, staff members were sent to the US Bureau of the Census (USBC), International Programs Center for training in census/survey methods and organization, and census data processing. Additional training was also given to the Branch Statistics Offices on the fieldwork and interviewing techniques.

A series of workshops were conducted to establish the administrative setup for the census. Participants in the workshops were representatives from the national and state governments and officials from the U.S. Department of Interior and U.S. Bureau of the Census.

Enumeration

Field workers (crew leaders and enumerators) were hired and trained to carry out the actual enumeration. Each crew leader was responsible for supervising about 5 enumerators on the average. Each enumerator was assigned to conduct interviews for every housing unit and household (about 50 housing units on the average) in his or her enumeration district (ED), and fill out a questionnaire for every person in each household. The fieldwork lasted from April 4 through the early part of June.

Editing, Coding, and Data Processing

The census questionnaires were edited and coded. The Preliminary data editing and coding operation were initiated and completed at the state Branch Statistics Offices. Preliminary tables were compiled and disseminated from this operation. The questionnaires were then reviewed (for processability), coded, keyed, and verified for further analysis. Following the verification of the keyed data, specifications and programs were developed for data cleaning. The US Bureau of the Census (USBC) assisted the national and state staff in carrying out the data cleaning and programming activities in Washington D.C. The software used in data cleaning, processing, and table production was the Integrated Micro-computers Processing System (IMPS).

Data Analysis and Report Writing

A data analysis workshop was held to review the progress of the report writing and consistency of the data presented in the report. The national and state staffs were assisted by Dr. Michael Levin of the USBC and Mrs. Vilimaina Rakaseta, a demographer from the Secretariat of the Pacific Community (SPC).

Geographical Distribution

One of the important uses of a census is to provide a geographical population distribution. This information is very useful in the decision making processes of a nation such as allocation of funds, development planning, policy making, and apportioning seats in the decision making body.

Population Distribution

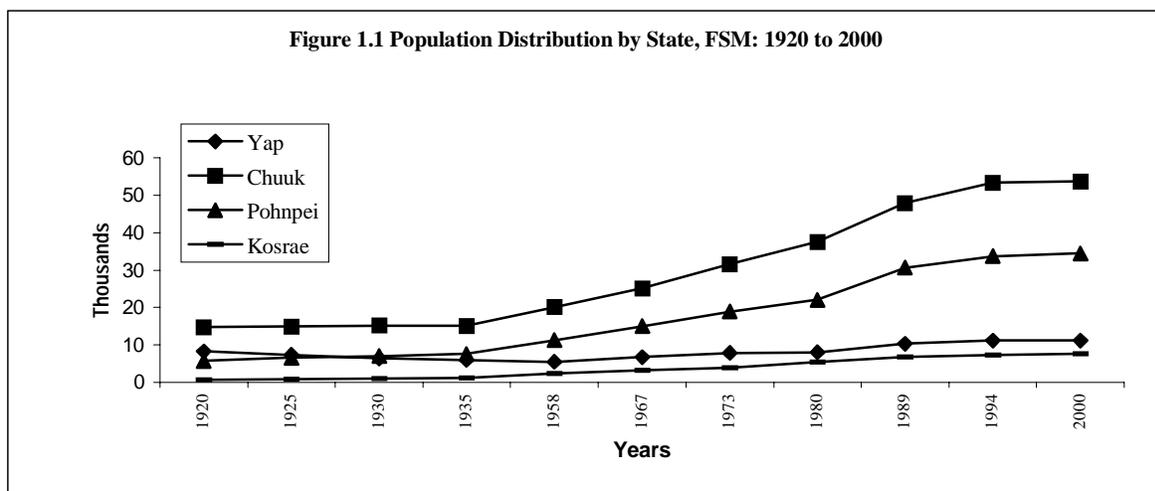
Table 1.1 and Figure 1.1 (page 4) present the population distribution of the FSM from 1920 through to 2000. The population increased steadily over the years and then gained momentum in the last 20 years. For instance, from 1980 to 2000, the population increased by more than 33,000 persons; whereas for over 50 years between 1920 and 1973 the population increased by a little over 32,000 persons.

Table 1.1. Population Distribution by State: Selected Census years

Census Year	Numbers					Percent				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
1920	29,660	8,338	14,788	5,748	786	100.0	28.1	49.9	19.4	2.7
1925	29,810	7,366	14,961	6,597	886	100.0	24.7	50.2	22.1	3.0
1930	29,727	6,486	15,200	7,051	990	100.0	21.8	51.1	23.7	3.3
1935	29,920	6,006	15,129	7,596	1,189	100.0	20.1	50.6	25.4	4.0
1958	39,289	5,540	20,124	11,258	2,367	100.0	14.1	51.2	28.7	6.0
1967	50,172	6,761	25,107	15,044	3,260	100.0	13.5	50.0	30.0	6.5
1973	62,357	7,870	31,609	18,926	3,952	100.0	12.7	51.0	31.1	5.3
1980	73,159	8,100	37,488	22,080	5,491	100.0	11.1	51.2	30.2	7.5
1989	95,740	10,365	47,871	30,669	6,835	100.0	10.8	50.0	32.0	7.1
1994	105,506	11,178	53,319	33,692	7,317	100.0	10.6	50.5	31.9	6.9
2000	107,008	11,241	53,595	34,486	7,686	100.0	10.5	50.1	32.2	7.2

Source: Nan'yo-cho (1927,1931,1937); Office of the Census Coordinator (1975); Office of the High Commissioner (1959); School of Public Health (n.d.); US Bureau of the Census (1972, 1983a); Yap Office of Planning and Budget (1992a, 1988, 1989); 1994 FSM Census Table P13; 2000 FSM Census Table P2-1.

Notes : The 1989 population was an interpolation from the mid 1980 Censuses, except for Chuuk. Population data for 1920-1935 are for Pacific Islanders only.



Source: Table 1.1

The percentage distribution of the population across the states also changed over the years. Pohnpei's share in the composition of the FSM population increased from 19 percent to 32 percent, Kosrae's share increased from 3 percent to 7 percent, while Yap's share decreased from 28 percent to 11 percent since the 1920 Census. Chuuk's share remained at about 50 percent throughout the years.

Table 1.2 presents the 1994 and 2000 distribution of the FSM population by state and sex. Of the 107,008 persons living in the FSM in 2000, 54,191 (51 percent) were males and 52,817 (49 percent) were females. The population was distributed unevenly among the states (see Figure 1.2). Chuuk was the most populated state, with a total of 53,595 persons, a little more than half the population of the FSM, followed by Pohnpei at 32 percent, Yap with 11 percent, and Kosrae with 7 percent. These population distributions were very similar to the 1994 Census.

Table 1.2. Population Distribution by State, FSM: 1994 and 2000

State	1994						2000					
	Numbers			Percent			Numbers			Percent		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
Total	105,506	53,923	51,583	100.0	100.0	100.0	107,008	54,191	52,817	100.0	100.0	100.0
Yap	11,178	5,565	5,613	10.6	10.3	10.9	11,241	5,508	5,733	10.5	10.2	10.9
Chuuk	53,319	27,299	26,020	50.5	50.6	50.4	53,595	27,158	26,437	50.1	50.1	50.1
Pohnpei	33,692	17,253	16,439	31.9	32.0	31.9	34,486	17,666	16,820	32.2	32.6	31.8
Kosrae	7,317	3,806	3,511	6.9	7.1	6.8	7,686	3,859	3,827	7.2	7.1	7.2

Source: 1994 FSM Census, Table P-13; 2000 FSM Census, P2-1

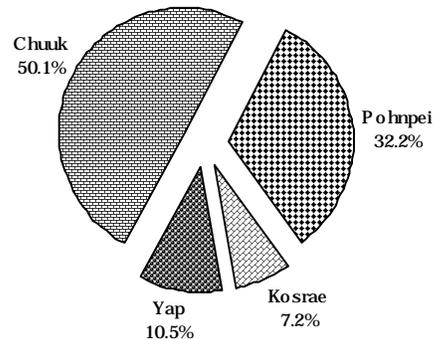
Population Density

The population density (number of persons per square mile) slightly increased between 1994 and 2000, from 389 persons to 395. (Table 1.3). This increasing trend occurred in all the states. Chuuk not only had the largest population, but also the highest population density in both years observed. The 2000 Census showed that the average density for Chuuk was 1,094 persons for every square mile of land, nearly three times the national average.

In contrast, the population densities in the other states were lower than the national average of 395 persons per square mile. Pohnpei, the largest and second most crowded state, had a population density of 261, closely followed by Yap with a density of 244 and trailing behind is Kosrae at 179.

Given the population distribution for 1973 presented in Table 1.1, the density for FSM increased by more than 70 percent in the 27 years before the 2000 Census.

Figure 1.2 Population Distribution, FSM: 2000



Source: Table 1.2

Table 1.3. Population Density for FSM: FSM 1994 and 2000.

Characteristics	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Population	105,506	11,178	53,319	33,692	7,317	107,008	11,241	53,595	34,486	7,686
Land Area (in square miles)	271	46	49	132	43	271	46	49	132	43
Density (per square mile)	389	243	1,088	255	170	395	244	1,094	261	179

Source: 1994 FSM Censuses, Table P13; 2000 FSM Censuses, Table P2-1; FSM Information Handbook, No. 1, Vol. 1, 1992.

Conclusion

Census taking improved in the 50 years prior to the 2000 Census. Over the census years observed, the population of the FSM continued to increase, at a more swifter rate at present than before. The geographical distribution of the population also shifted in the 50 year period observed. Pohnpei and Kosrae's shares increased, Yap's decreased, and Chuuk's remained relatively the same. The population density increased, reflecting the growth of the population. The FSM's limited land area of 271 square miles formulates population density a potential problem.

CHAPTER 2 AGE AND SEX STRUCTURE

Introduction

The age and sex structure of a population provides basic information necessary for planning and for providing key insights on social and economic characteristics. Age composition helps identify populations for schooling, employment, voting, and retirement. Sex distribution is important for identifying social characteristics, trends in community structure, and the population's economic potential.

Data Description

Age

The 2000 FSM Census obtained information on age from the response to the date of birth question and the age reported in questionnaire item 4a and 4b. Age was in completed years as of April 1, 2000. In cases where age was not reported or clearly appeared to be incorrect, the Census Office employees imputed age according to relationship, marital status and other related characteristics of other individuals.

Sex

Information on sex was asked of all persons in the census. In cases where sex was not reported, census personnel determined it from the person's name. Otherwise, sex was imputed according to relationship, marital status and other related variables.

Limitations and Comparability. There is no limitation to the 2000 age and sex data. Every census conducted in the FSM collected age and sex data.

Analysis of Age and Sex Data

Some important measures derived from the age and sex data will be analyzed in this chapter, namely the sex ratio, dependency ratio, intercensal growth rate, and median age. Also, we will look at the changes in the population distribution and age-sex structure and some probable causes for these changes.

Population Change and Intercensal Growth

One of the most important uses of any census is to throw light on the rate at which the population is growing annually (the intercensal growth). The intercensal growth rate between 1973 and 2000 falls within the range of 0.3 to 3 percent annually (Table 2.1). The current rate places the FSM as the nation with lowest population growth rate of the Micronesian countries (Table 2.2). The annual change from 1973 to 1989 was 2.6 percent. Between 1973 and 2000 the growth rate was 2.0 percent and because of the long period covered, is most certainly a good reflection of average growth over the years. In addition, it should be noted that the intercensal growth rate would have been much higher had it not been for the effect of increasing emigration.

The annual growth rate varied significantly by age group. In the 30 years prior to the current census, the growth rate for the very young (0 to 4 age group) declined from 2.1 between 1973 and 1980 to 1.3 between 1994 and 2000. In contrast, the annual growth rate of the very old (75 and over) age group increased from 2.0 percent to 3.8 percent over the same period. The difference in growth may be due to the combined effect of a decline in fertility rates (lowering the growth rate of the young) and declining rates of mortality (increasing the proportion of the old age population).

Table 2.1. Population Change and Annual Intercensal Growth Rate by Age Group, FSM: 1973 to 2000

Age	Number					Population Change				Annual Intercensal Growth Rate (%)			
						1973 to	1980 to	1989 to	1994 to	1973 to	1980 to	1989 to	1994 to
	1973 ¹	1980	1989 ²	1994	2000	1980	1989	1994	2000	1980	1989	1994	2000
Total	62,088	73,159	95,740	105,506	107,008	11,071	22,581	9,766	1,502	2.3	3.0	1.9	0.3
0-4	11,301	13,075	16,038	15,854	14,782	1,774	2,963	(184)	(1,072)	2.1	2.3	(0.2)	(1.3)
5-9	9,445	11,283	15,201	15,330	14,168	1,838	3,918	129	(1,162)	2.5	3.3	0.2	(1.4)
10-14	8,264	9,584	12,970	14,749	14,213	1,320	3,386	1,779	(536)	2.1	3.4	2.6	(0.7)
15-19	6,965	7,732	10,379	12,251	13,230	767	2,647	1,872	979	1.5	3.3	3.3	1.4
20-24	5,086	6,443	7,418	8,828	9,527	1,357	975	1,410	699	3.4	1.6	3.5	1.4
25-29	3,523	5,456	6,718	7,063	7,620	1,933	1,262	345	557	6.2	2.3	1.0	1.4
30-34	2,608	4,158	5,986	6,598	6,480	1,550	1,828	612	(118)	6.7	4.0	1.9	(0.3)
35-39	2,788	2,637	5,158	6,079	6,016	(151)	2,521	921	(63)	(0.8)	7.5	3.3	(0.2)
40-44	2,504	2,418	3,591	5,071	5,560	(86)	1,173	1,480	489	(0.5)	4.4	6.9	1.7
45-49	2,102	2,408	2,519	3,579	4,650	306	111	1,060	1,071	1.9	0.5	7.0	4.7
50-54	2,174	1,985	2,320	2,219	3,205	(189)	335	(101)	986	(1.3)	1.7	(0.9)	6.6
55-59	1,526	1,821	2,130	2,105	1,903	295	309	(25)	(202)	2.5	1.7	(0.2)	(1.8)
60-64	1,448	1,568	1,817	1,985	1,733	120	249	168	(252)	1.1	1.6	1.8	(2.5)
65-69	928	1,087	1,484	1,395	1,487	159	397	(89)	92	2.3	3.5	(1.2)	1.2
70-74	703	670	958	1,229	993	(33)	288	271	(236)	(0.7)	4.0	5.0	(3.9)
75+	723	834	1,053	1,171	1,441	111	219	118	270	2.0	2.6	2.1	3.8

Source: 1973 TTPI Census, T4a; 1980 TTPI Census, Unpublished; 1994 & 2000 FSM Censuses and Unpublished data.

Note: ¹ 1973 data do not include "not stated" cases.

² The figure for 1989 is an interpolation based on the mid 1980 state Censuses.

Table 2.2. Selected Demographic Indicators from Other Micronesia Islands: Various Years

Country	Census Year	Intercensal Growth (%)	Median Age	Sex Ratio	Dependency Ratio
FSM	2000	0.3	18.9	103	79
Guam	1990	2.3	25.0	114	64
Kiribati	1995	2.5	19.8	97	77
Marshall Islands	1999	2.0	17.7	105	82
Nauru	1992	2.9	18.0	105	68
CNMI	1995	5.5	28.5	93	40
Palau	1995	2.2	30.4	114	47

Source: 1973 TTPI Census, T4a; 1980 TTPI Census, Unpublished; 1994 & 2000 FSM Censuses and Unpublished data.

Age and Sex Distribution

Table 2.3 shows the percent distribution of the FSM population by five-year age group and by sex from 1973 to 2000. The data also showed that the proportion for both sexes fluctuated over the years for each age group. However, the percentages of males under the age-group 10-14 decreased but then increased for age groups between 10-14 and 45-49. Similarly, females' proportion changed in the same age groups as males.

Table 2.3. Population by Five-Year Age Group and Sex, FSM: 1973 – 2000

Age	Males					Females				
	1973	1980	1989 ¹	1994	2000	1973	1980	1989 ¹	1994	2000
Total	31,965	37,396	48,551	53,923	54,192	30,123	35,763	47,189	51,583	52,816
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
0-4	18.4	18.3	17.0	15.2	14.0	18.0	17.5	16.5	14.8	13.6
5-9	15.5	15.7	16.2	14.9	13.5	15.0	15.2	15.5	14.1	13.0
10-14	13.6	13.4	13.9	14.0	13.8	13.0	12.7	13.2	14.0	12.8
15-19	11.2	10.6	10.9	11.9	12.5	11.2	10.6	10.7	11.3	12.3
20-24	7.9	8.4	7.4	8.0	9.0	8.5	9.2	8.1	8.7	8.8
25-29	5.7	7.3	6.7	6.5	6.8	5.7	7.6	7.3	6.9	7.4
30-34	4.1	5.8	6.2	6.2	5.8	4.3	5.5	6.4	6.4	6.4
35-39	4.3	3.5	5.4	5.7	5.5	4.6	3.7	5.4	5.8	5.7
40-44	4.1	3.1	3.8	4.9	5.2	3.9	3.5	3.7	4.6	5.2
45-49	3.3	3.3	2.6	3.6	4.4	3.5	3.3	2.6	3.2	4.3
50-54	3.3	2.5	2.3	2.0	3.0	3.7	2.8	2.5	2.2	2.9
55-59	2.5	2.4	2.2	1.9	1.7	2.5	2.6	2.3	2.1	1.9
60-64	2.3	2.2	1.8	1.9	1.5	2.3	2.1	2.0	1.9	1.7
65-69	1.5	1.5	1.5	1.2	1.3	1.5	1.5	1.6	1.4	1.5
70-74	1.2	0.9	1.0	1.1	0.8	1.1	1.0	1.0	1.3	1.0
75+	1.1	1.1	1.1	1.0	1.2	1.2	1.2	1.2	1.3	1.5

Source: 1973 TTPI Census, T4a; 1980 TTPI Census, Unpublished; 1994 & 2000 FSM Censuses, Unpublished Data.

Note: ¹ For this and other tables in this chapter FSM figure for 1989 is an interpolation based on the mid 1980 state Censuses. State figures for the mid-1980's were from the 1985 Pohnpei Census, 1986 Kosrae Census, 1987 Yap Census and 1989 Chuuk Census

A useful representation of the age and sex data of the population is the population pyramid. It provides insights into the population structure of a country and is useful for future planning. The age and sex structure is affected by each of the components of population growth: fertility, mortality, and migration. Figure 2.1. shows the FSM population pyramids from 1973 to 2000 for comparative purposes.

Consider the population structure in 2000. The wide base for age groups 0 to 4, 5 to 9, and 10 to 14 represents the recent births. It is noteworthy to mention that the lowest two bars are almost the same length, indicating that fertility has been declining. At the top of the pyramid, the bars were narrowing, indicating fewer people at older ages. The most obvious explanation is that people die when they grow older; therefore, the narrow bars at the old ages reflect mortality. Another interesting feature of this pyramid is the sharp indenting of the bars at ages 15 to 19, 20 to 24, and 25 to 29. This does not come from mortality, especially as mortality at these ages is relatively low. The more likely explanation lies in overseas emigration, as young people seek education and job opportunities abroad.

Figure 2.1. Population Structure: FSM 1973-2000.

When comparing the population structure throughout the years, one finds that the shape of the pyramids has changed. The shape of the pyramids for 1973, 1980 and 1989 are more wider at the bottom, which suggests a higher level of fertility. Whereas in 1994 and 2000, the bottom bars have become shorter and narrower. These changes in the latter years are attributed to emigration and lower level of fertility.

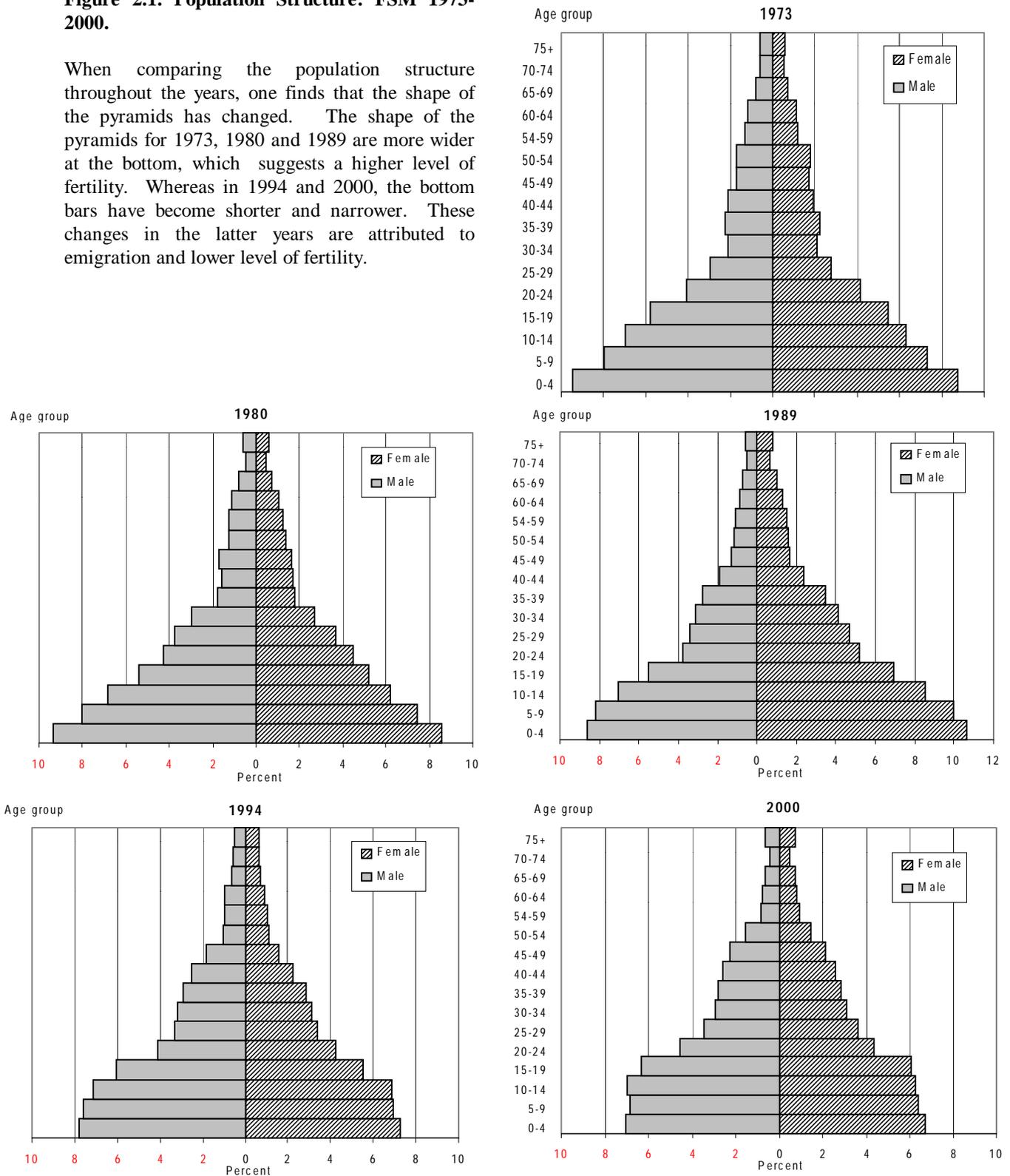


Table 2.4 shows the distribution of the FSM population by 5-year age group and by gender for 1994 and 2000 Censuses. The data demonstrated that as the population becomes older, its proportion gets smaller. This pattern was true for both 1994 and 2000. For instance, 14 or 15 percent of the population was below age 5 but a little over 1 percent was above age 75 in 1994 and 2000. Therefore, allocation of population varied among the age groups. As shown, the smaller share of the older population was partly due to the effect of mortality and migration. A similar pattern was also found with both sexes.

Table 2.4. Population by 5-Year Age Group and sex, FSM: 1994 and 2000.

Age group	1994						2000					
	Number			Percent			Number			Percent		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	105,506	53,923	51,583	100.0	100.0	100.0	107,008	54,191	52,817	100.0	100.0	100.0
0-4	15,854	8,211	7,643	15.0	15.2	14.8	14,783	7,579	7,204	13.8	14.0	13.6
5-9	15,330	8,051	7,279	14.5	14.9	14.1	14,169	7,310	6,859	13.2	13.5	13.0
10-14	14,749	7,534	7,215	14.0	14.0	14.0	14,220	7,481	6,739	13.3	13.8	12.8
15-19	12,251	6,431	5,820	11.6	11.9	11.3	13,237	6,754	6,483	12.4	12.5	12.3
20-24	8,828	4,321	4,507	8.4	8.0	8.7	9,525	4,886	4,639	8.9	9.0	8.8
25-29	7,063	3,496	3,567	6.7	6.5	6.9	7,603	3,695	3,908	7.1	6.8	7.4
30-34	6,598	3,311	3,287	6.3	6.1	6.4	6,489	3,124	3,365	6.1	5.8	6.4
35-39	6,079	3,077	3,002	5.8	5.7	5.8	6,015	2,994	3,021	5.6	5.5	5.7
40-44	5,071	2,661	2,410	4.8	4.9	4.7	5,559	2,801	2,758	5.2	5.2	5.2
45-49	3,579	1,930	1,649	3.4	3.6	3.2	4,647	2,393	2,254	4.3	4.4	4.3
50-54	2,219	1,101	1,118	2.1	2.0	2.2	3,209	1,654	1,555	3.0	3.1	2.9
55-59	2,105	1,033	1,072	2.0	1.9	2.1	1,898	899	999	1.8	1.7	1.9
60-64	1,985	1,018	967	1.9	1.9	1.9	1,733	830	903	1.6	1.5	1.7
65-69	1,395	668	727	1.3	1.2	1.4	1,487	699	788	1.4	1.3	1.5
70-74	1,229	567	662	1.2	1.1	1.3	993	457	536	0.9	0.8	1.0
75+	1,171	513	658	1.1	1.0	1.3	1,441	635	806	1.3	1.2	1.5

Source: 1994 FSM Census, P13; 2000 FSM Census, P2-1

Median Age

The median age is a measure that divides the entire population into two equal parts (the age at which half of the population is older and half is younger). A change in the median age indicates whether the population is getting older or younger. The median age is especially useful as one measurement when comparing the composition of a population over time and to other populations.

The national median age increased by over two years in the 27 years before the 2000 Census, indicating that the FSM population is getting older (Table 2.5). From 1973 to 2000 the median age for both males and females increased by two years as well. The median age in 2000 was about 19, suggesting that the FSM has one of the youngest populations in the Pacific Island nations. During the last decade, the median age in the Pacific countries ranged from 18 to 30 (see Table 2.2).

The median age varied geographically in the FSM in the last census, as well as in the census years before that. In 2000 Yap had the highest median age of 21. This was followed by Pohnpei and Kosrae with 19, and Chuuk with a median age of 18.

Table 2.5. Median Age by State and Sex, FSM: 1973 to 2000

State of Residence	Total					Males					Female				
	1973	1980	mid-80's	1994	2000	1973	1980	mid '80's ¹	1994	2000	1973	1980	mid-80's ¹	1994	2000
Total	16.5	16.7	17.5	17.8	18.9	16.3	16.3	16.3	17.5	18.5	16.8	17.2	17.3	18.1	19.3
Yap	18.5	19.0	19.3	19.7	20.9	18.2	18.5	20.1	18.7	19.9	18.8	19.5	18.2	20.6	21.8
Chuuk	16.5	16.7	15.8	17.0	18.5	16.1	16.1	15.1	16.6	18.2	17.0	17.2	16.7	17.4	18.9
Pohnpei	16.9	16.2	16.8	18.2	18.9	15.9	15.9	16.6	18.0	18.5	15.9	16.5	16.9	18.4	19.2
Kosrae	14.7	15.9	16.5	18.8	19.2	14.3	15.8	16.0	19.3	18.5	15.2	16.1	16.9	18.3	19.9

Source: 1973 TTPI Censuses, T4a; 1985, 1986, 1987 and 1989 Censuses of Pohnpei, Kosrae, Yap and Chuuk, respectively; 1994 FSM Census, P13; 2000 FSM Census, P2-1.

Note: ¹ Total figure for mid-1980's was a 1989 interpolation from the mid 1980 mid-1980 State Censuses.

Sex Ratio

The sex ratio of FSM remained at about 105 males per 100 females in 1973 and 1980, and then decreased. In 1989 there were about 103 males to every 100 females in FSM, increasing to about 105 in 1994, and again dropping down to 103 in 2000 as illustrated in Table 2.6. Between 1994 and 2000, the sex ratio for the states dropped except for Pohnpei, which remained at 105. The sex ratio for the current census for Yap was 96, a drop of three percentage points from 99, Chuuk declined to 103 from 105, and Kosrae declined to 101 from 108. Compared to other Micronesian countries presented in Table 2.2, the FSM sex ratio was rather moderate. All states displayed a rather masculine population except for Yap. The change in the sex ratio over the past 27 years was most significant in Yap, Kosrae, and Chuuk. The sex ratio for Pohnpei remained the same for the last 27 years.

Table 2.6. Sex Ratio by State, FSM: 1973 to 2000

State	1973	1980	mid '80s ¹	1994	2000
Total	105.0	104.6	102.8	104.5	102.6
Yap	105.7	104.4	105.0	99.1	96.1
Chuuk	104.5	105.5	102.3	104.9	102.7
Pohnpei	105.0	102.8	104.1	105.0	105.0
Kosrae	103.8	106.0	102.2	108.4	100.8

Source: 1973, T4a and 1980, T24 TTPI Censuses; 1985, 1986, 1987 and 1989 Censuses of Pohnpei, Kosrae, Yap and Chuuk, respectively; 1994 FSM Census, P13; 2000 FSM Census, P2-1.

Note : ¹ FSM figure for mid-1980 was a 1989 interpolation from the state mid 1980's Censuses.

The FSM sex ratio was about 103 in 2000 (Table 2.7). In most societies more males are born than females, therefore the excess of males at the young ages of 0 to 9 for both 1994 and 2000 is not surprising. The shortage of males is especially evident at ages 20 to 29, and 50 years and older. The shortage of males for ages 20 to 39 is attributed to emigration, while the shortage of males at ages 50 and older is explained by a combined effect of emigration and mortality (the tendency for males to die younger than females), resulting in the excess of females in the older age groups.

Table 2.7. Sex Ratio by Age Group and State, FSM: 1994 and 2000.

Age	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Total	104.5	99.1	104.9	105.0	108.4	102.6	96.1	102.7	105.0	100.8
0-4	107.4	110.0	108.3	106.6	100.4	105.2	108.2	103.8	106.3	106.0
5-9	110.6	102.9	111.4	111.1	113.0	106.6	105.9	104.6	110.5	104.1
10-14	104.4	115.5	105.3	100.0	102.7	111.0	102.8	112.8	110.6	111.6
15-19	110.5	101.0	112.4	113.3	98.0	104.3	99.6	102.5	107.5	110.5
20-24	95.8	66.8	101.1	97.5	105.0	105.1	80.5	113.2	105.7	87.0
25-29	98.0	78.9	103.2	94.7	111.3	94.6	74.8	96.6	98.4	91.9
30-34	100.8	96.4	97.6	100.2	136.8	92.8	74.3	100.4	92.4	77.2
35-39	102.5	101.1	100.4	105.0	107.5	99.2	95.6	96.4	103.0	106.5
40-44	110.4	114.9	105.0	117.1	111.2	101.6	94.4	98.8	108.7	101.9
45-49	117.1	133.7	108.3	117.5	150.4	106.2	114.5	102.1	111.1	100.0
50-54	98.6	89.1	100.0	100.5	96.2	106.2	125.4	97.2	107.4	134.8
55-59	96.4	89.4	92.9	106.4	92.5	90.3	83.1	91.7	93.4	83.0
60-64	105.1	87.9	110.5	100.9	125.8	92.1	88.9	89.3	100.4	84.6
65-69	91.9	98.7	83.5	102.6	97.5	88.7	88.2	87.5	89.7	93.4
70-74	85.6	75.3	84.6	87.9	108.3	85.3	94.9	83.1	91.4	58.5
75+	77.9	100.0	85.3	88.0	90.2	78.8	82.4	75.8	80.6	88.2

Source: 1994 FSM Census, P13; 2000 FSM Census, Table P2-1.

Dependency Ratio

The dependency ratio measures the degree of economic ease or hardship inherent in a given age-sex structure. However, it is only an indicator since it assumes certain age-groups as exclusively "producers" or "consumers". The dependency ratio is obtained by adding the population below 15 years to the population aged 65 and over (defined as the dependent age groups), then dividing the sum by the population aged 15 to 64 (the working age population). Often the dependency ratio is divided into old dependency (ratio of those 65 years and over to those ages 15 to 64) and young dependency (ratio of those under 15 to those ages 15 to 64). The dependency ratio should not be confused with the economically active ratio. The former considers all persons of working age, while the latter considers only those individuals of working age who are economically active, which is usually less than the dependency ratio (see Chapter 9).

In 2000 the dependency ratio of the FSM was 79 (meaning that for every 100 persons of working-age there are 79 consumers, in terms of food, clothing, shelter, and so forth). The dependency ratio declined from 102 in 1973 to 79 in 2000 showing a relative increase in the working age population (see Table 2.8). The young dependency ratio was lowered about 10 percentage points from 82 in 1994 to 72 in 2000 and the old age dependency ratio stayed relatively the same at about 7 during both censuses

Among the states in the FSM, the highest dependency ratio in 2000 was in Chuuk (which also had the highest fertility rate), and lowest in Yap (with the lowest fertility rate), showing the role of fertility in the shifting of the dependency ratio in the FSM. The decline in the dependency ratio in the states over the past three decades stemmed from declining fertility and age-selective immigration.

Table 2.8. Dependency Ratio by State, FSM: 1973-2000

State	Total					Young					Old				
	1973	1980	mid '80s ¹	1994	2000	1973	1980	mid '80s ¹	1994	2000	1973	1980	mid '80s ¹	1994	2000
Total	102.2	99.8	98.7	89.2	78.6	93.9	92.7	91.5	82.3	72.0	8.4	7.1	7.2	6.8	6.5
Yap	92.6	91.7	89.6	78.2	69.4	76.8	81.3	79.8	70.5	61.6	15.5	10.4	9.8	7.7	7.8
Chuuk	101.9	99.2	109.4	95.2	80.8	93.6	92.5	100.9	89.2	74.2	8.3	6.7	8.6	6.1	6.6
Pohnpei	104.2	102.4	99.3	84.2	78.8	97.2	95.9	92.2	77.6	72.6	7.0	6.5	7.1	6.6	6.1
Kosrae	116.1	104.9	101.4	82.1	76.7	108.7	98.4	94.7	76.3	70.3	7.4	6.5	6.8	5.8	6.4

Source: 1973, T4a and 1980, T24 TTPI Censuses; 1985, 1986, 1987 and 1989 Censuses of Pohnpei, Kosrae, Yap and Chuuk, respectively; 1994 & 2000 FSM Censuses.

Note: ¹ FSM figure for mid-1980s was an interpolation from the state mid 1980's Census.

Accuracy Analysis for Age and Sex Data

To evaluate the accuracy of the age and sex data, the Myers Index was used to measure the level of digit preference and make comparisons between populations. The method measures the preference and dislike for ages ending in all the digits 0 to 9. The lower the index, the lower the extent of digit preference and hence the better the quality of the data. Age reporting improved for both males and females since 1973.

Table 2.9. Myers' Measure of Digit Preference in Age-Reporting by State and Sex: 1973 - 2000

State	1973			1980			mid 1980's			1994			2000		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
FSM	2.9	3.0	3.7	5.3	5.4	5.1	N/A	N/A	N/A	2.5	3.7	2.3	2.9	2.3	3.7
Yap	5.3	5.6	5.8	6.9	7.6	8.3	6.0	6.8	6.3	2.0	4.7	5.5	3.9	4.9	3.7
Chuuk	2.6	3.5	3.3	6.9	6.6	7.2	3.2	3.6	3.3	2.8	3.6	3.1	3.6	3.3	4.9
Pohnpei	3.6	3.6	5.5	4.4	5.5	3.3	3.7	4.3	3.3	3.8	4.7	3.5	3.4	3.5	4.0
Kosrae	6.5	14.8	6.0	2.4	6.6	5.0	6.0	9.9	6.5	8.1	9.9	7.4	3.1	5.1	4.2

Source: 1973 TTPI Census, T3; 1980 TTPI Census, T16; 1985, 1986, 1987 and 1989 Censuses of Pohnpei, Kosrae, Yap and Chuuk, respectively; 1994 & 2000 FSM Censuses.

Notes: 1 The FSM mid-80's indices is not included since the Censuses were not conducted simultaneously.

The Myers Index in 2000 was 2.9 (Table 2.9) showing the age reporting to be accurate. It also showed that males were reporting their age more accurately than their female counterparts.

Age-reporting in 2000 was most accurate in Kosrae followed by Pohnpei, Chuuk, and then Yap. Similar to that of all FSM, females in Kosrae, Pohnpei, Chuuk and Yap reported their ages more accurately than males. Yap, however, experienced the opposite case.

Conclusions

The age and sex composition of the FSM changed over the past three decades. These shifts in the age-sex structure have important implications for future planning.

The annual growth rate of the FSM between 1994 and 2000 was 0.3 percent. This was a much slower growth than 1.9 percent between 1989 and 1994 and 3 percent between 1980 and 1989. This decline was attributed mostly to a decline in fertility rates and increasing emigration.

The sex ratio declined to 103 in 2000, a reflection of the tendency for males to migrate overseas and die younger than females. The trend of the sex ratio varied among the states mainly because of different migration patterns.

The FSM population gradually aged over the three decades. The FSM's median age in 2000 was at 19 years, one year older than at the 1994 Census and 2 years older than at the 1973 Census. This increase almost certainly came from the combination of declining fertility (females having fewer children), low mortality (people dying at an older age now than before), and selective migration (immigration of working age persons). The median age also increased over the three decades in the states.

The dependency ratio decreased over the three decades from 102 in 1973 down to 79 in 2000. Although the decrease in the dependency ratio can be considered a positive change (more people of working-age and fewer to support), it also implies a greater need for employment.

CHAPTER 3 HOUSEHOLDS, FAMILIES, AND MARITAL STATUS

Introduction

This chapter presents a summary of analysis on size and composition of households and families in the nation. The household and family structures in the FSM, in most cases, are similar. The determination factor for household is sharing meals by a group of people living together. But for family, the determining factor is relationship by blood, marriage, or adoption. In the FSM, most people live together because they are related. Households with unrelated members are usually found in the town centers where unrelated people may share housing for financial or other reasons. The data from the 1973, 1994 and the 2000 Censuses are used in this chapter to examine the changes in household and family structure in the FSM after nearly three decades.

Since marital status affects the household and family structure it is included in this chapter. As married couples tend to have their own family, more marriages are likely to increase the number of households and families in the nation. The data on marital status provided in this chapter examine the change in the marital status and the effects on the demographic and other socio-cultural patterns.

Definitions

Household Type and Relationship

Question 2 on the 2000 Census questionnaire asked for relationship of every household member to the householder. The major relationships were: householder, husband/wife, natural son/daughter, adopted son/daughter, brother/sister, father/mother, other relative, and non-relative. The other relative category was later re-coded to include son/daughter in-law, father/mother in-law, brother/sister in-law, niece/nephew, grandparent, uncle/aunt, and cousin.

Household was defined during the census as a person or a group of people living together in a housing unit and sharing meals together. These people did not need to be related but as long as they shared their meals, they were considered a household for census purposes. A housing unit was a house, apartment, mobile home, group of rooms, or single room that was occupied as a separate living quarter. A unit may have had more than one household if the occupants did not share their meals together.

There were two types of living quarters used in the census: regular household and group quarters. *Regular households* were those where the occupants may have been a single family, one person living alone, two or more families living together, or any other group of related or unrelated persons who shared living arrangements. *Group quarters* were those places where people either lived or stayed other than their usual house or apartment such as schools, hotels or motels, hospitals, prisons, etc.

Persons per household were obtained by dividing the number of persons in households by the number of households (or householders).

Persons per family were obtained by dividing the number of persons in family households (households where two or more members were related to the householder) by the number of family households.

Householder and relationship to householder were defined as follows:

Householder -- the person (or one of the persons) in whose name the home was owned, being bought, or rented and who was listed as person number 1 on the census questionnaire. If there was no such person in the household, any adult household member 15 years old and over could be designated as the householder.

Husband/wife -- a person married to and living with a householder. This category included persons in formal marriages, as well as custom marriages.

Natural-born son/daughter --sons or daughters of the householder by birth, regardless of the age and marital status.
Adopted son/daughter --sons or daughters of the householder by legal adoption, regardless of the age of the child.

Brother/sister --the brother or sister of the householder, including step-brothers and step-sisters as well as adopted brothers and sisters.

Father/mother --parents of the householder by birth, step-parents, and parents of adoption excluding parents-in-law.

Other relative -- a person who was related to the householder by blood, marriage, or adoption. (In-laws, nephews, aunts, cousins, grandparents and so forth).

Non-relative --a person who was not related by blood, marriage, or adoption to the householder or who cannot be described by the categories given.

Marital Status

Question 5 asked for marital status of all residents. However, data were tabulated for persons aged 15 years and older. The marital status referred to the status at the time of enumeration. Traditional marriages were classified under now married.

The five marital categories were: never married, now married, widowed, divorced, and separated. They are defined below:

Never married -- persons who never had been married, including persons whose only marriages were annulled.

Now married -- all persons whose current marriage had not ended by widowhood or divorce. Regardless of whether his or her spouse was living in the household unless they were separated.

Widowed --person whose spouse had died.

Divorced --person who had legally divorced his or her spouse.

Separated --persons legally separated or otherwise absent from their spouse because of marital discord. Included were persons who had been deserted or who had parted because they no longer wanted to live together but who had not obtained a divorce.

When a person did not report his or her marital status, the marital status was imputed according to the relationship to the householder and sex and age of the person.

Limitations and Comparability: The results from the 1973 and 1994 Censuses are used in the 2000 FSM Census analysis because the data are comparable.

Analysis of Data on Households and Marital Status

Households (and Families)

Table 3.1 shows the type of living quarters in the FSM from 1973 to 1994 and then to 2000. Over nearly 30 years, the population increased from 62,846 (1973) to 105,506 (1994) and to 107,008 (2000). Between 1973 and 1994, the population increased by 68 percent or 42,660 persons, while between 1994 and 2000, it grew slightly by just 1 percent or 1,502 persons.

As the total number of persons grew in the FSM, the number of people living in the regular households increased as well. Thus, the proportion of people living in regular households slowly increased from 96 percent in 1973 to 98 percent in 1994 to 99 percent in 2000. The proportion of persons in group quarters, on the other hand, decreased from 4 percent in 1973 to about less than 2 percent in 1994 and 2000.

For 1994 and 2000, the average household size for the FSM was about 6.8 persons, a decrease from 7.3 in 1973. The average family size decreased from 7.3 persons per family in 1973 to 7.0 persons in 2000.

Table 3.1. Type of Living Quarters, FSM: 1973-2000

Living Quarters	1973	1994	2000
Total Persons	62,846	105,506	107,008
In Regular Households	60,081	103,544	105,651
Percents	95.6	98.1	98.7
In Group Quarters	2,765	1,962	1,357
Percents	4.4	1.9	1.3
Persons per Household	7.2	6.8	6.7
Persons per Family	7.3	7.1	7.0

Source: 1973 TTPI Census, Table T3; 1994 FSM Census, Table P14; 2000 FSM Census, Table P2-2.

Table 3.2 shows the relationship of the household members to the householder. This table and the next two (Tables 3.3 & 3.4) excluded those people living in group quarters. In 2000, almost half (47 percent) of the persons enumerated were children of householders, as opposed to 56 percent in 1994.

The composition of the FSM households has changed over the past three decades. There was a decrease in the proportion of 'children of householders' as a result of factors such as decline in fertility rates (less children per household) plus more children moving out to establish their own households or migrating overseas for employment or schooling. Also, there was an increase of 'other relative' persons as more people moved to extended family households for many reasons including the convenience of traveling to and from school or work.

Table 3.2. Household Composition, FSM: 1973-2000

Relationship to Household	Number			Percent		
	1973	1994	2000	1973	1994	2000
Regular households	60,081	103,544	105,651	100.0	100.0	100.0
Householder	8,626	15,231	15,723	14.4	14.7	14.9
Spouse	6,480	11,415	11,604	10.8	11.0	11.0
Child	27,463	57,546	49,808	45.7	55.6	47.1
Other relative	16,411	18,572	27,569	27.3	17.9	26.1
Non-relative	1,101	780	947	1.8	0.8	0.9

Source: 1973 TTPI Census, Table T3; 1994 FSM Census Table P14; 2000 FSM Census, Table P2-2.

Table 3.3 shows household composition in the FSM by state between 1994 and 2000. The number of household members increased but the proportion fluctuated in the states. For example, the percentage of householders and spouses increased in all the states except in Chuuk. The proportion of natural children born by householders and spouse dramatically fell in all the states, while the proportion of other relatives increased. Chuuk still had the highest proportion of natural children, followed by Kosrae, Pohnpei and then Yap.

Table 3.3. Household Composition by State, FSM: 1994 and 2000.

State	1994							2000						
	Total	Percent	Householder	Spouse	Natural Child	Other Relative	Non-Relative	Total	Percent	Householder	Spouse	Natural Child	Other Relative	Non-Relative
Total	103,544	100.0	14.7	11.0	55.6	17.9	0.8	105,651	100.0	14.9	11.0	47.1	26.1	0.9
Yap	10,648	100.0	18.1	11.7	45.3	23.4	1.4	10,832	100.0	18.7	12.0	40.8	27.2	1.2
Chuuk	52,715	100.0	13.4	10.2	59.6	16.5	0.3	53,264	100.0	13.1	9.9	50.3	26.1	0.6
Pohnpei	33,197	100.0	16.0	12.0	52.2	18.6	1.3	33,940	100.0	16.6	12.3	44.3	25.7	1.2
Kosrae	6,984	100.0	13.8	11.5	57.0	17.0	0.7	7,615	100.0	14.3	11.1	46.8	26.3	1.5

Source: 1994 FSM Census, Table P14; 2000 FSM Census, Table P2-2.

Table 3.4. presents a breakdown by state on the number of persons living in households, total number of households, the household size, and the number of households with 10 or more persons, excluding persons living in group quarters. Chuuk had the most households with 10 or more persons and persons per household, Kosrae had the second highest, and Yap had the least. Although Pohnpei had the second highest number of households, the household size and proportion of household with 10 or more persons were below the national average.

Table 3.4. Persons per Household by State, FSM: 1994 and 2000.

Usual Residence	1994					2000				
	Persons	Households	Person per household	Households with 10 or more persons		Persons	Households	Person per household	Households with 10 or more persons	
				Number	Percent				Number	Percent
Total	103,544	15,230	6.8	3,136	20.6	105,651	15,723	6.7	3,158	21.0
Yap	10,648	1,925	5.5	192	10.0	10,832	2,030	5.3	190	10.3
Chuuk	52,715	7,043	7.5	1,865	26.5	53,264	6,976	7.6	1,994	29.4
Pohnpei	33,197	5,298	6.3	861	16.3	33,940	5,630	6.0	756	14.2
Kosrae	6,984	964	7.2	218	22.6	7,615	1,087	7.0	218	20.7

Source: 1994 FSM Census, Table P15; 2000 FSM Census, Table P2-2.

Marital Status

Table 3.5 compares marital status for 1973, 1994 and 2000 Censuses. In the 2000 Census, the proportion of 'never married' persons in FSM was about 2 percent higher than 1994 and 8 percent higher than 1973. The proportion of 'now married' persons decreased from 60 percent in 1973, to 54 percent in 1994 and 52 percent in 2000. The proportion of persons separated/divorced increased slightly while the population widowed decreased slightly between 1973 and 2000.

The proportion of 'never married' persons for both sexes increased, while 'now-married' decreased, possibly due to many factors including changing attitudes towards marriage and delay caused by schooling among the younger generation. The proportion of 'separated and divorced' persons for both sexes in 1994 and 2000 slightly increased. During these periods, the percentage widowed remained at 2 percent, while the proportion for widows grew slightly from 7.4 to 7.7 percent.

Table 3.5. Marital Status for Aged 15 Years and Over by Sex, FSM: 1973-2000

Marital status	1973	1994	2000
Total	27,944	59,573	63,836
Percent	100.0	100.0	100.0
Never married	31.6	37.9	39.5
Now married	59.7	54.0	52.2
Separated/divorced	2.9	3.4	3.4
Widowed	5.8	4.7	4.8
Males	14,015	30,127	31,821
Percent	100.0	100.0	100.0
Never married	36.3	41.2	43.0
Now married	58.4	54.3	52.6
Separated/divorced	2.4	2.5	2.4
Widowed	3.0	2.0	2.0
Females	13,929	29,446	32,015
Percent	100.0	100.0	100.0
Never married	26.9	34.6	36.1
Now married	61.0	53.7	51.8
Separated/divorced	3.4	4.3	4.4
Widowed	8.6	7.4	7.7

Source: 1973 TTPI Census, Table T5; 1994 FSM Census, Table P22; 2000 FSM Census, Table P2-10

Table 3.6 compares marital status in the four states broken down by sex for the 1994 and 2000 Censuses. The pattern found among the states was quite similar to the national pattern, where the proportion of 'never married' increased, while 'now married' decreased. In Chuuk the proportion of 'never been married' increased from 39 percent in 1994 to 42 percent in 2000. This pattern is also found among the other three states. Surprisingly, the rate of separation and divorce between 1994 and 2000 were most noticeable in Kosrae for both sexes, at a faster rate.

Table 3.6. Marital Status of Persons Age 15 Years and Over by State and Sex, FSM: 1994 and 2000.

State and Sex	1994				2000							
	Total	Percent	Never Married	Now Married	Separated/Divorced	Widowed	Total	Percent	Never Married	Now Married	Separated/Divorced	Widowed
Total	59,573	100.0	37.9	54.0	3.4	4.7	63,836	100.0	39.5	52.3	3.4	4.8
Yap	6,754	100.0	37.8	50.6	5.1	6.5	7,153	100.0	38.5	50.0	5.0	6.5
Chuuk	29,068	100.0	39.2	52.4	3.6	4.9	31,587	100.0	41.9	49.7	3.7	4.7
Pohnpei	19,500	100.0	36.4	56.7	3.0	3.9	20,468	100.0	36.1	56.4	2.9	4.6
Kosrae	4,251	100.0	36.8	58.2	1.2	3.8	4,628	100.0	40.1	53.8	1.6	4.5
Males	30,127	100.0	41.2	54.3	2.5	2.0	31,821	100.0	43.0	52.6	2.4	2.0
Yap	3,254	100.0	39.0	53.6	4.5	2.8	3,408	100.0	40.3	52.9	4.1	2.7
Chuuk	14,687	100.0	43.5	52.1	2.3	2.0	15,782	100.0	45.9	49.9	2.3	1.9
Pohnpei	9,954	100.0	39.4	56.4	2.5	1.7	10,355	100.0	39.5	56.2	2.3	2.0
Kosrae	2,232	100.0	36.9	60.1	1.1	1.8	2,276	100.0	42.9	54.0	1.4	1.7
Females	29,446	100.0	34.6	53.7	4.3	7.4	32,015	100.0	36.1	51.8	4.4	7.7
Yap	3,500	100.0	36.7	47.8	5.6	9.9	3,745	100.0	36.9	47.5	5.8	9.8
Chuuk	14,381	100.0	34.7	52.6	4.9	7.8	15,805	100.0	37.8	49.5	5.1	7.6
Pohnpei	9,546	100.0	33.3	56.9	3.6	6.2	10,113	100.0	32.7	56.6	3.5	7.2
Kosrae	2,019	100.0	36.6	56.0	1.3	6.0	2,352	100.0	37.5	53.5	1.9	7.1

Source: 1994 FSM Census, Table P22; 2000 FSM Census, Table P2-10.

Table 3.7 shows the Singulate Mean Age at Marriage (SMAM) for the FSM in 1973, 1994 and 2000. The SMAM is determined from the distribution of 'never married' people, and is the point where half are married. The upward movement of the SMAM since 1973 showed that the FSM population at age 15 and over was getting married later in life than before. This applied for both males and females for all the states and the nation. The SMAM for the FSM moved from 23 in 1973 to 26 years in 2000. On a national level, both sexes were entering their first marriage at a later age than before; 1973 SMAM female (22) and male (24), 2000 SMAM female (25) and male (27). By state, the SMAM for males in Kosrae increased from 22 years of age in 1973 to 29 years of age in 2000 making it the highest in the nation, followed by Yap and Chuuk (both at 28) and Pohnpei (26). The SMAM for females throughout the states also increased, allowing the age to move closer to males' SMAM from 27 years ago, where the gap was much wider.

Table 3.7. Singulate Mean Age at Marriage, FSM: 1973-2000

State	1973	1994	2000
Total	22.8	25.4	26.3
Yap	22.3	26.7	26.7
Chuuk	24.0	27.8	26.9
Pohnpei	22.1	24.4	25.0
Kosrae	22.3	26.1	27.1
Males	24.2	26.6	27.4
Yap	23.7	27.6	27.6
Chuuk	24.2	26.9	28.1
Pohnpei	23.2	25.5	26.0
Kosrae	21.7	27.2	28.6
Females	21.5	24.2	25.2
Yap	21.1	25.5	25.9
Chuuk	21.3	24.6	25.8
Pohnpei	21.0	23.2	24.0
Kosrae	23.0	24.9	25.7

Source : 1973 TTPI Census, Table T5. 1994 FSM Census, Table P22; 2000 FSM Census, Table P2-10.

Conclusion

The average household size in the FSM remained at about 7 over the last three decades. However, the household composition changed. For instance, the proportion of natural children decreased while that of other relatives increased. This suggested that more children were moving out of the household to establish their own or have gone overseas for school or employment, and that more 'other' relatives were moving to extended households for many reasons including the convenience to get to and from school or work. The marital characteristics across the nation have changed as well, showing a general pattern of postponing marriage to a later age because of schooling among the population 15 years of age and over. The proportion of separated and divorced persons have slightly increased while the proportion widowed relatively remained the same.

CHAPTER 4 FERTILITY

Introduction

Before large-scale international migration became common, population growth was determined mostly by the difference between the number of people being born and the number of people dying. At present, births are not the only contributing factor to population growth, but they make up a significant portion, especially in the Pacific region where most families are characterized by a high level of fertility.

Birth or fertility rates measure the impact that births have on population structure and growth. As a rule, censuses do quite well in estimating fertility as questions and techniques have been refined over the years. There are two approaches for measuring fertility, direct measures and indirect measures, both of which can be applied to the 1994 and 2000 FSM Censuses. Since either method can be used, a useful starting point is to compare the results obtained from each. If the results differ widely it suggests that the data used in one or both methods are incorrect, or one method does not apply.

Changes in fertility patterns and levels are often due to family planning. Census data on fertility provide benchmark information on fertility to look for changes in patterns and levels. In many countries, the introduction of family planning methods, such as contraceptives, usually lowers fertility levels of older women first. In a nation where family planning is prevalent, we expect to see lower fertility levels for the older women.

Data Description

Vital registration in the FSM is not complete, so fertility estimates must be derived from a census or survey. The 2000 FSM Census asked 4 questions on fertility in order to get information on recent births, previous births, and child mortality. Fertility questions were asked of all females born before April 1, 1987 (all women aged 13 and over) but were tabulated for women aged 15 and over. Questions asked included how many children born to each woman were living at home, living elsewhere, or dead and these were categorized by sex. Also asked was the date and sex of the last child born alive and whether that child was still alive.

Limitations and comparability. Accurate fertility data are often difficult to capture because of poor recollection by mothers on number of births or dates of births of their children. Indirect methods of measuring fertility help to compensate for these weaknesses in the data. The 1973 TTPI Census asked questions on children ever born, children still alive and date of the last child born, by sex, to women aged 14 years and over. The 1980 Census asked women 15 and over for number of children ever born and surviving and babies born in the 12 months before the census. The 1980 collection technique would have caught women who had multiple births in the year while the 1973, 1994 and 2000 Censuses only considered most recent births, missing those women who had multiple births in the year before the census. Fertility data editing techniques for the earlier censuses were slightly different than for the 1994 and 2000 Censuses.

Analysis of Fertility Data

Crude Birth Rate

A crude birth rate (CBR) is the number of births in a year divided by the mid-period population. Note that the mid-period population is not the census population, that is, the reported births refer to the last 12 months while the population refers to the date of enumeration. The CBR is a crude rate because the base of the calculation is the whole population, resulting in the rate being affected by the age and sex structure.

At least two measures of how many births occurred in the 12 months prior to the census can be derived from census data. The first is the number of births reported by women in the census; the second is the population under 1 year plus the estimated number of infant deaths (deaths during the year to persons under 1 year). These two figures were not equal for the period April 1999 to April 2000.

For year 2000, if we use the data on births reported by women of reproductive ages in the year before the census we find a CBR of 26.8 per 1,000 (2,861 births divided by an estimated mid-period population of 106,871 and multiplied by 1,000). However, this is likely to be an under count in view of the estimate derived from the second method. The second method is based on reverse survival (United Nations, 1967). This estimate considers that the children counted in the census below 1 year of age, were born in the year before the census. The method also recognizes that some babies born during this year died before the census was taken. Once these "deaths" have been added to the children counted in the census, an estimate of births during the year is obtained. It is further assumed that the effects of migration on the estimates of births are negligible (migration data suggest that for children below age 15, this assumption is reasonable).

Using the survivorship ratios and the population counted in the census aged 0, we find the crude birth rate (Table 4.1). The survivorship ratio permits the estimation of children who have died before the census. Survivorship ratios have been selected from model life tables (Coale-Demeny West level 20--for calculation see Chapter 5 on mortality), which are required since the birth and death civil registration systems in the FSM are not complete. In theory, the survivorship ratios are intended to calculate survivors forward to a later age, while here, we are surviving them backward in time to estimate the number of births; hence the term "reverse survival". To calculate the number of births in the year, the number of persons enumerated in the census aged 0 to 1 (row 1) is divided by the survivorship ratio (row 2). It is then necessary to estimate the mid-year population. The earlier mid-year population was estimated using the approximate annual growth rate of .3 percent and the total census population. As the last row shows, the CBR using reverse survival for April 1999 to April 2000 is 28.1 per 1,000.

Table 4.1. Crude Birth Rate, FSM: 1993-1994 and 1999-2000.

Characteristics	1994	2000
Population aged zero	3,153	2,906
Survivorship Ratio	0.9626	0.9665
Estimated Births	3,276 (93-94)	3,007 (99-00)
Mid-period Population	104,456	106,871
CBR	31.4 (93-94)	28.1 (99-00)

Source: 1994 FSM Census, Table P15 and unpublished data.; 2000 FSM Census, Table P2-3 and unpublished data.

Note: figure in parenthesis () refers to the reference year

The same procedure was used for 5-year periods going back 15 years before the census. The estimated crude birth rates for these periods are given in Table 4.2. The table reveals a great deal about fertility in the FSM. For the most recent period covered in the table (1995-2000), the CBR was 29.1 per thousand population. Although this rate is high, the trend shown suggests declining fertility. In the period 1985-1990, about ten to fifteen years before the 2000 Census, the CBR was 34.4. In the ten-year interval from that time to the most recent period 1995-2000, fertility declined by about 15 percent. The rate from the year before the census was 28.1. Note that this is lower than the most recent five-year rate, showing that the fertility decline observed has probably continued during the five years before the census.

Table 4.2. Estimation of Crude Birth Rates, FSM: 1984 to 2000

Age group	Years in which born	Census population	Survivorship ratio since birth	Estimated births in 5 year period	Mid-period population	Crude birth rate
0-4	1995-2000	14,783	0.9559	15,464	106,326	29.1
5-9	1990-1995	14,169	0.9471	14,961	96,572	31.0
10-14	1985-1990	14,220	0.9430	15,080	87,713	34.4

Source: 2000 FSM Census, unpublished data and Table P2-3.

Note: The Survivorship ratio provides the life table probability of surviving from birth to the age group specified and is approximately equivalent to the average probability of surviving from birth during the period specified to the time of the census.

As long as the assumptions made in choosing the life table and in selecting a rate of growth are reasonable, the errors in fertility estimates using this method will be small. The principal merits of the CBR as a measure of fertility are its relative simplicity and its interpretation as a direct contribution to the rate of natural growth. However, the CBR in relation to the total population tells little of the fertility of women at reproductive ages nor about the age structure of childbearing. We must bear this in mind when using CBR for comparison. The CBR estimates are dependent on the age structure of a population. As a result, unless standardized, they will not be comparable over time or across regions with different age structures. Fortunately, the census data do enable us to measure fertility in more detail.

Age Specific Fertility

To look at the recent age structure of births, the age group of mothers can classify children born in the past year. This tabulation enables the calculation of age specific fertility rates (ASFR), that is the average number of children born to each woman in an age group during the year. Relating fertility experience to age provides a more detailed description of fertility behavior, or family formation, and provides a control for changes in age structure for comparative purposes.

This report provides two methods for calculating and adjusting age specific fertility rates. One involves reverse survival of current births and the other involves comparing current fertility to previous fertility to check for under counting. The reverse survival method is discussed first.

Table 4.3. Adjustment of Birth in Year Prior to the Census, FSM: 1994 and 2000

Age group	1994					2000				
	Number of women	Reported Births	Unadjusted ASFR	Adjusted Births	Adjusted ASFR	Number of women	Reported Births	Unadjusted ASFR	Adjusted Births	Adjusted ASFR
Total	24,241	2,856	...	3,276	...	26,432	2,861	...	3,007	...
15-19	5,821	272	0.047	312	0.054	6,476	243	0.037	255	0.039
20-24	4,506	693	0.154	795	0.176	4,646	749	0.161	787	0.169
25-29	3,567	672	0.188	771	0.216	3,916	744	0.190	782	0.200
30-34	3,287	581	0.177	666	0.203	3,361	575	0.171	604	0.180
35-39	3,002	399	0.133	458	0.152	3,020	354	0.117	372	0.123
40-44	2,410	191	0.079	219	0.091	2,758	161	0.058	169	0.061
45-49	1,648	48	0.029	55	0.033	2,255	35	0.016	37	0.016
TFR	...	...	4.035	...	4.628	...	...	3.753	...	3.946

Source: 1994 FSM Census, Table P15; 2000 FSM Census, Table P2-3.

Note: Adjustment factor equals total births (reverse survival) divided by the number of women reporting a birth in the past year.

Before producing age specific rates through reverse survival, we adjusted the number of births in the past year reported by women (see Table 4.1). This type of question is often under reported and considerable care is needed to use the results. Consider the 2000 data for example, the 3,007 estimated births for the year 1999-2000 were based on reverse survival and shown in Table 4.1. Yet, as Table 4.3 shows, the total number of women reporting a birth in the past year was 2,861, considerably less than the 3,007 estimated using reverse survival.

In order to correct for the under count, an adjustment factor is calculated by dividing the estimated births from reverse survival by the reported number of births. In this case it would be 3,007 estimated births divided by 2,861 reported births resulting in an adjustment factor of 1.05 (see Table 4.3). The adjustment factor is then applied to the births to correct for the under count.

The technique used took advantage of the relative strengths of two approaches. Using the ratio of births estimated from reverse survival to the mothers reporting a birth as a correction factor retained the age specific pattern of fertility, but fixed the level of fertility based on the more plausible reverse survival estimate of births.

The fertility pattern illustrated in the last column of Table 4.3 appears very smooth. The low rates at ages 15 to 19 reflect the delay in childbearing due to a later age of marriage in 2000. Peak fertility is reached at ages 25 to 29, with 0.200 children per women, and declined steadily thereafter. While age specific fertility falls quite sharply after age 35, the slope is not sufficiently steep enough to suggest a notable use of family planning; for example, women aged 45 to 49 in year 2000 were bearing on average 0.016.

The age specific fertility rates provide too much detail to be practical for some comparisons. A very useful composite index is the total fertility rate (TFR), which effectively sums the current age specific fertility for each year of a woman's reproductive life. The TFR thus provides a measure of the average number of children a woman would bear under a given schedule by the end of her childbearing years. Computation from the age specific rates is relatively simple, involving the summing of annual age specific rates. The rates provided in Table 4.3 for year 2000 would yield a TFR of 3.9. However, compared to the P/F ratio method the TFR of 3.9 is too low.

Table 4.4. Calculation of Total Fertility Rate with P/F Ratio, FSM: 1994 and 2000.

Age group	1994						2000					
	Children ever born per woman (Parity, P)	Age specific fertility rates (ASFR, F)	Summation of ASFR's multiplied by 5 (phi)	Adjustment of phi (F)	Parity divided by adjusted phi (P/F)	Adjusted ASFR by factor of 1.15	Children ever born per woman (Parity, P)	Age specific fertility rates (ASFR, F)	Summation of ASFR's multiplied by 5 (phi)	Adjustment of phi (F)	Parity divided by adjusted phi (P/F)	Adjusted ASFR by factor of 1.18
15-19	0.129	0.047	0.234	0.312	0.413	0.054	0.099	0.037	0.187	0.074	1.345	0.044
20-24	0.769	0.154	1.003	0.667	1.152	0.177	0.781	0.161	0.995	0.641	1.219	0.191
25-29	2.090	0.188	1.945	1.565	1.335	0.217	1.793	0.190	1.947	1.564	1.147	0.225
30-34	3.475	0.177	2.828	2.490	1.396	0.204	3.064	0.171	2.801	2.480	1.236	0.202
35-39	4.705	0.133	3.493	3.238	1.453	0.153	4.198	0.117	3.387	3.171	1.324	0.139
40-44	5.692	0.079	3.889	3.726	1.527	0.091	5.145	0.058	3.679	3.573	1.440	0.069
45-49	6.289	0.029	4.035	4.193	1.500	0.034	5.702	0.016	3.756	3.738	1.525	0.018
TFR	...	4.035	...	...	...	4.648	...	3.753	...	...	...	4.444

Source: 1994 and 2000 FSM Censuses, unpublished data.

The P/F ratio method of estimating fertility compares the reported historical fertility (parity) of women to the current fertility of the same women and establishes a correction factor to apply to the age specific fertility rates to calculate a more precise total fertility rate (for further discussion on this method see Brass, 1975; Brass, et al., 1968; Arriaga, 1983 and United Nations, 1983). The correction factor adjusts for under-response and poor recollection of fertility data by older women who might under report births. Once we find the difference in reported parity and fertility, we can correct for the under count. In the case of the FSM we have chosen a correction factor of 1.18, which corrects the age specific fertility rates and results in an adjusted TFR of 4.4. The correction factor was taken from averaging the P/F ratio that applied to women 20-24 and 25-29 because fertility has been declining in the FSM; thus, data for the older women did not portray an accurate picture of current fertility. (For more details on this method see United Nations Manual X "Indirect Techniques for Demographic Estimation"). The increase in the P/F value suggests that there was a growing disparity between current fertility and parity and supports our conclusion that current fertility is lower than previous fertility, or fertility is declining.

Given the fertility levels for 1999-2000, an FSM woman would bear 4.4 children on average in her lifetime, a slight decrease from the 4.6 during 1993-1994. The crude birth rates suggest declining fertility over the 15 years before the census. Adjusted age specific fertility rates also show a similar trend illustrated by the TFR falling from 8.3 in 1973 to 7.4 in 1980 and declining further to 4.4 in 2000 (see Table 4.5). The high fertility levels in 1973 were probably a reflection of changing health conditions in the FSM. In 1973 public health had brought down child mortality but women were still having large families to replace those children who potentially would not survive.

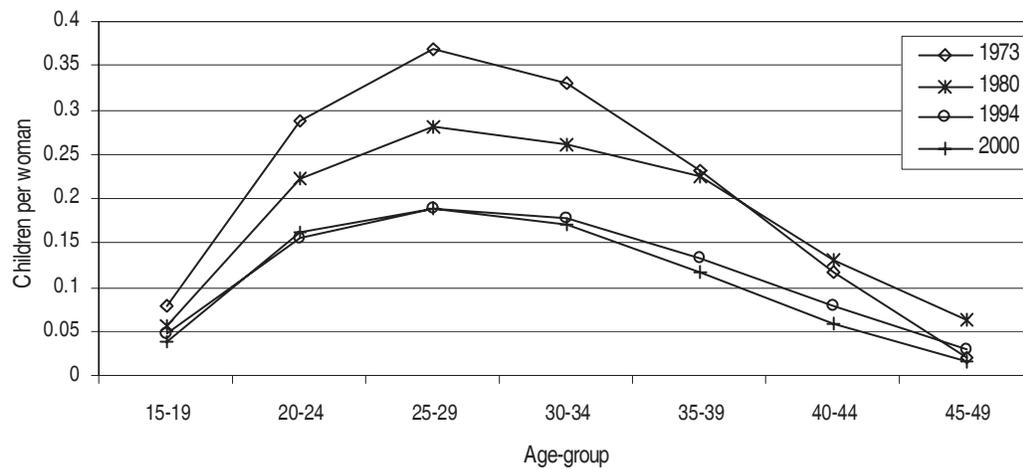
Figure 4.1 displays the changes in ASFRs over time. The reduction in the peak at ages 25 to 29 and the flattening of the curve suggests a decline in fertility. Although women aged 25 to 29 years were having fewer children they continued to bear children into the later reproductive years, implying small effects of contraceptives on fertility behavior. A reduction in the early reproductive ages can be seen in the figure; these were probably due to the delay in marriage mentioned in Chapter 3 on marital status.

Table 4.5. Age Specific Fertility Rates, FSM: 1973 to 2000

Age group	Implied 1973	Adjusted 1973	Implied 1980	Adjusted 1980	Implied 1994	Adjusted 1994	Implied 2000	Adjusted 2000
15-19	0.078	0.090	0.057	0.068	0.047	0.054	0.037	0.044
20-24	0.288	0.333	0.222	0.265	0.154	0.177	0.161	0.191
25-29	0.369	0.426	0.281	0.336	0.188	0.217	0.190	0.225
30-34	0.331	0.383	0.260	0.311	0.177	0.204	0.171	0.202
35-39	0.232	0.269	0.224	0.268	0.133	0.153	0.117	0.139
40-44	0.116	0.134	0.131	0.156	0.079	0.091	0.058	0.069
45-49	0.020	0.023	0.064	0.076	0.029	0.034	0.016	0.018
TFR	7.168	8.283	6.187	7.394	4.035	4.648	3.753	4.444
Adj. Factor	...	1.15	...	1.19	...	1.15	...	1.18

Source: 1973 and 1980 TTPI Censuses, unpublished data; 1994 and 2000 FSM Censuses, unpublished data.

Figure 4.1. Unadjusted Age Specific Fertility Rates, FSM: 1973, 1980, 1994 and 2000



The gross reproduction rate (GRR) and net reproduction rate (NRR) measure only female births and are indices of generational replacement. The GRR is the average number of daughters born that will replace each woman in the absence of female mortality from birth through the childbearing years. Given a TFR of 4.4 the gross reproduction rate can be calculated by multiplying the proportion of female births by the TFR. For the FSM in 2000 the GRR, or number of daughters a woman will have on average, was 2.2. The net reproduction rate is calculated by taking the mortality of the daughters into account because some daughters will die before having children. The NRR comes to 2.0. A common benchmark for the NRR is when the NRR equals 1, which is replacement level fertility. This implies that each woman will be replaced by exactly one woman after a generation. For the FSM the current fertility level suggests that each woman will be replaced by 2 women in about 30 years time (given that an average generation is 30 years).

Fertility of Population Subgroups

Different economic and social groups tend to have varying fertility rates. It is interesting to look at the fertility rates to see which subgroups have high fertility and which subgroups have low fertility. This can be done by considering historical parity or current fertility. In this report we have chosen to use current fertility because in most cases the number of women is large enough to see trends. However, in the state census reports, parity (children ever born) was used as well as the total fertility rates in order to compensate for the small numbers.

Table 4.6 presents age specific fertility rates by different educational backgrounds of mothers. A pattern seems to be evident in the relationship between the fertility level of a woman and her education level. Those women with more education had fewer children while those women with less education tended to have more children. Table 4.6 shows this pattern clearly, in both years observed. Given the 2000 fertility rates, women with college education attainment had on average 1.8 births over their lifetime, while women with some high school education 4.8 children. However, women with no schooling had lower fertility than those women with elementary school education. This finding is common because some education often increases a woman's health status enough to improve her ability to bear children and to understand the importance of pre-natal care. However, once this threshold has been met, increased education seems to reduce fertility.

Table 4.6. Age Specific Fertility Rates by Mothers Educational Attainment, FSM: 1994 and 2000

Age group	1994							2000						
	Total	No School	Elem-entary	High School	H.S. Graduate	Some College	College Graduate	Total	No School	Elem-entary	High School	H.S. Graduate	Some College	College Graduate
15-19	0.054	0.058	0.086	0.032	0.066	0.051	...	0.044	0.056	0.054	0.037	0.042	0.046	0.118
20-24	0.177	0.191	0.218	0.172	0.158	0.126	0.105	0.191	0.236	0.223	0.205	0.163	0.142	0.137
25-29	0.217	0.222	0.217	0.245	0.181	0.215	0.192	0.225	0.216	0.255	0.237	0.193	0.201	0.172
30-34	0.204	0.184	0.199	0.213	0.253	0.187	0.123	0.202	0.250	0.226	0.216	0.160	0.150	0.126
35-39	0.153	0.143	0.166	0.153	0.164	0.131	0.109	0.139	0.140	0.153	0.150	0.108	0.101	0.110
40-44	0.091	0.097	0.093	0.094	0.096	0.074	0.060	0.069	0.157	0.074	0.058	0.050	0.027	0.046
45-49	0.034	0.043	0.029	0.048	0.026	0.021	0.025	0.018	0.029	0.020	0.016	0.009	0.021	0.007
TFR	4.6	4.7	5.0	4.8	4.7	4.0	3.1	4.4	5.4	5.0	4.6	3.6	3.4	3.6

Source: 1994 FSM Census, Table P102; 2000 FSM Census, Table P7-3.

Another determinant of fertility was whether a mother was in the labor force. Table 4.7 presents data on fertility rates for women who were in the labor force, employed or unemployed, subsistence, and those who were not in the labor force. As would be expected, those women who were in the labor force had lower fertility levels than those women who were not in the labor force.

In the year 2000 women in the labor force had a TFR of 3.8 while women who were not in the labor force had a TFR of 5.4. This difference is probably because some women who had children in the year before the census took themselves out of the labor force to care for their child and because women who did not work were more likely to have a child. Within the labor force women who were working full time (35+ hours) had the lowest fertility rates. Women who were looking for work (or unemployed) had lower fertility than the women who were not in the labor force. Women in subsistence had fertility higher than other women who were employed; however, it was lower than women not in the labor force.

Table 4.7. Age Specific Fertility Rates by Labor Force Participation, FSM: 1994 and 2000.

Age group	1994								2000							
	Labor force							Not in labor force	Labor force							
	All women	Total in labor force	Employed			Unem-ployed	All women		Total in labor force	Employed			Unem-ployed			
		Total	Employed 35+ hours	Subsistence	Unem-ployed			Total	Employed 35+ hours	Subsistence	Unem-ployed					
15-19	0.054	0.068	0.065	0.084	0.044	0.086	0.051	0.044	0.058	0.058	0.026	0.062	0.058	0.039		
20-24	0.177	0.138	0.136	0.121	0.156	0.134	0.200	0.191	0.162	0.155	0.101	0.186	0.176	0.224		
25-29	0.217	0.167	0.160	0.152	0.161	0.185	0.247	0.225	0.194	0.184	0.136	0.210	0.216	0.275		
30-34	0.204	0.158	0.150	0.144	0.179	0.170	0.235	0.202	0.165	0.153	0.111	0.177	0.201	0.267		
35-39	0.153	0.127	0.122	0.108	0.167	0.107	0.177	0.139	0.116	0.120	0.086	0.147	0.102	0.180		
40-44	0.091	0.071	0.063	0.056	0.081	0.094	0.108	0.069	0.057	0.055	0.030	0.077	0.065	0.089		
45-49	0.034	0.030	0.030	0.023	0.033	0.024	0.036	0.018	0.020	0.019	0.011	0.023	0.023	0.016		
TFR	4.65	3.80	3.63	3.44	4.10	4.01	5.27	4.44	3.85	3.72	2.51	4.41	4.21	5.45		

Source: 1994 FSM Census, Table P134; 2000 FSM Census, Table P9-3.

Finally, fertility differentials by state are considered in Table 4.8. The P/F ratio method of estimating fertility was used to calculate these rates. In year 2000, Chuuk and Pohnpei had the highest fertility rates with 4.5 births on average per woman. Chuuk had high fertility at the older ages while Pohnpei had high fertility at the young ages, suggesting the absence of family planning. Kosrae and Yap had the lowest fertility rates with 4 births per woman.

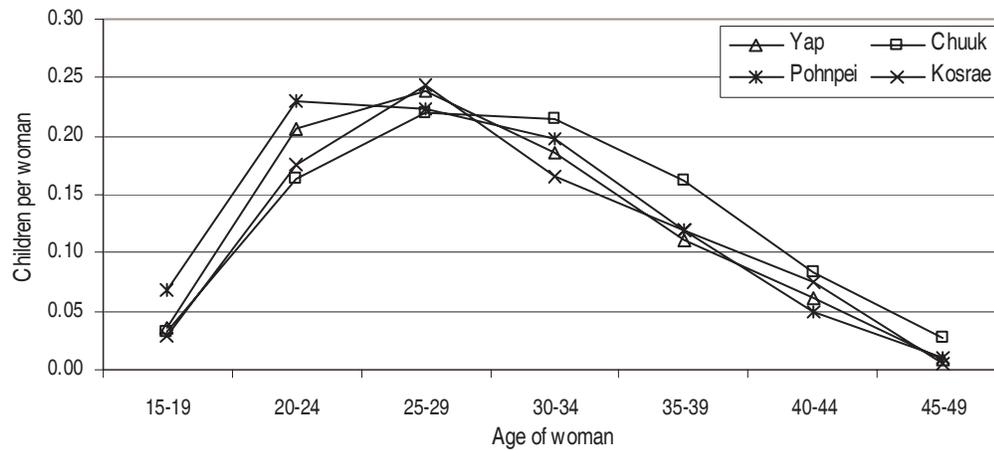
Table 4.8. Summary of Adjusted Fertility Rates by State, FSM: 1994 and 2000.

Age group	1994					2000				
	FSM	Yap	Chuuk	Pohnpei	Kosrae	FSM	Yap	Chuuk	Pohnpei	Kosrae
15-19	0.054	0.070	0.033	0.080	0.049	0.044	0.037	0.033	0.069	0.029
20-24	0.177	0.147	0.163	0.221	0.195	0.191	0.207	0.164	0.231	0.176
25-29	0.217	0.163	0.249	0.213	0.218	0.225	0.239	0.220	0.224	0.244
30-34	0.204	0.178	0.261	0.163	0.175	0.202	0.185	0.215	0.198	0.165
35-39	0.153	0.130	0.207	0.118	0.105	0.139	0.111	0.161	0.119	0.119
40-44	0.091	0.019	0.154	0.047	0.073	0.069	0.061	0.083	0.050	0.075
45-49	0.034	0.024	0.052	0.014	0.034	0.018	0.009	0.028	0.010	0.006
TFR	4.65	3.66	5.60	4.27	4.24	4.44	4.24	4.51	4.50	4.07

Source: 1994 and 2000 FSM Censuses, unpublished data.

Figure 4.2 shows fertility pattern by age groups. Fertility peaks at age 25 to 29 in all the states except for Kosrae (at ages 20 to 24). The flattening of the curve after age 29 suggested fertility decline. The steepness of the flattening curve differed by the states, showing the different age-specific fertility patterns experienced in the states.

Figure 4.2. Age-specific Fertility Rates by State: 2000



Children ever born per woman provides an estimate of how many children a woman is likely to have had by the time she has reached a specified age group. This measure does not reflect current fertility, except for the youngest age group. The final age group, ages 45 to 49, gives an estimate of lifetime fertility. Women in the FSM who were finishing their reproductive years (aged 45 to 49 years) in 2000 had on average 5.7 children over their lifetime, declining from 6.3 in 1994 (Table 4.9). Similar to the total fertility rates, Chuuk had the largest number of children ever born per mother and Yap had the smallest number.

Table 4.9. Children Ever Born per Woman by State and Mother's Age, FSM: 1994 and 2000.

Age of Mother	1994					2000				
	FSM	Yap	Chuuk	Pohnpei	Kosrae	FSM	Yap	Chuuk	Pohnpei	Kosrae
15-19	0.129	0.151	0.086	0.190	0.099	0.099	0.081	0.075	0.154	0.054
20-24	0.769	0.688	0.651	0.967	0.820	0.781	0.859	0.630	1.019	0.607
25-29	2.090	1.739	2.042	2.339	1.831	1.793	1.729	1.586	2.161	1.788
30-34	3.475	3.082	3.664	3.421	3.025	3.064	2.663	3.072	3.260	2.798
35-39	4.705	3.966	5.061	4.577	4.251	4.198	3.542	4.443	4.167	3.810
40-44	5.692	4.545	6.279	5.270	5.365	5.145	4.430	5.575	4.856	4.977
45-49	6.286	4.871	6.734	5.913	6.740	5.702	4.873	6.238	5.272	5.361

Source: 1994 FSM Census, Table P15; 2000 FSM Census, Table P2-3.

Conclusion

The FSM had a total fertility rate of 4.4 according to the 2000 FSM Census, a slight decline from the 4.6 rate in 1994. This rate is high by World standards and creates a rapidly growing population. Fertility levels in the FSM are had decreased over the past two decades, however at a lower rate now than before. Fertility is not the only factor influencing population size. Mortality and migration also play a large role in the population dynamics of the FSM.

Fertility rates were lower for those women with higher education and those women who were in the labor force suggesting that if policy makers want to lower population growth due to fertility, policies could be directed at increasing female education levels and increasing women's participation in the work force. Also, given the high current age specific fertility rates, it appears that the uses of family planning which usually initially lowers fertility in the older age groups, is still rather limited.

CHAPTER 5 MORTALITY

Introduction

As reported in Chapter 4, fertility rates in the FSM declined over the two decades before the 1994 census. However, mortality rates in the FSM had been brought to a moderately low level, and thus little decline occurred between 1994 and 2000. In this chapter mortality is estimated directly from available registration data, and indirectly from recent censuses in the FSM to find the level and trend of mortality over time in the FSM.

Data Description

Mortality cannot be estimated through direct methods from the census data because no direct questions were asked regarding deaths. Indirect estimates of early age mortality can be derived from the questions concerning children ever born and children still alive (questionnaire item 17a). The proportion of children surviving can be applied to model life tables to produce basic mortality rates. Children ever born and surviving were asked of women in the 1973 and 1980 Censuses as well and data are provided for comparison.

Mortality indices of interest are crude death rate, infant mortality rate, child mortality rate, and life expectancy at birth. The *crude death rate* (CDR) is the most common direct measure of mortality and is defined as the number of deaths per 1,000 persons. Similar to the crude birth rate, the crude death rate is dependent on the age-sex structure; thus, it is a crude measure. An adjustment on the CDR must be made before any attempt to compare mortality over time or for different regions or countries can be made. The *infant mortality rate* (IMR) is defined as the number of infant deaths per 1,000 live births during the year. The IMR is a good indicator of the quality of health care in a nation because mortality is high during the first months of life and small improvements can be measured. It is also an adjusted measure but it is not dependent on the age-sex structure of a region. The *child mortality rate* is defined as the probability of dying between ages 1 and 5. *Life expectancy at birth* is the average number of years a newborn baby can expect to live, given the current level and pattern of mortality. Unlike the crude birth rate this measure is independent of the age structure of a nation and is thus a good measure for comparison between countries or regions.

Life expectancy is obtained from a *life table* constructed based on a set of age specific death rates, from which probability of surviving to a specific age is determined. These survival probabilities are applied to an assumed cohort of births that occurred in the same year, following the survivors as they reach successive ages until all have eventually died. From the total number of all years lived, the probability of survival from one age to another and the life expectancies at the various ages are estimated (see Arriaga, 1994 pp 74 - 83 for details on the derivation). In FSM, however, deaths are under-registered, making it difficult to obtain the life table from age specific death rates calculated from registration data. As an alternative, a life table implied by childhood survivorship ratios has been presented in this chapter.

Analysis of Mortality Data

Direct measures of mortality could be calculated using deaths registered with the Department of Health. Unfortunately, these events are under-registered and inconsistently covered, providing only a guide to the patterns of mortality but not to the level. To compensate for the different levels of coverage and to smooth some erratic patterns, Table 5.1 presents two four-year averages of mortality rates. In both cases the CDR comes to approximately 4 per 1,000 persons, which shows large under-reporting. The CDR is calculated using the total number of deaths in a year divided by the estimated mid-period population. Age-specific mortality rates in the case of the FSM were erratic and inaccurate because of the small number of persons and deaths and because of inaccuracies in reporting. The reported age specific death rates also shows that the coverage problem was significant for childhood mortality. Direct estimation of mortality is not possible without an accurate and complete vital registration system. The FSM must make greater efforts to improve the coverage of the vital registration program.

Table 5.1. Average Age Specific Mortality Rates (per '000), FSM: 1992-1995 and 1996-1999.

	1992-1995			1996-1999		
	Deaths	Mid-period population	Age-specific Mortality Rate	Deaths	Mid-period Population	Age-specific Mortality Rate
Total	483	103,391	4.7	412	106,087	3.9
0-5	104	15,884	6.6	60	15,352	3.9
5-9	11	15,304	0.7	8	14,791	0.6
9-14	7	14,376	0.5	10	14,505	0.7
15-19	12	11,845	1.0	10	12,694	0.8
20-24	16	8,523	1.9	12	9,143	1.3
25-29	13	6,992	1.8	10	7,304	1.4
30-34	15	6,471	2.2	12	6,548	1.9
35-39	17	5,878	2.9	14	6,049	2.3
40-44	20	4,736	4.1	16	5,291	3.1
45-49	19	3,346	5.8	28	4,048	6.9
50-54	25	2,241	11.3	28	2,644	10.4
55-59	33	2,111	15.7	29	2,008	14.6
60-64	39	1,951	19.9	46	1,867	24.8
65-69	43	1,414	30.4	44	1,435	30.7
70-74	45	1,170	38.0	39	1,117	34.5
75+	67	1,150	58.3	64	1,290	49.6

Source: Department of Health Services, FSM: 1994 and 2000 FSM Censuses, unpublished data.

The crude death rate, based on the registration system, is likely to be an underestimate due to the incomplete registration of deaths and should be considered only as a lower bound. In order to get better estimates of mortality, an indirect method was used to calculate child and infant mortality and to find a model life table applicable to the FSM. The life table is basically a statistical model of mortality experience based on given mortality rates. Model life tables allow us to project mortality rates (and other demographic indices) once we have matched a model to the population. Given the model life table we have estimated the crude death rate to be nearly 7 per 1,000 individuals. Also, the CDR implied by the life expectancy at birth should be considered as an upper bound, mainly because, while applying the indirect techniques, we could have possibly slightly over adjusted the data. The technique gives best results when fertility and mortality rates have not changed much in recent past. Thus, the results obtained from indirectly estimated CDR provide only indications for monitoring purposes.

The life table is indirectly estimated from child survival information (for further discussion on this method see United Nations Manual X "Indirect Techniques for Demographic Estimations"). The 1994 and 2000 FSM Censuses asked women for the number of children ever born and the number of children surviving. With these data, estimations were made about the level of child mortality over the past 15 to 20 years before the respective censuses. This method assumes that the survivorship of children from women in different age groups reflects the child mortality for given periods before the census. It also provides estimations of infant mortality, child mortality, and life expectancy at birth, and approximate changes in level for different years prior to the census.

Table 5.2 shows the historical trends of proportion of children surviving by age of mother. As can be seen from the table, the proportion of children surviving has increased over time. In 1973 only 84 percent of children born to women ages 45 to 49 years survived to the census day. In 2000, about 93 percent of all children born to mothers ages 45 to 49 years survived to the census day. Thus we can assume that child mortality in the FSM improved between 1973 and 2000, with greater improvements between 1973 and 1980.

Table 5.2. Children Ever Born (CEB) and Children Surviving by Age of Mother, FSM: 1973 to 2000.

Age Group	1973			1980			1994			2000		
	CEB	Children Surviving	Percent Surviving	CEB	Children Surviving	Percent Surviving	CEB	Children Surviving	Percent Surviving	CEB	Children Surviving	Percent Surviving
15-19	626	584	93.3	629	592	94.1	749	719	96.0	641	628	97.9
20-24	3,680	3,410	92.7	3,969	3,751	94.5	3,464	3,298	95.2	3,623	3,481	96.0
25-29	5,755	5,273	91.6	7,313	6,895	94.3	7,454	7,051	94.6	7,007	6,670	95.1
30-34	6,967	6,324	90.8	8,698	8,150	93.7	11,422	10,712	93.8	10,310	9,775	94.8
35-39	9,677	8,512	88.0	7,822	7,235	92.5	14,124	13,230	93.7	12,683	12,016	94.7
40-44	7,367	7,181	97.5	8,145	7,483	91.9	13,717	12,736	92.8	14,191	13,358	94.1
45-49	6,682	5,600	83.8	7,872	7,158	90.9	10,366	9,633	92.9	12,853	11,937	92.8

Source: 1973 TTPI Census, Table T25 and T26; 1980 TTPI Census, Table T19; 1994 FSM Census, Table P15; 2000 FSM Census, Table P2-3.

Data on children ever born and children surviving classified by age of mother can be used to determine probabilities of surviving to specific ages. These probabilities of surviving can then be fitted to a model life table that allows us to calculate the approximate infant mortality rates and the corresponding life expectancy at birth for different time periods (United Nations, 1983; Feeney, 1976, 1980; Sullivan 1972; Coale, A., and Trussel J., 1974, 1977). The resulting mortality indices for recent censuses are summarized in Tables 5.3. The results show a decline in mortality rates over the past 27 years before the 2000 census. Data for women aged 15 to 19 years were ignored because the numbers were small and child mortality for young mothers was often selectively high. The data for the final three age groups were also disregarded because poor recollection by mothers in these ages usually gave an underestimate of the mortality rates. The most accurate information applied to women aged 20 to 34 years. These calculations could be done separately for male and female children but because of inadequate data they were combined. The United Nations Software package for mortality measurement was used for computing the various indices and their reference periods (Arriaga, 1994).

The estimates provide mortality indices for years prior to the Census (see the reference dates in Tables 5.3). The averages of the three age groups 20 to 24, 25 to 29, and 30 to 34 give the most accurate data and apply to an average reference date of about 4 years before each census. Table 5.4 contains the average of these age groups and the summary of the indicators. The 2000 data provide estimates that refer to 1996, the data from 1994 refer to 1990, the data from 1980 refer to 1976, and the 1973 data refer to 1969.

Table 5.3 Indirect Estimates of Early Age Mortality CEB/CS, FSM: 1973 to 2000

Mother's age	Children ever born	Children surviving	Proportion dead	Age (x)	Probability of dying by age (x)	Reference date	Infant mortality rate	Child mortality rate	Life expectancy
2000 Census									
20-25	0.780	0.749	0.040	2	0.043	Feb. 1998	0.038	0.011	67.5
25-30	1.789	1.703	0.048	3	0.049	Apr. 1996	0.041	0.012	66.8
30-35	3.068	2.909	0.052	5	0.053	Jan. 1994	0.041	0.012	66.7
1994 Census									
20-25	0.769	0.732	0.048	2	0.051	May. 1992	0.045	0.015	65.7
25-30	2.090	1.977	0.054	3	0.056	Dec. 1990	0.046	0.015	65.4
30-35	3.475	3.259	0.062	5	0.066	Apr. 1989	0.050	0.017	64.6
1980 Census									
20-25	1.431	1.136	0.055	2	0.058	Jun. 1978	0.051	0.018	64.3
25-30	3.383	2.518	0.057	3	0.058	Aug. 1976	0.047	0.016	65.2
30-35	5.339	4.108	0.063	5	0.064	May 1974	0.049	0.016	64.9
1973 Census									
20-25	1.431	1.326	0.073	2	0.079	Jul. 1971	0.067	0.027	60.7
25-30	3.383	3.100	0.084	3	0.085	Oct. 1969	0.067	0.027	60.7
30-35	5.339	4.846	0.092	5	0.094	Aug. 1967	0.069	0.028	60.4

Source: 1973 and 1980 TTPI Census, unpublished data; 1994 and 2000 FSM Censuses, unpublished data.

Mortality indicators improved during all three time periods. The ratio of infant deaths to births in a year decreased from 68 to 40 per 1,000 persons between 1969 and 1996. The child mortality rate between ages 1 and 5 also decreased from 27 to 012 between 1969 and 1996. Finally, the average length that a person could expect to live increased by almost 7 years between 1969 and 1996; however, the rapid improvements in longevity occurred only between 1969 and 1976.

Table 5.4. Summary Indicators from Indirect Estimation of Early Age Mortality, FSM: 1969 to 1996

Reference date	Infant mortality rate	Child mortality rate	Life expectancy
1996	40	12	67.0
1990	46	16	65.2
1976	48	17	64.8
1969	68	27	60.6

Source: Preceding Table 5.3.

Note: These rates are calculated using the Coale-Demeny life table model West 20.

The trend observed in infant mortality and life expectancy at birth could have been slightly distorted by the quality of the mortality data in earlier censuses. As in the case of many developing countries, the quality of data collection is improving over time (better educated enumerators and respondents, better computational facilities, etc.). In this respect, the higher life expectancy and lower infant mortality rate observed in 1976 could be partly due to suspected under-reporting on mortality data in the 1980 Census.

A comparison of mortality rates for the FSM to other neighboring Pacific Islands is summarized in Table 5.5. The FSM infant mortality rate of 40 was significantly higher than the average of 27, and only slightly lower than the rates in Kiribati. The FSM's high level of infant mortality rate is a major concern and one that policy makers, particularly in the health sector, should prioritize.

Table 5.5. Estimated Mortality Data From Other Neighboring Pacific Island Nations

Country	Infant mortality rate	Life expectancy
Kosrae from 2000 FSM Census data	44 (1996)	66 (1996)
FSM from 2000 Census data	40 (1996)	67 (1996)
Guam	9 (1990-95)	72 (1990)
Kiribati	62 (1992-93)	62 (1990-95)
Marshall Islands	37 (1999)	68 (1997-99)
Nauru	13 (1991-93)	58 (1991-93)
CNMI	10 (1992-96)	70 (1994-96)
Palau	19 (1994-96)	67 (1990)

Source: Preceding Table 5.4; Secretariat of the Pacific Communities, "Oceania Population 2000."

Note: Figure in parenthesis denotes the reference period

Finally, for the purpose of generating life tables for the FSM, we used life expectancy at birth, computed separately from male and female survivorship data of the 2000 FSM Census (see appendix Table B03A). The male and female life expectancy at birth for the period of 1997 to 1998 was estimated at 66.5 and 67.6 years, respectively. Using a Coale and Demeny model life table for West pattern, we generated a life table for FSM that best matched the estimated life expectancies at birth. The result is presented in Table 5.6. The life table could serve useful purposes both within the demographic community and also in the world at large. The life table provides estimates of life expectancy at the various ages, survival ratios for each age group that could be used in population projections, constructing nuptiality tables, constructing actuarial tables, etc. It is, however, important to note that the life table was based on a selected level of childhood mortality. The resulting level and pattern of adult mortality may not be accurate, and therefore should be used with caution.

Table 5.6. Life Table as Implied by Coale & Demeny Model Life Table for the West Pattern of Females and Males, FSM.

AGE	M(x,n)	Q(x,n)	I(x)	D(x,n)	L(x,n)	S(x,n)	T(x)	E(x)	A(x,n)
Females									
0	0.04203	0.04061	100000	4061	96637	0.95451 /a/	6760000	67.6	0.172
1	0.00324	0.01286	95939	1234	380617	0.98967 /b/	6663363	69.5	1.458
5	0.00101	0.00506	94704	479	472325	0.99549	6282746	66.3	2.500
10	0.00079	0.00396	94225	373	470195	0.99507	5810422	61.7	2.500
15	0.00127	0.00632	93852	593	467876	0.99245	5340227	56.9	2.663
20	0.00175	0.00873	93259	814	464343	0.99042	4872351	52.2	2.600
25	0.00208	0.01037	92445	959	459894	0.98875	4408008	47.7	2.566
30	0.00246	0.01221	91487	1117	454722	0.98649	3948114	43.2	2.572
35	0.00302	0.01501	90370	1357	448579	0.98301	3493392	38.7	2.590
40	0.00390	0.01934	89013	1722	440956	0.97727	3044813	34.2	2.613
45	0.00542	0.02674	87291	2334	430934	0.96780	2603858	29.8	2.634
50	0.00785	0.03856	84957	3276	417058	0.95338	2172924	25.6	2.641
55	0.01154	0.05620	81681	4590	397616	0.93003	1755866	21.5	2.650
60	0.01807	0.08667	77091	6682	369793	0.89066	1358249	17.6	2.656
65	0.02927	0.13691	70409	9639	329360	0.82603	988456	14.0	2.646
70	0.04891	0.21894	60770	13305	272060	0.72719	659096	10.8	2.611
75	0.08124	0.33862	47465	16072	197841	0.48883 /c/	387036	8.2	2.543
80+	0.16593	.....	31392	31392	189195	.....	189195	6.0	6.027
Males									
0	0.04090	0.03954	100000	3954	96664	0.95737 /a/	6649999	66.5	0.156
1	0.00230	0.00914	96046	877	382021	0.99178 /b/	6553335	68.2	1.534
5	0.00092	0.00460	95169	438	474749	0.99585	6171315	64.8	2.500
10	0.00074	0.00370	94731	351	472778	0.99508	5696565	60.1	2.500
15	0.00133	0.00664	94380	626	470454	0.99192	5223788	55.3	2.690
20	0.00187	0.00929	93754	871	466653	0.99053	4753334	50.7	2.571
25	0.00191	0.00948	92883	881	462235	0.99000	4286681	46.2	2.526
30	0.00216	0.01073	92002	987	457612	0.98798	3824446	41.6	2.572
35	0.00275	0.01367	91014	1244	452113	0.98368	3366834	37.0	2.621
40	0.00396	0.01960	89771	1760	444733	0.97556	2914721	32.5	2.659
45	0.00613	0.03021	88011	2659	433863	0.96215	2469988	28.1	2.671
50	0.00957	0.04683	85352	3997	417442	0.94106	2036125	23.9	2.668
55	0.01514	0.07310	81355	5947	392838	0.90907	1618682	19.9	2.656
60	0.02360	0.11176	75408	8427	357117	0.86198	1225845	16.3	2.636
65	0.03683	0.16926	66980	11337	307826	0.79168	868727	13.0	2.612
70	0.05830	0.25535	55644	14209	243701	0.69022	560901	10.1	2.571
75	0.09263	0.37605	41435	15582	168208	0.46971 /c/	317200	7.7	2.499
80+	0.17352	.....	25853	25853	148992	.....	148992	5.8	5.763

Source: Implied by childhood survivorship data from the 2000 census, unpublished data.

Notes: /a/ Value given is for survivorship of 5 cohorts of birth to age group 0-4 = $L(0,5)/500000$.

/b/ Value given is for $S(0,5)=L(5,5)/L(0,5)$.

/c/ Value given is $S(75+,5)=T(80)/T(75)$.

$M(x,n)$ = Age specific central death rate.

$Q(x,n)$ = Probability of dying between exact age x and $x+n$ (age-specific mortality rate).

$I(x)$ = Number of survivors at age x .

$D(x,n)$ = Number of deaths occurring between ages x and $x+n$.

$L(x,n)$ = Number of persons-year lived after age x .

$E(x)$ = Life expectancy at age x .

$A(x,n)$ = Average person-years lived by those who die between ages x and $x+n$.

Conclusion

Census data from the 2000 FSM Census suggest that life expectancy has increased by only 7 years between 1973 and 2000. Child survival has improved, with the largest improvement occurring between 1973 and 1980 and less improvement occurring in the 20 years after 1980. Direct estimation of mortality is not possible without an accurate and complete vital registration system. The FSM should make greater efforts to improve the coverage of the vital registration program.

It has also been indicated that FSM was one of the highest mortality regimes in the Pacific (both in terms of life expectancy and infant mortality) and the decline in infant mortality was not satisfactory. Given the result of the 2000 Census alone, the high level of infant mortality rate should be a real worry for FSM policy makers, particularly in the health sector.

CHAPTER 6 MIGRATION

Introduction

In previous chapters we discussed a number of demographic topics including population structure, fertility, and mortality. From these discussions, it is very clear that migration plays an important role in the population dynamics of the FSM. Migration is one of the main determinants of population size and growth (the others are fertility and mortality). The measurement of migration, however, is complex. Unlike fertility and mortality (which predictably happen once in each person's lifetime) some people may not ever migrate but those that do migrate may do so more than once and for different reasons. Some people migrate for employment, for education, for vacation, visiting, and so forth.

Migration involves movement of people from one place, region, or country to another, particularly with the intention of making permanent settlement in a new location. It can be internal, that is within national boundaries, or international (used interchangeably here with overseas migration). A person who migrates is referred to as an immigrant or in-migrant with respect to the area of destination, and an emigrant or out-migrant with respect to the place of origin (in each case the former term is used for international migration and the latter for internal migration). Censuses, as we shall see, are not the most reliable sources for measures of international migration. Other sources will be used in this report to provide at least some insight into emigration from the FSM. On the other hand, the census is a reliable source for measuring internal migration.

Migration has emerged as an extremely important factor shaping the demography of the Pacific (Connell, 1990). This is true for FSM, although the levels and patterns of migration differ in many respects from other parts of the Pacific.

Because the Census asks different questions about migration, it actually defines migration in different ways for different purposes. This is an important point for census data users to understand because it means that different migration figures presented in the different tables may not be strictly comparable with each other. For example, even though data on birthplace and residence 5 years ago provide a basis for measuring migration, the measures obtained are defined differently, serve different purposes, and are not comparable. For the same reason, unlike with fertility or mortality, it is not easy to make comparisons of levels of internal migration between different countries.

Data Description

Birthplace

The 2000 Census asked everyone for details of place of birth and recorded island/village, municipality, and FSM states if a person was born in the FSM. When a person's birthplace was outside FSM, the name of the foreign country was recorded. This was obtained from questionnaire item P8.

Citizenship and Legal Residence

Details of citizenship were obtained for all persons in the FSM. The question requested the municipality and state of legal residence (place where a person casts his or her vote) for FSM citizens. For non-FSM citizens, the country of citizenship was recorded. The information was asked in questionnaire item P9.

Continuous Residence

Continuous residence was obtained from questionnaire item P11a and P11b, asked of all persons residing in the FSM. The question requested respondents to provide the month and year they started living continuously at the present place of residence. If respondents had not been living continuously in the present residence since birth, they were requested to provide the name of the municipality, FSM state, or foreign country in which they previously resided.

Residence in 1995

All individuals who responded that they lived in a different municipality or overseas on April 1, 1995 (five years prior to the census) were requested to give the name of the municipality and FSM state, or foreign country of residence.

Limitations and Comparability

Due to changes in the boundaries of foreign countries over the past decades, some persons may have reported their place of birth in terms of boundaries that existed at the time of their birth but have since changed.

Not all migratory moves in the five years before the census were covered. For example, some persons may have resided in the same place in the 1995 and 2000 but moved in the interim. This migration was not taken into account. Where persons moved more than once in the five years before the census, only the place of residence five years before and the current place of residence were recorded.

Analysis of Migration Data

The data from the 2000 Census determined the migration pattern in FSM including place of birth, citizenship, continuous residence, and residence in 1995. These were compared with the 1994 and 1973 census data (if available) to analyze the changes overtime.

Birthplace

Birthplace provides useful data on lifetime migration and mobility patterns, covering an indefinite time interval, determined by people's ages and the timing and direction of movement. Table 6.1 compares the birthplace of FSM residents in 1973, 1994 and 2000.

With a few exceptions, the data showed that foreign-born immigrants to FSM were mostly males. These differences in sexes could have important implications for the future composition of the population residing within FSM, particularly if international migration were to increase. The figures suggested that immigration, particularly from Asia, increased significantly between 1973 and 1994 but by the year 2000, the numbers started to decrease. Although the number of Asian-born residents has fallen, it remained noticeably high compared to the other foreign-born residents as shown in the 2000 Census.

As the number of Asian immigrants declined between 1994 and 2000, the number of American-born residents increased. This increase was probably due to the increasing number of US workers at the state and national governments, and at the national college, COM-FSM.

Table 6.1. Birthplace of FSM Residents by Sex: 1973 to 2000

Birthplace	1973				1994				2000			
	Total	Male	Female	Sex Ratio	Total	Male	Female	Sex Ratio	Total	Male	Female	Sex Ratio
Total	66,254	34,174	32,080	106.8	105,506	53,923	51,553	104.6	107,008	54,191	52,817	102.6
In FSM	61,071	31,097	29,974	103.8	102,116	51,719	50,367	102.7	103,891	52,470	51,421	102.0
Yap	7,343	3,767	3,576	105.6	10,539	5,319	5,220	101.9	10,600	5,291	5,309	99.7
Chuuk	31,356	15,955	15,401	103.6	53,012	26,891	26,121	102.9	54,006	27,320	26,686	102.4
Pohnpei	18,315	9,317	8,998	103.6	31,595	16,027	15,568	103.1	32,069	16,268	15,801	103.0
Kosrae	4,057	2,058	1,999	103.5	6,970	3,482	3,488	99.8	7,216	3,591	3,625	99.1
Outside FSM	5,255	3,141	2,106	149.5	3,390	2,204	1,186	185.8	3,117	1,721	1,396	123.3
USA	760	471	289	163.0	920	519	401	129.4	1,164	650	514	126.5
Asia	338	284	54	529.9	1,837	1,353	484	279.5	1,240	705	535	131.8
Elsewhere	4,149	2,386	1,763	135.3	633	332	301	110.3	713	366	347	105.5

Source: 1973 TTPI Census, unpublished data; 1994 FSM Census, Table P17; 2000 FSM Censuses, Table P2-5.

Note: USA includes Guam & CNMI. The "Elsewhere" category includes countries not listed.

Table 6.2 cross-classifies place of usual residence by country of birth to reveal some details of international migration. The proportion of Non-FSM-born residents in 2000 was generally the same as in 1994. The immigrant population was comprised of foreigners and FSM people who were born overseas and had returned to the FSM.

By state, the proportion of FSM-born residents in Chuuk and Kosrae increased, while Pohnpei and Yap declined since the 1994 census. During the same period, foreign-born residents in Yap and Pohnpei increased, while Chuuk and Kosrae decreased.

The proportion of the Asian residents has declined slightly between 1994 and 2000. Yap still had the highest proportion of Asian-born residents among the states at 5 percent, less than 2 percent of the population in Pohnpei, Chuuk and Kosrae was Asian-born.

Table 6.2. Birthplace of FSM Residents by State: 1994 and 2000

Place of Birth	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Number										
Total	105,506	11,178	53,319	33,692	7,317	107,008	11,241	53,595	34,486	7,686
FSM born	102,116	10,421	52,571	32,306	6,818	103,891	10,404	53,285	32,920	7,282
Non-FSM born	3,390	757	748	1,386	499	3,117	837	310	1,566	404
USA	920	139	212	491	78	1,164	173	196	636	159
Asia	1,837	462	489	566	320	1,240	528	51	608	53
Elsewhere	633	156	47	329	101	713	136	63	322	192
Percent										
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
FSM born	96.8	93.2	98.6	95.9	93.2	97.1	92.6	99.4	95.5	94.7
Non-FSM born	3.2	6.8	1.4	4.1	6.8	2.9	7.4	0.6	4.5	5.3
USA	0.9	1.2	0.4	1.5	1.1	1.1	1.5	0.4	1.8	2.1
Asia	1.7	4.1	0.9	1.7	4.4	1.2	4.7	0.1	1.8	0.7
Elsewhere	0.6	1.4	-	1.0	1.4	0.7	1.2	0.1	0.9	2.5

Source: 1994 FSM Census, Table P17; 2000 FSM Census, Table P2-5.

Note: "USA" includes Guam and CNMI

Table 6.3 shows the interstate lifetime-migration among the FSM states in 1994 and 2000. Of the 103,891 persons born in the FSM, 101,910 resided in their state of birth in 2000. That is 10,303 persons in Yap, 53,093 persons in Chuuk, 31,604 persons in Pohnpei and 6,910 in Kosrae. The difference of 1,981 persons (interstate-migrants) were those who resided in a different state to the one in which they were born. In 1994, the number of interstate migrants was 1,575.

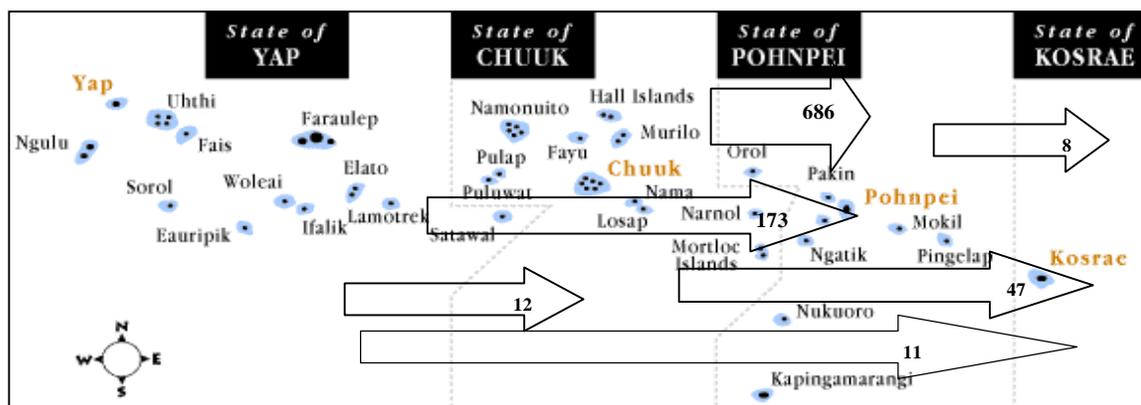
Table 6.3. State of Birth of FSM-born Residents, FSM: 1994 and 2000

State of Birth	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Total	102,116	10,421	52,571	32,306	6,818	103,891	10,404	53,285	32,920	7,282
Yap	10,539	10,326	36	171	6	10,600	10,303	59	224	14
Chuuk	53,012	55	52,347	588	20	54,006	47	53,093	804	62
Pohnpei	31,595	33	170	31,233	159	32,069	51	118	31,604	296
Kosrae	6,970	5	18	314	6,633	7,216	3	15	288	6,910

Source: 1994 FSM Census, Table P17; 2000 FSM Census, Table P2-5.

In 2000, the direction of migration flow was principally towards Pohnpei and Kosrae (Figure 6.1). Pohnpei and Kosrae have gained lifetime net migrants from Chuuk and Yap. Kosrae had gained 47 persons from Chuuk, 11 persons from Yap, and 8 persons from Pohnpei while Pohnpei gained 686 persons from Chuuk and 173 persons from Yap.

Figure 6.1. Interstate Lifetime Net-migration Flows, FSM: 2000



Source: Table 6.3

The effects of lifetime net-migration on the composition of the state populations can be seen in table 6.4. Of the 1,981 lifetime migrants in 2000 discussed above, 1,316 migrated to Pohnpei, as described in the table as in-migrants (also includes out-migrants from their states of birth). All other states also received lifetime migrants, 372 to Kosrae, 192 to Chuuk and 101 to Yap. These in-flows were balanced by outflows. Pohnpei for example lost 465 out-migrants to the other states, resulting in a net gain of 851(1,316 minus 465) lifetime migrants.

Table 6.4. Lifetime Interstate Migration, FSM: 1994 and 2000.

State	1994					2000				
	Non-Movers	In-Migrants	Out-migrants	Net-migrants	Lifetime Migration Rate(%) ¹	Non-Movers	In-migrants	Out-migrants	Net-migrants	Lifetime Migration Rate(%)
All persons										
Yap	10,326	95	213	(118)	(1.1)	10,303	101	297	(196)	(1.9)
Chuuk	52,347	224	665	(441)	(0.8)	53,093	192	913	(721)	(1.4)
Pohnpei	31,233	1,073	362	711	2.3	31,604	1,316	465	851	2.7
Kosrae	6,633	185	337	(152)	(2.3)	6,910	372	306	66	1.0
Males										
Yap	5,184	51	135	(84)	(1.6)	5,103	38	188	(150)	(2.9)
Chuuk	26,562	134	329	(195)	(0.7)	26,846	128	474	(346)	(1.3)
Pohnpei	15,833	545	194	351	2.2	16,022	684	246	438	2.7
Kosrae	3,318	92	164	(72)	(2.2)	3,449	200	142	58	1.7
Females										
Yap	5,142	44	78	(34)	(0.7)	5,200	63	109	(46)	(0.9)
Chuuk	25,785	90	336	(246)	(1.0)	26,247	64	439	(375)	(1.4)
Pohnpei	15,400	528	168	360	2.3	15,582	632	219	413	2.7
Kosrae	3,315	93	173	(80)	(2.4)	3,461	172	164	8	0.2

Source: 1994 FSM Census, Table P17 and unpublished data; 2000 FSM Census, Table P2-5 and unpublished data.

Note: Lifetime migration rate is defined as the net migrants divided by the number of non-movers (multiplied by 100 to make it a percent).

The last columns of each year's data in table 6.4 describe net-migration as a rate, dividing the net-migrants by the total population. However, since the timing of the migration is not determined, the rate expressed does not relate to any specific period, but enables broad comparison between states. General migration patterns shifted slightly between 1994 and 2000. In 2000, Pohnpei and Kosrae recorded net in-migration rates.

In 2000, the effects of internal lifetime migration were greatest in Pohnpei and Yap, though in opposite ways. Pohnpei had a lifetime migration rate of 2.7 per hundred, while Yap at negative 1.9 per hundred.

Lifetime interstate migration differed by sex. The total number of male movers outnumbered their female counterparts, with 1,050 male lifetime migrants compared to 931 females. Likewise, the net effects of migration by sex were not evenly distributed among the states. Chuuk and Yap lost more males than females, while Pohnpei and Kosrae lost more females.

Citizenship and Legal Residence

A similar migration pattern was found when place of birth was used to estimate migration flow was citizenship. Most residents in the FSM were FSM citizens (see Table 6.5). The majority of non-FSM citizens were Asians, who accounted for about 55 percent of non-FSM citizens. The highest proportion of non-citizen population (USA, Asia, Elsewhere) resided in Yap, accounting for a little over 6 percent of the population in the State of Yap.

Table 6.5. Usual Residence by Citizenship, FSM: 1994 and 2000

Place of Residence	1994						2000					
	Total	Percent	FSM	USA	Asia	Else-where	Total	Percent	FSM	USA	Asia	Else-where
Total	105,506	100.0	97.4	0.5	1.7	0.4	107,008	100.0	98.0	0.6	1.1	0.3
Yap	11,178	100.0	94.7	0.6	4.1	0.7	11,241	100.0	93.8	1.0	4.7	0.6
Chuuk	53,319	100.0	98.8	0.2	0.9	0.1	53,595	100.0	99.7	0.1	0.1	0.1
Pohnpei	33,692	100.0	96.7	0.9	1.6	0.8	34,486	100.0	96.7	1.1	1.7	0.5
Kosrae	7,317	100.0	94.4	0.7	4.5	0.4	7,686	100.0	98.1	0.7	0.6	0.5

Source: 1994 FSM Census, Table P18; 2000 FSM Census, Table P2-6.

Note: "Elsewhere" includes countries not listed.

In Table 6.6, the citizenship data was restricted to the FSM citizens, presenting their legal residence. Legal residence is defined as the place in which a person casts his or her votes during elections. The data showed that in both years the majority of the resident populations lived in their state of legal residence. For example, in 2000 about 97 percent of Pohnpei State's population were legal residents of Pohnpei. There were 203 legal residents of Yap, 537 legal residents of Chuuk and 202 legal residents of Kosrae residing in Pohnpei. This general picture was also seen in the other states.

Table 6.6. State of Legal Residence by State of Usual Residence, FSM: 1994 and 2000

Legal Residence	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Number										
Total	102,762	10,587	52,698	32,570	6,907	104,852	10,539	53,427	33,345	7,541
Yap	10,748	10,518	35	187	8	10,744	10,501	31	203	9
Chuuk	53,037	43	52,557	432	5	53,909	24	53,308	537	40
Pohnpei	31,785	17	87	31,638	43	32,536	12	74	32,403	47
Kosrae	7,192	9	19	313	6,851	7,663	2	14	202	7,445
Percent										
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Yap	10.5	99.3	0.1	0.6	0.1	10.2	99.6	0.1	0.6	0.1
Chuuk	51.6	0.4	99.7	1.3	0.1	51.4	0.2	99.8	1.6	0.5
Pohnpei	30.9	0.2	0.2	97.1	0.6	31.0	0.1	0.1	97.2	0.6
Kosrae	7.0	0.1	...	1.0	99.2	7.3	...	...	0.6	98.7

Source: 1994 FSM Census, Table P18; 2000 FSM Census; Table P2-6.

Note: "..." indicates a percentage rounded up to less than 0.1.

Continuous Residence

Data on continuous residence was also used to determine migration levels and patterns. Table 6.7 gives the distribution of the non-migrant population. In both years about 82 percent of the FSM population responded that they had been living in their present municipality of residence their entire life, or were non-movers. On the other hand, about 18 percent responded they had changed place of residence, or were movers.

As in 1994, the 2000 data showed different patterns and levels of migration in the states. Persons in Chuuk were most likely to be non-movers (9 out of every ten). For Kosrae, about 8 out of every 10 were non-movers. In Pohnpei and Yap, about 7 out of every 10 were non-movers. These differences were partly due to the different immigration and in-migration levels occurring in each state.

Table 6.7. Distribution of Non-movers and Previous Residence by State, FSM: 1994 and 2000

Length of continuous residence	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Previous state of residence										
Total	105,506	11,178	53,319	33,692	7,317	107,008	11,241	53,595	34,486	7,686
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Lived in municipality since birth	82.2	66.5	88.8	76.5	84.3	81.7	69.7	90.1	73.6	77.2
Previous residence elsewhere	17.8	33.5	11.2	23.5	15.7	18.3	30.3	9.9	26.4	22.8

Source: 1994 FSM Census, Table P19; 2000 FSM Census, Table P2-7.

The eighteen percent defined in Table 6.7 as "previous residence elsewhere" (the movers), was indicated in Table 6.8 as the duration of residence and previous place of residence. In 2000, more than half of the non-movers continuously resided in their municipality of residence for 5 years or more. About 11 percent had continuously resided in their municipality of residence for less than 1 year. The table also shows that of the total number of movers, 14,189 persons (72 percent) previously resided in the state they were residing at the time of the census, and 2,029 (10 percent) previously resided in the other FSM states (interstate migrants). Of all movers, migrants who previously resided in Asia and Elsewhere for less than a year made up 9 percent and 12 percent respectively.

Table 6.8. Movers by Place of Residence, FSM: 1994 and 2000

Duration of Residence ¹	Previous Residence									
	Total	1994				2000				
		In this state	In other FSM state	In Asia	Else-where	Total	In this state	In other FSM state	In Asia	Else-where
Total	18,773	13,444	1,566	1,705	2,058	19,587	14,189	2,029	1,103	2,266
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 6 months	14.4	13.8	15.1	16.8	15.9	10.5	9.4	8.4	22.2	13.9
6 months to 1 year	7.3	6.0	6.3	16.4	8.8	8.5	7.4	11.8	9.1	11.9
1 year to 2 years	10.0	8.3	11.5	16.5	14.1	9.2	7.4	13.5	16.6	13.1
2 years to 5 years	10.8	9.7	15.8	10.0	14.6	16.8	14.9	18.4	29.6	21.2
5 years or more	57.6	62.2	51.3	40.4	46.6	55.1	61.0	47.9	22.6	40.0

Source: 1994 FSM Census, Table P19; 2000 FSM Census, Table P2-7.

Note: ¹ Duration of residence refers to continuous residence at the municipality of usual residence.

Residence in 1995 (Five Years Prior to the Census)

More specific time-bound migration information was collected based on usual residence exactly five years before the census. This kind of information is useful for many purposes, such as estimating migration levels for population projections.

Table 6.9 presents data on FSM residents in the five years previous to the 1994 and 2000 Censuses, necessarily excluding persons less than 5 years old. Interstate migrants increased from 830 (for the period 1989-1994) to 1,015 (for the period 1995-2000).

Table 6.9 could be interpreted in a similar way to Table 6.3, which dealt with lifetime migration. Thus, of the 90,022 persons in the FSM above 5 years of age, and enumerated in the 2000 Census, 1,015 or 1 percent resided in a different state in 1995. Since the period covered was shorter than for lifetime migrants, the number of migrants was reduced. Over 58 percent of interstate migrants in the 5 years before the 2000 Census moved to Pohnpei, two-third of which came from Chuuk.

Table 6.9. Residence 5 Years Ago by Usual Residence for Persons Aged 5 and Over, FSM: 1994 and 2000

Residence 5 years ago	Place of Current Residence									
	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Total	89,652	9,702	44,879	28,676	6,395	92,223	9,869	46,248	29,446	6,660
In FSM	87,531	9,228	44,442	27,854	6,007	90,022	9,194	45,845	28,602	6,381
Yap	9,256	9,148	20	86	2	9,259	9,114	10	131	4
Chuuk	44,616	31	44,308	265	12	46,140	19	45,738	356	27
Pohnpei	27,551	42	103	27,329	77	28,345	60	92	27,999	194
Kosrae	6,108	7	11	174	5,916	6,278	1	5	116	6,156
Outside FSM	2,121	474	437	822	388	2,201	675	403	844	279
USA	895	235	294	304	62	1,063	171	329	385	178
Asia	861	126	97	349	289	826	444	22	332	28
Elsewhere	365	113	46	169	37	312	60	52	127	73

Source: 1994 FSM Census, Table P20; 2000 FSM Census, Table P2-8.

Table 6.10 summarizes the migration pattern presented in Table 6.9 and shows its effects on state populations for the two census periods. An advantage of specific 5-year migration is that it permits the calculation of an annual migration rate, which measures the impact that migration has on population growth. Between 1995 and 2000, Pohnpei and Kosrae gained 603 and 225 from the other states but lost 346 and 122 persons to yield net gains of 257 and 103, respectively. Yap and Chuuk, on the other hand, experienced a net out-migration. Yap and Kosrae experienced the greatest impact however in opposite directions. A positive annual migration rate of 3 per thousand of the population was found in Kosrae. In other words, 3 out of every thousand people migrated to Kosrae from the other states annually. Yap had about 1 out of every thousand people who migrated from Yap to the other states per year.

Table 6.10. Annual Interstate Migration by State, FSM: 1989-1994 and 1995-2000.

State	1989-1994					1995-2000				
	Non-Movers	In-migrants	Out-migrants	Net-migrants	Annual Migration Rate(0/00)	Non-Movers	In-migrants	Out-migrants	Net-migrants	Annual Migration Rate(0/00)
All persons										
Yap	9,148	80	108	(28)	(0.6)	9,114	80	145	(65)	(1.4)
Chuuk	44,308	134	308	(174)	(0.8)	45,738	107	402	(295)	(1.3)
Pohnpei	27,329	525	222	303	2.1	27,999	603	346	257	1.8
Kosrae	5,916	91	192	(101)	(3.1)	6,156	225	122	103	3.3
Males										
Yap	4,411	53	72	(19)	(0.8)	4,485	37	93	(56)	(2.5)
Chuuk	22,538	86	152	(66)	(0.6)	23,096	77	213	(136)	(1.2)
Pohnpei	13,854	261	135	126	1.7	14,214	335	203	132	1.8
Kosrae	2,945	57	98	(41)	(2.5)	3,079	134	74	60	3.8
Females										
Yap	4,737	27	36	(9)	(0.3)	4,629	43	52	(9)	(0.4)
Chuuk	21,770	48	156	(108)	(0.9)	22,642	30	189	(159)	(1.4)
Pohnpei	13,475	264	87	177	2.5	13,785	268	143	125	1.8
Kosrae	2,971	34	94	(60)	(3.9)	3,086	91	48	43	2.7

Source : 1994 FSM Census, Table P20 & Unpublished; 2000 FSM Census, Table P2-8.

Note: Annual Migration Rate is defined as $(\log P_2/P_1)/N$, where P_2 is the sum of non-movers and in migrants, P_1 is the sum of non-movers and out migrants, and N is the number of years between the defined period.

Table 6.11 presents the educational attainment of the internal migrants 5 years prior to 1994 and 2000 Censuses. In the former period (1989-1994), a total of 830 migrated internally compared to 1,019 persons for the latter period (1995-2000). More than 50 percent of the migrants graduated from high school in 1995-2000 period, an increase of over 10 percent from the previous period. The corresponding percentages for males and females in 1994 were 43 and 38, respectively, showing that male migrants tended to be better educated than female migrants. However in 2000, the corresponding percentage for both males and females was 52 percent, indicating that both sexes were better educated than before.

Table 6.11. Educational Attainment of Internal Migrants by Sex, FSM: 1989-1994 and 1994-2000

Educational Attainment	1989-1994						1995-2000					
	Number			Cumulative Percent			Number			Cumulative Percent		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
Total	830	457	373	...	...	...	1,019	584	435	...	...	...
No education	109	48	61	100.0	100.0	100.0	53	32	21	100	100	100
Elementary	185	95	90	86.9	89.5	83.6	234	111	123	94.8	94.5	95.2
High School, no diploma	199	119	80	64.6	68.7	59.5	196	132	64	71.8	75.5	66.9
High School Graduate	121	67	54	40.6	42.7	38.1	199	116	83	52.6	52.9	52.2
College	216	128	88	26.0	28.0	23.6	337	193	144	33.1	33.0	33.1

Source: 1994 & 2000 FSM Censuses, Unpublished.

While employment is often considered as an important motivating factor for migration, table 6.12 illustrates that the majority of the internal migrants (550 persons) in 2000 were not in the labor force. The overall labor force participation rate for the migrants of about 35.8 percent was considerably below the national average of 58.6 percent. Unemployment was also high among the migrants, particularly among the youngest working age group. On the other hand, for all migrants the unemployment rate was 4.3 percent, well below the national average. For the 15 to 29 age group, the unemployment rate rose to 22.6 percent. The unemployment rate would have been much higher if those who said they were not looking for work, but who claimed they were available to work, were included in the labor force.

Table 6.12. Labor Force Participation of Internal Migrants, FSM: 1994 and 2000.

Labor force characteristic	1989-1994					1995-2000				
	Total	15-29	30-44	45-59	60+	Total	15-29	30-44	45-59	60+
Persons 15+ years	671	457	135	56	23	857	579	167	84	27
In the labor force	224	109	82	29	4	307	124	112	62	9
Employed	182	76	75	28	3	264	96	101	60	7
% in LF	81.2	69.7	91.5	96.6	75.0	86.0	77.4	90.2	96.8	77.8
Unemployed	42	33	7	1	1	43	28	11	2	2
% in LF	18.8	30.7	8.5	3.6	25.0	14.0	22.6	9.8	3.2	22.2
Not in the labor force	447	348	53	27	19	550	455	55	22	18
Could have taken a job	40	26	12	2	-	42	27	13	1	1
% of not in LF	8.9	7.5	22.6	7.4	-	7.6	5.9	23.6	4.5	5.6
Not available for work	407	322	41	25	19	508	428	42	21	17
% of not in LF	91.1	92.5	77.4	92.5	100.0	92.4	94.1	76.4	95.5	94.4

Source: 1994 & 2000 FSM Censuses, Unpublished.

Significant gender differences were observed. In the period 1989-1994, approximately 24 percent of female migrants were economically active compared to more than 41 percent of male migrants. In the period 1995-2000, the percentage of female and male migrants in the labor force increased to about 28 and 42 percent, respectively as shown in Table 6.13.

Among those in the labor force, females were more likely to be unemployed compared to males, however, the rate of unemployment between the years for both sexes were changed. The unemployment rate for female and male migrants were 30 percent and 14 percent, respectively, in 1994 and 21 percent and 11 percent respectively in 2000. Among those not in the labor force, about 94 percent of males and 91 percent of females were not available for work in 2000. These individuals included students and housewives who accompanied the migrants, or students migrating by themselves.

Table 6.13. Labor Force (LF) Participation of Internal Migrants by Sex, FSM: 1989-1994 & 1994 - 2000.

Labor force characteristic	1989-1994					1995-2000				
	Total	15-29	30-44	45-59	60+	Total	15-29	30-44	45-59	60+
Males 15+ years	381	257	79	33	12	501	335	96	55	15
In the labor force	155	67	62	23	3	208	77	77	47	7
Employed	134	52	57	22	3	186	61	72	47	6
% in LF	86.5	77.6	91.9	95.7	100.0	89.4	79.2	93.5	100.0	85.7
Unemployed	21	15	5	1	-	22	16	5	-	1
% in LF	13.5	22.4	8.1	4.3	-	10.6	20.8	6.5	-	14.3
Not in the labor force	226	190	17	10	9	293	258	19	8	8
Could have taken a job	18	12	5	1	-	18	12	5	1	-
% not in LF	8.0	6.3	29.4	10.0	-	6.1	4.7	26.3	12.5	-
Not available for work	208	178	12	9	9	275	246	14	7	8
% not in LF	92.0	93.7	70.6	90.0	100.0	93.9	95.3	73.7	87.5	100.0
Females 15+ years	290	200	56	23	11	356	244	71	29	12
In the labor force	69	42	20	6	1	99	47	35	15	2
Employed	48	24	18	6	-	78	35	29	13	1
% in LF	69.6	57.1	90.0	100.0	-	78.8	74.5	82.9	86.7	50.0
Unemployed	21	18	2	-	1	21	12	6	2	1
% in LF	30.4	42.9	10.0	-	100.0	21.2	25.5	17.1	13.3	50.0
Not in the labor force	221	158	36	17	10	257	197	36	14	10
Could have taken a job	22	14	7	1	-	24	15	8	-	1
% not in LF	10.0	8.9	19.4	5.9	-	9.3	7.6	22.2	-	10.0
Not available for work	199	144	29	16	10	233	182	28	14	9
% not in LF	90.0	91.1	80.6	94.1	100.0	90.7	92.4	77.8	100.0	90.0

Source: 1994 and 2000 FSM Censuses, unpublished.

Conclusion

The FSM-born population grew by 71 percent (41,045 persons) between 1973 and 2000. The fastest growing FSM-born population was Kosrae at 78 percent increase since 1973, followed by Pohnpei at a 76 percent increase, and Chuuk and Yap.

The 2000 Census data showed that both internal migration and international migration affected the population. The census covered internal migration reasonably well. As for international migration, immigration was covered to some extent.

For internal migration, the 2000 data showed that the direction of migration flows was principally towards Pohnpei and Kosrae. Pohnpei and Kosrae were the only net receiving states, gaining migrants from all the other states. Yap and Chuuk, generally lost people. A vast majority of the internal migrants had at least graduated high school.

Also a majority of the internal migrants were not economically active, suggesting that internal migration may be motivated by employment, but the migrants might find that no jobs were available for them at their point of destination.

For international migration, Asians and Americans made up the majority of the non-FSM migrants, accounting for a combined 2 percent of the FSM population. Similar to internal migration, the main destination of immigrants in 2000 was Pohnpei and Kosrae.

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CHAPTER 7 RELIGION, ETHNICITY, AND LANGUAGE

Introduction

In the FSM, religion-related organizations, like youth programs, play an important role in the community, making data on religion necessary for planning purposes. The data provided in this chapter showed that there were two major religious affiliations: Roman Catholic and Protestant. There were several sects under the Protestant in which Congregational was the largest group. The Protestant first came to Micronesia in 1852, beginning work on Pohnpei and Kosrae, and soon afterwards expanding to Chuuk. Although the mission sending organization was interdenominational, most of the missionaries represented the Congregational Church. The Roman Catholics arrived later, beginning their work in Yap in 1886 and Pohnpei, a year later. In the early 20th century, a German Liebenzell missionary began work in the area, eventually moving to Yap. From the 1960's on, other religions entered the area – Seventh-Day Adventist (SDA), Assembly of God, Baptist, Jehovah Witnesses, Latter Day Saints (LDS), and Bahai. (Hezel, 1983). Few cases of traditional religion continue to exist in Yap in 1994 and 2000 but in this chapter were combined with the other religions.

Data on ethnicity are useful in planning processes and social research. The summary of the data collected on ethnicity during the 1994 and 2000 Censuses is also presented in this chapter. Regardless of recent immigrants into the FSM, the major ethnic groups, which existed thirty years ago in the FSM, still remain. The largest foreign (non-local) ethnic groups in the FSM were the Whites and Asians, mostly Filipinos and Chinese. The White encompasses persons from Europe, United States (U.S.), Australia, and New Zealand. Ethnicity is generally reflected in language.

Each FSM State has its own language with various other dialects. In FSM's history, different second languages were taught in schools depending on the administering country. During the Japanese Administration (from 1914 to 1945), Japanese was used as the common language in schools, offices, etc. When the U.S. took over at the end of the World War II, English became the main language for communication. Currently, the medium of official communication at the government offices and in the private sectors is usually English. The local languages are mainly used at home and in the communities.

Definitions

Religion

For census purposes, religion is defined as a religious or spiritual belief or preference, regardless of whether or not this belief is represented by an organized group. Information regarding religious affiliation for all persons in the 2000 Census was collected by questionnaire item 7. The TTPI Census in 1973 and the 1994 and the 2000 FSM Censuses included a question on religion and the data are compared in this chapter.

Ethnicity

Data on different ethnicities in the FSM were collected in the 2000 Census by questionnaire item 6. Ethnic identity of a person is traced through his/her tribal origin. Respondents had an option of reporting up to two ethnic groups that they belonged to. Some of the common ethnicities were Chuukese/Mortlockese, Yapese, Outer Island Yapese, Pohnpeian, and Kosraean.

Language

Data on language spoken at home came from answers to questionnaire items 15a and 15b. These questions were only asked of person's 5 years and over. For those persons that spoke more than 3 languages, they were only to provide the three most common ones in question 15a while in question 15b they were to provide the language that they usually spoke at home.

Analysis of Data on Religion, Ethnicity, and Language

Religion

The first 3 tables in this chapter provide data on religions. Only three censuses (1973, 1994 and 2000) asked about religion, and the results are compared in Table 7.1. Although new religions were introduced after the 1973 Census, the majority of the population remained either Roman Catholic or Protestant.

The proportion of Roman Catholics increased slightly for each sex while the proportion of Protestants has decreased over the decades. In absolute numbers, both religions have increased. In 2000, over 6 percent of the population claimed to have "other religion", increasing from 5 percent in 1994. Since 1973, more or less of a percent of the total population either refused to claim their religion or had no religion.

Table 7.1 Religion by Sex, FSM: 1973, 1994 and 2000

Religion	1973			1994			2000		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	62,731	32,128	30,603	105,506	53,924	51,582	107,008	54,191	52,817
Percent	100.0	100.0	100.6	100.0	100.0	100.0	100.0	100.0	100.0
Roman Catholic	50.0	49.7	50.4	52.7	52.8	52.5	52.7	52.8	52.6
Protestant	47.4	47.4	47.4	40.9	40.5	41.3	40.1	39.9	40.2
Other Religion	1.0	1.0	1.0	5.4	5.4	5.4	6.5	6.6	6.4
Refused/No religion	1.5	1.8	1.2	1.1	1.3	0.8	0.8	0.8	0.8

Sources: 1973 TTPI, Table T11; 1994 FSM Census, Table P22.; 2000 FSM Census, Table P2-10.

Table 7.2 further shows that the distribution pattern of the religion data slightly changed between 1994 and 2000. More Roman Catholics than Protestants were in all the states except in the State of Kosrae. In 2000, the majority (83 percent) of Yap population was Roman Catholics while only about 4 percent were Protestants. In Kosrae, the picture was reversed. The majority, or 89 percent of the population was Protestant while only 2 percent were Roman Catholics. In Chuuk and Pohnpei, distributions were about equal between Roman Catholic and the rest of the religions. The highest proportion that refused to answer or reported no religion was found in Yap at about 6 percent. Additionally, the proportion of Protestants in Pohnpei had decreased indicating that perhaps people have converted to other denominations, which showed gradual increase.

Table 7.2. Religion by State, FSM: 1994 and 2000

Religion	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Total	105,506	11,178	53,319	33,692	7,317	107,008	11,241	53,595	34,486	7,686
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100
Roman Catholic	52.7	84.3	53.2	52.4	1.9	52.7	83.3	53.0	53.5	1.8
Congregational	40.9	4.1	42.1	40.8	88.8	40.1	3.4	43.1	36.5	89.1
Baptist	1.0	0.4	0.6	1.8	1.1	0.9	0.3	0.4	1.8	1.6
Seventh-Day Adventist	0.5	0.3	0.3	1.1	0.7	0.7	0.7	0.3	1.2	1.5
Latter Day Saints (Mormon)	1.1	1.0	0.8	1.3	2.1	1.0	1.1	0.7	1.4	2.2
Other Religion	2.6	3.8	2.9	2.2	2.9	3.8	5.5	2.5	5.3	3.6
Refused/No Religion	1.1	6.0	0.2	0.5	2.4	0.8	5.7	...	0.3	0.2

Source: 1994 FSM Census, Table P22; 2000 FSM Census, Table P2-10.

Table 7.3 indicates that the distribution of religion across the age groups was relatively even, while the distribution by type of religion was uneven for 1994 and 2000. Both censuses showed that the religion in the FSM was mostly Roman Catholic (over 52 percent) followed by about 43 percent Protestant, and about 4 percent for 'other'.

Table 7.3 Religion by Age Group, FSM: 1994 and 2000

Religion	1994					2000				
	Total	0-14	15-34	35-64	65+	Total	0-14	15-34	35-64	65+
Total	105,506	45,933	34,740	21,038	3,795	107,008	43,172	36,850	23,065	3,921
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Roman Catholic	52.7	53.6	52.4	51.6	50.1	52.7	53.8	52.1	51.9	50.0
Congregational ¹	40.9	40.7	40.9	41.6	44.4	40.1	39.4	40.2	40.5	43.6
Baptist	1.0	0.9	1.0	1.1	0.7	0.9	0.9	0.8	1.0	0.6
SDA	0.6	0.5	0.6	0.6	0.4	0.7	0.7	0.8	0.7	0.7
LDS (Mormon)	1.1	1.1	1.1	1.0	0.8	1.0	1.1	1.0	1.1	0.8
Other Religions	2.8	2.4	2.7	2.9	2.8	3.8	3.4	4.0	4.2	3.6
Refused/No religion	1.1	0.8	1.3	1.3	0.8	0.8	0.6	1.0	0.6	0.7

Sources: 1994 FSM Census, Table P39; 2000 FSM Census, Table P3-8.

Note 1: Include other Protestants.

Ethnicity

Table 7.4 shows the ethnicity of FSM residents by state of usual residence in 1994 and 2000. In the 2000 Census, more than half of the FSM residents were of Chuukese/Mortlockese ethnic background, followed by Pohnpeians, Yapese, Kosraens, and lastly, the Polynesian ethnic group, who mainly stayed in Pohnpei. The largest non-Micronesian ethnic group was Asians, mostly Chinese and Taiwanese, who work mainly in the fishing or construction industries in Yap and Pohnpei. Although the number of whites had decreased between the two census, their presence remained visible in the four states, but mostly in Pohnpei, the seat capital of the FSM and the home of the College of Micronesia-FSM, the top recruiter of skilled American and European college instructors.

Table 7.4: Ethnicity by State, FSM: 1994 and 2000

Ethnicity	1994						2000					
	Total	Percent	Yap	Chuuk	Pohnpei	Kosrae	Total	Percent	Yap	Chuuk	Pohnpei	Kosrae
Total	105,506	100.0	10.6	50.5	31.9	6.9	107,008	100.0	10.5	50.1	32.2	7.2
Yapese	5,516	100.0	97.5	0.6	1.8	0.1	5,752	100.0	95.9	0.4	3.4	0.3
Yap Outer Island	4,849	100.0	97.1	0.8	2.1	-	4,126	100.0	99.3	0.1	0.6	-
Chuukese/Mortlockese	52,197	100.0	0.1	97.3	2.5	-	52,268	100.0	0.4	96.2	3.3	0.1
Pohnpeian	25,904	100.0	0.1	0.3	99.4	0.3	25,855	100.0	0.1	0.2	99.4	0.3
Polynesian	1,582	100.0	-	0.2	99.7	0.1	1,496	100.0	0.2	0.5	98.7	0.6
Kosraean	6,682	100.0	0.2	0.2	5.5	94.1	7,169	100.0	-	0.2	3.3	96.5
Asian	1,914	100.0	25.9	26.6	29.9	17.7	1,265	100.0	42.4	4.3	49.2	4.0
White	537	100.0	13.2	9.7	66.1	11.0	432	100.0	15.5	12.0	64.8	7.6
Others	6,326	100.0	6.9	28.4	56.1	8.6	8,645	100.0	9.1	35.5	49.2	6.3

Source: 1994 FSM Census, Table B09; 2000 FSM Census, Table P2-9.

Table 7.5 shows that data in the FSM during 1994 and 2000 Censuses on ethnicity and place of birth usually corresponds. Both censuses show more of the Polynesian group in Pohnpei because of the Nukuoroans and the Kapingamarangians, who are of Polynesian origin, and most likely the descendants of the parents migrated from the outer islands of Pohnpei. The foreign ethnicities like Asian and White were born mostly in U.S. and Asia. Those born in the FSM were most likely the descendants of those couples who came and bore children in the FSM. The other possibility could be the intermarriages whereby the ethnicity of their children became a foreign one based on the preference of the father's or the mother's ethnicity. The 2000 data showed little change among indigenous people born within FSM.

Table 7.5. Ethnicity by Place of Birth, FSM: 1994 and 2000.

Ethnicity	Total	Percent	Place of Birth								USA, Guam, CNMI	Asia	Others
			Yap	Yap Outer Is.	Chuuk	Pohnpei	Nukuoro	Kapinga	Kosrae				
1994													
Total	105,506	100.0	5.5	4.5	50.2	29.0	0.4	0.6	6.6	0.9	1.7	0.6	
Yapese	5,515	100.0	97.0	0.9	0.4	0.6	-	-	-	0.8	0.1	0.2	
Yap Outer Islands	4,849	100.0	4.1	94.1	1.1	0.5	-	-	-	0.3	-	-	
Chuukese/Mortlockese	52,197	100.0	-	-	97.6	2.0	-	-	-	0.3	-	-	
Pohnpeian	25,904	100.0	0.1	-	0.5	98.4	-	-	0.2	0.5	0.1	0.3	
Polynesian	1,582	100.0	-	-	0.1	35.7	25.9	37.6	0.1	0.1	-	0.4	
Kosraean	6,682	100.0	0.1	-	0.1	2.5	-	-	96.3	0.4	0.1	0.5	
Asian	1,914	100.0	0.9	1.0	1.1	1.6	-	-	1.3	0.7	93.4	0.1	
White	537	100.0	0.6	-	2.0	7.3	-	-	0.9	67.0	0.6	21.6	
Others	6,326	100.0	3.5	0.8	28.4	50.7	0.2	0.2	7.0	2.9	0.4	5.9	
2000													
Total	107,008	100.0	5.7	4.2	50.5	28.9	0.4	0.6	6.7	1.1	1.2	0.7	
Yapese	5,752	100.0	96.7	1.3	0.1	0.6	0.1	-	0.2	0.9	-	0.1	
Yap Outer Islands	4,126	100.0	4.2	94.6	0.4	0.2	-	-	-	0.5	-	-	
Chuukese/Mortlockese	52,268	100.0	-	0.4	97.1	2.2	-	-	-	0.3	-	-	
Pohnpeian	25,855	100.0	0.2	-	0.4	97.9	-	0.1	0.2	1.0	-	0.3	
Polynesian	1,496	100.0	0.1	-	0.3	29.9	25.6	42.5	0.3	0.9	-	0.5	
Kosraean	7,169	100.0	0.1	-	0.1	2.6	-	-	94.4	1.5	0.1	1.2	
Asian	1,265	100.0	0.6	-	0.6	3.2	-	-	0.1	0.6	94.8	0.1	
White	432	100.0	0.7	-	-	3.9	-	-	-	75.0	0.2	20.1	
Others	8,645	100.0	3.1	4.0	36.3	43.2	0.7	0.1	4.3	2.8	0.3	5.1	

Source: 1994 FSM Census, Table P72; 2000 FSM Census, Table P5-8.

Language

Data on language is used to identify the languages (commonly used at homes) spoken at most in the FSM as shown in Table 7.6. Even though English is the medium of instruction and the official language in the FSM, both the 1994 and 2000 Censuses results showed that the indigenous languages of each state remain as the usual spoken language in the homes across the country. The Polynesian language of Polynesian ethnicity was mostly Nukuoroans and Kapingamarangians, who were living in Pohnpei.

Table 7.6. Languages Spoken at Home by Ethnicity, FSM: 1994 and 2000.

Language spoken	Total	Percent	Ethnicity								
			Yapese	Yap Outer Is.	Chuuk-ese	Pohnpeian	Poly-nesian	Kosraean	Asian	White	Others
1994											
Persons 5+ yrs	89,652	100.0	5.4	4.8	46.0	26.7	1.6	7.0	2.3	0.5	5.6
Yapese	5,500	100.0	85.7	12.6	0.1	0.1	-	0.2	0.7	0.1	0.6
Yap Outer Islands	3,566	100.0	0.6	97.9	0.6	0.1	-	0.1	0.2	0.1	0.4
Chuukese/Mortlockese	46,389	100.0	-	0.1	88.4	1.6	-	-	0.5	-	9.4
Pohnpeian	23,339	100.0	0.1	-	0.3	97.7	0.2	0.4	0.2	0.1	1.0
Polynesian	1,464	100.0	-	-	0.3	5.3	93.9	0.3	-	-	0.2
Kosraean	6,242	100.0	-	-	0.1	1.4	-	97.5	0.1	-	0.7
English	1,420	100.0	5.5	1.8	10.9	14.6	1.7	3.4	22.9	28.2	11.1
Japanese	46	100.0	-	-	2.2	10.9	-	-	82.6	-	4.3
Filipino	674	100.0	0.4	0.1	-	0.6	-	0.1	98.7	-	-
Chinese/Taiwanese	687	100.0	-	-	-	-	-	-	99.7	-	0.3
Koreans	6	100.0	-	-	-	-	-	-	83.3	16.7	-
Others	319	100.0	4.1	2.2	5.0	6.9	-	0.6	15.0	9.1	57.1
2000											
Persons 5+ yrs	92,225	100.0	5.7	4.2	52.5	26.4	1.5	7.4	1.3	0.5	0.5
Yapese	5,132	100.0	98.3	0.4	0.2	0.2	-	0.2	0.1	-	0.5
Yap Outer Islands	4,033	100.0	1.3	94.2	4.2	0.1	-	-	-	-	-
Chuukese/Mortlockese	48,174	100.0	-	-	99.2	0.3	-	0.5	-	-	-
Pohnpeian	24,321	100.0	0.1	-	1.2	97.8	0.3	0.4	0.1	0.1	0.1
Polynesian	1,385	100.0	-	-	0.2	5.2	94.3	0.3	-	-	-
Kosraean	6,622	100.0	0.3	-	0.3	1.0	-	97.6	0.1	0.1	0.6
English	1,322	100.0	5.7	2.1	6.8	34.1	1.2	8.5	9.1	25.8	6.6
Japanese	53	100.0	2.2	-	2.2	6.7	-	7.9	79.8	1.1	-
Filipino	492	100.0	-	-	-	0.2	-	0.2	99.6	-	-
Chinese/Taiwanese	409	100.0	-	-	-	-	-	-	100.0	-	-
Koreans	10	100.0	-	-	-	-	-	-	100.0	-	-
Others	272	100.0	3.4	1.0	1.7	5.1	-	5.1	-	0.7	82.9

Source: 1994 FSM Census, Table P57; 2000 FSM Census, Table P4-10.

Table 7.7 shows the languages commonly spoken at home by place of birth during the 1994 and 2000 Censuses. Most people in the FSM used their native language. Again, Chuukese language was the most common language spoken at home in the FSM. A few Japanese-speaking persons were born in Chuuk and Pohnpei, who were most likely the offsprings of Japanese migrants. The 2000 Census showed that languages commonly spoken at home by ethnicity remain relatively the same as in 1994.

Table 7.7. Languages Spoken at Home by Place of Birth, FSM: 1994 and 2000.

Language spoken	Total	Percent	Place of Birth									
			Yap	Yap Outer Is.	Chuuk	Pohnpei	Nukuoro	Kapinga	Kosrae	USA, Guam, CNMI	Asia	Others
1994												
Persons 5+ yrs	89,652	100.0	5.6	4.6	49.8	28.7	0.5	0.6	6.8	0.8	2.0	0.7
Yapese	5,500	100.0	85.2	12.7	0.3	0.6	-	-	-	0.5	0.1	0.6
Y. Outer Islands	3,566	100.0	3.5	94.8	0.8	0.2	-	-	-	0.4	0.1	0.3
Chuukese/Mortlockese	46,389	100.0	-	-	95.3	4.1	-	-	-	0.2	0.3	0.1
Pohnpeian	23,339	100.0	0.1	-	0.8	97.6	0.1	0.1	0.3	0.4	0.2	0.5
Polynesian	1,464	100.0	0.1	-	0.3	35.2	26.4	37.2	0.3	0.1	-	0.5
Kosraean	6,242	100.0	0.1	-	0.2	3.0	-	-	94.6	0.4	0.1	1.4
English	1,420	100.0	5.6	1.4	11.5	17.8	1.1	0.1	2.2	29.5	16.5	14.3
Japanese	46	100.0	-	-	6.5	13.0	-	-	-	-	78.3	2.2
Filipino	674	100.0	0.9	0.9	0.3	1.6	-	-	0.3	-	96.0	-
Chinese/Taiwanese	687	100.0	-	-	0.3	0.1	-	-	2.9	-	96.7	-
Koreans	6	100.0	-	-	-	16.7	-	-	-	-	83.3	-
Others	319	100.0	11.3	1.6	5.0	9.1	-	-	0.9	4.4	14.7	53.0
2000												
Persons 5+ yrs	92,225	100.0	5.8	4.3	50.6	28.4	0.4	0.6	6.8	1.0	1.3	0.7
Yapese	5,132	100.0	96.1	1.2	0.2	0.5	-	-	0.2	1.1	0.1	0.6
Y. Outer Islands	4,033	100.0	3.7	94.8	0.7	0.2	0.0	-	0.1	0.3	-	-
Chuukese/Mortlockese	48,174	100.0	-	-	96.1	3.5	-	-	-	0.2	-	-
Pohnpeian	24,321	100.0	0.2	-	0.8	96.7	0.1	0.1	0.4	0.9	0.2	0.5
Polynesian	1,385	100.0	0.1	-	0.2	30.3	26.9	41.4	0.3	0.4	-	0.4
Kosraean	6,622	100.0	0.2	-	0.3	4.0	0.1	-	91.8	1.1	0.2	2.3
English	1,322	100.0	9.7	2.3	12.2	16.3	0.4	-	5.2	30.2	10.9	12.9
Japanese	53	100.0	1.9	-	12.2	5.7	-	-	-	5.7	84.9	-
Filipino	492	100.0	-	-	1.9	2.6	-	-	-	-	97.2	-
Chinese/Taiwanese	409	100.0	-	-	0.2	-	-	-	-	-	99.8	-
Koreans	10	100.0	-	-	-	-	-	-	-	-	100.0	-
Others	272	100.0	12.5	1.1	1.5	4.4	-	-	0.7	2.9	19.5	57.4

Source: 1994FSM Census, Table P74; 2000 FSM Census, Table P5-10.

Table 7.8 shows the frequency of English usage in the FSM. The general pattern of English language usage remained about the same during the two censuses. English was mostly used as a second language. In 2000, Yap still had the highest proportion (63 percent) of person speaking English. Nationwide, over 3 percent reported English as their first language and 83 percent reported English as their second language. The high frequency of English as the second language reflects the fact that English has been the most important common language used throughout the nation.

Table 7.8. Frequency of English Use by State, FSM: 1994 and 2000.

State	Percent spoke English															
	1994								2000							
	Persons 5 years and over	Total	Per- cent	Total %	Eng- lish only	1st lang- uage	2nd lang- uage	3rd lang- uage	Persons 5 year and over	Total	Per- cent	Total %	English only	1st lang- uage	2nd lang- uage	3rd lang- uage
Total	89,652	41,856	46.7	100.0	1.7	7.1	82.3	8.9	92,225	43,688	47.4	100.0	0.7	3.9	83.2	12.9
Yap	9,702	5,960	61.4	100.0	0.7	3.2	92.1	4.0	9,869	6,238	63.2	100.0	1.1	4.5	90.0	5.5
Chuuk	44,879	18,504	41.2	100.0	1.9	9.6	87.6	0.9	46,248	18,327	39.6	100.0	0.2	0.8	90.6	8.6
Pohnpei	28,676	13,733	47.9	100.0	2.0	7.1	68.0	22.9	29,448	14,963	50.8	100.0	1.3	7.5	69.4	23.1
Kosrae	6,395	3,659	57.2	100.0	1.0	1.5	93.0	4.5	6,660	4,158	62.4	100.0	0.5	3.9	90.0	6.1

Source: 1994FSM Census, Table P74; 2000 FSM Census, Table P5-10.

Table 7.9 presents English speakers at home by state and age group. For the FSM, only about 2 percent of the population used English as their common language at home. The highest number was in age group 35 to 39 years but the highest proportion was in age group 50 to 54 years. This could be the age group of the White families living in Micronesia as well as those intermarriage couples and their families using English as their main language.

The 2000 Census showed that the highest percentages of English speakers (65 percent) were in Pohnpei. The number of English speakers was highest among the younger generation from ages 5 to 24, which also indicates that English was commonly used both inside and outside of the classroom.

Table 7.9. English Speakers at Home by Age Group, FSM: 1994 and 2000

Age groups	Persons 5 years and over	Total English speakers at home	Percent spoke English						
			Percent speak only	Total %	Yap	Chuuk	Pohnpei	Kosrae	
1994									
Total	89,652	1,420	1.6	100.0	14.0	23.2	58.1	4.6	
5 to 9 years	15,330	142	0.9	100.0	16.9	19.7	57.7	5.6	
10 to 14 years	14,749	139	0.9	100.0	19.4	19.4	59.0	2.2	
15 to 19 years	12,251	114	0.9	100.0	9.6	24.6	64.9	0.9	
20 to 24 years	8,828	131	1.5	100.0	13.0	25.2	54.2	7.6	
25 to 29 years	7,063	135	1.9	100.0	15.6	20.7	57.8	5.9	
30 to 34 years	6,598	163	2.5	100.0	12.9	35.0	46.0	6.1	
35 to 39 years	6,079	169	2.8	100.0	10.7	20.7	62.7	5.9	
40 to 44 years	5,071	141	2.8	100.0	18.4	22.7	55.3	3.5	
45 to 49 years	3,579	103	2.9	100.0	11.7	19.4	63.1	5.8	
50 to 54 years	2,219	66	3.0	100.0	18.2	16.7	63.6	1.5	
55 to 59 years	2,105	56	2.7	100.0	10.7	23.2	60.7	5.4	
60 to 64 years	1,985	37	1.9	100.0	5.4	21.6	70.3	2.7	
65 years & over	3,795	24	0.6	100.0	8.3	41.7	50.0	0.0	
2000									
Total	92,225	1,322	1.4	100.0	21.2	9.4	65.1	4.3	
5 to 9 years	14,169	126	0.9	100.0	22.2	5.6	65.1	7.1	
10 to 14 years	14,220	107	0.8	100.0	25.2	8.4	61.7	4.7	
15 to 19 years	13,237	167	1.3	100.0	13.8	8.4	77.2	0.6	
20 to 24 years	9,525	197	2.1	100.0	12.2	10.2	77.2	0.5	
25 to 29 years	7,603	97	1.3	100.0	33.0	13.4	49.5	4.1	
30 to 34 years	6,489	125	1.9	100.0	20.8	15.2	56.8	7.2	
35 to 39 years	6,015	118	2.0	100.0	22.9	13.6	58.5	5.1	
40 to 44 years	5,559	102	1.8	100.0	22.5	7.8	63.7	5.9	
45 to 49 years	4,647	81	1.7	100.0	32.1	1.2	61.7	4.9	
50 to 54 years	3,209	70	2.2	100.0	22.9	1.4	70.0	5.7	
55 to 59 years	1,898	59	3.1	100.0	28.8	15.3	50.8	5.1	
60 to 64 years	1,733	31	1.8	100.0	19.4	6.5	67.7	6.5	
65 years & over	3,921	42	1.1	100.0	11.9	11.9	69.0	7.1	

Source: 1994 FSM Census, Table 40; 2000 FSM Census, Table P8-9.

Conclusion

Most persons enumerated in 1994 and 2000 had a religion. The results of the 1973, 1994 and 2000 censuses showed that Roman Catholic and Protestant remained the two major religions in the FSM. Roman Catholics outnumbered the Protestants throughout the FSM except in the State of Kosrae.

The distribution of ethnicity closely followed the distribution of population. Chuukese or the common ethnic group for Chuuk State was the largest followed by Pohnpeian, Yapese, and then Kosraean. Other than these local groups, there were foreign ethnic groups such as Asians and Whites although their number had reduced since 1994. The Asians were the largest non-FSM ethnic group and were mostly fishermen working for the locally based fishing company and the Whites were those Americans, Australians, Europeans, and the New Zealanders working or married in FSM.

Language patterns in the FSM were similar to ethnicities and their distribution also followed the population distribution. The highest proportion of the population used Chuukese language. English has been used as the common language in the FSM. Pohnpei had the highest proportion of those who spoke English at home possibly, because it is the capital of the FSM and it is where the only college in the FSM is located. Over 80 percent of the FSM population used English as their second language.

CHAPTER 8 EDUCATION AND LITERACY

Introduction

A population's level of formal schooling is considered a good indicator of both social conditions and potential for economic success. For the FSM, which is moving from a more traditional economic system to a more Westernized system, data on education serve to provide a means to evaluate cultural change. Moreover, given the important role that education has come to play in various sectors of the FSM economy, results on this subject should provide insights on the direction of development and on the changing economic potential of the nation.

The 2000 FSM Census had two items for education: school enrollment and level of educational attainment. The FSM Department of Education collects statistical data annually to obtain information about school enrollment and to assess needs for special programs in bilingual education and special education. The census allows more in-depth analysis of schooling as well as educational attainment of the entire population to compare with the socio-economic characteristics of the population.

Data Description

School Enrollment and Type of School

The 2000 Census obtained data on school enrollment from answers to questionnaire item 12. Persons were classified as enrolled in school if they reported attending a "regular" public or private school or college at any time between February 1, 2000 and the date of enumeration (April 1, 2000). The question included instructions to "include only pre-kindergarten, kindergarten, elementary school, and schooling which would lead to a high school diploma or a college degree" as regular school.

Public and Private School

A public school was defined as any school or college controlled and supported by the state or national government. The census defined schools supported and controlled primarily by religious organizations or other private groups as private schools.

Level of School Enrolled

The 2000 Census classified persons enrolled in school at the time of the census as enrolled in pre-primary school, elementary school, high school, or college according to their response to question 13 (years of school completed or highest degree received) in combination with the response to status of school attendance. Persons who were enrolled and reported completing pre-kindergarten school or less were classified as enrolled in pre-primary school, which included kindergarten. Similarly, enrolled persons who had completed at least kindergarten, but not eighth grade, were classified as enrolled in elementary school. Enrolled persons who completed at least the eighth grade, but who were not high school graduates, were classified as enrolled in high school. Enrolled persons who reported completing high school or some college or having received a post-secondary degree were classified as enrolled in college. Enrolled persons who reported completing the twelfth grade but receiving no diploma were classified as enrolled in high school.

Educational Attainment

The 2000 Census of the FSM obtained data on educational attainment from answers to questionnaire item 13. Persons were classified according to the highest grade of school completed or the highest degree received. For persons currently enrolled in school, the question included instructions to report the level of the previous grade attended or the highest degree received.

Enumerators were instructed that schooling completed in foreign or ungraded school systems should be reported by an estimated level of schooling equivalent to that of the American school system; that vocational certificates or diplomas from vocational, trade, or business schools or colleges were not to be reported unless they were college-level degrees; and that honorary degrees were not to be reported. The instructions excluded "barber school, cosmetology, or other training for a specific trade" from the professional school degree category.

Literacy

The 2000 Census obtained data on literacy - ability to read and write in any language - from responses to questionnaire item 14, asked of persons 3 years old and over. In published reports based on the 2000 data, results generally are shown only for persons 10 years old and over. Respondents were asked if they could read and write a paragraph, in any language. A person was not literate if he or she could read but not write, or if the writing ability was limited to writing the person's own name.

Vocational Training

The 2000 Census obtained data on vocational training for all persons aged 15 years and over from responses to questionnaire item 18. "Vocational training" denotes a school program designed to prepare a person for work in a specific occupational field. Persons were counted as having completed vocational training if they completed the requirements for a vocational training program at a trade school, business school, hospital, some other kind of school for occupational training, or place of work.

Vocational training included training in vocational fields such as carpentry, electronics, nursing, or accounting if a bachelor's degree would not be granted for the training. Training at place of work includes programs designed to teach new skills. Individual courses for personal enrichment, such as a single typing course, were not considered vocational training. Job Corps training and correspondence courses were included. Also, among trainings not included were college courses applicable towards a bachelor's degree, single courses not part of an organized program, on-the-job training, and Armed Forces basic training.

Limitations and Comparability

School enrollment and educational attainment questions have been included in all censuses conducted in the FSM since 1973, except for the mid 80's censuses of Kosrae, Pohnpei and Yap. The pertinent question in each census referred to the status of school attendance during a specific reference period and to the highest grade completed. All reference periods coincided to schooling seasons, but not to the same months. The age range for which enrollment data were obtained and published also varied between censuses. For 1973 census information on enrollment was recorded for persons aged 4 years and over while for the 1980, 1994 and 2000 Censuses it was recorded for persons aged 3 years and over. Because of this and differences in reference period, comparison of school enrollment has to be considered cautiously.

There are no obvious limitations of the school enrollment and educational attainment data collected in the 2000 Census. Information on type of school was collected in FSM only during the 1980, 1994 and 2000 Censuses. Also, vocational training questions were asked only in the 1980, 1994 and 2000 Censuses. The 1980 census had one additional question on specific type of school while the 1994 and 2000 Censuses provided additional information on whether the training was in the FSM or outside the FSM.

Analysis of Education Data

School Attendance by Level of Enrollment

As the population of the FSM increased, the number of persons attending school in the nation also increased. The number of people enrolled in school generally increased from about 19,000 in 1973 to 32,000 in 2000 (Table 8.1). The increase between 1973 and 2000 was highest for college enrollment (an increase of almost 17 fold) followed by high school attendance (an increase of slightly over 2 fold). Enrollment at primary school level also increased in the last three decades by about 32 percent. In part, these contrasting trends were due to expansion in educational services and an increase in the school age population. Enrollment was at its peak in 1994 with over 34,000 students, then declined slightly to 32,000 in 2000.

Table 8.1: School Attendance of the Population Aged 3 Years and Over by Level and Type, FSM: 1973, 1980, 1994 and 2000.

Level and type	Number				Annual Percent change			Percent			
	1973 ¹	1980	1994	2000	1973 ¹ to 1980	1980 to 1994	1994 to 2000	1973 ¹	1980	1994	2000
Total enrollment	19,209	21,733	34,582	32,102	1.9	4.2	(1.3)	100.0	100.0	100.0	100.0
Pre-school/kindergarten	...	754	1,961	1,764	...	11.4	(1.8)	...	3.5	5.7	5.5
Public	...	618	1,687	1,525	...	12.4	(1.7)	...	2.8	4.9	4.8
Private	...	136	274	239	...	7.2	(2.3)	...	0.6	0.8	0.7
Elementary	15,797	16,362	22,459	20,885	0.5	2.7	(1.3)	82.2	75.3	64.9	65.1
Public	...	15,467	20,722	19,297	...	2.4	(1.2)	...	71.2	59.9	60.1
Private	...	895	1,737	1,588	...	6.7	(1.6)	...	4.1	5.0	4.9
High school	3,330	3,886	8,701	8,070	2.4	8.9	(1.3)	17.3	17.9	25.2	25.1
Public	...	3,757	7,663	7,165	...	7.4	(1.2)	...	17.3	22.2	22.3
Private	...	129	1,038	905	...	50.3	(2.3)	...	0.6	3.0	2.8
College	82	731	1,461	1,383	113.1	7.1	(1.0)	0.4	3.4	4.2	4.3

Source: 2000 FSM Census, Table P-2-12; 1994 FSM Census, Table P24; 1980 TTPI Census, Table 34; 1973 TTPI Census, Table P2-12.

Note: ¹ No breakdown by type for 1973 and covered persons age 4 to 30 years.

The percentages of students in private schools, both at the elementary and high school levels, increased between 1980 and 2000, particularly at the high school level. Private schools' share of students increased from less than 6 percent in 1980 to over 8 percent in 2000. The percentage of private high school students increased from 3 percent to about 11 percent during the 20 year period.

In 1994, male students slightly out-numbered female students at all levels of education. The surplus of females was minimal at elementary and high school level but significant at the college level of education (Table 8.2). This pattern changed slightly in year 2000 with more females in the higher levels of education (high school and college).

In both years, females were more likely to be enrolled in private primary schools and private pre-schools while more males tended to enroll at private high schools.

Table 8.2: School Attendance of the Population Aged 3 Years and Over by Level and Type, FSM: 1994 and 2000.

Level & type	1994								2000							
	Number			Percent			Sex ratio	Number			Percent			Sex ratio		
	Total	Males	Females	females	Total	Males		Females	Total	Males	Females	females	Total		Males	Females
Total	34,582	17,934	16,648	48.1	...	...	107.7	32,102	16,301	15,801	49.2	...	...	...	103.2
Pre-school/kindergarten	1,961	1,024	937	47.8	100.0	100.0	109.3	1,764	876	875	49.6	100.0	100.0	100.0	100.1	
Public	1,687	894	793	47.0	86.0	87.3	84.6	1,525	768	744	48.8	86.5	87.7	85.0	103.2	
Private	274	130	144	52.6	14.0	12.7	15.4	239	108	131	54.8	13.5	12.3	15.0	82.4	
Elementary	22,459	11,689	10,770	48.0	100.0	100.0	108.5	20,885	10,801	10,095	48.3	100.0	100.0	100.0	107.0	
Public	20,722	10,848	9,874	47.6	92.3	92.8	91.7	19,297	10,016	9,292	48.2	92.4	92.7	92.0	107.8	
Private	1,737	841	896	51.6	7.7	7.2	8.3	1,588	785	803	50.6	7.6	7.3	8.0	97.8	
High school	8,701	4,404	4,297	49.4	100.0	100.0	100.0	8,070	3,956	4,116	51.0	100.0	100.0	100.0	96.1	
Public	7,663	3,842	3,821	49.9	88.1	87.2	88.9	7,165	3,440	3,727	52.0	88.8	87.0	90.5	92.3	
Private	1,038	562	476	45.9	11.9	12.8	11.1	905	516	389	43.0	11.2	13.0	9.5	132.6	
College	1,461	817	644	44.1	...	...	126.9	1,383	668	715	51.7	...	...	...	93.4

Source: 1994 FSM Census, Table P24; 2000 FSM Census, Table P2-12.

School Attendance by Age and Sex

One way to analyze the coverage of the school system and the extent of dropouts is to look at the enrollment rates of each age (ASER), among the school age population. Enrollment rate was defined as the number of students enrolled at a given age per 100 population of that age.

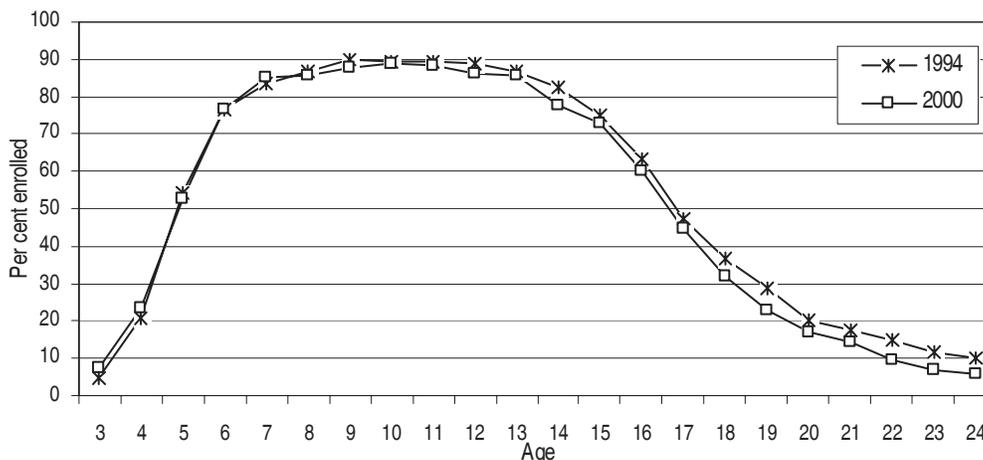
The analysis of the 1994 and 2000 FSM Censuses data on the Age Specific Enrollment Rates (ASER) of the nation is summarized in Table 8.3 and Figure 8.1. In both years observed, enrollment reached a maximum between the ages of 7 and 14 years, the peak for enrollment being at the ages of 9, 10, and 11. Enrollment started to decline significantly at the ages of 14 or 15 years, the age of graduation from elementary school level in the FSM. This pattern may mean that many students are not going on to high school after graduating from 8th grade.

Table 8.3. Age-specific Enrollment Rate by Age and Proportion Enrolled by Sex, FSM: 1994 and 2000

Age	1994						2000					
	Age-specific enrollment			Proportion by sex			Age-specific enrollment			Proportion by sex		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
Total	58.1	58.6	57.5	100.0	52.0	48.0	55.1	54.3	56.0	100.0	51.0	49.0
3	5.0	5.2	4.7	100.0	53.9	46.1	7.7	7.3	8.1	100.0	50.0	50.0
4	21.0	21.7	20.3	100.0	53.7	46.3	23.3	21.7	25.1	100.0	48.3	51.7
5	54.4	55.2	53.5	100.0	51.4	48.6	52.6	51.2	54.2	100.0	51.7	48.3
6	76.5	75.1	78.1	100.0	51.3	48.8	76.6	75.2	78.1	100.0	50.0	50.0
7	83.7	83.0	84.5	100.0	53.9	46.1	84.9	84.1	85.7	100.0	50.2	49.8
8	86.8	85.8	87.9	100.0	51.7	48.3	85.6	84.9	86.3	100.0	51.0	49.0
9	90.0	90.4	89.7	100.0	53.4	46.6	87.9	87.4	88.5	100.0	51.6	48.4
10	89.5	88.8	90.3	100.0	51.6	48.4	88.9	87.8	90.3	100.0	52.0	48.0
11	89.3	88.8	89.9	100.0	51.6	48.4	88.5	87.4	89.6	100.0	50.8	49.2
12	88.7	88.1	89.3	100.0	51.0	49.0	86.2	85.1	87.5	100.0	52.6	47.4
13	86.7	86.6	86.8	100.0	49.7	50.3	85.5	83.7	87.5	100.0	52.4	47.6
14	82.5	81.8	83.2	100.0	50.0	50.0	77.7	75.9	79.6	100.0	50.9	49.1
15	74.9	74.7	75.1	100.0	51.5	48.5	72.7	68.9	77.0	100.0	50.4	49.6
16	63.2	61.8	64.8	100.0	52.7	47.3	60.0	56.4	63.9	100.0	49.0	51.0
17	47.6	50.0	44.7	100.0	57.3	42.7	44.9	44.6	45.1	100.0	50.0	50.0
18	36.8	37.4	36.2	100.0	53.3	46.7	32.1	32.6	31.6	100.0	50.1	49.9
19	28.6	31.5	25.8	100.0	54.4	45.6	22.8	21.5	24.2	100.0	46.9	53.1
20	20.3	20.8	19.8	100.0	49.8	50.2	17.0	16.9	17.0	100.0	52.5	47.5
21	17.4	18.7	16.3	100.0	50.8	49.2	14.3	14.5	14.2	100.0	49.5	50.5
22	15.1	17.2	13.1	100.0	56.3	43.7	9.5	10.1	8.7	100.0	57.8	42.2
23	11.7	11.9	11.6	100.0	50.0	50.0	6.7	7.3	6.1	100.0	56.4	43.6
24	10.3	11.6	9.0	100.0	56.8	43.2	5.8	6.3	5.3	100.0	52.9	47.1

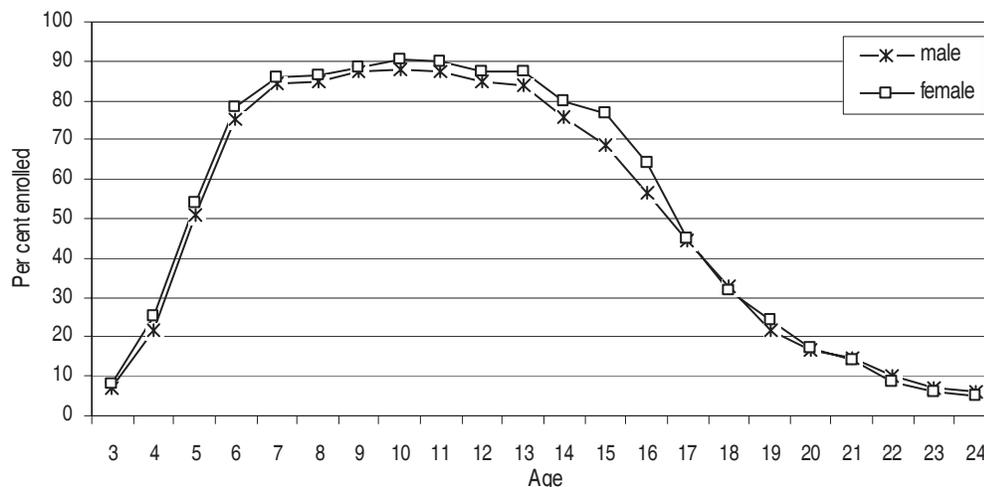
Source: 1994 and 2000 FSM Censuses, unpublished data

Figure 8.1. Age-specific enrollment rates by age, FSM: 1994 and 2000



In 2000, females consistently had higher ASER than their male counterparts until after the age of 17 years, where the female ASER began to drop, suggesting that more females were not pursuing post secondary education due in part to cultural reasons. (See Table 8.3 and Figure 8.2)

Figure 8.2. Age-specific enrollment rates by age and sex, FSM: 2000

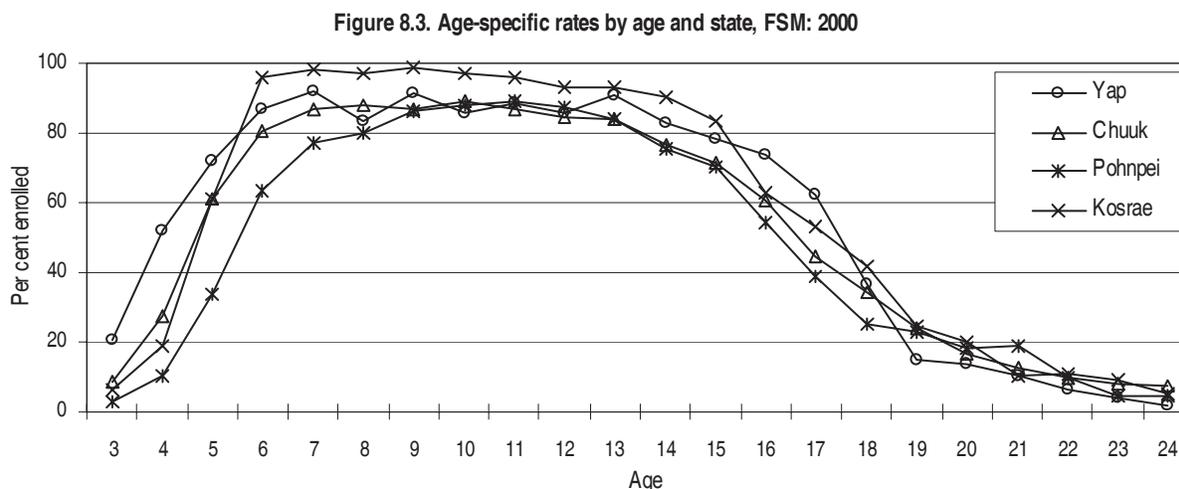


Age-specific enrollment rates in the four states followed similar patterns but with different levels (Table 8.4 and Figure 8.3). Enrollment at ages 3 and 4 years referred to head-start and kindergarten. Among the four states, the onset of enrollment was a bit earlier in Yap while it was a bit later in Pohnpei. Enrollment was highest in the primary school years (ages of 7 to 15) in all states, however at different levels. Except for Kosrae, about one in every ten children remained outside the school system even at ages where enrollment was highest. The peak of enrollment was at the ages of 9 to 12. In Kosrae it was as high as 93 to 99 percent. The corresponding rates for Yap, Chuuk, and Pohnpei were about 85 to 89 percent. Enrollment started declining in each state at ages 14 and 15. The decline was slightly steeper for Kosrae and Pohnpei. See Table 8.4 and Figure 8.3 for further details.

Table 8.4. Age-specific Enrollment by Age and State, FSM: 1994 and 2000

Age	1994					2000				
	FSM	Yap	Chuuk	Pohnpei	Kosrae	FSM	Yap	Chuuk	Pohnpei	Kosrae
Total	58.1	65.7	56.3	57.4	63.9	55.1	59.0	56.4	50.1	63.2
3	5.0	23.2	4.3	1.3	2.4	7.7	20.4	8.3	3.0	6.0
4	21.0	48.3	21.5	13.4	18.8	23.3	52.2	27.5	10.2	19.1
5	54.4	75.4	57.3	42.5	58.0	52.6	71.8	60.9	33.5	61.2
6	76.5	88.9	75.0	72.2	90.5	76.6	86.6	80.5	63.5	96.2
7	83.7	91.3	80.7	84.1	93.6	84.9	91.7	86.7	77.2	98.5
8	86.8	91.7	83.1	89.4	95.9	85.6	83.3	88.0	80.0	97.2
9	90.0	95.0	86.1	94.5	94.4	87.9	91.6	87.0	86.3	98.9
10	89.5	93.9	85.2	94.8	96.4	88.9	85.7	88.9	88.3	97.0
11	89.3	95.5	84.9	93.8	93.9	88.5	88.4	87.0	89.3	96.3
12	88.7	94.1	83.8	94.1	93.5	86.2	85.9	84.6	87.3	92.9
13	86.7	95.1	81.1	91.3	92.7	85.5	91.0	84.0	84.2	93.1
14	82.5	86.7	76.7	88.7	90.7	77.7	82.7	76.3	75.5	90.4
15	74.9	83.6	70.5	77.8	82.1	72.7	78.1	71.4	70.5	83.6
16	63.2	78.9	59.0	63.3	71.4	60.0	73.7	60.3	54.3	63.1
17	47.6	61.6	47.5	44.7	41.1	44.9	62.3	44.4	38.7	53.4
18	36.8	48.1	36.1	36.1	26.9	32.1	36.7	34.1	25.2	41.6
19	28.6	28.2	28.3	29.8	24.1	22.8	14.8	24.3	22.9	24.7
20	20.3	19.6	20.2	21.7	13.5	17.0	13.5	16.4	18.3	19.8
21	17.4	9.5	18.2	20.6	6.9	14.3	10.0	12.7	19.0	10.5
22	15.1	7.1	15.4	17.4	14.6	9.5	6.6	9.7	9.7	11.0
23	11.7	7.9	13.4	11.5	5.9	6.7	3.7	8.2	4.7	9.3
24	10.3	9.4	11.1	10.8	3.4	5.8	1.5	7.6	4.5	5.0

Source: 1994 & 2000 FSM Censuses, unpublished data.



One way to measure the progress achieved over the years in regard to the proportion of the eligible population entering the school system is to compare (or consider the rate of) enrollment in primary and high schools with the corresponding potential primary and high school age population. The result is usually referred to as the "Gross Enrollment Ratio". This approach could also be considered as an indirect method to assess the potential of present educational facilities in the nation.

For the FSM, the age-level relationship was established as follows: for elementary level, enrollment in grades 1 to 8 is expected for the population aged 6 to 13 years, and for high school, enrollment in grades 9 to 12 is expected for the population aged 14 to 17 years. The results for the FSM in 1994 and 2000 are summarized in Table 8.5. As can be seen from this table, the gross enrollment ratio declined between the census years. That is, in the FSM, where pupils enrolled at primary and secondary level of education constituted 94 and 81 percent of the eligible population in 1994, it had dropped to 92 and 72 percent respectively in 2000. Also, the decline was slightly higher for the males, especially at the high school level. According to this analysis, the coverage of the school system in both years was better for primary level education than for high school. While the coverage of the eligible population at the primary level of education was about the same for males and females, the coverage for high school level education was higher for females than males. This shows that females tended to stay in school longer to complete a high school level education compared to their male counterparts.

Table 8.5. Gross Enrollment Ratio by Sex, FSM: 1994 and 2000

Level	1994			2000		
	Total	Males	Females	Total	Males	Females
Elementary	93.7	93.5	93.9	92.3	91.7	92.9
High School	81.4	78.4	84.7	72.3	68.1	76.7

Source: 1994 & 2000 FSM Censuses, unpublished data.

Note: Age-level relationship or Gross Enrollment Ratio was defined as the ratio of primary level enrollment (enrollment in grades 1 to 8) to the population aged 6 to 13 years; and for high school - enrollment in grades 9 to 12 to the population aged 14 to 17.

Educational Attainment by Age and Sex

Table 8.6 summarizes data on educational attainment for the population aged 25 years and over. The absolute numbers of the population completing some level of education increased, while the proportion completing no schooling decreased significantly, over the years. The proportion for persons with no schooling declined from about 25 percent in 1980 to about 12 percent in 2000. That is, in 1980 one in every four persons had no schooling, compared to one in eight in 2000. Also, the proportion of the population completing higher levels of education (high school and higher) increased from around 25 percent in 1980 to about 51 percent in 2000.

In general, educational attainment for males also increased consistently between 1980 and 2000. The proportion of males with no schooling decreased from over 20 percent in 1980 to about 10 percent in 2000. The proportion with only elementary level attainment declined significantly while that of high school and college levels increased significantly. The decline in the proportion of males with only elementary level education between 1980 and 2000 could have possibly resulted from, among other things, the heavy out-migration of working age males starting in the second half of the 1980s, many of whom emigrated to take jobs as laborers and may not have had higher education.

The improvement in educational attainment for females in the FSM was more pronounced. The proportion of females with no school dropped from about 30 percent in 1980 to about 15 percent in 2000. In other words, in 1980 nearly one woman in every three had no grade completed compared to one in seven, in 2000. This improvement held true for higher education levels, as well. The proportion of females with at least high school education increased from just 12 percent in 1980 to about 30 percent in 2000. Likewise, the proportion of females with some college level education also increased by about ten percentage points, from about 3 to about 13 percent, over the period of two decades.

Table 8.6: Educational Attainment of the Population Aged 25 Years and Over by Sex, FSM: 1980, 1994 and 2000

Educational attainment	Number			Percent		
	1980	1994	2000	1980	1994	2000
Total	25,044	38,494	41,074	100.0	100.0	100.0
No school	6,211	5,639	5,042	24.8	14.6	12.3
Pre-school/kindergarten	...	3,126	411	-	8.1	1.0
Elementary	12,504	11,682	14,768	49.9	30.3	36.0
High school	4,329	11,037	13,278	17.3	28.7	32.3
College	2,000	7,010	7,575	8.0	18.2	18.4
Males	12,607	19,375	20,181	100.0	100.0	100.0
No school	2,542	2,267	1,984	20.2	11.7	9.8
Pre-school/kindergarten	...	1,329	194	-	6.9	1.0
Elementary	5,657	4,743	6,132	44.9	24.5	30.4
High school	2,836	6,161	6,950	22.5	31.8	34.4
College	1,572	4,875	4,921	12.5	25.2	24.4
Females	12,437	19,119	20,893	100.0	100.0	100.0
No school	3,669	3,372	3,058	29.5	17.6	14.6
Pre-school/kindergarten	...	1,797	217	-	9.4	1.0
Elementary	6,847	6,939	8,636	55.1	36.3	41.3
High school	1,493	4,876	6,328	12.0	25.5	30.3
College	428	2,135	2,654	3.4	11.2	12.7

Source: 1980 TTPI Census, Table 35; 1994 FSM Census, Table P24; 2000 FSM Census, Table P2-12.

Table 8.7 further presents the cumulative percentage distribution of the population aged 25 years and over by the highest grade completed. Cumulative percentage provides the proportion of the population with at least a given level of educational attainment. In 1994, over 77 percent of the population aged 25 years and over had some level of education. This level increased to about 87 percent in year 2000. The population with at least elementary level education increased from about 60 percent in 1994 to about 67 percent in 2000. The proportion of the population with high school or college level of education was just over 18 percent in both census years. While the attainment at lower levels of education could be considered satisfactory, educational attainment in the FSM could be improved.

Furthermore, males tended to have higher education levels compared to females. However, the differences were less pronounced in 2000. About 2 in every 3 males attained at least an elementary level of education compared to

more than 1 in 2 females in 1994. In year 2000, the corresponding proportions for elementary level attainment were more than 5 in every 7 males and about 3 in every 5 females. Proportion of males in the higher level of education was still higher than females in 2000. However, male educational attainment at college level and above had decreased significantly since 1994. In the same period, females had increased their educational attainment at college level. In year 2000, about 2 out of every 100 males had a masters or doctorate degree, declining from 3 in every 100 in 1994. There is still a need to initiate and strengthen policies and programs for facilitating higher education in the FSM.

Table 8.7. Educational Attainment of the Population Aged 25 Years and Over by Sex, FSM: 1994 and 2000.

Educational attainment	1994						2000					
	Number			Cumulative percent			Number			Cumulative percent		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
Total	38,494	19,375	19,119	...	...	...	41,074	20,181	20,893	...	...	...
No school	5,639	2,267	3,372	100.0	100.0	100.0	5,042	1,984	3,058	100.0	100.0	100.0
Pre-school/kindergarten	3,126	1,329	1,797	85.4	88.3	82.4	411	194	217	87.7	90.2	85.4
Elementary	11,682	4,743	6,939	77.2	81.4	73.0	14,768	6,132	8,636	86.7	89.2	84.3
Grade one	192	78	114	77.2	81.4	73.0	134	55	79	86.7	89.2	84.3
Grade two	272	93	179	76.7	81.0	72.4	272	97	175	86.4	88.9	83.9
Grade three	1,218	479	739	76.0	80.6	71.4	1,539	640	899	85.7	88.5	83.1
Grade four	610	239	371	72.9	78.1	67.6	906	333	573	82.0	85.3	78.8
Grade five	1,244	535	709	71.3	76.9	65.6	1,414	611	803	79.8	83.6	76.1
Grade six	1,872	706	1,166	68.0	74.1	61.9	2,312	906	1,406	76.3	80.6	72.2
Grade seven	1,322	524	798	63.2	70.4	55.8	1,565	678	887	70.7	76.1	65.5
Grade eight	4,952	2,089	2,863	59.7	67.7	51.6	6,626	2,812	3,814	66.9	72.8	61.2
High school	11,037	6,161	4,876	46.9	57.0	36.7	13,278	6,950	6,328	50.8	58.8	43.0
Grade nine	1,571	759	812	46.9	57.0	36.7	2,001	982	1,019	50.8	58.8	43.0
Grade ten	1,573	824	749	42.8	53.0	32.4	2,050	1,011	1,039	45.9	54.0	38.1
Grade eleven	990	528	462	38.7	48.8	28.5	1,460	742	718	40.9	48.9	33.1
Grade Twelve	6,903	4,050	2,853	36.1	46.1	26.1	7,767	4,215	3,552	37.4	45.3	29.7
College	7,010	4,875	2,135	18.2	25.2	11.2	7,575	4,921	2,654	18.4	24.4	12.7
Some college	2,879	1,869	1,010	18.2	25.2	11.2	3,418	2,122	1,296	18.4	24.4	12.7
A.S. or A.A.	2,329	1,608	721	10.7	15.5	5.9	2,664	1,740	924	10.1	13.9	6.5
Bachelor's	1,181	862	319	4.7	7.2	2.1	1,083	762	321	3.6	5.2	2.1
Masters and PhD	621	536	85	1.6	2.8	0.4	410	297	113	1.0	1.5	0.5

Source: 1994 and 2000 FSM Censuses, unpublished data.

Educational attainment of the population aged 25 years and over varied considerably among the four states of the nation (Table 8.8). In 1994, the proportion of higher-level educated persons (the population with educational attainment of high school or higher) was highest in Yap followed by Kosrae, Pohnpei then Chuuk, which still held true in 2000. The proportion of persons with high school or higher level of education in Yap was 59 percent. The corresponding proportions among residents of Kosrae, Pohnpei and Chuuk in the same year were about 48, 34 and 30 percent, respectively. The proportion of college graduates was still the highest in Kosrae (at about 20 percent), followed by Yap (about 16 percent), Pohnpei (13 percent), then Chuuk (about 8 percent). These patterns could have resulted from differences in educational facilities and attendance in the four states as well as differences in inter-state and international migration patterns.

Table 8.8. Educational Attainment of the Population Aged 25 Years and Over by State, FSM: 1994 and 2000

Level	1994					2000				
	FSM	Yap	Chuuk	Pohnpei	Kosrae	FSM	Yap	Chuuk	Pohnpei	Kosrae
Total	29,729	3,802	13,823	9,454	2,650	35,621	4,268	16,297	12,037	3,019
Some elementary	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Elementary	77.4	76.2	77.8	76.8	79.3	77.2	79.8	77.5	75.4	79.0
Some high school	60.7	69.1	61.5	54.5	67.2	58.6	72.0	58.7	51.0	69.2
High school graduates	41.2	55.6	38.1	38.8	45.6	36.6	58.8	30.4	34.2	47.9
Some college	23.6	27.8	21.2	23.7	29.9	21.3	28.5	16.8	21.7	33.8
College graduates	13.9	15.3	11.6	15.5	18.3	11.7	15.5	7.9	13.4	19.8

Source: 1994 FSM Census, Table P24; 2000 FSM Census, Table P2-12.

Note: Educational attainment exclude pre-school and kindergarten

Educational attainment varied considerably with age (Table 8.9). In both 1994 and 2000, the proportion of the population with only an elementary level education increased with age while the proportion with high school and some college level of education decreased as age increased. This indicated an improvement in educational attainment for the younger generations. In 2000, the percentage of college educated persons reached its peak

among the population aged 45 to 54 years old. This pattern may have been influenced both by persons being away at school, taking longer than in the past to finish schooling, and the effects of net out migration on the education statistics.

Also in 2000, educational attainment for males in the FSM exceeded the attainment of females at all levels of schooling, except elementary (see Table 8.9). This pattern held for males aged 30 years and over as well. The proportion of males with bachelor's degrees or higher declined as well, particularly for those aged 25 to 54.

Higher level educational attainment was slightly lower among females aged 25 years and over in the FSM compared to their male counterparts (See bottom panel of Table 8.9). The male and female pattern was similar, but the level was different. Nevertheless, the improvement of females' educational attainment by age was much more pronounced. For example, among females with some educational attainment in 2000, about 76 percent of females in the age group 55 to 64 had elementary level education. The corresponding percentage for males was 44 percent. These data confirm that males used to be more privileged for school enrollment than females, but the differential has been reduced in recent years.

Table 8.9. Educational Attainment of the Population Aged 25 Years and Over by Age Group and Sex, FSM: 1994 and 2000.

Educational attainment	1994							2000						
	Total	25-29	30-34	35-44	45-54	55-64	65+	Total	25-29	30-34	35-44	45-54	55-64	65+
Total	29,729	5,900	5,520	9,333	4,519	2,627	1,830	35,621	6,926	5,917	10,592	6,976	2,816	2,394
Percent	100.0	100.0	100.0	100.0	100.0	100.0	97.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Elementary school	39.3	31.5	33.4	32.9	43.9	58.5	75.9	41.5	33.7	35.6	36.1	41.8	58.8	80.7
High school, no diploma	19.5	24.1	23.9	19.2	15.6	14.8	9.8	22.0	27.3	26.0	24.8	17.2	14.2	8.0
High school graduates	17.6	21.5	18.4	19.5	15.7	10.8	7.3	15.3	17.8	17.2	16.5	14.9	9.6	5.2
Some college	9.7	13.6	11.4	10.3	7.1	4.4	2.5	9.6	13.2	11.7	10.0	8.5	4.1	2.0
Associate degree	7.8	6.2	7.8	10.2	8.7	5.9	-	7.5	6.3	6.6	7.9	10.7	7.7	1.8
Bachelor's degree	4.0	1.9	3.3	5.4	6.0	3.3	1.2	3.0	1.4	2.1	3.5	5.1	3.7	1.4
Higher degree	2.1	1.3	1.7	2.4	3.1	2.3	1.1	1.2	0.3	0.8	1.3	1.9	1.8	1.0
Males	15,779	2,965	2,834	4,977	2,549	1,482	972	18,003	3,357	2,855	5,331	3,729	1,489	1,242
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Elementary school	30.1	27.7	26.6	22.7	27.1	44.5	70.6	34.1	33.0	31.6	29.0	27.6	43.5	72.4
High school, no diploma	19.5	22.9	23.0	18.6	17.3	18.8	10.3	22.2	27.1	25.6	23.9	18.0	17.8	11.2
High school graduates	19.6	22.5	19.5	21.0	20.3	14.6	8.4	16.4	17.5	18.1	17.3	17.6	12.3	7.6
Some college	11.8	14.8	14.2	13.3	9.6	5.8	3.6	11.8	14.2	13.7	13.2	11.5	5.9	2.7
Associate degree	10.2	7.3	9.8	12.9	12.5	8.3	3.1	9.7	6.5	7.5	10.1	15.0	12.0	2.5
Bachelor's degree	5.5	2.3	4.0	7.7	8.3	4.6	2.0	4.2	1.4	2.5	4.7	7.6	5.6	1.9
Higher degree	3.4	2.3	2.9	3.9	4.8	3.4	2.1	1.6	0.3	1.0	1.7	2.7	2.9	1.7
Females	13,950	2,935	2,686	4,356	1,970	1,145	858	17,618	3,569	3,062	5,261	3,247	1,327	1,152
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Elementary school	49.7	35.2	40.6	44.6	65.5	76.8	81.9	49.0	34.4	39.4	43.2	58.1	76.0	89.7
High school, no diploma	19.6	25.2	24.8	20.0	13.4	9.6	9.3	21.9	27.4	26.5	25.6	16.3	10.2	4.5
High school graduates	15.4	20.4	17.3	17.7	9.7	5.9	6.1	14.1	18.0	16.4	15.8	11.8	6.6	2.7
Some college	7.2	12.3	8.6	6.9	3.9	2.5	1.3	7.4	12.4	9.8	6.7	5.1	2.0	1.1
Associate degree	5.2	5.0	5.7	7.1	3.7	2.8	1.0	5.2	6.2	5.7	5.6	5.7	2.8	1.0
Bachelor's degree	2.3	1.5	2.6	2.9	2.9	1.6	0.3	1.8	1.4	1.7	2.2	2.2	1.7	0.8
Higher degree	0.6	0.3	0.6	0.8	0.8	0.9	-	0.6	0.3	0.6	0.9	0.9	0.7	0.2

Source: 1994 FSM Census, Table P101; 2000 FSM Census, Table P3-12.

Educational Attainment by Place of Birth

Another process causing perceived improvement in educational attainment in the nation was the immigration of educated persons. The difference emerged in the comparison of educational attainment of persons born in the FSM and those born abroad. Among the population aged 25 years and over who had attended some school in 2000, about 3 in every 5 of the non-FSM born population had college level educational attainment compared to 1 in 5 among the FSM born. These proportions are about similar to those in 1994.

Similarly, over 36 percent of non-FSM born population had educational attainment of bachelor degree or above compared to about 3 percent of the FSM-born (See Table 8.10). In general, the tendency to migrate is higher for people with some education, resulting in an improved educational attainment for the country of destination.

Recent survey results had shown that the FSM is also experiencing the negative effects of emigration on educational attainment, at least for elementary and high school educated persons.

Table 8.10. Educational Attainment of the Population Aged 25 Years and Over by Place of Birth, FSM: 1994 and 2000

Educational attainment	1994						2000					
	Percent by level			Percent by Place of Birth			Percent by level			Percent by Place of Birth		
	Total	FSM	Outside FSM	Total	FSM	Outside FSM	Total	FSM	Outside FSM	Total	FSM	Outside FSM
Total	29,729	27,788	1,941	100.0	93.5	6.5	35,621	34,430	1,191	100.0	96.7	3.3
Percent	100.0	100.0	100.0	...	...	...	100.0	100.0	100.0	...	...	...
Elementary	39.3	41.6	6.4	100.0	98.9	1.1	41.5	42.7	6.0	100.0	99.5	0.5
Some	22.6	23.9	4.0	100.0	98.8	1.2	22.9	23.5	4.0	100.0	99.4	0.6
Graduates	16.7	17.7	2.4	100.0	99.1	0.9	18.6	19.2	1.9	100.0	99.7	0.3
High school	37.1	37.2	35.7	100.0	93.7	6.3	37.3	37.5	31.3	100.0	97.2	2.8
Some	19.5	20.1	12.1	100.0	96.0	4.0	22.0	22.5	9.2	100.0	98.6	1.4
Graduates	17.6	17.2	23.5	100.0	91.3	8.7	15.3	15.0	22.1	100.0	95.2	4.8
College	23.6	21.2	58.0	100.0	84.0	16.0	21.3	19.8	62.7	100.0	90.1	9.9
Some credits	9.7	9.7	9.0	100.0	94.0	6.0	9.6	9.5	13.0	100.0	95.5	4.5
Associate degree	7.8	7.7	9.7	100.0	91.9	8.1	7.5	7.3	13.8	100.0	93.8	6.2
Occupational	4.0	3.9	5.2	100.0	91.5	8.5	3.7	3.6	6.8	100.0	93.8	6.2
Academic	3.8	3.8	4.5	100.0	92.4	7.6	3.8	3.7	7.0	100.0	93.9	6.1
Bachelor's degree	4.0	3.1	16.8	100.0	72.3	27.7	3.0	2.4	20.5	100.0	77.5	22.5
Grads or Prof.	2.1	0.7	22.5	100.0	29.8	70.2	1.2	0.7	15.4	100.0	55.1	44.9

Source: 1994 FSM Census, Table P104; 2000 FSM Census, Table P5-11.

Note : Educational attainment exclude pre-school and kindergarten

Literacy Status by Age and Sex

About 92 percent of the population aged 10 years and over were reported literate in 2000 (Table 8.11). An inverse relationship existed between literacy and age. The proportion literate decreased as age increased, showing better education for the younger generation. The differential in literacy status between the two sexes was notable among the older generations. This differential reduced for the younger generation, to the extent that hardly any differential existed in literacy status of males and females, among the population under the age of 45. This suggested an improvement in female education in the recent past (see Table 8.11 and Figure 8.4).

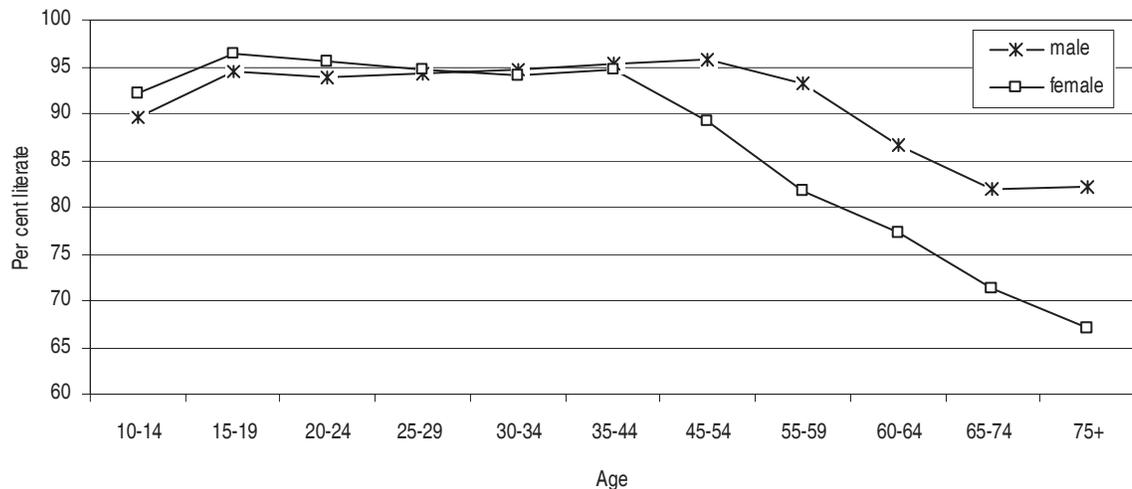
The reported literacy rates declined by 1.5 percentage points between 1994 and 2000 across all age groups. It is possible that higher emigration among the literate population is partly responsible for this decline.

Table 8.11. Literate Population by Age Group and Sex, FSM: 1980, 1994 and 2000.

Age groups	1980			1994			2000		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Total 10+ yrs	48,792	24,705	24,087	74,322	37,661	36,661	78,056	39,302	38,754
Percent Literate	88.9	90.3	87.6	93.9	94.8	93.0	92.4	92.9	91.9
10-14	87.4	87.3	87.6	93.2	92.2	94.3	90.7	89.6	92.1
15-19	91.6	91.5	91.7	96.3	96.2	96.5	95.4	94.5	96.4
20-24	93.1	93.4	92.8	96.5	96.2	96.7	94.7	93.9	95.6
25-29	92.9	93.4	92.3	96.2	96.3	96.2	94.5	94.3	94.6
30-34	91.6	94.1	88.9	96.6	97.2	95.9	94.3	94.6	94.0
35-44	89.2	92.9	85.6	95.8	97.1	94.5	95.0	95.2	94.7
45-54	85.8	89.2	82.2	92.1	95.7	88.2	92.5	95.7	89.1
55-59	83.7	87.1	80.3	88.1	93.5	82.8	87.2	93.2	81.8
60-64	82.0	84.7	79.1	83.5	87.8	79.0	81.7	86.5	77.3
65-74	78.5	83.4	73.6	80.4	85.7	75.7	76.2	81.8	71.2
75+	72.3	73.7	70.7	75.7	82.7	70.4	73.7	82.0	67.1

Source: 1980 TTPI Census, Table 29; 1994 FSM Census, Table P42; 2000 FSM Census, Table P2-13.

Figure 8.4. Literacy rates by sex, FSM: 2000



Literacy rates declined in Chuuk and Pohnpei between 1994 and 2000 (Table 8.12). In 2000, the literacy rate was highest in Kosrae at 99 percent, followed by Pohnpei (at 96 percent) and Yap (at 92 percent). Chuuk had the lowest literacy rate, at 89 percent. Chuuk and Yap mainly showed lower literacy rates in the older ages (above 45 years).

Table 8.12. Literate Population by Age Group and State, FSM: 1994 and 2000.

Age group	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Persons 10+ years	74,322	8,245	36,779	23,981	5,317	78,056	8,508	38,943	24,898	5,707
Percent literate	93.9	91.2	91.9	96.7	98.7	92.4	92.3	89.3	95.8	99.4
10 to 14 years	93.2	89.5	91.5	96.1	99.5	90.7	90.6	88.5	92.3	99.5
15 to 19 years	96.3	97.3	94.6	98.0	99.2	95.4	98.4	92.7	97.8	99.9
20 to 24 years	96.5	96.7	95.0	98.1	99.3	94.7	97.5	91.7	97.6	99.5
25 to 29 years	96.2	96.6	94.7	97.7	99.4	94.5	97.4	91.6	97.5	98.8
30 to 34 years	96.6	97.5	95.3	97.6	99.0	94.3	96.7	90.9	97.4	99.2
35 to 44 years	95.8	94.4	94.6	97.6	98.3	95.0	96.7	92.2	97.3	99.4
45 to 54 years	92.1	83.7	89.5	97.2	98.9	92.5	89.0	89.6	96.7	99.0
55 to 59 years	88.1	79.6	84.6	94.3	97.2	87.2	75.2	82.0	94.8	99.4
60 to 64 years	83.5	74.2	79.9	89.9	94.6	81.7	76.0	74.1	91.1	99.3
65 to 74 years	80.4	70.7	75.2	89.1	97.4	76.2	67.1	68.4	86.6	98.9
75 yrs & over	75.7	61.2	69.0	90.0	89.7	73.7	65.5	67.1	84.0	99.0

Source: 1994 FSM Census, Table P42; 2000 FSM Census, Table P2-13.

Vocational Training

Data on vocational training provide an insight to the potential skilled manpower trained outside of the formal education system and help determine the need for job training programs. Vocationally trained persons include those who completed the requirements for vocational training at trade school, business school, or other kinds of institution for the purpose of occupation. Table 8.13 summarizes data on vocational trained persons in the FSM in 1980, 1994 and 2000. About 11 to 12 percent of all adults aged 15 years and over had completed vocational training in the last two census years, an increase of about 4 to 5 percentage points since 1980. The peak of vocational training in 1980 was about 11 percent in the age groups 25 to 44 years. In 2000, the peak reached about 20 percent, for the age group 45 to 54 years. The late peak shows, among other things, that the population in the older age groups had more opportunity to pursue vocational training and skills development.

Table 8.13: Vocational Training by Age Group, FSM: 1980, 1994 and 2000

	Total	Age group					
		15-24	25-34	35-44	45-54	55-64	65+
1980							
Total 16 to 64 years	35,010	12,558	9,615	5,055	4,393	3,389	...
Percent Completed	7.2	4.3	10.6	10.6	7.4	3.3	...
1994							
Total 15+ years	59,573	21,079	13,661	11,150	5,798	4,090	3,795
Percent Completed	11.8	5.4	13.8	18.6	19.6	13.2	6.2
2000							
Total 15+ years	63,836	22,762	14,092	11,574	7,856	3,631	3,921
Percent Completed	10.6	3.7	12.1	16.4	19.5	15.5	6.7

Source: 1980 TTPI Census, Table 22; 1994 FSM Census, Table P42; 2000 FSM Census, Table P2-13.

Conclusion

School attendance as well as educational attainment in the FSM had been improving for some time. School attendance generally increased from about 19,000 in 1973 to nearly 32,000 in 2000. Among the population 25 years and over, the proportion of the population with no schooling decreased from about 25 percent in 1973 to about 12 percent in 2000. The proportion of the population with at least a high school education increased from about 25 percent to nearly 51 percent between 1980 and 2000. The difference between males and females in educational attainment, though significant for the older generation, became insignificant for the younger generations.

Educational attainment for males in the FSM exceeded the attainment of females at all levels of schooling, except elementary. This pattern held for males aged 30 years and over as well. The proportion of males with bachelor's or higher degrees declined between 1994 and 2000, particularly for ages 25 to 54.

In 2000, the proportion of drop-outs was quite high throughout the FSM starting at ages 14 and 15 years. This was, in part, due to dropouts beyond the primary level of education and lack of access to high school and university education.

CHAPTER 9 ECONOMIC ACTIVITY

Introduction

The changing economy of the FSM creates a demand for data on labor force characteristics and job activities. The following chapters provide insight into the adjustment the FSM is making as it moves from a subsistence oriented to a cash oriented economy. Information on economic activity, industries and occupations, and income are presented in the next three chapters.

The potential labor force in the FSM, defined as the population of working age (15 years and above), accounted for 63,836 persons, or 60 percent of the FSM population, at the time of the census in 2000. Many of the potential contributors to national production were not in the labor force because they were students, house makers looking after children, or retired. More than half of the working age population was currently working, or seeking work in the government, the private sector, or the subsistence or traditional sectors.

Definitions

In order to determine the current labor force status all respondents aged 15 years and over were asked whether they did any 'work' in the week before the census, including full-time or part-time work. Work also included full-time and part-time work in a family farm or business, with or without pay. Work did not include unpaid volunteer work. The series of questions on employment status were designed to identify several types of individuals in the FSM: persons who worked at a job or business or farm at any time during the reference week; persons who did not do such work during the reference week, but who had jobs or businesses from which they were temporarily absent; and persons who did not work during the reference week, but who were looking for work during the reference week.

The labor force included the employed work force as well as the unemployed. The total employed labor force was made up of a number of constituent groups, including persons who worked full- or part-time at a job or business, and persons who worked mainly in farming or fishing during the reference week regardless of whether any of their produce was sold or not. The latter group has been classified in agriculture and fishing and further sub-classified as market oriented and subsistence.

A person was described as a subsistence worker if he/she mainly farmed or fished in the week before the census without selling, or intending to sell, any produce. Persons who did only some subsistence, but mainly worked at another job in the week before the census were not included in this group. Persons who farmed or fished and sold some of their produce were also in the agricultural/fishing group but were categorized as market oriented.

Unemployed persons included persons who were not employed and were looking and available for work in the four weeks preceding the census.

The economically inactive working age population, those not in the labor force, were working age persons not classified as being employed or unemployed. A special group of inactive persons were those who were not employed nor looking for work but who said they could have taken a job if one had been offered to them. These persons were categorized as "could have taken a job".

Labor force participation rates (LFPR) were calculated by dividing the number of persons in the labor force by the potential labor force of the group. For example LFPR for women aged 15 to 19 would be calculated by dividing the number of women both employed and unemployed by the total number of women aged 15 to 19 and multiplying by 100 to make it a percentage.

Unemployment rates, on the other hand, are calculated by dividing the number of persons unemployed by the number of persons in the labor force and again multiplying by 100 to make it a percentage.

The current work force includes both formal workers and agricultural and fishing workers. The formal work force includes all persons at a paid job. Current workers are only those persons who responded about their jobs in the week before the census. Persons sick or temporarily absent from a job were not included in the current work force.

Limitations and comparability. The above definitions follow the recommendations of the Conference of Labor Statisticians and the global and regional recommendations of the United Nations International Labor Organization (ILO). The definitions differ from the U.S. Bureau of the Census labor force definitions in two ways. First the U.S. definition of labor force does not include subsistence, while the ILO definition does; the second difference is that the age limit in the U.S. is usually for persons aged 16 and over, while ILO uses ages 15 and over. The two methods result in different labor force participation rates and unemployment rates. Although the ILO method is presented in this chapter, a table based on the U.S. definitions is presented in the basic tables section of this report (Table B15).

The question for classifying persons in subsistence agriculture and fishing activities into the 'subsistence' and 'market oriented' subgroups differed slightly between 1994 and 2000. The 1994 Census classified persons according to the primary purpose (pure subsistence or market oriented) of the main type of subsistence activity (fishing, gardening, etc.), allowing for only the main activity to be captured. In 2000, the question allowed for multiple answers, but did not distinguish between main and secondary activities and classified persons who 'sold any' as market orientated. Thus, a subsistence worker mainly engaged in gardening for home consumption who sometimes fished to sell would be classified as a pure subsistence worker according to 1994 definitions. In 2000 however, he/she would be classified as a market-oriented worker.

Analysis of Economic Activity Data

Labor Force Participation

Table 9.1 reports that the total population of working age in the FSM in year 2000 was 63,836, of whom 37,414, or about 59 percent were in the labor force. Of these a total of 29,175 were classified as employed, including 13,959 persons engaged in a formal job or business. A further 15,216 persons were engaged in farming and fishing, of whom 10,624 were involved in 'subsistence' activities only, not selling or intending to sell any of their produce, and 4,592 were classified as 'market-oriented' farmers and fishermen. This result illustrates the importance of the subsistence sector in the FSM and the need to include subsistence workers in the labor force definition to reflect their contribution to the domestic production of the country. The remaining 8,239 persons in the labor force were unemployed.

The number of persons in formal work actually declined from 14,381 in 1994 (24 percent of the working age population) to 13,959 in 2000 (22 percent of the working age population). This suggests a lack of opportunity for formal employment in the FSM economy. Of the increasing number of people active in subsistence and market orientated agriculture and fishing, many might prefer formal work if it were available.

A comparison of work status by state shows variations among the states. In 2000, Yap had the highest portion of the working age population in the labor force (72 percent) while Kosrae had the lowest portion (48 percent). Yap had the highest proportion of employed persons as well, reflecting higher participation in formal work and the traditional involvement of Yapese females in subsistence farming (see Table B14). About 11 percent of the working age population in Kosrae were not looking for a job in the 4 weeks before the census, but could have taken one if it had been offered. Yap, Chuuk and Pohnpei had a smaller portion of working age persons, at 4 percent or less, who could have taken a job but were not looking. The comparisons of unemployment rates, labor force participation rates and subsistence between the states are discussed later in this chapter.

Table 9.1. Distribution of Working Age Population by State, FSM: 1994 and 2000

	1994					2000				
	FSM	Yap	Chuuk	Pohnpei	Kosrae	FSM	Yap	Chuuk	Pohnpei	Kosrae
Persons 15+ years	59,573	6,754	29,068	19,500	4,251	63,836	7,153	31,587	20,468	4,628
Labor Force	25,972	3,733	11,140	9,020	2,079	37,414	5,174	18,192	11,816	2,232
Employed	21,756	3,365	8,922	7,703	1,766	29,175	4,964	11,979	10,368	1,864
Formal Work	14,381	2,083	5,373	5,539	1,386	13,959	2,570	4,546	5,375	1,468
Agriculture/Fish	7,375	1,282	3,549	2,164	380	15,216	2,394	7,433	4,993	396
Subsistence	5,874	1,249	3,119	1,408	98	10,624	2,234	5,134	3,058	198
Market oriented	1,501	33	430	756	282	4,592	160	2,299	1,935	198
Unemployed	4,216	368	2,218	1,317	313	8,239	210	6,213	1,448	368
Not in Labor Force	33,601	3,021	17,928	10,480	2,172	26,422	1,979	13,395	8,652	2,396
Could have taken a job	6,125	391	3,335	1,645	754	2,280	146	795	819	520
Not available for work	27,476	2,630	14,593	8,835	1,418	24,142	1,833	12,600	7,833	1,876
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In Labor Force	43.6	55.3	38.3	46.3	48.9	58.6	72.3	57.6	57.7	48.2
Employed	36.5	49.8	30.7	39.5	41.5	45.7	69.4	37.9	50.7	40.3
Formal Work	24.1	30.8	18.5	28.4	32.6	21.9	35.9	14.4	26.3	31.7
Agriculture/Fish	12.4	19.0	12.2	11.1	8.9	23.8	33.5	23.5	24.4	8.6
Subsistence	9.9	18.5	10.7	7.2	2.3	16.6	31.2	16.3	14.9	4.3
Market oriented	2.5	0.5	1.5	3.9	6.6	7.2	2.2	7.3	9.5	4.3
Unemployed	7.1	5.4	7.6	6.8	7.4	12.9	2.9	19.7	7.1	8.0
Not in Labor Force	56.4	44.7	61.7	53.7	51.1	41.4	27.7	42.4	42.3	51.8
Could have taken a job	10.3	5.8	11.5	8.4	17.7	3.6	2.0	2.5	4.0	11.2
Not available for work	46.1	38.9	50.2	45.3	33.4	37.8	25.6	39.9	38.3	40.5

Source: 1994 FSM Census, Table P26; 2000 FSM Census, Table P2-14

The participation of females in the labor force differed from the participation of males (see table 9.2). About 67 percent of the males in the FSM were in the labor force and about 50 percent of the females. Males were almost twice as likely as females to be in formal work but were no more likely than women to be working in agriculture and fishing. About 29 percent of males and 14 percent of females were in formal work and about 24 percent of both males and females were working in agriculture and fishing. The majority of the unemployed persons were males while a majority of persons not in the labor force were females. The representation of women in the labor force increased from 34 to 43 percent between 1994 and 2000. This largely reflected the increased participation of women in agriculture and fishing, from 29 to 50 percent. The representation of women in formal work only increased from 30 to 33 percent.

Table 9.2. Distribution of Working Age Population by Sex, FSM: 1994 and 2000

	1994						2000					
	Number			Percent		Percent female	Number			Percent		Percent female
	Total	Males	Females	Males	Females		Total	Males	Females	Males	Females	
Persons 15+ years	59,573	30,127	29,446	30,127	29,446	49.4	63,836	31,821	32,015	31,821	32,015	50.2
Percent	...	...	...	100.0	100.0	...	...	...	...	100.0	100.0	...
Labor Force	25,972	17,098	8,874	56.8	30.1	34.2	37,414	21,376	16,038	67.2	50.1	42.9
Employed	21,756	15,265	6,491	50.7	22.0	29.8	29,175	16,957	12,218	53.3	38.2	41.9
Formal Work	14,381	10,016	4,365	33.2	14.8	30.4	13,959	9,343	4,616	29.4	14.4	33.1
Agriculture/Fish	7,375	5,249	2,126	17.4	7.2	28.8	15,216	7,614	7,602	23.9	23.7	50.0
Subsistence	5,874	3,987	1,887	13.2	6.4	32.1	10,624	4,837	5,787	15.2	18.1	54.5
Market oriented	1,501	1,262	239	4.2	0.8	15.9	4,592	2,777	1,815	8.7	5.7	39.5
Unemployed	4,216	1,833	2,383	6.1	8.1	56.5	8,239	4,419	3,820	13.9	11.9	46.4
Not in Labor Force	33,601	13,029	20,572	43.2	69.9	61.2	26,422	10,445	15,977	32.8	49.9	60.5
Could have taken a job	6,125	1,931	4,194	6.4	14.2	68.5	2,280	856	1,424	2.7	4.4	62.5
Not available for work	27,476	11,098	16,378	36.8	55.6	59.6	24,142	9,589	14,553	30.1	45.5	60.3

Source: 1994 FSM Census, Table P26; 2000 FSM Census, Table P2-14.

Table 9.3 portrays the distribution of the labor force by sex across the four FSM states. Reflecting its large population size, Chuuk was responsible for 49 percent of the FSM's total labor force, followed by Pohnpei with 32 percent, Yap with 14 percent, and Kosrae with 6 percent in 2000.

Women's largest contribution to a state labor force occurred in Yap, where 52 percent of the work force were females. Women's smallest contribution occurred in Kosrae, where only 38 percent of the work force were females.

Table 9.3. Labor Force Distribution by Sex and State, FSM: 1994 and 2000.

Persons in Labor Force	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Number	25,972	3,733	11,140	9,020	2,079	37,414	5,174	18,192	11,816	2,232
Percent by state	100.0	14.4	42.9	34.7	8.0	100.0	13.8	48.6	31.6	6.0
Males	17,098	2,049	7,557	6,035	1,457	21,376	2,493	10,568	6,938	1,377
Females	8,874	1,684	3,583	2,985	622	16,038	2,681	7,624	4,878	855
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Males	65.8	54.9	67.8	66.9	70.1	57.1	48.2	58.1	58.7	61.7
Females	34.2	45.1	32.2	33.1	29.9	42.9	51.8	41.9	41.3	38.3

Source: 1994 FSM Census, Table P26; 2000 FSM Census, Table P2-14.

Table 9.4, Figures 9.1 and 9.2 report labor force participation rates (LFPR) by age and sex. The overall labor force participation rate increased from 44 in 1994 to 59 percent in 2000. A large increase occurred for both sexes but was greater among the females (20 percentage points) than among the males (10 percentage points). However, the LFPR continued to be significantly higher for males (67 percent) than for females (50 percent). The LFPR followed a standard pattern by age; low for the youngest age group (ages 15 to 19) who were likely to be at school, and rising to peak at ages 35 to 49 for men and 30 to 39 for women. For females the peak was at a lower age, partly because of historical factors; women were traditionally not in the labor force and so they joined the labor force more recently than men, hence the age of working women tends to be younger. The LFPRs remained reasonably high until age 60 and then they dropped.

Table 9.4. Labor Force Participation Rates (Percent of Population 15+ years in the Labor Force) by Age and Sex, FSM: 1994 and 2000

Age group	1994			2000		
	FSM	Males	Females	FSM	Males	Females
Persons 15+ years in labor force	43.6	56.8	30.1	58.6	67.2	50.1
15-19	18.1	21.6	14.2	32.7	36.3	29.1
20-24	43.3	50.8	36.1	59.6	64.9	54.0
25-29	52.2	66.8	37.9	69.4	78.1	61.1
30-34	56.4	74.3	38.5	73.4	84.1	63.4
35-39	61.6	80.3	42.4	75.7	86.3	65.1
40-44	64.0	83.1	42.9	74.9	87.5	62.0
45-49	61.2	82.5	36.3	74.1	86.8	60.6
50-54	53.1	78.7	27.9	71.8	85.2	57.6
55-59	47.7	71.5	24.8	61.0	76.2	47.3
60-64	29.7	42.6	16.1	43.9	55.7	33.1
65-69	18.9	28.4	10.0	34.8	42.8	27.8
70-74	15.1	23.3	8.0	26.9	34.6	20.3
75+	10.8	17.0	5.9	14.2	18.1	11.0

Source: 1994 FSM Census, Table P132; 2000 FSM Census, Table P9-1.

Figure 9.1 Labor Force Participation Rates, FSM: 1994 and 2000

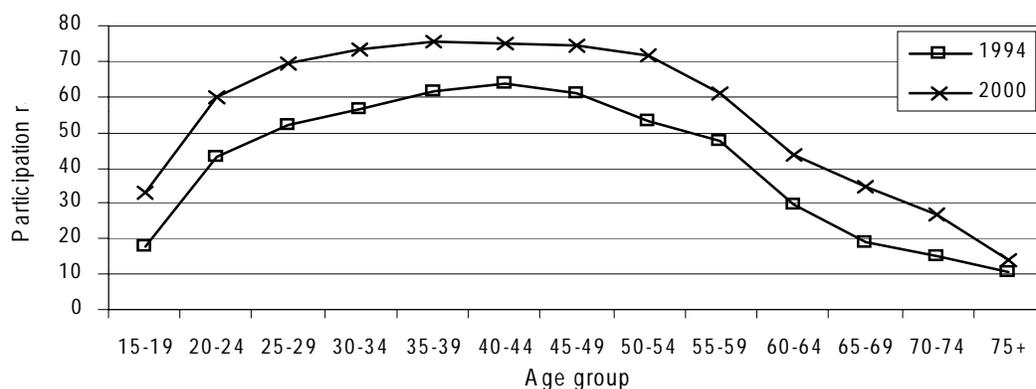
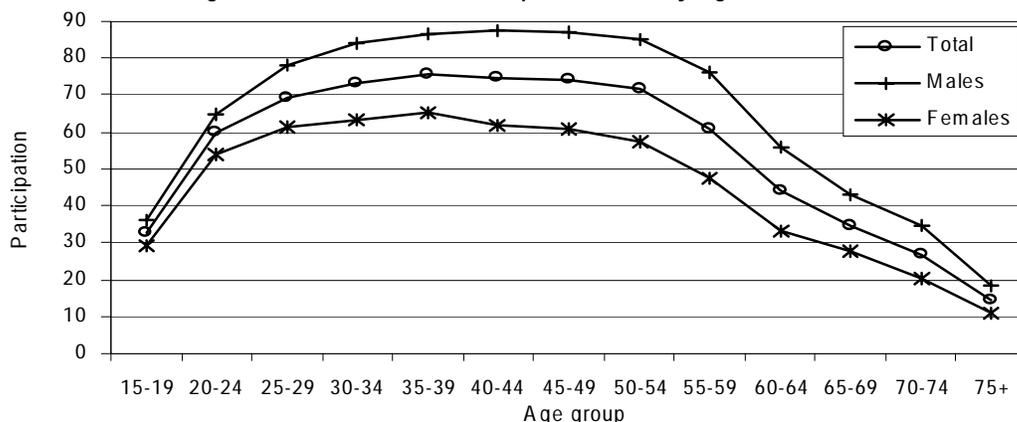


Figure 9.2. Labor Force Participation Rates by Age and Sex, FSM: 2000



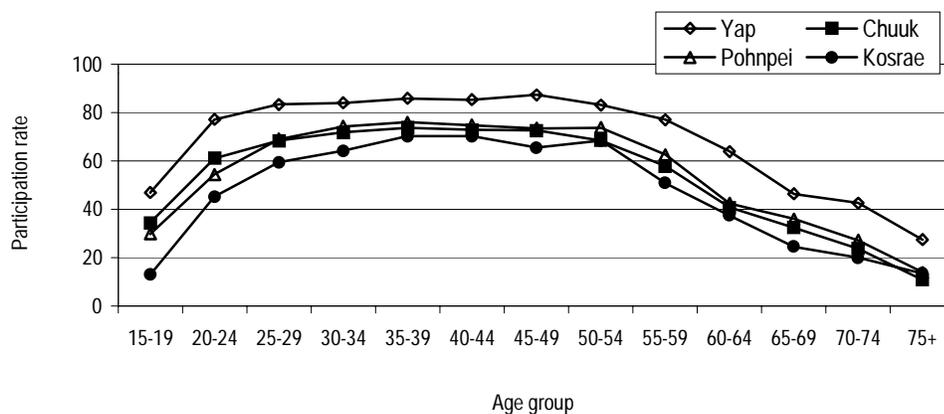
The state patterns of LFPRs follow the national trends with minor variations (Table 9.5 and Figure 9.3). Labor force participation rates increased in all the states except Kosrae between 1994 and 2000. In the year 2000, Yap had higher rates of participation than the national average at all ages, whereas Kosrae had the lowest rates.

Table 9.5. Labor Force Participation Rates (Percent of Population 15+ Years in the Labor Force) by Age and State, FSM: 1994 and 2000

Age group	1994					2000				
	FSM	Yap	Chuuk	Pohnpei	Kosrae	FSM	Yap	Chuuk	Pohnpei	Kosrae
Persons 15+ years in the labor force	43.6	55.3	38.3	46.3	48.9	58.6	72.3	57.6	57.7	48.2
15-19	18.1	19.8	18.2	18.6	10.9	32.7	46.9	34.5	29.9	13.0
20-24	43.3	65.2	35.9	45.6	53.8	59.6	77.1	61.1	54.4	45.2
25-29	52.2	60.3	43.3	59.4	67.4	69.4	83.3	68.4	69.0	59.4
30-34	56.4	69.9	47.4	61.8	69.8	73.4	84.0	71.8	74.2	64.1
35-39	61.6	77.2	54.4	65.0	65.4	75.7	85.8	73.7	76.0	70.1
40-44	64.0	76.4	58.5	66.5	68.9	74.9	85.3	72.7	74.8	70.1
45-49	61.2	71.6	56.2	63.4	68.2	74.1	87.3	72.5	73.4	65.5
50-54	53.1	63.3	48.5	55.2	54.9	71.8	83.0	68.4	73.7	68.3
55-59	47.7	58.0	43.6	52.9	38.5	61.0	77.0	57.8	62.5	50.8
60-64	29.7	41.9	30.0	26.7	20.8	43.9	63.8	40.7	42.5	37.5
65-69	18.9	27.1	16.1	22.2	7.6	34.8	46.4	32.5	36.0	24.6
70-74	15.1	24.4	12.3	16.3	12.0	26.9	42.6	23.8	27.2	20.0
75+	10.8	14.7	8.7	13.0	6.4	14.2	27.4	10.8	14.0	13.5

Source: 1994 FSM Census, Table P132; 2000 FSM Census, Table 9-1.

Figure 9.3. Labor Force Participation Rates by Age and State, FSM: 2000



Unemployment

The measurement of unemployment is problematic in a country such as the FSM, partly because the way in which unemployment is defined has a significant impact. In line with the presentation of this chapter using the ILO labor force definitions, this section presents unemployment using the ILO definition. However, there are issues that should be carefully considered in the FSM situation. For example, people will not be classified as unemployed if they want paid work but are not actively looking for work. Also, people who are involved in subsistence work are defined as working and are not counted as unemployed, even if they are actively looking for paid work. Under US definitions people in subsistence work are classified as 'not in the labor force', which results in higher unemployment rates. People involved in 'market orientated' subsistence are classified as working and therefore cannot be unemployed under both definitions. Given these issues it is useful to look beyond strict definitions of unemployment and also consider the information on underemployment and subsistence activity in the following sections.

Using the ILO definition the unemployment rate is calculated as the number of persons who were not working and were actively looking for work, divided by the number of persons in the labor force, multiplied by 100. Rates of unemployment by age and sex are reported in Table 9.6. According to the 2000 FSM Census, the nation's unemployment rate was 22 percent, an increase from 16 percent in 1994. The female unemployment rate (at 24 percent), was 3 percentage points higher than their male counterparts at 21 percent. Youth (ages 15 to 19) unemployment in the FSM was evident in both years: youth had the highest unemployment rates. Unemployment was above the national average for all ages below 30. Unemployment in general was age related, with the rates declining as age rose. With few exceptions, female unemployment was higher than male at every age group in both years.

Table 9.6. Unemployment Rates (Percent of Labor Force Unemployed) by Age and Sex, FSM: 1994 and 2000

Age group	1994			2000		
	FSM	Males	Females	FSM	Males	Females
Total	16.2	10.7	26.9	22.0	20.7	23.8
15-19	37.4	30.8	48.3	36.3	35.9	36.9
20-24	29.9	20.8	42.3	34.3	34.2	34.4
25-29	18.2	12.2	28.4	27.9	26.7	29.4
30-34	13.0	8.9	20.9	21.7	19.8	24.0
35-39	10.3	6.8	17.0	18.5	16.1	21.7
40-44	8.8	4.2	18.7	13.6	12.7	14.8
45-49	7.2	4.0	15.7	12.0	10.2	14.9
50-54	6.9	3.6	16.0	9.8	8.9	11.2
55-59	7.1	4.3	14.7	6.8	6.9	6.8
60-64	8.8	5.3	18.6	5.4	4.8	6.4
65-69	11.4	7.4	21.9	6.0	6.4	5.5
70-74	9.7	9.8	9.4	3.7	5.7	0.9
75+	7.9	6.9	10.3	3.4	2.6	4.5

Source: 1994 FSM Census, Table P132; 2000 FSM Census, Table P9-1.

Table 9.7 illustrates the widely reported differences in unemployment rates among the states. The unemployment rate increased in Chuuk and Kosrae while it decreased in Yap and Pohnpei. Chuuk state had consistently high unemployment rates. This result is indicative of the poor employment and income earning opportunities available in Chuuk. Yap had the lowest unemployment rates in the FSM because of its high subsistence rates.

Table 9.7. Unemployment Rates (Percent of Labor Force Unemployed) by Age, Sex, and State, FSM: 1994 and 2000

Age group	1994					2000				
	FSM	Yap	Chuuk	Pohnpei	Kosrae	FSM	Yap	Chuuk	Pohnpei	Kosrae
Total	16.2	9.9	19.9	14.6	15.1	22.0	4.1	34.2	12.3	16.5
15-19	37.4	13.7	40.0	39.4	54.1	36.3	6.3	50.5	24.3	45.1
20-24	29.9	33.3	33.4	24.2	30.2	34.3	8.0	49.8	19.4	31.9
25-29	18.2	7.8	22.2	17.3	17.8	27.9	4.6	42.5	14.4	14.9
30-34	13.0	5.2	18.0	11.1	10.7	21.7	2.9	34.0	12.3	15.8
35-39	10.3	4.4	14.8	8.4	6.5	18.5	2.3	30.8	9.4	12.5
40-44	8.8	2.5	12.3	7.0	8.9	13.6	2.9	22.0	7.5	10.8
45-49	7.2	3.7	9.3	5.8	6.5	12.0	2.9	19.3	6.4	7.9
50-54	6.9	3.7	8.1	7.3	4.5	9.8	3.0	14.5	5.2	12.7
55-59	7.1	4.1	7.8	6.4	11.6	6.8	2.9	10.8	3.3	8.7
60-64	8.8	4.8	10.6	7.0	16.1	5.4	0.7	7.4	3.1	14.8
65-69	11.4	2.4	15.9	7.8	50.0	6.0	1.0	7.7	5.0	13.8
70-74	9.7	-	12.0	11.1	22.2	3.7	-	7.0	2.2	-
75+	7.9	-	14.3	4.3	20.0	3.4	-	7.4	1.8	-

Source: 1994 FSM Census, P132; 2000 FSM Census, Table P9-1.

Table 9.8 reports on the last work experience of unemployed persons in the FSM, according to their age and sex. These respondents were asked for the year in which they last worked at a job, business or farm, even for a few days. Almost 92 percent of the unemployed had not previously worked, increased by 12 percentage points since 1994. No pattern was noticeable by age; however in general, unemployed females were slightly more likely to have had work experience.

Table 9.8. Unemployed Persons by Age and Previous Work Experience, FSM: 1994 and 2000

Age	1994									2000								
	Unemployed			Proportion who worked in 1994 or earlier			Proportion who have never worked			Unemployed			Proportion who worked in 2000 or earlier			Proportion who have never worked		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
Persons																		
15+ yrs	4,216	1,833	2,383	20.9	22.4	19.8	79.1	77.6	80.2	8,239	4,419	3,820	8.4	9.9	6.8	91.6	90.1	93.2
15-19	827	427	400	8.9	9.1	8.8	91.1	90.9	91.3	1,575	880	695	1.4	1.6	1.2	98.6	98.4	98.8
20-24	1,144	456	688	28.3	19.5	34.2	71.7	80.5	65.8	1,946	1,085	861	6.4	7.1	5.5	93.6	92.9	94.5
25-29	670	286	384	19.4	26.6	14.1	80.6	73.4	85.9	1,471	769	702	7.7	9.2	6.0	92.3	90.8	94.0
30-34	484	220	264	22.5	24.5	20.8	77.5	75.5	79.2	1,031	520	511	10.5	13.5	7.4	89.5	86.5	92.6
35-39	385	169	216	20.5	30.8	12.5	79.5	69.2	87.5	843	416	427	10.3	11.8	8.9	89.7	88.2	91.1
40-44	287	93	194	18.5	31.2	12.4	81.5	68.8	87.6	564	311	253	16.8	18.6	14.6	83.2	81.4	85.4
45-49	157	63	94	27.4	39.7	19.1	72.6	60.3	80.9	415	212	203	14.5	18.4	10.3	85.5	81.6	89.7
50-54	81	31	50	33.3	48.4	24.0	66.7	51.6	76.0	226	126	100	26.1	31.7	19.0	73.9	68.3	81.0
55-59	71	32	39	26.8	40.6	15.4	73.2	59.4	84.6	79	47	32	22.8	25.5	18.8	77.2	74.5	81.3
60-64	52	23	29	25.0	39.1	13.8	75.0	60.9	86.2	41	22	19	12.2	18.2	5.3	87.8	81.8	94.7
65-69	30	14	16	23.3	28.6	18.8	76.7	71.4	81.3	31	19	12	9.7	10.5	8.3	90.3	89.5	91.7
70-74	18	13	5	22.2	30.8	-	77.8	69.2	100.0	10	9	1	20.0	22.2	-	80.0	77.8	100.0
75+	10	6	4	10.0	16.7	-	90.0	83.3	100.0	7	3	4	-	-	-	100.0	100.0	100.0

Source: 1994 and 2000 FSM Censuses, unpublished data.

Persons who have been unemployed for a year or more are sometimes referred to as the long-term unemployed. They often find job search success difficult because their work-skills would have depreciated. Of course, it is not appropriate to label all of these persons as the long-term unemployed since, although they are currently unemployed, we do not know for how much of the time since they last worked have they been seeking work.

Under-employment

Table 9.9 gives a more comprehensive indication of the extent of underemployment in the FSM beyond the ILO definitions. As well as the 8,239 persons unemployed, a further 3,509 persons working in agriculture and fishing were actively looking for work. The total number of persons looking for work more than doubled between 1994 and 2000. Additionally a further 4,469 persons could have taken a job if one were available. About half of these were working in subsistence or market orientated agriculture, while the other half were not in the labor force. The 'could have taken a job' group category had reduced since 1994, perhaps suggesting that people are more likely to be actively looking for work than previously. Chuuk state in particular showed a strong shift towards actively looking for work.

Table 9.9: Underemployment by State, FSM: 1994 and 2000

	1994					2000				
	FSM	Yap	Chuuk	Pohnpei	Kosrae	FSM	Yap	Chuuk	Pohnpei	Kosrae
Persons aged 15+ years	59,573	6,754	29,068	19,500	4,251	63,836	7,153	31,587	20,468	4,628
In formal work	14,381	2,083	5,373	5,539	1,386	13,959	2,570	4,546	5,375	1,468
Looking for work	5,726	499	3,153	1,723	351	11,748	390	8,768	2,155	435
Unemployed	4,216	368	2,218	1,317	313	8,239	210	6,213	1,448	368
Subsistence agriculture and fishing	1,251	122	847	260	22	3,393	179	2,471	683	60
Market Orientated agriculture and fishing	259	9	88	146	16	116	1	84	24	7
Could have taken a job	7,955	896	4,227	2,020	812	4,469	655	1,555	1,636	623
Subsistence agriculture and fishing	1,613	502	791	274	46	1,126	452	311	341	22
Market Orientated agriculture and fishing	217	3	101	101	12	1,063	57	449	476	81
Not in the labor force	6,125	391	3,335	1,645	754	2,280	146	795	819	520
Total available for work	33,788	3,977	15,906	11,005	2,900	41,924	4,005	23,637	11,321	2,961
Not in labor force and not available for work	31,511	3,276	16,315	10,218	1,702	33,660	3,538	16,718	11,302	2,102

Source: 1994 and 2000 FSM censuses, unpublished data

Labor Force Status by Citizenship

Table 9.10 examines the distribution of the working age population by labor force status and citizenship. About 2 percent of the working age population were not FSM citizens in 2000, compared to 4 percent in 1994. Foreigners numbered 870 in the national labor force, making up 3 percent of the labor force. The largest group of foreign workers hailed from Asian countries, particularly the Philippines and China, followed by the U.S. A smaller portion of the non-FSM population was outside the labor force than the FSM population. The unemployment rate for non-FSM-citizens was lower than the national average.

Table 9.10. Labor Force Status by Citizenship, FSM: 1994 and 2000.

Citizenship	1994								2000							
	In the Labor Force				Not in the LF				In the Labor Force				Not in the LF			
	Persons 15+ yrs	Num- ber	Employed Number	% of LF	Unemployed Number	% of LF	Num- ber	Per- cent	Persons 15+ yrs	Num- ber	Employed Number	% of LF	Unemployed Number	% of LF	Num- ber	Per- cent
Persons 15+ yrs	59,573	25,972	21,756	36.5	4,216	16.2	33,601	56.4	63,836	37,414	29,175	78.0	8,239	22.0	26,422	41.4
FSM	57,186	24,242	20,203	35.3	4,039	16.7	32,944	57.6	62,683	36,544	28,330	77.5	8,214	22.5	26,139	41.7
Male	28,422	15,750	13,925	49.0	1,825	11.6	12,672	44.6	31,137	20,808	16,403	78.8	4,405	21.2	10,329	33.2
Female	28,764	8,492	6,278	21.8	2,214	26.1	20,272	70.5	31,546	15,736	11,927	75.8	3,809	24.2	15,810	50.1
Non-FSM	2,387	1,730	1,553	65.1	177	10.2	657	27.5	1,153	870	845	97.1	25	2.9	283	24.5
Males	1,705	1,348	1,340	78.6	8	0.6	357	20.9	684	568	554	97.5	14	2.5	116	17.0
USA	220	149	148	67.3	1	0.7	71	32.3	192	149	144	96.6	5	3.4	43	22.4
Asia	1,275	1,083	1,077	84.5	6	0.6	192	15.1	395	352	348	98.9	4	1.1	43	10.9
Elsewhere	210	116	115	54.8	1	0.9	94	44.8	97	67	62	92.5	5	-	30	30.9
Females	682	382	213	31.2	169	44.2	300	44.0	469	302	291	96.4	11	3.6	167	35.6
USA	134	81	76	56.7	5	6.2	53	39.6	148	101	98	97.0	3	-	47	31.8
Asia	434	257	96	22.1	161	62.6	177	40.8	224	157	152	96.8	5	3.2	67	29.9
Elsewhere	114	44	41	36.0	3	6.8	70	61.4	97	44	41	93.2	3	-	53	54.6

Source: 1994 FSM Census, Table P95; 2000 FSM Census, Table P6-13.

Note: The number of unemployed as percent of the labor force is also the unemployment rate.

Labor Force Status by English Language Ability

English is the language commonly used in the public as well as much of the private sector, making it an important skill for employment. The employment rate among people with no English language skills was 73 percent, lower than those with English skills at 81 percent (Table 9.11). The unemployment rate for those with no English skills was 27 percent, higher than the national average of 22 percent. Over 45 percent of the non-English speakers were not in the labor force. The employed non-English speaking persons may be those working in elementary occupations (craft or labor related) or jobs that do not require English skills.

Table 9.11. Labor Force Status by Language Ability, FSM: 1994 and 2000

Language ability	Persons 15+ yrs	1994						2000								
		In the Labor Force			Not in the LF			Persons 15+ yrs	In the Labor Force			Not in the LF				
		Employed Number	Unemployed Number	% of LF	Num- ber	% of LF	Num- ber		Per- cent	Employed Number	Unemployed Number	% of LF	Num- ber	% of LF	Num- ber	Per- cent
Persons 15+ yrs	59,573	25,972	21,756	83.8	4,216	16.2	33,601	56.4	63,836	37,414	29,175	78.0	8,239	22.0	26,422	41.4
English	33,723	17,185	14,839	83.8	2,346	16.2	16,538	56.4	36,964	22,829	18,486	81.0	4,343	19.0	14,135	38.2
English only	563	312	300	96.2	12	3.8	251	44.6	247	185	183	98.9	2	1.1	62	25.1
English w/others	33,160	16,873	14,539	86.2	2,334	13.8	16,287	49.1	36,717	22,644	18,303	80.8	4,341	19.2	14,073	38.3
English as first	2,393	1,149	1,044	90.9	105	9.1	1,244	52.0	1,386	868	815	93.9	53	6.1	518	37.4
English as second	27,606	13,953	11,999	86.0	1,954	14.0	13,653	49.5	30,401	18,804	15,098	80.3	3,706	19.7	11,597	38.1
English as third	3,161	1,771	1,496	84.5	275	15.5	1,390	44.0	4,930	2,972	2,390	80.4	582	19.6	1,958	39.7
No English	25,850	8,787	6,917	78.7	1,870	21.3	17,063	66.0	26,872	14,585	10,689	73.3	3,896	26.7	12,287	45.7

Source: 1994 FSM Census, Table P139; 2000 FSM Census, Table P9-11.

Labor Force Status by Educational Attainment

Table 9.12 examines the significance of educational attainment in determining labor force status in the FSM. Those with high school education or higher had a greater probability of being in the labor force and being employed in both 1994 and 2000. The level of participation had decreased, especially for employed (from an average of 84 to 78 percent).

In the year 2000, persons with high school or higher education were less likely to be unemployed, especially those with a bachelor's degree or above who had a 1 percent unemployment rate. Some evidence exists of an emerging unemployment problem among school dropouts as high school non-graduates reported an unemployment rate of 28 percent (above the 22 percent national average). This was especially true for female dropouts. At every education level, except elementary and below, women had higher unemployment rates than their male counterparts.

Table 9.12. Educational Attainment by Labor Force Status, FSM: 1994 and 2000

Educational Attainment	1994								2000							
	In the Labor Force								In the Labor Force							
	Persons 15+ yrs	Total	Employed		Unemployed		Not in LF		Persons 15+ yrs	Total	Employed		Unemployed		Not in LF	
			Num-ber	% of LF	Num-ber	% of LF	Num-ber	Per-cent			Num-ber	% of LF	Num-ber	Per-cent		
Persons 15+ yrs	59,573	25,972	21,756	83.8	4,216	16.2	33,601	56.4	63,836	37,414	29,175	78.0	8,239	22.0	26,422	41.4
No School	12,332	3,899	3,205	82.2	694	17.8	8,433	68.4	7,109	3,556	2,501	70.3	1,055	29.7	3,553	50.0
Elementary School	17,316	6,538	5,050	77.2	1,488	22.8	10,778	62.2	21,684	12,643	9,439	74.7	3,204	25.3	9,041	41.7
H.S., no diploma	13,489	4,568	3,508	76.8	1,060	23.2	8,921	66.1	17,280	8,460	6,123	72.4	2,337	27.6	8,820	51.0
H.S. Graduate	7,571	4,663	4,079	87.5	584	12.5	2,908	38.4	7,741	5,353	4,487	83.8	866	16.2	2,388	30.8
Some College	4,361	2,622	2,327	88.7	295	11.3	1,739	39.9	5,508	3,465	2,858	82.5	607	17.5	2,043	37.1
A.S. Occupational	1,361	1,086	1,044	96.1	42	3.9	275	20.2	1,431	1,206	1,127	93.4	79	6.6	225	15.7
A.S. Academic	1,274	1,044	1,015	97.2	29	2.8	230	18.1	1,544	1,356	1,295	95.5	61	4.5	188	12.2
Bachelor degree	1,233	1,019	1,001	98.2	18	1.8	214	17.4	1,124	1,000	973	97.3	27	2.7	124	11.0
Higher degree	636	533	527	98.9	6	1.1	103	16.2	415	375	372	99.2	3	0.8	40	9.6
Males 15+ yrs	30,127	17,098	15,265	89.3	1,833	10.7	13,029	43.2	31,821	21,376	16,957	79.3	4,419	20.7	10,445	32.8
No School	5,432	2,462	2,188	88.9	274	11.1	2,970	54.7	3,137	1,920	1,298	67.6	622	32.4	1,217	38.8
Elementary School	7,661	4,098	3,457	84.4	641	15.6	3,563	46.5	9,877	6,681	4,951	74.1	1,730	25.9	3,196	32.4
H.S., no diploma	7,060	3,090	2,628	85.0	462	15.0	3,970	56.2	8,771	4,962	3,763	75.8	1,199	24.2	3,809	43.4
H.S. Graduate	4,170	2,981	2,741	91.9	240	8.1	1,189	28.5	4,005	3,037	2,599	85.6	438	14.4	968	24.2
Some College	2,601	1,748	1,592	91.1	156	8.9	853	32.8	3,066	2,124	1,793	84.4	331	15.6	942	30.7
A.S. Occupational	927	776	749	96.5	27	3.5	151	16.3	938	820	771	94.0	49	6.0	118	12.6
A.S. Academic	835	708	692	97.7	16	2.3	127	15.2	953	843	808	95.8	35	4.2	110	11.5
Bachelor degree	891	771	758	98.3	13	1.7	120	13.5	776	708	695	98.2	13	1.8	68	8.8
Higher degree	550	464	460	99.1	4	0.9	86	15.6	298	281	279	99.3	2	0.7	17	5.7
Females 15+ yrs	29,446	8,874	6,491	73.1	2,383	26.9	20,572	69.9	32,015	16,038	12,218	76.2	3,820	23.8	15,977	49.9
No School	6,900	1,437	1,017	70.8	420	29.2	5,463	79.2	3,972	1,636	1,203	73.5	433	26.5	2,336	58.8
Elementary School	9,655	2,440	1,593	65.3	847	34.7	7,215	74.7	11,807	5,962	4,488	75.3	1,474	24.7	5,845	49.5
H.S., no diploma	6,429	1,478	880	59.5	598	40.5	4,951	77.0	8,509	3,498	2,360	67.5	1,138	32.5	5,011	58.9
H.S. Graduate	3,401	1,682	1,338	79.5	344	20.5	1,719	50.5	3,736	2,316	1,888	81.5	428	18.5	1,420	38.0
Some College	1,760	874	735	84.1	139	15.9	886	50.3	2,442	1,341	1,065	79.4	276	20.6	1,101	45.1
A.S. Occupational	434	310	295	95.2	15	4.8	124	28.6	493	386	356	92.2	30	7.8	107	21.7
A.S. Academic	439	336	323	96.1	13	3.9	103	23.5	591	513	487	94.9	26	5.1	78	13.2
Bachelor degree	342	248	243	98.0	5	2.0	94	27.5	348	292	278	95.2	14	4.8	56	16.1
Higher degree	86	69	67	97.1	2	2.9	17	19.8	117	94	93	98.9	1	1.1	23	19.7

Source: 1994 FSM Census, Table P140; 2000 FSM Census, Table P9-12.

Note: The number of unemployed as a percent of the labor force is also the unemployment rate.

Work Experience

Table 9.13 provides information on those persons not in the formal work force and not currently in the labor force during the 2000 Census. More than 72 percent of the working age population had never previously worked in the formal sector. For males, 63 percent had never previously worked, while for females 80 percent had never previously worked. About 4 percent of the working age not currently in the formal labor force worked in the 5 years prior to the census.

Table 9.13. Year of Last Work for Persons Not in the Labor Force, FSM: 2000.

	Number			Percent		
	Total	Males	Females	Total	Males	Females
Persons 15+ years	63,836	31,821	32,015	100.0	100.0	100.0
Worked in 5 years prior to census	2,593	1,518	1,075	4.1	4.8	3.4
2000	267	165	102	0.4	0.5	0.3
1999	1,451	860	591	2.3	2.7	1.8
1995-98	875	493	382	1.4	1.5	1.2
1990-94	1,625	944	681	2.5	3.0	2.1
Never previously worked	45,659	20,016	25,643	71.5	62.9	80.1
Currently in the formal labor force	13,959	9,343	4,616	21.9	29.4	14.4

Source: 2000 FSM Census, unpublished data.

Subsistence Activities

Subsistence workers are persons whose sole economic work is to provide food for their own family, and sometimes give away to friends or relatives for free, but not to sell. The following section provides a more focused look at the group of persons engaged in subsistence activities in the FSM. The number of persons in subsistence almost doubled between 1994 and 2000. This increased rate of participation in subsistence activities participation confirms the importance of such activities for the livelihood of FSM households.

There are some difficulties in separating subsistence from 'market oriented' farming and fishing activities. The 2000 Census questions classified persons who 'sold any' of their produce as 'market orientated'. Thus subsistence workers who mainly fished or farmed for home consumption but who sold some of their produce will be classified as 'market orientated' in the 2000 Census. On the other hand, the question applied only to one week before the census, so people who fished and farmed for market purposes but did not sell in that week will probably be counted as subsistence. Persons who engage in significant but occasional market orientated activities such as selling pigs or seasonal crops will tend to be underestimated as a result.

The subsistence economy of the FSM showed interesting variations between states (Table 9.14). The numbers in year 2000 reveal that Yap had the highest proportion working in subsistence (31 percent), followed by Chuuk (16 percent) and Pohnpei (14 percent). Kosrae, on the other hand, had very little subsistence activity (4 percent).

Table 9.14. Percent of Population in Subsistence Work by State, FSM: 1994 and 2000.

State	1994			2000		
	Persons 15+ years	Subsistence		Persons 15+ years	Subsistence	
		Number	Percent		Number	Percent
Total	59,573	5,874	9.9	63,836	10,624	16.6
Yap	6,754	1,249	18.5	7,153	2,234	31.2
Chuuk	29,068	3,119	10.7	31,587	5,134	16.3
Pohnpei	19,500	1,408	7.2	20,468	3,058	14.9
Kosrae	4,251	98	2.3	4,628	198	4.3

Source: 1994 FSM Census, Table P 26; 2000 FSM Census, Table P2-14.

Table 9.15 and Figure 9.4 show subsistence work in relation to age, sex and state. In general the peak ages of subsistence activity in 2000 occurred with males 15 to 29 years and females 35 to 59 years, although little fluctuation occurred by age group overall.

Yap had the largest difference between males and females in subsistence activity with almost 39 percent of females and 23 percent of males in subsistence. Fully 18 percent of women in Pohnpei were subsistence workers, unlike Kosrae where only 4 percent of the women reported being subsistence workers. Kosrae also had the fewest males in subsistence with only 5 percent reported as working mainly in farming or fishing; males in the other states

reported subsistence work at around 12 percent or more

Table 9.15. Percent of Population in Subsistence Work by Age, Sex and State, FSM: 1994 and 2000

Age group and sex	1994					2000				
	FSM	Yap	Chuuk	Pohnpei	Kosrae	FSM	Yap	Chuuk	Pohnpei	Kosrae
Total	9.9	18.9	10.7	7.2	2.3	16.6	31.2	16.3	14.9	4.3
15-19	6.7	10.5	7.7	5.2	1.2	15.0	27.5	13.3	16.6	2.7
20-24	11.1	18.2	12.5	8.3	2.4	18.7	32.6	18.2	17.8	5.1
25-29	11.8	18.5	14.3	7.8	3.4	17.3	31.1	18.4	14.5	2.6
30-34	10.7	20.6	12.5	6.7	1.7	17.6	32.2	19.3	13.5	3.2
35-39	10.7	21.7	11.3	7.7	2.5	17.3	32.5	18.1	13.6	4.3
40-44	10.7	22.5	10.6	8.8	1.3	16.2	30.4	16.0	13.9	3.9
45-49	10.3	19.2	11.2	7.5	2.8	15.0	29.3	14.7	12.7	3.0
50-54	10.3	22.8	11.6	6.7	1.5	16.3	31.8	16.3	12.8	6.4
55-59	10.9	22.4	10.1	8.6	7.3	17.5	38.9	16.8	13.8	7.2
60-64	10.4	25.8	9.4	7.9	2.0	19.1	43.4	15.9	16.8	9.0
65-69	9.7	18.1	8.4	10.4	1.3	19.3	32.9	17.6	18.1	10.2
70+	7.0	17.5	5.2	6.0	2.6	11.6	27.9	8.5	10.7	7.5
Males	13.2	13.7	16.2	11.0	3.4	15.2	23.2	17.2	11.8	4.8
15-19	9.1	5.7	11.4	8.1	1.8	16.9	26.7	16.4	17.7	4.1
20-24	16.0	15.5	18.8	13.9	4.4	18.7	27.5	20.1	16.2	6.4
25-29	17.3	14.6	22.0	13.5	6.5	15.9	22.5	20.2	9.6	3.8
30-34	14.5	15.9	19.7	9.7	2.9	14.7	19.5	20.4	7.2	2.4
35-39	13.8	13.5	17.3	11.4	3.7	13.2	21.4	16.8	7.8	3.5
40-44	12.4	12.7	14.5	11.9	1.0	12.4	19.9	15.3	7.8	2.7
45-49	11.8	14.3	15.6	8.2	1.6	9.9	15.9	12.1	6.2	2.2
50-54	13.0	16.4	16.9	9.4	3.0	10.9	18.4	12.1	7.6	5.3
55-59	13.2	17.8	14.3	11.1	8.1	12.7	22.5	14.5	8.4	7.3
60-64	14.0	25.0	14.4	12.0	3.6	19.3	37.5	16.8	17.2	13.6
65-69	15.4	19.5	13.8	18.5	2.6	20.9	32.0	19.9	18.2	17.5
70+	10.6	19.7	10.0	8.9	3.9	13.6	23.4	11.3	13.6	10.1
Females	6.4	22.9	5.2	3.3	1.1	18.1	38.5	15.3	18.1	3.7
15-19	4.0	15.2	3.5	1.9	0.5	13.0	28.2	10.1	15.4	1.1
20-24	6.4	20.0	6.1	2.8	0.4	18.7	36.7	16.0	19.4	4.0
25-29	6.4	21.6	6.3	2.4	0.0	18.6	37.6	16.6	19.4	1.5
30-34	6.9	25.1	5.5	3.6	0.0	20.2	41.6	18.1	19.3	3.7
35-39	7.6	30.0	5.3	3.7	1.3	21.3	43.1	19.4	19.6	5.1
40-44	8.9	33.7	6.4	5.1	1.7	20.2	40.3	16.6	20.5	5.1
45-49	8.4	25.8	6.4	6.6	4.7	20.4	44.7	17.3	19.9	3.8
50-54	7.6	28.5	6.3	3.9	0.0	22.1	48.6	20.4	18.4	8.0
55-59	8.7	26.5	6.2	6.1	6.5	21.8	52.4	18.9	18.7	7.1
60-64	6.6	26.5	3.8	3.7	0.0	18.9	48.7	15.0	16.4	5.1
65-69	4.5	16.7	3.9	2.2	0.0	17.9	33.6	15.6	18.0	3.3
70+	4.0	15.5	1.6	3.5	1.3	10.0	31.7	6.3	8.3	5.4

Source: 1994 FSM Census, Table P 26; 2000 FSM Census, Table P2-14.

Figures 9.4a to 9.4d display the differences in proportion of workers in subsistence activities among the states for year 2000. The differences suggest a need for independent economic and agricultural planning policies for the states.

Figure 9.4. Subsistence Workers by Sex, FSM: 2000

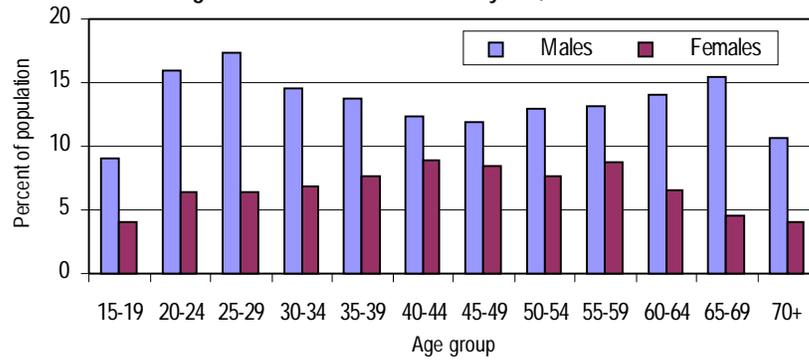


Figure 9.4a. Subsistence Workers by Sex, Yap: 2000

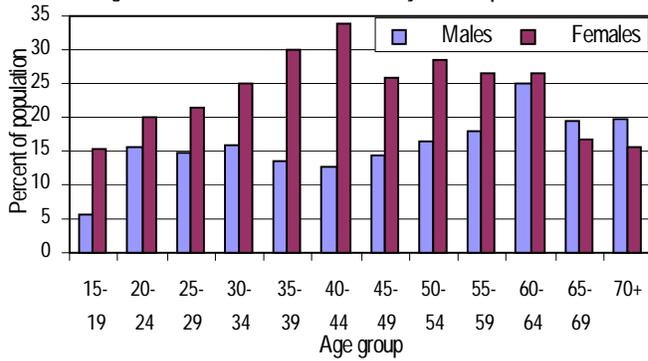


Figure 9.4b. Subsistence Workers by Sex, Chuuk: 2000

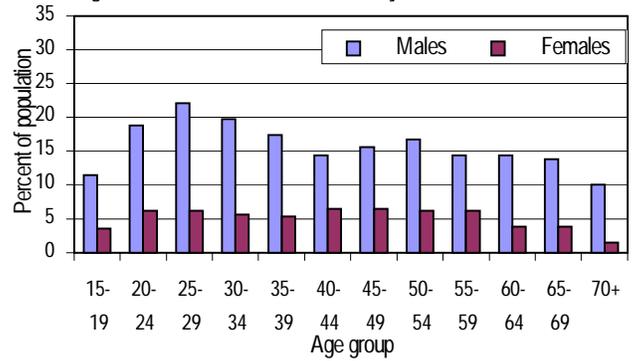


Figure 9.4c. Subsistence Workers by Sex, Pohnpei: 2000

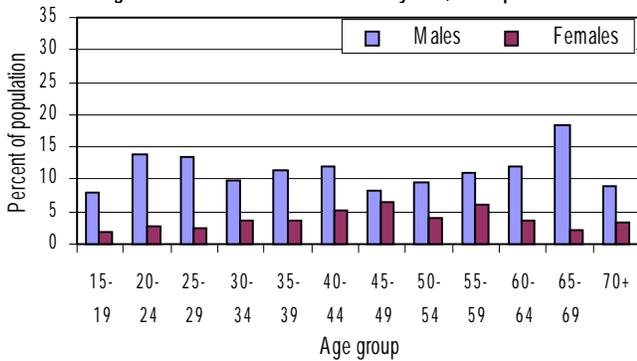


Figure 9.4d. Subsistence Workers by Sex, Kosrae: 2000

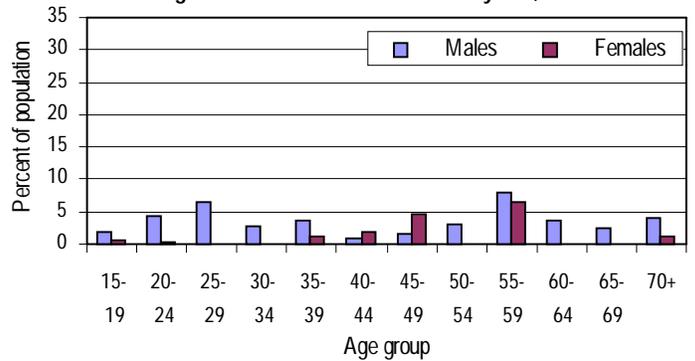


Table 9.16 shows that for most subsistence workers educational attainment was at the elementary or below level. Furthermore, those with educational attainment at or below high school level accounted for 94 percent of the subsistence labor force, and only 6 percent had college or higher education.

Table 9.16. Subsistence Activity by Educational Attainment, FSM: 1994 and 2000.

Educational Attainment	1994						2000					
	Number			Percent			Number			Percent		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
Persons in subsistence	5,874	3,987	1,887	100.0	100.0	100.0	10,624	4,837	5,787	100.0	100.0	100.0
No School	1,370	858	512	23.3	21.5	27.1	1,544	671	873	14.5	13.9	15.1
Elementary	1,195	715	480	20.3	17.9	25.4	4,670	1,825	2,845	44.0	37.7	49.2
High School, no diploma	2,046	1,480	566	34.8	37.1	30.0	2,667	1,373	1,294	25.1	28.4	22.4
High School Graduate	819	575	244	13.9	14.4	12.9	1,084	563	521	10.2	11.6	9.0
Some College	324	253	71	5.5	6.3	3.8	476	272	204	4.5	5.6	3.5
A.S. Occupational	58	49	9	1.0	1.2	0.5	75	54	21	0.7	1.1	0.4
A.S. Academic	30	29	1	0.5	0.7	0.1	74	53	21	0.7	1.1	0.4
Bachelor Degree	27	24	3	0.5	0.6	0.2	27	19	8	0.3	0.4	0.1
Professional Degree	5	4	1	0.1	0.1	0.1	7	7	...	0.1	0.1	...

Source: 1994 FSM Census, Table P113.; 2000 FSM Census

Of those persons engaged in subsistence in 2000, thirty-two (32) percent were searching for other alternative or additional work during the 4 weeks prior to the census (Table 9.17). From this figure we can assume that 32 percent of the subsistence workers would have liked cash employment instead of or in addition to their subsistence work and were therefore under-employed. However, the state of the job market was a strong factor in whether an individual was looking for a job. If no jobs were available people would not be likely to respond that they were looking, especially in small communities where the job market is limited, as was the case in the FSM. To this extent, true under-employment might be considered higher. Also 43 percent of the subsistence workers said they could have taken a job if it was offered suggesting that these people were working at lower capacity than they would prefer. These percentages, however, had declined since 1994.

Table 9.17. Subsistence Activity by Search for Cash Employment, FSM: 1994 and 2000.

	1994		2000	
	Number	Percent	Number	Percent
Persons in subsistence	5,874	100.0	10,624	100.0
Looking for work	1,251	21.3	3,393	31.9
Not looking	4,623	78.7	7,231	68.1
Could have taken a job	2,864	48.8	4,519	42.5
Could not have taken a job	3,010	51.2	6,105	57.5
Already has job	341	5.8	85	0.8
Temporarily ill	440	7.5	603	5.7
Other reason	2,229	37.9	5,417	51.0

Source: 1994 & 2000 FSM Census, unpublished data.

Market Oriented Subsistence Activities

Market-oriented workers are persons engaged in home-production activities and who occasionally or regularly sell their produce for cash. The next two tables provide a more focused look at this group of persons in the FSM. In 2000 about 7 percent of the potential labor force were market-oriented subsistence workers, an increase of 4 percentage points since 1994. All the other states, except Kosrae, experienced increase in market-oriented participation. These increases suggest the growing importance of such activities for the FSM households.

Table 9.18. Percent of Population in Market-oriented Work by State, FSM: 1994 and 2000.

State	1994				2000			
	Persons 15+ years	Market oriented		Persons 15+ years	Market oriented			
		Number	Percent		Number	Percent		
Total	59,573	1,501	2.5	63,836	4,592	7.2		
Yap	6,754	33	0.5	7,153	160	2.2		
Chuuk	29,068	430	1.5	31,587	2,299	7.3		
Pohnpei	19,500	756	3.9	20,468	1,935	9.5		
Kosrae	4,251	282	6.6	4,628	198	4.3		

Source: 1994 FSM Census, Table P 26; 2000 FSM Census, Table P2-14.

Other Labor Force Characteristics

Commuting

The 2000 FSM Census, as that of 1994, collected information on commuting (travel time, car-pooling, type of transport and hour of commute) (See appendix Table B18). The average (mean) duration of commute to work was 17 minutes. Yap had the shortest average commute of 13 minutes. Chuuk and Kosrae had about 16 and 18 minute commutes respectively. Pohnpei had the longest commute of 21 minutes. The majority of employed persons commuted in a car, truck, van or bus. A large number of people in Chuuk commuted to work by boat. In Chuuk more persons walked or went by boat than by any other vehicle.

Most people in the FSM worked in the same municipality as where they lived, however the majority did not work in the same village. Table 9.19 presents location of work by state in 1994 and 2000. In the current census, Pohnpei had the fewest persons working in the same municipality and village. Chuuk had the largest portion of persons working in the same municipality, and Kosrae had the largest proportion working in the same village. These data suggest more urbanization in Chuuk and Kosrae than the other states. Urbanization occurs when people move to the business center where jobs can be found.

Table 9.19. Location of Work Last Week by State, FSM: 1994 and 2000.

	1994			2000		
	Total in formal work force	Percent working in same municipality	Percent working in same village	Total in formal work force	Percent working in same municipality	Percent working in same village
FSM	14,381	65.8	32.5	13,959	62.4	33.4
Yap	2,083	47.3	25.5	2,570	52.0	37.6
Chuuk	5,373	86.8	42.4	4,546	82.8	37.6
Pohnpei	5,539	52.7	18.3	5,375	49.6	19.6
Kosrae	1,386	66.5	62.1	1,468	63.9	63.7

Source: 1994 FSM Census, Table B15.; 2000 FSM Census, Table B15A.

Armed forces

Only 192 persons claimed to be on active duty during the 2000 census and 207 persons were previously on duty for the U.S. armed forces (see appendix Table B13). Many of those persons on active duty were U.S. citizens from the Civil Action Teams assigned in the FSM. The number of armed forces dependents was 312.

Conclusion

The labor force in the FSM increased rapidly between 1994 and 2000. This was partly because the working age population increased from 59,573 persons to 63,836, but it mainly reflected a sharp increase in the labor force participation rate, from 44 percent in 1994 to 59 percent in 2000.

This was despite a decline in the number of people who were employed in formal work from 14,381 to 13,959 persons. Because formal work was not available, the growth in the labor force was absorbed by a large increase in the number of people active in agriculture and fishing (both subsistence and market orientated) and a rise in the number of unemployed to 8,239 persons.

About 92 percent of unemployed persons had no previous work experience, compared to 80 percent in the previous census. This increase suggested that unemployment was becoming a long-term difficulty for many persons. Persons with higher education were more likely to be employed and in the labor force than those with little or no schooling. Female unemployment rate were similar to those of males.

Subsistence activities were most common in Yap, with fully 31 percent of the working age population engaged mostly in farming and fishing for own use. Kosrae, on the other hand, had fewer persons in subsistence activities (4 percent). The substantial differences among the states suggest the need for independent planning for each state. About 43 percent of the subsistence workers said they could have taken a formal job if it was offered, suggesting that these people were working at lower capacity than they would prefer.

CHAPTER 10

INDUSTRY AND OCCUPATION

Introduction

Industry and occupation data provide information on the changes occurring in the economy and how industries change employment patterns over the years. Occupational groups classified against other characteristics show what persons hold which occupations in the FSM population. This chapter presents information collected from persons in the formal work force (not agricultural or fishing) who were currently working. Also reviewed in this chapter is the difference in employment between the private and public sectors.

In 1994 and 2000 FSM Censuses, question 28 asked for industry and question 29 for occupation for all individuals aged 15 years and over. The type of business or industry was asked along with the name of the employer in order to check the information. Industry refers to the activity of the establishment in which an economically active person worked during the reference period. The activity of the establishment refers to the kinds of goods or services produced. Occupation refers to the kind of work done during the reference period irrespective of the industry or the status (employer/employee). The occupation groups were derived from the level of skills and experience needed for the position. Examples include manager, sales person, typist, or factory worker.

The 1994 and 2000 Censuses used classifications defined by the International Labor Organization (ILO), which differed from the U.S. standard classifications. Although the differences are minor, ILO classifications are used by a majority of Pacific Island nations and are an international standard.

Data Description

Industry

Industries within the FSM have been broken down into 14 categories by the Division of Statistics and are based on the International Labor Organization's International Standard Industrial Classification (ISIC). Some of the categories have been grouped together in order to accommodate the different economic activities of the FSM.

1. The first group contains agriculture, forestry, fishing, and mining (quarrying) enterprises. This group includes all agricultural production, subsistence activities, commercial fishing, mining, and quarrying.
2. Construction enterprises contain all enterprises relating to heavy construction and special building trade contractors. Construction includes additions, alterations, reconstruction, installations, and repairs.
3. Transportation, communication, electric, gas, and sanitation services all fall in one category in the ILO breakdown; however, for the FSM this group has been broken into two groups, one group for transportation and communication and one group for electricity, gas, and sanitation services. The transportation and communication group includes all establishments that provide the general public with passenger or freight transportation services and post and telecommunication services. The other group contains the major utilities of electricity, gas, and water supply.
4. Manufacturing of durable and non-durable goods is the third category. Manufacturing is the mechanical or chemical transformation of materials or substances into new products. The category ranges in industries from fish packaging to publishing.
5. Wholesale and retail trades are combined in one group. Both groups encompass establishments involved with selling of merchandise. Wholesale implies trade to other businesses, while retail implies merchandise for personal or household consumption.
6. Financial intermediation includes establishments such as depository institutions, credit institutions, investment companies, commodity brokers, and insurance agents and brokers.

7. Hotels, restaurants and bars include enterprises that provide lodging, food, and beverages. This group contains establishments that provide short-term accommodations as well as bars, canteens, and restaurants.
8. Business, computer activities and real estate include the renting of machinery and equipment, research and development, legal activities, architect and engineering services, computer activities, and other business related activities. Real estate includes owners, lessors, lessees, buyers, sellers, agents, and developers.
9. Health and social work industries include hospitals, medical and dental facilities, veterinary activities and social work facilities.
10. Education contains all establishments that provide educational opportunities for the population.
11. Public administration consists of all government agencies and organizations, local, state, national, and international. It also includes defense establishments and compulsory social security.
12. Other community and social services includes sewage and refuse disposal, membership organizations, recreational activities, libraries, and other service activities. Private household services are also included in this final category.

Occupation

The International Standard Classification of Occupations (ISCO) breaks occupations into 10 basic categories. ISCO further aggregates occupations into 3 additional levels of detail. Responses on occupation in the 1994 and 2000 FSM Censuses were classified down to three digits in the ISCO categories. The major groups are organized by the degree of skill and experience necessary for the occupation.

The ten major groups are broken down as follows:

1. *Executives and managers*: this group contains occupations whose main tasks include formulating government policy, laws, and regulations, planning, directing and coordinating policies and activities of enterprises or organizations. Examples are judges, government department chiefs, traditional chiefs, legislators, senior management of organizations.
2. *Professionals*: this group includes occupations whose tasks require a high level of professional knowledge and experience. Tasks include increasing knowledge, applying scientific and artistic concepts and theories to the solution of problems, and teaching about the foregoing in a systematic manner. Examples include mathematicians, statisticians, geologists, computer programmers, architects, engineers, nurses, doctors, teachers for secondary level and above, accountants, lawyers, judges, and economists.
3. *Technicians and associate professionals*: this group requires technical knowledge and experience and conducts tasks carrying out technical work connected with the application of concepts and operational methods. This group includes teachers at primary level, computer troubleshooters, ships' engineer, air traffic controller, building inspectors, medical health assistants, nutritionists, and business service agents.
4. *Administrative support*: also called clerks, this group includes occupations whose main tasks are to organize, store, compute, and retrieve information. This group includes office clerks (such as secretaries and word processors, transport clerks, filing clerks) and customer service clerks (such as tellers, cashiers, client information, travel agents).
5. *Service workers*: this group includes occupations with tasks to provide services related to travel, housekeeping, catering, personal care, protection, maintaining law and order, selling goods at shops or markets. This group includes travel stewards, waiters, cooks, child-care workers, barbers, police officers, fire fighters and stall or market sales persons.

6. *Agriculture and fishing workers*: these occupations include skilled workers who grow crops, breed or hunt animals, catch or cultivate fish and conserve or exploit forests.
7. *Craft and related trades*: tasks include extracting raw materials, constructing buildings, and other structures and making various products and handicraft goods.
8. *Machine operators*: includes tasks that require the knowledge and experience necessary to operate and monitor large-scale industrial machinery and equipment.
9. *Elementary occupations and laborers*: includes persons doing simple and routine tasks involving the use of hand-held tools and physical effort. Examples are selling goods in the street, door-keeping, cleaning, working as laborers.
10. The final group is armed forces.

Class of Worker

Question 30 of the 1994 and 2000 FSM Censuses asked for information on class of worker for every individual aged 15 and above who had worked in the 5 years prior to the respective censuses. Class of worker refers to the type of ownership of the employing organization and is based on the U.S. Bureau of Census definitions. The private sector was classified into private for-profit employer, non-profit employer, self-employed, and working without pay for a family business or farm. Likewise, the public sector was classified into municipal government, state government, national government, and foreign or federal government (federal government refers to the U.S. federal government).

Analysis of Industry and Occupation Data

Industry

The number of employed persons 15 years and over declined slightly (by about 3 percent) between 1994 and 2000. Table 10.1 displays the breakdown of employment by selected industries for the FSM in 1994 and 2000. We can use the proportion of persons in the large groupings to see trends in industry size. Data on industry and occupation in this chapter refer to persons who were currently in the formal work force (13,959).

The distribution of employment showed some changes between 1994 and 2000. In both years the three largest (in terms of employees) industries were public administration, education and the wholesale and retail trade. More than half of the current work force was in these three industries. In 2000, the largest portions of the economically active worked in public administration (24 percent), education (20 percent), and wholesale & retail service activities (13 percent). A decrease occurred in the proportion of persons employed in public administration. In 1994 almost 27 percent of the working population was employed in public administration compared to over 24 percent in 2000. This decline is partly due to the downsizing of the public sector in late 1990s. On the other hand, an increase occurred in the "wholesale and retail trade" group, from a 7.5 percent share in 1994 to 13.3 in 2000.

The total number of employees declined between 1994 and 2000. Much of this came from decline in the agriculture, forestry, fishing, mining & quarrying, financial intermediation, education, public administration, and other activities. On the other hand, manufacturing, real estate & computer activities, and wholesale & retail trade increased.

Table 10.1 Industry of Employment for Aged 15 and Over, FSM: 1994, 1999 and 2000.

Industry	Number		Percent Change	Percent	
	1994	2000		1994	2000
Current formal work force 15+ years	14,381	13,959	(2.9)	100.0	100.0
Agriculture, Forestry, Fishing and Quarrying	922	443	(52.0)	6.4	3.2
Construction	859	781	(9.1)	6.0	5.6
Gas, Electricity Water Supply	240	360	50.0	1.7	2.6
Transportation and Communication	616	806	30.8	4.3	5.8
Manufacturing	316	721	128.2	2.2	5.2
Wholesale and Retail Trade	1,084	1,855	71.1	7.5	13.3
Hotels, Restaurants, and Bars	610	685	12.3	4.2	4.9
Financial Intermediation	234	177	(24.4)	1.6	1.3
Business, Computer Activities and Real Estate	276	549	98.9	1.9	3.9
Health	716	732	2.2	5.0	5.2
Education	2,825	2,785	(1.4)	19.6	20.0
Public Administration	3,868	3,352	(13.3)	26.9	24.0
Other Service Activities	1,815	713	(60.7)	12.6	5.1

Source: 1994 FSM Census, Table P29; 2000 FSM Census, Table P2-17.

Table 10.2 gives a more detailed breakdown of industries in the FSM. About 20 percent of the employed persons were in the education field. About 50 percent of persons with education occupations were in the primary education. Retail trade accounted for 10 percent of the employed population. The fishing industry constituted only 2 percent of the employed population, who were mostly males. The fishing industry declined by 150 percent between 1994 and 2000. Much of this decline was due to the departure of the foreign fishing ventures in the states during the interim period.

The table also provides data on the sex distribution for each of the industries. Overall, 67 percent of the current work force was males in 2000, a slight decline from the 70 percent in 1994. Of the 3,352 persons employed in public administration in 2000, about 80 percent were males. Women dominated the industries of manufacturing, retail trade, hotels and restaurants, financial intermediation, health and social work, and private household activities.

Table 10.2. Detailed Breakdown of Industry by Sex, FSM: 1994 and 2000.

Industry	1994						2000					
	Number			Percent			Number			Percent		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Current formal workforce												
Persons 15+ years	14,381	10,016	4,365	100.0	69.6	30.4	13,959	9,343	4,616	100.0	66.9	33.1
Agriculture, forestry, fishing, quarry	922	842	80	100.0	91.3	8.7	443	377	66	100.0	85.1	14.9
Agriculture and livestock	241	208	33	100.0	86.3	13.7	95	78	17	100.0	82.1	17.9
Forestry	4	4	-	100.0	100.0	-	8	7	1	100.0	87.5	12.5
Fishing	646	603	43	100.0	93.3	6.7	258	226	32	100.0	87.6	12.4
Mining	28	24	4	100.0	85.7	14.3	38	26	12	100.0	68.4	31.6
Quarrying	3	3	-	100.0	100.0	-	27	26	1	100.0	96.3	3.7
Manufacturing	316	206	110	100.0	65.2	34.8	721	301	420	100.0	41.7	58.3
Manufacture of non-durables	100	66	34	100.0	66.0	34.0	99	42	57	100.0	42.4	57.6
Manufacture of durable	216	140	76	100.0	64.8	35.2	622	259	363	100.0	41.6	58.4
Electricity, gas and water supply	240	220	20	100.0	91.7	8.3	360	326	34	100.0	90.6	9.4
Construction	859	822	37	100.0	95.7	4.3	781	756	25	100.0	96.8	3.2
Wholesale and retail trade	1,084	586	498	100.0	54.1	45.9	1,855	1010	845	100.0	54.4	45.6
Wholesale trade	151	88	63	100.0	58.3	41.7	217	165	52	100.0	76.0	24.0
Retail trade	750	355	395	100.0	47.3	52.7	1,327	599	728	100.0	45.1	54.9
Trade relating to automobiles	183	143	40	100.0	78.1	21.9	177	152	25	100.0	85.9	14.1
Hotels and restaurants	610	258	352	100.0	42.3	57.7	685	303	382	100.0	44.2	55.8
Transportation and communication	616	496	120	100.0	80.5	19.5	806	677	129	100.0	84.0	16.0
Land transport	186	168	18	100.0	90.3	9.7	174	156	18	100.0	89.7	10.3
Water transport	121	106	15	100.0	87.6	12.4	189	179	10	100.0	94.7	5.3
Air transport	111	86	25	100.0	77.5	22.5	80	60	20	100.0	75.0	25.0
Other transport activities	48	34	14	100.0	70.8	29.2	192	157	35	100.0	81.8	18.2
Post and telecommunications	150	102	48	100.0	68.0	32.0	171	125	46	100.0	73.1	26.9
Financial intermediation	234	103	131	100.0	44.0	56.0	177	74	103	100.0	41.8	58.2
Financial intermediation	154	63	91	100.0	40.9	59.1	143	57	86	100.0	39.9	60.1
Insurance and pensions	13	6	7	100.0	46.2	53.8	18	10	8	100.0	55.6	44.4
Other finance activities	67	34	33	100.0	50.7	49.3	16	7	9	100.0	43.8	56.3
Real Estate, Business & computer activ.	276	204	72	100.0	73.9	26.1	549	387	162	100.0	70.5	29.5
Real estate	17	15	2	100.0	88.2	11.8	20	15	5	100.0	75.0	25.0
Renting	36	27	9	100.0	75.0	25.0	34	20	14	100.0	58.8	41.2
Computer activities	89	65	24	100.0	73.0	27.0	42	31	11	100.0	73.8	26.2
Research and development	13	10	3	100.0	76.9	23.1	26	22	4	100.0	84.6	15.4
Other business activities	121	87	34	100.0	71.9	28.1	427	299	128	100.0	70.0	30.0
Public administration	3,868	3,050	818	100.0	78.9	21.1	3,352	2,665	687	100.0	79.5	20.5
Education	2,825	1,822	1,003	100.0	64.5	35.5	2,785	1,705	1,080	100.0	61.2	38.8
Primary education	852	525	327	100.0	61.6	38.4	1,367	834	533	100.0	61.0	39.0
Secondary education	301	213	88	100.0	70.8	29.2	483	313	170	100.0	64.8	35.2
Higher education	187	118	69	100.0	63.1	36.9	211	121	90	100.0	57.3	42.7
Adult and other education	82	48	34	100.0	58.5	41.5	724	437	287	100.0	60.4	39.6
Health and social work	716	361	355	100.0	50.4	49.6	732	331	401	100.0	45.2	54.8
Other service activities	1,840	1,046	794	100.0	56.8	43.2	713	431	282	100.0	60.4	39.6
Sewage and refuse disposal	29	21	8	100.0	72.4	27.6	56	38	18	100.0	67.9	32.1
Activities of membership orgs.	834	428	406	100.0	51.3	48.7	106	64	42	100.0	60.4	39.6
Community service activities	65	38	27	100.0	58.5	41.5	270	180	90	100.0	66.7	33.3
Private household activities	856	531	325	100.0	62.0	38.0	233	114	119	100.0	48.9	51.1
Other establishments	6	5	1	100.0	83.3	16.7	48	35	13	100.0	72.9	27.1

Source: 1994 and 2000 FSM Censuses, Unpublished data.

Table 10.3 shows different educational backgrounds of people employed in the different industries. For definitions on vocational and high school education, see Chapter 8 on Education. In 1994 and 2000, about 64 percent of employed persons 15 years and over had a high school diploma. The health, education and financial fields had the highest education attainment levels. About 68 percent of women in the work force had high school diplomas. Females in the health education and financial institutions were more likely to have high education attainment levels. In 2000, the construction, transportation, and public administration industries had at least 15 percentage points more females with high school diplomas than males. These patterns were also observed in 1994, although the level varied.

The proportion of employed persons with some vocational training was around 30 percent in 1994 and 2000. However, vocational training varied by sector. For example, in 2000 about 49 percent of the individuals employed in the health sector had vocational training, while only 18 percent of those in the wholesale & retail industry had vocational training. Data on high school diplomas follow this trend as well with the health industry having the highest proportion of employees with high school diplomas, and the wholesale & retail industry among the lowest. Employed males were more likely to receive vocational training than females in all industries except for manufacturing in 2000.

Table 10.3. Industry by Percent of Persons with High School Diplomas and Vocational Training, FSM: 1994 and 2000.

Industry	1994						2000					
	High School Graduates			Vocational Training			High School Graduates			Vocational Training		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
Current formal workforce												
Persons 15+ yrs	64.3	63.5	66	29.6	31.4	25.5	63.5	61.7	67.6	31.0	33.2	26.6
Agriculture, Forestry												
Fishing and Quarrying	64.9	65.2	61.3	22.6	22.2	26.3	59.6	58.2	67.2	39.3	42.2	22.7
Construction	51.7	50.7	73	24.8	25.3	13.5	43.2	42.5	65.0	22.5	22.5	24.0
Gas, Electricity, and												
Water Supply	66.7	63.6	100	40.0	41.4	25	66.4	65.6	73.3	40.6	41.4	32.4
Transportation and												
Communication	63.1	59.3	79.2	30.2	31.7	24.2	61.0	58.6	73.5	38.2	39.1	33.3
Manufacturing	50.9	53.9	45.5	24.1	27.2	18.2	53.0	51.3	54.9	26.9	23.3	29.5
Wholesale & Retail Trade	52.8	53.4	52	17.8	23	11.6	49.5	49.1	50.0	17.6	21.2	13.4
Hotels, Restaurants, & Bars	45.7	50.8	42	15.2	20.9	11.1	44.9	51.7	39.5	20.0	26.7	14.7
Financial Intermediation	90.6	91.3	90.1	39.3	45.6	34.4	89.2	91.7	87.4	39.4	42.2	36.9
Real Estate, Business												
& Computer Activities.	60.9	60.8	61.1	32.6	34.3	27.8	69.5	67.4	74.5	35.6	37.2	31.5
Health	79.1	81.4	76.6	45.1	47.9	42.1	78.7	77.7	79.5	49.2	52.3	46.5
Education	80.6	81.7	78.5	32	32.9	30.5	84.4	85.9	81.9	35.5	38.9	30.1
Public Administration	66.3	63.1	78.1	36.8	37	36.2	59.4	55.3	75.7	32.6	33.1	30.6
Other Service Activities	47.3	46.3	48.8	19.3	22	15.5	47.7	51.2	41.4	20.5	24.7	14.4

1994 FSM Census, Table P29; 2000 FSM Census, Tables P2-12 & P2-13.

Certain industries naturally have certain occupations such as the agriculture industry, which has a majority of agriculture and fishing workers (Table 10.4). The construction and utilities industries had the highest portion of machine operators and laborers. In both years, more than 50 percent of the education industry was comprised of managers, executives and professionals while more than 50 percent of the utility industry were crafters, repairmen, operators and laborers.

Table 10.4. Industry by Occupation, FSM: 1994 and 2000.

Industry	1994								2000							
	Total	Per- cent	Exec. Mngrs. and Prof.	Tech. Assoc. Prof. & Admin.	Ser- vice	Agric. and Fish.	Crafts Repair Oper.	Other	Total	Per- cent	Exec. Mngrs. and Prof.	Tech. Assoc. Prof. & Admin.	Ser- vice	Agric. and Fish.	Crafts Repair Oper.	Other
Current formal work force 15+ years	14,381	100.0	18.6	35.2	13.7	3.2	19.1	10.2	13,959	100.0	26.7	30.6	11.3	1.7	18.0	11.7
Agric., Forest., Fish., Mining & Quarry.	922	100.0	10.7	29.0	3.6	33.3	14.5	8.9	443	100.0	15.1	24.4	2.9	36.6	13.8	7.2
Construction	859	100.0	5.1	6.3	1.0	0.3	60.3	26.9	781	100.0	5.1	12.2	0.4	...	40.5	41.9
Gas, Electricity, and Water Supply	240	100.0	12.5	20.8	2.5	0.8	58.3	5.0	360	100.0	8.9	18.9	3.3	...	59.4	9.4
Transp. & Comm.	616	100.0	9.3	29.5	8.8	0.5	36.4	15.6	806	100.0	9.9	30.9	8.9	0.5	36.1	13.6
Manufacturing	316	100.0	12.3	19.0	22.5	2.8	29.4	13.9	721	100.0	4.4	4.7	3.2	0.6	80.9	6.2
Wholesale & Retail	1,084	100.0	7.5	44.7	12.3	0.5	26.6	8.5	1,855	100.0	10.7	48.5	9.2	0.4	17.8	13.3
Hotels, Rest., Bars	610	100.0	6.9	16.7	48.4	-	13.0	15.1	685	100.0	8.3	17.7	41.3	0.7	10.7	21.3
Financial	234	100.0	17.5	68.8	4.3	0.9	6.0	2.6	177	100.0	37.3	59.3	0.6	...	1.1	1.7
Intermediation Real Estate, Computer & Other																
Business Activities	276	100.0	23.2	28.6	9.4	0.7	26.8	11.2	549	100.0	25.5	35.3	6.7	1.5	16.9	14.0
Health	716	100.0	55.4	30.9	6.1	0.1	4.3	3.1	732	100.0	44.1	44.5	3.6	0.1	3.7	4.0
Education	2,825	100.0	23.8	56.0	12.8	0.2	4.7	2.5	2,785	100.0	57.2	29.9	5.0	0.1	3.7	4.1
Public Administration	3,868	100.0	23.6	32.0	17.0	1.8	14.6	11.1	3,352	100.0	29.7	32.3	19.5	1.0	9.0	8.6
Other Serv. Activities	1,815	100.0	11.1	32.3	15.0	2.5	24.9	14.1	713	100.0	14.7	22.6	20.1	1.4	16.7	24.5

Source: 1994 FSM Census, Table P129; 2000 FSM Census, Table P8-14.

Occupation

Table 10.5 provides the breakdown of occupations for 1994 and 2000 and the change in proportions of the working age in the occupation groups. The largest occupation groups of those persons age 15 and over who were currently employed were the professionals and administrative support. In 1994 the largest groups were technicians & associate professionals and administrative support.

Between 1994 and 2000 the increases were seen in three occupations – professionals (55 percent), elementary occupations (11 percent), and executives and managers (14 percent). All other occupation groups decreased.

Table 10.5. Occupations of Current Work Force, FSM: 1994 and 2000

Occupation	Number		Percent change 1994-2000	Percent	
	1994	2000		1994	2000
Current formal work force 15+ years	14,381	13,959	(2.9)	100.0	100.0
Executives and Managers	1,048	1,191	13.6	7.3	8.5
Professionals	1,632	2,536	55.4	11.3	18.2
Technicians and Associate Professionals	2,633	2,117	(19.6)	18.3	15.2
Administrative Support	2,432	2,159	(11.2)	16.9	15.5
Service Workers	1,973	1,574	(20.2)	13.7	11.3
Agric. and Fishing Workers	456	239	(47.6)	3.2	1.7
Craft and Related Workers	1,808	1,631	(9.8)	12.6	11.7
Machine Operators	936	885	(5.4)	6.5	6.3
Elementary Occupations and Laborers	1,460	1,625	11.3	10.2	11.6
Armed Forces	3	2	(33.3)	...	...

Source: 1994 FSM Census, Table P28; 2000 FSM Census, Table P2-16.

As Table 10.6 shows, of all employed persons who reported their occupation in 2000, about 63 percent were males and 38 percent were females. In both years, most of the industries had male and female representation similar to the overall representation of employed persons. The only occupation that females were in the majority was the administrative support. Machine operators had a strong male bias with almost 94 percent of the work force.

Table 10.6. Occupation for Persons 15 Years and Over by Sex, FSM: 1994 and 2000.

Occupation	1994						2000					
	Number			Percent			Number			Percent		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
Current formal work												
force 15+ years	14,381	8,395	5,986	100.0	58.4	41.6	13,959	8,723	5,236	100.0	62.5	37.5
Executives and Managers	1,048	869	179	100.0	82.9	17.1	1,191	999	192	100.0	83.9	16.1
Professionals	1,632	1,019	613	100.0	62.4	37.6	2,536	1,521	1,015	100.0	60.0	40.0
Technicians and Associate												
Professionals	2,633	1,591	1,042	100.0	60.4	39.6	2,117	1,378	739	100.0	65.1	34.9
Administrative Support	2,432	208	2,224	100.0	8.6	91.4	2,159	184	1,975	100.0	8.5	91.5
Service Workers	1,973	914	1,059	100.0	46.3	53.7	1,574	906	668	100.0	57.6	42.4
Agric. and Fishing Workers	456	291	165	100.0	63.8	36.2	239	218	21	100.0	91.2	8.8
Craft and Related Workers	1,808	1,474	334	100.0	81.5	18.5	1,631	1,056	575	100.0	64.7	35.3
Machine Operators	936	878	58	100.0	93.8	6.2	885	834	51	100.0	94.2	5.8
Elementary Occupations												
and Laborers	1,460	1,148	312	100.0	78.6	21.4	1,625	1,625	-	100.0	100.0	-
Armed Forces	3	3	-	100.0	100.0	-	2	2	-	100.0	100.0	-

Source: 1994 FSM Census, Table P28; 2000 FSM Census, Table P2-16.

As shown in Table 10.7, the three occupations with highest skill levels -- executives and managers, professionals, and technical and associate professionals -- had the most individuals in the 45 to 64 age-group (shifting from the 35-44 age group in 1994). The other occupations all had the largest proportions in the 25 to 34 age groups. Less than 20 percent of the executives and managers in 2000 were under the age of 34. This corresponds with the requirement for more experience and perhaps education in the executives and managers and professional occupations. In the administrative support category there was an under-representation of 45 to 64 year old persons, while the persons ages 25 to 34 were over-represented. These general patterns were also observed in 1994.

Table 10.7. Occupation by Age-group, FSM: 1994 and 2000.

Occupation	1994							2000						
	Total	Percent	Age group					Total	Percent	Age group				
			15-24	25-34	35-44	45-64	65+			15-24	25-34	35-44	45-64	65+
Current formal														
work force 15+ years	14,381	100.0	13.7	29.5	33.1	22.7	1.1	13,959	100.0	13.0	28.2	30.6	27.3	0.9
Executives and Managers	1,048	100.0	4.1	20.3	39.0	34.0	2.6	1,191	100.0	2.3	16.4	32.7	46.3	2.4
Professionals	1,632	100.0	6.1	24.4	36.0	32.1	1.4	2,536	100.0	6.0	21.1	31.1	40.3	1.5
Technicians & Assoc.Prof.	2,633	100.0	7.4	24.8	39.0	28.0	0.8	2,117	100.0	6.6	26.4	34.5	31.9	0.6
Administrative Support	2,432	100.0	24.3	37.1	27.2	10.7	0.7	2,159	100.0	21.2	39.1	26.7	13.0	0.1
Service Workers	1,973	100.0	16.0	28.7	31.9	22.4	1.1	1,574	100.0	14.9	31.4	32.3	21.1	0.3
Agric. and Fishing Workers	456	100.0	19.7	31.8	32.2	15.6	0.7	239	100.0	10.0	38.1	29.7	21.3	0.8
Craft and Related Workers	1,808	100.0	13.4	31.4	32.1	22.2	1.0	1,631	100.0	25.2	28.1	25.4	20.7	0.5
Machine Operators	936	100.0	16.8	34.0	31.1	17.5	0.6	885	100.0	14.6	32.0	32.3	20.8	0.3
Elementary Occupations														
and Laborers	1,460	100.0	16.7	32.4	29.0	20.7	1.2	1,625	100.0	15.2	29.5	30.9	23.1	1.3
Armed Forces	3	100.0	33.3	33.3	-	-	-	2	100.0	50.0	50.0	-	-	-

Source: 1994 FSM Census, Table P45; 2000 FSM Census, Table P3-14.

Table 10.8 presents occupation by age. In 2000, the greatest portion of the persons 15 to 24 years and 25 to 34 years worked in administrative support occupations, as it was in the previous census. For those persons 35 to 44 and 45 to 64 years, the largest portion was in the professionals occupation group (shifting from the technicians and associate professional group in 1994). The highest percentage of the oldest age group, 65 years and over, were in managerial (24 percent) and professional (32 percent) occupations in both census years.

Table 10.8. Occupation by Age, FSM: 1994 and 2000.

Occupation	1994						2000					
	Total	15-24	25-34	35-44	45-64	65+	Total	15-24	25-34	35-44	45-64	65+
Current Formal Work force 15+ years	14,381	1,977	4,237	4,756	3,258	153	13,959	1,821	3,941	4,268	3,808	121
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Executives and Managers	7.3	2.2	5.0	8.6	10.9	17.6	8.5	1.5	4.9	9.1	14.5	24.0
Professionals	11.3	5.0	9.4	12.3	16.1	15.0	18.2	8.3	13.6	18.5	26.8	32.2
Technicians and Associate Professionals	18.3	9.9	15.4	21.6	22.6	13.1	15.2	7.6	14.2	17.1	17.7	10.7
Administrative Support	16.9	29.8	21.3	13.9	8.0	11.1	15.5	25.1	21.4	13.5	7.4	1.7
Service Workers	13.7	15.9	13.4	13.2	13.6	13.7	11.3	12.9	12.5	11.9	8.7	3.3
Agric. and Fishing Workers	3.2	4.6	3.4	3.1	2.2	2.0	1.7	1.3	2.3	1.7	1.3	1.7
Craft and Related Workers	12.6	12.2	13.4	12.2	12.3	11.8	11.7	22.6	11.6	9.7	8.9	6.6
Machine Operators	6.5	7.9	7.5	6.1	5.0	3.9	6.3	7.1	7.2	6.7	4.8	2.5
Elementary Occupations and Laborers	10.2	12.3	11.2	8.9	9.3	11.8	11.6	13.6	12.2	11.8	9.9	17.4
Armed Forces	-	0.1	-	-	-	-	-	0.1	-	-	-	-

Source: 1994 FSM Census, Table P45; 2000 FSM Census, Table P3-16.

Occupations varied between persons born in the FSM and those persons born elsewhere. Table 10.9 presents the breakdown of these two groups by occupation. For the 2000 Census, the largest differences were in the professional and craft & related workers occupations. FSM-born persons had the largest portions of their employed personnel in professional and administrative support occupations. For the non-FSM born the largest portion of their employed personnel were in the professionals and craft & related workers categories. FSM-born persons had the least portion of their personnel in the agriculture and fishing occupation. For non-FSM persons, the least proportion were employees of the machine operator's category. The significant decline of the percentage share of the non-FSM born persons in the agriculture and fishing occupations between the census years was largely due to the departure of the foreign fishing ventures (consisting mostly of foreigners) in the late 1990s .

Table 10.9. Occupation by Birthplace, FSM: 1994 and 2000.

Occupation	1994				2000			
	FSM Born		Foreign Born		FSM Born		Foreign Born	
	1994	Percent	1994	Percent	2000	Percent	2000	Percent
Current formal work force 15+ years	12,947	100.0	1,434	100.0	12,451	100.0	1,508	100.0
Executives and Managers	919	7.1	129	9.0	1,054	8.5	137	9.1
Professionals	1,414	10.9	218	15.2	2,226	17.9	310	20.6
Technicians and Associate Professionals	2,325	18.0	308	21.5	1,904	15.3	213	14.1
Administrative Support	2,325	18.0	107	7.5	2,086	16.8	73	4.8
Service Workers	1,883	14.5	90	6.3	1,520	12.2	54	3.6
Agric. and Fishing Workers	359	2.8	97	6.8	200	1.6	39	2.6
Craft and Related Workers	1,495	11.5	313	21.8	1,071	8.6	560	37.1
Machine Operators	874	6.8	62	4.3	865	6.9	20	1.3
Elementary Occupations and Laborers	1,350	10.4	110	7.7	1,523	12.2	102	6.8
Armed Forces	3	...	...	...	2	...	...	...

Source: 1994 FSM Census, Table P79; 2000 FSM Census, Table P5-15.

Table 10.10 further examines occupations in the four states. As can be seen from the table, administrative support was still the most common occupation in Pohnpei State probably because of the presence of the state and national governments. In Yap, Chuuk and Kosrae, the most common occupations in 2000 were craft & related workers, professionals, and elementary occupation respectively. Technicians and associate professional occupations were the second most common occupation in Yap and Pohnpei. In Chuuk and Kosrae, the second most common occupations were service workers and administrative support. There has been some changes since 1994 but the overall patterns remained similar.

Table 10.10. Occupation by State, FSM: 1994 and 2000.

Occupation	1994					2000				
	FSM	Yap	Chuuk	Pohnpei	Kosrae	FSM	Yap	Chuuk	Pohnpei	Kosrae
Current formal work force 15+ yrs	14,381	2,083	5,373	5,539	1,386	13,959	2,570	4,546	5,375	1,468
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Executives and Managers	7.3	8.9	7.3	6.6	7.3	7.9	6.0	9.4	7.6	7.8
Professionals	11.3	10.4	14.5	8.9	10.5	16.6	11.3	24.1	14.4	11.9
Technicians and Associate Professionals	18.3	22.0	19.5	15.0	21.4	14.3	17.0	12.5	14.6	13.8
Administrative Support	16.9	13.4	15.4	19.8	16.4	16.5	15.2	12.5	20.0	18.2
Service Workers	13.7	11.6	16.2	13.1	9.7	11.2	7.1	16.3	10.4	6.7
Agric. and Fishing Workers	3.2	4.6	3.0	3.1	2.0	2.4	2.0	2.8	2.4	2.3
Craft and Related Workers	12.6	14.7	8.3	15.2	15.6	11.5	22.5	6.4	10.3	11.4
Machine Operators	6.5	5.6	5.8	7.4	6.8	6.3	5.9	6.1	6.3	7.3
Elementary Occupations and Laborers	10.2	8.6	10.0	10.8	10.2	13.3	12.8	9.8	14.0	20.6
Armed Forces	...	...	...	...	0.1	...	...	...	...	...

Source: 1994 FSM Census, Table P28; 2000 FSM Census, Table P2-16

In the 2000 FSM Census, over half of the current formal work force aged 25 years and over had graduated high school. About 11 percent had at least a bachelor's degree while 35 percent had not completed high school (Table 10.11). Levels of educational attainment varied by occupation. The highest educational levels were among the executives, managers and professionals, and associate professionals. Also, over 19 percent had either a bachelor's degree or higher education. Most employees in service occupations and machine operators, labors and others had below high school level education.

Educational attainment of employed males tended to have similar patterns to that of the female population in both the 1994 and 2000 Censuses. Nevertheless, for certain occupation categories, employed males were more likely to have either a high school education or a bachelor's degree. For example, in all the categories (except for managerial and service) more males had bachelor's degrees and above, compared to the female population.

The proportion of high school graduates was higher for females in professional, managerial and administrative support occupations than males. In all occupation categories (with the exception of executive & managerial), few college-educated females were employed compared to males. These patterns were also evident in 1994.

Table 10.11. Educational Attainment of the Experienced Formal work Force by Occupation and Sex, FSM: 1994 and 2000.

Educational Attainment	1994								2000							
	Total	Exec. and managerial	Professional/assoc. prof.	Admin. support	Service workers	Agric. & fish workers	Craft and related workers	Mach. and laborer, & other	Total	Exec. and managerial	Professional/assoc. prof.	Admin. support	Service workers	Agric. & fish workers	Craft and related workers	Mach. and laborer, & other
Current formal work force 25+ yrs	11,210	939	3,782	1,695	1,410	334	1,365	1,685	11,778	1,140	4,305	1,666	1,289	197	1,167	2,014
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Below H. Sch. Grad.	32.5	17.4	14.0	27.1	54.4	37.1	47.1	56.9	34.6	24.6	13.1	28.3	63.1	44.7	44.3	66.3
H.S. Grad/Some Coll.	54.5	59.4	63.9	65.0	40.9	43.7	49.2	38.2	54.7	50.3	67.4	66.8	35.4	52.8	53.6	33.1
BA/BS Degree & Above	13.0	23.2	22.1	7.9	4.8	19.2	3.7	4.9	10.7	25.1	19.5	4.9	1.5	2.5	2.1	0.6
Males, 25+ yrs	8,005	806	2,685	531	930	312	1,214	1,527	8,100	981	2,879	496	875	185	940	1,744
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Below H. Sch. Grad.	32.5	17.4	13.6	25.6	48.6	36.9	44.1	56.0	36.2	25.8	14.5	32.7	58.6	42.7	43.4	63.2
H.S. Grad/Some Coll.	53.0	58.2	62.2	61.8	45.2	43.3	52.0	38.8	52.3	49.6	64.8	59.7	40.0	54.6	54.1	36.1
BA/BS Degree & Above	14.5	24.4	24.2	12.6	6.2	19.9	4.0	5.2	11.4	24.6	20.7	7.7	1.4	2.7	2.4	0.7
Females, 25+ yrs	3,205	133	1,097	1,164	480	22	151	158	3,678	159	1,426	1,170	414	12	227	270
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Below H. Sch. Grad.	32.7	17.3	15.0	27.8	65.6	40.9	71.5	65.8	30.9	17.6	10.4	26.4	72.7	75.0	48.0	86.7
H.S. Grad/Some Coll.	58.2	66.9	67.9	66.4	32.5	50.0	26.5	32.3	59.8	54.1	72.6	69.8	25.6	25.0	51.5	13.3
BA/BS Degree & Above	9.1	15.8	17.0	5.8	1.9	9.1	2.0	1.9	9.2	28.3	17.0	3.8	1.7	-	0.4	-

Source: 1994 FSM Census, Table P125; 2000 FSM Census, Table P8-12.

Note: This table excludes persons with no formal educational attainment.

Class of Worker

Table 10.12 presents data for class of worker. The number of persons in the FSM working for the private sector in 2000 was almost equal to the number of persons working in the public sector. The largest portion in the private sector was in 'for-profit' organizations, at 41 percent (a slight decline from 38 percent in 1994). In the public sector the largest portion was in the state governments, at a 35 percent decrease from 42 percent in 1994. These figures showed the large dependency the FSM has on government employment.

In the 2000 Census, more than half of the work force in Yap and Pohnpei were in the private sector, while Chuuk and Kosrae had the bulk of their work force in the public sector. In each state the vast majority of the private sector was 'for-profit' organizations. The public sector in each state was mostly state government. Fully 11 percent of Pohnpei's employed persons were in the national government.

Employed females were represented more in the private sector as compared with males. In Yap and Pohnpei both males and females were over-represented in the private sector. For Chuuk and Kosrae, they were over-represented in the public sector.

Table 10.12. Type of Work by State and Sex, FSM: 1994 and 2000.

Type of Work	1994					2000				
	FSM	Yap	Chuuk	Pohnpei	Kosrae	FSM	Yap	Chuuk	Pohnpei	Kosrae
Current formal workforce persons 15+ yrs	14,381	2,083	5,373	5,539	1,386	13,959	2,570	4,546	5,375	1,468
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Private	44.2	42.5	37.6	53.5	35.5	46.8	60.8	30.7	54.5	43.5
For Profit	38.1	37.4	31.5	46.2	32.6	41.3	54.4	26.4	48.4	38.6
Non-Profit	3.8	3.4	3.4	4.9	1.7	3.6	3.5	3.6	4.2	1.8
Self Employed	2.2	1.6	2.6	2.3	1.1	1.5	2.5	0.6	1.6	1.8
Work No Pay	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.1	0.2	1.3
Public	55.8	57.5	62.4	46.5	64.5	53.2	39.2	69.3	45.5	56.5
Municipal Government	6.0	0.4	11.4	3.8	2.4	8.2	0.2	18.3	5.1	2.2
State Government	42.2	49.2	48.1	30.3	56.6	35.2	31.8	44.0	26.1	47.1
National Government	5.6	3.8	1.7	10.2	4.5	6.5	3.2	3.4	11.0	5.3
Foreign/Federal Government or Agency	1.9	4.0	1.1	2.2	1.0	3.4	3.9	3.7	3.3	1.8
Males	10,016	1,449	3,828	3,739	1,000	9,343	1,511	3,261	3,593	978
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Private	40.9	39.8	33.2	51.8	31.9	43.2	55.9	27.3	53.2	39.4
For Profit	35.4	35.2	27.5	45.1	29.4	38.5	50.0	23.7	47.8	35.6
Non-Profit	3.0	2.8	2.3	4.3	1.3	3.1	2.7	3.0	3.8	1.5
Self Employed	2.4	1.7	3.2	2.3	1.2	1.4	2.9	0.5	1.5	1.8
Work No Pay	0.1	0.1	0.1	0.1	...	0.1	0.2	0.1	0.1	0.4
Public	59.1	60.2	66.8	48.2	68.1	56.8	44.1	72.7	46.8	60.6
Municipal Government	7.3	0.6	13.9	4.4	2.6	10.8	0.3	23.0	6.4	2.5
State Government	44.6	52.5	50.2	31.9	59.8	36.7	37.1	43.3	26.6	51.1
National Government	5.3	4.0	1.8	9.7	4.6	6.6	3.6	3.7	10.8	5.6
Foreign/Federal Government or Agency	1.7	3.1	1.0	2.2	1.1	2.7	3.0	2.7	2.9	1.4
Females	4,365	634	1,545	1,800	386	4,616	1,059	1,285	1,782	490
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Private	51.8	51.8	48.9	48.5	57.2	57.0	68.0	45.6	59.5	53.7
For Profit	44.4	44.4	42.6	41.4	48.4	47.1	60.6	33.2	49.6	44.7
Non-Profit	5.7	5.7	4.7	6.2	6.3	4.7	4.6	5.1	5.1	2.4
Self Employed	1.5	1.5	1.4	1.0	2.2	2.9	0.1	6.3	2.5	1.8
Work No Pay	0.1	0.1	0.2	...	0.2	1.6	1.9	0.9	1.9	1.6
Public	48.2	48.2	51.1	51.5	42.8	0.7	0.8	0.2	0.4	3.1
Municipal Government	3.1	3.1	0.0	5.2	2.6	43.0	32.0	54.4	40.5	46.3
State Government	36.7	36.7	41.6	43.0	26.9	32.1	24.2	45.7	25.0	39.2
National Government	6.0	6.0	3.5	1.7	11.1	6.1	2.6	2.4	11.2	4.7
Foreign/Federal Government or Agency	2.4	2.4	6.0	1.5	2.2	4.8	5.2	6.3	4.2	2.4

Source: 1994 FSM Census, Table P30; 2000 FSM Census, Table P2-18.

Table 10.13 shows that in the 2000 FSM Census, the largest portion of private sector workers was between the ages 25 and 34 (similar to that in 1994) while the largest portion of public sector workers was between ages 45 and 64 (shifted from between 35 and 44 in 1994). Over one-third of the state and national government workers were between ages 45 and 64. About one-fifth of all workers working for no pay were between the ages of 15 and 24.

Table 10.13. Class of Worker by Age, FSM: 1994 and 2000.

Type of Work	1994							2000						
	Total	Percent	15-24	25-34	35-44	45-64	65+	Total	cent	15-24	25-34	35-44	45-64	65+
Current formal workforce														
persons 15+ yrs	14,381	100.0	13.7	29.5	33.1	22.7	1.1	13,959	100.0	13.0	28.2	30.6	27.3	0.9
Private	6,362	100.0	21.8	34.8	26.8	15.5	1.1	6,527	100.0	22.0	33.0	26.7	17.4	0.8
For Profit	5,482	100.0	22.6	35.2	26.3	15.1	0.9	5,768	100.0	22.9	34.2	26.3	16.0	0.6
Non-Profit	553	100.0	19.2	32.2	30.4	16.3	2.0	508	100.0	19.5	26.8	28.5	23.0	2.2
Self Employed	311	100.0	13.8	32.2	28.9	21.5	3.5	205	100.0	5.9	14.6	39.5	38.0	2.0
Work No Pay	16	100.0	25.0	18.8	18.8	25.0	12.5	46	100.0	19.6	41.3	4.3	30.4	4.3
Public	8,019	100.0	7.3	25.3	38.1	28.3	1.0	7,432	100.0	5.1	24.0	34.0	36.0	0.9
Municipal Government	869	100.0	8.5	29.2	33.7	25.8	2.8	1,144	100.0	7.1	25.8	37.3	27.6	2.2
State Government	6,072	100.0	6.8	23.6	38.9	30.0	0.8	4,911	100.0	4.5	22.7	32.9	39.2	0.7
National Government	799	100.0	9.0	31.0	36.7	22.4	0.9	903	100.0	5.3	28.0	33.3	32.3	1.0
Foreign/Federal Gov't	279	100.0	10.0	33.0	38.0	17.6	1.4	474	100.0	7.2	25.3	38.0	29.5	...

Source: 1994 FSM Census, Table P47; 2000 FSM Census, Table P3-16.

Table 10.14 shows data on the Educational Attainment by Class of Workers. In the 2000 Census, both private employees and government employees (except for municipal government workers) were more likely to be high school and college graduates than private sector workers. About 65 percent of the municipal government employees had less than high school education, an increase from 58 percent in 1994. Only 48 percent of the 'for-profit' employees had high school education in 2000.

Gender differences in educational attainment by class of work were also apparent in the FSM. In both census years, the gender differentials in the private sector were quite minor. The big difference in self-employment and work for no pay was due to the small numbers involved. However, in the public sector (excluding municipal government) women were less likely to have bachelor's degrees than males.

Also, in 2000 about 29 percent of the males in the national government had bachelor's degrees, whereas in 1994 the situation was reversed, with the women more likely to have bachelor's degree. The national government had the smallest portion of persons with no high school diploma.

Table 10.14. Educational Attainment by Class of Worker, FSM: 1994 and 2000.

Educational Attainment	1994										2000							
	Private					Public					Private				Public			
	Total	For Profit	Non-Profit	Self-Empl.	Work No Pay	Muni-cipal	State gov't.	Nat-ional	For-eign/Fed.	Total	For Profit	Non-Profit	Self-Empl.	Work No Pay	Muni-cipal	State gov't.	Nat-ional	For-eign/Fed.
Current formal work force 25 + years	11,210	3,705	377	244	9	661	5,287	691	236	11,778	4,261	391	190	35	1,006	4,611	848	436
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Below H.S. grad.	32.5	46.4	40.6	34.8	55.6	58.4	21.8	13.7	20.8	34.6	46.8	38.9	34.2	34.3	64.6	20.8	15.3	25.0
H.S.grad. & some coll.	54.5	47.4	46.2	32.8	44.4	39.5	61.9	61.1	60.2	54.7	47.9	40.2	52.1	51.4	33.7	65.5	59.3	60.1
BA/BS deg. & above	13.0	6.3	13.3	32.4	...	2.1	16.2	25.2	19.1	10.7	5.3	21.0	13.7	14.3	1.7	13.7	25.4	14.9
Males	3,205	1,215	170	53	3	95	1,365	218	86	8,100	2,778	230	122	10	889	3,248	590	233
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Below H.S. grad.	32.7	48.5	42.4	54.7	33.3	36.8	19.7	15.6	22.1	36.2	46.8	38.7	31.1	20.0	68.1	23.0	16.6	23.2
H.S.grad. & some coll.	58.2	47.3	47.1	37.7	66.7	61.1	68.3	65.6	64.0	52.3	47.9	36.5	55.7	50.0	30.5	62.0	54.9	61.4
BA/BS deg. & above	9.1	4.2	10.6	7.5	...	2.1	12.0	18.8	14.0	11.4	5.3	24.8	13.1	30.0	1.5	14.9	28.5	15.5
Females	8,005	2,490	207	191	6	566	3,922	473	150	3,678	1,483	161	68	25	117	1,363	258	203
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Below H.S. grad.	45.3	45.3	39.1	29.3	66.7	62.0	22.6	12.9	20.0	30.9	46.9	39.1	39.7	40.0	38.5	15.5	12.4	27.1
H.S.grad. & some coll.	47.4	47.4	45.4	31.4	33.3	35.9	59.7	59.0	58.0	59.8	48.0	45.3	45.6	52.0	58.1	73.7	69.4	58.6
BA/BS deg. & above	7.3	7.3	15.5	39.3	...	2.1	17.7	28.1	22.0	9.2	5.1	15.5	14.7	8.0	3.4	10.8	18.2	14.3

Source: 1994 FSM Census, Table P114; 2000 FSM Census, Table P7-17.

Conclusion

In the 2000 Census, 24 percent of employed persons in the FSM worked in public administration, making it the largest industry. The most common occupations were professionals, associate professionals, and administrative support. More than half of the employed population worked in the public sector. A large part of economic activity in the FSM was government related.

Between the 1994 and 2000 Censuses, occupation groups decreased by about 3 percent, with the largest decrease occurring in agriculture & fishing, technical professionals, and service occupations. Because agriculture and fishing are among the most important sectors in the FSM, the decrease in these sectors should be considered with caution, especially in an effort of establishing sustainable development.

Women played a larger role in the manufacturing, retail trade, hotel and restaurant, financial intermediation, health & social work, and private household activity industries. Over 50 percent of these industries' employees were female. Females also held the majority of administrative support occupations, while males held the majority of all other occupations.

CHAPTER 11 INCOME

Introduction

The 2000 FSM Census asked for cash income earned in 1999 from all persons 15 years and older. Income provides a measure of how well cash resources are distributed within the country as well as an insight into the sources of cash in the FSM. Cash income is the amount of money received during a fixed period of time. For the 2000 FSM Census, the time period referred to is calendar year 1999. Income includes wages or salaries, cash income from farm or non-farm businesses, interest on dividends or net rentals, estates or trusts, social security or retirement, and remittances.

Income was tabulated by household, by family, and by individual. Household income included all cash income earned by each member living in a housing unit who was aged 15 years and over. Family income included the cash income from those members of a household with two or more related members. The 1994 individual income was based on what an individual earned in 1993. Individual income for 2000 was based on what an individual earned during 1999. Household and family income did not include those persons enumerated in group quarters on the census day. However, individual income did include those persons in group quarters.

About 54 percent of the population aged 15 years and over reported receiving cash income in 1999. These 34,198 income recipients were more than half of the 63,836 persons in the working age population. The only persons used in the measures of income are those who reported an income for 1999. Thus measures of income were considered only for those persons who received money through salaries, wages, social security or other sources. Forty-six percent of the population reported no income.

Definitions

Wage or salary income is the total amount of money earned by a person working as an employee for a private enterprise (business or farm) or a branch of government. Wage or salary income includes take-home pay plus all deductions for withholding tax, social security, union dues, bonds, uniforms, etc. Also included are piece-rate payments, commissions, tips, bonuses, and sick leave pay. Own business income includes money receipts as well as business expenses. Interest and dividends are money earned from savings or shares. Social security and government benefits include payments from retirement, or disability payments. Remittances include money received from relatives within and outside of the FSM who are not living with the individual.

Two statistics were used to analyze income: *median* and *mean*. The median income is that income value that divides income recipients into two equal halves. The mean income is the sum of all income in a region or characteristic divided by the number of income recipients. (Similarly, the aggregate of all incomes in a region can be found by multiplying the mean by the number of persons earning income.) The median is a better estimate of average income because it places less emphasis on extreme values and is less susceptible to the effects of misreporting and processing errors. In this chapter both median and mean are used in most tables.

Limitations and Comparability. Income is a self-reported number and is easily misreported due to self-inflation or deflation or to poor recollection. In the case of the FSM 2000 Census, the income was received at least 4 months prior to the time of reporting, making it easier to forget small or irregular income. Other errors occurred because of misunderstandings such as reporting net rather than gross earnings, or reporting business revenue instead of personal income. The 1994 FSM Census collected similar information on income and these data are used here with an inflation factor to compare against the 2000 Census data. Furthermore, the data collected during both 1994 and 2000 Censuses refer to cash income only.

Income data may not fully explain the economy in the FSM because of the significant share of subsistence activities in the economy. It does, however, give an indicator of the access of the FSM population to material possessions and changes in the cash economy.

Analysis of Income Data

Cash Income

The income earning population in the FSM increased significantly between 1994 and 2000. In the 2000 Census 54 percent of persons aged over 15 reported a cash income, significantly higher than the 35 percent who reported a cash income in 1994. A related trend was evident for both families (with 73 percent reporting cash income in 1994 and 90 percent in 2000) and for households (with 74 percent reporting cash income in 1994 and 90 percent in 2000).

This increase in the number of people reporting an income should be remembered when examining the statistics in this chapter. For example, many individuals reported a small income in 2000, but no income in 1994. This resulted in lower mean and median incomes in 2000. Under these circumstances mean and median can be misleading, so it is important to look also at income distributions and sources of income.

Table 11.1 compares income statistics for the income earning population of the four states as well as the FSM. As shown in the 2000 Census, median household income in the FSM was \$4,622 and the mean household income was higher at \$10,500. The mean income was higher than the median due to a few large incomes, which raised the sum of the incomes. A median of \$4,622 means that of the 14,089 households, half of the households had incomes below \$4,622 and half of the households had incomes above this level. It is important to note that the median and mean incomes were calculated only to include those persons who reported income; thus only 55 percent of the population aged 15 years and over were included.

The four states had large variations in their median household incomes. The 2000 Census further indicates that Kosrae had the highest median income of \$7,528, followed by Yap at \$6,489, Pohnpei at \$6,354, and the lowest is Chuuk at \$2,776. Mean household income showed similar trends but at a higher level. Family incomes were slightly higher than household incomes in every state except Yap because single person households are not included in the family income.

The individual median income for the FSM in 1993 was \$2,637 whereas in 1999, the median individual income is \$1,489. The 2000 Census data showed that among the states, individual income had a slightly different pattern than household and family incomes. Individual income in Yap was the highest, with a median of \$3,368, followed by Kosrae at \$3,355, then by Pohnpei at \$3,319, and Chuuk trailing last at \$785. Chuuk income levels remained the lowest for both censuses, while median income for the other states fluctuated at a slightly higher level.

Table 11.1. Household, Family and Individual Income in 1993 and 1999, FSM: 1994 and 2000

Type of income	1994					2000				
	FSM	Yap	Chuuk	Pohnpei	Kosrae	FSM	Yap	Chuuk	Pohnpei	Kosrae
Household	15,231	1,925	7,044	5,298	964	15,723	2,030	6,976	5,630	1,087
Number with income	11,233	1,426	4,875	4,025	907	14,089	1,578	6,385	5,067	1,059
Percentage with cash income	73.8	74.1	69.2	76.0	94.1	89.6	77.7	91.5	90.0	97.4
Median	\$4,694	\$5,998	\$2,444	\$7,503	\$6,739	\$4,618	\$6,489	\$2,776	\$6,354	\$7,528
Mean	\$8,645	\$8,298	\$5,443	\$12,412	\$9,686	\$8,944	\$10,344	\$6,195	\$11,249	\$12,407
Family	14,502	1,761	6,827	4,982	932	15,014	1,846	6,778	5,335	1,055
Number with income	10,649	1,285	4,696	3,793	875	13,482	1,428	6,211	4,822	1,021
Percentage with cash income	73.4	73.0	68.8	76.1	93.9	89.8	77.4	91.6	90.4	96.8
Median	\$4,473	\$5,810	\$2,268	\$7,084	\$6,574	\$4,640	\$6,553	\$2,821	\$6,379	\$7,565
Mean	\$8,133	\$7,924	\$5,140	\$11,671	\$9,167	\$8,679	\$9,713	\$6,134	\$10,873	\$12,358
Individual	59,972	6,754	29,068	19,500	4,251	63,836	7,153	31,587	20,468	4,628
Number with income	20,924	2,557	9,283	7,032	2,052	34,198	3,254	19,090	9,518	2,336
Percentage with cash income	34.9	37.9	31.9	36.1	48.3	53.6	45.5	60.4	46.5	50.5
Median	\$2,637	\$3,509	\$987	\$4,312	\$3,253	\$1,489	\$3,368	\$785	\$3,319	\$3,355
Mean	\$4,740	\$4,809	\$2,875	\$7,174	\$4,753	\$3,943	\$5,016	\$2,133	\$6,793	\$5,625

Source: 1994 FSM Census, Table P31; 2000 FSM Census, Table P2-19.

Table 11.2 shows the change in household income between 1994 and 2000, adjusted for inflation, twenty-six years preceding the latest census. This factor takes into account the inflation that occurred over the years prior to the census. Similarly, an inflation factor of 1.0765 was used to raise the 1994 dollars to the equivalent of 2000 dollars.

As a result, FSM's inflation adjusted median household income decreased by 9 percent over the 6 years before the 2000 Census.

For the states, Pohnpei had a negative change at 21 percent, while the other states showed small increases: Yap at 0.5 percent, Kosrae at about 4 percent and lastly Chuuk at about 6 percent.

Table 11.2. Median Household Income Change by State, FSM: 1980 and 1994 & 1994 and 2000

State	1994			2000		
	Number of Households	Median	Adjusted in 2000 Dollars	Number of Households	Median	Percent Change
FSM	11,233	\$4,694	5,053	14,089	\$4,618	(8.5)
Yap	1,426	\$5,998	6,457	1,578	\$6,489	0.5
Chuuk	4,875	\$2,444	2,631	6,385	\$2,776	5.6
Pohnpei	4,025	\$7,503	8,077	5,067	\$6,354	(21.3)
Kosrae	907	\$6,739	7,255	1,509	\$7,528	3.8

Source: 1994 FSM Census, Table P31; 2000 FSM Census, Table P2-19.

Note: 1994 dollars were multiplied by a factor of 1.0765 to estimate 2000 equivalent purchasing power. This was based on the U.S. inflation rate from 1994 and 1997 and the Pohnpei inflation rate from 1997 to 2000.

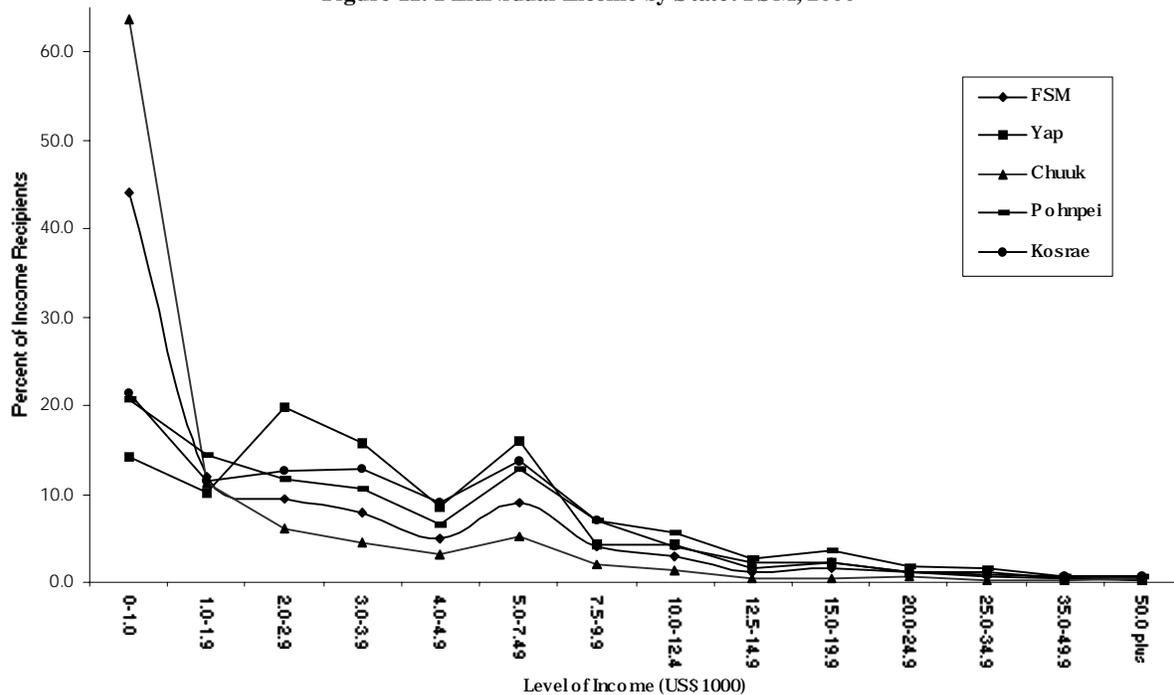
Table 11.3 contains the percentage breakdown of individual incomes by state and income range. There was a peak at the \$5,000 to \$7,499 range in each state (see also Figure 11.1), probably due to government salaries. In Yap, 16 percent of the incomes fell in this range. There were significant variations in individual income among the states. More than 63 percent of incomes in Chuuk were below \$1,000. In the other states only 14 to 21 percent of the incomes were below \$1,000. The proportion of incomes in this lowest range increased since 1993, which was probably a result of people moving from the no income category in 1993 to having a small income in 1999.

Table 11.3. Percent Distribution of Individual Income in 1993 and 1999 by State, FSM: 1994 and 2000.

Annual income	1994					2000				
	FSM	Yap	Chuuk	Pohnpei	Kosrae	FSM	Yap	Chuuk	Pohnpei	Kosrae
Persons with income	20,924	2,557	9,283	7,032	2,052	34,198	3,254	19,090	9,518	2,336
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than \$1,000	30.7	11.8	50.6	16.3	13.6	44.1	14.2	63.7	20.6	21.3
\$1,000 to \$1,999	12.0	11.9	11.9	10.6	17.2	12.1	10.1	11.3	14.3	11.5
\$2,000 to \$2,999	11.5	19.0	9.6	10.1	15.8	9.5	19.9	6.2	11.7	12.6
\$3,000 to \$3,999	9.5	14.5	6.3	10.8	13.3	7.9	15.8	4.5	10.6	12.9
\$4,000 to \$4,999	6.5	9.1	4.5	7.1	9.7	5.0	8.6	3.1	6.6	9.0
\$5,000 to \$7,499	12.1	17.2	8.3	14.7	14.3	9.1	15.9	5.5	12.8	13.8
\$7,500 to \$9,999	6.0	5.5	3.5	9.0	7.4	4.0	4.3	2.1	7.0	7.0
\$10,000 to \$12,499	3.9	5.0	1.9	6.3	3.0	3.0	4.3	1.3	5.5	4.1
\$12,500 to \$14,999	2.0	1.4	0.8	4.0	1.9	1.2	1.5	0.4	2.6	2.3
\$15,000 to \$19,999	2.6	2.6	1.1	4.9	1.9	1.6	2.2	0.5	3.6	2.3
\$20,000 to \$24,999	1.3	1.0	0.7	2.4	0.3	1.1	1.2	0.8	1.8	1.0
\$25,000 to \$34,999	1.0	0.7	0.4	2.0	0.9	0.8	1.2	0.3	1.6	0.9
\$35,000 to \$49,999	0.5	0.2	0.3	0.9	0.3	0.4	0.4	0.2	0.7	0.6
\$50,000 or more	0.5	0.2	0.2	1.0	0.4	0.3	0.3	0.1	0.6	0.6
Median (dollars)	\$2,637	\$3,509	\$987	\$4,312	\$3,253	\$1,489	\$3,368	\$785	\$3,319	\$3,355
Mean (dollars)	\$4,740	\$4,809	\$2,875	\$7,174	\$4,753	\$3,943	\$5,016	\$2,133	\$6,793	\$5,625

Source: 1994 FSM Census, Table P31; 2000 FSM Census, Table P2-19.

Figure 11.1 Individual Income by State: FSM, 2000



Source: Table 11.3

Table 11.4 shows the individual income in the FSM by sex and age in 1993 and 1999. The number of people reporting an income increased across all age groups and both sexes, but particularly for females, hence median income generally decreased. The median income for 'both sexes' steadily increased with age until a peak at age groups 40 to 44 in 1994, and at 45 to 49 in 2000 but then tapered off in the subsequent age groups.

By gender, males were more likely than females to report income and males reported higher median incomes than females in all age groups. For males, median income increased steadily with age and older males reported the highest median incomes. This pattern was similar in both years, except that the ages at which the peak median incomes were reported were 5 years older in 2000. In 1994 ages 40 to 54 reported the highest median incomes compared with ages 44 to 59 in 2000. The number of females who reported an income increased strongly between 1994 and 2000, over all age groups. Female median incomes increased with age but the peak incomes were at younger ages than for males. As for males, the ages at which the peak median incomes were reported increased, from ages 35 to 39 in 1994 to ages 40 to 44 in 2000. Unlike the older generation of men who reported high individual income, women in the same age range were reporting very modest income probably, in part, due to fewer education opportunities available to the older generation of women.

Mean incomes by age and sex showed some unusual patterns but these results have been distorted by the reporting of a small number of very high incomes, which raised the sum of the incomes.

Table 11.4. Individual Income in 1993 and in 1999 by Age and Sex, FSM: 1994 & 2000.

Age Group	Both sex			Males			Females		
	Total	Median	Mean	Total	Median	Mean	Total	Median	Mean
1994									
Persons with Income									
15+years	20,924	\$2,637	\$4,740	13,517	\$3,050	\$5,423	7,407	\$1,910	\$3,495
15 to 19	1,124	\$720	\$1,068	637	\$736	\$1,155	487	\$700	\$954
20 to 24	2,142	\$1,841	\$2,671	1,195	\$1,879	\$2,770	947	\$1,791	\$2,546
25 to 29	2,587	\$2,527	\$3,827	1,587	\$2,604	\$4,013	1,000	\$2,375	\$3,532
30 to 34	2,907	\$2,993	\$4,381	1,869	\$3,171	\$4,462	1,038	\$2,653	\$4,234
35 to 39	3,036	\$3,632	\$5,496	1,971	\$3,916	\$6,044	1,065	\$3,103	\$4,480
40 to 44	2,726	\$4,327	\$6,731	1,848	\$5,083	\$7,715	878	\$2,843	\$4,661
45 to 49	1,946	\$4,299	\$7,073	1,367	\$5,140	\$8,015	579	\$2,639	\$4,848
50 to 54	1,115	\$3,696	\$6,660	775	\$4,990	\$7,913	340	\$1,488	\$3,803
55 to 59	1,011	\$2,871	\$6,042	702	\$4,000	\$7,347	309	\$1,544	\$3,078
60 to 64	902	\$1,879	\$4,641	624	\$2,478	\$5,804	278	\$1,177	\$2,030
65 and over	1,428	\$1,104	\$2,179	942	\$1,471	\$2,662	486	\$774	\$1,244
2000									
Persons with Income									
15+years	34,198	\$1,489	\$8,690	19,936	\$2,044	\$9,634	16,242	\$918	\$7,370
15 to 19	3,423	\$591	\$836	1,802	\$590	\$736	1,621	\$592	\$947
20 to 24	4,174	\$857	\$11,151	2,404	\$886	\$10,518	1,770	\$822	\$12,010
25 to 29	4,225	\$1,298	\$7,206	2,406	\$1,597	\$6,638	1,819	\$949	\$7,957
30 to 34	4,057	\$1,879	\$7,074	2,372	\$2,358	\$6,438	1,685	\$1,097	\$7,970
35 to 39	4,024	\$2,130	\$8,639	2,418	\$2,793	\$12,112	1,606	\$1,078	\$3,410
40 to 44	3,832	\$2,853	\$9,729	2,332	\$3,611	\$8,129	1,500	\$1,664	\$12,216
45 to 49	3,345	\$3,279	\$9,005	2,073	\$4,710	\$9,154	1,272	\$1,614	\$8,762
50 to 54	2,338	\$3,000	\$12,983	1,411	\$4,506	\$18,356	927	\$1,377	\$4,805
55 to 59	1,296	\$2,589	\$14,540	747	\$4,561	\$22,455	549	\$1,125	\$3,770
60 to 64	1,142	\$2,096	\$14,588	673	\$3,065	\$14,602	469	\$957	\$14,568
65 and over	2,342	\$1,209	\$8,797	1,298	\$1,682	\$11,160	1,044	\$857	\$5,859

Source: 1994 FSM Census, Table P48; 2000 FSM Census, Table P3-17.

Individual incomes varied considerably between males and females. Table 11.5 provides the percentage of males and females in each income range. Over 50 percent of the working-age males reported an income compared to about 42 percent of the working-age females. Also, the data showed fewer females having a higher income. If income distribution were equal in the FSM, the percent of females at each income level would be similar to the representation of females who recorded an income. Thus we would expect to see the proportion of women at each income range similar to the distribution of all income earners. Instead we found that women were over-represented at the lower income levels, and under-represented in the higher income levels. .

Given the annual median income of \$918 for income earning females, the average monthly income would be \$97. For males, however, with an annual median income of \$2,044, the average monthly income would be \$170 per month, almost a full \$100 per month difference in income between the sexes.

Table 11.5. Individual Income in 1993 and 2000 by Sex, FSM: 1994 and 2000

Income	1994						2000					
	Number			Percent			Number			Percent		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Persons 15+ years	59,573	30,127	29,446	100.0	50.6	49.4	63,836	31,821	32,015	100.0	49.8	50.2
Total with income	20,924	13,517	7,407	100.0	64.6	35.4	34,198	19,936	14,262	100.0	58.3	41.7
Less than \$999	6,426	3,563	2,863	100.0	55.4	44.6	15,083	7,311	7,772	100.0	48.5	51.5
\$1,000 to \$1,999	2,505	1,581	924	100.0	63.1	36.9	4,121	2,572	1,549	100.0	62.4	37.6
\$2,000 to \$2,999	2,405	1,547	858	100.0	64.3	35.7	3,234	1,951	1,283	100.0	60.3	39.7
\$3,000 to \$3,999	1,992	1,343	649	100.0	67.4	32.6	2,695	1,744	951	100.0	64.7	35.3
\$4,000 to \$4,999	1,354	920	434	100.0	67.9	32.1	1,717	1,143	574	100.0	66.6	33.4
\$5,000 to \$7,499	2,539	1,798	741	100.0	70.8	29.2	3,103	2,164	939	100.0	69.7	30.3
\$7,500 to \$9,999	1,246	888	358	100.0	71.3	28.7	1,376	980	396	100.0	71.2	28.8
\$10,000 to \$12,499	811	580	231	100.0	71.5	28.5	1,011	673	338	100.0	66.6	33.4
\$12,500 to \$14,999	423	321	102	100.0	75.9	24.1	421	314	107	100.0	74.6	25.4
\$15,000 to \$19,999	546	417	129	100.0	76.4	23.6	560	394	166	100.0	70.4	29.6
\$20,000 to \$24,999	263	227	36	100.0	86.3	13.7	386	308	78	100.0	79.8	20.2
\$25,000 to \$34,999	209	166	43	100.0	79.4	20.6	268	212	56	100.0	79.1	20.9
\$35,000 to \$49,999	99	78	21	100.0	78.8	21.2	126	94	32	100.0	74.6	25.4
\$50,000 or more	106	88	18	100.0	83.0	17.0	97	76	21	100.0	78.4	21.6
Median	\$2,637	\$3,050	\$1,910	...	...	...	\$1,489	\$2,044	\$918	...	...	...
Mean	\$4,740	\$5,423	\$3,495	...	...	...	\$3,943	\$4,890	\$2,619	...	...	...

Source: 1994 FSM Census, Table P173; 2000 FSM Census, Table P11-1.

Table 11.6 compares income levels of female headed families (no husband present) to married-couple families and to all families. The median income in each state was considerably less for female-headed families than for married-couple families. In both 1994 and 2000 Censuses, Yap had the largest disparity between median income of married couples versus female-headed families with a difference of \$2,738 in 1994 and \$678 in 2000. Chuuk had the smallest income disparity of about \$1,477 in 1994 and \$504 in 2000 between married couple families and female-headed families. This suggests that a married-couple family is more likely to have a higher income (probably because there are more workers within the household). Although, there is a disparity between the median incomes of married couple families and the female-headed families, the gap is getting smaller.

Table 11.6. Median Family Income in 1993 and 2000 by Type of Family and State, FSM: 1994 and 2000

State	1994						2000					
	Number of Families			Median Income			Number of Families			Median Income		
	Total	Married Couple	Female Hholder, No Husband Present	Total	Married Couple	Female Hholder, No Husband Present	Total	Married Couple	Female Hholder, No Husband Present	Total	Married Couple	Female Hholder, No Husband Present
FSM	10,649	8,715	1,210	\$4,473	\$4,887	\$2,756	13,482	10,359	922	\$4,892	\$4,971	\$3,974
Yap	1,285	997	183	\$5,810	\$6,352	\$3,614	1,428	1,018	101	\$6,860	\$6,928	\$6,250
Chuuk	4,696	3,822	510	\$2,268	\$2,580	\$1,103	6,211	4,770	463	\$2,951	\$2,994	\$2,490
Pohnpei	3,793	3,130	433	\$7,084	\$7,526	\$5,019	4,822	3,761	298	\$6,691	\$6,726	\$6,216
Kosrae	875	766	84	\$6,574	\$6,839	\$4,818	1,021	810	60	\$8,017	\$8,039	\$7,500

Source: 1994 & 2000 FSM Censuses, unpublished data.

As would be expected, income increases with educational attainment (Table 11.7). The median income for a college graduate with a bachelor's degree was 3 times more than the median income of persons who stopped studying after high school. The 2000 data further illustrated that high school graduates had a median income of \$2,934 compared with \$10,871 for persons with a bachelor's degree. Those with only an elementary education had a third of the median income of persons who had high school education. The median income of elementary school educated persons was \$949, slightly higher than individuals with no education (median income of \$736). At every educational level, the median income for women was less than that of men. The most significant differences (of more than \$3,000 per year) occurred with the higher educated income groups.

Table 11.7. Individual Income in 1993 and 1999 by Educational Attainment, FSM: 1994 and 2000.

Educational Attainment	Both			Male			Female		
	Number	Median	Mean	Number	Median	Mean	Number	Median	Mean
1994									
Persons 25+ years with income	19,211	2,815	4,937	12,542	3,207	5,589	6,669	2,145	3,710
No education	1,367	1,680	3,445	881	2,033	4,132	486	1,029	2,199
Elementary									
1-3 grades	648	1,242	2,109	367	1,601	2,542	281	912	1,543
4-7 grades	2,162	1,182	2,055	1,332	1,554	2,493	830	879	1,353
Elem. graduate	2,200	1,682	2,611	1,343	2,003	2,984	857	1,126	2,026
High School									
9-11 grades	2,525	1,344	2,609	1,689	1,643	3,006	836	946	1,808
12, no diploma	1,062	2,151	3,325	704	2,283	3,588	358	1,833	2,808
HS, graduate	3,712	3,379	4,868	2,388	3,676	5,237	1,324	2,881	4,203
College	5,535	6,507	9,103	3,838	6,795	9,924	1,697	5,920	7,247
Some, no degree	2,215	4,728	6,456	1,457	4,864	7,033	758	4,472	5,345
Assoc. academic	1,004	6,124	7,459	704	6,144	7,714	300	6,088	6,863
Assoc. vocational	1,025	6,873	8,384	700	7,023	8,698	325	6,534	7,707
Bachelors	992	10,000	12,788	740	10,645	13,656	252	8,462	10,238
Masters or higher	299	18,648	24,477	237	19,244	26,231	62	17,222	17,773
2000									
Persons 25+ years with income	34,198	1,489	8,690	19,936	2,044	9,634	14,262	918	7,370
No education	3,604	736	1,510	1,859	826	1,993	1,745	660	996
Elementary									
1-3 grades	1,320	1,031	9,235	703	1,359	10,169	617	881	8,170
4-7 grades	4,825	879	3,253	2,723	1,038	4,625	2,102	749	1,476
Elem. graduate	4,944	949	2,941	2,767	1,432	3,523	2,177	755	2,201
High School									
9-11 grades	5,623	829	4,238	3,308	952	6,101	2,315	699	1,576
12, no diploma	2,050	1,249	14,692	1,234	1,778	22,869	816	857	2,327
HS, graduate	4,632	2,934	9,110	2,671	3,459	6,536	1,961	2,345	12,616
College	7,200	6,037	21,272	4,671	6,530	19,911	2,529	5,079	23,786
Some, no degree	3,297	3,675	13,753	2,025	4,110	11,251	1,272	2,905	17,735
Assoc. academic	1,179	6,374	21,012	806	6,507	27,392	373	6,112	7,226
Assoc. vocational	1,336	6,951	32,834	836	7,182	18,874	500	6,579	56,176
Bachelors	1,009	10,871	18,180	723	12,056	18,388	286	9,020	17,656
Masters or higher	379	19,208	54,964	281	20,272	67,863	98	16,000	17,981

Source: 1994 FSM Census, Table P183; 2000 FSM Census, Table P11-12.

A person's economic activity naturally has a bearing on their income. Table 11.8 shows the median income of each of the economic activity categories by sex in 1994 and 2000. Although the data on income refers to a different time period than economic status, the majority of these persons' economic status would not have changed.

Those persons employed in the formal work sector had the highest median income at \$4,271 in 1994, increased to \$4,524 in 2000. Surprisingly, those persons who were not in the labor force but could have taken a job had a median income higher than the persons in subsistence. Those who could have taken a job had an income of \$738 in 2000, and those in the subsistence category had a median income of \$656. This would suggest that almost 20 percent of the subsistence workers and almost 16 percent of persons not in the labor force were receiving income from a source other than wage or salary. Females had consistently lower median incomes than males at every economic status.

Table 11.8. Individual Median Income in 1993 and 1999 by Economic Status the Week Before the Census, FSM: 1994 and 2000.

Economic status	1994					2000				
	Percent of 1994 work force claiming income in 1993		Median income (\$)			Percent of 2000 work force claiming income in 1999		Median income (\$)		
	Number	Total	Male	Female	Number	Total	Male	Female		
Persons 15+ years with income	35.1	20,924	2,637	3,050	1,910	53.6	34,198	1,489	2,044	918
In labor force	60.6	15,728	3,504	3,649	3,196	75.0	24,009	2,416	2,736	1,895
Employed	67.7	14,733	3,732	3,816	3,555	75.8	23,648	2,466	2,786	1,952
Formal work	87.9	12,648	4,271	4,532	3,815	96.0	13,400	4,524	4,804	3,993
Agriculture/fishing	28.3	2,085	1,088	1,209	817	59.5	10,248	776	865	669
Subsistence	19.4	1,138	779	798	716	41.0	4,354	656	696	615
Market oriented	63.1	947	1,733	1,780	1,296	88.9	5,894	898	1,022	735
Unemployed	23.6	995	725	784	668	44.2	361	719	791	628
Not in labor force	15.5	5,196	844	980	748	32.0	10,189	708	789	655
Could have taken a job	16.5	1,008	694	707	685	26.8	5,746	738	864	671
Not available for work	15.2	4,188	890	1,174	768	42.7	4,443	672	719	634

Source: 1994 & 2000 FSM Censuses

Note: Economic status refers to the week before the census, while the income data refer to the 1993 and 1999 incomes.

Table 11.9 shows median income for different occupations. Not all persons who had income in 1993 and 1999 reported an occupation because some persons with income were not working. As was explained in the chapter on occupations, the occupation categories are grouped according to how much skill and experience are needed for a job. Median income in FSM matched the type of skills required for the job. In 1994, executive and managers were the highest paid occupations (median income of \$9,358). The 2000 Census results show that executives and managers were also the highest paid occupations (median income of \$9,694). Professionals, technicians and associate professionals also had higher than average median income.

Similar to findings on education and income, women had lower median income in almost all the occupation group than men except in the subsistence activities, in which the median income is the same for both sexes in 2000. The most visible difference in median income for both sexes is with the professionals and craft workers.

Table 11.9. Median Individual Income in 1993 and 1999 by Occupation, FSM: 1994 and 2000

Occupation	1994						2000					
	Both sexes		Males		Females		Both sexes		Males		Females	
	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median
Experienced work force												
15+ years	12,648	\$4,408	8,779	\$4,617	3,869	\$3,993	13,400	\$4,623	9,014	\$4,841	4,386	\$4,235
Executive and Managers	990	\$9,358	848	\$9,562	142	\$7,708	1,146	\$9,694	989	\$9,721	157	\$9,519
Professionals	1,488	\$6,039	1,006	\$6,331	482	\$5,545	2,464	\$6,701	1,564	\$7,139	900	\$5,944
Technicians and Assoc. Prof.	2,296	\$6,040	1,590	\$6,380	706	\$5,207	2,027	\$6,506	1,390	\$6,669	637	\$6,160
Administrative Support	2,115	\$4,298	608	\$5,261	1,507	\$4,024	2,072	\$4,290	621	\$4,386	1,451	\$4,247
Service Workers	1,741	\$3,045	1,111	\$3,323	630	\$2,694	1,522	\$3,268	1,019	\$3,452	503	\$2,978
Agriculture and Fishing Workers	209	\$3,523	196	\$3,507	13	\$3,750	169	\$4,313	160	\$4,356	9	\$3,750
Subsistence Workers	127	\$4,116	116	\$4,013	11	\$5,625	46	\$4,375	43	\$4,375	3	\$4,375
Craft and Related Workers	1,597	\$3,681	1,418	\$3,814	179	\$2,608	1,545	\$3,543	1,128	\$4,183	417	\$2,103
Machine Operators	814	\$3,789	775	\$3,770	39	\$4,531	858	\$3,871	820	\$3,922	38	\$2,813
Elementary Occu. and Labor	1,268	\$3,155	1,108	\$3,301	160	\$2,336	1,549	\$3,324	1,278	\$3,473	271	\$2,600
Armed Forces	3	\$3,125	3	\$3,125	-	-	2	\$8,750	2	\$8,750	-	-

Source: 1994 FSM Census, Table P187; 2000 FSM Census, Table P11-16.

Note: Occupation refers to the most recent job, while the income data refer to 1993 and 1999 income.

Overall income levels in the public sector were higher than those in the private sector. All but the municipal government workers had median incomes higher than the overall median income (Table 11.10). National government workers had a median income of \$9,937 in 1994 compared to \$10,638 in 2000, which was more than double the median income in the private sector. Very little difference in median income occurred between 'For-profit' and 'Non-profit' enterprise employees. Once again, female median incomes were lower in every category.

Table 11.10. Individual Income in 1993 and 1999 by Class of Work, FSM: 1994 and 2000

Class of Work	Both			Males			Females		
	Number	Median	Mean	Number	Median	Mean	Number	Median	Mean
1994									
Experienced work force									
15+ years	12,648	\$4,408	\$6,579	8,779	\$4,617	\$7,082	4,752	\$3,397	\$4,959
Private Wage/Salary:									
For Profit	4,744	\$3,538	\$5,288	3,074	\$3,765	\$5,878	1,670	\$3,127	\$4,202
Not for Profit	463	\$3,628	\$5,291	250	\$4,100	\$6,234	213	\$3,107	\$4,183
Government:									
Municipal Government	795	\$985	\$2,751	669	\$974	\$2,645	126	\$1,281	\$3,317
State	5,483	\$5,538	\$7,166	4,003	\$5,755	\$7,576	1,480	\$4,970	\$6,056
National	717	\$9,937	\$12,661	484	\$11,124	\$13,914	233	\$8,692	\$10,056
Federal/Foreign	249	\$5,478	\$9,576	153	\$5,905	\$9,959	96	\$4,667	\$8,966
Self-employed	187	\$4,152	\$13,911	138	\$4,000	\$15,220	49	\$4,531	\$10,225
Unpaid family worker	10	\$1,000	\$13,166	8	\$250	\$11,582	2	\$13,750	\$19,500
2000									
Experienced work force									
15+ years	13,400	\$4,623	\$7,458	9,014	\$4,841	\$8,180	4,386	\$4,235	\$5,975
Private Wage/Salary:									
For Profit	5,445	\$3,736	\$6,615	3,407	\$4,075	\$8,061	2,038	\$3,190	\$4,197
Not for Profit	487	\$3,778	\$6,651	280	\$4,247	\$7,200	207	\$3,217	\$5,908
Government:									
Municipal Government	1,093	\$1,304	\$2,881	967	\$1,239	\$2,732	126	\$1,938	\$4,025
State	4,825	\$6,004	\$7,822	3,381	\$6,150	\$7,991	1,444	\$5,688	\$7,425
National	883	\$10,638	\$13,469	606	\$11,240	\$14,578	277	\$9,572	\$11,042
Federal/Foreign	450	\$6,236	\$11,323	238	\$7,083	\$14,728	212	\$5,479	\$7,500
Self-employed	196	\$5,948	\$13,782	127	\$6,691	\$17,210	69	\$4,926	\$7,473
Unpaid family worker	21	\$1,750	\$5,146	8	\$5,000	\$8,868	13	\$1,450	\$2,856

Source: 1994 & 2000 FSM Census, Table P189; 2000 FSM Census, Table P11-18.

Note: Class of work refers to the most recent job, while the income data refer to 1993 and 1999 income.

Table 11.11 presents median income by source and state. The majority of persons who reported income in both 1993 and 1999 received their income from wages or salaries. Many of these individuals also received income from other sources, giving them multiple income sources. Wages and salaries made the largest contribution to income with the largest number of recipients and the highest median amount (\$4,144). Profits from business or farm, provided the second highest number of incomes in 2000 (7,389 persons), but at a low median of \$783. 'Social security, pension, retirement' also provided a significant portion of incomes with about 2,400 persons receiving a median amount of \$1,848 from this source. Remittances from within the FSM had about the same median as remittances from outside of the FSM, both having an average of about \$550 over the year. More persons received remittances from inside the FSM than from outside the FSM. Between 1994 and 2000 the number of people who reported income from a wage or salary was unchanged. There were big increases in the numbers of people reporting income from 'profits for business or farm' and from remittances.

Pohnpei and Chuuk had large differences between the median total income and the income from wages and salaries. The median income from wages and salaries was highest in Pohnpei (\$5,521) and lowest in Chuuk (\$3,447). Remittances were the second most important source of income in Chuuk while profit from business or farm was the second most important source in Pohnpei. Sources of income for Yap and Kosrae were similar to that of the FSM. Every source of income had a lower median for Chuuk than for the other states

Table 11.11. Median Income by Source and State, FSM: 1994 and 2000.

Source of income	1994					2000				
	FSM	Yap	Chuuk	Pohnpei	Kosrae	FSM	Yap	Chuuk	Pohnpei	Kosrae
Persons earning income	20,924	2,557	9,283	7,032	2,052	34,198	3,254	19,090	9,518	2,336
Median total income	\$2,637	\$3,509	\$987	\$4,312	\$3,253	\$1,490	\$3,368	\$785	\$3,319	\$3,355
Wage or salary	14,825	2,174	5,457	5,538	1,656	14,818	2,674	4,872	5,624	1,648
Median	\$3,786	\$3,844	\$2,495	\$5,440	\$3,719	\$4,144	\$3,665	\$3,447	\$5,521	\$4,199
Profit from business or farm	2,098	195	642	1,058	203	7,389	354	3,412	3,145	478
Median	\$877	\$879	\$730	\$1,039	\$825	\$783	\$823	\$678	\$964	\$668
Interest, dividends, trusts, royalty	680	89	297	231	63	787	152	252	244	139
Median	\$696	\$685	\$604	\$831	\$808	\$694	\$628	\$653	\$744	\$781
Social security, pension, retirement	1,986	255	745	706	280	2,437	318	935	844	340
Median	\$1,065	\$1,685	\$828	\$1,164	\$1,321	\$1,848	\$2,082	\$1,562	\$1,982	\$2,082
Remittances from within FSM	3,258	68	2,800	259	131	12,263	73	11,647	414	129
Median	\$546	\$630	\$537	\$629	\$565	\$531	\$562	\$527	\$630	\$598
Remittances from outside FSM	1,893	41	1,546	145	161	5,837	41	5,122	374	300
Median	\$569	\$789	\$553	\$665	\$615	\$565	\$586	\$554	\$701	\$610
Other	333	22	261	40	10	1,459	45	1,248	101	65
Median	\$615	\$734	\$580	\$834	\$715	\$742	\$776	\$740	\$765	\$723

Source: 1994 & 2000 FSM Censuses, unpublished data

Table 11.12 compares gender differentials in sources of income. As expected, most incomes were from wages and salaries. As shown in the 2000 Census, the median wage or salary was \$4,442 for males and \$3,734 for females. The next largest median income component was social security, pension and retirement: \$1,848 was the average income for those 1999 persons who claimed this source of income. Males had a higher median income for every source of income, except for remittances, for which the median incomes were similar for males and females.

Table 11.12. Income Source in 1993 and 1999 by Sex, FSM: 1994 and 2000

Income Source	1994						2000					
	Number of recipients			Median income			Number of recipients			Median income		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Persons 15+ years with income	20,924	13,517	7,407	\$2,637	\$3,050	\$1,910	34,198	19,936	14,262	\$1,490	\$2,044	\$918
Wages and salaries	14,825	10,272	4,553	\$3,786	\$3,940	\$3,472	14,818	9,961	4,857	\$4,144	\$4,442	\$3,734
Profit from business	2,098	1,595	503	\$877	\$925	\$753	7,389	4,953	2,436	\$783	\$862	\$660
Interest and dividends	680	477	203	\$696	\$706	\$613	787	547	240	\$694	\$693	\$698
Social sec. and gov. benefits	1,986	1,207	779	\$1,065	\$1,177	\$955	2,437	1,331	1,106	\$1,848	\$2,138	\$1,598
Remittances (within FSM)	3,258	1,630	1,628	\$546	\$553	\$540	12,263	5,970	6,293	\$531	\$534	\$528
Remittances (outside FSM)	1,893	984	909	\$569	\$575	\$562	5,837	2,847	2,990	\$565	\$564	\$565
Other income	333	200	133	\$615	\$625	\$600	1,459	788	671	\$742	\$823	\$666

Source: 1994 & 2000 FSM Censuses, Unpublished data.

Note: The sum of recipients does not equal the total because some individuals had more than one source of income.

Conclusion

The proportion of persons aged over 15 who reported a cash income increased from 35 percent in 1993 to 54 percent in 1999. Partly because so many people who had no income in 1993 had a small income in 2000, the individual median income in the FSM decreased, from \$2,637 in 1993 to \$1,489 in 2000.

The household median income was \$4,622 (a slight decrease from \$4,694 in 1994). About 90 percent of households included individuals with a cash income in 1999, an increase from 74 percent in 1993.

Yap had the largest individual median income, four times greater than the individual median income in Chuuk, which was the lowest. Household and family incomes were highest in Kosrae, and lowest in Chuuk.

Income levels differences in the FSM showed definite patterns. Higher educated persons had higher incomes than persons with modest educational background; government employees had higher incomes than private sector employees, married couple families had higher incomes than families headed by females, and males had higher incomes than females.

A majority of this income came from wages and salaries. However, the number of people with incomes from wages and salaries did not increase between 1994 and 2000. Instead most new incomes were from other sources, such as businesses and farms, social security and remittances from families. As the people of the FSM become more reliant on the cash economy for their well being, income levels will increasingly become a measuring stick for the quality of life and the distribution of resources.

CHAPTER 12 HOUSING CHARACTERISTICS

Introduction

The information about housing characteristics in the FSM had been organized in this chapter into four major sections; (1) general housing characteristics, (2) structural characteristics, (3) utilities, and (4) equipment. Some tables in this chapter include data from the 1980 and 1994 Censuses to examine the change in housing in the FSM over time.

The data presented in this chapter include the total and different types of housing units found in the 2000 Census. The 2000 Census questionnaire contain the similar set of Census questionnaires used in the 1994 FSM Census, so the comparison of housing data for these two years were consistent.

Data Description

General Housing Characteristics

A *housing unit* is a house, apartment, group of rooms, or single room occupied as separate living quarters or, if vacant, intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants live and eat apart from other persons in the building and which have direct access from outside the building or through a common hall. Housing units built not for household occupancy but for group of unrelated persons was defined as group quarter. Group quarters include institutionalized and non-institutionalized quarters such as prisons/local jails, hospitals, school/college dormitories, etc. This chapter deals exclusively with housing units.

The 2000 FSM Census included both occupied and vacant housing units as part of the housing inventory. Recreational boats, tents, etc, were also included in the questionnaire to enumerate people using them as their usual residence. The Census classified a housing unit as occupied if it was the usual residence of the person or group of persons inhabiting it at the time of enumeration or if the occupants were only temporarily absent.

A vacant housing unit was one, which contained no residents at the time of enumeration, unless its occupants were only temporarily absent. The Census also considered vacant those units temporarily occupied at the time of enumeration by persons who usually resided elsewhere. A new unit not yet occupied was classified as vacant if construction had reached the point where all exterior windows and doors, and final usable floors, were in place. The Census did not consider unoccupied units open to the elements as vacant. Also excluded from vacant units were quarters used entirely for non-residential purposes, such as store, office, or storage facility.

The 2000 FSM Census distinguished between owner-occupied and renter-occupied housing units, a characteristic referred to as tenure. Questionnaire item H22, asked all of the occupied housing units, dealt with tenure.

The Census classified a housing unit as owner-occupied if the owner or co-owner resided in the unit on the Census day, even if the unit was mortgaged or not fully paid for. The remaining occupied housing units were classified as renter-occupied, regardless if cash or some other means of remittance was used. The Census recorded a housing unit as "rented for cash" if any money rent was paid or contracted for; this rent could come from individuals either living in the unit or elsewhere, or from an organization. Rental units classified under "occupied without payment of cash rent" generally were those provided free by friends or relatives, or in exchange for services such as those provided by a resident manager or tenant worker.

Questionnaire item H6 concerned the year a structure was built. Data on year of construction were collected for both occupied and vacant housing units. Data on the year a structure was built referred to when the building was first constructed, not when it was remodeled, added to, or converted. Recently built structures that met the housing unit definitional requirements (all exterior windows, doors, and final usable floors installed) were assigned to the "1999 and 2000" category.

Structural Characteristics

The 2000 FSM Census obtained information on the number of housing units in a structure from questionnaire item H1, which it recorded for all housing units. A structure comprised a separate building that either had open space on all four sides or was separated from other structures by dividing walls that extended from ground to roof. The statistics presented in this report refer to the number of housing units in separate structures of specified type and size. The following categories applied:

- . One-unit, detached -- a single-unit structure detached from any other structure (except a shed or garage). A one-family house, which contained a business, was considered detached as long as the building had open space on all four sides.
- . One-unit, attached -- a one-unit structure that had one or more walls extending from ground to roof separating it from adjoining structures. In double houses and houses attached to non-residential structures, each housing unit was an individual attached structure if the dividing or common wall extended from ground or roof.
- . Two or more units -- housing units in structures containing two or more housing units, further categorized as units in structures with 2, 3 or 4, 5 to 9, 10 to 19, 20 or more units.
- . Other – housing unit that did not fit the previous categories, such as abandoned cars, campers, vans, and shacks.

The 1994 and 2000 FSM Censuses obtained information on the number of rooms per housing unit from questionnaire item H7, with resulting information recorded both for occupied and vacant housing units. The intent of this question was to count the number of whole rooms used for living purposes. For each unit, whole rooms included living rooms, dining rooms, kitchens, bedrooms, finished recreation rooms, enclosed porches suitable for year-round use, and lodger's rooms. Excluded were kitchenettes, bathrooms, open porches, balconies, halls for foyers, utility rooms, unfinished attics or basements, and other unfinished space used for storage.

Data on bedrooms were obtained from questionnaire item H8, with resulting information recorded for both occupied and vacant housing units. The number of bedrooms refers to the count of rooms designed to be used as bedrooms and the number of rooms that one would count as bedrooms when listing a housing unit for sale or for rent. The 2000 Census included as bedrooms all rooms intended for use as bedrooms even if residents were using them for some other purpose on Census Day. Housing units comprising a single room, such as an efficiency apartment, by definition were classified as having no bedroom.

Data on material used for the outside walls of housing units were obtained from questionnaire item H3, for both occupied and vacant housing units. The Census classified each unit according to the type of material used most in the construction of its outside walls and included as separate categories "Poured concrete", "Concrete blocks", "Metal/Tin", "Plywood", "Thatch", "Local wood or bamboo", "Other", and "No walls".

The 1994 and 2000 FSM Censuses collected data on the material used for the roofs of housing units with questionnaire item H4, the results recorded both for occupied and vacant housing units. The Census classified each housing unit according to the type of material used most in the construction of its roof. The material categories employed were "Poured concrete", "Metal/Tin", "Wood", "Thatch", "Bamboo", and "Other".

The 1994 and 2000 FSM Censuses collected data on type of material used for the foundation of housing units with questionnaire item H5, both for occupied and vacant housing units. Census personnel classified each housing unit according to the type of material used most in its foundation. The categories employed were "Concrete", "Wood pier or piling", "Coral", "Stone", and "Other" for those other than the first four categories.

Utilities

The 1994 and 2000 FSM Censuses collected data on electric power with questionnaire items H10, recorded for both occupied and vacant housing units. Even if the power had been shut off for some reason, the Census considered the unit to have electric power.

Drinking water was obtained from questionnaire item H15, also recorded for occupied and vacant housing units. There were 9 categories of sources from which the water was obtained.

"A public system only" refer to when there was running water comes through water pipes from any common source supplying 5 or more houses or apartments and it was the only source of water for the entire household or apartment.

"A community water system only" refer to when there was running water comes through water pipes supplied by a village or community water system or obtained from a well that was maintained by the community.

"A public system and catchment" refer to when there was running water from a public system and there was also catchment in which rainwater was collected.

"An individual well" refers to when the water came from a well on the property or on neighboring property serving fewer than 5 houses or apartments. Well water hand drawn, wind drawn, or engine drawn whether piped or not piped and stored in tanks or used directly from the well were included.

"A catchment, tanks, or drums only" refer to when the source of water was catchment, tanks, or drums in which rainwater was collected. Such sources usually serve only one structure.

"A public standpipe or street hydrant" refers to when there was an elevated tank or vertical storage cylinder connected to a public system from which nearby residents draw water.

"Purchased bottled water" refer to when the household depended only on water purchased from businesses.

"Some other sources such as a spring, river, creek, etc." used by the household as the main source of drinking water.

Data on "Piped water" were obtained from questionnaire items H9a to H9d, recorded for both occupied and vacant housing units. Piped water signified a housing unit where water was available at a sink, wash basin, bathtub, or shower. The piped water may have been located within a housing unit, in a hallway associated with the unit, or in a room used by several other households in the building containing the unit (even if occupants had to go outdoors to reach that part of the building). If both hot and cold water were available, the Census recorded the type of energy used by the water heater; "electricity", "gas", "solar power", or "other fuels".

Data on sewage disposal were obtained from questionnaire item H16, recorded both for occupied and vacant housing units. Housing units were classified as connected to a "public sewer", or a "septic tank or cesspool", or disposing of sewage by "other means". In the FSM a public sewer system may be operated by a government or semi-government body or by a private organization where sewer pipes were connected to a processing plant. The septic tank or cesspool is an underground tank or pit for sewage disposal. The "other" category included housing units that disposed of sewage in any manner not covered by the other specified categories.

Equipment

The 2000 Census obtained information on plumbing facilities from questionnaire items H9a, H9c, and H9d for occupied and vacant housing units. According to U.S. Census Bureau definition, a unit was considered to have complete plumbing facilities when it had piped water, a flush toilet, and a bathtub or shower, regardless of whether these facilities were located in the unit being enumerated or inside the building that contained that unit.

Data on sinks with piped water were obtained from questionnaire item H17e, recorded for both occupied and vacant housing units. For classification as a housing unit possessing a sink with piped water, such a sink had to be in the unit itself or inside the building containing the housing unit enumerated.

Questionnaire items H9d and H16 addressed the type of toilet facilities both in occupied and vacant housing units. A flush toilet consisted of any toilet connected to piped water and emptying into a public sewer, septic tank or cesspool. If the unit did not have a flush toilet, the toilet could be an outhouse, privy or other types of toilet facilities not specified.

The 1994 and 2000 FSM Censuses collected data on bathtub and shower with questionnaire item H9c both for occupied and vacant housing units. A bathtub or shower was counted only if connected permanently to piped running water, thus excluding equipment such as portable bathtubs.

Questionnaire items H17a and H17b concerned cooking facilities and were asked at both occupied and vacant housing units (when possible). Main cooking facilities were those used most often for the preparation of meals, located either outside or inside the housing unit enumerated or in the building containing that housing unit. A housing unit with "No cooking facilities" comprised a unit with no cooking facilities available inside or outside the building.

Questionnaire items H18 and H19 asked for the number of vehicles used for land transportation as well as boats used by the household for water transportation.

Finally, the Census collected data on household appliances such as refrigerator, deep freezer, air-conditioning, television and VCR, telephone or CB radio, and any other battery operated radio.

Analysis of Housing Data

General Housing Characteristics

Table 12.1 shows the two types of housing units: occupied and vacant. Of the 17,299 housing units enumerated in the 2000 FSM Census, 1,576 were vacant with housing data but no population data. A total of 15,723 housing units were occupied.

Tables 12.1, 12.2, and 12.3 compare the total and types of housing units in 2000 with previous Censuses, and the type and age of occupied housing units in each state. Between 1994 and 2000, the total number of housing units in the FSM increased by an average of less than 1 percent per year, lower than 2.2 percent increase observed between 1980 and 1994. The two types of units (occupied and vacant) were also growing at a similar rate over the period observed. The housing units were increasing but slower between 1994 and 2000. About 91 percent of housing units were occupied in 2000, 1 percent less than in 1994.

Table 12.1. Total Housing Units, Occupied Housing Units and Others, FSM: 1980, 1994 and 2000.

Tenure	Number			Annual Percent Change		Percent		
	1980	1994	2000	1980-1994	1994-2000	1980	1994	2000
Total Housing Units	11,562	16,609	17,299	2.20	0.69	100.0	100.0	100.0
Occupied Housing Units	10,522	15,230	15,723	2.20	0.54	91.0	91.7	90.9
Vacant	1,040	1,379	1,576	1.80	2.38	9.0	8.3	9.1

Source: 1980 TTPI Census, H2; 1994 and 2000 FSM Censuses, Table H02.

Government and planning agencies use information on rented occupied units in combination with income and other characteristics to develop housing programs designed to meet the housing needs of people at different economic levels.

Table 12.2 shows the total occupied units and tenure by states in 1994 and 2000. In line with the distribution between the states, most of the housing units were located in Chuuk with the least in Kosrae. In 2000, Pohnpei reported the most housing units rented for cash at 286 units (5.1 percent of its total housing units). This was due in

part to Pohnpei being the capital seat of the national government and college with many out-of-state employees who were most likely to be renters. Yap also had about 6 percent of its housing units rented for cash.

Between 1994 and 2000, the proportion of housing units occupied rent-free declined by 12 percentage points. A similar level of decline is seen in all the states except for Kosrae. In the same period, the proportion of housing units that were owners occupied increased from 76 percent to 91 percent. The population of housing units that were owners occupied increased in all 4 states.

Table 12.2. Total Housing Units by State, FSM: 1994 and 2000.

	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
All units	16,609	1,980	7,581	6,030	1,018	17,299	2,246	7,417	6,549	1,087
Occupied Housing Units										
Number	15,230	1,925	7,043	5,298	964	15,723	2,030	6,976	5,630	1,087
Owner	11,643	1,442	5,301	4,035	865	14,325	1,750	6,456	5,064	1,055
Renter	3,587	483	1,742	1,263	99	1,398	280	520	566	32
Cash	407	29	57	307	14	454	120	40	286	8
No cash	2,795	412	1,494	835	54	944	160	480	280	24
Others	385	42	191	121	31	...	...	...	...	...
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Owner	76.4	74.9	75.3	76.2	89.7	91.1	86.2	92.5	89.9	97.1
Renter	23.6	25.1	24.7	23.8	10.3	8.9	13.8	7.5	10.1	2.9
Cash	2.7	1.5	0.8	5.8	1.5	2.9	5.9	0.6	5.1	0.7
No cash	18.4	21.4	21.2	15.8	5.6	6.0	7.9	6.9	5.0	2.2
Others	2.5	2.2	2.7	2.3	3.2	...	...	...	...	...

Source: 1994 & 2000 FSM Censuses, Table H06.

The year of construction indicated the amount of new housing constructed and provided the age of the FSM housing. It also measures, when used in combination with data from previous Censuses, the disappearance of old housing from the inventory. Table 12.3 shows the age of the housing units in the FSM by State in 2000. In every state, most houses were constructed between 1980 and 1987. Pohnpei had the highest portion of houses built in that particular period probably because of the high demand for rental housing by people who moved to Pohnpei to work for the national government.

Table 12.3. Year House Built by State, FSM: 2000

State	Number										Percent									
	Total	1999-2000	1996-1998	1993-1995	1988-1992	1980-1987	1970-1979	1960-1969	before 1960	Don't know	Total	1999-2000	1996-1998	1993-1995	1988-1992	1980-1987	1970-1979	1960-1969	before 1960	Don't know
Total HU	17,299	1,036	2,082	2,133	2,654	3,695	2,450	863	663	1,723	100.0	6.0	12.0	12.3	15.3	21.4	14.2	5.0	3.8	10.0
Yap	2,246	102	283	305	315	465	294	107	96	279	100.0	4.5	12.6	13.6	14.0	20.7	13.1	4.8	4.3	12.4
Chuuk	7,417	386	814	991	1,363	1,754	1,317	345	83	364	100.0	5.2	11.0	13.4	18.4	23.6	17.8	4.7	1.1	4.9
Pohnpei	6,549	479	823	658	753	1,200	745	386	477	1,028	100.0	7.3	12.6	10.0	11.5	18.3	11.4	5.9	7.3	15.7
Kosrae	1,087	69	162	179	223	276	94	25	7	52	100.0	6.3	14.9	16.5	20.5	25.4	8.6	2.3	0.6	4.8

Source: 2000 FSM Censuses, H01.

Structural Characteristics

Description of information on building indicates that structure could be used as an aid in planning for extension of utility lines, schools and playgrounds and environmental needs.

Table 12.4 shows the number of occupied housing units by number of units within each structure. Between 1994 and 2000, units in multiple apartments (except 2 apartment buildings) increased by at least 38 percent. The majority of the occupied housing units were single detached housing units. In 2000, housing units attached to one or more other units were 8.7 percent or about 79.8 percentage points lower than the one-detached structures. There was a total of 334 structures with multiple apartment units reported. Structures with 3 or 4 apartments were less common than those with 5 or more apartments.

Table 12.4. Occupied Housing Units by Number of Units per Structure, FSM: 1994 and 2000..

Units in Structure	Number		Percent change		Percent	
	1994	2000	1994-2000		1994	2000
Occupied HU	15,230	15,723	3.2		100.0	100.0
One detached	13,513	13,909	2.9		88.7	88.5
One or more attached	1,074	1,373	27.8		7.1	8.7
Bldg. w/ 2 apt.	106	106	...		0.7	0.7
Bldg. w/ 3 or 4	64	90	40.6		0.4	0.6
Bldg. w/5 or more	100	138	38.0		0.7	0.9
Other	373	107	(71.3)		2.4	0.7

Source: 1994 & 2000 FSM Censuses, H01 and unpublished data.

In both Census years, the single detached housing unit was most commonly found in all the states (Table 12.5). One or more attached housing units and apartments were still most commonly found in Pohnpei and Chuuk. This could be due to the customs and traditions whereby extended families lived in a compound and share one kitchen, and also the house rental demand. Pohnpei had the most apartments, which were mostly rental units. Kosrae had no housing structures with 3 or more units.

Table 12.5 Units in Structure by State, FSM: 1994 and 2000.

State	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
All occupied HUs	15,230	1,925	7,043	5,298	964	15,723	2,030	6,976	5,630	1,087
One detached	13,511	1,761	6,297	4,550	903	13,909	1,770	6,525	4,570	1,044
One or more attached	1,073	177	433	467	56	1,373	156	373	806	38
Building with 2 apartments	105	18	21	64	2	106	10	24	69	3
Building with 3 or 4 apartments	64	11	22	31	-	90	36	20	34	-
Building with 5 or more apartments	103	13	22	68	-	138	44	12	82	-
Others	374	5	248	118	3	107	14	22	69	2

Source: 1994 & 2000 FSM Censuses, Table H01, and unpublished data.

The number of rooms provides the basis for estimating the amount of living and sleeping space in the housing unit. Table 12.6 shows the percentage change in the number of rooms per occupied housing unit and the percent of units with 1 to 8 or more rooms in 1980 to 2000. The increases in the number of rooms in 1994 and 2000 implied that people were getting wealthier. The availability of housing loan packages provided by the federal and local housing programs could have also caused this increase. Over the 2 decades observed the average number of rooms per unit increased by about 2 rooms. Western influences on the way of life in the FSM also contributed to the increasing number of rooms within a unit. For convenience, rooms for kitchens, bathrooms, showers, etc. were built inside the unit. For privacy purpose, separate rooms were built for the parents and the children as well.

Table 12.6. Rooms, FSM: 1980, 1994 and 2000

Rooms	Number			Percent Change		Percent		
	1980	1994	2000	1980-1994	1994-2000	1980	1994	2000
Occupied HU	10,557	15,230	15,723	44.3	3.2	100.0	100.0	100.0
1 room	3,400	3,494	3,486	2.8	(0.2)	32.2	22.9	22.2
2 room	2,931	3,238	3,291	10.5	1.6	27.8	21.3	20.9
3 room	2,124	3,240	3,455	52.5	6.6	20.1	21.3	22.0
4 room	1,242	2,425	2,529	95.2	4.3	11.8	15.9	16.1
5 room	561	1,679	1,826	199.3	8.8	5.3	11.0	11.6
6 room	204	733	689	259.3	(6.0)	1.9	4.8	4.4
7 room	44	258	253	486.4	(1.9)	0.4	1.7	1.6
8 or more room	51	164	194	221.6	18.3	0.5	1.1	1.2
Median	1.6	3.3	3.3	...	...	...	...	...

Source: 1980 TTPI, H03; 1994 & 2000 FSM Censuses, Table H02 and unpublished data.

On the average, housing units in Yap and Pohnpei had slightly lower numbers of rooms than those in Chuuk and Kosrae (Table 12.7). This difference suggested that housing units in Chuuk and Kosrae were more likely to have kitchens, bathrooms and living rooms than the state of Pohnpei and Yap. In Chuuk and Kosrae, houses with three rooms were the most common, whereas houses in Pohnpei were most likely to have two rooms, and houses in Yap were most likely to have one.

Table 12.7. Rooms by State, FSM: 1994 and 2000.

State	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
All occupied Housing Units	15,230	1,925	7,044	5,298	964	15,723	2,030	6,976	5,630	1,087
Number of rooms										
1	3,494	681	1,319	1,427	67	3,486	690	1,334	1,333	129
2	3,238	421	1,345	1,268	204	3,291	410	1,311	1,371	199
3	3,240	377	1,543	1,078	242	3,455	400	1,590	1,204	261
4	2,425	213	1,329	715	168	2,529	263	1,306	764	196
5	1,679	140	945	434	160	1,826	184	921	554	167
6	733	61	390	206	76	689	51	348	216	74
7	258	20	109	102	27	253	16	101	99	37
8+	164	12	64	68	20	194	610	65	89	24
Median	3.3	2.7	3.6	3	3.9	3.3	2.7	3.5	3.1	3.8

Source: 1994 & 2000 FSM Censuses, Table H02 and unpublished data.

The number of bedrooms was used in combination with number of occupants to provide a measure of crowding. Builders and planners use this information to find out how much additional housing is needed to relieve crowded housing conditions.

Table 12.8 compares the bedrooms reported for units in 1980 to 2000 Censuses and the percentage change overtime. Over the 20 years period, the total number of housing units in the FSM increased by 50 percent. While the proportion of housing units with 1 bedroom showed a relatively low increase change, multiple bedrooms increased by over 100 percent. These changes show that people tend to build units with multiple bedrooms even though the average household and family size declined (see chapter 3).

Table 12.8. Bedrooms, FSM: 1980, 1994 and 2000.

Bedrooms	Bedrooms			Percent Change		Percent		
	1980	1994	2000	1980-1994	1994-2000	1980	1994	2000
Total HU	11,304	16,609	17,299	46.9	4.2	100.0	100.0	100.0
1 bedroom	6,632	6,482	6,706	(2.3)	3.5	58.7	39.0	38.8
2 bedrooms	2,577	5,509	5,661	113.8	2.8	22.8	33.2	32.7
3 bedrooms	1,473	3,006	3,189	104.1	6.1	13.0	18.1	18.4
4 bedrooms	467	1,196	1,282	156.1	7.2	4.1	7.2	7.4
5 or more bedrooms	155	416	461	168.4	10.8	1.4	2.5	2.7
Median	1.9	2.3	2.3	...	...	...	...	...

Source: 1980 TTPI, H12; 1994 & 2000 FSM Censuses, H02.

Table 12.9 shows the number of units with 1 bedroom to 5 or more bedrooms in each state. In the 2000 Census one-bedroom housing units were most common in Yap and Pohnpei while two-bedroom units were common in Kosrae (a similar distribution was observed in 1994). The number of units with 1 and 2 bedrooms were about the same in Chuuk. Chuuk and Pohnpei had the most units with 5 or more bedrooms reported. Yap had the least number and proportion of units with five or more bedrooms.

Table 12.9. Bedrooms by State, FSM: 1994 and 2000.

State	Total HUs	1994					Total HUs	2000				
		Number of Bedrooms						Number of Bedrooms				
		1	2	3	4	5+		1	2	3	4	5+
Total	16,609	6,482	5,509	3,006	1,196	416	17,299	6,706	5,661	3,189	1,282	461
Yap	1,980	864	620	352	109	35	2,246	973	689	413	125	46
Chuuk	7,581	2,624	2,598	1,611	584	164	7,417	2,533	2,554	1,543	631	156
Pohnpei	6,030	2,751	1,911	859	355	154	6,549	2,941	2,065	997	371	175
Kosrae	1,018	243	380	184	148	63	1,087	259	353	236	155	84

Source: 1994 & 2000 FSM Censuses, Table H02.

Type of material used for roofs, walls, and foundation were used to determine the structural composition of housing and as an indicator of housing that might endanger the health and safety of the occupants (Table 12.10). The main materials used for the roofs of the housing units in all Census years were metal roofing. About 3 in every 4 housing units in all FSM Census years used metal roofing. While metal roofs, wood, and thatch roofs generally declined overtime, concrete roofs increased. In other words, people are turning away from using local materials but using imported materials. Among other reasons, concrete structures last longer and are better for the FSM where

tropical storms frequently hit. Wood roofs were mainly housing units on lower floor of multiple-story buildings that have a wooden-floor divider between the lower and upper floor.

Table 12.10. Materials Used for Roof, FSM: 1980, 1994 and 2000

Type of Material	Number			Percent		
	1980	1994	2000	1980	1994	2000
Housing Units	11,562	16,609	17,299	100.0	100.0	100.0
Poured Concrete	243	2,466	2,623	2.1	14.8	15.2
Metal	9,023	12,668	12,494	78.0	76.3	72.2
Wood	345	187	100	3.0	1.1	0.6
Thatch	1,788	1,157	1,861	15.5	7.0	10.8
Other	163	131	221	1.4	0.8	1.3

Source: 1980 TTPI Census, H12; 1994 & 2000 FSM Censuses, Table H01, and unpublished data.

Over 72 percent of housing units in the FSM had metal or tin roofing (a decrease of 4 percentage points compared to 1994). The preference to use metal/tin for roofing may be due to its usefulness in catching rainwater, especially for drinking. Poured concrete was the second most commonly used material for roofing in all the states except Yap. Other types of roofing (which includes thatched, wooden, etc) had a much higher share in Yap compare to other states. This difference in Yap may be due in part to its conservative lifestyle, based largely on customs and traditional practices.

Table 12.11. Materials Used for Roof by State, FSM: 1994 and 2000.

Number	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Total	16,609	1,980	7,581	6,030	1,018	17,299	2,246	7,417	6,549	1,087
Poured concrete	2,466	101	1,241	993	131	2,623	109	1,259	1,063	192
Metal	12,668	1,427	5,982	4,405	854	12,494	1,643	5,576	4,422	853
Other	1,475	452	358	631	33	2,182	494	582	1,064	42
Percent										
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Poured concrete	14.8	5.1	16.4	16.5	12.9	15.2	4.9	17.0	16.2	17.7
Metal	76.3	72.1	78.9	73.1	83.9	72.2	73.2	75.2	67.5	78.5
Other	8.9	22.8	4.7	10.5	3.2	12.6	22.0	7.8	16.2	3.9

Source: 1994 & 2000 FSM Censuses, Table H01.

Table 12.12 presents the type of materials used for walls in the 1980, 1994 and 2000 FSM Censuses. The proportion of housing units with poured concrete walls decreased in the 2000 Census while the others continue to increase. The increase in concrete implies the quality and value of houses improved over the period.

Table 12.12. Materials Used for Walls, FSM: 1980, 1994 and 2000.

Type of materials	Number			Percent Change		Percent		
	1980	1994	2000	1980-1994	1994-2000	1980	1994	2000
All housing units	11,562	16,609	17,299	2.2	4.2	100.0	100.0	100.0
Concrete	1,690	6,990	7,315	5.4	4.6	14.6	42.1	42.3
Poured concrete	486	3,272	3,157	6.1	(3.5)	4.2	19.7	18.2
Concrete blocks	1,204	3,718	4,158	4.8	11.8	10.4	22.4	24.0
Metal	4,116	4,970	4,510	1.2	(9.3)	35.6	29.9	26.1
Plywood	4,835	4,206	5,029	(1.1)	19.6	41.8	25.3	29.1
No walls	346	86	109	(21.6)	26.7	3.0	0.5	0.6
Others	575	357	336	(4.4)	(5.9)	5.0	2.1	1.9

Source: 1980 TTPI Census, H12; 1994 & 2000 FSM Censuses, Table H01.

The 2000 Census data showed that 46 percent of housing units in Yap had metal walls compared to less than 27 percent in the other states. Housing units in Chuuk, Pohnpei and Kosrae commonly had concrete walls, suggesting more modern housing conditions in these states.

Table 12.13. Materials Used for Outside Walls by State, FSM: 1994 and 2000.

Materials Used	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Number										
Total	16,609	1,980	7,581	6,030	1,018	17,299	2,246	7,417	6,549	1,087
Concrete	6,990	428	2,869	3,074	619	7,315	579	2,946	3,056	734
Metal	4,971	950	2,331	1,663	27	4,510	1,037	1,980	1,477	16
Wood and Other	4,648	602	2,381	1,293	372	5,474	630	2,491	2,016	337
Percent										
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Concrete	42.1	21.6	37.8	51.0	60.8	42.3	25.8	39.7	46.7	67.5
Metal	29.9	48.0	30.7	27.6	2.7	26.1	46.2	26.7	22.6	1.5
Wood and Other	28.0	30.4	31.4	21.4	36.5	31.6	28.0	33.6	30.8	31.0

Source: 1994 & 2000 FSM Censuses, Table H01.

Table 12.14 presents the types of house foundations in the states. The majority of the housing units in the states had concrete foundation. Almost all the housing units in Kosrae had concrete foundation. On the other hand, only half of housing units in Yap had concrete foundation.

Table 12.14. Materials Used for Foundation of All Housing Units by State, FSM: 1994 and 2000.

Materials Used	1994					2000				
	FSM	Yap	Chuuk	Pohnpei	Kosrae	FSM	Yap	Chuuk	Pohnpei	Kosrae
Number										
Total	16,609	1,980	7,581	6,030	1,018	17,299	2,246	7,417	6,549	1,087
Concrete	10,845	863	5,041	3,979	962	11,378	1,151	4,984	4,224	1,019
Wood/Pier/Piling	4,428	778	1,894	1,712	44	4,848	827	1,937	2,028	56
Stone/Coral/others	1,336	339	646	339	12	1,073	268	496	297	12
Percent										
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Concrete	65.3	43.6	66.5	66.0	94.5	65.8	51.2	67.2	64.5	93.7
Wood/Pier/Piling	26.7	39.3	25.0	28.4	4.3	28.0	36.8	26.1	31.0	5.2
Stone/Coral/others	8.0	17.1	8.5	5.6	1.2	6.2	11.9	6.7	4.5	1.1

Source: 1994 & 2000 FSM Censuses, Table H01.

Utilities

Data on electric power and air conditioning are useful in planning and assessing power consumption, living conditions, and the housing quality. Data are also useful in planning energy/power service programs and seeking alternative economical power sources.

Table 12.15 shows an increase in the usage of public utility power, generator, and solar power in the FSM between 1980 and 2000. In 1980, only 28 percent of housing units had electricity, no units had solar power and the majority had no electricity. But in 2000, about 54 percent used electricity. Housing units using solar power increased from less than 1 percent to 4 percent over the 20-year period. In 1980, 7 out of every 10 units were not using any means of electricity but in 2000 more than 5 out of every 10 units had electricity.

Table 12.15. Electric Power, FSM: 1980, 1994 and 2000.

Electric Power	Number			Percent		
	1980	1994	2000	1980	1994	2000
Housing Units	11,562	16,609	17,299	100.0	100.0	100.0
With Electricity	3,276	8,401	9,269	28.3	50.6	53.6
Public utility	2,247	7,713	7,900	19.4	46.4	45.7
Generator	1,029	688	696	8.9	4.1	4.0
Solar Power	-	103	673	-	0.6	3.9
No electricity	8,286	8,105	8,030	71.7	48.8	46.4

Source: 1980 TTPI Census, H10; 1994 & 2000 FSM Censuses, Table H04.

More than half of the housing units in the FSM used electricity and over 5 percent had air-conditioning (Table 12.16). In 2000, all housing units in Kosrae had access to electricity. Chuuk, on the other hand, had the lowest proportion of housing units using electricity, largely because of the inaccessibility of power to the vast number of housing units on the outer islands.

Table 12.16. Electricity and Air Conditioning, FSM: 1994 and 2000.

State	1994					2000				
	Number			Percent		Number			Percent	
	Total Units	Elect-ricity	Air condi-tioning	Elect-ricity	Air condi-tioning	Total Units	Elect-ricity	Air condi-tioning	Elect-ricity	Air condi-tioning
Total	16,609	8,401	901	50.6	5.4	17,299	9,269	967	53.6	5.6
Yap	1,980	1,048	76	52.9	3.8	2,246	1,315	176	58.5	7.8
Chuuk	7,581	2,662	273	35.1	3.6	7,417	2,421	218	32.6	2.9
Pohnpei	6,030	3,738	482	61.8	8.0	6,549	4,446	515	67.9	7.9
Kosrae	1,018	953	70	93.6	6.9	1,087	1,087	58	100.0	5.3

Source: 1994 & 2000 FSM Censuses, Table H04

Lack of water supply and flush toilets has been connected with diseases and morbidity in the past. For instance, social problems of urbanization were well documented in July 1982 when sewage disposal in Chuuk lagoon contaminated seafood and resulted in a severe cholera outbreak. Subsequent studies revealed that only 6 percent of households in Weno during that time had adequate sanitation (central water supply and flush toilet), (Connell 1983:7/8).

Table 12.17 shows the number of housing units using piped water in 1980, 1994 and 2000 and change overtime. Housing units with piped water increased more than 10 fold and the units with no piped water decreased by 20 percent. This shows that the piped water system had been expanded over the two decades. In recent years, the number of housing units with both hot and cold piped water declined slightly.

Table 12.17. Piped Water, FSM: 1980, 1994 and 2000

Piped Water	Number			Percent Change		Percent		
	1980	1994	2000	1980-1994	1994-2000	1980	1994	2000
Total Housing Units	11,562	16,609	17,299	43.7	4.2	100.0	100.0	100.0
Piped Water	726	7,276	8,642	902.2	18.8	6.3	43.8	50.0
Hot and cold Piped water	211	670	568	217.5	(15.2)	1.8	4.0	3.3
Cold water only	515	6,606	8,074	1,182.7	22.2	4.5	39.8	46.7
No piped water	10,836	9,333	8,657	(13.9)	(7.2)	93.7	56.2	50.0

Source: 1980 TTPI, H2; 1994 & 2000 FSM Censuses, Table H03.

Table 12.18 further examines availability of water by state. Water supply varied by state. In 2000 about 3 out of every 4 houses in Chuuk had no piped water compared to less than 2 out of every 4 in Yap, Pohnpei and Kosrae. In Kosrae, more than 90 percent of the housing units had piped water. About 3 percent of all housing units in FSM used both hot and cold water, most of which were in Pohnpei. The unavailability of water supply in Chuuk suggested that water improvement programs/projects should be a priority in the planning efforts of that state.

Table 12.18. Water Supply, FSM: 1994 and 2000.

Characteristics	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Number										
Total Housing Units	16,609	1,980	7,581	6,030	1,018	17,299	2,246	7,417	6,549	1,087
Hot and Cold	670	53	180	399	38	568	101	62	368	37
Cold Only	6,606	954	1,722	3,027	903	8,074	1,093	1,779	4,178	1,024
No Piped Water	9,333	973	5,679	2,604	77	8,657	1,052	5,576	2,003	26
Percent										
Total Housing Units	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Hot and Cold	4.0	2.7	2.4	6.6	3.7	3.3	4.5	0.8	5.6	3.4
Cold Only	39.8	48.2	22.7	50.2	88.7	46.7	48.7	24.0	63.8	94.2
No Piped Water	56.2	49.1	74.9	43.2	7.6	50.0	46.8	75.2	30.6	2.4

Source: 1994 & 2000 FSM Census, Table H03.

Table 12.19 presents data on the sources of drinking water of households in FSM from the 1980, 1994 and 2000

Censuses. Between 1980 and 2000 the number of households using catchment, tanks or drums, and public and community system both increased significantly. The use of individual wells and public standpipes and other sources decreased.

Table 12.19. Source of Drinking Water, FSM: 1980, 1994 and 2000.

Source of Drinking Water	Number			Percent change		Percent		
	1980	1994	2000	1980-1994	1994-2000	1980	1994	2000
Total Housing Units	11,562	16,609	17,299	43.7	4.2	100.0	100.0	100.0
Public & community systems	2,690	4,738	5,369	76.1	13.3	23.3	28.5	31.0
Individual Well	1,586	1,518	850	(4.3)	(44.0)	13.7	9.1	4.9
Catchment, tank, drums	4,687	8,395	9,681	79.1	15.3	40.5	50.5	56.0
Public stand pipe	351	120	60	(65.8)	(50.0)	3.0	0.7	0.3
Other	2,248	1,838	1,339	(18.2)	(27.1)	19.4	11.1	7.7

Source: 1980 TTPI Census, H10; 1994 & 2000 FSM Censuses, Table H03

Table 12.20 reports the main source of drinking water in the states. In Chuuk, Kosrae and Yap, main source of water was catchment tanks and drums. In Pohnpei, the major source of drinking water is the public system. Improvement of the public water system in Pohnpei (in terms of accessibility) may be the major cause of this trend. Individual wells were also mostly used in Pohnpei. In Yap, Kosrae and Pohnpei the main source of water was the community system. A small portion of housing units used public standpipe or bottled water.

Table 12.20. Source of Drinking Water by State, FSM: 1994 and 2000

Source of Drinking water	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Total HUs	16,609	1,980	7,581	6,030	1,018	17,299	2,246	7,417	6,549	1,087
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Public system only	15.0	4.0	3.4	35.1	3.0	13.4	12.0	0.9	30.2	0.8
Comm. system only	7.8	21.8	2.6	8.1	16.8	12.1	17.9	2.0	21.9	10.9
Public system & catchment	2.9	5.1	1.8	2.0	11.8	1.7	2.8	1.1	2.0	2.1
Comm. System & catchment	2.9	5.8	2.2	2.2	7.2	3.8	6.5	2.1	4.0	8.5
Individual well	9.1	1.3	8.0	14.5	1.1	4.9	0.7	4.3	7.7	1.0
Catchment, tank, drums only	50.5	60.7	69.3	22.5	57.1	56.0	58.4	82.5	22.2	73.2
Public stan-pipe	0.7	-	1.0	0.6	1.0	0.3	0.4	0.4	0.3	0.3
Bottled water	1.2	0.5	0.8	2.0	0.1	1.0	0.4	0.2	2.3	0.8
Others source	9.9	0.9	10.8	13.0	2.0	6.7	0.8	6.5	9.6	2.4

Source: 1994 & 2000 FSM Censuses, Table H03.

Table 12.21 presents data on the type of sewage disposal in FSM from the 1980, 1994 and 2000. Over the 20-year period, the proportion of public sewer recipients doubled and the proportion of Septic tanks or cesspools are more than doubled. The proportion of housing units with none or other methods of sewage disposal decreased by about 18 percentage points since 1980, but still remained high at 75 percent in 2000. This number is still large enough to raise concern, especially regarding health and environmental issues.

Table 12.21. Sewage disposal, FSM: 1980, 1994 and 2000.

Sewage disposal	Number			Percent change		Percent		
	1980	1994	2000	1980-1994	1994-2000	1980	1994	2000
Total housing units	11,562	16,609	17,299	43.7	4.2	100.0	100.0	100.0
Public sewer	560	1,781	1,785	218.0	0.2	4.8	10.7	10.3
Septic tank - cesspool	362	2,796	2,579	672.4	(7.8)	3.1	16.8	14.9
Others	10,640	12,032	12,935	13.1	7.5	92	72.4	74.8

Source: 1980 TTPI Census, H10; 1994 & 2000 FSM Censuses, Table H03

Table 12.22 presents data on sewage disposal systems in each state. In the 2000 Census, Pohnpei had the highest proportion of housing units connected to public sewer systems at about 14 percent. Chuuk had the lowest proportion of housing units connected to the public sewer system at 6 percent. In Yap, Chuuk and Pohnpei, most housing unit's use other sewage disposal methods (such as pits, benjo, etc.).

Table 12.22. Sewage Disposal by State, FSM: 1994 and 2000.

Type of disposal	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Number										
All Housing Units	16,609	1,980	7,581	6,030	1,018	17,299	2,246	7,417	6,549	1,087
Public sewer	1,781	185	550	832	214	1,785	273	458	938	116
Septic tank/cesspool	2,796	113	941	1,180	562	2,579	261	530	1,117	671
Other	12,032	1,682	6,090	4,018	242	12,935	1,712	6,429	4,494	300
Percent										
All Housing Units	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Public sewer	10.7	9.3	7.3	13.8	21.0	10.3	12.2	6.2	14.3	10.7
Septic tank/cesspool	16.8	5.7	12.4	19.6	55.2	14.9	11.6	7.1	17.1	61.7
Other	72.5	84.9	80.3	66.6	23.8	74.8	76.2	86.7	68.6	27.6

Source: 1994 & 2000 FSM Censuses, H03.

Table 12.23 presents data on the percent change in plumbing facilities and the percentage distribution of the types of plumbing facilities in 1980, 1994 and 2000. Complete plumbing units were those with piped water, bathtub or shower, toilet, and kitchen facilities inside the housing units. Housing units with complete cold-water plumbing had the largest increase (about 347 percent). The number of units lacking complete plumbing increased by 40 percent during the period observed. The number of units with hot and cold-water facilities was reported more than doubled in size over the 20-year period.

Table 12.23. Plumbing Facilities, FSM: 1980 and 1994 & 1994 and 2000.

Plumbing Facilities	Number			Percent Change		Percent		
	1980	1994	2000	1980-1994	1994-2000	1980	1994	2000
Total Housing Units	11,562	16,609	17,299	43.7	4.2	100.0	100.0	100.0
With Complete Plumbing	535	3,094	1,900	478.3	(38.6)	4.6	18.6	11.0
With Hot & cold water	211	670	450	217.5	(32.8)	1.8	4.0	2.6
With cold only	324	2,424	1,450	648.1	(40.2)	2.8	14.6	8.4
Lacking complete plumbing	11,027	13,515	15,399	22.6	13.9	95.4	81.4	89.0

Source: 1980 TTPI Census, H2; 1994 & 2000 FSM Censuses, Table H03.

Table 12.24 shows data on the number of housing units equipped with complete plumbing facilities at the time of Censuses in 1994 and 2000. Lack of development in the outer islands and the remote areas from the center contributed to the high proportion of units still lacking complete plumbing. The 2000 Census data showed that over 50 percent of the housing units equipped with water heaters were found in Pohnpei, where many of the expatriates reside in apartment building with this amenity.

Table 12.24. Plumbing Facilities by States, FSM: 1994 and 2000.

Plumbing condition	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Total Housing Units	16,609	1,980	7,581	6,030	1,018	17,299	2,246	7,417	6,549	1,087
With complete plumbing	3,094	426	658	1,689	321	1,900	308	197	1,205	190
Hot and cold water	670	53	180	399	38	450	90	43	288	29
Cold water only	2,424	373	478	1,290	283	1,450	218	154	917	161
Lacking complete plumbing	13,515	1,554	6,923	4,341	697	15,399	1,938	7,220	5,344	897

Source: 1980 TTPI Census, H2; 1994 & 2000 FSM Censuses, Table H03.

Table 12.25 shows that housing units with "other or none" toilet facilities (including outhouse or privy) decreased by 11 percent over the period between 1994 and 2000. On the other hand, housing units with flush toilet had increased over the period observed suggesting sanitary improvement.

Table 12.25. Toilet Facilities, FSM: 1980 and 1994 & 1994 and 2000.

Toilet Facilities	Number			Percent change		Percent		
	1980	1994	2000	1980-1994	1994-2000	1980	1994	2000
Total Housing Units	11,562	16,609	17,299	43.7	4.2	100.0	100.0	100.0
Flush toilet inside	663	2,472	2,693	272.9	8.9	5.7	14.9	15.6
Flush toilet outside	1,011	3,243	4,912	220.8	51.5	8.7	19.5	28.4
Other or None	9,888	10,894	9,694	10.2	(11.0)	85.5	65.6	56.0

Source: 1980 TTPI Census, H2; 1994 & 2000 FSM Censuses, Table H03.

Table 12.26 presents data on the number of units with toilet facilities by state. Similar to the overall trend, housing units reporting presence of flush toilet had increased over the Census years observed. The highest increase was in Yap with about 11 percentage points and least in Kosrae at 6 percentage points.

As shown in the 2000 Census data, about 3 of every 5 occupied housing units still lacked flush toilets. Either they were still using benjo or pits or no toilet facilities at all. About 28 percent of housing units reported flush toilets outside the unit while only 16 percent had flush toilets installed inside the unit. While Yap and Chuuk had a majority of their housing units not equipped with flush toilets, Kosrae had almost 92 percent of the units equipped with flush toilets, followed by Pohnpei, about 52 percent. Kosrae had the highest proportion (about 27 percent) of units with toilet facilities inside the unit while Chuuk had the lowest (about 6 percent).

Table 12.26. Toilet Facilities by State, FSM: 1994 and 2000.

Characteristics	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Number										
All Housing Units	16,609	1,980	7,581	6,030	1,018	17,299	2,246	7,417	6,549	1,087
Inside	2,472	263	606	1,334	269	2,693	378	487	1,531	297
Outside	3,243	100	1,320	1,223	600	4,912	271	2,043	1,898	700
No toilet	10,894	1,617	5,655	3,473	149	9,694	1,597	4,887	3,120	90
Percent										
All Housing Units	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Inside	14.9	13.3	8.0	22.1	26.4	15.6	16.8	6.6	23.4	27.3
Outside	19.5	5.1	17.4	20.3	58.9	28.4	12.1	27.5	29.0	64.4
No toilet	65.6	81.7	74.6	57.6	14.6	56.0	71.1	65.9	47.6	8.3

Source: 1994 & 2000 FSM Censuses, Table H03.

Table 12.27 shows data on the number of housing units with and without bathtub and shower in the FSM in the 1980, 1994 and 2000 Censuses. In addition, the table also presents the percent change over these years. Between 1980 and 2000, units with bathtub and shower increased by 10 folds while housing units without shower/bath declined. The percentage distribution also shows the proportion of units with shower facilities increased from 6 percent in 1980 to about 50 percent in 1994 and 2000.

Table 12.27. Bathtub or Shower Facilities, FSM: 1980, 1994 and 2000.

Bathtub or Shower	Number			Percent change		Percent		
	1980	1994	2000	1980-1994	1994-2000	1980	1994	2000
Total Housing Units	11,562	16,609	17,299	43.7	4.2	100.0	100.0	100.0
Bathtub or Shower	732	7,706	8,690	952.7	12.8	6.3	46.4	50.2
No Bathtub or Shower	10,830	8,903	8,609	(17.8)	(3.3)	93.7	53.6	49.8

Source: 1980 TTPI Census, H2; 1994 & 2000 FSM Census, Table H03

Table 12.28 presents data on the bathtub or shower facilities in each state. In 1994, Pohnpei had the highest proportion of housing units with complete shower facilities inside the house at around 12 percent, which further increased to 26 percent in 2000. Housing units with shower facilities inside also increased significantly for Yap, from 8 percent to 16 percent between the Census years. Chuuk on the other hand still had less than 6 percent of its housing units with bathtub/facilities inside. Most of the housing units in Chuuk used other means such as rivers, wells and rainwater for bathing/shower purposes. The poor condition of water supply system is the major contributor to the absence of better shower/bath facilities.

Table 12.28. Bathtub or Shower Facilities by State, FSM: 1994 and 2000.

Characteristics	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Number										
All Housing Units	16,609	1,980	7,581	6,030	1,018	17,299	2,246	7,417	6,549	1,087
Inside	1,322	159	272	770	121	2,772	363	409	1,708	292
Outside	6,384	814	2,130	2,712	728	5,918	820	2,228	2,186	684
None	8,903	1,007	5,179	2,548	169	8,609	1,063	4,780	2,655	111
Percent										
All Housing Units	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Inside	8.0	8.0	3.6	12.8	11.9	16.0	16.2	5.5	26.1	26.9
Outside	38.4	41.1	28.1	45.0	71.5	34.2	36.5	30.0	33.4	62.9
None	53.6	50.9	68.3	42.3	16.6	49.8	47.3	64.4	40.5	10.2

Source: 1994 & 2000 FSM Censuses, Table H03

Table 12.29 presents the type of main cooking facility by state. Between 1994 and 2000, the proportion of housing units reporting cooking facilities inside the unit declined slightly (except for Yap and Kosrae). For every 10 occupied units in 2000, about 2 to 5 units had the main cooking facilities inside the unit. Kosrae had the highest proportion (about 52 percent) and Chuuk had the lowest proportion (20 percent). In all the states, the majority used kerosene stove. In every 10 houses in the FSM, about 7 units used kerosene stove, 2 units used electric range, and the other facilities like gas stove, micro oven, etc made up the remaining. While Table 12.15 (pg. 121) showed that over 50 percent of the housing units in the FSM had electricity, the most common cooking appliance used was kerosene, possibly for economical reasons rather than convenience.

Table 12.29. Main Cooking Facilities Inside Unit by State, FSM: 1994 and 2000.

Cooking Facilities	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Occupied housing units	15,230	1,925	7,043	5,298	964	15,723	2,030	6,976	5,630	1,087
Housing Units w/cooking facility inside	5,828	470	2,223	2,616	519	5,098	507	1,414	2,609	568
Percent	38.3	24.4	31.6	49.4	53.8	32.4	25.0	20.3	46.3	52.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Electric range	20.9	23.6	15.2	24.4	25.6	20.8	29.6	16.2	21.4	21.3
Kerosene stove	70.2	62.8	77.6	66.4	64.5	68.9	56.2	73.5	67.7	74.5
Gas stove	1.1	2.8	0.6	1.4	0.2	4.7	10.1	2.6	5.8	0.5
Microwave oven	0.5	0.6	0.3	0.7	0.4	0.4	0.2	0.7	0.3	0.5
Portable electric stove	3.8	6.4	3.1	3.4	6.6	1.6	1.8	1.1	2.0	1.2
Wood stove	1.8	0.4	1.2	2.7	1.5	1.2	...	0.4	1.8	0.9
Open fire	1.1	2.8	1.3	0.8	1.0	1.8	0.8	4.0	1.0	1.1
Others	0.5	0.6	0.8	0.2	0.2	0.6	1.4	1.4	0.1	...

Source: 1994 & 2000 FSM Censuses, Table H04.

Table 12.30 shows that almost 67 percent of the total occupied housing units in the FSM in 2000 cooked mainly outside the unit (more than in 1994). In 2000, Yap and Chuuk mostly used open fire outside the unit as to cook. Pohnpei used wood stoves as their main cooking facilities outside the unit. The most common cooking facility used in Kosrae was kerosene stove.

Table 12.30. Main Cooking Facilities Outside Unit by State, FSM: 1994 and 2000.

	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
All Housing Units	15,230	1,925	7,043	5,298	964	15,723	2,030	6,976	5,630	1,087
Cooking facilities outside	9,080	1,424	4,629	2,582	445	10,566	1,506	5,536	3,006	518
Percent	59.6	74.0	65.7	48.7	46.2	67.2	74.2	79.4	53.4	47.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Electric range	1.0	0.7	0.3	1.9	3.8	0.9	0.8	0.4	0.7	8.7
Kerosene stove	20.9	18.5	14.1	28.0	58.0	20.5	33.9	9.9	24.1	73.6
Gas stove	0.2	0.4	0.1	0.2	-	0.4	1.4	0.1	0.5	...
Microwave oven	0.5	0.1	0.2	0.9	1.3	0.2	0.2	0.1	0.2	0.6
Portable electric stove	0.3	0.3	0.2	0.2	2.7	0.1	0.1	0.1	0.1	0.4
Wood stove	25.7	2.2	24.3	43.1	14.2	16.7	2.2	10.2	38.2	4.2
Open fire	50.3	77.7	59.0	24.7	20.0	60.9	61.4	78.7	36.2	12.4
Others	1.2	0.1	1.9	0.9	-	0.3	...	0.6	0.1	0.2

Source: 1994 & FSM Censuses, Table H04.

Information on the number of vehicles and boats regularly used is helpful to officials who plan roads, parking facilities, and so forth. Table 12.31 shows the number of vehicles and boats kept at home for use by members of the household. More housing units reported vehicles and boats in 2000 than in 1994. In 1994 about 25 percent of the housing units reported vehicles, which increased to 35 percent in 2000. The corresponding percentages for boats were 23 percent in 1994 and 25 percent in 2000.

In 2000 Kosrae had the highest proportion of its housing units reporting vehicles (65 percent) and Chuuk had the least. Over 73 percent of the units with vehicles had only one vehicle while over 21 percent had two or more. Pohnpei, being the capital of the FSM and the most developed state; with circumferential and paved roads, had the most cars. Pohnpei Island has the biggest landmass and most people commuted to work by car during the time of the Census.

Chuuk State reported the most boats. Chuuk has the most islands and the biggest lagoon in the FSM. About 33 percent of the occupied housing units in Chuuk reported that they had a boat. From the percentage of housing using boat, 92 percent had 1 boat and 8 percent had 2 or more boats. In Chuuk and Yap, most islands used boats as their main transportation. In Chuuk, the percentage of housing units with boats were mostly from the Southern Namoneas, Faichuk and other lagoon islands. Boats are used in these places not only for fishing but also to shop or commute to work in Weno. Recently, with the crowdedness in Weno, people of Faichuk and Northern Namoneas have tended to move out to their islands and commute to work in Weno.

Table 12.31. Vehicles and Boats by State, FSM: 1994 and 2000

State	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Total Occupied HUs	15,230	1,925	7,043	5,298	964	15,723	2,030	6,976	5,630	1,087
With vehicle	3,863	528	1,012	1,755	568	5,441	903	1,059	2,768	711
Percent	25.4	27.4	14.4	33.1	58.9	34.6	44.5	15.2	49.2	65.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
With 1 vehicle	81.7	82.2	82.2	80.9	82.6	75.2	75.3	73.2	75.1	78.6
With 2 or more vehicles	18.3	17.8	17.8	19.1	17.4	24.8	24.7	26.8	24.9	21.4
With boat	3,425	406	2,121	741	157	3,893	594	2,266	860	173
Percent	22.5	21.1	30.1	14.0	16.3	24.8	29.3	32.5	15.3	15.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
With 1 boat	88.8	82.8	89.4	90.7	86.6	90.1	75.4	92.4	94.1	90.8
With 2 or more boats	11.2	17.2	10.6	9.3	13.4	9.9	24.6	7.6	5.9	9.2

Source: 1994 & 2000 FSM Censuses, Table H05

Table 12.32 shows the monthly cost of electricity to residents of the FSM in 1994 and 2000. In 1994 most of the housing units were paying monthly electricity cost of \$10 to \$19 on the average. Recently, housing units are paying on the average, \$50 or more per month, reflecting both price increases and increased electricity usage.

For the year 2000, most of the housing units in Yap, Chuuk and Pohnpei were paying \$50 or more per month for electricity consumption. Most housing units in Kosrae on the other hand, were paying \$10 to \$29 per month. Chuuk had the least proportion using electricity and the highest proportion charged with the least amount. Kosrae had the highest proportion of housing units with electricity while Pohnpei was the second highest. Of all housing units with electricity in FSM more than half were in Pohnpei.

Table 12.32. Monthly Cost of Electricity by State, FSM: 1994 and 2000.

	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
All Housing Units	15,230	1,925	7,043	5,298	964	15,723	2,030	6,976	5,630	1,087
With Electricity	6,595	1,004	1,260	3,411	920	7,087	1,143	1,282	3,670	992
Percent	43.3	52.2	17.9	64.4	95.4	45.1	56.3	18.4	65.2	91.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
\$1-9	23.3	12.1	31.7	21.7	30.1	6.2	7.3	1.2	4.7	16.9
\$10-19	28.1	23.5	22.6	29.0	37.6	15.9	19.4	12.0	13.6	25.3
\$20-29	18.7	23.3	11.7	20.9	15.2	22.1	22.5	25.4	20.3	24.0
\$30-39	10.5	14.3	12.1	9.3	8.9	15.0	17.3	13.8	15.0	13.5
\$40-49	4.8	9.5	3.0	4.7	2.8	10.2	10.3	12.2	10.2	7.7
\$50 or more	14.5	17.3	19.0	14.4	5.3	30.6	23.2	35.4	36.1	12.6

Source: 1994 & 2000 FSM Censuses, Table H05.

Housing units reporting monthly kerosene cost declined 7.6 percentage points since 1994. All the states experienced decline in housing units reporting kerosene cost, with the highest decline in Pohnpei (about 15 percentage points) and least in Yap, at 7 percentage points.

Most of the housing units in the states (except Chuuk) were paying less than \$10 monthly on kerosene in 2000. Most houses in Chuuk were paying between \$10 to \$19 per month on kerosene. Chuuk spent more on kerosene than any other states. Chuuk's proportions paying an average from \$30 and more were all exceeding the national average. These were most likely due to units using kerosene stoves in the outer islands and the lagoon areas where there was no electricity.

Table 12.33. Monthly Cost of Kerosene by State, FSM: 1994

State	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
All Housing Units	15,230	1,925	7,043	5,298	964	15,723	2,030	6,976	5,630	1,087
With Kerosene cost	13,325	1,519	6,254	4,718	834	12,561	1,460	6,075	4,184	842
Percent	87.5	78.9	88.8	89.1	86.5	79.9	71.9	87.1	74.3	77.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
\$1-9	44.3	73.5	20.5	62.4	66.7	37.3	57.9	14.2	55.9	74.8
\$10-19	30.9	19.0	37.8	26.3	27.5	37.8	30.1	45.5	32.4	22.6
\$20-29	15.4	5.8	25.3	7.2	4.4	16.7	7.5	25.8	9.6	2.1
\$30-39	4.0	1.1	7.0	1.6	1.1	3.7	1.4	6.5	1.2	0.1
\$40-49	2.1	0.3	3.6	1.0	0.2	1.7	0.5	3.2	0.3	0.1
\$50 or more	3.3	0.3	5.9	1.4	0.1	2.8	2.6	4.7	0.6	0.2

Source: 1994 & 2000 FSM Censuses, Table H05 and unpublished data.

Housing units paying for water also decreased between the two Census years from about 20 percent to 16 percent. This declining trend was also evident in the states but at different levels. Yap and Pohnpei had the highest proportions of units paying for water in year 2000. Over 90 percent in Chuuk and Kosrae did not pay for water. In Kosrae, the communities had their own water system, so water was free. The 8 recipients paying water in Kosrae were probably those using the public water system in Lelu.

Table 12.34. Monthly Cost of Water by State, FSM: 1994 and 2000.

Cost of water	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
All Housing Units	15,230	1,925	7,043	5,298	964	15,723	2,030	6,976	5,630	1,087
With water cost	3,163	757	421	1,930	55	2,566	667	47	1,844	8
Percent	20.8	39.3	6.0	36.4	5.7	16.3	32.9	0.7	32.8	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
\$1-9	47.0	79.5	57.7	30.8	85.5	23.1	55.8	4.3	11.6	75.0
\$10-19	22.4	14.5	21.1	26.4	1.8	23.5	28.0	6.4	22.4	12.5
\$20-29	12.0	3.2	9.5	16.4	1.8	19.9	8.8	55.3	23.0	...
\$30-39	6.5	1.1	4.0	9.3	3.6	12.8	3.1	23.4	16.0	12.5
\$40-49	3.7	0.7	0.7	5.6	1.8	6.4	1.3	2.1	8.4	...
\$50 or more	8.3	1.1	6.9	11.5	5.5	14.2	2.8	8.5	18.5	...

Source: 1994 & 2000 FSM Censuses, Table H05

Other fuel costs for oil, gas, wood, etc, were used to fully determine the total utility costs for the unit. Except for Kosrae, housing units reporting other fuel cost more than doubled between 1994 and 2000 (Table 12.35). In 2000, the national average shows that 4 units in every 10 units paid \$50 and over for other fuel costs each month. FSM households do not normally spend money buying woods therefore the other fuel costs could be mainly gas (butane) for appliances. In Yap, Chuuk and Pohnpei, about 3 or 4 housing units out of every 10 pays \$50 or more on other fuels per month.

Table 12.35. Monthly Cost of Other Fuel by State, FSM: 1994 and 2000.

	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
All Occupied HUs	15,230	1,925	7,043	5,298	964	15,723	2,030	6,976	5,630	1,087
With fuel cost	4,236	137	1,978	1,541	580	8,801	1,055	5,100	2,536	110
Percent	27.8	7.1	28.1	29.1	60.2	56.0	52.0	73.1	45.0	10.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
\$1-9	9.1	18.2	8.9	9.7	6.0	4.4	6.1	1.6	9.2	1.8
\$10-19	8.1	12.4	6.6	9.4	8.8	8.3	14.2	7.3	7.6	15.5
\$20-29	15.4	11.7	12.6	17.4	20.7	19.4	20.3	20.5	16.6	27.3
\$30-39	11.4	11.7	8.3	12.8	17.6	11.1	15.7	9.2	12.4	20.0
\$40-49	13.4	11.7	9.9	15.9	19.3	16.1	10.1	17.1	16.2	20.0
\$50 or more	42.6	34.3	53.6	34.7	27.6	40.8	33.6	44.2	37.9	15.5

Source: 1994 & 2000 FSM Censuses, Table H05

Table 12.36 presents the value of owner occupied housing units reported by state. The overall median value of housing units had increased from about \$5,000 in 1994 to about \$6,000 in 2000.

Of the 15,723 occupied housing units in 2000, value was reported for the owner occupied houses, which made up 91 percent, increasing from 78 percent in 1994. More than half of the housing units reported a value of less than \$10,000. The highest proportion of the households in Chuuk and Kosrae reported to have values of \$5,000-\$9,999. These states also had the highest proportion of housing units valued \$20,000 and over. Yap and Pohnpei, on the other hand, had the highest proportion of housing units valued at less than \$2,500 and high proportions of their housing units valued at \$20,000 and above.

Table 12.36. Value of House by State, FSM: 1994 and 2000

Value of House	1994					2000				
	Total	Yap	Chuuk	Pohnpei	Kosrae	Total	Yap	Chuuk	Pohnpei	Kosrae
Total Housing Units	15,230	1,925	7,043	5,298	964	15,723	2,030	6,976	5,630	1,087
Total owning	11,921	1,453	5,345	4,258	865	14,325	1,750	6,456	5,064	1,055
Less than \$2,500	3,459	468	1,139	1,700	152	3,783	574	1,123	1,880	206
\$2,500-\$4,999	2,536	338	944	1,011	243	2,559	255	1,195	858	251
\$5,000-\$9,999	3,198	347	1,757	773	321	3,879	431	2,139	969	340
\$10,000-\$14,999	1,132	118	653	285	76	1,390	156	818	324	92
\$15,000-\$19,999	628	67	358	166	37	1,004	105	558	271	70
\$20,000+	968	115	494	323	36	1,710	229	623	762	96
Median value	\$4,966	\$4,412	\$6,678	\$3,561	\$5,584	\$6,058	\$5,534	\$7,127	\$4,400	\$6,037
Percent owning	78.3	75.5	75.9	80.4	89.7	91.1	86.2	92.5	89.9	97.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than \$2,500	29.0	32.2	21.3	39.9	17.6	26.4	32.8	17.4	37.1	19.5
\$2,500-\$4,999	21.3	23.3	17.7	23.7	28.1	17.9	14.6	18.5	16.9	23.8
\$5,000-\$9,999	26.8	23.9	32.9	18.2	37.1	27.1	24.6	33.1	19.1	32.2
\$10,000-\$14,999	9.5	8.1	12.2	6.7	8.8	9.7	8.9	12.7	6.4	8.7
\$15,000-\$19,999	5.3	4.6	6.7	3.9	4.3	7.0	6.0	8.6	5.4	6.6
\$20000+	8.1	7.9	9.2	7.6	4.2	11.9	13.1	9.6	15.0	9.1

Source: 1994 & 2000 FSM Censuses, Table H06

Conclusion

The total number of housing units increased from about 11,600 in 1980 to over 17,000 in 2000. More than half of all housing units were built between 1980 and 1987. In 2000 about 54 percent of the housing units had electricity compared to 28 percent in 1980. Of all housing units in 2000, over 44 percent had flush toilet and about 50 percent had a bathtub/shower. About 50 percent of all housing units had piped water as compared to about 6 percent in 1980.

The housing conditions in the FSM have been improving. This was evident from the improvement in housing unit facilities like electricity, lavatories, piped water, and the increased number of rooms per housing unit. Concrete walls and tin roofs are more preferred for construction of housing units, replacing the traditional wood walls and thatched roof.

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APPENDIX A

BASIC TABLE

Table B01. Age by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Age	Total	Yap	Chuuk	Pohnpei	Kosrae
All persons	107,008	11,241	53,595	34,486	7,686
Under 5 years	14,783	1,372	7,347	5,038	1,026
5 to 9 years	14,169	1,361	7,305	4,550	953
10 to 14 years	14,220	1,355	7,356	4,430	1,079
15 to 19 years	13,237	1,350	6,772	4,176	939
20 to 24 years	9,525	1,004	4,836	3,081	604
25 to 29 years	7,603	701	3,998	2,407	497
30 to 34 years	6,489	701	3,151	2,163	474
35 to 39 years	6,015	718	2,847	2,005	445
40 to 44 years	5,559	723	2,571	1,830	435
45 to 49 years	4,647	590	2,225	1,467	365
50 to 54 years	3,209	400	1,560	984	265
55 to 59 years	1,898	226	851	640	181
60 to 64 years	1,733	221	831	537	144
65 to 69 years	1,487	207	720	442	118
70 to 74 years	993	115	478	335	65
75 to 79 years	727	97	353	226	51
80 to 84 years	328	47	136	113	32
85+ years	386	53	258	62	13
Median	18.9	20.9	18.5	18.9	19.2
Male	54,191	5,508	27,158	17,666	3,859
Under 5 years	7,579	713	3,742	2,596	528
5 to 9 years	7,310	700	3,735	2,389	486
10 to 14 years	7,481	687	3,899	2,326	569
15 to 19 years	6,754	670	3,429	2,162	493
20 to 24 years	4,886	451	2,566	1,588	281
25 to 29 years	3,695	302	1,966	1,189	238
30 to 34 years	3,124	297	1,580	1,040	207
35 to 39 years	2,994	351	1,396	1,018	229
40 to 44 years	2,801	351	1,278	952	220
45 to 49 years	2,393	315	1,124	772	182
50 to 54 years	1,654	223	769	510	152
55 to 59 years	899	102	407	308	82
60 to 64 years	830	104	392	268	66
65 to 69 years	699	97	336	209	57
70 to 74 years	457	56	217	160	24
75 to 79 years	310	38	139	104	29
80 to 84 years	138	19	58	48	13
85+ years	187	32	125	27	3
Median	18.5	19.9	18.2	18.5	18.5
Female	52,817	5,733	26,437	16,820	3,827
Under 5 years	7,204	659	3,605	2,442	498
5 to 9 years	6,859	661	3,570	2,161	467
10 to 14 years	6,739	668	3,457	2,104	510
15 to 19 years	6,483	680	3,343	2,014	446
20 to 24 years	4,639	553	2,270	1,493	323
25 to 29 years	3,908	399	2,032	1,218	259
30 to 34 years	3,365	404	1,571	1,123	267
35 to 39 years	3,021	367	1,451	987	216
40 to 44 years	2,758	372	1,293	878	215
45 to 49 years	2,254	275	1,101	695	183
50 to 54 years	1,555	177	791	474	113
55 to 59 years	999	124	444	332	99
60 to 64 years	903	117	439	269	78
65 to 69 years	788	110	384	233	61
70 to 74 years	536	59	261	175	41
75 to 79 years	417	59	214	122	22
80 to 84 years	190	28	78	65	19
85+ years	199	21	133	35	10
Median	19.3	21.8	18.9	19.2	19.9

Source: 2000 FSM Census

Table B02. Household and Family Characteristics by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Household Type Relationship Family type by Presence of Own Children	Total	Yap	Chuuk	Pohnpei	Kosrae
HOUSEHOLD TYPE AND RELATIONSHIP					
All persons	107,008	11,241	53,595	34,486	7,686
In households	105,651	10,832	53,264	33,940	7,615
Family householder: Male	12,361	1,352	5,679	4,430	900
Female	2,653	494	1,099	905	155
Nonfamily householder: Male	532	132	155	219	26
Female	177	52	43	76	6
Spouse	11,604	1,304	5,282	4,169	849
Child	49,808	4,416	26,792	15,039	3,561
Parent	567	71	301	139	56
Other relatives	27,002	2,877	13,609	8,567	1,949
Nonrelatives	947	134	304	396	113
In group quarters	1,357	409	331	546	71
In correctional institutions	38	26	-	12	-
Noninstitutionalized persons	1,319	383	331	534	71
School dormitories	569	-	227	342	-
Workers' quarters	466	350	5	103	8
Other noninstitutional	284	33	99	89	63
Persons per household	6.8	5.5	7.7	6.1	7.1
Persons per family	7.0	5.7	7.8	6.3	7.2
Persons under 18 years	51,383	4,868	26,270	16,580	3,665
Living with both parents	38,348	3,333	19,693	12,207	3,115
Householder or spouse	48	10	21	16	1
Own child	43,356	4,000	22,290	13,813	3,253
With female hholder, no husband	6,200	810	2,872	2,077	441
Other relatives	5,058	591	2,553	1,695	219
Nonrelatives	270	23	97	111	39
Persons in group quarters	288	9	134	128	17
Persons 65+ years	3,921	519	1,945	1,178	279
Family householder: Male	1,269	153	563	450	103
Female	641	112	261	221	47
Spouse	598	72	269	202	55
Parent	406	40	215	105	46
Other relatives	810	88	567	139	16
Nonrelatives	30	3	17	8	2
Nonfamily householder: Male	88	25	28	32	3
Female	64	20	20	20	4
Persons in group quarters	15	6	5	1	3
FAMILY TYPE BY PRESENCE OF OWN CHILDREN					
Families	15,014	1,846	6,778	5,335	1,055
With own children under 18 yrs	12,219	1,409	5,645	4,295	870
With own children under 6 yrs	8,320	904	3,920	2,938	558
Married-couple families	11,604	1,304	5,282	4,169	849
With own children under 18 yrs	9,833	1,048	4,620	3,442	723
With own children under 6 yrs	6,774	676	3,258	2,383	457
Female hholder, no husband present	2,348	396	990	817	145
With own children under 18 yrs	1,735	279	726	622	108
With own children under 6 yrs	1,141	182	472	410	77

Source: 2000 FSM Census

Table B03. Household Size and Fertility by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Household Size Fertility	Total	Yap	Chuuk	Pohnpei	Kosrae
HOUSEHOLD SIZE					
Households	15,723	2,030	6,976	5,630	1,087
1 person	647	168	189	259	31
2 persons	891	180	269	403	39
3 persons	1,358	239	470	582	67
4 persons	1,833	302	608	795	128
5 persons	1,939	301	672	814	152
6 persons	1,847	255	753	691	148
7 persons	1,622	174	751	575	122
8 persons	1,371	137	682	445	107
9 persons	1,057	84	588	310	75
10 persons	1,345	86	916	274	69
11 persons	376	40	178	123	35
12 or more persons	1,437	64	900	359	114
Median	6.6	5.4	7.7	6.0	6.9
FERTILITY					
Women 15 to 19 year	6,483	680	3,343	2,014	446
Children ever born	641	55	252	310	24
Children still alive	628	55	244	306	23
Children born in last year	243	21	93	117	12
Women 20 to 24 year	4,639	553	2,270	1,493	323
Children ever born	3,623	475	1,431	1,521	196
Children still alive	3,481	464	1,362	1,464	191
Children born in last year	749	90	316	290	53
Women 25 to 29 year	3,908	399	2,032	1,218	259
Children ever born	7,007	690	3,222	2,632	463
Children still alive	6,670	672	3,065	2,500	433
Children born in last year	744	75	380	230	59
Women 30 to 34 year	3,365	404	1,571	1,123	267
Children ever born	10,310	1,076	4,826	3,661	747
Children still alive	9,775	1,020	4,578	3,481	696
Children born in last year	575	59	288	187	41
Women 35 to 39 year	3,021	367	1,451	987	216
Children ever born	12,683	1,300	6,447	4,113	823
Children still alive	12,016	1,266	6,089	3,873	788
Children born in last year	354	32	199	99	24
Women 40 to 44 year	2,758	372	1,293	878	215
Children ever born	14,191	1,648	7,209	4,264	1,070
Children still alive	13,358	1,552	6,786	4,012	1,008
Children born in last year	161	18	91	37	15
Women 45 to 49 year	2,254	275	1,101	695	183
Children ever born	12,853	1,340	6,868	3,664	981
Children still alive	11,937	1,258	6,356	3,419	904
Children born in last year	35	2	26	6	1
LAST CHILD BORN ALIVE					
Women 15 to 49 years with Last Birth	15,252	1,888	6,735	5,537	1,092
Male	7,867	972	3,424	2,898	573
Still alive	7,689	963	3,334	2,829	563
Female	7,385	916	3,311	2,639	519
Still alive	7,213	900	3,236	2,575	502
Born in last year	2,861	297	1,393	966	205
Male	1,481	144	692	534	111
Still alive	1,450	144	672	525	109
Female	1,380	153	701	432	94
Still alive	1,347	150	683	422	92

Source: 2000 FSM Census

Table B03A. Fertility by Age of Mother and Sex of Child by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Fertility by Sex of Child	Total	Yap	Chuuk	Pohnpei	Kosrae
MALE CHILDREN					
Women 15 to 19 year	6,483	680	3,343	2,014	446
Male Children ever born	346	31	130	170	15
Male Children still alive	334	31	123	166	14
Women 20 to 24 year	4,639	553	2,270	1,493	323
Male Children ever born	1,865	245	722	799	99
Male Children still alive	1,795	239	686	772	98
Women 25 to 29 year	3,908	399	2,032	1,218	259
Male Children ever born	3,601	360	1,649	1,376	216
Male Children still alive	3,417	353	1,568	1,294	202
Women 30 to 34 year	3,365	404	1,571	1,123	267
Male Children ever born	5,396	553	2,515	1,933	395
Male Children still alive	5,070	513	2,364	1,823	370
Women 35 to 39 year	3,021	367	1,451	987	216
Male Children ever born	6,529	690	3,327	2,093	419
Male Children still alive	6,141	671	3,125	1,943	402
Women 40 to 44 year	2,758	372	1,293	878	215
Male Children ever born	7,505	861	3,843	2,228	573
Male Children still alive	7,000	805	3,589	2,064	542
Women 45 to 49 year	2,254	275	1,101	695	183
Male Children ever born	6,645	686	3,573	1,887	499
Male Children still alive	6,099	649	3,269	1,727	454
FEMALE CHILDREN					
Women 15 to 19 year	6,483	680	3,343	2,014	446
Female Children ever born	295	24	122	140	9
Female Children still alive	294	24	121	140	9
Women 20 to 24 year	4,639	553	2,270	1,493	323
Female Children ever born	1,758	230	709	722	97
Female Children still alive	1,686	225	676	692	93
Women 25 to 29 year	3,908	399	2,032	1,218	259
Female Children ever born	3,406	330	1,573	1,256	247
Female Children still alive	3,253	319	1,497	1,206	231
Women 30 to 34 year	3,365	404	1,571	1,123	267
Female Children ever born	4,914	523	2,311	1,728	352
Female Children still alive	4,705	507	2,214	1,658	326
Women 35 to 39 year	3,021	367	1,451	987	216
Female Children ever born	6,154	610	3,120	2,020	404
Female Children still alive	5,875	595	2,964	1,930	386
Women 40 to 44 year	2,758	372	1,293	878	215
Female Children ever born	6,686	787	3,366	2,036	497
Female Children still alive	6,358	747	3,197	1,948	466
Women 45 to 49 year	2,254	275	1,101	695	183
Female Children ever born	6,208	654	3,295	1,777	482
Female Children still alive	5,838	609	3,087	1,692	450

Source: 2000 FSM Census

Table B04. Single Years of Age by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Age	Total	Yap	Chuuk	Pohnpei	Kosrae
All persons	107,008	11,241	53,595	34,486	7,686
Under 1 year	2,906	264	1,422	1,009	211
1 year	3,073	244	1,550	1,049	230
2 years	3,015	284	1,516	1,016	199
3 years	2,787	289	1,391	925	182
4 years	3,002	291	1,468	1,039	204
5 years	2,799	252	1,381	947	219
6 years	2,828	276	1,463	907	182
7 years	2,866	302	1,428	941	195
8 years	2,794	269	1,464	882	179
9 years	2,882	262	1,569	873	178
10 years	2,832	265	1,436	928	203
11 years	2,743	267	1,403	885	188
12 years	2,835	283	1,463	864	225
13 years	2,854	268	1,474	867	245
14 years	2,956	272	1,580	886	218
15 years	2,775	251	1,493	818	213
16 years	2,879	285	1,498	893	203
17 years	2,557	244	1,271	851	191
18 years	2,609	313	1,291	827	178
19 years	2,417	257	1,219	787	154
20 years	2,259	252	1,125	720	162
21 years	1,932	209	988	630	105
22 years	1,827	183	926	618	100
23 years	1,738	161	903	556	118
24 years	1,769	199	894	557	119
25 years	1,621	142	863	509	107
26 years	1,531	145	794	490	102
27 years	1,657	160	875	527	95
28 years	1,348	119	694	446	89
29 years	1,446	135	772	435	104
30 years	1,450	157	720	484	89
31 years	1,309	141	644	414	110
32 years	1,212	135	590	404	83
33 years	1,216	141	546	428	101
34 years	1,302	127	651	433	91
35 years	1,240	147	592	406	95
36 years	1,209	156	564	406	83
37 years	1,247	138	579	441	89
38 years	1,058	113	521	338	86
39 years	1,261	164	591	414	92
40 years	1,190	123	580	389	98
41 years	1,145	169	506	395	75
42 years	1,088	158	452	376	102
43 years	1,071	139	529	330	73
44 years	1,065	134	504	340	87
45 years	1,031	98	521	334	78
46 years	916	132	418	297	69
47 years	979	130	463	317	69
48 years	833	118	384	258	73
49 years	888	112	439	261	76
50 years	779	91	373	258	57
51 years	758	99	363	232	64
52 years	640	98	303	187	52
53 years	599	48	324	180	47
54 years	433	64	197	127	45
55 years	399	46	185	117	51
56 years	435	53	187	158	37
57 years	376	36	171	138	31
58 years	350	53	162	101	34
59 years	338	38	146	126	28
60 to 64 years	1,733	221	831	537	144
65+ years	3,921	519	1,945	1,178	279

Source: 2000 FSM Census

Table B04A. Female Single Year of Age by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Age	Total	Yap	Chuuk	Pohnpei	Kosrae
Females	52,817	5,733	26,437	16,820	3,827
Under 1 year	1,378	136	692	454	96
1 year	1,532	116	758	541	117
2 years	1,535	136	761	521	117
3 years	1,315	131	675	425	84
4 years	1,444	140	719	501	84
5 years	1,314	119	662	437	96
6 years	1,387	126	742	430	89
7 years	1,413	161	689	456	107
8 years	1,359	134	702	434	89
9 years	1,386	121	775	404	86
10 years	1,338	132	644	463	99
11 years	1,333	118	678	441	96
12 years	1,325	146	693	388	98
13 years	1,328	131	671	412	114
14 years	1,415	141	771	400	103
15 years	1,300	115	705	381	99
16 years	1,377	120	733	425	99
17 years	1,271	123	641	408	99
18 years	1,324	173	654	416	81
19 years	1,211	149	610	384	68
20 years	1,071	130	539	318	84
21 years	987	114	505	317	51
22 years	838	103	393	288	54
23 years	836	103	409	263	61
24 years	907	103	424	307	73
25 years	820	84	443	243	50
26 years	821	75	427	261	58
27 years	838	88	435	266	49
28 years	701	73	354	228	46
29 years	728	79	373	220	56
30 years	721	91	341	244	45
31 years	685	83	319	218	65
32 years	653	75	300	235	43
33 years	623	84	271	209	59
34 years	683	71	340	217	55
35 years	607	69	296	200	42
36 years	608	91	280	195	42
37 years	643	80	305	216	42
38 years	525	50	276	155	44
39 years	638	77	294	221	46
40 years	630	70	330	191	39
41 years	535	77	237	181	40
42 years	533	87	214	180	52
43 years	521	74	257	155	35
44 years	539	64	255	171	49
45 years	503	41	261	171	30
46 years	445	65	209	138	33
47 years	471	60	235	137	39
48 years	403	55	190	119	39
49 years	432	54	206	130	42
50 years	397	41	206	125	25
51 years	364	48	178	112	26
52 years	309	43	149	92	25
53 years	289	19	166	84	20
54 years	196	26	92	61	17
55 years	211	24	99	56	32
56 years	236	25	98	93	20
57 years	196	19	89	71	17
58 years	177	30	82	47	18
59 years	179	26	76	65	12
60 to 64 years	903	117	439	269	78
65+ years	2,130	277	1,070	630	153

Source: 2000 FSM Census

Table B05. Place of Birth by State of Usual Residence, FSM: 2000
[For definitions of terms and meanings of symbols, see text]

Place of Birth	Total	Yap	Chuuk	Pohnpei	Kosrae
All persons	107,008	11,241	53,595	34,486	7,686
Federated States of Micronesia	103,891	10,404	53,285	32,920	7,282
Yap	10,600	10,303	59	224	14
Yap proper	6,082	5,870	43	157	12
Outer Islands	4,518	4,433	16	67	2
Chuuk	54,006	47	53,093	804	62
Northern Namoneas	11,509	16	11,148	310	35
Southern Namoneas	12,392	3	12,273	107	9
Faichuk	14,893	3	14,844	45	1
Mortlocks	8,502	18	8,174	301	9
Oksoritod	6,710	7	6,654	41	8
Pohnpei	32,069	51	118	31,604	296
Madolenimw	4,831	2	2	4,823	4
U	2,762	-	10	2,745	7
Nett	5,131	14	32	5,059	26
Sokehs	5,089	7	32	5,031	19
Kitti	6,230	6	7	6,214	3
Kolonia	5,095	20	29	4,834	212
Outer Islands	2,931	2	6	2,898	25
Kosrae	7,216	3	15	288	6,910
Lelu	3,785	1	5	131	3,648
Malem	805	-	3	59	743
Utwe	498	-	1	37	460
Tafunsak	2,128	2	6	61	2,059
Guam	365	37	90	186	52
Northern Mariana Islands	168	33	26	98	11
Palau	168	93	10	56	9
Marshall Islands	312	4	24	129	155
Other Pacific Islands	102	21	9	53	19
Asia	1,240	528	51	608	53
China and Taiwan	413	351	-	61	1
Philippines	649	149	44	417	39
Japan	89	13	1	67	8
Other Asia	89	15	6	63	5
United States	631	103	80	352	96
Hawaii	103	6	5	53	39
Australia/New Zealand	41	4	2	33	2
Elsewhere	90	14	18	51	7
Females	52,817	5,733	26,437	16,820	3,827
Federated States of Micronesia	51,421	5,263	26,311	16,214	3,633
Yap	5,309	5,200	15	86	8
Yap proper	2,963	2,885	8	63	7
Outer Islands	2,346	2,315	7	23	1
Chuuk	26,686	26	26,247	392	21
Northern Namoneas	5,634	7	5,464	152	11
Southern Namoneas	6,090	2	6,031	51	6
Faichuk	7,319	3	7,295	21	-
Mortlocks	4,272	10	4,108	151	3
Oksoritod	3,371	4	3,349	17	1
Pohnpei	15,801	34	42	15,582	143
Madolenimw	2,361	-	1	2,357	3
U	1,360	-	7	1,349	4
Nett	2,484	11	2	2,458	13
Sokehs	2,529	4	15	2,499	11
Kitti	3,081	5	2	3,073	1
Kolonia	2,491	12	12	2,365	102
Outer Islands	1,495	2	3	1,481	9
Kosrae	3,625	3	7	154	3,461
Lelu	1,906	1	2	65	1,838
Malem	414	-	2	38	374
Utwe	261	-	-	18	243
Tafunsak	1,044	2	3	33	1,006
Guam	166	18	36	81	31
Northern Mariana Islands	89	12	16	55	6
Palau	76	47	1	24	4
Marshall Islands	153	-	8	65	80
Other Pacific Islands	55	13	6	24	12
Asia	535	326	13	180	16
China and Taiwan	273	271	-	2	-
Philippines	201	44	12	136	9
Japan	42	7	1	30	4
Other Asia	19	4	-	12	3
United States	259	48	31	140	40
Hawaii	45	3	1	26	15
Australia/New Zealand	15	1	-	13	1
Elsewhere	48	5	15	24	4

Source: 2000 FSM Census

Table B06. Legal Residence by State of Usual Residence, FSM: 2000
[For definitions of terms and meanings of symbols, see text]

Legal Residence	Total	Yap	Chuuk	Pohnpei	Kosrae
All persons	107,008	11,241	53,595	34,486	7,686
Federated States of Micronesia	104,852	10,539	53,427	33,345	7,541
Yap	10,744	10,501	31	203	9
Yap proper	6,032	5,874	22	128	8
Outer Islands	4,712	4,627	9	75	1
Chuuk	53,909	24	53,308	537	40
Northern Namoneas	10,337	3	10,130	178	26
Southern Namoneas	12,434	-	12,343	89	2
Faichuk	15,292	2	15,251	38	1
Mortlocks	9,054	7	8,845	197	5
Oksoritod	6,792	12	6,739	35	6
Pohnpei	32,536	12	74	32,403	47
Madolenimw	5,593	2	2	5,589	-
U	2,794	-	13	2,772	9
Nett	4,821	1	6	4,812	2
Sokehs	5,626	2	22	5,598	4
Kitti	6,482	1	9	6,472	-
Kolonias	3,915	2	18	3,870	25
Outer Islands	3,305	4	4	3,290	7
Kosrae	7,663	2	14	202	7,445
Lelu	2,566	-	5	79	2,482
Malem	1,552	-	4	48	1,500
Útwe	1,130	-	1	29	1,100
Tafunsak	2,415	2	4	46	2,363
Elsewhere	2,157	702	166	1,139	145
Females	52,818	5,733	26,438	16,820	3,827
Federated States of Micronesia	51,886	5,327	26,373	16,418	3,768
Yap	5,401	5,305	8	84	4
Yap proper	2,944	2,880	4	56	4
Outer Islands	2,457	2,425	4	28	-
Chuuk	26,622	15	26,334	268	5
Northern Namoneas	5,046	2	4,951	88	5
Southern Namoneas	6,109	-	6,062	47	-
Faichuk	7,520	2	7,500	18	-
Mortlocks	4,540	4	4,436	100	-
Oksoritod	3,407	7	3,385	15	-
Pohnpei	16,022	5	26	15,968	23
Madolenimw	2,728	-	2	2,726	-
U	1,396	-	8	1,381	7
Nett	2,340	1	2	2,336	1
Sokehs	2,805	-	9	2,793	3
Kitti	3,187	1	2	3,184	-
Kolonias	1,960	1	1	1,948	10
Outer Islands	1,606	2	2	1,600	2
Kosrae	3,841	2	5	98	3,736
Lelu	1,285	-	2	36	1,247
Malem	770	-	1	27	742
Útwe	571	-	-	13	558
Tafunsak	1,215	2	2	22	1,189
Elsewhere	932	406	65	402	59

Source: 2000 FSM Census

Table B07. Length of Continuous Residence and Place of Previous Residence by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Previous Residence Length of Continuous Residence	Total	Yap	Chuuk	Pohnpei	Kosrae
All persons	107,008	11,241	53,595	34,486	7,686
Lived in this municipality since birth	87,421	7,833	48,278	25,373	5,937
Previous residence elsewhere	19,587	3,408	5,317	9,113	1,749
In this state	14,189	2,353	4,810	6,429	597
Lived in municipality:					
Less than 6 months	1,329	375	311	560	83
6 months up to 1 year	1,051	299	316	396	40
1 year up to 2 years	1,044	224	334	448	38
2 years up to 5 years	2,109	331	680	1,019	79
5 years or more	8,656	1,124	3,169	4,006	357
In other FSM State	2,029	140	152	1,222	515
Lived in municipality:					
Less than 6 months	171	26	3	91	51
6 months up to 1 year	239	5	43	163	28
1 year up to 2 years	273	17	13	202	41
2 years up to 5 years	374	37	22	193	122
5 years or more	972	55	71	573	273
Lived in Asia	1,103	500	45	511	47
Lived in municipality:					
Less than 6 months	245	145	1	98	1
6 months up to 1 year	100	26	8	60	6
1 year up to 2 years	183	76	2	95	10
2 years up to 5 years	326	205	9	95	17
5 years or more	249	48	25	163	13
Lived elsewhere outside FSM	2,266	415	310	951	590
Lived in municipality:					
Less than 6 months	314	57	45	120	92
6 months up to 1 year	269	48	64	101	56
1 year up to 2 years	296	42	68	121	65
2 years up to 5 years	480	94	59	200	127
5 years or more	907	174	74	409	250
All persons	107,008	11,241	53,595	34,486	7,686
Lived in this muni. since birth	87,421	7,833	48,278	25,373	5,937
Previous residence elsewhere	19,587	3,408	5,317	9,113	1,749
Federated States Micronesia	16,218	2,493	4,962	7,651	1,112
Yap	2,604	2,353	28	210	13
Yap proper	1,586	1,411	22	142	11
Outer Islands	1,018	942	6	68	2
Chuuk	5,656	46	4,810	746	54
Northern Namoneas	833	20	432	347	34
Southern Namoneas	1,109	3	998	101	7
Faichuk	1,201	1	1,158	41	1
Mortlocks	1,894	15	1,640	234	5
Oksoritod	619	7	582	23	7
Pohnpei	7,077	92	108	6,429	448
Madolenihmw	695	6	5	681	3
U	573	-	7	551	15
Nett	708	18	8	668	14
Sokehs	845	8	32	778	27
Kitti	823	7	9	798	9
Kolonia	2,327	52	41	1,880	354
Outer Islands	1,106	1	6	1,073	26
Kosrae	881	2	16	266	597
Lelu	327	1	8	122	196
Malem	167	-	2	56	109
Utwe	181	-	1	32	148
Tafunsak	206	1	5	56	144
Guam	562	86	126	225	125
Northern Mariana Islands	237	60	38	116	23
Palau	163	81	19	44	19
Marshall Islands	314	8	24	120	162
Other Pacific Islands	102	20	9	45	28
Asia	1,103	500	45	511	47
China and Taiwan	403	351	-	52	-
Korea	22	1	2	14	5
Philippines	522	118	36	340	28
Other Asia	156	30	7	105	14
United States	766	146	76	330	214
Elsewhere	122	14	18	71	19

Source: 2000 FSM Census

Table B08. Residence 5 Years Ago by State of Usual Residence, FSM: 2000
[For definitions of terms and meanings of symbols, see text]

Residence 5 Years Ago	Total	Yap	Chuuk	Pohnpei	Kosrae
Persons 5+ years	92,225	9,869	46,248	29,448	6,660
Federated States of Micronesia	90,022	9,194	45,845	28,602	6,381
Yap	9,259	9,114	10	131	4
Yap proper	5,600	5,495	9	92	4
Outer Islands	3,659	3,619	1	39	-
Chuuk	46,140	19	45,738	356	27
Northern Namoneas	12,463	8	12,258	178	19
Southern Namoneas	10,124	2	10,066	53	3
Faichuk	11,913	-	11,883	30	-
Mortlocks	6,287	9	6,188	87	3
Oksoritod	5,353	-	5,343	8	2
Pohnpei	28,345	60	92	27,999	194
Madolenimw	4,346	4	-	4,342	-
U	2,348	-	5	2,337	6
Nett	4,630	14	15	4,588	13
Sokehs	4,880	8	22	4,836	14
Kitti	5,166	5	6	5,150	5
Kolonias	4,900	29	42	4,680	149
Outer Islands	2,075	-	2	2,066	7
Kosrae	6,278	1	5	116	6,156
Lelu	2,113	-	2	51	2,060
Malem	1,255	-	-	21	1,234
Utwe	876	-	1	15	860
Tafunsak	2,034	1	2	29	2,002
Guam	473	52	221	139	61
Northern Mariana Islands	131	32	40	52	7
Palau	62	31	12	16	3
Marshall Islands	113	6	20	35	52
Other Pacific Islands	55	15	6	26	8
Asia	826	444	22	332	28
China and Taiwan	399	350	-	49	-
Philippines	303	77	16	197	13
Japan	60	11	3	36	10
Other Asia	64	6	3	50	5
United States	459	87	68	194	110
Hawaii	115	11	21	39	44
Australia/New Zealand	33	4	4	21	4
Elsewhere	51	4	10	31	6
Females 5+ years	45,613	5,074	22,832	14,378	3,329
Federated States of Micronesia	44,574	4,672	22,672	14,053	3,177
Yap	4,681	4,629	1	49	2
Yap proper	2,750	2,712	-	36	2
Outer Islands	1,931	1,917	1	13	-
Chuuk	22,831	10	22,642	174	5
Northern Namoneas	6,226	4	6,123	94	5
Southern Namoneas	4,981	1	4,955	25	-
Faichuk	5,867	-	5,853	14	-
Mortlocks	3,119	5	3,076	38	-
Oksoritod	2,638	-	2,635	3	-
Pohnpei	13,928	32	27	13,785	84
Madolenimw	2,103	1	-	2,102	-
U	1,153	-	3	1,145	5
Nett	2,249	8	5	2,231	5
Sokehs	2,447	5	7	2,429	6
Kitti	2,534	4	1	2,527	2
Kolonias	2,424	14	11	2,335	64
Outer Islands	1,018	-	-	1,016	2
Kosrae	3,134	1	2	45	3,086
Lelu	1,063	-	1	17	1,045
Malem	600	-	-	11	589
Utwe	451	-	-	5	446
Tafunsak	1,020	1	1	12	1,006
Guam	212	22	87	69	34
Northern Mariana Islands	76	14	27	30	5
Palau	22	13	2	6	1
Marshall Islands	50	2	7	10	31
Other Pacific Islands	25	8	1	11	5
Asia	408	301	6	89	12
China and Taiwan	271	270	-	1	-
Philippines	104	25	6	68	5
Japan	22	5	-	13	4
Other Asia	11	1	-	7	3
United States	207	39	22	88	58
Hawaii	58	5	8	19	26
Australia/New Zealand	13	1	1	9	2
Elsewhere	26	2	7	13	4

Source: 2000 FSM Census

Table B09. Ethnicity by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Ethnicity	Total	Yap	Chuuk	Pohnpei	Kosrae
All persons	107,008	11,241	53,595	34,486	7,686
Single ethnic group	98,735	10,594	50,578	30,365	7,198
Yapese	5,752	5,515	25	193	19
Ulithian	1,104	1,101	1	2	-
Woleaian	2,595	2,581	4	10	-
Satawalese	427	415	1	11	-
Chuukese	45,511	212	44,831	432	36
Mortlockese	6,757	5	5,476	1,273	3
Pohnpeian\Sapwuahfikese	23,378	20	62	23,232	64
Pingelapese	1,454	-	2	1,447	5
Mwoakilloan	1,023	-	-	1,015	8
Nukuoroan	520	-	5	514	1
Kapingamarangian	964	-	1	955	8
Kosraean	7,169	3	12	238	6,916
Palauan	151	105	12	33	1
Marshallese	92	-	13	43	36
Other Pacific Islander	111	28	18	51	14
White	432	67	52	280	33
Asian	1,265	536	55	623	51
Filipino	686	152	49	446	39
Chinese/Taiwanese	410	351	-	59	-
Other single	30	6	8	13	3
Multiple ethnic group	8,273	647	3,017	4,121	488
Yapese and other	1,029	864	31	121	13
Chuukese and other	7,950	176	5,820	1,884	70
Pohnpeian and other	5,698	44	99	5,337	218
Kosraean and other	833	13	19	320	481
Other Multiple	1,036	197	65	580	194
Females	52,817	5,733	26,437	16,820	3,827
Single ethnic group	48,662	5,396	24,911	14,772	3,583
Yapese	2,783	2,689	3	80	11
Ulithian	546	545	-	1	-
Woleaian	1,381	1,377	1	3	-
Satawalese	207	203	-	4	-
Chuukese	22,456	127	22,109	211	9
Mortlockese	3,357	4	2,717	635	1
Pohnpeian\Sapwuahfikese	11,500	15	16	11,433	36
Pingelapese	701	-	-	696	5
Mwoakilloan	536	-	-	531	5
Nukuoroan	262	-	-	261	1
Kapingamarangian	445	-	-	442	3
Kosraean	3,581	3	4	123	3,451
Palauan	75	57	4	13	1
Marshallese	42	-	4	17	21
Other Pacific Islander	58	16	11	24	7
White	166	29	23	101	13
Asian	555	330	16	192	17
Filipino	226	44	16	155	11
Chinese/Taiwanese	272	271	-	1	-
Other single	11	1	3	5	2
Multiple ethnic group	4,155	337	1,526	2,048	244
Yapese and other	536	446	13	71	6
Chuukese and other	3,994	95	2,950	922	27
Pohnpeian and other	2,858	29	46	2,670	113
Kosraean and other	420	7	8	163	242
Other Multiple	502	97	35	270	100

Source: 2000 FSM Census

Table B10. Marital Status and Religion by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Marital Status Religion	Total	Yap	Chuuk	Pohnpei	Kosrae
MARITAL STATUS					
Males 15+ years	31,821	3,408	15,782	10,355	2,276
Never married	13,678	1,372	7,244	4,086	976
Now married	16,735	1,804	7,882	5,819	1,230
Separated	383	67	174	124	18
Widowed	636	94	297	206	39
Divorced	389	71	185	120	13
Females 15+ years	32,015	3,745	15,805	10,113	2,352
Never married	11,555	1,382	5,981	3,310	882
Now married	16,592	1,776	7,830	5,728	1,258
Separated	732	117	420	165	30
Widowed	2,458	368	1,195	728	167
Divorced	678	102	379	182	15
RELIGION					
All persons	107,008	11,241	53,595	34,486	7,686
Roman Catholic	56,365	9,363	28,422	18,439	141
Congregational	42,879	378	23,074	12,576	6,851
Seventh Day Adventist (SDA)	793	81	171	428	113
Baptist	972	31	194	626	121
Latter Day Saints (Mormon)	1,123	121	362	471	169
Other Religion	4,066	618	1,346	1,823	279
Refused	57	37	6	11	3
No Religion	753	612	20	112	9
Females	52,817	5,733	26,437	16,820	3,827
Roman Catholic	27,774	4,726	13,986	9,004	58
Congregational	21,240	205	11,451	6,151	3,433
Seventh Day Adventist (SDA)	391	39	77	222	53
Baptist	478	15	87	314	62
Latter Day Saints (Mormon)	564	51	193	237	83
Other Religion	1,968	346	637	850	135
Refused	18	13	2	2	1
No Religion	384	338	4	40	2

Source: 2000 FSM Census

Table B11. Languages Spoken and Spoken at Home, by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Languages	Total	Yap	Chuuk	Pohnpei	Kosrae
ALL LANGUAGES SPOKEN					
Persons 5+ years	92,225	9,869	46,248	29,448	6,660
English	43,682	6,238	18,327	14,963	4,154
Yapese	5,531	5,261	24	221	25
Ulithian/Woleaian/Satawalese	4,857	4,800	11	44	2
Chuukese	53,140	198	49,582	3,260	100
Pohnpeian/Mwoakilloan/Pingelapese	31,651	60	311	30,582	698
Kosraean	7,125	9	32	522	6,562
Asian	2,294	753	431	928	182
Other language	2,570	283	148	1,826	313
FIRST LANGUAGE REPORTED					
Persons 5+ years	92,225	9,869	46,248	29,448	6,660
English	1,713	278	150	1,122	163
Yapese	5,141	4,962	11	156	12
Ulithian/Woleaian/Satawalese	4,036	3,992	7	35	2
Chuukese	48,227	22	45,949	2,211	45
Pohnpeian/Mwoakilloan/Pingelapese	23,866	19	45	23,735	67
Kosraean	6,496	2	12	213	6,269
Asian	1,076	483	41	508	44
Other language	1,670	111	33	1,468	58
SECOND LANGUAGE REPORTED					
5+ years with 2nd language	49,731	6,735	20,649	17,873	4,474
English	36,341	5,617	16,607	10,380	3,737
Yapese	259	192	11	46	10
Ulithian/Woleaian/Satawalese	601	592	3	6	-
Chuukese	4,430	28	3,559	808	35
Pohnpeian/Mwoakilloan/Pingelapese	6,360	20	139	5,923	278
Kosraean	426	3	11	195	217
Asian	842	204	269	288	81
Other language	472	79	50	227	116
LANGUAGE OF PERSONS SPEAKING ONLY ONE LANGUAGE					
5+ years with 1 language	42,485	3,129	25,598	11,572	2,186
English	322	69	44	188	21
Yapese	1,090	1,081	-	9	-
Ulithian/Woleaian/Satawalese	1,612	1,608	1	3	-
Chuukese	25,757	1	25,549	203	4
Pohnpeian/Mwoakilloan/Pingelapese	10,561	-	2	10,551	8
Kosraean	2,156	-	-	9	2,147
Asian	462	356	1	104	1
Other language	525	14	1	505	5
LANGUAGE USUALLY SPOKEN AT HOME					
Persons 5+ years	92,225	9,869	46,248	29,448	6,660
English	1,322	280	124	861	57
Yapese	5,132	5,005	16	99	12
Ulithian/Woleaian/Satawalese	4,033	3,986	12	31	4
Chuukese	48,174	13	45,981	2,138	42
Pohnpeian/Mwoakilloan/Pingelapese	24,321	10	52	24,220	39
Kosraean	6,622	3	8	167	6,444
Asian	1,015	479	29	471	36
Other language	1,606	93	26	1,461	26

Source: 2000 FSM Census

Table B12. School Enrollment and Educational Attainment by State of Usual Residence, FSM: 2000
[For definitions of terms and meanings of symbols, see text]

Education	Total	Yap	Chuuk	Pohnpei	Kosrae
SCHOOL ENROLLMENT AND TYPE OF SCHOOL					
Persons 3+ years and enrolled in school	32,102	3,361	16,927	9,268	2,546
Preprimary school	1,764	371	849	377	167
Public school	1,525	342	748	278	157
Elementary school, 1st to 8th	20,885	2,118	10,859	6,329	1,579
Public school	19,297	1,816	10,117	5,821	1,543
High school, 9th to 12th grade	8,070	836	4,528	2,019	687
Public school	7,165	779	4,054	1,650	682
College	1,383	36	691	543	113
Public school	1,383	36	691	543	113
Females 3+ years and enrolled in school					
Preprimary school	875	191	424	186	74
Public school	744	170	368	137	69
Elementary school, 1st to 8th	10,095	1,014	5,245	3,064	772
Public school	9,292	863	4,863	2,816	750
High school, 9th to 12th grade	4,116	375	2,403	1,003	335
Public school	3,727	342	2,154	899	332
College	715	15	366	284	50
Public school	715	15	366	284	50
EDUCATIONAL ATTAINMENT					
Persons 25+ years	41,074	4,799	19,979	13,211	3,085
None	5,453	531	3,682	1,174	66
Elementary: 1 to 4 years	2,851	290	1,157	1,093	311
5 and 6 years	3,726	491	1,607	1,375	253
7 years	1,565	79	920	497	69
8 years	6,626	333	3,059	2,939	295
High school: 1 year	2,001	155	1,257	410	179
2 years	2,050	142	1,196	537	175
3 years	1,460	121	741	442	156
4 years, no diploma	2,331	146	1,414	638	133
High school graduate	5,436	1,294	2,213	1,502	427
Some college, no degree	3,418	555	1,445	994	424
Associate degree, occupational	1,304	200	461	430	213
Associate degree, academic	1,360	233	412	511	204
Bachelor's degree	1,083	164	335	443	141
Graduate/professional degree	410	65	80	226	39
Percent high school graduate	31.7	52.3	24.8	31.1	46.9
Percent bachelor's degree	3.6	4.8	2.1	5.1	5.8
Females 25+ years					
None	3,275	400	2,153	683	39
Elementary: 1 to 4 years	1,726	211	669	629	217
5 and 6 years	2,209	376	910	745	178
7 years	887	59	502	275	51
8 years	3,814	246	1,758	1,601	209
High school: 1 year	1,019	80	614	200	125
2 years	1,039	69	571	285	114
3 years	718	67	333	224	94
4 years, no diploma	1,076	68	652	294	62
High school graduate	2,476	562	1,038	672	204
Some college, no degree	1,296	203	553	416	124
Associate degree, occupational	433	37	164	175	57
Associate degree, academic	491	68	155	193	75
Bachelor's degree	321	45	101	149	26
Graduate/professional degree	113	21	19	65	8
Percent high school graduate	24.6	37.3	19.9	25.3	31.2
Percent bachelor's degree	2.1	2.6	1.2	3.2	2.1
Persons 18 to 24	2,441	229	1,278	751	183
Percent high school graduate	45.0	10.9	38.8	63.9	53.6

Source: 2000 FSM Census

Table B 13. Literacy, Vocational Training, and Veteran Status by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Literacy Vocational Training Veteran Status Military Dependency	Total	Yap	Chuuk	Pohnpei	Kosrae
LITERACY					
Persons 10+ years	78,056	8,508	38,943	24,898	5,707
Can read & write in any language	72,140	7,854	34,768	23,846	5,672
Cannot read and write	5,916	654	4,175	1,052	35
Females 10+ years	38,754	4,413	19,262	12,217	2,862
Can read & write in any language	35,612	3,936	17,129	11,701	2,846
Cannot read and write	3,142	477	2,133	516	16
VOCATIONAL TRAINING					
Persons 15 to 64 years	59,915	6,634	29,642	19,290	4,349
Completed requirements	6,527	1,283	1,684	2,677	883
In FSM	3,191	407	921	1,361	502
Outside FSM	1,921	538	413	738	232
Both inside and outside FSM	1,415	338	350	578	149
Did not complete requirements	53,388	5,351	27,958	16,613	3,466
Females 15 to 64 years	29,885	3,468	14,735	9,483	2,199
Completed requirements	2,166	452	523	878	313
In FSM	1,160	142	293	507	218
Outside FSM	649	220	144	221	64
Both inside and outside FSM	357	90	86	150	31
Did not complete requirements	27,719	3,016	14,212	8,605	1,886
Persons 15 to 24 years	22,762	2,354	11,608	7,257	1,543
Completed requirements	840	211	198	334	97
In FSM	489	56	121	242	70
Outside FSM	302	135	67	77	23
Both inside and outside FSM	49	20	10	15	4
Did not complete requirements	21,922	2,143	11,410	6,923	1,446
Females 15 to 24 years	11,122	1,233	5,613	3,507	769
Completed requirements	420	129	108	148	35
In FSM	222	26	63	110	23
Outside FSM	178	96	41	31	10
Both inside and outside FSM	20	7	4	7	2
Did not complete requirements	10,702	1,104	5,505	3,359	734
Persons 25 to 34 years	14,092	1,402	7,149	4,570	971
Completed requirements	1,701	311	400	766	224
In FSM	918	118	243	430	127
Outside FSM	512	142	95	204	71
Both inside and outside FSM	271	51	62	132	26
Did not complete requirements	12,391	1,091	6,749	3,804	747
Females 25 to 34 years	7,273	803	3,603	2,341	526
Completed requirements	672	133	137	302	100
In FSM	365	41	76	184	64
Outside FSM	206	70	39	69	28
Both inside and outside FSM	101	22	22	49	8
Did not complete requirements	6,601	670	3,466	2,039	426
VETERAN STATUS					
Persons 15+ years	63,836	7,153	31,587	20,468	4,628
Now on active duty	192	28	72	70	22
On active duty in past, but not now	207	25	37	107	38
Never on active duty	63,437	7,100	31,478	20,291	4,568
MILITARY DEPENDENCY					
All persons	107,008	11,241	53,595	34,486	7,686
In Armed Forces	192	28	72	70	22
Military dependent	312	65	67	94	86
Of active-duty member	231	59	41	70	61
Other dependent	81	6	26	24	25
Other civilian	106,504	11,148	53,456	34,322	7,578

Source: 2000 FSM Census

Table B14: Labor Force Characteristics by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Labor Force Status	Total	Yap	Chuuk	Pohnpei	Kosrae
LABOR FORCE STATUS					
Persons 15+ years	63,836	7,153	31,587	20,468	4,628
In labor force	37,414	5,174	18,192	11,816	2,232
Percent	59	72	58	58	48
Employed	29,175	4,964	11,979	10,368	1,864
Formal work	13,959	2,570	4,546	5,375	1,468
Agriculture/Fishing	15,216	2,394	7,433	4,993	396
Subsistence	10,624	2,234	5,134	3,058	198
Market Oriented	4,592	160	2,299	1,935	198
Unemployed	8,239	210	6,213	1,448	368
Percent of labor force	22	4	34	12	17
Not in labor force	26,422	1,979	13,395	8,652	2,396
Could have taken job	2,280	146	795	819	520
Not available for work	24,142	1,833	12,600	7,833	1,876
Females 15+ years					
In labor force	32,015	3,745	15,805	10,113	2,352
Percent	50	72	48	48	36
Employed	12,218	2,605	4,679	4,256	678
Formal work	4,616	1,059	1,285	1,782	490
Agriculture/Fishing	7,602	1,546	3,394	2,474	188
Subsistence	5,787	1,442	2,424	1,833	88
Market Oriented	1,815	104	970	641	100
Unemployed	3,820	76	2,945	622	177
Percent of labor force	24	3	39	13	21
Not in labor force	15,977	1,064	8,181	5,235	1,497
Could have taken job	1,424	74	478	527	345
Not available for work	14,553	990	7,703	4,708	1,152
With own children under 6 yrs	8,926	934	4,263	3,120	609
In labor force	5,044	689	2,392	1,699	264
With own children 6-17 yrs only	10,615	1,165	5,087	3,569	794
In labor force	6,471	922	3,011	2,159	379
SUBSISTENCE ACTIVITY					
Total, subsistence for home use	14,747	2,382	7,110	4,881	374
Gardening	11,204	1,958	4,655	4,353	238
Fishing	5,941	809	3,264	1,689	179
Animal raising	5,674	1,797	1,845	1,912	120
Other	4,569	1,200	2,310	974	85
Total, subsistence and sold any	4,592	160	2,299	1,935	198
Gardening	2,540	64	1,131	1,270	75
Fishing	1,689	30	921	653	85
Animal raising	634	23	304	279	28
Other	1,425	97	775	494	59
Total, subsistence and gave away	4,723	281	2,419	1,938	85
Gardening	3,393	149	1,603	1,601	40
Fishing	1,945	73	1,156	667	49
Animal raising	759	23	238	481	17
Other	977	153	467	343	14
Females, subsistence for home use					
Gardening	7,386	1,538	3,257	2,421	170
Fishing	5,600	1,509	1,825	2,179	87
Fishing	1,141	68	549	452	72
Animal raising	3,140	1,229	1,028	849	34
Other	3,377	852	1,789	672	64
Females, subsistence and sold any					
Gardening	1,815	104	970	641	100
Fishing	839	42	358	410	29
Fishing	217	2	89	95	31
Animal raising	269	15	155	92	7
Other	1,009	69	630	260	50
Females, subsistence and gave away					
Gardening	2,100	191	1,017	861	31
Fishing	1,483	128	598	743	14
Fishing	409	2	209	183	15
Animal raising	349	16	134	195	4
Other	744	125	398	210	11

Source: 2000 FSM Census

Table B15. Labor Force Characteristics from U.S. Definition by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Labor force status last week	Total	Yap	Chuuk	Pohnpei	Kosrae
Duration of work in 1999					
LABOR FORCE STATUS					
Persons 16 years and over	61,061	6,902	30,094	19,650	4,415
In labor force	26,345	3,037	13,583	7,706	2,019
Percent of 16+ yrs	43	44	45	39	46
Civilian labor force	26,345	3,037	13,583	7,706	2,019
Employed	15,096	2,662	5,185	5,676	1,573
At work 35 or more hours	11,981	2,451	3,822	4,943	765
Unemployed	11,249	375	8,398	2,030	446
Percent of civilian labor	43	12	62	26	22
Not in labor force	34,716	3,865	16,511	11,944	2,396
Institutionalized persons	542	19	157	335	31
Females 16 years and over	30,715	3,630	15,100	9,732	2,253
In labor force	10,300	1,249	5,404	2,895	752
Percent of 16+ yrs	34	34	36	30	33
Civilian labor force	10,300	1,249	5,404	2,895	752
Employed	5,187	1,094	1,607	1,939	547
At work 35 or more hours	3,991	999	1,140	1,617	235
Unemployed	5,113	155	3,797	956	205
Percent of civilian labor	50	12	70	33	27
Not in labor force	20,415	2,381	9,696	6,837	1,501
Institutionalized persons	199	2	79	108	10
With own children under 6 year	18,049	1,884	8,551	6,375	1,239
In labor force	8,117	789	4,019	2,684	625
With own children 6 to 17 year	21,162	2,269	10,168	7,156	1,569
In labor force	9,405	980	4,673	2,999	753
DURATION OF WORK IN 1999					
Persons 16 years and over	61,061	6,902	30,094	19,650	4,415
Worked in 1999	13,572	2,571	4,050	5,425	1,526
50 to 52 weeks	10,886	1,977	3,529	4,253	1,127
40 to 49 weeks	1,247	197	329	539	182
27 to 39 weeks	401	104	70	170	57
14 to 26 weeks	477	112	67	211	87
1 to 13 weeks	561	181	55	252	73
Usually worked 35 + hours	10,842	2,476	2,461	5,075	830
50 to 52 weeks	8,749	1,936	2,089	4,091	633
40 to 49 weeks	978	182	236	479	81
27 to 39 weeks	326	90	58	141	37
14 to 26 weeks	361	107	41	171	42
1 to 13 weeks	428	161	37	193	37
Usually worked 15 to 34 hour	2,510	70	1,470	306	664
40 or more weeks	2,251	43	1,423	202	583
50 to 52 weeks	2,031	33	1,362	152	484
Did not work in 1999	47,489	4,331	26,044	14,225	2,889
Females 16 years and over	30,715	3,630	15,100	9,732	2,253
Worked in 1999	4,549	1,039	1,159	1,840	511
50 to 52 weeks	3,571	769	1,013	1,434	355
40 to 49 weeks	419	90	92	176	61
27 to 39 weeks	160	43	28	68	21
14 to 26 weeks	175	43	15	78	39
1 to 13 weeks	224	94	11	84	35
Usually worked 35 + hours	3,669	994	742	1,688	245
50 to 52 weeks	2,925	747	622	1,368	188
40 to 49 weeks	325	87	70	147	21
27 to 39 weeks	126	36	26	54	10
14 to 26 weeks	131	41	15	60	15
1 to 13 weeks	162	83	9	59	11
Usually worked 15 to 34 hours	820	39	406	133	242
40 or more weeks	711	23	402	86	200
50 to 52 weeks	630	20	386	62	162
Did not work in 1999	26,166	2,591	13,941	7,892	1,742

Source: 2000 FSM Census

Table B15A. Activity and Place of Work in Week Before Census by State of Usual Residence: 2000
 [For definitions of terms and meanings of symbols, see text]

Activity in Week before Census Where Worked Last Week Workers in Families in 1999	Total	Yap	Chuuk	Pohnpei	Kosrae
ACTIVITY IN WEEK BEFORE CENSUS					
Persons 15+ years	63,836	7,153	31,587	20,468	4,628
Paid work, no subsistence	10,868	1,899	3,441	4,346	1,182
Paid work and subsistence	3,091	671	1,105	1,029	286
Subsistence activity only	17,425	2,438	8,879	5,659	449
No work	32,452	2,145	18,162	9,434	2,711
Females 15+ years	32,015	3,745	15,805	10,113	2,352
Paid work, no subsistence	3,851	803	1,098	1,508	442
Paid work and subsistence	765	256	187	274	48
Subsistence activity only	8,162	1,563	3,744	2,651	204
No work	19,237	1,123	10,776	5,680	1,658
WHERE WORKED LAST WEEK					
Current formal workforce persons 15+ years	13,959	2,570	4,546	5,375	1,468
Worked in same municipality	8,705	1,336	3,763	2,668	938
Worked in same village	4,663	966	1,711	1,051	935
Worked in other village	4,042	370	2,052	1,617	3
Worked in other municipality	5,254	1,234	783	2,707	530
Current formal workforce females 15+ years	4,616	1,059	1,285	1,782	490
Worked in same municipality	2,878	600	1,098	843	337
Worked in same village	1,640	466	522	316	336
Worked in other village	1,238	134	576	527	1
Worked in other municipality	1,738	459	187	939	153
WORKERS IN FAMILIES IN 1999					
Families	15,014	1,846	6,778	5,335	1,055
No workers	7,335	676	4,211	2,193	255
1 worker	5,112	688	1,979	2,000	445
2 workers	2,143	403	507	969	264
3 workers	320	54	58	138	70
4 or more workers	104	25	23	35	21

Source: 2000 FSM Census

Table B 16. Occupation by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Occupation	Total	Yap	Chuuk	Pohnpei	Kosrae
Current formal workforce persons 15+ years	13,959	2,570	4,546	5,375	1,468
Legislators, senior officials & managers	1,191	162	453	440	136
Professionals	2,536	314	1,165	847	210
Technicians & Associate Professionals	2,117	439	575	852	251
Clerks	2,159	359	523	1,024	253
Service Workers & Shop & Market Sales Workers	1,574	173	776	533	92
Skilled Agricultural and fishery workers	239	46	49	122	22
Craft & Related Workers	1,631	629	304	549	149
Plant & Machine Operators & Assemblers	885	152	289	342	102
Elementary Occupations	1,625	295	412	665	253
Armed Forces	2	1	-	1	-
Current formal workforce males 15+ years	9,343	1,511	3,261	3,593	978
Legislators, senior officials & managers	1,021	132	420	348	121
Professionals	1,606	205	721	530	150
Technicians & Associate Professionals	1,460	271	426	585	178
Clerks	644	90	138	374	42
Service Workers & Shop & Market Sales Workers	1,048	99	610	292	47
Skilled Agricultural and fishery workers	225	42	47	115	21
Craft & Related Workers	1,163	270	284	500	109
Plant & Machine Operators & Assemblers	845	142	272	334	97
Elementary Occupations	1,329	259	343	514	213
Armed Forces	2	1	-	1	-
Current formal workforce females 15+ years	4,616	1,059	1,285	1,782	490
Legislators, senior officials & managers	170	30	33	92	15
Professionals	930	109	444	317	60
Technicians & Associate Professionals	657	168	149	267	73
Clerks	1,515	269	385	650	211
Service Workers & Shop & Market Sales Workers	526	74	166	241	45
Skilled Agricultural and fishery workers	14	4	2	7	1
Craft & Related Workers	468	359	20	49	40
Plant & Machine Operators & Assemblers	40	10	17	8	5
Elementary Occupations	296	36	69	151	40
Armed Forces	-	-	-	-	-

Source: 2000 FSM Census

Table B17. Industry by State of Usual Residence, FSM: 2000
[For definitions of terms and meanings of symbols, see text]

Industry	Total	Yap	Chuuk	Pohnpei	Kosrae
Current formal workforce persons 15+ years	13,959	2,570	4,546	5,375	1,468
Agriculture, hunting & forestry	120	22	39	46	13
Fishing	258	37	39	166	16
Mining and quarrying	65	9	10	41	5
Manufacturing	721	438	94	141	48
Electricity, gas and water supply	360	94	85	148	33
Construction	781	185	113	361	122
Wholesale & Retail Trade, Repair of Motor vehicles, motorcycles & personal & household goods	1,855	311	503	799	242
Hotels and restaurants	685	186	168	252	79
Transport, Storage and communication	806	141	245	352	68
Financial Intermediation	177	22	32	103	20
Real Estate, Renting and Business Activities	549	129	62	239	119
Public Administrator. & Defense; Compulsory Social Security	3,352	204	1,614	1,221	313
Education	2,785	524	1,116	890	255
Health and Social Work	732	128	273	231	100
Other Community, Social & Personal Service Activities	432	130	142	128	32
Private Households With Employed Persons	233	6	11	213	3
Extraterritorial Organizations and Bodies	48	4	-	44	-
Current formal workforce females 15+ years	9,343	1,511	3,261	3,593	978
Agriculture, hunting & forestry	99	17	35	37	10
Fishing	226	29	36	147	14
Mining and quarrying	52	6	9	33	4
Manufacturing	301	115	57	92	37
Electricity, gas and water supply	326	88	79	135	24
Construction	756	177	110	349	120
Wholesale & Retail Trade, Repair of Motor vehicles, motorcycles & personal & household goods	1,010	168	298	443	101
Hotels and restaurants	303	109	64	105	25
Transport, Storage and communication	677	114	224	281	58
Financial Intermediation	74	6	18	40	10
Real Estate, Renting and Business Activities	387	74	50	178	85
Public Administrator. & Defense; Compulsory Social Security	2,665	154	1,337	920	254
Education	1,705	314	697	520	174
Health and Social Work	331	60	129	101	41
Other Community, Social & Personal Service Activities	282	76	111	75	20
Private Households With Employed Persons	114	2	7	104	1
Extraterritorial Organizations and Bodies	35	2	-	33	-
Current formal workforce females 15+ years	4,616	1,059	1,285	1,782	490
Agriculture, hunting & forestry	21	5	4	9	3
Fishing	32	8	3	19	2
Mining and quarrying	13	3	1	8	1
Manufacturing	420	323	37	49	11
Electricity, gas and water supply	34	6	6	13	9
Construction	25	8	3	12	2
Wholesale & Retail Trade, Repair of Motor vehicles, motorcycles & personal & household goods	845	143	205	356	141
Hotels and restaurants	382	77	104	147	54
Hotels and restaurants	129	27	21	71	10
Transport, Storage and communication	103	16	14	63	10
Financial Intermediation	162	55	12	61	34
Real Estate, Renting and Business Activities	687	50	277	301	59
Public Administrator. & Defense; Compulsory Social Security	1,080	210	419	370	81
Education	401	68	144	130	59
Education	150	54	31	53	12
Health and Social Work	119	4	4	109	2
Other Community, Social & Personal Service Activities	13	2	-	11	-
Private Households With Employed Persons	-	-	-	-	-
Extraterritorial Organizations and Bodies	-	-	-	-	-

Source: 2000 FSM Census

Table B18. Class of Worker and Commuting Characteristics by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Class of Worker Transportation to Work and Car Pooling Travel Time to Work and Departure Time	Total	Yap	Chuuk	Pohnpei	Kosrae
CLASS OF WORKER					
Current formal workforce persons 15+ years	13,959	2,570	4,546	5,375	1,468
Private wage and salary workers	6,276	1,488	1,364	2,830	594
Municipal government workers	1,144	6	830	275	33
State government workers	4,911	817	1,999	1,403	692
National government workers	903	83	153	589	78
Foreign or United States Federal workers	474	101	168	179	26
Self-employed workers	205	64	27	88	26
Unpaid family workers	46	11	5	11	19
Current formal workforce females 15+ years	4,616	1,059	1,285	1,782	490
Private wage and salary workers	2,389	691	492	975	231
Municipal government workers	135	1	81	44	9
State government workers	1,481	256	587	446	192
National government workers	282	28	31	200	23
Foreign or United States Federal workers	223	55	81	75	12
Self-employed workers	73	20	11	34	8
Unpaid family workers	33	8	2	8	15
TRANSPORTATION TO WORK AND CARPOOLING					
Current formal workforce persons 15+ years	13,959	2,570	4,546	5,375	1,468
Car, truck, van, bus or boat	8,708	1,432	2,398	3,915	963
Car, truck, van or bus	5,833	1,006	1,233	2,749	845
Boat	647	19	593	27	8
Taxicab or public transport	2,228	407	572	1,139	110
Drove alone	2,587	445	524	1,205	413
Carpooled	3,893	580	1,302	1,571	440
2-person carpool	1,965	344	474	884	263
3-person carpool	706	105	254	246	101
4-to-6-person carpool	992	101	476	351	64
7-to-9-person carpool	140	5	65	65	5
10-or-more-person carpool	90	25	33	25	7
Worked at home	465	71	72	243	79
Other means	4,786	1,067	2,076	1,217	426
TRAVEL TIME TO WORK AND DEPARTURE TIME					
Current formal workforce persons 15+ years	13,959	2,570	4,546	5,375	1,468
Did not work at home	13,494	2,499	4,474	5,132	1,389
Less than 5 minutes	1,278	565	367	236	110
5 to 9 minutes	2,640	636	997	738	269
10 to 14 minutes	2,351	352	797	986	216
15 to 19 minutes	2,458	350	855	995	258
20 to 24 minutes	1,209	151	325	562	171
25 to 29 minutes	443	71	184	145	43
30 to 44 minutes	2,332	343	789	953	247
45 to 59 minutes	467	25	112	274	56
60 or more minutes	316	6	48	243	19
Mean (minutes)	17	13	16	21	18
Worked at home	465	71	72	243	79
Current formal workforce persons 15+ years	13,959	2,570	4,546	5,375	1,468
Did not work at home	13,494	2,499	4,474	5,132	1,389
12:00 AM to 5:59 AM	123	29	37	42	15
6:00 AM to 6:59 AM	720	208	161	307	44
7:00 AM to 7:29 AM	2,965	523	1,218	993	231
7:30 AM to 7:59 AM	5,545	873	2,003	2,009	660
8:00 AM to 8:29 AM	3,007	671	721	1,335	280
8:30 AM to 8:59 AM	310	76	88	115	31
9:00 AM to 12:59 PM	359	44	88	159	68
1:00 PM to 3:59 PM	133	31	19	55	28
4:00 PM to 11:59 PM	332	44	139	117	32

Source: 2000 FSM Census

Table B19. Income in 1999 by State of Usual Residence, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Household Income					
Family Income					
Income by Type	Total	Yap	Chuuk	Pohnpei	Kosrae
Households with income	14,089	1,578	6,385	5,067	1,059
Less than \$1000	2,212	82	1,632	426	72
\$1000 to \$1999	1,729	99	1,022	546	62
\$2000 to \$2999	1,330	154	694	414	68
\$3000 to \$3999	1,199	177	508	420	94
\$4000 to \$4999	929	112	391	364	62
\$5000 to \$7499	1,872	277	754	671	170
\$7500 to \$9999	1,204	169	427	472	136
\$10000 to \$12499	884	118	286	387	93
\$12500 to \$14999	558	81	143	270	64
\$15000 to \$19999	760	119	202	351	88
\$20000 to \$24999	451	53	112	239	47
\$25000 to \$34999	482	76	98	255	53
\$35000 to \$49999	252	35	54	141	22
\$50000 or more	227	26	62	111	28
Median (dollars)	\$4,618	\$6,489	\$2,776	\$6,354	\$7,528
Mean (dollars)	\$8,944	\$10,344	\$6,195	\$11,249	\$12,407
FAMILY INCOME					
Families with income	13,482	1,428	6,211	4,822	1,021
Less than \$1000	2,073	70	1,550	389	64
\$1000 to \$1999	1,647	78	992	520	57
\$2000 to \$2999	1,283	138	686	395	64
\$3000 to \$3999	1,161	165	498	405	93
\$4000 to \$4999	901	104	386	350	61
\$5000 to \$7499	1,802	256	740	638	168
\$7500 to \$9999	1,176	160	421	461	134
\$10000 to \$12499	855	111	282	371	91
\$12500 to \$14999	543	79	141	260	63
\$15000 to \$19999	736	111	199	341	85
\$20000 to \$24999	426	47	112	223	44
\$25000 to \$34999	456	69	96	240	51
\$35000 to \$49999	236	27	52	136	21
\$50000 or more	187	13	56	93	25
Median (dollars)	\$4,640	\$6,553	\$2,821	\$6,379	\$7,565
Mean (dollars)	\$8,679	\$9,713	\$6,134	\$10,873	\$12,358
INCOME BY TYPE					
Persons 15+ years with income	34,198	3,254	19,090	9,518	2,336
Mean income (\$)	\$3,943	\$5,016	\$2,133	\$6,793	\$5,625
Earnings	21,175	2,927	7,962	8,381	1,905
Mean income (\$)	\$5,496	\$5,198	\$3,647	\$7,255	\$5,941
Wages and salary	14,818	2,674	4,872	5,624	1,648
Mean income (\$)	\$6,837	\$5,256	\$5,086	\$9,250	\$6,346
Own business	7,389	354	3,412	3,145	478
Mean income (\$)	\$2,038	\$3,279	\$1,248	\$2,792	\$1,797
Interest & dividend	787	152	252	244	139
Mean income (\$)	\$2,079	\$968	\$1,112	\$2,952	\$3,516
Social Security and other gov't	2,437	318	935	844	340
Mean income (\$)	\$2,404	\$2,595	\$2,019	\$2,627	\$2,725
Remittances	14,161	104	12,921	732	404
Mean income (\$)	\$673	\$554	\$649	\$1,055	\$766
From inside FSM	12,263	73	11,647	414	129
Mean income (\$)	\$348	\$360	\$323	\$856	\$963
From outside FSM	5,837	41	5,122	374	300
Mean income (\$)	\$901	\$764	\$904	\$1,117	\$618
Other income	1,459	45	1,248	101	65
Mean income (\$)	\$988	\$1,721	\$904	\$1,370	\$1,498

Source: 2000 FSM Census

Table H01. Structural Characteristics, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Characteristic	Total	Yap	Chuuk	Pohnpei	Kosrae
UNITS IN STRUCTURE					
Total	17,299	2,246	7,417	6,549	1,087
One-family house detached	15,356	1,959	6,953	5,400	1,044
One-family house attached	1,434	160	376	860	38
2 apartments	111	12	24	72	3
3 or 4 apartments	104	43	20	41	-
5 to 9 apartments	84	28	8	48	-
10 to 19 apartments	70	28	3	39	-
20 to 49 apartments	9	-	1	8	-
Other	131	16	32	81	2
MATERIAL OF OUTSIDE WALLS					
Total	17,299	2,246	7,417	6,549	1,087
Poured concrete	3,157	267	1,819	535	536
Concrete blocks	4,158	312	1,127	2,521	198
Metal/tin	4,510	1,037	1,980	1,477	16
Plywood	3,822	398	1,939	1,155	330
Thatch	297	103	123	70	1
Bamboo or local wood	1,207	116	363	723	5
No walls	109	5	47	56	1
Other	39	8	19	12	-
MATERIAL OF ROOF					
Total	17,299	2,246	7,417	6,549	1,087
Poured concrete	2,623	109	1,259	1,063	192
Metal/tin	12,494	1,643	5,576	4,422	853
Wood	100	13	47	37	3
Thatch	1,861	470	377	975	39
Bamboo	138	2	104	32	-
Other	83	9	54	20	-
MATERIAL OF FOUNDATION					
Total	17,299	2,246	7,417	6,549	1,087
Concrete	11,378	1,151	4,984	4,224	1,019
Wood pier or pilings	4,848	827	1,937	2,028	56
Coral	287	101	76	109	1
Other	786	167	420	188	11
WHEN BUILDING WAS FIRST BUILT					
Total	17,299	2,246	7,417	6,549	1,087
1999 or 2000	1,036	102	386	479	69
1996 to 1998	2,082	283	814	823	162
1993 to 1995	2,133	305	991	658	179
1988 to 1992	2,654	315	1,363	753	223
1980 to 1987	3,695	465	1,754	1,200	276
1970 to 1979	2,450	294	1,317	745	94
1960 to 1969	863	107	345	386	25
1959 or earlier	663	96	83	477	7
WHEN HOUSEHOLDER MOVED IN					
Total	17,299	2,246	7,417	6,549	1,087
1999 or 2000	2,336	332	979	903	122
1996 to 1998	2,865	374	1,130	1,153	208
1993 to 1995	2,312	332	1,129	690	161
1988 to 1992	2,644	325	1,363	736	220
1987 or earlier	7,142	883	2,816	3,067	376

Source: 2000 FSM Census

Table H02. Utilization Characteristics, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Characteristic	Total	Yap	Chuuk	Pohnpei	Kosrae
ROOMS					
Total	17299	2246	7417	6549	1087
1 room	3979	794	1442	1614	129
2 rooms	3587	456	1391	1541	199
3 rooms	3756	425	1684	1386	261
4 rooms	2734	288	1378	872	196
5 rooms	2011	195	980	669	167
6 rooms	725	51	361	239	74
7 rooms	287	16	112	122	37
8 rooms	132	6	43	67	16
9 or more rooms	88	15	26	39	8
Median	3.3	2.7	3.5	3.1	3.8
PERSONS IN UNIT					
Total Occupied	15723	2030	6976	5630	1087
1 person	647	168	189	259	31
2 persons	891	180	269	403	39
3 persons	1358	239	470	582	67
4 persons	1833	302	608	795	128
5 persons	1939	301	672	814	152
6 persons	1847	255	753	691	148
7 persons	1622	174	751	575	122
8 persons	1371	137	682	445	107
9 or more persons	4215	274	2582	1066	293
Median (excluding vacant)	6.6	5.4	7.7	6.0	6.9
PERSONS PER ROOM					
Total Occupied	15723	2030	6976	5630	1087
0.50 or less	750	165	216	329	40
0.51 to 0.75	607	102	199	271	35
0.76 to 1.00	1593	261	550	672	110
1.01 to 1.50	1907	264	766	689	188
1.51 to 2.00	2780	312	1315	920	233
2.01 to 2.50	1488	113	737	512	126
2.51 to 3.00	1656	174	775	577	130
3.01 or more	4942	639	2418	1660	225
With complete plumbing					
Total	420	79	42	270	29
0.50 or less	133	37	3	88	5
0.51 to 0.75	55	9	6	38	2
0.76 to 1.00	91	15	9	59	8
1.01 to 1.50	63	10	9	40	4
1.51 to 2.00	44	5	9	26	4
2.01 to 2.50	15	-	1	12	2
2.51 to 3.00	8	2	2	3	1
3.01 or more	11	1	3	4	3
BEDROOMS					
Total	17299	2246	7417	6549	1087
1 bedroom.	6706	973	2533	2941	259
2 bedrooms	5661	689	2554	2065	353
3 bedrooms	3189	413	1543	997	236
4 bedrooms	1282	125	631	371	155
5 bedrooms	289	22	110	103	54
6 bedrooms	113	11	34	50	18
7 bedrooms	35	4	6	16	9
8 bedrooms	7	1	1	3	2
9 or more bedrooms	17	8	5	3	1
Median .	2.3	2.2	2.5	2.2	2.8

Source: 2000 FSM Census

Table H03. Plumbing and Water Source Characteristics, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Characteristic	Total	Yap	Chuuk	Pohnpei	Kosrae
COMPLETE PLUMBING FACILITIES					
Total	17,299	2,246	7,417	6,549	1,087
Complete plumbing	1,900	308	197	1,205	190
With hot and cold water	450	90	43	288	29
With cold water only	1,450	218	154	917	161
Lacking complete plumbing	15,399	1,938	7,220	5,344	897
Some but not all facilities	835	77	273	407	78
No plumbing facilities	14,564	1,861	6,947	4,937	819
PIPED WATER					
Total	17,299	2,246	7,417	6,549	1,087
Hot and cold in the unit	568	101	62	368	37
Heated by electricity	519	92	50	342	35
Heated by gas	6	1	3	2	-
Heated by solar	22	2	3	15	2
Heated other way	21	6	6	9	-
Cold only in the unit.	3,067	486	395	1,872	314
Cold only outside the unit.	5,007	607	1,384	2,306	710
No piped water	8,657	1,052	5,576	2,003	26
BATHTUB OR SHOWER					
Total	17,299	2,246	7,417	6,549	1,087
Bathtub/shower in unit	2,321	340	325	1,417	239
Bathtub/shower in building	451	23	84	291	53
Bathtub/shower outside.	5,918	820	2,228	2,186	684
None	8,609	1,063	4,780	2,655	111
FLUSH TOILET					
Total	17,299	2,246	7,417	6,549	1,087
Flush toilet	7,605	649	2,530	3,429	997
In the unit.	2,449	356	405	1,444	244
In this building	244	22	82	87	53
Outside	4,912	271	2,043	1,898	700
None	9,694	1,597	4,887	3,120	90
SOURCE OF WATER					
Total	17,299	2,246	7,417	6,549	1,087
Public system only	2,321	270	65	1,977	9
Community system only	2,096	401	145	1,432	118
Public system and catchments	297	64	82	128	23
Community system and catchments	655	147	155	261	92
Individual well.	850	16	321	502	11
Catchments, tank, drum only	9,681	1,312	6,122	1,451	796
Public standpipe or hydrant	60	9	31	17	3
Distilled water	181	8	14	150	9
Other source .	1,158	19	482	631	26
WASTE DISPOSAL					
Total	17,299	2,246	7,417	6,549	1,087
Public sewer	1,785	273	458	938	116
Septic tank or cesspool	2,579	261	530	1,117	671
Use other means	12,935	1,712	6,429	4,494	300

Source: 2000 FSM Census

Table H04. Cooking Facilities and Appliances, FSM: 2000
[For definitions of terms and meanings of symbols, see text]

Characteristic	Total	Yap	Chuuk	Pohnpei	Kosrae
COMPLETE KITCHEN FACILITIES					
Total	17,299	2,246	7,417	6,549	1,087
Complete kitchen facilities	1,984	349	310	1,163	162
Incomplete kitchen facilities	15,315	1,897	7,107	5,386	925
COOKING FACILITIES					
Total	17,299	2,246	7,417	6,549	1,087
Cooking facilities inside	5,416	547	1,603	2,698	568
With electric stove	1,118	164	240	593	121
With kerosene stove	3,582	308	1,056	1,795	423
With gas stove	255	51	48	153	3
With microwave & burners	25	2	12	8	3
With microwave only	86	10	16	53	7
With wood stove	60	-	7	48	5
With open fire	181	5	144	26	6
Other	109	7	80	22	-
Cooking facilities outside	11,159	1,640	5,735	3,266	518
With electric stove	113	27	20	21	45
With kerosene stove	2,228	536	565	746	381
With gas stove	45	23	6	16	-
With microwave oven.	19	3	7	6	3
With portable electric stove	12	2	4	4	2
With wood stove.	1,823	33	587	1,181	22
With open fire	6,828	1,016	4,491	1,257	64
Other.	91	-	55	35	1
No cooking facilities	724	59	79	585	1
ELECTRICAL POWER					
Total	17,299	2,246	7,417	6,549	1,087
Public Utility	7,900	1,273	1,410	4,154	1,063
Generator	696	8	609	55	24
Solar power	673	34	402	237	-
None	8,030	931	4,996	2,103	-
REFRIGERATOR					
Total	17,299	2,246	7,417	6,549	1,087
Electric	3,502	740	526	1,922	314
Gas	71	6	27	31	7
Kerosene	74	4	45	19	6
No refrigerator	13,652	1,496	6,819	4,577	760
AIR CONDITIONING					
Total	17,299	2,246	7,417	6,549	1,087
Central air conditioning	273	47	56	163	7
1 individual room unit	507	95	120	250	42
2 or more individual units	187	34	42	102	9
None	16,332	2,070	7,199	6,034	1,029
TELEVISION AND VCR					
Total	17,299	2,246	7,417	6,549	1,087
Television and VCR	5,135	739	1,468	2,417	511
Television only	700	101	191	279	129
VCR only	110	9	58	34	9
None	11,354	1,397	5,700	3,819	438
BATTERY OPERATED RADIO					
	6,973	1,181	2,470	2,736	586
TELEPHONE OR CB RADIO					
Total	17,299	2,246	7,417	6,549	1,087
Telephone only	4,944	883	624	2,706	731
CB Radio only	1,034	40	939	46	9
Both	620	99	161	316	44
None	10,701	1,224	5,693	3,481	303

Source: 2000 FSM Census

Table H05. Vehicles and Monthly Costs, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Characteristic	Total	Yap	Chuuk	Pohnpei	Kosrae
AUTOMOBILES, VANS and TRUCKS					
Total	17,299	2,246	7,417	6,549	1,087
1 vehicle	4,094	680	775	2,080	559
2 vehicles	1,026	186	201	529	110
3 vehicles	219	32	43	118	26
4 vehicles	55	3	21	20	11
5 vehicles	27	2	9	13	3
6 vehicles	8 -		5	2	1
or more vehicles	12 -		5	6	1
None	11,858	1,343	6,358	3,781	376
BOATS OF LESS THAN 25 FEET					
Total	17,299	2,246	7,417	6,549	1,087
1 boat	3,508	448	2,094	809	157
2 boats	257	58	147	42	10
3 boats	35	12	14	5	4
4 boats	17	6	6	3	2
5 or more boats	76	70	5	1 -	
None	13,406	1,652	5,151	5,689	914
MONTHLY ELECTRICAL COSTS					
Total with cost	7,602	1,226	1,330	4,054	992
Less than \$10	470	93	16	193	168
\$10 to \$24	2,189	392	368	1,027	402
\$25 to \$49	2,599	461	476	1,365	297
\$50 to \$74	1,322	156	268	810	88
\$75 to \$99	387	46	97	225	19
\$100 to \$149	322	44	48	223	7
\$150 to \$199	153	20	30	100	3
\$200 to \$299	92	12	14	61	5
\$300 to \$399	30 -		2	27	1
\$400 to \$499	13 -		5	7	1
\$500 or more	25	2	6	16	1
Median	36	32	40	40	22
MONTHLY KEROSENE COSTS					
Total with cost	13,056	1,570	6,257	4,387	842
Less than \$10.	4,875	917	892	2,436	630
\$10 to \$24	6,697	561	4,127	1,802	207
\$25 to \$49	1,114	50	948	113	3
\$50 to \$74	244	11	204	28	1
\$75 to \$99	47	2	41	4 -	
\$100 or more	79	29	45	4	1
Median	14	9	18	9	7
MONTHLY WATER COSTS					
Total with cost	2,873	724	54	2,087	8
Less than \$10	659	411	6	236	6
\$10 to \$24	1,059	246	9	803	1
\$25 to \$49	721	46	35	639	1
\$50 to \$74	274	14	4	256 -	
\$75 to \$99	42	1 -		41 -	
\$100 or more	118	6 -		112 -	
Median	21	9	34	25	7
OTHER MONTHLY UTILITIES					
Total with cost	9,497	1,151	5,439	2,797	110
Less than \$10.	436	69	90	275	2
\$10 to \$24	2,203	348	1,263	551	41
\$25 to \$49	3,048	339	1,714	945	50
\$50 to \$74	1,949	178	1,300	457	14
\$75 to \$99	470	23	190	256	1
\$100 or more	1,391	194	882	313	2
Median (dollar)	42	37	45	40	31

Source: 2000 FSM Census

Table H06. Tenure and Financial Characteristics, FSM: 2000
 [For definitions of terms and meanings of symbols, see text]

Characteristic	Total	Yap	Chuuk	Pohnpei	Kosrae
TENURE					
Total	15,723	2,030	6,976	5,630	1,087
Owned with a mortgage	1,614	122	67	1,047	378
Mortgage, deed of trust	1,384	113	44	891	336
Contract to purchase	230	9	23	156	42
Owned free and clear	12,711	1,628	6,389	4,017	677
Rented for cash rent	454	120	40	286	8
Occupied without payment	944	160	480	280	24
MONTHLY RENT PAID					
Total paying rent	443	111	39	285	8
Less than \$100	73	60	8	5	-
\$100 to \$199	27	4	-	23	-
\$200 to \$299	46	6	8	30	2
\$300 to \$399	47	11	1	35	-
\$400 to \$499	61	10	-	46	5
\$500 to \$599	74	16	11	46	1
\$600 to \$699	68	2	8	58	-
\$700 to \$799	20	1	2	17	-
\$800 to \$899	11	-	-	11	-
\$900 to \$999	4	-	-	4	-
\$1000 or more	12	1	1	10	-
Median (dollar)	447	93	523	508	440
VALUE OF HOUSE					
Total owning	14,325	1,750	6,456	5,064	1,055
Less than \$2000	3,050	471	820	1,656	103
\$2000 to \$4999	3,292	358	1,498	1,082	354
\$5000 to \$9999	3,879	431	2,139	969	340
\$10000 to \$19999	2,394	261	1,376	595	162
\$20000 to \$29999	795	80	348	313	54
\$30000 to \$39999	371	75	124	157	15
\$40000 to \$49999	148	22	42	77	7
\$50000 to \$59999	162	25	53	76	8
\$60000 to \$69999	96	10	15	70	1
\$70000 to \$79999	45	7	10	25	3
\$80000 to \$89999	23	3	10	10	-
\$90000 to \$99999	3	-	1	2	-
\$100000 or more	67	7	20	32	8
Median (dollars)	6,058	5,534	7,127	4,429	6,037
MONTHLY MORTGAGE PAYMENT					
Total with mortgage	1,431	118	64	877	372
Less than \$100	972	77	36	537	322
\$100 to \$199	289	15	17	220	37
\$200 to \$299	82	15	4	60	3
\$300 to \$399	35	4	1	25	5
\$400 to \$499	18	2	-	16	-
\$500 to \$599	19	4	2	8	5
\$600 to \$699	3	-	1	2	-
\$700 to \$799	-	-	-	-	-
\$800 to \$899	2	-	-	2	-
\$900 to \$999	-	-	-	-	-
\$1000 or more	11	1	3	7	-
Median (dollar)	74	77	89	82	58

Source: 2000 FSM Census

ID: - - / - -
State ED Number Block Number / Split Mapspot HH

QUESTIONNAIRE

2000 CENSUS OF POPULATION AND HOUSING

FEDERATED STATES OF MICRONESIA



**2000 CENSUS OF POPULATION AND HOUSING
FEDERATED STATES OF MICRONESIA
DEPARTMENT OF ECONOMIC AFFAIRS
STATISTICS DIVISION**



INTRODUCTION: Hello, my name is *(Your name)* and I'm working for the 2000 Population and Housing Census. This is my identification *(Pause)*. I have some questions I need to ask you. *Ask the questions on page 1. Complete a form for each household.*

COMPLETE BEFORE INTERVIEW

A. State B. Municipality
 C. Enumeration District
 D. Block:
 E. Map-Spot:
 F. Household No.:
 G. Village:
 H. Interview Started:

COMPLETE AFTER THE INTERVIEW

J. Respondent's Name: _____
 K. Respondent's Telephone: _____
 L. Population count: M F Total
 M. Type of unit: Occup Reg Vacant UHE
 N. Complete after (circle): 1st 2nd 3rd Last Resort
 O. Total number of households in this unit:
 P. Interview completed: AM / PM

1b. When you told me the names of the persons living here on April 1, did you leave anyone out because you were not sure if the persons should be listed – for example, someone temporarily away on a business trip or vacation, a newborn baby still in the hospital, or a person who stays here once in a while and has no other home?

- 1 Yes – Determine if you should include the person(s) based on the instructions for question 1a, if so, include the person and circle the person's name.
 2 No

1c. When you told me the names of the persons living here on April 1, did you include anyone even though you were not sure if the persons should be listed – for example, a visitor who is staying here temporarily or a person who usually live somewhere else?

- 1 Yes – Determine if you should include the person(s) based on the instructions for questions 1a, if so, circle the person's name, if not, draw a line through any entry.
 2 No

The 2000 Census of Population and Housing must count every person at his or her usual residence. "Usual residence" means the place where the person lives and sleeps most of the time.

INCLUDE:

- Everyone who usually lives here such as family members, housemates and roommates, foster children, roomers, boarders, and live-in employees.
- Persons who are temporarily away on a business trip, on vacation, or in a general hospital.
- Students who live here while attending school/college
- Newborn babies born on or before April 1, 2000
- Persons who stay here most of the weeks, even if they have a home somewhere else.
- Persons with no home who were staying here on April 1, 2000.

DO NOT INCLUDE:

- Persons who usually live somewhere else
- Persons who are confined to an institution
- Students who live somewhere else while attending school
- Persons in the Armed Forces who live somewhere else.
- Persons who stay somewhere else most of the week

If EVERYONE listed is staying here only temporarily and usually lives somewhere else, mark (X) in this box and ask –

1d. Where do these people usually live?

If the usual residence is within the FSM, enter the State, Municipality, and Village.

State: _____
 Municipality: _____
 Village: _____

If the usual residence is not within the FSM, enter the country.

Country: _____

NOTICE: You are required by Public Law No. 5-77 to answer the 2000 Census. Your answers will be kept confidential by the same law. Only sworn Census employees may see your answers. Your information will only be used for statistical purposes.

1a. Please give me the name of each person living here (whose usual residence is this household) on April 1, including all persons staying here who have no other home. Begin with the household member in whose name the home is owned, being bought, or rented. If there is no such person, start with any adult household member *(If EVERYONE is staying here temporarily and usually lives somewhere else, get the name of each person and complete 1d).*

Each booklet contains one up to ten persons. If more than 10 persons live in this household, you must use more than one booklet.

	Last,	First,	M.I.	Sex (1=M, 2=F)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

NOTES:

HOUSING QUESTIONS

H1. Which best describes this building? Include all apartments even if vacant.

1. A one-family house detached from any other house
2. A one-family house attached to one or more houses
3. A building with 2 apartments
4. A building with 3 or 4 apartments
5. A building with 5 to 9 apartments
6. A building with 10 to 19 apartments
7. A building with 20 or more apartments
8. Other
9. Don't know

H2. When did (person 1 listed in question 1a on page 1) move to this house/apartment?

- | | | |
|----------------|----------------|--------------------|
| 1. 1999 – 2000 | 4. 1985 – 1989 | 7. 1960 – 1969 |
| 2. 1995 – 1998 | 5. 1980 – 1984 | 8. 1959 or earlier |
| 3. 1990 – 1994 | 6. 1970 – 1979 | 9. Don't know |

H3. What is the MAIN type of material used for the outside walls of this building? (Read each category and circle ONE item.)

- | | |
|--------------------|-------------------------|
| 1. Poured concrete | 5. Thatch |
| 2. Concrete blocks | 6. Local wood or bamboo |
| 3. Metal/tin | 7. Other |
| 4. Plywood | 8. No walls |

H4. What is the MAIN type of material used for the roof of this building? (Read each category and circle ONE item..)

- | | | |
|--------------------|-----------|-----------|
| 1. Poured concrete | 3. Wood | 5. Bamboo |
| 2. Metal/tin | 4. Thatch | 6. Other |

H5. What is the MAIN type of material used for the foundation of this building? (Read each category and circle ONE item..)

- | | | |
|------------------------|----------|----------|
| 1. Concrete | 3. Coral | 5. Other |
| 2. Wood pier or piling | 4. Stone | |

H6. About when was this building first built?

- | | | |
|----------------|----------------|--------------------|
| 1. 1999 – 2000 | 4. 1985 – 1989 | 7. 1960 – 1969 |
| 2. 1995 – 1998 | 5. 1980 – 1984 | 8. 1959 or earlier |
| 3. 1990 – 1994 | 6. 1970 – 1979 | 9. Don't know |

H7. How many rooms do you have in this house/apartment? (Count living rooms, dining rooms, kitchens, and bedrooms; but do NOT count bathrooms, balconies, foyers, or halls).

____ Room(s). If 9 or more rooms, enter 9.

H8. How many rooms are designed primarily for sleeping?

____ Room(s). If 9 or more rooms, enter 9.

H9a. Do you have piped water?

- | | |
|-------------------------------------|---------------|
| 1. Yes, hot and cold in this unit. | } SKIP TO H9c |
| 2. Yes, cold only in this unit | |
| 3. Yes, cold only outside this unit | |
| 4. No piped water | |

H9b. What type of energy does your water heater use most?

- | | | | |
|----------------|--------|----------------|---------------|
| 1. Electricity | 2. Gas | 3. Solar power | 4. Other fuel |
|----------------|--------|----------------|---------------|

H9c. Do you have a bathtub or shower?

- | | |
|--|-------------------------------|
| 1. Yes, in this unit | 3. Yes, outside this building |
| 2. Yes, in this building but not in unit | 4. No |

H9d. Do you have a flush toilet?

- | | |
|--|-------------------------------|
| 1. Yes, in this unit | 3. Yes, outside this building |
| 2. Yes, in this building but not in unit | 4. No |

H10. Does this unit have electric power?

- | | |
|------------------------|---------------------|
| 1. Yes, public utility | 3. Yes, solar power |
| 2. Yes, generator | 4. No |

H11. Do you have a telephone or CB radio in this unit?

- | | |
|------------------------|-----------------------|
| 1. Yes, both | 3. Yes, CB radio only |
| 2. Yes, telephone only | 4. No |

H12. Do you have a battery-operated radio? Count car radios, transistors radios, and other battery operated sets in working order or needing only new batteries to operate.

- | | |
|---------------------|-------|
| 1. Yes, one or more | 2. No |
|---------------------|-------|

H13. Do you have a television set or Video Cassette Recorder (VCR)?

- | | |
|-------------------------|------------------|
| 1. Yes, both TV and VCR | 3. Yes, VCR only |
| 2. Yes, TV only | 4. No |

H14. Do you have air conditioning?

1. Yes, central air conditioning system
2. Yes, 1 individual room unit
3. Yes, 2 or more individual room units
4. No

H15. Where do you get most of your drinking water from? Read list and circle ONE item.

1. A public system only
2. A community system only
3. A public system and catchment
4. A community systems and catchment
5. An individual well
6. A catchment, tanks, or drums only
7. A public standpipe or steel hydrant
8. Purchased bottled water
9. Some other source such as spring, river, creek, etc.

H16. Is this building connected to a public sewer?

1. Yes, connected to a public sewer
2. Yes, connected to a septic tank or cesspool
3. No, use other means

H17a. Are your MAIN cooking facilities inside or outside this unit?

1. Yes, inside this unit
2. Yes, outside this unit
3. No cooking facilities –SKIP TO H18

H17b. What are your MAIN cooking facilities?

- | | |
|-------------------|----------------------------|
| 1. Electric range | 5. Portable electric stove |
| 2. Kerosene stove | 6. Wood stove |
| 3. Gas stove | 7. Open fire |
| 4. Microwave oven | 8. Other |

H17c. Do you have a refrigerator in this unit? If yes, ask what type?

- | | |
|------------------|--------------------|
| 1. Yes, electric | 3. Yes, kerosene |
| 2. Yes, gas | 4. No refrigerator |

H17d. Do you have a separate freezer in this unit?

- | | |
|--------|-------|
| 1. Yes | 2. No |
|--------|-------|

H17e. Do you have a sink in this unit?

- | | |
|--------|-------|
| 1. Yes | 2. No |
|--------|-------|

H18. How many automobiles, vans, and pick-up trucks are kept at home for use by members of this household?

____ If 9 or more, enter 9

H19. How many boats/canoes are kept at home for use by members of this household?

____ If 9 or more, enter 9

HOUSING QUESTIONS

H20a. What is the average monthly cost for electricity for this unit?

\$ _____ .00 OR 1. Included in rent
 2. No charge, or electricity not used

H20b. What is the average monthly cost for kerosene for this unit?

\$ _____ .00 OR 1. Kerosene not used

H20c. What is the average monthly cost for water for this unit?

\$ _____ .00 OR 1. Included in rent
 2. No charge

H20d. What is the average monthly cost for other fuels (such as oil, gas, wood, etc.) for this unit?

\$ _____ .00 OR 1. Included in rent
 2. No charge, or these fuels not used.

H21. Is this unit – Read list and circle ONE item.

1. Owned by you or someone in this household with a mortgage or loan?
2. Owned by you or someone else in this household free and clear (without a mortgage)?
3. Rented for cash?
4. Occupied without payment of cash rent?
5. Other; Specify: _____

Ask only if RENT IS PAID for this unit --

H22. What is the monthly rent for this house/unit?

If rent is NOT PAID BY THE MONTH, see the QRB on how to figure the monthly rent..

\$ _____, _____ .00

INTERVIEWER INSTRUCTIONS: Ask questions H23 to H24c if this is a one-family house that someone in this household OWNS OR IS BUYING; otherwise go to page 4 and ask population questions for each member of the household starting with the householder

H23. What is the value of this house? *If respondent does not know the value of the house, ask –*

How much it would cost to build a house like this?

\$ _____, _____ .00

H24a. Is there a mortgage, deed of trust, contract to purchase, or similar debt on this unit?

1. Yes, mortgage, deed of trust, or similar debt
2. Yes, contract to purchase
3. No – SKIP TO FIRST PERSON

H24b. How much is the regular monthly mortgage payment on THIS UNIT? Include payments only on the first mortgage or contract to purchase.

\$ _____, _____ .00 OR

1. No regular payment required – SKIP TO FIRST PERSON

H24c. Does the regular payment include payments for fire, hazard, or flood insurance on this unit?

1. Yes, insurance included in payment
2. No, insurance paid separately or no insurance
3. No – SKIP TO FIRST PERSON

INTERVIEWER INSTRUCTIONS: Go to page 4 and ask the population questions for each member of the household starting with the person in whose name the house is owned or rented..

FOR VACANT UNITS

C1. Vacancy Status

1. For rent
2. For sale only
3. Rented or sold, not occupied
4. For seasonal/recreational/occasional
5. For migrant worker
6. Other vacant

C2. Is this unit boarded up?

1. Yes
2. No

C3. Months vacant

1. Less than 1
2. 1 or 2
3. 3 to 6
4. 7 to 12
5. 13 to 23
6. 24 or more

NOTES:

POPULATION QUESTIONS

INTERVIEWER INSTRUCTION: Questions 1 – 11b should be asked of all household members. For all questions, CIRCLE only ONE entry.

1. PERSON NUMBER |__| |__| |__| (from question 1a on page 1)

Last name: _____
First name: _____

2. How is ... related to the Householder? (Circle one entry. If "Other relative" circle 7 below, and print exact relationship, such as wife's mother, sister's son, etc.)

- | | |
|------------------------------|-----------------------------------|
| 1. Householder | 7. Other relative, specify: _____ |
| 2. Husband/wife | |
| 3. Natural born son/daughter | |
| 4. Adopted son/daughter | |
| 5. Brother/sister | 8. Non-relative |
| 6. Father/ mother | |

3. Is ... 1. Male 2. Female

4a. What is ... 's date of birth? If unknown, please give your best estimate. (Print the date in the boxes).

|__| |__| / |__| |__| / |__| |__| |__| |__|
MM DD YYYY

4b. How old is ... ? (Age should be in complete years as of April 1, 2000. Print age in the boxes).

Age in years

5. Is ... now married, widowed, divorced, separated, or has never been married? Circle ONE item.

- | | |
|----------------|------------------|
| 1. Now married | 4. Separated |
| 2. Widowed | 5. Never married |
| 3. Divorced | |

6. What is ... 's ethnic origin? For example, Yapese, Pohnpeian, Mortlockese, Satawalese, Filipino, etc. Print no more than two groups.

1. _____
2. _____

7. What is ... 's religion?

- | | |
|-------------------------------|-------------------|
| 1. Roman Catholic | 5. Baptist |
| 2. Congregation | 6. Other religion |
| 3. Latter Day Saints (Mormon) | 7. Refused |
| 4. Seventh Day Adventist | 8. No religion |

8. Where was ... born? Print the name of the village/ island, municipality, FSM state, or other country in the space below. If ... was born in a hospital, record the place of the usual residence of the mother just before she went to the hospital.

Village/island: _____
Municipality: _____
FSM state: _____
Other country: _____

9. If ... is a FSM citizen, what is ... 's legal residence? Print the name of the municipality and the FSM state in the space below. If not, record the country of citizenship.

Municipality: _____
FSM state: _____
Country of citizenship: _____

10. Is ... a dependent of an active-duty or retired member of the Armed Forces of the United States or of the full-time Military Reserves or National Guard? "Active duty" does NOT include training for the military Reserves or National Guard.

- Yes, dependent of active-duty member of the Armed Forces.
- Yes, dependent of retired member of the Armed Forces, or dependent of an active duty or retired member of the National Guard or Armed Forces Reserves
- No

11a. Since when has ... live continuously in this municipality?

- Since birth - SKIP TO INTERVIEWER CHECK ITEM (ICI) AFTER 11b.
- Since |__| |__| / |__| |__| |__| |__|
MM YYYY

11b. Where was the previous place of residence?

Municipality: _____
FSM state: _____
Other country: _____

INTERVIEWER CHECK ITEM (ICI). CIRCLE ONE BASED QUESTION 4.

- Born before April 1, 1997 – Ask Q12
- Born after April 1, 1997 or later – GO TO NEXT PERSON

12. Since February 1, 2000, has ... attended regular school or college? Include only pre-kindergarten, pre-school, kindergarten, elementary school, and school which leads to a high school diploma or a college.

- No, never attended school – SKIP TO 14.
- No, attended in the past, but not since February 1, 2000.
- Yes, public school, public college
- Yes, private school

13. How much school has ... COMPLETED? Read categories if person is unsure. Circle entry for the highest grade COMPLETED or degree received. If currently enrolled, circle the previous grade attended or highest grade completed.

- No school completed
- Pre-school, head-start, or kindergarten
1st 2nd 3rd 4th 5th 6th
7th 8th 9th 10th 11th
- 12th grade, NO DIPLOMA
- HIGH SCHOOL GRADUATE—High school equivalent (example: GED program)
- Some college but no degree
- Associate degree in college—Occup. program
- Associate degree in college—Acad. program
- Bachelor's degree (example: BA, AB, BS)
- Master's degree (example: MA, MS, Meng, Med, MSW, MBA)
- Professional school degree (example: MD, DDS, DVM, LLB, JD)
- Doctorate degree (example: PhD, EdD)

14. Does ... know how to read and write in any language?

- Yes
- No

15a. What languages does ... speak? List in order of usage with the most used language first and the least used last.

1. _____
2. _____
3. _____

15b. What is the language that ... usually speaks at home?

ICI: CIRCLE BASED ON QUESTION 4.

- Born before April 1, 1995 – Ask Q16a
- Born after April 1, 1995 or later – GO TO NEXT PERSON

16a. Did ... live in this municipality 5 years ago? (April 1, 1995)

- Yes – SKIP TO NEXT ICI
- No – Ask 16b

16b. What is the name of the municipality, FSM state, or other country where ... lived 5 years ago?

Municipality: _____
FSM state: _____
Other country: _____

ICI: CIRCLE ITEM BASED ON QUESTION 3.

- Females born before April 1, 1987- Ask Q17
- All others – SKIP TO NEXT (ICI)

17a. What is the number of children ever born alive? Include all natural children even if they have been adopted by somebody or are living away from home. Do not count stepchild or children ... adopted. Enter the information in the categories below.

	Males	Females
Living at home	|__| |__|	|__| |__|
Living elsewhere	|__| |__|	|__| |__|
Died	|__| |__|	|__| |__|
Total number of children	|__| |__|	|__| |__|

IF NONE, ENTER ZERO (0) AND SKIP TO NEXT ICI.

17b. What is the date of birth of the last child born alive?

|__| |__| / |__| |__| / |__| |__| |__| |__|
MM DD YYYY

17c. Was the last child born alive male or female?

- Male
- Female

17d. Is that child still alive?

- Yes
- No

ICI: CIRCLE based on question 4.

- Born before April 1, 1985 – Ask Q18
- Born April 1, 1985 or later – GO TO NEXT PERSON

18. Has ... completed the requirements for a vocational training program in a trade school business school, hospital, some other kind of business school for occupational training, or "at place or work"? Do not include academic college courses. If "Yes" – Was training received in the FSM?

- No
- Yes, in FSM
- Yes, outside FSM
- Both in and outside FSM

POPULATION QUESTIONS

19. Has ... ever been on active duty military service in the Armed Forces of the United States? "Active duty" does NOT include training for the military Reserves or National Guard.

1. Yes, now on active duty
 2. Yes, on active duty in the past, but not now
 3. No

20a. Did work at any time LAST WEEK, either full-time or part-time? Work includes part-time or full-time work such as helping without pay in a family business or farm; it also includes active duty in the Armed Forces. Work does NOT include unpaid volunteer work. Subsistence activities include fishing, growing crops, etc., NOT primarily for commercial purposes. Read each category and circle in the entry that applies.

1. Yes, worked full-time or part-time at a job or business and did NO subsistence activity. ASK 20b
 2. Yes, worked full-time or part-time at a job or business and did subsistence activity. ASK 20b
 3. Yes, did subsistence activity only ASK 20b
 4. No – SKIP TO 25

20b. What kind of subsistence activity did ... do last week? Ask the categories and mark (X) all that apply.

	Home use	Sold any	Gave away any
1. Gardening →			
2. Fishing →			
3. Animal raising →			
4. Other: crafts, etc. →			

INTERVIEWER INSTRUCTION -- If this person did subsistence activity only (20a = 3), SKIP TO 25.

21. How many hours did ... work LAST WEEK at all jobs, excluding subsistence activity? Subtract any time off and add any overtime or extra hours worked.

Number of hours →

22. Where did ... usually work LAST WEEK? If worked at more than one location, ask -- Where did ... work most last week? Print the village/island, municipality, FSM state or other country where ... worked

Village/island: _____
 Municipality: _____
 FSM State: _____
 Other country: _____

23a. What type of transportation did ... usually used to get to work LAST WEEK?

1. Private car, truck, or van
 2. Boat
 3. Taxi or public transport bus
 4. Worked at home – SKIP TO 28a
 5. Other means – SKIP TO 24

23b. How many people including ... usually rode together to work LAST WEEK?

24a. What time did ... leave home most days to go to work LAST WEEK?

____:____ a.m. ____ p.m.

24b. How many minutes did it usually take ... to get from home to work LAST WEEK?

Number of minutes →

INTERVIEWER INSTRUCTIONS – If this person was working for income LAST WEEK, SKIP TO 28a.

25. Was ... on vacation, sick, or temporarily absent from a job LAST WEEK for any other reason?

1. Yes, on layoff
 2. Yes, on vacation, temporary illness, labor dispute, etc.
 3. No

26a. Has ... been looking for work to earn money during the last 4 weeks?

1. Yes 2. No

26b. Could ... have taken a job LAST WEEK if one had been offered? If NO, Ask – For what reason?

1. Yes, could have taken a job
 2. No, already has a job
 3. No, temporarily ill
 4. No, other reasons (in school, etc.)

27. In what year did ... last work at a job, business, or farm, even for a few days?

1. 2000
 2. 1999
 3. 1995-1998
 4. 1990 to 1994 -- Go to 32a
 5. Never worked or did subsistence only -- Go to 32a

INTERVIEWER INSTRUCTIONS FOR QUESTIONS 28 TO 30: Questions 28-30 ask about the job worked last week. If ... had more than one job, describe the one ... worked the most hours. If ... did not work, the questions refer to the most recent job or business since 1995.

28a. For whom did ... usually work? Print the name of the business or employer.

28b. What kind of business or industry was this? For example: hospital, garment factory, retail store, bakery, etc.

29a. What was ... job title? For example: registered nurse, industrial machinery mechanic, cake baker, etc.

29b. What was ...'s main task? For example: patient care, repair machines, baking cakes, etc.

30. Was ... --Read list. Circle ONE entry

1. Employee of PRIVATE FOR PROFIT company business or individual, for wages, salaries, or commissions.
 2. Employee of PRIVATE NOT FOR PROFIT, tax exempt, or charitable organization
 3. Municipal GOVERNMENT employee
 4. State GOVERNMENT employee
 5. National GOVERNMENT employee
 6. FOREIGN/FEDERAL employee
 7. SELF EMPLOYED
 8. Working WITHOUT PAY in a family business/farm

31a. Last year (1999), did ... work, even for a few days, at a paid job or in a business or a farm, excluding subsistence activity?

1. Yes 2. No – SKIP TO 32a

31b. How many weeks did ... work in 1999, excluding subsistence activity? Count paid vacation, paid sick leave, and military service.

Number of weeks →

31c. During the weeks worked in 1999, how many hours did ... usually work each week?

Number of Hours →

The following questions are about income received in 1999.

If an exact amount is not known, accept a best estimate. If net income in 32b, 32c or question 33 was a loss, write "loss" above the dollar amount.

32a. How much did ...earn from wages, salary, commissions, bonuses, or tips? Report amount before deductions for taxes.

\$ _____ . 00
 Enter ANNUAL amount in dollars

32b. How much did ... earn from (his/her) own farm or non-farm business, proprietorship, or partnership? Report amount before deductions for taxes.

\$ _____ . 00
 Enter ANNUAL amount in dollars

32c. How much did ... receive in interest, dividends, net rental or royalty income, or income from estates or trusts? Include even small amounts credited to an account.

\$ _____ . 00
 Enter ANNUAL amount in dollars

32d. How much did ... receive in social security payments or any pension payments from retirement, survivor, or disability?

\$ _____ . 00
 Enter ANNUAL amount in dollars

32e. How much did ... receive as remittances from relatives within FSM outside this household?

\$ _____ . 00
 Enter ANNUAL amount in dollars

32f. How much did ... receive in remittances from relatives outside FSM, including the military?

\$ _____ . 00
 Enter ANNUAL amount in dollars

32g. How much did ... receive in income from Veterans' (VA) payments, unemployment compensation, child support, alimony, or any other regular sources of income?

\$ _____ . 00
 Enter ANNUAL amount in dollars

Do not ask question 33 if questions 32a through 32g are complete. Instead, sum these entries and enter the amount below.

33. What was the ...'s total income in 1999?

\$ _____ . 00
 Enter ANNUAL amount in dollars

