

# **THE IMPACT OF MICRONESIAN MIGRANTS ON THE CNMI**

A Study of the Impact of the Compacts of Free Association  
based on the 1998 Census of Micronesian Migrants to  
Commonwealth of the Northern Mariana Islands

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### 1. INTRODUCTION

The Compact of Free Association between the United States and the Federated States of Micronesia (FSM) and the Republic of the Marshall Islands (RMI) went into effect in late 1986, and with the Republic of Palau (ROP) in late 1994. These three countries together make up what is frequently called the Freely Associated States (FAS). The Compact, as a joint congressional-executive agreement, charts relationships between the United States and the three island nations. Under the Compact, the United States funds the FSM, the RMI, and the ROP for a range of development programs, the use of United States currency, immigration privileges, federal processing of applications for air services, United States transportation of mail, and other benefits. In exchange, each Pacific nation guarantees the United States exclusive use of its land for military purposes.

Several key provisions in the Compact between the FSM, RMI, ROP and the United States concern its impact on *United States areas*, discussed in Section 104(e) as follows:

- (1) *Statement of Congressional Intent.* In approving the Compact, it is not the intent of the Congress to cause adverse consequences for the United States territories and commonwealths or the State of Hawaii.
- (2) *Annual Reports and Recommendations.* One year after the date of enactment of this joint resolution and at one year intervals thereafter, the President shall report to the Congress with respect to the impact of the Compact on the United States territories and commonwealths and on the State of Hawaii. Reports submitted because of this paragraph will identify adverse consequences resulting from the Compact and shall make recommendations for corrective action to eliminate those consequences. The reports shall pay particular attention to matters relating to trade, taxation, immigration, labor laws, minimum wages, social systems and infrastructure, and environmental regulation. With regard to immigration, the reports shall include statistics concerning the number of persons availing themselves of the rights described in section 141(a) of the Compact during the year covered by each report<sup>1</sup> With regard to trade, the reports shall include an analysis of the impact on the economy of American Samoa resulting from imports of canned tuna into the United States from the Federated States of Micronesia and the Marshall Islands.
- (3) *Other Views.* In preparing the reports, the President shall request the views of the Government of the State of Hawaii, and the governments of each of the United States territories and commonwealths, the Federated States of Micronesia, the Marshall Islands, and Palau, and shall transmit the full text of these views to the Congress as part of reports.

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<sup>1</sup>These data are collected and tabulated by the Department of the Interior's Office of Insular Affairs' (OIA) Statistical Enhancement project, both as technical assistance to and training for the Insular Areas' personnel.

- (4) *Commitment if Congress to Redress Adverse Consequences.* The Congress hereby declares that, if any adverse consequences to United States territories and commonwealths or the State of Hawaii result from implementation of the Compact of Free Association, the Congress will act sympathetically and expeditiously to redress those adverse consequences.
- (5) *Definition of U.S. Territories and Commonwealths.* As used in this subsection, the term "United States territories and commonwealths" means the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands<sup>2</sup>
- (6) *Impact Costs.* There are hereby authorized to be appropriated for fiscal years beginning after September 30, 1985, such sums as may be necessary to cover the costs, if any, incurred by the State of Hawaii, the territories of Guam and American Samoa, and the Commonwealth of the Northern Mariana Islands resulting from any increased demands placed on educational and social services by immigrants from the Marshall Islands and the Federated States of Micronesia.

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<sup>2</sup> The Governors of American Samoa and the Virgin Islands report no adverse consequences of the Compact of Free Association; however, the Governors of Hawaii, Guam, and the Commonwealth of the Northern Mariana Islands have reported adverse consequences.

## CHAPTER 2

### PURPOSE AND PROCEDURES

This study focuses on the numbers and social, economic, housing and expenditure characteristics of Micronesian migrants to the Commonwealth of the Northern Mariana Islands (CNMI). It will not, however, look specifically at the financial impact that the Compact of Free Association has had on the CNMI. This impact can be either positive (e.g. by increasing tax revenues) or negative (e.g. by increasing the demands on public services). This report will not assess financial impact – positive, negative or net impact – of Compact implementation.

The 1998 Census of Micronesian Migrants to Saipan was developed to measure both:

- the negative impact of the Micronesian Migrants (as noted in the parts of the Compact shown earlier), and also
- the positive impact of the migrants in terms of salaries earned, purchases made, and taxes paid.

### THE FREELY ASSOCIATED STATES

The Federated States of Micronesia (FSM) and the Republic of the Marshall Islands (RMI) implemented their Compacts of Free Association with the United States in November 1986. The Republic of Palau implemented its Compact in October 1994. Historically, these island groups were sovereign entities until they came under the control of Spain from the 1500s to 1898, Germany from 1899 to 1914, Japan from 1914 to 1945 and finally under an American Administration from about 1945. After World War II – and because of Japan’s successful bombing of Pearl Harbor from the Marshall Islands – the Trust Territory of the Pacific Islands (TTPI) was created by the United States as a ‘strategic’ trust territory and administered for the United Nations from 1947 until 1986. The TTPI consisted of what became the Commonwealth of the Northern Mariana Islands, the Republic of Palau, the Federated States of Micronesia, and the Republic of the Marshall Islands. The following is a brief summary of population size and migration trends of the RMI, ROP and FSM.

*Marshall Islands.* The Republic of the Marshall Islands is made up of two parallel chains of islands and has more than 50,000 persons. The Marshall Islands implemented its Compact at the same time as the FSM, but the pace of out-migration from the RMI has been much slower than that from the FSM. Most of the Marshall Islands migration, in fact, has been to Hawaii and the U.S. mainland rather than to Guam and the CNMI. One of the reasons for this flow is that transportation is better to Hawaii than to Guam, and another reason is almost certainly economic. Based on the 1990 Census, at least 350 Marshallese were living in Hawaii while only 88 were living on Guam and 103 in the CNMI. The 1992 Office of Insular Affairs Survey of Micronesian migrants to Guam recorded 150 Marshallese. The 1993 Survey of Micronesian migrants to CNMI recorded 177 Marshallese, while the 1995 Census of the CNMI reported 130 individuals born in the Marshall Islands. Thus, Marshall Islands emigration west to Guam and the CNMI is relatively small (unfortunately, differences in reporting preclude stating that the 1995 data show a reverse trend). Most of the Marshall Islands migration is to Hawaii with about 2,500 present there in 1997.

*Palau.* Palau is located southwest of Guam and has a population of about 18,000, with approximately 1/3rd foreign-born. Unlike the Marshall Islands, Palauan out-migration to Guam, CNMI and Hawaii has been more significant. Both Guam and CNMI have attracted Palauan migrants since the 1950s, during the early TTPI administration. Many Palauans came to Guam to study at the University of Guam, some enlisted in the U.S. Armed Forces (one was killed in Vietnam during the war) and returned to Guam to live and work, and others have simply migrated to work, even when doing so was illegal. Many Palauans went to Saipan to work in the TTPI government, and many of these stayed in Saipan after the Commonwealth was formed in 1986. Many Palauans now hold responsible positions in the CNMI government. The 1990 Census recorded 1,233 Palau-born on Guam and 1,407 in the CNMI. In 1995, the CNMI Census recorded 1,594 Palau-born, while the concurrent survey of Palauans on Guam reported 1,089; however, the latter figure is likely an undercount. Of the three Freely Associated States groups, Palauans have had the longest history of residence in Hawaii and Guam.

*Federated States of Micronesia.* Four states – Chuuk, Kosrae, Pohnpei, and Yap – constitute the Federated States of Micronesia. Kosrae is composed of a main island, a smaller island (Lelu), and a number of even smaller islands. Pohnpei and Yap both have main islands and inhabited and uninhabited atolls, creating easy geographic differentiation. Chuuk, because it is the most populated state, and because of its history, is divided into five geographic regions – Northern and Southern Namoneas, and Faichuk in the Chuuk Lagoon, the Mortlock Islands to the south, and Oksoritod to the north and west. Oksoritod itself is made up of the Western Islands (Pulusuk, Puluwat, Pulap, and Tamatam), Namonuito, and the Hall Islands. Historical census and survey data for the FSM appear in Chapter 13.

## **DATA COLLECTION PROCEDURES**

The Census Office in the CNMI conducted the Censuses using modified list/enumerate procedures (formerly called conventional or door-to-door enumeration). The Census questionnaire, manuals, forms, and procedures were developed early in 1997 at the request of the Office of Insular Affairs to obtain preliminary results by the end of calendar 1997 for the annual report to the U.S. Congress. The questionnaires were originally identical, but were modified at the request of each Area – Guam, Hawaii, and the CNMI – to obtain data useful to that particular Area.

Overall direction of the 1998 Census of Micronesian Migrants to Saipan was provided by the Central Statistics Division, CNMI Department of Commerce, as required by the CNMI Statistical Act of 1990. Justin Andrew, a Palauan who assisted in coordination of the 1992 Census of Micronesians on Guam, the 1993 CNMI Survey, the 1995 Guam Household Income and Expenditures Survey, and other Impact related work, provided overall direction for all Censuses. Paul Andrew, a Chuukese who previously worked on the 1994 Federated States of Micronesia Census, assisted Justin Andrew.

### **Enumeration of Housing Units**

The CNMI enumeration took place only on Saipan because previous a previous census of Micronesians in the CNMI in 1993 showed very few Micronesian migrants on Tinian and Rota. Also, contemporary reports indicated few Micronesians currently residing on those islands, and the per capita costs did not justify a complete re-enumeration. Beginning in June 1997 and May 1998 on Saipan, enumerators visited and listed every housing unit containing at least one Micronesian Migrant, and conducted a personal interview, asking the questions as worded on the census questionnaire and recording the answers. A single questionnaire contained all questions asked of every person and every housing unit. This questionnaire contained both basic (stateside 100-percent equivalent), detailed (stateside sample equivalent) population and housing questions, as well as expenditures items.

Micronesian Migrants were defined as persons born in either the Republic of Palau, the Federated States of Micronesia, or the Republic of the Marshall Islands, or a child of someone born in one of these places. When the enumerator determined that a respondent was in a Micronesian Migrant household, all persons in that household were included in the Census, even if they themselves were not Micronesian.

The 1998 Census of Saipan employed the *Snowball method*. Leslie Kish covers snowball sampling in his book *Survey Sampling*, noting that “*Snowball sampling* is the colorful name for techniques of building up a list or a sample of a special population by using an initial set of its members as informants (1965:408). Each enumerator initially developed a list of all persons and households from his or her island or set of islands. Enumerators interviewed each household or person on their list, and then, at the end of the interview, asked for the names of anyone else from the respective island/islands who was on Saipan but who might not have been enumerated. The enumerators added any new persons to their lists. The enumerators then eventually enumerated these persons in the same way, and at the end asked these persons if they knew others from their islands. Enumerators continued to employ this method until all persons were accounted for (and, hopefully, enumerated). The method is not fool-proof – we assume that persons who migrated many decades before the enumeration or who married into the community (and were never heard from again) might be missed. We hope few of these persons existed.

The CNMI government received its funding last, partly because OIA initially expected to use data from the 1995 Census, and partly because of the burden of other activities in the Central Statistics Division (CDS). However, the staff of the CSD wanted to have current data on the Micronesian migrants, and therefore, requested funding from OIA for their own census of Micronesians. The CDS used essentially the same questionnaire as the other Areas, but because of their late start, and continuing staffing problems (as well as several natural disasters), their data did not appear in the 1998 report.

Followup enumerators visited each address where questionnaires were missing to obtain a completed questionnaire. Vacant units were not included in the Censuses. Enumerators themselves conducted an initial check of the questionnaires for completeness and consistency. Census Office staff performed additional coverage and edit checks. Enumerators contacted those households for which questionnaires did not meet specific quality standards because of incomplete information to obtain the missing information.

The Censuses of Micronesian Migrants were designed as keyable documents. The information supplied to the enumerator by the respondent was recorded by marking the answers in the appropriate answer boxes and, in some cases, entering a write-in response. Enumerators returned all completed questionnaires to the Census Offices where clerks checked in the questionnaires and edited them for completeness and consistency of the responses.

After check-in at the processing office, clerks coded all write-in entries (ethnicity or race, relationship, language, migration, place of birth, place of birth of parents, place of work, industry, and occupation). After all coding operations were complete, the data entry clerks keyed all the responses to the questions on all the questionnaires using the CENTRY part of the Integrated Microcomputer Processing System (IMPS), developed by the U.S. Bureau of the Census. Justin Andrew developed the actual application for the 1998 Census of Micronesians to Saipan. The data in Saipan were keyed on a flow basis in late 1997 and 1998. The International Programs Center, U.S. Bureau of the Census edited the Census data using the CONCOR part of IMPS, and tabulated the data using the CENTS part of IMPS.

## **ENUMERATION AND RESIDENCE RULES**

The Census counted each person at his or her usual residence – the place where he or she lived and slept most of the time or the person’s usual home. If a person had no usual residence, the person was to be counted where he or she was staying on Census Day. The Censuses counted persons temporarily away from their usual residence, whether in the area or abroad, on a vacation or on a business trip, at their usual residence. Also, the Censuses counted persons who moved on or near Census Day at their usual residence.

The Census counted college students as residents of the place where they were living while attending college, but children in boarding schools below the college level at their parental home. The Census used interviews with other members of their families, resident managers, or neighbors to count persons away from their usual residence. The Censuses counted persons in worker barracks who did not report a usual residence elsewhere as residents of the barracks where they were on Census Day.

## CHAPTER 3

### WHO IS A POST-COMPACT MIGRANT

One of the problems in studying the impact of the Compacts of Free Association on the CNMI – the receiving area – is defining who, exactly, is a “Compact migrant”. Many Micronesians<sup>3</sup> came to the CNMI before implementation of the Compacts, either on visas or through other arrangements, legal or not. During the early years of the TTPI Administration, very few migrants could afford to emigrate. The first migrants were students, who used a combination of TTPI scholarship and U.S. Federal scholarships and grants (particularly the Pell Grant, when it was implemented) to attend schools, first in Guam and Hawaii, and later on the U.S. mainland.

During the Carter Administration, in the late 1970s, the TTPI experienced a flood of emigrants for schooling. The Pell Grant’s \$2,000 funding at that time was enough to get the potential student to a school, even if the migrant was more “potential” than “student”. In fact, so many students or ex-students were in the States at the time of the 1980 TTPI Census that the data were artificially skewed. In the early 1980s, at a time when jobs were still plentiful, many of these migrants returned to the TTPI after having their adventures (see, for example, Levin 1976), taking over the government jobs that were being vacated throughout the TTPI by expatriate contract workers and Peace Corps volunteers.

Some of these students, whether they finished their studies or not, however, remained in Guam, Hawaii and the U.S. mainland. They married and started families, got entry level jobs which eventually led to higher positions, and generally acted like the typical U.S. immigrants they were enrolling their children in schools, renting or buying houses or apartments, and paying taxes. These immigrants, who were born in the TTPI and migrated before the Compacts of Free Association were implemented, are considered “pre-Compact” migrants. As we discuss below, it is not clear whether the U.S. Federal Government must act “sympathetically” to whatever impact these individuals have on social and educational services. Further, many of these early migrants now have families, with either Micronesian or non-Micronesian spouses, and it is not clear whether the children of these migrants, many of whom have never been in Micronesia, are to be considered part of the impact of the Compacts of Free Association.

Also, before the Compacts of Free Association were implemented, a few Micronesians joined the U.S. military as a means of entry into the United States, sometimes with a wink from the recruiters, sometimes with their collusion. This means of entry to the United States went from a trickle to a minor cascade after Compact implementation. Like the American Samoans before them, the modern military is attractive because of the minor chance of death or injury and the opportunity to have free room and board and medical attention, to learn a skill, and to earn many times the money which would be available for a similar job in the sending country. Those who do not become career military apparently can retire to the United States. If they initially came before Compact implementation, they are considered “pre-Compact” migrants and, if they came after implementation, they are considered “post-Compact” migrants.

The TTPI itself ended up contributing a type of migrant. As the TTPI wound down in the late 1970s and early 1980s, many Micronesians from Palau, the Federated States of Micronesia, and the Marshall Islands who were working in Saipan for the TTPI government returned to their home areas to work. The population of Kosrae, for example, went from about 3,000 to over 5,000 between 1973 and 1980, and while fertility was high, return migration also contributed to the population increase. Other TTPI employees, though, had either married Saipanese or chose to remain in Saipan, where they were relatively welcomed (particularly compared to the reception of Micronesian government workers on Guam, where they were not welcomed), where they had houses, better schools, and better health facilities. Many of these people also would be considered “pre-Compact” migrants because they came long before the Compact was implemented, and either never returned to their home areas, or only returned for a short time before returning to Saipan to live and work. The children of these persons, also, might never have lived in the TTPI areas, so it is not clear, even with both parents having been born in the TTPI, whether or not these persons should be considered impact persons.

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<sup>3</sup> In this paper we use the term “Micronesian” loosely. In most cases, Micronesian refers to persons born in the Federated States of Micronesia, and the Republics of Palau and the Marshall Islands. Geographically, linguistically, and, to a certain extent, culturally, the Chamorros and Carolinians of the CNMI should also be considered “Micronesian”, but in most cases here are excluded since we are looking at the “migrants.” Also, often we use FSM and “Micronesia” interchangeably so caution should be used in interpreting the data.

Many other persons originally went to Guam, the CNMI or the United States, either as students or tourists, and overstayed their visas and resided illegally in their respective receiving areas. A few cases were caught by the U.S. Immigration and Naturalization officials and deported but, because of their very small numbers, in most cases they were ignored. When the Compacts of Free Association were implemented, these people suddenly became “legal” and, because their immigration status had been regularized, they no longer had to accept low-wage jobs from employers willing to risk legal sanctions and hire illegal aliens.

When the Palau Compact was implemented in 1994, many Palauan students were paying out-of-state tuition, long after the FSM and Marshall Islands students were able to pay in-state tuition. These students now were able to reduce their hours working (often at quasi-legal jobs), go to school full-time, finish their schooling and either return to Palau or continue working in the United States. These persons would probably be considered “pre-Compact” migrants. Once again, it is not clear whether the children of these migrants, many of whom have a non-Micronesian mother or father and have been outside of the Guam, the CNMI or the United States, should be considered “Compact” persons or not.

### 3.1 DEFINING “PRE-COMPACT” AND “POST-COMPACT” MIGRANTS

In order to assess the impact of the Compacts of Free Association, it is first necessary to define who is a “pre-Compact” and “post-Compact” migrant. It is possible, as the Government of Guam does in its impact report, to define any person born in Palau, the FSM or the Marshall Islands – whether pre- or post-Compact – as having an impact on social and educational services. It is also possible to adopt the Compact reporting requirements and to look solely at the burden caused by Compact implementation, which means considering only post-Compact migrants. As discussed earlier, this report does not assess the impact of Compact implementation. However, in order to facilitate the use of the information provided in this report, *both* pre- and post-Compact migrants are included in the analysis. Also, because the 1998 Census of Micronesian Migrants enumerated households with at least one Micronesian migrant, the data includes the children of Micronesian migrants as well as their non-Micronesian relatives. The members of these households are classified in one of the four following ways:

1. *Post-Compact Migrants* are those who migrated after implementation of the Compacts of Free Association (after 1986 for persons born in the Federated States of Micronesia or the Republic of the Marshall Islands and after 1994 for persons born in the Republic of Palau).
2. *Children of Micronesian Migrants* are those children who were not born in one of the Freely Associated States and who have at least one Micronesian-born parent. All children of Micronesian migrants are included in this category, whether or not their parent(s) came before or after the implementation of the Compacts of Free Association, because it is often difficult to determine their pre- and post-Compact “status.” For example, if a child has at least one Micronesian parent present in the household, a link could be made and the information about pre- or post-Compact migration could be determined. However, if a child has two Micronesian parents present who migrated at different times, or if neither parent was present, ambiguities occurred. For this study, it was decided to include all U.S. or territory-born children of Freely Associated States migrants in the category of children of Micronesian migrants
3. *Pre-Compact migrants* are those who migrated to Guam, the CNMI, or Hawaii before implementation of the Compacts of Free Association (before 1987 for persons born in the FSM or the Marshall Islands or before 1995 for persons born in Palau).
4. *Other persons* are all non-Micronesian persons living in a household with at least one Micronesian migrant. In most cases, these were non-Micronesian spouses and persons related to those spouses. In some cases, particularly in the CNMI, maids or other household workers might also be included.



Clear definitions of these migrant categories are essential to determine the impact of the population on the receiving areas. This is because the number of “Compact” persons depends on how they are classified. If we look at all persons in households with at least one Micronesian migrant, the total “impact population” would be greater and its characteristics would be different than if we looked only at the migrants themselves. The same is true if we looked only at the post-Compact migrants; we would have a different population with a different impact. It is not the purpose of this exercise to state which set of persons is the “true” impact population. The wording of the Compact law is sufficiently obscure that different populations can be selected for analysis, depending on the actual criteria selected.

Because of the Office of Insular Affairs, Department of the Interior’s reading of the Compact law, this report will focus on two groups: 1) the pre-Compact migrants and 2) the post-Compact migrants and all the children born of Freely Associated States immigrants not born in Micronesia. In order to assess the maximum impact that immigration initiated by Compact implementation is having on Guam, the CNMI and Hawaii, all non-migrant children are included in the post-Compact category, regardless of when their parents actually arrived in the receiving areas.

It is important to remember that when households had members of more than one Freely Associated States, the household was placed in one or the other groups, usually by the enumerator who got to the house first (but finally determined by the Census coordinator). This situation did not happen very often and should not have appreciably affected the results. Hence, in a few cases, when a Chuukese married a Palauan, for example, the individuals would appear in their appropriate country statistics, but the household characteristics would only appear for one or the other.

Table 3.1 shows the number of persons enumerated by the census of Micronesian migrants in the CNMI. The census collected information on 4,469 persons. About 1,200 were post-Compact migrants, 600 were children of migrants, and another 1,200 were pre-Compact migrants. The other persons were not migrants or their children, but could have been third or later generation persons of Micronesian migrant ethnicities. For example, the children of children of Palauan migrants would not be included because neither they nor their parents were born outside of the CNMI.

Table 3.1. Pre- and Post-Compact Migrants to CNMI, 1998.

Group	Total	Palau	FSM	RMI
Total	4,469	2,154	2,199	116
Post-Compact migrants and children	1,755	178	1,503	74
Post-Compact migrants only	1,184	146	995	43
Children of migrants only	571	32	508	31
Pre-Compact migrants	1,192	885	289	18
Other persons in the households	1,522	1,091	407	24

Source: Censuses of Micronesian Migrants to Hawaii, Guam and CNMI.

Of the 4,500 migrants to the CNMI, 39 percent were post-Compact migrants or their children (27 percent were post-Compact migrants only and 13 percent were their non-Micronesian born children), 27 percent were pre-Compact migrants and 34 percent were other persons (Table 3.2). The percentage of post-Compact migrants in the CNMI is smaller than either Guam or Hawaii, which can be partially explained by the later implementation of the Compact in Palau. About 2,154 (48 percent) were from Palau, 2,199 (49 percent) were associated with the Federated States of Micronesia, and 116 (3 percent) were associated with the Marshall Islands. Clearly, Marshallese migrants were much more likely to go to Hawaii than either Guam or the CNMI, probably because Hawaii is closer to the Marshalls and has more affordable housing, food and other amenities.

Table 3.2. Pre- and Post-Compact Migrants to CNMI, 1998.

Group	Total	Palau	FSM	RMI
Total	4,469	2,154	2,199	116
Post-Compact migrants and children	39.3	8.3	68.3	63.8
Post-Compact migrants only	26.5	6.8	45.2	37.1
Children of migrants only	12.8	1.5	23.1	26.7
Pre-Compact migrants	26.7	41.1	13.1	15.5
Other persons in the households	34.1	50.6	18.5	20.7

Source: Censuses of Micronesian Migrants to Hawaii, Guam and CNMI.

In order to show the relationship between the numbers of Micronesian migrants to the CNMI compared to those moving to Guam and the CNMI, Table 3.3 shows all three migrant groups. In total, the censuses collected information on 19,551 persons. Of these, more than 11,000 were post-Compact migrants, another 2,400 were the children of migrants, about 2,500 were pre-Compact migrants, and, about 3,000 other persons lived in these households. The FSM enumerated population was about 2/3<sup>rd</sup> of the total for the three areas. RMI also contributed substantially to the post-Compact component, while most of the Palauans, partly because of the later Compact implementation date, were mostly pre-Compact migrants.

Table 3.3. Pre- and Post-Compact Migrants to Hawaii and Guam, 1997 and CNMI, 1998.

Group	Total	Palau	FSM	RMI
Total	19,551	3,897	12,934	2,720
Post-Compact migrants and children	13,814	407	11,140	2,267
Post-Compact migrants only	11,445	356	9,102	1,987
Children of migrants only	2,369	51	2,038	280
Pre-Compact migrants	2,532	1,536	791	205
Other persons in the households	3,205	1,954	1,003	248

Source: Censuses of Micronesian Migrants to Hawaii, Guam and CNMI.

Of the 20,000 persons in the three censuses, 71 percent were post-Compact migrants or their children (59 percent were post-Compact migrants only and 12 percent were their non-Micronesian born children), 13 percent were pre-Compact migrants and 16 percent were other persons (Table 3.4). Approximately 20 percent were from Palau, 66 percent were associated with the Federated States of Micronesia, and 14 percent were associated with the Marshall Islands.

Table 3.4. Pre- and Post-Compact Migrants to Hawaii and Guam, 1997 and CNMI, 1998.

Group	Total	Palau	FSM	RMI
Total	19,551	3,897	12,934	2,720
Post-Compact migrants and children	70.7	10.4	86.1	83.3
Post-Compact migrants only	58.5	9.1	70.4	73.1
Children of migrants only	12.1	1.3	15.8	10.3
Pre-Compact migrants	13.0	39.4	6.1	7.5
Other persons in the households	16.4	50.1	7.8	9.1

Source: Censuses of Micronesian Migrants to Hawaii, Guam and CNMI.

We will look at just two variables using the various selection criteria to get a better idea of how the migrant categories might influence the extent of the impact of the immigration resulting for the implementation of the Compacts of Free Association.

Table 3.9 shows the labor force participation rates of the 4,715 persons over the age of 16 in the labor force for Freely Associated States in Hawaii. The total labor force participation rate was 47 percent., meaning that less than half of the population 16 years and over was in the labor force (whether employed or unemployed). However, 58 percent of the Palauan adults were in the labor force, compared to 54 percent of the FSM associated persons but only 33 percent of the Marshallese.

Table 3.9. Labor Force Participation of Migrants to Hawaii, 1997

Group	Total	Palau	FSM	RMI
All persons age 16 year and Persons in Labor Force	4,715 47.1	404 58.2	2,774 53.5	1,537 32.5
Post-Compact migrants and children	44.6	48.2	52.5	29.9
Post-Compact migrants only	44.7	48.6	52.6	29.7
Children of migrants only	41.9	0.0	42.9	42.9
Pre-Compact migrants	58.1	59.7	65.8	45.8
Other persons in the households	54.9	65.7	50.9	48.7

Source: Census of Micronesian Migrants to Hawaii.

More than 58 percent of the pre-Compact migrants were in the labor force (60 percent of the Palauans, 66 percent of the FSM migrants, and 46 percent of the Marshallese), compared to only 45 percent of the post-Compact migrants. This latter figure is not completely surprising since many of the migrants arrived in Hawaii only shortly before the census. These persons may not have had time to get a job, or, like many persons just joining the work force, may have been moving in and out of entry level jobs until they established themselves as workers. About 48 percent of the Palauans, 53 percent of the FSM migrants, and 30 percent of the Marshallese post-Compact migrants were in the labor force.

It is also important to note that about 55 percent of the “others” in Freely Associated States households were in the labor force, significantly higher than the Freely Associated States migrants themselves, indicating that marriage to outsiders boosts labor force participation within the household. Almost 2/3rds of the “others” in Palau associated households were in the labor force compared to about half of those in FSM and Marshall Islands households.

So, the rates of labor force participation for the Freely Associated States migrants differ depending on the criteria for selection for inclusion in the “impact” population.

A second variable – per capita income – further illustrates the differences, depending on selection criteria. Per capita income is calculated by dividing all of the income obtained by a population in a year by the number of people in that population. Income from all sources – earnings, own business income, interest and dividends, welfare, etc – is usually included in the per capita income determination, as it is here. The per capita income for 1996 for the post-Compact migrants and their children in the 1997 Hawaii Census of Micronesian Migrant was \$3,759 (Table 3.10). The per capita income for post-Compact Palau associated migrants was \$4,688, more than that of either FSM (\$4,213) or the Marshall Islands (\$2,977). Pre-Compact migrants presented a much more positive impact. They had per capita incomes of about \$13,622 -- \$15,372 for Palauans, \$17,629 for FSM, but only \$6,770 for RMI.

Table 3.10. Per Capita Income in 1996 of Migrants in Hawaii, 1997.

Group	Per Capita Income			
	Total	Palau	FSM	RMI
Post-Compact migrants and children	\$3,759	\$4,688	\$4,213	\$2,977
Post-Compact migrants only	\$4,278	\$4,840	\$4,859	\$3,338
Children of migrants only	\$163	?	\$194	\$103
Pre-Compact migrants	\$13,622	\$15,372	\$17,629	\$6,770

Source: Censuses of Micronesian Migrants to Hawaii.

The Marshallese had the lowest per capita incomes across the board, but even here, the pre-Compact per capita income of almost \$7,000 was more than double that of the post-Compact migrants showing that length of residence has a positive impact on income levels (as represented by the per capita numbers). Once again, the per capita income levels changed rather dramatically depending on what criteria were used to determine the “impact” population.

## CHAPTER 4

### MICRONESIAN MIGRANT HOUSES IN THE CNMI

#### 4.1 General Housing Characteristics

Table 4.1 shows general housing characteristics of the Micronesian migrants in the CNMI. A total of 743 Micronesian households were enumerated by the 1998 Census of Micronesian Migrants in the CNMI, which included 237 post-Compact and 506 pre-Compact households – 212 post- and 129 pre-Compact FSM households, 19 post- and 372 pre-Compact Palauan households and six pre- and five post-Compact Marshallese households. As with the data for Guam, because of the small sample size, the information provided for the Marshallese households will not be divided into pre- and post-Compact categories, but will be collapsed into a single “all migrants” category.

Table 4.1: General Housing Characteristics, Micronesian Migrants in CNMI, 1998.

Characteristic	Total		FSM		RMI	Palau	
	Post-Comp. & Children	Pre-Comp.	Post-Comp. & Children	Pre-Comp.	All Migrants	Post-Comp. & Children	Pre-Comp.
Number of Housing Units	237	506	212	129	11	19	372
Persons in Housing Units	1,111	2,322	1,024	660	52	58	1,639
Persons per Housing Unit	4.7	4.6	4.8	5.1	4.7	3.1	4.4
Type of Housing							
House	70.5	79.8	71.2	82.2	81.8	57.9	79.0
Apartment	28.7	19.8	27.8	17.1	18.2	42.1	20.7
Other	0.8	0.4	0.9	0.8	0.0	0.0	0.3
Tenure							
Own (with Mortgage)	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Own (without Mortgage)	5.9	21.5	6.1	26.4	18.2	5.3	19.6
Rent	68.4	53.4	68.4	46.5	27.3	84.2	55.9
Occupy without Rent	25.7	22.7	25.5	26.4	54.5	10.5	21.5
Monthly Rent (Median)	250	291	245	242	425	263	306

Source: 1998 Census of Micronesian Migrants to Saipan

The persons per housing unit can provide a measure of household crowding and additional housing needs. The average size of the Micronesian households for all groups was between 3 and 5 persons, but the average size of both the pre- and post-Compact households was between 4 and 5 persons. The post-Compact Palauan households were the smallest, averaging about 3 persons per household.

The largest groups of all Micronesian migrants lived in houses. Over 70 percent of the post-Compact and 80 percent of the pre-Compact households lived in houses. A larger proportion of the total, FSM and Palauan pre-Compact than post-Compact migrant households lived in houses. Pre-Compact FSM households were the most likely (82 percent) and the post-Compact Palauan households the least likely (60 percent) to live in houses.

Although most of the Micronesian households lived in houses, the largest groups rented their house or apartment rather than owned. Over 68 percent of the post-Compact and 53 percent of the pre-Compact migrants rented rather than owned. The proportion of households that rented differed among the migrant groups. Over 84 percent of the post-Compact Palauan households rented, but only 27 percent of the Marshallese households did. Median monthly rent was between \$250 and \$300 dollars. The Marshallese community paid the highest median rent (\$425).

A larger proportion of pre-Compact (22 percent) than post-Compact (6 percent) migrant households owned their own home, a difference that may reflect the longer period of settlement experienced by the pre-Compact migrants. About one in four pre-Compact FSM households owned their own home, but only about 5 percent of the post-Compact Palauan households did.

Unlike Guam and Hawaii, about one in every four post-Compact and one in every five pre-Compact Micronesian migrant households in the CNMI occupied a residence rent-free. The post-Compact Palauan households were the least likely (11 percent) to live rent-free; the Marshallese households were the most likely (55 percent).

#### 4.2 Structural Characteristics

The type of material used for roofs, walls and foundations determine the structural composition of housing. The structural composition of the housing units indicates the general level of housing quality. It can also show the overall socio-economic standing of the community that occupies the housing units. Table 4.2 shows the type of housing construction material used for the walls, roofs and foundations of the Micronesian migrant housing units in the CNMI.

Table 4.2: Type of Housing Construction Materials, Micronesian Migrants in CNMI, 1998.

Characteristic	Total		FSM		RMI	Palau	
	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp	All Migrants	Post-Comp & Childrer	Pre-Comp.
Number of Housing Units	237	506	212	129	11	19	372
<b>Material Used for Outside Walls</b>							
Poured Concrete	19.4	17.8	18.9	19.4	9.1	26.3	17.5
Concrete Blocks	38.0	39.9	37.3	40.3	54.5	42.1	39.5
Metal	20.3	21.5	21.2	20.9	36.4	5.3	21.5
Wood	22.4	20.4	22.6	19.4	0.0	26.3	21.0
Other	0.0	0.4	0.0	0.0	0.0	0.0	0.5
<b>Material Used for Roof</b>							
Poured Concrete	38.8	37.4	39.2	41.1	45.5	31.6	36.0
Concrete Blocks	58.2	60.3	57.5	55.8	54.5	68.4	61.8
Metal	2.1	1.6	2.4	1.6	0.0	0.0	1.6
Wood	0.4	0.2	0.5	0.0	0.0	0.0	0.3
Other	0.4	0.6	0.5	1.6	0.0	0.0	0.3
<b>Material Used for Foundation</b>							
Concrete	74.7	77.5	73.1	76.0	90.9	84.2	78.0
Wood Pier/Pilings	19.8	19.0	20.8	19.4	9.1	15.8	18.8
Other	5.5	3.6	6.1	4.7	0.0	0.0	3.2

Source: 1998 Census of Micronesian Migrants to Saipan

**Walls.** Over 57 percent of all Micronesian migrant housing units in the CNMI had walls constructed of either poured concrete or concrete blocks. The most common material used for walls was concrete blocks. About 38 percent of all post-Compact and 40 percent of all pre-Compact migrant households had concrete block walls. Approximately 20 percent of the post- and 22 percent of the pre-Compact housing units had walls constructed of metal, while approximately 22 percent of the post- and 20 percent of the pre-Compact housing units had walls constructed of wood.

**Roofs.** Over 97 percent of all Micronesian migrant housing units had roofs constructed of either poured concrete or concrete blocks, with the largest groups of all groups (between 55 percent and 68 percent) living in housing units using concrete blocks. Less than 3 percent of the migrant housing units had roofs made of metal, wood or other materials.

**Foundation.** Over 75 percent of all Micronesian migrant housing units had concrete foundations. The proportion of housing units with wood foundations was between 9 percent and 21 percent for all groups, with the highest proportion occupied by post-Compact (21 percent) and pre-Compact (19 percent) FSM migrants. Also, 6 percent of the post- and 5 percent of the pre-Compact FSM migrant households reside in houses with foundations made of materials other than concrete or wood.

### 4.3 Plumbing and Water Characteristics

Data on the plumbing and water characteristics of households provide information on both housing quality and living conditions as well as the level of demand by consumers. Table 4.3 shows the plumbing and water characteristics of the Micronesian migrant housing units.

Table 4.3: Plumbing and Water Characteristics, Micronesian Migrants in CNMI, 1998.

Characteristic	Total		FSM		RMI	Palau	
	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp	All Migrants	Post-Comp & Childrer	Pre-Comp.
Number of Housing Units	237	506	212	129	11	19	372
<b>Source of Water</b>							
Public System Only	91.1	86.0	91.0	89.9	72.7	94.7	84.9
Public System and Cistern	6.3	11.7	6.1	6.2	27.3	5.3	13.2
Cistern, Tanks or Drums Only	2.5	2.0	2.8	3.1	0.0	0.0	1.6
Public Standpipe	0.0	0.2	0.0	0.0	0.0	0.0	0.3
Some Other Source	0.0	0.2	0.0	0.8	0.0	0.0	0.0
<b>Water Supply</b>							
Hot and Cold Piped Water	34.2	37.0	34.0	39.5	54.5	31.6	35.8
Inside Cold Piped Water Only	44.7	48.8	45.8	39.5	18.2	42.1	52.4
Outside Cold Piped Water Only	20.3	13.6	19.3	20.2	27.3	26.3	11.3
No Piped Water	0.8	0.6	0.9	0.8	0.0	0.0	0.5
<b>Bathtub or Shower</b>							
Bathtub or Shower	91.6	96.2	90.6	93.0	100.0	100.0	97.3
No Bathtub or Shower	8.4	3.8	9.4	7.0	0.0	0.0	2.7
<b>Toilet</b>							
Flush Toilet	84.8	81.8	84.9	82.2	100.0	78.9	81.5
Outhouse or Privy	12.7	16.4	12.7	14.7	0.0	15.8	17.2
Other or None	2.5	1.8	2.4	3.1	0.0	5.3	1.3
<b>Sewage Disposal</b>							
Public Sewer	45.6	35.6	47.2	35.7	45.5	21.1	35.8
Septic Tank or Cesspool	36.3	47.4	34.4	45.0	54.5	57.9	47.8
Other Means	18.1	17.0	18.4	19.4	0.0	21.1	16.4

Source: 1998 Census of Micronesian Migrants to Saipan

*Source of Water and Water Supply.* The largest groups of Micronesian migrant households used public water systems. Approximately 91 percent of the post-Compact and 86 percent of the pre-Compact used public water systems. Over 97 percent of all migrant households used either a public water system only or a public water system and a cistern. Less than 3 percent relied on cisterns, tanks or drums only, public standpipes or some other sources for their water. The largest groups of Micronesian housing units had an inside water supply. Over 34 percent of all post-Compact and 37 percent of all pre-Compact households had both inside hot and cold piped water, while 45 percent of the post-Compact and 49 percent of the pre-Compact households had access to inside cold piped water only. Approximately 20 percent of the post-Compact and 14 percent of the pre-Compact had access to outside cold piped water only, but less than 1 percent of the households of all groups did not have piped water.

*Plumbing Facilities.* The largest groups of the Micronesian housing units had either a bathtub or shower and a flush toilet. Over 92 percent of the post-Compact and 96 percent of the pre-Compact households had either a bathtub or shower. Over 9 percent of the post- and 7 percent of the pre-Compact FSM households and 3 percent of the pre-Compact Palauan households were without a bathtub or shower. Approximately 85 percent of the post- and 82 percent of the pre-Compact households had a flush toilet, while 13 percent of the post- and 16 percent of the pre-Compact households had an outhouse or privy. About 2 percent of all migrant households did not have a flush toilet or an outhouse/privy. Approximately 82 percent of the post- and 83 percent of the pre-Compact households used either the public sewer system or a septic tank or cesspool. About 46 percent of the post-Compact households used public sewer systems, while 47 percent of the pre-Compact households used a septic tank or cesspool.

#### 4.4 Equipment and Facilities

Table 4.4 shows the kitchen facilities and household equipment for the Micronesian migrant housing units. Over 84 percent of the post- and 92 percent of the pre-Compact households had inside cooking facilities. Post-Compact households were more likely to have outside cooking facilities (15 percent) than pre-Compact migrants (8 percent). Over 27 percent of all Marshallese households had outside cooking facilities. Generally speaking, few migrant households were without cooking facilities. However, 2 percent of the pre-Compact FSM households did not have cooking facilities.

Table 4.4: Equipment and Facilities, Micronesian Migrants in CNMI, 1998.

Characteristic	Total		FSM		RMI	Palau	
	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp	All Migrants	Post-Comp & Childrer	Pre-Comp.
Number of Housing Units	237	506	212	129	11	19	372
<b>Kitchen Facilities</b>							
Inside Cooking Facilities	84.0	91.9	84.9	87.6	72.7	84.2	93.3
Outside Cooking Facilities	15.2	7.5	14.2	10.1	27.3	15.8	6.7
No Cooking Facilities	0.8	0.6	0.9	2.3	0.0	0.0	0.0
<b>Fuel for Cooking</b>							
Electricity	44.7	39.5	47.6	45.7	45.5	15.8	37.1
Gas	49.8	53.8	47.2	49.6	54.5	73.7	55.4
Kerosene	3.8	5.7	3.3	1.6	0.0	10.5	7.3
Wood	0.8	0.2	0.9	0.8	0.0	0.0	0.0
Other	0.0	0.2	0.0	0.0	0.0	0.0	0.3
<b>Refrigerator</b>							
Gas/Electric	69.2	84.2	70.3	75.2	63.6	68.4	87.1
No Refrigerator	30.8	15.8	29.7	24.8	36.4	31.6	12.9
<b>Housing Indications</b>							
Microwave Oven	11.0	25.1	9.9	20.2	36.4	21.1	26.3
Sink with Piped Water	78.9	90.3	79.2	85.3	81.8	78.9	91.9
Electric Power	94.9	97.0	94.8	92.2	100.0	94.7	98.7
Telephone	22.4	49.6	21.7	41.1	36.4	31.6	52.4
Radio	57.0	79.8	56.1	69.0	72.7	63.2	83.6
Television	53.6	82.8	53.3	67.4	63.6	57.9	88.2
<b>Air Conditioning</b>							
Central System	3.0	5.3	2.4	3.1	18.2	5.3	5.9
One or More Individual Units	19.4	38.5	19.3	30.2	27.3	26.3	41.1
None	77.6	56.1	78.3	66.7	54.5	68.4	53.0
<b>Automobiles Available</b>							
One or More Cars	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No Car	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: 1998 Census of Micronesian Migrants to Saipan



Approximately 95 percent of all migrant households in the CNMI were connected to electricity, but more households used gas as their fuel for cooking. Approximately 45 percent of the post- and 40 percent of the pre-Compact households used electricity for cooking, while 50 percent of the post- and 54 percent of the pre-Compact households used gas. Approximately 4 percent of the post- and 6 percent of the pre-Compact migrant households used kerosene. Very few households used wood or another source of fuel for cooking.

Approximately 20 percent of all migrant households owned a microwave oven, but pre-Compact households were more likely to own a microwave oven (25 percent) than post-Compact households (11 percent). Although more migrant households owned either a gas or electric refrigerator, pre-Compact households (84 percent) were more likely than post-Compact households (69 percent) to own a refrigerator. About 1/3rd of all post-Compact migrant households did not have a refrigerator. Over 80 percent of the post-Compact and 90 percent of the pre-Compact households had a sink with piped water.

Telephones, radios and televisions are important for transmitting information, especially in times of emergency or potential catastrophe (although TV would require a generator as well). However, many migrant households did not have phones. Pre-Compact households were more likely to own a telephone (50 percent) than post-Compact households (22 percent.) Post-Compact FSM households were the least likely (22 percent) while the pre-Compact Palauan households were the most likely (52 percent). The largest groups of migrant households owned a radio and a television. Again, pre-Compact households were more likely than post-Compact households to own a radio and a television. Only 57 percent of the post-Compact households owned radios compared to 80 percent of the pre-Compact households, and 54 percent of the post-Compact households owned televisions compared to 83 percent of the pre-Compact households. The pre-Compact Palauan households were the most likely of all groups to have a telephone, television and a radio.

An increase in the number of air conditioning units can increase the demand for energy by consumers. However, almost 2/3<sup>rd</sup> of the Micronesian households (63 percent) were not air-conditioned. Approximately 78 percent of all post- and 56 percent of pre-Compact households were not air-conditioned. The pre-Compact households were more likely to be air conditioned than the post-Compact households. Of the air conditioned households, 3 percent of the post and 5 percent of the pre-Compact households had central air, while 19 percent of the post- and 39 percent of the pre-Compact households had one or more air conditioning units. The pre-Compact Palauan and the Marshallese households were the most likely of all groups to have air conditioning.

Owning an automobile is important for transportation, but also is something of a status symbol. Automobiles, while increasing personal mobility, also often become a financial burden as well as contribute to various kinds of pollution in an already fragile island environment. Unlike Guam and Hawaii, CNMI has no public transportation at all, so every migrant household in the CNMI had one or more cars.

## CHAPTER 5

### DEMOGRAPHIC CHARACTERISTICS

Table 5.1 shows selected demographic characteristics of the Micronesian migrants and their children. The 1998 Census reported a total of 2,947 Micronesian migrants in the CNMI, including 1,192 pre-Compact and 1,755 post-Compact migrants and children. Of the 1,744 post-Compact migrants, 86 percent were from the Federated States of Micronesia, 4 percent were from the Marshall Islands, and 10 percent were from Palau. Of the total post-Compact category, 571, or approximately 33 percent, were the children of Freely Associated States-born persons.

Table 5.1: Demographic Characteristics of Micronesian Migrants and Children, CNMI,

Characteristic	Total		FSM		RMI		Palau	
	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp.
Total Population	1,755	1,192	1,503	289	74	18	178	885
Males	50.3	47.9	50.2	45.0	47.3	38.9	51.7	49.0
Females	49.7	52.1	49.8	55.0	52.7	61.1	48.3	51.0
Sex Ratio	101.0	91.9	100.9	81.8	89.7	63.6	107.0	96.2
Median Age	17.4	34.8	17.4	36.8	13.5	40.0	18.5	34.0
Less than 15 years	44.3	8.0	44.6	3.1	56.8	5.6	36.5	9.6
15 to 29 years	34.5	27.3	34.0	25.6	28.4	33.3	41.6	27.7
30 to 44 years	15.6	43.5	15.4	48.1	13.5	44.4	17.4	42.0
45 to 59 years	4.2	17.2	4.4	18.3	1.4	16.7	3.4	16.8
60 years and over	1.4	4.0	1.5	4.8	0.0	0.0	1.1	3.8
Males 15+ Never Married	54.9	31.4	51.6	26.6	66.7	28.6	75.0	33.1
Females 15+ Never	54.1	30.1	52.9	27.0	60.0	30.0	61.4	31.2
Households	237	506	212	129	6	5	19	372
Persons per Household	5.0	2.4	4.7	2.2	7.2	3.6	7.7	2.4
Persons per Family	6.0	2.6	5.5	2.5	10.8	3.6	12.2	2.6

Source: 1998 Census of Micronesian Migrants to Saipan

Because males are traditionally more likely to migrate internationally than females, migrant communities are likely to have more males, especially in the initial stages of its establishment. This male dominance is especially likely if the primary motive for emigration is economic opportunity. Females tend to migrate either as dependents of male migrants or, if male migration preceded female migration, in subsequent family-reunification flows. However, among the Micronesian migrants to the CNMI, more females than males migrated. The sex ratio for pre-Compact migrants was 101, showing that the number of males slightly exceeded the number of females in the population. Among the post-Compact migrants the ratio was 92, showing a surplus of females.

Among the Freely Associated States groups, low sex ratios were common, showing more females than males. The sex ratio of post-Compact Palauans was 107 (a surplus of males), but the sex ratio for the post-Compact FSM was close to 100 (equal numbers of each sex). However, the sex ratio for the post-Compact Marshallese and the pre-Compact Marshallese, FSM and Palauan Freely Associated States groups showed a surplus of females over males. The pre-Compact Marshallese migrants had a sex ratio of 64.

The median age of the post-Compact migrants and their children was 17.4 years, while the median age of the pre-Compact migrants was 34.8 years, a difference of more than 17 years. This age difference has two parts. First, the pre-Compact migrants were residents of the CNMI for a longer period than the post-Compact migrants. Second, the post-Compact migrants include all children of Freely Associated States-born persons who were not born in the Freely Associated States, which lowers the median age. Of the post-Compact migrants, Palauans were the oldest (18.5 years), followed by FSM migrants (17.4 years) and Marshallese (13.5). Among the pre-Compact migrants, Marshallese were the oldest (40 years), followed by FSM migrants (37 years) and Palauans (34 years).

Of the 1,755 post-Compact migrants in the CNMI, approximately 44 percent were younger than 15 years old while about 35 percent were between 15 and 29 years old, showing that many migrants were coming as young families. The post-Compact Marshallese migrants had the largest percentage of children, with approximately 57 percent younger than 15 years old compared to 45 percent of the post-Compact FSM and 37 percent of the post-Compact Palauans. In general, the pre-Compact migrants were older than the post-Compact migrants. Approximately 79 percent of the post-Compact migrants were less than 30 years old compared to only 35 percent of the pre-Compact migrants. Each of the Freely Associated States pre-Compact groups had less than 10 percent of their population younger than 15, but between 42 percent and 48 percent between the ages of 30 and 44 years.

With 61 percent of the total population below the age of 30, the Micronesian migrant community in the CNMI is a young population. The proportion of never married pre- and post-Compact migrants reflects this young age structure. Approximately 55 percent of the post-Compact males and 54 percent of the females were never married, while 31 percent of the pre-Compact males and 30 percent of the females were never married. Among the pre-Compact groups, Marshallese males (29 percent) and FSM migrants (27 percent) were the most likely to have been never married, while among the post-Compact groups, FSM males (52 percent) and females (53 percent) were the most likely to have been never married. Among each of the Freely Associated States groups, a higher proportion of the post-Compact than the pre-Compact females were never married.

The average household size of the 237 post-Compact Freely Associated States households was 5.0 persons and family size was 6.0 persons. For the pre-Compact migrants, the values were much lower – 2.4 persons per household and 2.6 persons per family. As expected, because one-person households were not included in the calculation of average family size, average family size was larger than average household size.

*Migration Trends.* The demographic change for the CNMI from 1990 to 1995 to 1998 is shown in table 5.2. The number of post-Compact Freely Associated States migrants increased from 1,951 to 2,928 (about 50 percent) during the 5 years between the two censuses. The migrant population showed an apparent decline after that, to 1,755, but some of this decline has to do with selective migration, and a general aging of the population. After Compact implementation, movement became easier, so some persons resident in the CNMI before implementation, left for various reasons. In the 5 years between the two censuses, the number of females increased somewhat more than the males, as shown in the sex ratio, which decreased from 92 males for each 100 females to 89. This figure showed an increasing bias to females, which may be partially caused by females being more likely than males to be in the garment industry. The sex ratio reversed in the years between 1995 and 1998, and became slightly male in the most recent census.

The median age – that age cutting the population in half, with half being older and half younger -- increased between 1990 and 1995, from 16 years in 1990 to almost 18 years in 1995 and remained at about the same level in 1998. These figures were much lower than for Guam, showing higher fertility and/or migration of young families rather than post-high school non-married individuals. The median age for FSM migrants increased slightly, from 16 to 17 years, while the Marshallese median age increased from 11 to 13.5 years.

The percentage distributions also showed a younger population than for Guam. The percentage of post-Compact Freely Associated States migrants less than 15 years old decreased from 47 percent in 1990 to 43 percent in 1995 and increased slightly in 1998. The 15 to 29 year group showed an even steeper decline, but the percentage 30 to 59 showed a sharp increase in the first half of the decade. The distribution for the Federated States of Micronesia migrants was similar to the total Freely Associated States distribution. As expected, about 2 out of every 3 Marshallese in 1990 were less than 15 years old, and that percentage only decreased to 55 percent in 1995, with all older groups being smaller than the percentages for the total Freely Associated States population

Table 5.2. Demographic Characteristics, Post-Compact Migrants and Children, CNMI: 1990, 1995 and 1998

Characteristics	Total			FSM			RMI		
	1998	1995	1990	1998	1995	1990	1998	1995	1990
Total	1,755	2,928	1,951	1,503	2,485	1,853	74	158	87
Males	883	1,382	936	755	1,194	889	35	68	39
Females	872	1,546	1,015	748	1,291	964	39	90	48
Males per 100 females	101.0	89.4	92.2	100.9	92.5	92.2	89.7	75.6	81.3
Median	17.4	17.7	15.9	17.4	16.9	16.2	13.5	13.5	11.0
Less than 15 years (%)	44.3	43.3	47.3	44.6	45.2	46.3	56.8	55.1	65.5
15 to 29 years (%)	34.5	34.3	40.0	34.0	34.4	40.5	28.4	31.6	28.7
30 to 44 years (%)	15.6	16.2	8.7	15.4	14.7	8.9	13.5	12.0	4.6
45 to 59 years (%)	4.2	4.3	2.2	4.4	4.0	2.3	1.4	0.6	0.0
60 years and over (%)	1.4	1.9	1.9	1.5	1.6	2.0	0.0	0.6	1.1
Males Never Married (%)	54.9	51.7	67.8	51.6	53.9	67.3	66.7	62.5	77.8
Females Never Married (%)	54.1	46.7	64.6	52.9	48.2	64.9	60.0	55.3	57.1
Households	237	336	89	212	251	87	6	11	2

Sources: 1990 and 1995 Censuses of the CNMI and the 1998 Census of Micronesian Migrants

The percentage of never married adults decreased precipitously during the eight years, from 68 to 55 percent for males and from 65 to 54 percent for females, showing, again, the increasingly likelihood that whole families were migrating, rather than individuals. The FSM migrants showed the same decreases as the total Freely Associated States and the Marshallese males showed a steep decline, with female Marshallese remaining about the same.

## CHAPTER 6

### MIGRATION CHARACTERISTICS

#### Citizenship and Residency Status

Table 6.1 shows the citizenship and place of residence one and five years ago of the Micronesian migrants and their children in the CNMI. Approximately 34 percent of the post- and 6 percent of the pre-Compact Freely Associated States migrants to CNMI were U.S. citizens at the time of the survey. Between 20 percent and 47 percent of all of the post-Compact migrants were citizens, while only between 5 percent and 11 percent of the pre-Compact migrants were citizens. In general, the proportion of post-Compact migrants was higher than the proportion of pre-Compact migrants, probably because the post-Compact category included all children of the Freely Associated States migrants born in the United States.

Table 6.1: Citizenship Status and Place of Residence 1 and 5 Years Ago of Micronesian Migrants and Children, CNMI, 1998.

Characteristics	Total		FSM		RMI		Palau	
	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp.
Total Population	1,755	1,192	1,503	289	74	18	178	885
Population born 5 Years Ago or Before	84.7	99.7	84.8	100.0	83.8	100.0	84.8	99.7
Citizenship Status								
U.S. Citizen	33.6	5.8	34.5	4.8	47.3	11.1	20.2	6.0
Permanent Resident	43.0	73.4	42.8	68.9	17.6	61.1	55.1	75.1
Residency Status								
Current Residence, 5 Years Ago	29.3	42.8	30.1	43.6	38.7	50.0	19.2	42.4
Current Residence, 1 Year Ago	60.1	79.8	60.9	78.2	68.9	100.0	49.4	79.9
Outside Area, 5 Years Ago	34.3	7.3	29.9	7.6	45.2	0.0	66.9	7.4
Outside Area, 1 Year Ago	10.9	1.7	9.9	2.1	6.8	0.0	20.8	1.6

Source: 1998 Census of Micronesian Migrants to Saipan.

Of the non-citizens, about 43 percent of the post-Compact migrants were permanent residents, compared to 73 percent of the pre-Compact migrants. In each of the Freely Associated States groups, a higher proportion of pre-Compact migrants than post-Compact migrants were permanent residents, which probably reflects the longer settlement period experienced by the pre-Compact migrants. About 75 percent of the Palauan, 70 percent of the FSM and 61 percent of the pre-Compact migrants were permanent residents. Among the post-Compact migrants, 55 percent of the Palauan, 43 percent of the FSM and 18 percent of the Marshallese were permanent residents.

Table 6.1 also shows information on the place of residence one and five years prior to the 1998 Census. Approximately 29 percent of the post- and 43 percent of the pre-Compact migrants lived in the same residence in 1998 as they did in 1993. Not surprisingly, a larger proportion of post-Compact migrants (34 percent) lived outside the CNMI five years before than pre-Compact migrants (7 percent). Approximately 60 percent of the post-Compact migrants lived in the same residence in 1998 as they did in 1997, with only about 11 percent living outside of the CNMI in 1997. The largest groups of pre-Compact migrants (80 percent) lived in the same house one year prior as they did in 1998.

Post-Compact Palauan migrants were the most likely of all Freely Associated States groups to have lived outside of the CNMI either one (21 percent) or five (67 percent) years before, which probably reflects the later Compact implementation date. The pre-Compact FSM migrants were the most likely to have lived in the same house one (78 percent) year earlier. The pre-Compact FSM (44 percent) and the Marshallese (50 percent) were the most likely to have lived in the same house five years earlier.

*Migration trends.* The percentage of post-Compact Freely Associated States migrants (and children) who were U.S. Citizens decreased from 49 percent in 1990 to 43 percent in 1995 and 34 percent in 1998 (Table 6.2). The large percentage of U.S. citizens in the first two censuses probably resulted from the long period of time that Saipan was the capital of the Trust Territory of the Pacific Islands (TTPI). Also, Micronesians from Palau, what became the Federated States of Micronesia, and the Marshall Islands moved to Saipan to work in the TTPI government, and stayed on after the dissolution of that entity. Some married CNMI-born persons and eventually gained citizenship that way, others were the offspring of these unions. The percentages for the FSM were similar to those of the total Freely Associated States, but the percentage of U.S. citizens among the Marshallese was much higher – decreasing from 62 percent in 1990 to 52 percent in 1995 and 47 percent in 1998.

Table 6.2. Migration Characteristics, Post-Compact Migrants & Children, CNMI: 1990 to 1998

Migration Characteristics	Total			FSM			RMI		
	1998	1995	1990	1998	1995	1990	1998	1995	1990
U.S. citizen (%)	33.6	43.2	49.3	34.5	44.9	48.4	47.3	52.5	62.1
Noncitizens, Permanent (%)	43.0	57.8	28.9	42.8	57.2	29.4	17.6	60.0	15.2
Moved for employment (%)	35.6	27.7	...	39.2	27.8	...	16.3	14.3	...
Persons 5 yrs and over:									
5 yrs ago in this house (%)	29.3	29.9	25.0	30.1	29.8	25.0	38.7	26.1	19.7
5 yrs ago outside Area (%)	34.3	41.1	74.2	29.9	40.8	74.1	45.2	48.5	80.3
1 yr ago in this house (%)	60.1	64.3	...	60.9	64.9	...	68.9	67.2	...
1 yr ago outside Area (%)	10.9	18.4	...	9.9	16.7	...	6.8	21.6	...

Sources: 1990 and 1995 Censuses of the CNMI and the 1998 Census of Micronesian Migrants

Of the non-citizens, about 29 percent were “permanent” residents in 1990, but this increased to 58 percent in 1995, then dropped again to 43 percent in 1998. This level of “permanent” migration, much higher than for Guam, indicates more commitment to migration than the “temporary” migration; again, both “permanent” and “temporary” migration were self-reported and so reflected the subjective views of the post-Compact migrants about their intentions. As before, reason for migration was not collected in 1990, but about 28 percent of the post-Compact Freely Associated States migrants reported moving for employment in the 1995 Census. By 1998, this figure increased to 36 percent of the migrants, showing a more traditional migration pattern.

The proportion of post-Compact Freely Associated States migrants who lived in the same house 5 years before the census increased from 1 in 4 in 1990 to 3 in 10 in 1995 and 1998 (about 5 percentage points). The proportion who lived outside of the CNMI 5 years before the census decreased from 3 out of 4 in 1990 to 2 out of 5 in 1995 and 1 in 3 in 1998. For 1995, about 64 percent lived in the same house in 1994 as 1995, but this decreased to 60 percent in the 1998 Census. Also, about 18 percent migrated from outside during the year before the 1995 Census compared to 11 percent in 1998.

### Reasons for Migrating

Table 6.3 shows the reasons for migrating by sex for pre- and post-Compact migrants. The largest groups of pre-Compact migrants left for employment (39 percent), as a spouse or dependent of an employed person (5 percent and 20 percent respectively) or for a visit or vacation (19 percent). The three main reasons post-Compact migrants moved were employment (36 percent), as a spouse or dependent of an employed person (6 percent or 24 percent respectively) or school (19 percent). When the pre- and post-Compact groups are compared, a greater proportion of post-Compact migrants than pre-Compact migrants departed as a spouse or dependent of an employed person and for school. The proportion of post-Compact migrants coming to the CNMI for employment and for visits or vacations declined between groups arriving in the pre- and post-Compact periods.

Table 6.3: Reasons for Migrating by Sex for Pre- and Post-Compact Migrants Only, CNMI, 1998.

Reason for Migrating	Total		FSM		RMI		Palau	
	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp.
Total Migrant Population	1,184	1,192	995	289	43	18	146	885
Employment	35.6	39.3	39.2	42.2	16.3	27.8	17.1	38.6
Spouse of Employed	5.8	5.2	6.5	4.2	4.7	11.1	1.4	5.4
Dependent of Employed	23.7	19.6	23.5	6.6	32.6	22.2	22.6	20.5
Family Subsistence	1.2	1.3	1.3	0.3	0.0	0.0	0.7	1.6
Family Business	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.3
Missionary Activities	1.0	0.5	0.5	1.0	2.3	0.0	4.1	0.3
Medical Reasons	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Visiting or Vacation	14.0	18.5	12.2	13.1	18.6	0.0	25.3	20.6
School	18.5	15.3	16.7	21.8	25.6	38.9	28.8	12.7
<b>Males</b>	<b>577</b>	<b>571</b>	<b>487</b>	<b>130</b>	<b>17</b>	<b>7</b>	<b>73</b>	<b>434</b>
Employment	43.8	47.1	47.4	53.1	29.4	57.1	23.3	45.2
Spouse of Employed	0.2	0.9	0.2	0.8	0.0	0.0	0.0	0.9
Dependent of Employed	23.1	19.8	22.6	18.5	29.4	28.6	24.7	20.0
Family Subsistence	1.2	0.9	1.2	0.0	0.0	0.0	1.4	1.2
Family Business	0.0	0.4	0.0	0.8	0.0	0.0	0.0	0.2
Missionary Activities	0.2	0.5	0.0	0.8	5.9	0.0	0.0	0.5
Medical Reasons	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Visiting or Vacation	12.5	17.0	10.7	6.2	17.6	0.0	23.3	20.5
School	18.9	13.5	17.7	20.0	17.6	14.3	27.4	11.5
<b>Females</b>	<b>607</b>	<b>621</b>	<b>508</b>	<b>159</b>	<b>26</b>	<b>11</b>	<b>73</b>	<b>451</b>
Employment	27.8	32.2	31.3	33.3	7.7	9.1	11.0	32.4
Spouse of Employed	11.2	9.2	12.6	6.9	7.7	18.2	2.7	9.8
Dependent of Employed	24.4	19.5	24.4	15.7	34.6	18.2	20.5	20.8
Family Subsistence	1.2	1.6	1.4	0.6	0.0	0.0	0.0	2.0
Family Business	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.4
Missionary Activities	1.8	0.5	1.0	1.3	0.0	0.0	8.2	0.2
Medical Reasons	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Visiting or Vacation	15.5	19.8	13.6	18.9	19.2	0.0	27.4	20.6
School	18.1	16.9	15.7	23.3	30.8	54.5	30.1	13.7

Source: 1998 Census of Micronesian Migrants to Saipan

This pattern of change generally held for both the total males and females and for each of the Freely Associated States migrant groups. However, some differences existed. For Palau, more pre-Compact migrants were in the CNMI than post-Compact migrants, possibly showing a decline in the amount of Palauan immigration through time or a shift in preferred migrant destinations. Along with this decline, the reasons given for migration also changed. The largest groups of pre-Compact Palauans migrated for employment (39 percent), as a spouse or dependent of an employed person (26 percent) or for a visit or vacation. Post-Compact Palauans were more likely to migrate for school (29 percent), a visit or vacation (25 percent) or as a spouse or dependent of an employed person (24 percent). In other words, the proportion emigrating for employment and as a dependent declined, but the proportion emigrating for school or a visit or vacation increased. In general, all Palauan migrants followed this pattern, except among the females, the proportion emigrating as a spouse or dependent of an employed person declined.

Immigration from FSM increased from the pre- to the post-Compact periods. In 1998, FSM migrants represented the largest Freely Associated States immigrant group in the CNMI. As the FSM migrant community increased through time, their reasons for migrating to the CNMI shifted. The largest groups of pre-Compact migrants left for employment (42 percent), school (22 percent) or as a spouse or dependent of an employed person (11 percent). The largest groups of post-Compact migrants migrated for employment 39 percent, school (17 percent) or as a spouse or dependent of an employed person (30 percent). Compared to pre-Compact migrants, the percentage of post-Compact migrants moving for employment, school or for a visit or vacation declined, while the proportion emigrating as a spouse or dependent of an employed person increased. This pattern generally held for FSM migrants of both sexes. However, the proportion of post-Compact males emigrating for visits or a vacation (11 percent) was higher than the pre-Compact proportion (6 percent). Also, the difference between the pre- and post-Compact females in the proportion emigrating as a spouse or dependent of an employed person was greater than the difference between the pre- and post-Compact males, showing more dependent female migration. All of these changes show that migration from the FSM to CNMI may be shifting from employment migration to family reunification migration.

The Marshallese migrant community is the smallest Freely Associated States immigrant group in the CNMI. The largest groups of pre-Compact migrants moved for schooling (39 percent), as spouses or dependents of employed persons (33 percent) or for employment (28 percent). The largest groups of post-Compact migrants went as spouses or dependents of employed persons (37 percent), schooling (26 percent) or for visits or vacations (19 percent). Generally speaking, emigration for employment from the Marshall Islands declined, while emigration as a dependent, for schooling or for a visit or vacation increased.



## CHAPTER 7

### SOCIAL CHARACTERISTICS

Table 7.1 includes information about the social characteristics of both the pre- and post-Compact migrants and their children, including language spoken at home, school enrollment and educational attainment. About 19 percent of the post-Compact migrants aged 5 years and over spoke English at home compared to 16 percent of the pre-Compact migrants. Of the post-Compact migrants, the Marshallese (26 percent) were the most likely to speak English at home, followed by the Palauans (19 percent) and the FSM (18 percent) migrants. Approximately 72 percent of the post-Compact migration spoke a language other than English more frequently at home, compared to 63 percent of the pre-Compact migrants. Among the post-Compact migrants, the FSM migrants (75 percent) were the most likely to speak a language other than English at home, followed by the Palauans (55 percent) and the Marshallese (53 percent). The FSM and Marshallese pre-Compact migrants were more likely to speak English at home than the post-Compact migrants, while Palauan post-Compact migrants were more likely to speak English at home than the pre-Compact migrants.

Table 7.1: Language Use, School Enrollment and Educational Attainment of Micronesian Migrants and Children, CNMI, 1998.

Characteristics	Total		FSM		RMI		Palau	
	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp.
Total Population	1,755	1,192	1,503	289	74	18	178	885
Persons 5+ Years	1,487	1,189	1,274	289	62	18	151	882
Language Use (5+ Years)								
Speak English at Home	18.7	15.7	18.4	21.8	25.8	27.8	18.5	13.5
Speak Other Language at Home More Frequently than English	71.6	62.9	74.5	67.1	53.2	27.8	55.0	62.2
School Enrollment								
Persons 3+ Years, Enrolled	612	167	514	30	35	2	63	135
Public Elementary School	59.6	47.9	61.7	33.3	68.6	50.0	38.1	51.1
Public High School	22.7	28.7	20.8	33.3	20.0	0.0	39.7	28.1
College/University	5.4	21.6	4.9	30.0	2.9	50.0	11.1	19.3
Educational Attainment (Cumulative Percent)								
Total Persons 25+ Years	560	925	487	243	18	12	55	670
No Education	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Grade 8 or Less	96.8	99.1	96.7	97.5	100.0	100.0	96.4	99.7
Some High School	74.1	87.9	73.5	77.0	77.8	100.0	78.2	91.6
High School Graduate	43.6	72.9	41.3	51.9	50.0	75.0	61.8	80.4
Some College/Two Year Degree	15.2	23.1	13.8	19.8	11.1	50.0	29.1	23.9
Bachelor's Degree	2.0	5.8	1.6	4.1	0.0	16.7	5.5	6.3
Graduate Degree	0.0	1.5	0.0	1.6	0.0	8.3	0.0	1.3
Males 25+ Years								
No Education	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Grade 8 or Less	97.0	99.8	97.0	100.0	100.0	100.0	96.4	99.7
Some High School	80.7	92.2	79.6	85.3	100.0	100.0	85.7	94.4
High School Graduate	50.7	77.3	48.9	61.5	71.4	80.0	60.7	82.6
Some College/Two Year Degree	18.9	23.9	17.9	28.4	28.6	60.0	25.0	21.7
Bachelor's Degree	3.0	5.3	3.4	7.3	0.0	40.0	0.0	4.0
Graduate Degree	0.0	2.1	0.0	3.7	0.0	20.0	0.0	1.2
Females 25+ Years								
No Education	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Grade 8 or Less	96.6	98.6	96.4	95.5	100.0	100.0	96.3	99.7
Some High School	67.9	84.0	67.9	70.1	63.6	100.0	70.4	89.1
High School Graduate	36.9	68.9	34.1	44.0	36.4	71.4	63.0	78.4
Some College/Two Year Degree	11.7	22.5	9.9	12.7	0.0	42.9	33.3	25.9
Bachelor's Degree	1.0	6.3	0.0	1.5	0.0	0.0	11.1	8.3
Graduate Degree	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.4

Source: 1998 Census of Micronesian Migrants to Saipan

In 1998, 779 pre- and post-Compact migrants were three years of age and over and enrolled in school. Of those, 57 percent were enrolled in public elementary school, 24 percent in public high school and 9 percent in college. Of the total enrolled, 612, or 79 percent, were post-Compact Freely Associated States migrants and their children. Of the post-Compact migrants enrolled in school, 84 percent were FSM migrants, 6 percent were Marshallese and 10 percent were Palauan. Most of those enrolled were attending either public elementary school (60 percent) or high school (23 percent). The largest groups (81 percent) of pre-Compact migrants enrolled in school were Palauan. Almost 70 pre- and post-Compact Freely Associated States migrants were attending college, either public or private.

Approximately 44 percent of the post- and 73 percent of the pre-Compact migrants aged 25 years and over were high school graduates, had some college or a two year degree, or a bachelor's or graduate degree. The pre-Compact migrants had a lower proportion in each of these educational attainment categories than post-Compact migrants. However, the pre-Compact migrants had a higher proportion with some high school, grade 8 education or less, and no education than the post-Compact migrants. Among each of the Freely Associated States groups, pre-Compact migrants were more likely to have graduated high school, had some college or a two year degree, or a bachelor's or graduate degree. Therefore, in general, pre-Compact migrants were better educated than their post-Compact counterparts. The differences between the pre- and post-migrant groups may be a result of the migration privileges associated with the Compact, which may have facilitated the emigration of a greater proportion of less-educated, and possibly less-skilled, Micronesians. Of all the Freely Associated States groups, the pre-Compact Palauans were the best-educated, with 80 percent being at least high school graduates.

Among both the pre- and post-Compact Freely Associated States migrants in 1998, a larger proportion of females than males had less than a high school graduate education. The only exception was the post-Compact Palauan females, who were better educated than their male counterparts. However, the differences between pre- and post-Compact migrants were greater for females than for males. For example, 51 percent of the pre- and 77 percent of the post-Compact male migrants were less than high school graduates, compared to 37 percent of the pre- and 69 percent of the post-Compact female migrants, showing a larger proportional increase of less educated post-Compact females. Generally speaking, pre-Compact males and females were better educated than their post-Compact counterparts.

*Migration Trends.* Table 7.2 shows various social characteristics for the 3 censuses. The percent speaking English at home increased from 3 percent in 1990 to 16 percent in 1995 and 19 percent in 1998. The percentages for the FSM migrants were about the same, while the percentage of Marshallese speaking English increased from 5 percent in 1990 to 26 percent in 1998.

Table 7.2. Social Characteristics, Post-Compact Migrants & Children, CNMI: 1990, 1995 and 1998

Social Characteristics	Total			FSM			RMI		
	1998	1995	1990	1998	1995	1990	1998	1995	1990
Speak English at home (%)	18.7	16.4	3.0	18.4	15.8	3.0	25.8	19.4	4.9
Other lang more than English (%)	71.6	58.2	73.2	74.5	60.3	74.0	53.2	33.6	52.5
Persons 3+, enrolled	612	1,107	704	514	971	663	35	94	39
Public elementary school	365	613	409	317	548	386	24	46	22
Public high school	139	223	126	107	187	118	7	21	7
College	33	96	65	25	84	64	1	9	1
Persons 25 + years:									
High school Graduates (%)	43.6	34.0	30.6	41.3	31.4	30.4	50.0	45.2	42.9
Bachelor's Degrees (%)	2.0	4.1	3.8	1.6	4.0	3.8	0.0	3.2	0.0
Females:									
High school Graduates (%)	36.9	25.8	31.8	34.1	25.5	28.4	36.4	40.0	36.8
Bachelor's Degrees (%)	1.0	1.8	2.9	0.0	1.9	1.9	0.0	0.0	5.3

Sources: 1990 and 1995 Censuses of the CNMI and the 1998 Census of Micronesian Migrants

Of the post-Compact Freely Associated States migrants who spoke a language other than English in 1990, about 73 percent spoke that language more than English, about the same percentage as in 1998. Of those 3 years and over, the number of post-Compact Freely Associated States migrants (and children) enrolled in school increased from 704 in 1990 to 1,107 in 1995 but only 612 reported in 1998. The number in public elementary schools was about the same in 1990 as 1998 according to the censuses, and also in high schools. As before, most of those enrolled in school were from the FSM.

Of the post-Compact Freely Associated States migrants 25 years and over, about 31 percent were high school graduates in 1990, 34 percent in 1995, but this increased to 44 percent in 1998. The percentage increase for college graduates was much smaller, from 3.8 percent in 1990 to 4.1 percent in 1995, but then showed a decrease to 2 percent in 1998. Perhaps educated Micronesian Migrants were taking jobs elsewhere as movements to Guam, Hawaii, and the mainland US became easier. The percentage of female high school graduates decreased from 32 percent to 26 percent in the first 5 years of the decade, but then showed a large increase, to 37 percent in 1998. The percentages for female college graduates continued to decrease during the decade.

## CHAPTER 8

## ECONOMIC CHARACTERISTICS

Table 8.1 shows the CNMI labor force characteristics of the Micronesian migrants and their children aged 16 years and over. Of the 2,021 Freely Associated States migrants aged 16 years and over, 936, or 46 percent, were post-Compact migrants. The CNMI is the only one of the three receiving area where pre-Compact migrants outnumbered post-Compact migrants in the labor force. Approximately 61 percent of the post-Compact migrants age 16 years and over were in the labor force, which was lower than the 70 percent of all pre-Compact migrants in the labor force. In each of the Freely Associated States groups, labor force participation by post-Compact migrants was lower than the pre-Compact rate. Among the post-Compact migrants, 61 percent of the FSM, 60 percent of the Palauan and 53 percent of the Marshallese migrants 16 years and over were in the labor force. About 70 percent of the FSM and Palauan and 65 percent of the Marshallese pre-Compact migrants were in the labor force. For most of the Freely Associated States groups, the lower proportion of post-Compact labor force participation can also be seen in the total male and female migrants, but the differences were greater between female pre- and post-Compact migrants. About 75 percent of post-Compact males were in the labor force compared to 48 percent of post-Compact females. Approximately 92 percent of the Marshallese post-Compact males were in the labor force, compared to 76 percent of the FSM and 63 percent of the Palauans. Not surprisingly, a lower percentage of females than males were in the labor force, a pattern that held for all Freely Associated States pre- and post-Compact migrant groups. Approximately 57 percent of the Palauan post-Compact females were in the labor force, followed by 48 percent of the FSM and 28 percent of the Marshallese migrants.

Table 8.1: Labor Force Characteristics of Micronesian Migrants and Children, Age 16 Years and Over, CNMI, 1998.

Characteristics	Total		FSM		RMI		Palau	
	Post-Comp. & Children	Pre-Comp.	Post-Comp. & Children	Pre-Comp.	Post-Comp. & Children	Pre-Comp.	Post-Comp. & Children	Pre-Comp.
Total Persons 16+ Years	936	1,085	796	278	30	17	110	790
In the Labor Force	60.6	69.9	60.9	69.1	53.3	64.7	60.0	70.3
Unemployed	8.6	9.1	8.2	7.8	25.0	0.0	7.6	9.7
Worked During 1997	56.4	70.1	57.8	66.5	46.7	70.6	49.1	71.4
Worked Whole Year	37.4	61.2	37.7	55.8	33.3	47.1	36.4	63.4
Worked Full-Time	54.1	67.3	55.9	63.7	43.3	64.7	43.6	68.6
Worked Whole Year, Full-Time	36.5	59.2	36.8	53.6	30.0	41.2	36.4	61.5
Males 16+ Years	439	521	373	127	12	7	54	387
In the Labor Force	74.5	79.7	75.6	81.9	91.7	71.4	63.0	79.1
Unemployed	8.9	9.4	8.9	8.7	27.3	0.0	2.9	9.8
Worked During 1997	67.0	79.3	69.7	77.2	75.0	85.7	46.3	79.8
Worked Whole Year	47.2	69.9	48.0	65.4	58.3	57.1	38.9	71.6
Worked Full-Time	65.1	75.0	67.8	73.2	66.7	71.4	46.3	75.7
Worked Whole Year, Full-Time	45.8	66.4	46.6	62.2	50.0	42.9	38.9	0.8
Females 16+ Years	497	564	423	151	18	10	56	403
In the Labor Force	48.3	60.8	48.0	58.3	27.8	60.0	57.1	61.8
Unemployed	8.3	8.7	7.4	6.8	20.0	0.0	12.5	9.6
Worked During 1997	47.1	61.7	47.3	57.6	27.8	60.0	51.8	63.3
Worked Whole Year	28.8	53.2	28.6	47.7	16.7	40.0	33.9	55.6
Worked Full-Time	44.3	60.1	45.4	55.6	27.8	60.0	41.1	61.8
Worked Whole Year, Full-Time	28.4	52.5	28.1	46.4	16.7	40.0	33.9	55.1

Source: 1998 Census of Micronesian Migrants to Saipan

Approximately 9 percent of all Freely Associated States migrants and their children aged 16 years and over were unemployed. Unemployment was highest among the Marshallese (25 percent), followed by the FSM (8 percent) and Palauan (also 8 percent) groups. Palauan Pre-Compact migrants had a higher unemployment rate than Palauan post-Compact migrants. This pattern held for the FSM and Palauan groups, but for the Marshallese, post-Compact migrants had a higher unemployment rate than pre-Compact migrants, which is probably the result of the small sample size. Total unemployment for males was about the same as the female rate. The proportion of unemployed female post-Compact migrants was 8.3 percent, lower than the 8.7 percent rate for pre-Compact females. Among the post-Compact female migrants, the Marshallese women had the highest proportion of unemployed (20 percent), followed by the Marshallese (12 percent) and the FSM migrants (7 percent). The proportion of unemployed post-Compact migrant males was 8.9 percent, lower than the pre-Compact rate of 9.4 percent.

Generally speaking, pre-Compact migrants worked more than post-Compact migrants. About 70 percent of the pre-Compact migrants worked during 1997, with 61 percent working the whole year, 67 percent working full-time and 60 percent working the whole year full-time. However, only 56 percent of the pre-Compact migrants worked in 1997, with 37 percent working the whole year, 54 percent working full-time and 37 percent working the whole year full-time. Of the Freely Associated States groups, the pre-Compact Palauan migrants were the most likely to have worked during 1997 (71 percent), worked the whole year (63 percent), worked full-time (69 percent), and the whole year full-time (62 percent); the post-Compact Marshallese were the least likely. Approximately 67 percent of all male and 47 percent of female migrants worked during 1997.

*Occupational and Industrial Concentration Among Freely Associated States Migrants*

Table 8.2 shows the major occupation groups for employed pre- and post-Compact migrants aged 16 years and older. About 1/3rd (34 percent) of the Freely Associated States migrants and their children were employed in precision production and crafts occupations. The second most common occupation category was agriculture, forestry and fishing (28 percent). This occupational concentration occurred in both the pre- and post-Compact groups. However, among the pre-Compact group, about 1 in 3 (34 percent) were in agriculture, fishing and forestry, while about 2 in 5 (40 percent) of the post-Compact migrants were in precision production and craft occupations. Approximately 30 percent of the post- and 17 percent of the pre-Compact migrants were operators, fabricators and laborers.

Table 8.2: Occupation of Micronesian Migrants and Their Children, CNMI, 1998.

Occupation	Total		FSM		RMI		Palau	
	Post-Comp & Children	Pre-Comp	Post-Comp & Children	Pre-Comp	Post-Comp & Children	Pre-Comp	Post-Comp & Children	Pre-Comp
Total Employed Persons 16+ Years	518	689	445	177	12	11	61	501
Professional/Technical/Managerial	2.5	7.5	2.5	6.8	0.0	27.3	3.3	7.4
Clerical/Sales	3.1	6.8	3.1	6.2	0.0	0.0	3.3	7.2
Services	2.5	2.9	1.1	1.1	0.0	0.0	13.1	3.6
Agriculture/Forestry/Fishing	18.7	34.3	18.0	27.7	50.0	45.5	18.0	36.3
Precision Production/Crafts	40.0	28.9	40.4	33.3	41.7	9.1	36.1	27.7
Operators/Fabricators/Laborers	29.2	16.7	30.3	20.9	8.3	18.2	24.6	15.2
All Others	4.1	2.9	4.5	4.0	0.0	0.0	1.6	2.6
Employed Males 16+ Years	298	376	257	95	8	5	33	276
Professional/Technical/Managerial	2.0	7.7	2.3	10.5	0.0	20.0	0.0	6.5
Clerical/Sales	3.0	3.2	3.1	6.3	0.0	0.0	3.0	2.2
Services	2.0	3.2	1.2	2.1	0.0	0.0	9.1	3.6
Agriculture/Forestry/Fishing	16.1	27.4	16.0	21.1	62.5	40.0	6.1	29.3
Precision Production/Crafts	30.2	29.8	28.4	22.1	25.0	0.0	45.5	33.0
Operators/Fabricators/Laborers	42.3	25.3	44.0	33.7	12.5	40.0	36.4	22.1
All Others	4.4	3.5	5.1	4.2	0.0	0.0	0.0	3.3
Employed Females 16+ Years	220	313	188	82	4	6	28	225
Professional/Technical/Managerial	3.2	7.3	2.7	2.4	0.0	33.3	7.1	8.4
Clerical/Sales	3.2	11.2	3.2	6.1	0.0	0.0	3.6	13.3
Services	3.2	2.6	1.1	0.0	0.0	0.0	17.9	3.6
Agriculture/Forestry/Fishing	22.3	42.5	20.7	35.4	25.0	50.0	32.1	44.9
Precision Production/Crafts	53.2	27.8	56.9	46.3	75.0	16.7	25.0	21.3
Operators/Fabricators/Laborers	11.4	6.4	11.7	6.1	0.0	0.0	10.7	6.7
All Others	3.6	2.2	3.7	3.7	0.0	0.0	3.6	1.8

Source: 1998 Census of Micronesian Migrants to Saipan

The largest groups of all of the pre- and post-Compact Freely Associated States groups were in either precision production and craft occupations or agriculture, forestry and fishing. The largest groups of pre-Compact FSM (33 percent) and post-Compact FSM (40 percent) and Palauan (36 percent) migrants worked in precision production and craft occupations, while the largest groups of pre-Compact Palauan (36 percent) and Marshallese (46 percent) and post-Compact Marshallese (50 percent) worked in agriculture, forestry and fishing occupations. The third most common occupational category was operators, fabricators and laborers. This was the second most common category for post-Compact FSM and Palauan and pre-Compact Marshallese migrants.

The largest groups of male pre- and post-Compact migrants worked as operators, fabricators and laborers (33 percent), followed by precision production and craft occupations (30 percent). Post-Compact Palauan migrants were the most likely (46 percent) to work in precision production and craft occupations, while the post-Compact FSM migrants were the most likely (44 percent) to have precision production and craft occupations. Approximately 22 percent of male migrants were in agricultural, forestry and fishing occupations. The largest groups of female pre- and post-Compact migrants worked in precision production and craft occupations (38 percent) followed by agricultural, forestry and fishing occupations (34 percent). Post-Compact Marshallese (75 percent) and FSM (57 percent) migrants were the most likely to work in precision production and craft occupations, while the pre-Compact Marshallese (50 percent) and Palauan 45 percent migrants were the most likely to work in agriculture, fishing and forestry occupations. Approximately 11 percent of pre-Compact females worked in clerical and sales occupations, but the largest groups of these were Palauan. Generally speaking, the Micronesian migrants in the CNMI were not as occupationally concentrated as in either Guam or Hawaii.

This lack of occupational concentration is reflected in what the migrants did in each category. The following data appear in the Basic Tables in the back of this paper. For example, for both males and females in the precision production and craft category, 19 percent worked as operators and tenders in textile, apparel and furniture shops, 16 percent worked in hand working occupations, 15 percent in cleaning and building service occupations (including personal service), 11 percent in food and beverage preparation and service occupations, and 9 percent as guards. Definite differences between male and female occupational participation patterns existed. The largest groups of females worked in hand working occupations (30 percent) and as machine operators and tenders for textile, apparel and furniture shops. Less than 10 percent of the males worked in these occupations combined. No clear largest occupation emerges for the migrant males. However, 16 percent worked as guards, 13 percent in food and beverage preparation and services occupations, and 12 percent worked in cleaning and building service occupations. Only 2 percent, 8 percent and 18 percent of the women worked in these respective occupations.

The operators, fabricators and laborer occupation category had more males. Approximately 80 percent of all migrants in this occupational category were male. Of these, 31 percent were general freight, stock and material movers, 20 percent were motor vehicle operators and 16 percent were hand packers and packagers. The largest groups of women (33 percent) in this occupational category worked as helpers to machine operators and tenders.

Table 8.3 shows the major industry groups by Freely Associated States Area for employed pre- and post-Compact migrants aged 16 years and older. The largest groups of the Freely Associated States migrants and their children were employed in manufacturing (25 percent), services (21 percent) or retail trade (21 percent). This pattern generally persisted among both the pre- and post-Compact male and female migrants. However, 25 percent of all the pre- and post-Compact males were in the transportation and communication industry, while only 5 percent of the females were.

Table 8.3: Industry of Micronesian Migrants and Their Children, CNMI, 1998.

Industry	Total		FSM		RMI		Palau	
	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp	Post-Comp & Childrer	Pre-Comp.
Total Employed Persons 16+ Years	518	689	445	177	12	11	61	501
Agriculture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mining	0.2	0.0	0.0	0.0	0.0	0.0	1.6	0.0
Construction	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.2
Manufacturing	42.5	12.5	45.2	23.7	25.0	9.1	26.2	8.6
Transportation/Communication	11.4	19.6	11.5	14.7	8.3	36.4	11.5	21.0
Wholesale Trade	1.4	1.9	1.1	0.6	0.0	0.0	3.3	2.4
Retail Trade	18.7	22.2	16.9	22.0	50.0	18.2	26.2	22.4
Finance/Insurance	1.0	3.3	0.7	2.3	0.0	9.1	1.6	3.6
Services	16.0	24.5	15.7	23.7	16.7	27.3	19.7	24.8
Public Administration	4.2	13.8	3.8	10.2	0.0	0.0	8.2	15.4
All Others	4.4	2.0	4.9	2.8	0.0	0.0	1.6	1.8
Employed Males 16+ Years	298	376	257	95	8	5	33	276
Agriculture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mining	0.3	0.0	0.0	0.0	0.0	0.0	3.0	0.0
Construction	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.4
Manufacturing	33.6	9.6	36.2	15.8	0.0	0.0	21.2	7.6
Transportation/Communication	18.8	29.3	18.7	24.2	12.5	60.0	21.2	30.4
Wholesale Trade	1.7	1.9	1.6	0.0	0.0	0.0	3.0	2.5
Retail Trade	19.1	20.2	15.2	23.2	62.5	0.0	39.4	19.6
Finance/Insurance	0.3	1.6	0.4	1.1	0.0	0.0	0.0	1.8
Services	16.4	20.2	17.1	20.0	25.0	40.0	9.1	19.9
Public Administration	4.7	14.4	5.1	12.6	0.0	0.0	3.0	15.2
All Others	5.0	2.7	5.8	3.2	0.0	0.0	0.0	2.5
Employed Females 16+ Years	220	313	188	82	4	6	28	225
Agriculture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mining	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Construction	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Manufacturing	54.5	16.0	57.4	32.9	75.0	16.7	32.1	9.8
Transportation/Communication	1.4	8.0	1.6	3.7	0.0	16.7	0.0	9.3
Wholesale Trade	0.9	1.9	0.5	1.2	0.0	0.0	3.6	2.2
Retail Trade	18.2	24.6	19.1	20.7	25.0	33.3	10.7	25.8
Finance/Insurance	1.8	5.4	1.1	3.7	0.0	16.7	7.1	5.8
Services	15.5	29.7	13.8	28.0	0.0	16.7	28.6	30.7
Public Administration	3.6	13.1	2.1	7.3	0.0	0.0	14.3	15.6
All Others	3.6	1.3	3.7	2.4	0.0	0.0	3.6	0.9

Source: 1998 Census of Micronesian Migrants to Saipan

Among the Freely Associated States groups, most of the FSM migrants worked in manufacturing (39 percent), while most of the Marshallese (35 percent) worked in retail trade, and the largest groups of Palauan migrants worked in services. In all groups, a greater proportion of post-Compact than pre-Compact migrants worked in manufacturing, while a greater proportion of pre-Compact than post-Compact migrants worked in services. For the total migrant population, more pre-Compact than post-Compact migrants worked in transportation and communication and retail trade. However, this pattern did not hold for all Freely Associated States groups.

In every Freely Associated States group, more females than males worked in manufacturing. Approximately 55 percent of the post- and 16 percent of the pre-Compact females worked in manufacturing, compared to 34 percent and 10 percent of the pre- and post-Compact males. The opposite was true for the transportation and communication industry. More pre-Compact (29 percent) and post-Compact (19 percent) females worked in this industry than pre-Compact (8 percent) or post-Compact (1 percent) women. More pre-Compact females (54 percent) than males (40 percent) worked in the retail trade and services industry, while more post-Compact males (36 percent) than females (34 percent) did.

Within the manufacturing industry, 96 percent of all migrants, including 98 percent of the females and 69 percent of the male migrants, worked in apparel and other fabric products production. In the services industry, 58 percent of all migrants work in hotels, rooming houses and other lodging places, including 63 percent of the male and 52 percent of the female migrants. Another 17 percent of the migrants work in education services, including 24 percent of the female migrants and 10 percent of the male migrants.

Greater variation existed in the proportion of migrants in the various sectors of the retail industry. Approximately 30 percent of all migrants worked in general merchandise stores, 24 percent in miscellaneous retail and 19 percent in eating and drinking establishments. The pattern of male and female participation in this industry differs slightly. Among female migrants, 35 percent worked in miscellaneous retail, 28 percent in general merchandise stores and 19 percent in eating and drinking establishments. Among male migrants, 32 percent worked in general merchandise stores, 19 percent in eating and drinking establishments, and 14 percent in miscellaneous retail.

Within the transportation and communication industry, 86 percent of the laborers were male. Of those, 34 percent worked in the air transportation sector, while 24 percent worked in general transportation services. The largest groups of women in this sector (36 percent) worked in the air transportation sector.

*Migration Trends.* Table 8.4 shows the change in labor force characteristics for the post-Compact migrant adults between 1990 and 1998. The number of post-Compact Freely Associated States migrants 16 years and over was about the same in 1990 and 1998. The percentage in the labor force increased from 58 percent in 1990 to about 61 percent in 1998, while the unemployment rate decreased, from 6 percent in 1990 to 5 percent in 1998. The percentage for females showed similar figures, with labor force participation at about half of adult females, and the unemployment rate at about 4 percent.

Table 8.4. Labor Force Characteristics, Post-Compact Migrants and Children, CNMI: 1990, 1995 and 1998

Labor Force Characteristics	Total			FSM			RMI		
	1998	1995	1990	1998	1995	1990	1998	1995	1990
Persons 16 years and over	936	1,577	980	798	1,289	947	30	66	29
In labor force (%)	60.6	66.4	58.5	60.9	65.6	59.6	53.3	60.6	24.1
Unemployed (%)	5.2	11.0	6.1	5.0	10.9	6.2	13.3	19.7	3.4
Females 16 years and over	497	875	531	423	697	511	18	43	20
In labor force (%)	48.3	57.3	49.9	48.0	55.7	51.5	27.8	46.5	10.0
Unemployed (%)	4.0	11.2	4.5	3.5	11.0	4.7	5.6	14.0	0.0
Worked last year (%)	56.4	54.3	54.2	57.8	53.1	55.0	46.7	45.5	27.6
Worked whole year (%)	37.4	39.8	29.9	37.7	37.9	30.5	33.3	25.8	10.3
Worked full-time (%)	54.1	51.6	51.6	55.9	50.7	52.4	43.3	37.9	27.6
Full-time, whole year (%)	36.5	38.3	28.8	36.8	36.7	29.4	30.0	25.8	10.3

Sources: 1990 and 1995 Censuses of the CNMI and the 1998 Census of Micronesian Migrants

The table also shows information about work in the year before the census. The percentage of persons who worked in the year before the census increased slightly between the 1990 and 1998 censuses, increasing from about 54 percent to 56 percent of the post-Compact Freely Associated States migrant adults. The percentage of persons who worked the whole year (50 to 52 weeks), however, increased considerably between 1989 and 1997, from 30 percent in 1989 to 37 percent in 1997. The percentage of full-time workers, those who worked 35 hours or more, increased from 52 percent to 54 percent, while the percentage of year-round full-time workers increased from 29 percent in 1989 to 36 percent in 1997.

As with Guam, the employment picture changed over the decade. For the CNMI, the percentage of post-Compact Freely Associated States migrants working as operators, fabricators, and laborers greatly decreased during the 5 year period, while the percentage in technical, sales, and administrative support occupations and managers and professionals increased quite a bit (Table 8.5). Still, about 1 in every 3 workers were working in occupations showing the garment industry, down from about half in 1990. The percentage of persons doing precision production and crafts also decreased.



Table 8.5. Employment Characteristics, Post-Compact Migrants and Children, CNMI: 1990, 1995 and 1998

Employment Characteristics	Total			FSM			RMI		
	1998	1995	1990	1998	1995	1990	1998	1995	1990
<b>OCCUPATION:</b>									
Manag and professional (%)	2.5	16.4	8.5	2.5	15.0	0.0	0.0	14.8	0.0
Tech,sales and admin support (%)	3.1	29.6	19.0	3.1	25.4	0.0	0.0	66.7	50.0
Service (%)	2.5	13.6	13.7	1.1	14.9	100.0	0.0	7.4	0.0
Farming, forestry, and fishing (%)	18.7	0.9	1.0	18.0	1.0	0.0	50.0	0.0	0.0
Production Prod, crafts (%)	40.0	3.1	7.3	40.4	3.1	0.0	41.7	0.0	0.0
Operators, fabric & laborers (%)	29.2	36.4	50.1	30.3	40.6	0.0	8.3	11.1	50.0
<b>INDUSTRY:</b>									
Retail trade (%)	18.7	17.2	13.1	16.9	15.6	12.9	50.0	40.7	33.3
All Services (%)	16.0	21.9	20.3	15.7	21.4	20.2	16.7	18.5	16.7
Hotels (%)	12.0	10.0	6.4	11.9	10.1	6.3	16.7	0.0	0.0
Private Sector (%)	93.7	79.0	84.4	91.7	79.0	84.4	100.0	81.5	100.0

Sources: 1990 and 1995 Censuses of the CNMI and the 1998 Census of Micronesian Migrants

The data on industry also show changes, but we are not showing manufacturing here, mainly to keep the data comparable to Guam and Hawaii. About 13 percent of the post-Compact Freely Associated States workers in 1990 were in retail trade, a figure which increased to 17 percent in 1995 and 19 percent in 1998. During the same time period, the percentage in service industries increased only slightly, from 20 percent in 1990 to 22 percent in 1995, but decreased to 16 percent in 1998. Of these, the Hotel industry increased from about 6 percent of the total in 1990 to 10 percent in 1995.

The post-Compact Freely Associated States migrant workers were much more likely than Guam's workers to be in the public sector. While substantial, only 79 percent of the Freely Associated States migrant workers in the CNMI in 1995 were in the private sector, down from 84 percent in 1990. The values for FSM were identical, but the percentage for the Marshallese workers decreased from 100 percent private sector in 1990 to 82 percent in 1995, and 79 percent of the Palau migrant workers were in the private sector.

### **Income and Poverty**

Table 8.6 shows the income characteristics of Micronesian migrants and their children, including household and family income, per capita income and poverty status. CNMI had 237 post-Compact households and 506 pre-Compact households in the 1998 Census. The median income for the post-Compact households was \$13,400, about \$8,000 less than the median of \$21,000 for the pre-Compact households. The mean household income levels were greater in each case. The means and medians were heavily influenced by the largest groups – the pre-Compact Palauans were 372 of the 506 pre-Compact households (about 3/4<sup>th</sup> of the units) and the post-Compact FSM migrant households were 212 of the 237 units (89 percent) of their units.

Family income followed the pattern of household income – with post-Compact family median income of \$14,500 being about \$7,500 less than the pre-Compact family median income. Mean family incomes were close to the mean household incomes.

The per capita incomes were relatively high – post-Compact per capita income was about \$5,300, slightly more than half the \$9,900 per capita income of the pre-Compact migrants. The biggest differences in per capita income occurred among the few Marshallese in the CNMI, and the smallest differences were for the post- and pre-Compact Palauans, who had essentially the same per capita income, at just under \$10,000.

As noted in the Guam chapter, definitions of poverty appear in Appendix B. About 1,750 post-Compact and 1,200 pre-Compact migrants were in the poverty universe. Of these, about 58 percent of the post-Compact migrants and 42 percent of the pre-Compact migrants were living below the US-defined poverty line.

Table 8.6: Income Characteristics of Micronesian Migrants and Their Children, CMNI, 1998.

Income Characteristics	Total		FSM		RMI		Palau	
	Post-Comp & Children	Pre-Comp	Post-Comp & Children	Pre-Comp	Post-Comp & Children	Pre-Comp	Post-Comp & Children	Pre-Comp.
Households	237	506	212	129	6	5	19	372
Median Income (Dollars)	13,388	21,047	13,374	17,999	12,499	46,249	14,166	21,666
Mean income (Dollars)	19,617	28,372	19,940	25,830	13,663	47,464	17,888	28,997
Families	197	457	181	117	4	5	12	335
Median Income (Dollars)	14,450	22,041	14,391	19,599	14,999	46,249	14,999	22,525
Mean income (Dollars)	21,354	29,732	21,632	27,158	16,969	47,464	18,615	30,366
Per Capita Income (in Dollars) [Excludes children of migrants]	5,339	9,882	4,806	9,619	2,276	12,372	9,871	9,918
Poverty Universe	1,750	1,191	1,499	289	74	18	177	884
Below Poverty Level	57.6	42.0	58.7	52.9	58.1	38.9	48.0	38.5
Below 50% of Poverty Level	23.4	14.5	23.8	21.5	32.4	22.2	16.4	12.1
Below 125% of Poverty Level	68.5	50.9	70.0	62.6	68.9	38.9	54.8	47.3
Below 185% of Poverty Level	82.2	72.0	83.0	81.3	78.4	55.6	77.4	69.2

Source: 1998 Census of Micronesian Migrants to Saipan

*Migration Trends.* Table 8.7 shows data on income and poverty for the CNMI in 1989, 1994 and 1997. The number of post-Compact households with income in 1990 was 543, which increased to 885 in 1995, but decreased to 237 in 1998 because of the post- and pre-Compact migrants were defined. Of these, the median household income decreased very slightly, from \$18,700 to \$18,500, if inflation is ignored, between 1990 and 1995, but decreased to \$13,388 in 1998. As noted above, pre-Compact migrants had much higher incomes, so probably some persons who were identified previously as post-Compact, became pre-Compact in 1998 through self-identification. The mean household income also decreased throughout the period, even when inflation is not considered. The median and mean household incomes for the FSM migrants were about the same as for all Freely Associated States households.

Table 8.7. Income Characteristics, Post-Compact Migrants and Children, CNMI: 1990, 1995 and 1998

Income Characteristics	Total			FSM			RMI		
	1998	1995	1990	1998	1995	1990	1998	1995	1990
Households	237	885	543	212	668	505	6	45	32
Median (dollars)	13,388	18,507	18,712	13,374	17,043	18,503	12,499	22,856	21,666
Mean (dollars)	19,617	25,717	28,783	19,940	24,309	28,656	13,663	30,264	31,274
Per capita income (\$)	5,339	2,705	1,534	4,806	2,363	1,584	2,276	1,171	526
Poverty Universe	1,750	4,502	3,052	1,499	3,899	2,909	74	215	126
Below 50 % of poverty level(%)	23.4	16.6	18.3	23.8	17.6	18.5	32.4	9.3	15.1
Below poverty (%)	57.6	35.0	36.1	58.7	36.3	36.3	58.1	26.5	31.0
Below 125 % poverty level (%)	68.5	41.2	41.3	70.0	42.4	41.7	68.9	30.7	31.7
Below 185 % poverty level (%)	82.2	49.3	50.2	83.0	49.7	50.3	78.4	37.7	50.0

Sources: 1990 and 1995 Censuses of the CNMI and the 1998 Census of Micronesian Migrants

The per capita income for post-Compact Freely Associated States migrants was lower than for Guam's migrants. The per capita income of these migrants to the CNMI increased from \$1,500 in 1989 to \$2,700 in 1994 and \$5,339, again without regard to inflation. Hence, per capita income more than tripled during the 8 year period.

The number in the poverty universe increased from about 3,100 in 1990 to 4,500 in 1995 but decreased to 1,750 in 1998, again because of definitions of post- and pre-Compact migrants. The percent in poverty decreased slightly between 1989 and 1994, from 36 to 35 percent, but increased sharply to 58 percent in 1998.

## CHAPTER 9

### USE OF HEALTH SERVICES AND ENTITLEMENT PROGRAMS<sup>4</sup>

#### Introduction

This Chapter looks at the level of health care services the Micronesian migrants to the CNMI. The CNMI provides services directly through emergency rooms and walk-in clinics and in the form of programs, such as Food Stamps, Welfare and medically indigent programs. The data used here come from the health services parts of the census questionnaire for the Micronesian migrants to the CNMI. As with the other Chapters of this report, we have divided the households and population into those who came prior to and those who came after compact implementation (including Palau's later compact launch in 1994).

Based on the responses, three general areas formed the guiding framework to view Micronesian residents use of government provided health care services, hence the demand on those respective governments. These include:

1. The first area is the type of health services Micronesians commonly used, followed by their prevalent health conditions, whether or not these conditions have effects on their ability to participate in the workforce.
2. The second area is where the migrants normally received care and through what specific government subsidized health plan.
3. The third area is the amount of welfare and food stamps dollars that the Micronesians used, for both pre- and post-Compact migrants.

Because of the very small numbers in some cases, more care than usual was used to protect anonymity of the respondents. Data for RMI migrant households in Saipan were suppressed

**Health Status.** Very few Micronesian migrants reported having disabilities. Less than 2 percent of the post-Compact and somewhat more than 2 percent of the pre-Compact migrants reported a permanent physical or mental health condition at the time of the enumeration on Saipan (Table 9.1). Of those 16 years and over, less than one percent of the post-Compact migrants reported health conditions that would limit the kind or amount of work at a job, would prevent them from working at a job at all, or would prevent them from taking care of their own personal needs. The results for the pre-Compact migrants were similar, with 1.6 percent having a limitation for the kind or amount of work to be done, one percent being prevented from working at a job, and less than one percent prevented from taking care of own personal needs.

Table 9.1: Health Status of Micronesian Migrants and Children, CNMI, 1998

Health Status	Total		FSM		RMI	Palau	
	Post-Comp. & Children	Pre-Comp.	Post-Comp. & Children	Pre-Comp.	All Migrants	Post-Comp. & Children	Pre-Comp.
Total Migrant Population	1,755	1,192	1,503	289	92	178	885
Permanent Physical/Mental Health Condition	1.7	2.4	1.7	3.1	2.2	1.7	2.3
Persons 16+ Years	936	1,085	796	278	20	110	790
Physical/Mental/Other Health Condition that:							
Limits Kind/Amount of Work at a Job	0.9	1.6	0.6	1.8	0.0	2.7	1.5
Prevents Working at a Job	0.4	1.0	0.3	0.7	0.0	1.8	1.1
Prevents Taking Care of Own Personal Needs	0.5	0.6	0.4	0.4	0.0	1.8	0.8

Source: 1998 Census of Micronesian Migrants to Saipan

<sup>4</sup> Marcus Samo, of the Micronesian Seminar and the FSM National Health Services, wrote the first draft of this section as part of the OIA technical assistance training program. The views expressed here do not necessarily reflect those of the Micronesian Seminar or the FSM National Government

**Types of Health Services Used.** Out of the 506 pre-Compact migrant households, 68 percent used some type of health services provided by the government through its public health clinics and programs (Table 9.2). Only 48 percent of the 237 post-Compact households used these services. The data also shows that a significant proportion of the migrants frequently used government provided services for their newborns and children, which was also higher after the compact as opposed to before, except in the case of Palauan migrants. However, only a few received services from the old age and blind program. About 1/10<sup>th</sup> of the migrant households used maternal and child health programs, but less than one percent used old age and blind programs.

Table 9.2: Health Services Used, Micronesian Migrants and Children, CNMI, 1998

Health Services Used	Total		FSM		RMI	Palau	
	Post-Comp. & Children	Pre-Comp.	Post-Comp. & Children	Pre-Comp.	All Migrants	Post-Comp. & Children	Pre-Comp.
Total Migrant Households	237	506	212	129	11	19	372
Total, Some Health Services	48.1	68.0	45.8	51.9	72.7	68.4	73.4
<b>Out-Patient Visits:</b>							
Maternal and Child Health	9.7	9.5	9.9	6.2	0.0	10.5	10.8
Prenatal Programs	8.9	6.7	9.4	3.9	0.0	5.3	7.8
Children in for Check-ups	12.2	19.0	13.2	13.2	9.1	5.3	21.0
Old Age/Blind Programs	0.8	0.6	0.9	0.0	0.0	0.0	0.8
Any Other Medical	27.0	37.7	24.5	27.9	63.6	42.1	40.9
<b>Insurance:</b>							
Women, Infant and Children (WIC)	21.5	24.3	20.8	20.9	9.1	31.6	25.8
Medicare	10.5	13.2	10.8	11.6	0.0	10.5	14.0
Medically Indigent (MIP)	3.4	3.8	2.8	0.8	0.0	10.5	4.8

Source: 1998Census of Micronesian Migrants to Saipan

How the Micronesian migrants were accessing government provided health care services can be understood through the following breakdown: 24 percent out of the 506 pre-Compact migrant households received WIC, 13 percent on Medicare or Medicaid and 4 percent were on MIP. Out of the 237 post-Compact households, 22 percent used WIC, 11 percent on Medicare and Medicaid and only 3 percent on MIP.

The data seem to suggest that the proportion of migrants with some form of physical, mental and health conditions who came to CNMI, regardless of age, was less among the post-Compact migrants, compared to the pre-Compact, except in Palau's case.

**Entitlement Program Services Received: Food Stamps and Welfare.** Unlike Guam, only a small number of the migrants in CNMI received foods stamp assistance: 16 percent of both the pre-Compact and post-Compact households. The median for the post-Compact households was \$264 for the month before enumeration, compared to \$288 for the pre-Compact households. Of course, the total number of households is barely more than 100 so it is difficult to discuss the long term implications of these numbers.

Table 9.3: Amount of Food Stamps Received, Micronesian Migrants and Children, CNMI, 1998

Food Stamps Received	Total		FSM		RMI	Palau	
	Post-Comp. & Children	Pre-Comp.	Post-Comp. & Children	Pre-Comp.	All Migrants	Post-Comp. & Children	Pre-Comp.
Total Migrant Households	237	506	212	129	11	19	372
Total with Food Stamps	37	81	35	29	0	0	51
Percent with Food Stamps	15.6	16.0	16.5	22.5	27.3	0.0	13.7
Median	\$264	\$288	\$258	\$231	\$250	\$0	\$321
Mean	\$276	\$315	\$274	\$262	\$265	\$0	\$348

Source: 1998 Census of Micronesian Migrants to Saipan

Only 4 Micronesian migrant households received any welfare payments (and these were probably associated with migration from Guam.) We present the figures only to give the full picture for comparative purposes.

Table9.4: Amount of Welfare (AFDC) Received, Micronesian Migrants and Children, CNMI, 1998.

Welfare Received	Total		FSM		RMI	Palau	
	Post-Comp. & Children	Pre-Comp.	Post-Comp. & Children	Pre-Comp.	All Migrants	Post-Comp. & Children	Pre-Comp.
Total Migrant Households	237	506	212	129	6	19	372
Total with Welfare	1	3	1	1	0	0	2
Percent with Welfare	0.4	0.6	0.5	0.8	0.0	0.0	0.5
Median	\$51	\$150	\$51	\$51	\$0	\$0	\$300
Mean	\$12	\$195	\$12	\$1	\$0	\$0	\$292

Source: 1998 Census of Micronesian Migrants to Saipan

**Conclusion**

Clearly many of the Micronesian migrants to Saipan used health and welfare services. In Saipan, 2/3<sup>rd</sup> of the pre-Compact and 1/2 of the post-Compact migrants used some health services. The services commonly used included maternal and child health care such as prenatal/postpartum, immunization, follow-up for children and services for old age and the blind. About 16 percent of the pre-Compact migrants were on food stamps. In general, though, fewer Micronesian migrants used health services on Saipan than in Guam and Hawaii (see 1999 OIA Impact Report), but this might be because fewer were available to them.

Like many migrant groups all over the world, the Micronesian migrants have adjustment problems. They must adapt to new cultural situations, new housing, new food, new types of recreation. And all of these elements, in one way or another, probably require new health patterns as well. The Micronesian migrants have been lucky to be able to receive the health benefits in the receiving areas, but the receiving areas are lucky to receive Micronesian migrants who are enthusiastic, hard workers, and, of course, healthy workers, too.

## CHAPTER 10

### REGULAR EXPENDITURES

All three Micronesian censuses asked questions about expenditures. These expenditures were divided into three types of expenditures: major expenditures, regular expenditures, and daily and weekly expenditures. Major expenditures include purchases of large items like appliances, health services, car purchases, weddings and funerals, and so forth. Regular expenditures include utility bills, mortgage or rent payments, credit card bills, etc. Daily expenditures included purchases of food and drink, clothes, entertainment, and so forth.

#### REGULAR EXPENDITURES

The next set of tables shows general regular expenditures information for the CNMI. We will look only at the total Freely Associated States households because the numbers reporting were small – only 237 post-Compact and 506 pre-Compact households. Of those about 69 percent of the post-Compact and 54 percent of the pre-Compact households paid rent (Table 10.1). All units paid for some utilities. Almost all units paid for electricity and water. Less than 1 in 4 of the post-Compact households paid a telephone bill, compared to exactly half of the pre-Compact units. Only about 1/3<sup>rd</sup> of the post-Compact units paid for cable TV compared to almost 2/3<sup>rd</sup> of the pre-Compact units.

About 40 percent of the post-Compact and 56 percent of the pre-Compact households had vehicle payments. About 1/3<sup>rd</sup> of the post-Compact and 2/5<sup>th</sup> of the pre-Compact households had vehicle loan payments.

Finally, about 60 percent of the post-Compact and 65 percent of the pre-Compact households had other major

Table 10.1: General Regular Household Expenditures, Micronesian Migrants and their Children, CNMI, 1998.  
[Percentage of all migrant households in category]

General Regular Expenditures	Total		FSM		RMI		Palau	
	Post & Ch	Pre-	Post & Ch	Pre-	Post & Ch	Pre-	Post & Ch	Pre-
Total Migrant Households	237	506	213	126	6	5	18	375
Housing	68.8	55.9	68.5	47.6	16.7	40.0	88.9	58.9
Mortgage/Loan Payments	0.0	2.4	0.0	0.8	0.0	0.0	0.0	2.9
Rent	68.8	53.6	68.5	46.8	16.7	40.0	88.9	56.0
Insurance	0.0	1.2	0.0	0.8	0.0	0.0	0.0	1.3
Vehicles	40.5	55.7	41.3	51.6	50.0	80.0	27.8	56.8
Loan Repayments	32.1	39.1	32.4	42.1	33.3	60.0	27.8	37.9
Registration and Insurance	35.4	48.0	36.6	40.5	50.0	80.0	16.7	50.1
Drivers' Licenses	25.7	31.8	26.8	34.1	16.7	40.0	16.7	30.9
Utility Costs	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Electricity	94.9	97.0	94.8	92.1	100.0	100.0	94.4	98.7
Water	100.0	99.8	100.0	99.2	100.0	100.0	100.0	100.0
Telephone	22.4	50.0	21.6	41.3	16.7	60.0	33.3	52.8
Gas/Kerosene	50.6	55.7	48.4	54.0	66.7	40.0	72.2	56.5
Cable TV	32.9	65.2	32.4	45.2	50.0	60.0	44.4	72.0
Other Utilities	0.8	0.4	0.9	0.8	0.0	0.0	0.0	0.3
Other Major Regular Expenses	60.3	65.0	62.0	55.6	50.0	80.0	44.4	68.0
Weddings	25.7	25.3	27.2	24.6	16.7	20.0	11.1	25.6
Funerals	34.2	45.7	35.7	38.1	16.7	40.0	22.2	48.3
Fiestas	10.1	15.0	10.3	18.3	0.0	20.0	11.1	13.9
Family Responsibilities	36.3	43.7	36.2	34.9	50.0	60.0	33.3	46.4
Church	38.0	35.0	39.4	37.3	33.3	60.0	22.2	33.9
Remittances Sent Overseas	28.7	22.5	30.0	22.2	16.7	60.0	16.7	22.1
Remittances Sent Locally	7.2	5.7	8.0	5.6	0.0	0.0	0.0	5.9
Membership Fees	1.3	4.0	0.9	1.6	0.0	20.0	5.6	4.5

Source: 1998 Census of Micronesian Migrants to Saipan

regular expenditures. The largest categories for the post-Compact migrant households were church (38 percent of the units), family responsibilities (36 percent) and funerals (34 percent). For the pre-Compact households, the largest categories were the same, but the order changed: funerals (46 percent), family responsibilities (44 percent), and church (35 percent).

Table 10.2 shows the average expenditures for these items. The average expenditures were much less than on Guam, with the averages of \$5,644 for post-Compact and \$7,006 for pre-Compact households. Average annual rents were \$3,280 (about \$273 per month) for the post-Compact migrants and \$3,544 (about \$295 per month) for the pre-Compact migrant households. The average post-Compact household paid about \$62 per month for electricity compared to \$83 for the pre-Compact migrants. Migrant households paid more than \$500 per year for telephone use and about \$400 per year for Cable TV.

Car loan repayments were the largest of the itemized expenditures. The average monthly vehicle payment was \$345 for the post-Compact migrant households and \$394 for the pre-Compact migrants.

The post-Compact migrants spent an average of about \$1,000 for other major regular expenditures compared to \$1,434 for the pre-Compact households. The average pre-Compact household sent more than \$1,000 per year in overseas remittances compared to about \$600 for the average post-Compact household. The second largest category was funerals, with pre-Compact households spending an average of \$620 compared to the \$380 for the post-Compact households.

Table 10.2: General Regular Household Expenditures, Micronesian Migrants and their Children, CNMI, 1998 [Average Amounts, in U.S.Dollars]

General Regular Expenditures	Total		FSM		RMI		Palau	
	Post & Ch	Pre-	Post & Ch	Pre-	Post & Ch	Pre-	Post & Ch	Pre-
Total Migrant Households	5,644	7,006	5,629	6,044	4,719	9,238	6,131	7,299
Housing	3,280	3,712	3,303	3,594	7,200	7,200	2,822	3,740
Mortgage/Loan Payments	0	7,088	0	15,600	0	0	0	6,314
Rent	3,280	3,544	3,303	3,386	7,200	7,200	2,822	5,383
Insurance	0	830	0	280	0	0	0	940
Vehicles	3,573	3,679	3,503	3,907	3,141	3,141	5,064	3,607
Loan Repayments	4,143	4,736	4,105	4,475	4,152	4,152	4,670	4,841
Registration and Insurance	335	410	321	329	373	373	657	431
Drivers' Licenses	19	19	19	18	17	17	17	19
Utility Costs	1,318	1,941	1,300	1,836	1,482	1,482	1,479	1,968
Electricity	754	996	751	1,032	610	610	839	975
Water	242	290	249	339	210	210	181	274
Telephone	546	517	474	506	2,400	2,400	794	519
Gas/Kerosene	227	295	236	305	180	180	173	294
Cable TV	367	395	373	384	284	284	348	397
Other Utilities	180	1,200	180	240	0	0	0	2,160
Other Major Regular Expenses	1,024	1,434	989	855	927	927	1,651	1,576
Weddings	301	424	298	499	30	30	530	400
Funerals	377	621	331	334	500	500	1,213	690
Fiestas	287	84	181	95	0	0	1,450	81
Family Responsibilities	304	385	328	250	50	50	124	413
Church	189	221	170	78	1,025	1,025	168	265
Remittances Sent Overseas	590	1,014	582	362	50	50	933	1,233
Remittances Sent Locally	423	438	423	192	0	0	0	516
Membership Fees	83	769	35	35	0	0	180	888

Source: 1998 Census of Micronesian Migrants to Saipan



Table 10.3 shows that about 2/5<sup>th</sup> of the post-Compact households bought appliances or furniture during the 12 months preceding the enumeration compared to about half of the pre-Compact households. The distribution of appliances bought was quite different from Guam's distribution. About 17 percent of the post-Compact households bought televisions in the year before the census – the largest single appliance. Television (at about 1/4<sup>th</sup> of the units) was the second largest for the pre-Compact migrants, with video cassette players (VCRs) being first at about 2/3<sup>rd</sup> of the units.

More than 42 percent of the post-Compact households and almost 64 percent of the pre-Compact households paid for health or other insurance. About 2/5<sup>th</sup> of all the migrant units bought a vehicle in the year before the enumeration. And, about 38 percent of the post-Compact households and 47 percent of the pre-Compact units had at least one member of the household taking a trip in the year before enumeration.

Table 10.3: Major Household Expenditures by Type, Micronesian Migrants and their Children, CNMI, 1998.  
[Percentage of all migrant households in category]

Major Household Expenditures	Total		FSM		RMI		Palau	
	Post & Ch	Pre-	Post & Ch	Pre-	Post & Ch	Pre-	Post & Ch	Pre-
Total Migrant Households	237	506	213	126	6	5	18	375
Consumer Durables	39.2	48.8	41.3	46.8	0.0	60.0	27.8	49.3
Stove/Range	15.6	10.1	16.9	12.7	0.0	20.0	5.6	9.1
Microwave Oven	2.5	5.1	2.3	6.3	0.0	20.0	5.6	4.5
Refrigerator	11.4	18.4	11.7	14.3	0.0	0.0	11.1	20.0
Kitchen Utensils	8.4	18.0	8.9	12.7	0.0	0.0	5.6	20.0
Washing Machine	4.2	7.5	4.7	4.0	0.0	60.0	0.0	8.0
Television	17.3	23.9	17.8	25.4	0.0	20.0	16.7	23.5
Video Player	11.0	65.8	11.3	17.5	0.0	0.0	11.1	9.3
Radio	6.3	8.3	6.6	7.1	0.0	0.0	5.6	8.8
Cassette Player	9.7	9.1	10.8	10.3	0.0	20.0	0.0	8.5
CD Player	2.5	2.8	2.3	3.2	0.0	0.0	5.6	2.7
Sewing Machine	2.1	2.2	2.3	1.6	0.0	0.0	0.0	2.4
Kitchen Furniture	4.6	11.9	5.2	6.3	0.0	0.0	0.0	13.9
Bedroom Furniture	4.6	13.0	5.2	5.6	0.0	0.0	0.0	15.7
Lounge Furniture	2.1	4.9	2.3	4.0	0.0	0.0	0.0	5.3
Carpets and Rugs	2.1	2.4	2.3	2.4	0.0	0.0	0.0	2.4
Health/Insurance	42.2	63.6	42.3	43.7	50.0	80.0	38.9	70.1
Construction/Home Repair	3.4	6.1	2.8	3.2	0.0	0.0	11.1	7.2
Vehicle	40.5	40.3	32.4	39.7	16.7	40.0	11.1	40.5
Off-Island Travel	38.0	47.2	39.4	40.5	16.7	80.0	27.8	49.1
Airfare	38.0	46.4	39.4	40.5	16.7	80.0	27.8	48.0
All Loan Payments	26.2	48.8	25.8	38.9	33.3	80.0	27.8	51.7
Vehicle	19.4	34.4	19.7	27.0	33.3	40.0	11.1	36.8
Other Loans	10.1	20.4	9.4	14.3	0.0	40.0	22.2	22.1
Credit Cards	0.8	2.8	0.5	0.0	16.7	20.0	0.0	3.5
Other Expenses	19.8	27.1	18.3	19.0	50.0	80.0	27.8	29.1

Source: 1998 Census of Micronesian Migrants to Saipan

The average post-Compact household in the CNMI spent about \$1,300 on appliances and furniture in the year before the census, compared to \$1,600 for the pre-Compact households (Table 10.4). Among the most substantial purchases were refrigerators (an average of \$606 for post- and \$705 for pre-Compact households), washing machines (\$632 and \$481), bedroom furniture (\$473 and \$615), and televisions (\$512 and \$439).

Post-Compact households spent about \$900 per year on health and other insurance compared to about \$1,200 for the pre-Compact households. All households spent about \$1,100 on construction and home repairs. The post-Compact households spent about \$1,500 on off-island travel in the year before the census compared to about \$1,200 for the pre-Compact households – all but about \$300, in each case, was for airfare.

The data on vehicles seem skewed by the Post-Compact Palauans. It is not clear whether this is a data error, or Palauans buy extremely inexpensive cars. For the FSM migrants, the average vehicle bought in the year before the census cost \$12,300 for the post- and \$14,500 for the pre-Compact migrants.

Table 10.4: Major Household Expenditures by Type, Micronesian Migrants and their Children, CNMI, 1998  
[Average Amounts, in U.S.Dollars]

Major Household Expenditures	Total		FSM		RMI		Palau	
	Post & Ch	Pre-	Post & Ch	Pre-	Post & Ch	Pre-	Post & Ch	Pre-
Total Migrant Households								
Consumer Durables	1,305	1,627	1,329	1,403	0	876	185	1,705
Stove/Range	156	403	160	277	0	20	34	457
Microwave Oven	305	279	296	259	0	350	17	293
Refrigerator	606	705	617	849	0	475	75	671
Kitchen Utensils	281	271	294	370	0	35	75	250
Washing Machine	632	481	632	446	0	0	30	482
Television	512	439	529	410	0	292	88	447
Video Player	353	267	350	292	0	388	35	252
Radio	187	314	172	292	0	399	33	320
Cassette Player	430	294	430	244	0	0	32	315
CD Player	200	351	180	508	0	299	10	289
Sewing Machine	265	221	265	175	0	0	9	232
Kitchen Furniture	367	401	367	301	0	0	52	417
Bedroom Furniture	473	615	473	550	0	0	59	623
Lounge Furniture	317	586	317	267	0	0	20	666
Carpets and Rugs	116	128	116	270	0	0	9	81
Health/Insurance	913	1,174	930	808	1,182	580	263	1,234
Construction/Home Repair	1,057	1,093	1,385	2,093	0	73	27	945
Vehicle	3,573	15,298	12,279	14,524	14,000	6,250	152	15,504
Off-Island Travel	1,469	1,208	1,483	1,234	3,812	769	184	1,187
Airfare	1,101	931	1,113	979	3,000	529	180	922
All Loan Payments	373	389	386	311	348	230	194	409
Vehicle	301	379	303	329	346	229	138	394
Other Loans	303	271	329	224	0	174	83	275
Credit Cards	983	150	1,962	0	4	0	13	158
Other Expenses	972	1,260	933	929	880	1,338	109	1,334

Source: 1998 Census of Micronesian Migrants to Saipan

## **CHAPTER 11**

### **DAILY EXPENDITURES**

#### **Daily Expenditures**

As noted before the 1997 Censuses of Micronesian Migrants to Guam and Hawaii, and the 1998 Census of Micronesian Migrants to the CNMI looked at both “positive” and “negative” impact. Part of the positive impact appears in purchases, both for (1) use in the receiving Area and (2) products bought in the receiving Area and sent back to the sending area. We have already discussed regular and major purchases. Here we will discuss short-term purchases – those made in the two weeks before the census. These items always include food purchases, and often also include other short-term items like entertainment, clothing, sports activities, etc.

In most Household Income and Expenditures Surveys these items are collected in a “diary”. A diary is usually a pamphlet the household keeps for a week or two weeks, with the family recording on a daily basis what they purchase as they purchase the items. Usually, the item is recorded, as well as the quantity of the item, the size, and the amount of the total purchase. For the Micronesian Migrant Censuses, however, the retrospective method used for the regular and major expenditures was also used for the “diary” items.

Administering traditional diaries is relatively expensive and time consuming. Enumerators must explain to respondents how to fill the diaries, and then must periodically check to make certain the diaries are being properly filled, finally returning to the selected household at the end of the period to pick up the diaries. The diaries are then coded and keyed, with the information used to develop, or redevelop, the market basket for the Consumer Price Index. Since the Micronesian Migrant Censuses needed only inferential information – no Consumer Price Index would be developed – we used the retrospective method. Each householder reported items purchased in the two weeks before the enumerator’s visit, the quantities purchased, the sizes, and the amounts for the various items. These were not reported on an individual basis, but were grouped to include *all* purchases by *all* household members. Obviously, because of the numbers of persons, the reference periods, and memory lapses, these quantities and amounts are only rough estimates. Nonetheless, they give inferential information about positive contributions of Micronesians to the economies of Guam, CNMI, and Hawaii.

For the CNMI, the 1998 Census found 237 post-Compact migrant households, and 506 Pre-Compact households. As in Guam, most of the households made purchases in the two weeks before the enumeration. Again, most households made food purchases, primarily meat, canned fish and meat, and rice, with fewer purchases of “junk food”. Households in the CNMI were about as likely to purchase alcohol as those on Guam – about 1 in 3 – and were much more likely to purchase cigarette products and betel nuts. The Saipan migrants were less likely to buy clothes – only about 1/3<sup>rd</sup> made these purchases, and to spend money on entertainment, about 1 in 10 compared to about 1 in 4 on Guam (Table 11.1).

Table 11.1: Two Week Household Expenditures, Micronesian Migrants and their Children, CNMI, 1998.  
[Percentage of all migrant households in category]

Daily Expenditures	Total		FSM		RMI		Palau	
	Post & Ch	Pre-	Post & Ch	Pre-	Post & Ch	Pre-	Post & Ch	Pre-
Total Migrant Households	237	506	213	126	6	5	18	375
Total Expenditures	95.8	97.0	95.8	96.0	100.0	100.0	94.4	97.3
Meat and Chicken	89.9	91.9	90.1	90.5	83.3	100.0	88.9	92.3
Fresh Fish	61.6	52.8	62.4	62.7	83.3	40.0	44.4	49.6
Frozen or Canned Fish and Meat	87.3	88.3	87.8	87.3	83.3	100.0	83.3	88.5
Rice	86.5	87.9	86.4	85.7	100.0	100.0	83.3	88.5
Milk, Juices, Fruits and Vegetables	75.1	81.8	76.1	77.8	66.7	100.0	66.7	82.9
Sodas and Soft Drinks	66.7	65.2	67.1	70.6	66.7	80.0	61.1	63.2
Snacks of All Kinds	59.5	66.6	60.6	68.3	66.7	100.0	44.4	65.6
All Other Foods	36.7	31.6	37.1	29.4	66.7	60.0	22.2	32.0
Beer, Wine and Liquor	32.9	30.6	31.5	24.6	0.0	0.0	61.1	33.1
Cigarettes	58.6	67.8	58.2	50.0	33.3	20.0	72.2	74.4
Betel Nuts, Lime, Etc.	37.6	65.4	34.7	42.1	16.7	20.0	77.8	73.9
Clothing (Including Shoes)	43.0	31.0	45.1	39.7	16.7	60.0	27.8	27.7
Other Goods	13.1	22.5	14.1	17.5	0.0	60.0	0.0	23.7
Entertainment	7.2	11.5	7.5	15.1	0.0	0.0	5.6	10.4
Sports Activities	1.3	2.4	1.4	0.8	0.0	0.0	0.0	2.9

Source: 1998 Census of Micronesian Migrants to Saipan

Table 11.2 shows that, on average, Saipan migrants, spent less on daily items than did the Guam migrants. In general, Marshallese spent more on food items than did FSM migrants, and Palauans generally spent less. On the other hand, Palauans spent more on alcohol, cigarettes, and betel nuts than the FSM migrants, but Marshallese spent much less (and no amounts reported for alcohol purchases at all).

Table 11.2: Two Week Household Expenditures, Micronesian Migrants and their Children, CNMI, 1998  
[Average Amounts, in U.S.Dollars]

Daily Expenditures	Total		FSM		RMI		Palau	
	Post & Ch	Pre-	Post & Ch	Pre-	Post & Ch	Pre-	Post & Ch	Pre-
Total Migrant Households								
Total Expenditures	282	372	277	324	584	795	231	383
Meat and Chicken	58	69	59	67	74	97	44	69
Fresh Fish	30	34	28	35	78	107	27	32
Frozen or Canned Fish and Meat	37	66	37	48	66	64	23	72
Rice	21	21	20	22	57	52	18	21
Milk, Juices, Fruits and Vegetables	28	30	28	30	73	111	15	28
Sodas and Soft Drinks	16	40	15	20	65	56	8	48
Snacks of All Kinds	31	22	31	19	74	49	12	22
All Other Foods	25	38	24	51	69	76	11	33
Beer, Wine and Liquor	44	40	43	45	0	0	52	39
Cigarettes	34	52	34	31	20	47	34	57
Betel Nuts, Lime, Etc.	42	41	41	33	10	84	49	43
Clothing (Including Shoes)	82	127	75	136	900	437	57	113
Other Goods	24	16	25	25	5	4	0	15
Entertainment	12	55	12	28	0	0	6	67
Sports Activities	22	77	22	25	0	0	0	81

Source: 1998 Census of Micronesian Migrants to Saipan

*Conclusions.* It is important to remember that the Micronesian censuses obtained the daily expenditures reported here through recall over a two-week period, which is not the best method of data collection. However, we did not have funding to collect expenditures on a daily basis. The usual effect of longer term recall is that respondents tend to forget items bought during the period, decreasing both the percentage of units reporting items, and, to a lesser extent, average costs.

Nonetheless, it is clear that Micronesian migrant households made many purchases for basic items – food, clothing, and entertainment – and that almost of all of these purchases benefited the respective economies of Guam, CNMI, and Hawaii. We have not yet linked income with expenditures to see the relationship between income levels and purchases.

## CHAPTER 12

## INCOME AND EXPENDITURES

We look at the relationship between the Micronesian Migrant income and expenditures in this Chapter. Table 12.1 shows aggregate income for the Micronesian migrants in the year before the census – 1996 for Hawaii and Guam migrants, 1997 for the CNMI migrants. We determined the aggregate income, by multiplying the per capita incomes previously derived for the basic tables by the number of persons in the group. Hence, the aggregate income is not the sum of all household incomes because persons who were not either migrants themselves or the children of migrants were included in neither the numerator nor the denominator. That is, the figure of \$71 million in table 12.1 is the total income for all Micronesian migrants and their children, and does not include the income of anyone else in the housing unit. Income is from all sources, although for Micronesian migrants, the primary source of income was wages and salaries; see the copies of the questionnaire in the appendices and the definitions appearing in Appendix B.

Table 12.1. Aggregate Income, Micronesian Migrants, Hawaii, Guam, and CNMI: 1997/8  
[Amounts in US Dollars]

Group	Total	Hawaii 1997	Guam 1997	CNMI 1998
Freely Associated State				
Total	70,614,720	29,016,298	23,339,680	18,250,771
FSM	45,158,835	18,042,504	19,428,870	7,691,264
RMI	8,011,752	7,414,440	274,750	322,092
Palau	17,434,539	3,562,240	3,636,640	10,236,690
Post-Compact and Children	45,579,652	20,711,692	18,400,418	6,470,407
FSM	36,614,252	13,951,773	17,754,074	4,911,510
RMI	6,526,944	6,162,375	264,705	99,356
Palau	2,437,176	595,320	382,713	1,459,310
Pre-Compact	25,026,288	8,309,420	4,936,260	11,779,344
FSM	8,542,009	4,089,928	1,672,380	2,779,891
RMI	1,485,225	1,252,450	10,080	222,696
Palau	14,997,504	2,966,796	3,253,632	8,777,430

Sources: Censuses of Micronesian Migrants to Guam, Hawaii, and CNMI

The aggregate income for all Micronesian migrants in the 1997/8 Censuses was about \$71 million in the calendar year before the census. The figures included \$29 million for Micronesians living in Hawaii, \$23 million for those living on Guam, and \$18 million for those living in the CNMI. Post-Compact migrants (and the few children with income) contributed about \$46 million to the total, compared to about \$25 million for the pre-Compact migrants. Only in CNMI did pre-Compact migrants make a larger contribution -- \$12 million for the pre-Compact migrants compared to \$6 million for the post-Compact migrants.

Since they are by far the largest group, FSM migrants had the largest aggregate incomes – about \$45 million, compared to \$8 million for the Marshallese, and \$17 million for the Palauans. FSM migrants made more in the aggregate in Hawaii and Guam, but Palauans, at \$10 million, were the “richest” group in the CNMI.

Table 12.2 shows the per capita incomes for these aggregate incomes. In most cases, these per capita incomes came directly from the basic tables, and were obtained by determining total income amounts for all persons in the group or category, and then dividing by the total persons in the group or category. However, in some cases we had to determine the per capita income from the aggregate data, which was done by dividing the determined aggregate income for a group, by the members in that group.

Table 12.2. Per Capita Income, Micronesian Migrants, Hawaii, Guam, and CNMI: 1997/8  
[Amounts in US Dollars]

Group		Hawaii 1997	Guam 1997	CNMI 1998
Freely Associated State	Total	\$4,320	\$4,742	\$6,193
	FSM	\$3,785	\$5,091	\$4,292
	RMI	\$3,241	\$3,288	\$3,501
	Palau	\$8,973	\$11,132	\$9,630
Post-Compact and Children	Total	\$3,300	\$3,760	\$3,687
	FSM	\$3,287	\$4,212	\$3,268
	RMI	\$2,879	\$2,977	\$1,343
	Palau	\$5,988	\$4,688	\$8,198
Pre-Compact	Total	\$9,884	\$13,622	\$9,882
	FSM	\$10,799	\$17,629	\$9,619
	RMI	\$7,245	\$6,770	\$12,372
	Palau	\$9,764	\$15,372	\$9,918

Sources: Censuses of Micronesian Migrants to Guam, Hawaii, and CNMI

The per capita income for all Micronesian migrants was \$4,320 in the year before the enumeration. This value was determined by aggregating income from all sources, and dividing by all persons who were either post- or pre-Compact migrants, or children of these migrants. The per capita income for Hawaii was higher, at \$4,742, even higher for the CNMI (\$6,193), but lower for Guam (\$3,206). These figures, because they are per capita and therefore “per person”, are not organized by family or household. If the data were aggregated by household, the figures might be different.

Pre-Compact migrants (at \$9,884) had per capita incomes about three times as large as the post-Compact migrants (\$3,300). The difference was greater for Hawaii, smaller for Guam. Some of this great difference has to do with the few pre-Compact migrants in these areas – these migrants likely came early on, established themselves, and had moved into better paying positions by the time of the censuses.

Palauan migrants had the highest per capita incomes (almost \$9000), followed by FSM migrants (\$3,800), and the Marshallese (\$3,200). As expected, pre-Compact migrants in each group had much higher incomes than post-Compact migrants.

## Expenditures

Although we have not been able to develop tables this year to look at the absolute relationship between income and expenditures, we can look in more detail at the relationships among the expenditure items. As shown in Table 12.3, the Micronesian migrants spent about \$88 million in the 12 months before the censuses [mid-1997 for Hawaii and Guam, mid-1998 for CNMI], but with some exceptions. For example, sometimes respondents used calendar years rather than the 12 months before the Census, and, for the daily expenditures, we multiplied the reported amounts by 26 to make them “annual” amounts, like the other items.

It is important to remember that all of these expenditures are based on recall – sometimes that recall is excellent, with respondents almost certain to remember that they purchased a vehicle or refrigerator, some times the recall will be less certain, like expenditures for weddings, funerals, alcohol or cigarettes. Also, the better method for collecting daily expenditures, as noted previously, is by diary, but that was not possible for these censuses.

Hawaii and Guam migrants spent about the same amount – about \$38 million for Hawaii migrants, and \$37 million for Guam migrants. The migrants in the CNMI reported spending about \$14 million in the year before the census. The FSM migrants spent the most in the three areas – more than \$61 million – compared to about \$15 million for the Palauans and \$11 million for the Marshallese. The Marshallese spent \$10 million in Hawaii, but only small amounts in Guam and the CNMI, because the Marshallese population was small in those areas. More than half of the FSM spending was in Guam, and more than the half of the Palauan expenditures occurred in the CNMI.

As expected, because they were more numerous, post-Compact migrants (at \$60 million) had more aggregate expenditures than pre-Compact migrants (\$27 million). The post-Compact migrants had greater expenditures in Hawaii (\$29 million compared to \$9 million for the pre-Compact migrants), Guam (\$28 million vs \$8 million), but in the CNMI, the pre-Compact migrants had \$10 million in expenditures compared to \$3 million for the post-Compact migrants.

Almost all of this difference was due to the Palauans, whose pre-Compact migrants had \$14 million in the three areas compared to \$1 million for the post-Compact migrants – of course, Compact implementation for Palau came much later. The post-Compact FSM migrants had \$50 million in expenditures compared to \$11 million for the pre-Compact migrants. For the Marshallese, the post-Compact migrants had \$9 million in expenditures compared to about \$2 million for the pre-Compact migrants.

Table 12.3. Aggregate Expenses, Micronesian Migrants, Hawaii, Guam & CNMI: 1997/8  
[Amounts in US Dollars]

Group		Hawaii	Guam	CNMI
FAS	Total	1997	1997	1998
Total	87,583,537	37,761,801	36,728,101	13,093,635
FSM	61,447,923	24,211,079	32,158,621	5,078,223
RMI	11,164,799	10,202,963	655,888	305,948
Palau	14,970,815	3,347,759	3,913,592	7,709,464
Post-Compact	60,380,574	28,559,674	28,396,951	3,423,949
FSM	50,025,696	19,519,836	27,444,877	3,060,983
RMI	9,193,745	8,436,312	627,296	130,137
Palau	1,161,133	603,526	324,778	232,829
Pre-Compact	27,202,963	9,202,127	8,331,150	9,669,686
FSM	11,422,227	4,691,243	4,713,744	2,017,240
RMI	1,971,054	1,766,651	28,592	175,811
Palau	13,809,682	2,744,233	3,588,814	7,476,635

Sources: Micronesian Censuses

Table 12.4 shows the per capita expenditures for the same migrant groups. Except for the CNMI, the aggregate and per capita expenditures were greater than the aggregate and per capita incomes. Per capita expenditures for all Micronesian Migrants were \$5,358, with the expenditures for Hawaii being greater, and those for Guam and the CNMI being lower.

Table 12.4. Per Capita Expenses, Micronesian Migrants, Hawaii, Guam and CNMI: 1997/8

Group		Hawaii	Guam	CNMI
FAS	Total	1997	1997	1998
Total	\$5,358	\$6,171	\$5,045	\$4,443
FSM	\$5,150	\$6,832	\$4,876	\$2,834
RMI	\$4,517	\$4,525	\$5,247	\$3,326
Palau	\$7,705	\$10,462	\$6,989	\$7,253
Post-Compact	\$4,371	\$5,184	\$4,335	\$1,951
FSM	\$4,491	\$5,894	\$4,339	\$2,037
RMI	\$4,055	\$4,076	\$5,100	\$1,759
Palau	\$2,853	\$4,752	\$3,184	\$1,308
Pre-Compact	\$10,744	\$15,085	\$11,413	\$8,112
FSM	\$14,440	\$20,221	\$17,458	\$6,980
RMI	\$9,615	\$9,549	\$14,296	\$9,767
Palau	\$8,991	\$14,219	\$7,836	\$8,448

Sources: Micronesian Censuses

Palauans had the highest per capita expenditures, at \$7,700, followed by the FSM migrants (\$5,150), and the Marshallese (\$4,500). Expenditures were lowest for the FSM and Marshallese migrants in the CNMI, highest for the Palauans in Hawaii.

As before, pre-Compact migrants had much greater per capita expenditures than post-Compact migrants. FSM pre-Compact migrants in Hawaii and Guam had the highest per-capita expenditures, followed by pre-Compact Marshallese in Guam and Palauans in Hawaii. All of the post-Compact expenditures were lower, because the populations were larger, providing a better base.

Table 12.5 shows the relationship of the expenditures to income. Because many of the items – like vehicles or large appliances – require small up-front amounts, but long term payments, or are irregular but large – like funerals or weddings – it is not surprising that expenditures are greater than incomes. Also, memory may play a role here, if respondents remember some items costing more than they actual did.



On average, Micronesians had about \$1.46 in expenditures for every \$1 in income, based on these figures. As noted, these figures are estimates, for both income and expenditures, and this should be taken into account when trying to analyze the results. The FSM migrants had the most skewed ratio, the Palauans the least. Also, values were most skewed for Guam. In the CNMI, incomes actually exceeded expenditures; this reporting may be partly due to better recall, but it may also be due, at least in part, to the large number of pre-Compact migrants who did not have the start-up expenditures of the post-Compact migrants.

Table 12.5. Ratio of Expenditures to Income, Micronesian Migrants, Hawaii, Guam & CNMI: 1997/8

Group	Total	Hawaii 1997	Guam 1997	CNMI 1998
Freely Associated State				
Total	1.46	1.43	1.91	0.94
FSM	1.58	1.44	2.00	0.86
RMI	1.61	1.58	3.16	1.11
Palau	1.07	1.05	1.31	0.98
Post-Compact and Children	1.53	1.50	1.86	0.66
FSM	1.58	1.49	1.86	0.80
RMI	1.61	1.55	3.11	1.45
Palau	0.54	1.13	1.07	0.17
Pre-Compact	1.33	1.24	2.06	1.09
FSM	1.59	1.24	3.44	0.99
RMI	1.62	1.71	4.42	0.96
Palau	1.15	1.03	1.34	1.12

Sources: Censuses of Micronesian Migrants to Guam, Hawaii, and CNMI

We can also look at some individual categories to see the relationships among the Micronesian Migrants expenditures by type. Of the \$88 million in Micronesian Migrant expenditures, about \$20 million was for housing, and about \$19 million were for food in the year before the Census (Table 12.6). In the aggregate, housing costs were the largest category in Hawaii, but food was more in Guam and in the CNMI.

Table 12.6. Aggregate Expenditures by Type, Micronesian Migrants  
Hawaii, Guam, and CNMI: 1997/8

[Amounts in US Dollars]

Expenditure	Total	Hawaii 1997	Guam 1997	CNMI 1998
Total	87,583,537	37,761,801	36,728,101	13,093,635
Housing	19,817,334	10,475,162	7,757,020	1,585,152
Vehicles	13,309,204	5,279,439	6,649,283	1,380,482
Utilities	9,660,744	5,245,560	3,120,828	1,294,356
Funerals, Church, etc	4,068,060	2,009,854	1,439,959	618,247
Consumer durables	3,687,968	1,054,324	2,110,524	523,120
Health/Insurance	1,401,237	507,590	424,351	469,296
Off island travel	1,999,666	848,203	730,504	420,959
Food	19,252,896	6,981,910	8,063,068	4,207,918
Alcohol	1,756,170	779,532	724,438	252,200
Tobacco	1,744,548	487,812	667,524	589,212
Betel nuts	907,296	248,352	206,752	452,192
Clothing	7,075,692	2,671,916	3,668,704	735,072
All others	2,902,722	1,172,147	1,165,146	565,429

Sources: Censuses of Micronesian Migrants to Hawaii, Guam, and CNMI

Table 12.7 shows per capita expenditures for each of the three areas. As before, costs were highest for housing and food, each averaging about \$100 per month per person – which, of course, is why so many people live together in a unit. Vehicle expenditures averaged more than \$800 per person per year, while the average person paid about \$600 per year in utilities. Per capita expenditures on clothes were more than \$400 per year.

Table 12.7. Per Capita Expenditures by Type, Micronesian Migrants  
Hawaii, Guam, and CNMI: 1997/8  
[Amounts in US Dollars]

Expenditure	Total	Hawaii 1997	Guam 1997	CNMI 1998
Total	5,358	6,171	5,045	4,443
Housing	1,212	1,712	1,066	538
Vehicles	814	863	913	468
Utilities	591	857	429	439
Funerals, Church, etc	249	328	198	210
Consumer durables	226	172	290	178
Health/Insurance	86	83	58	159
Off island travel	122	139	100	143
Food	1,178	1,141	1,108	1,428
Alcohol	107	127	100	86
Tobacco	107	80	92	200
Betel nuts	56	41	28	153
Clothing	433	437	504	249
All others	178	192	160	192

Sources: Censuses of Micronesian Migrants to Hawaii, Guam, and CNMI

As before, expenditures were highest for Hawaii, lowest for CNMI. While the pattern of expenditures was similar for Guam and Hawaii, the CNMI differed considerably. Per capita expenditures for food in the CNMI were about \$300 more than in Guam or Hawaii, even though the amount of all per capita expenditures was much lower in the CNMI. Housing, on the other hand, was much cheaper in the CNMI, than in the other areas – about half of the per capita costs in Guam, and about 1/3<sup>rd</sup> of those for Hawaii.

Table 12.8. Percentage of Expenditures by Type, Micronesian Migrants  
Hawaii, Guam, and CNMI: 1997/8  
[Amounts in US Dollars]

Expenditure	Total	Hawaii 1997	Guam 1997	CNMI 1998
Total	87,583,537	37,761,801	36,728,101	13,093,635
Percent	100.0	100.0	100.0	100.0
Housing	22.6	27.7	21.1	12.1
Vehicles	15.2	14.0	18.1	10.5
Utilities	11.0	13.9	8.5	9.9
Funerals, Church, etc	4.6	5.3	3.9	4.7
Consumer durables	4.2	2.8	5.7	4.0
Health/Insurance	1.6	1.3	1.2	3.6
Off island travel	2.3	2.2	2.0	3.2
Food	22.0	18.5	22.0	32.1
Alcohol	2.0	2.1	2.0	1.9
Tobacco	2.0	1.3	1.8	4.5
Betel nuts	1.0	0.7	0.6	3.5
Clothing	8.1	7.1	10.0	5.6
All others	3.3	3.1	3.2	4.3

Sources: Censuses of Micronesian Migrants to Hawaii, Guam, and CNMI

Finally, Table 12.8 shows the percentage distribution of these same expenditures items. As noted above, more than 1/5<sup>th</sup> of the expenditures went for housing and another 1/5<sup>th</sup> went for food. The percentage for housing in Hawaii was more than 1/4<sup>th</sup> of all the expenditures, but was only about 1/8<sup>th</sup> of all expenditures in the CNMI. On the other hand, CNMI migrants spent about 1/3<sup>rd</sup> of the expenditures on food, skewing most of the other expenditures – Hawaii migrants spent about 14 percent for vehicles, compared to 18 percent for Guam, but only 10 percent for the CNMI.

Table 12.9 shows aggregate expenditures by type for post- and pre-Compact migrants disaggregated. Post-Compact migrants spent about \$60 million, about equally divided between Hawaii and Guam, as noted before. Also, as before, the pre-Compact migrant communities spent a total of about \$27 million, divided fairly evenly among the three areas. For the post-Compact families, the largest amounts went for housing (\$15 million), food (\$13 million), and vehicles (\$8 million). For the pre-Compact communities, the largest expenditures were for food (\$6 million), and housing and vehicles (\$5 million each).

Table 12.9. Aggregate Expenditures by Type, Post- and Pre-Compact Migrants, Hawaii, Guam, and CNMI: 1997/8  
[Amounts in US Dollars]

Expenditure	Post-Compact Migrants				Pre-Compact Migrants			
	Total	Hawaii 1997	Guam 1997	CNMI 1998	Total	Hawaii 1997	Guam 1997	CNMI 1998
Total	60,379,974	28,559,674	28,396,351	3,423,949	27,203,563	9,202,127	8,331,750	9,669,686
Housing	14,769,642	8,152,746	6,082,308	534,588	5,047,692	2,322,416	1,674,712	1,050,564
Vehicles	8,216,877	3,367,502	4,506,360	343,015	5,092,327	1,911,937	2,142,923	1,037,467
Utilities	6,753,672	4,234,932	2,206,344	312,396	2,907,072	1,010,628	914,484	981,960
Funerals, Church, etc	2,792,390	1,534,077	1,111,843	146,470	1,275,670	475,777	328,116	471,777
Consumer durables	2,603,146	792,645	1,689,165	121,336	1,084,822	261,679	421,359	401,784
Health/Insurance	752,364	343,461	317,610	91,293	648,873	164,129	106,741	378,003
Off island travel	1,378,378	655,774	590,400	132,204	621,288	192,429	140,104	288,755
Food	12,979,408	5,426,616	6,440,746	1,112,046	6,273,488	1,555,294	1,622,322	3,095,872
Alcohol	1,373,918	644,124	640,354	89,440	382,252	135,408	84,084	162,760
Tobacco	1,066,962	375,544	568,802	122,616	677,586	112,268	98,722	466,596
Betel nuts	388,440	171,600	120,120	96,720	518,856	76,752	86,632	355,472
Clothing	5,458,700	2,084,550	3,157,206	216,944	1,616,992	587,366	511,498	518,128
All others	1,846,077	776,103	965,093	104,881	1,056,645	396,044	200,053	460,548

Sources: Censuses of Micronesian Migrants to Hawaii, Guam, and CNMI

Table 12.10 shows the same distribution on a per capita basis. The per capita amounts were obtained by dividing each aggregate amount by the number of migrants by type in the receiving area. The biggest expenditure for the post-Compact migrants was for housing. But even for housing, the post-Compact migrants spent about half as much (\$1,069) on a per capita basis for housing as the pre-Compact migrants (\$1,994). Pre-Compact migrants spent much more than the post-Compact migrants, partly because they had more to spend. The largest per capita expenditure for the pre-Compact migrants was for food (\$2,478), followed by vehicle expenditures (\$2,936). Hawaii pre-Compact migrants spent the most – an average of \$15,000 per person – and their housing expenses were particularly high since they had smaller households and housing costs are so high. Pre-Compact migrants in the CNMI spent the least, but they still spent about 4 times as much as the post-Compact migrants in the CNMI.

Table 12.10. Per Capita Expenditures by Type, Post- and Pre-Compact Migrants, Hawaii, Guam, and CNMI: 1997/8  
[Amounts in US Dollars]

Expenditure	Post-Compact Migrants				Pre-Compact Migrants			
	Total	Hawaii 1997	Guam 1997	CNMI 1998	Total	Hawaii 1997	Guam 1997	CNMI 1998
Total	4,371	5,184	4,335	1,951	10,744	15,085	11,413	8,112
Housing	1,069	1,480	929	305	1,994	3,807	2,294	881
Vehicles	595	611	688	195	2,011	3,134	2,936	870
Utilities	489	769	337	178	1,148	1,657	1,253	824
Funerals, Church, etc	202	278	170	83	504	780	449	396
Consumer durables	188	144	258	69	428	429	577	337
Health/Insurance	54	62	48	52	256	269	146	317
Off island travel	100	119	90	75	245	315	192	242
Food	940	985	983	634	2,478	2,550	2,222	2,597
Alcohol	99	117	98	51	151	222	115	137
Tobacco	77	68	87	70	268	184	135	391
Betel nuts	28	31	18	55	205	126	119	298
Clothing	395	378	482	124	639	963	701	435
All others	134	141	147	60	417	649	274	386

Sources: Censuses of Micronesian Migrants to Hawaii, Guam, and CNMI

Table 12.11 shows the percent distribution for the selected expenditures for post- and pre-Compact migrants in the three areas. As noted, housing was the biggest single expense for the post-Compact expenditures (at 1/4<sup>th</sup> of all expenditures) – an even larger percentage for Hawaii – but food was the largest expenditure for the pre-Compact migrants (again, about 1/4<sup>th</sup> of all expenditures – and about 1/3<sup>rd</sup> for the CNMI).

For the post-Compact migrants, food constituted the second largest expenditure, at 1/5<sup>th</sup> of the total, followed by vehicle and utilities expenditures. These same four categories were also the largest for the pre-Compact migrants, although the order differed somewhat – the pre-Compact migrants spent a larger percentage of their expenditures on vehicles [about 50 percent more, based only on the percentage distribution.] Post-Compact migrants – those arriving in the areas more recently – spent a larger percentage of their expenditures (9 percent) than the pre-Compact migrants (6 percent). And, smaller, but significant amounts, were spent on traditional regular expenditures like funerals and church activities, as well as consumer durable.

Table 12.11. Percent of Expenditures by Type, Post- and Pre-Compact Migrants, Hawaii, Guam, and CNMI: 1997/8  
[Amounts in US Dollars]

Expenditure	Post-Compact Migrants				Pre-Compact Migrants			
	Total	Hawaii 1997	Guam 1997	CNMI 1998	Total	Hawaii 1997	Guam 1997	CNMI 1998
Total	60,379,974	28,559,674	28,396,351	3,423,949	27,203,563	9,202,127	8,331,750	9,669,686
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Housing	24.5	28.5	21.4	15.6	18.6	25.2	20.1	10.9
Vehicles	13.6	11.8	15.9	10.0	18.7	20.8	25.7	10.7
Utilities	11.2	14.8	7.8	9.1	10.7	11.0	11.0	10.2
Funerals, Church, etc	4.6	5.4	3.9	4.3	4.7	5.2	3.9	4.9
Consumer durables	4.3	2.8	5.9	3.5	4.0	2.8	5.1	4.2
Health/Insurance	1.2	1.2	1.1	2.7	2.4	1.8	1.3	3.9
Off island travel	2.3	2.3	2.1	3.9	2.3	2.1	1.7	3.0
Food	21.5	19.0	22.7	32.5	23.1	16.9	19.5	32.0
Alcohol	2.3	2.3	2.3	2.6	1.4	1.5	1.0	1.7
Tobacco	1.8	1.3	2.0	3.6	2.5	1.2	1.2	4.8
Betel nuts	0.6	0.6	0.4	2.8	1.9	0.8	1.0	3.7
Clothing	9.0	7.3	11.1	6.3	5.9	6.4	6.1	5.4
All others	3.1	2.7	3.4	3.1	3.9	4.3	2.4	4.8

Sources: Censuses of Micronesian Migrants to Hawaii, Guam, and CNMI

Table 12.12 shows the amount of remittances sent overseas and the percentage of all expenditures that these remittances made up in the year before the census. Almost \$1 million was sent overseas from all three areas, or about one percent of the total expenditures for the three areas and the three groups. About \$500 thousand dollars was sent from Hawaii, more than \$200 thousand from Guam, and about \$150,000 from the CNMI. Post-Compact migrants in Hawaii and Guam sent more, in dollar amounts than pre-Compact migrants, but in CNMI, the pre-Compact migrants sent more. While this pattern also held for overseas expenditures as a proportion of all expenditures in Hawaii and CNMI, for Guam, although the amount for pre-Compact migrants was less, the amount sent constituted a slightly higher percent than for the comparable post-Compact expenditures.

Table 12.12. Remittances Sent Overseas, Micronesian Migrants, Hawaii, Guam & CNMI: 1997/8  
[Amounts in US Dollars]

Expenditure	Total	Hawaii 1997	Guam 1997	CNMI 1998
Total	87,583,537	37,761,801	36,728,101	13,093,635
Overseas remittances	912,847	517,572	239,576	155,699
Percent	1.04	1.37	0.65	1.19
Post-Compact	60,380,574	28,559,674	28,396,951	3,423,949
Overseas remittances	622,991	400,431	182,441	40,119
Percent	1.03	1.40	0.64	1.17
Pre-Compact	27,202,963	9,202,127	8,331,150	9,669,686
Overseas remittances	289,856	117,141	57,135	115,580
Percent	1.07	1.27	0.69	1.20

Sources: Censuses of Micronesian Migrants

*Conclusions.* Here we have shown some evidence that Micronesian migrants contribute to the economies of Hawaii, Guam, and the CNMI by their expenditures. Since expenditures were higher than incomes, some installment buying is clearly taking place, which also benefits the receiving economies, although the extent is difficult to measure. [As noted previously, sometimes recall is a problem, but the amounts reported are still large, even given some memory inflation.]

Micronesians pay rent, invest in vehicles, buy food and clothing, as well as alcohol, tobacco, and betel nuts. Of course, some of them also use social and education services. We cannot measure these completely here because of the recurring nature of many of the contacts, particularly for social services, but the contact agencies can also contribute to better elucidation of the relationship of the contacts, and so the relative negative impact of the migration.

## CHAPTER 13

### IMPACT ON THE FEDERATED STATES OF MICRONESIA<sup>5</sup>

Until now, we have focussed on the impact of the Micronesian migration on Guam, the CNMI, and the State of Hawaii. However, the Federated States of Micronesia, Palau, and the Marshall Islands also are feeling considerable impact as many of the educated minds and bodies of citizens who could be assisting in economic development in the sending areas are removed by migration. This Chapter looks at the impact of the migration on the Federated States of Micronesia, and the next Chapter looks at the impact on Palau.

The FSM has experienced migration movements for the last 50 years. In the early days, FSM migrants went to Guam mainly on student visas to attend the University of Guam. For Saipan, most early migrants to CNMI were employees of the Trust Territory of the Pacific Islands (TTPI) government, as well as a few students attending the nursing school in Saipan. After the implementation of the Compact of Free Association, most migrants went to Guam and CNMI to find jobs. Migration to Hawaii only started recently.

The first significant emigration from the FSM began in the years following the implementation of the Compacts of Free Association in 1986, as hundreds of FSM citizens left for Guam and the Commonwealth of the Northern Mariana Islands (CNMI). Micronesians had settled in Hawaii and the mainland United States even before implementation, but always sporadically and in small numbers. The emigration was not surprising since all three Freely Associated States have relatively high population growth, limited natural and other resources, and few jobs. The beginnings of the outflow were first noted in an article that appeared three years after compact implementation (Hezel and McGrath 1989). In subsequent years a growing body of literature documents the migration and describes the evolution of migrant communities on Guam (for example, Rubinstein 1990, 1993; Rubinstein and Levin 1992; Connell 1991; Smith 1994; Hezel and Levin 1996).

Table 13.0. FSM born residing on Guam, in Hawaii, and in the CNMI by  
State of Origin: various years

Date	Total	Chuuk	Pohnpei	Yap	Kosrae
<b>Guam</b>					
1988 (Sept)	1,700	1,100	300	150	150
1990 (Apr)	2,944	1,843	662	303	136
1990 (Sept)	2,973	2,143	377	318	135
1992 (Sept)	4,954	3,587	866	309	192
1997 (July)	5,489	4,294	774	225	196
<b>CNMI</b>					
1990 (April)	1,754	1,063	522	152	17
1993 (July)	2,261	1,119	717	376	49
1995 (Sept)	2,111	1,128	621	307	55
1998 (June)	1,255	817	284	119	35
<b>Hawaii</b>					
1997 (July)	3,024	1,298	902	178	636

Sources: Hezel and McGrath 1989; USBC 1992; unpublished survey of FSM migrants on Guam, September 1990; University of Guam 1992; CNMI 1994; CNMI 1997; unpublished data from Micronesian Censuses of Guam, Saipan, and Hawaii.

<sup>5</sup> Rosina Edwin, Statistician in the FSM National Government's Office of Planning and Statistics, wrote the first draft of this section. She wrote the section as part of Office of Insular Affairs' training program in Washington and does not necessarily represent the position of the FSM National Government.

Results from the 1997 Census of Micronesian migrants to Guam show about 5,500 FSM-born residing on Guam (up from 5,000 in 1992), 3,024 in Hawaii, and 1,255 in the CNMI. Table 13.0 visually represents the size of the FSM-born community in Guam, the CNMI and Hawaii between 1988 and 1997. Hezel and Levin (1996) plotted the growth of the migrant community on Guam during the first years after compact implementation using four sets of data. The 1997 Census of Micronesian migrants to Guam is the fifth data set. Data from the 1997 Censuses of Hawaii and Guam and the 1998 Census of Micronesian Migrants to the CNMI are reported in this paper.

The first data set was a 1988 household survey and recorded 1,700 FSM persons. Estimates of the size of the migrant populations for each state were extrapolated from the sample on the basis of the ratio of the known number of college students to the total number of migrants (Hezel and McGrath, 1989:49-51). The second set of figures, which recorded all residents of Guam who had been born in the FSM, was the 1990 census, showing 2,944 FSM persons (Rubinstein and Levin 1992). The third set of data is derived from a household survey conducted by Father Kenneth Hezel, the head of the Catholic Micronesian Ministry program, about September 1990, counting 2,973, included infants born on Guam as well as those born abroad (and may show an undercount of Pohnpeians). The fourth set of figures comes from the census of migrants to Guam from the FSM and the Marshall Islands which used mid-1992 as the reference date. A trained staff of Micronesian interviewers, funded by the Office of Insular Affairs, counted almost 5,000 from the FSM (University of Guam 1992).

For the CNMI, we have four data points: the 1990 Census, the 1993 OIA-funded survey of Micronesians (CNMI 1994), the 1995 CNMI census, and the 1998 Census of Micronesian Migrants. The 1990 data are taken from the U.S. decennial census. The data for 1993 come from a household survey done by the CNMI Central Statistics Division. The 1995 Census data also were collected by the Central Statistics Division in a census funded by the CNMI Legislature to obtain a mid-decade complete count. Although the figures are lower than for 1993, they are probably within statistical acceptability; the 1993 survey used all Micronesian enumerators which inevitably produces better results – the 1995 Census probably counted all of the Micronesians, but probably not at the same level of specificity. In the CNMI, the FSM born increased by 29 percent, from 1,754 to 2,261, between 1990 and 1993 (and remained at that level in 1995). The 1998 data appear in this paper.

The FSM population on Guam has grown rapidly, but not as alarmingly so as some seem to think, and in recent years, partly because of changes in Guam's and the FSM's economies, and changes in the way welfare is administered, the flow has slowed considerably. Early, wildly exaggerated guesses in the Guam press were shown by Rubinstein to be groundless, but his own 1991 figure of "5,500 Micronesian migrants in Guam" with an "increase by roughly one thousand per year" (Rubinstein 1991:2), while an honest guess, is still inflated. Rubinstein's figures would yield an FSM-born population of over 8,000 by the end of 1994, a figure that is widely quoted by Guam government authorities in addressing the issue of post-Compact immigration (for example, Territory of Guam 1995). For various reasons, the rate of increase has diminished in recent years. It seems that many migrants who previously came to Guam, either went on to Hawaii and the U.S. mainland, or went to these latter places directly from Micronesia.

The explanation for the outflow of Micronesians, at least in its earliest years, is simple. Micronesia-born persons, disappointed by the lack of employment at home, left in search of the many jobs available in Hawaii, Guam and the CNMI. These islands were enjoying an economic boom fueled by a surge in Japanese tourists. Guam was the preferred destination of the FSM migrants, but some moved to Saipan to join relatives and take work in its expanding garment industry, and others to Hawaii (particularly from the Marshalls) for schooling and jobs. The proximity of Guam and Saipan to the FSM islands and Hawaii to the Marshalls allowed migrants to visit their home islands frequently. Some migrant laborers maintained such close social bonds with their families and communities that they were virtually commuters (Rubinstein and Levin 1992:351). Those who left had the freedom to return home permanently, with little or no rupture of kinship ties, if personal circumstances demanded. The Compacts, with their free-entry provisions, removed the last immigration barricade. At the same time, the Compacts signaled the beginning of the reduction of the large U.S. subsidies to which Micronesians had become accustomed since the 1960s. So, it was that island peoples who had never experienced a sizable outflow of population, peoples once described as possessing a "homing instinct," initiated their tentative, purposeful migration northward (Hezel and Levin 1989:43).

*Total Population.* The data in Table 13.1 show that while the FSM residents increased as expected, migrants to Guam also increased, especially in the younger age groups. The total of “FSM born” increased from about 113,000 in the 1992 to 1994 time period to about 120,000 in the 1997-1998 period. Within the FSM, it is important to note that the data are for all persons, so U.S. expatriates, Asians, and others are included, but their numbers are very small and will not substantially affect the totals. The data for Guam and CNMI are supposed to include only FSM born, which also causes problems in interpretation, particularly in the CNMI when several generations of resident FSM “citizens” have lived. At this point, third generation Micronesian migrants are living in CNMI, and these persons do not show up in the figures presented here. Of course, no one knows whether these persons consider themselves of FSM or of CNMI. Hence, the large decrease in the FSM born for the CNMI may be partly an artifact of the dying out or return migration of older FSM born in the CNMI, and perhaps being more than replaced by young children being born to “FSM” parents who have never themselves lived in the FSM. We have not yet developed techniques of analysis to determine how to statistically handle these individuals or their families.

The data for the 1993 Survey of Micronesian Migrants to the CNMI seem to show a data aberration in the highest age group; it looks like persons with age “not stated” have been combined with those 75 years and over, so these data should be used with caution. We will be checking on the editing for this survey.

Table 13.1. Population distribution by Age, FSM-born in FSM, Guam and the CNMI: 1992 to 1998

Age	1992 to 1994				1997 and 1998			
	Total	FSM 94	Guam 92	CNMI 93	Total	FSM 98	Guam 97	CNMI 98
Total	112,699	105,506	4,932	2,261	119,887	111,500	6,595	1,792
0 to 4	16,307	15,854	214	239	16,442	15,380	833	229
5 to 9	15,951	15,330	396	225	15,565	14,532	777	256
10 to 14	15,315	14,749	350	216	17,548	16,727	626	195
15 to 19	13,045	12,251	578	216	15,812	15,001	624	187
20 to 24	10,190	8,828	1,060	302	10,319	9,160	964	195
25 to 29	8,133	7,063	813	257	8,301	7,184	914	203
30 to 34	7,476	6,598	614	264	6,982	6,193	629	160
35 to 39	6,554	6,079	326	149	6,018	5,426	459	133
40 to 44	5,391	5,071	213	107	6,177	5,802	297	78
45 to 49	3,768	3,579	138	51	5,374	5,089	212	73
50 to 54	2,331	2,219	81	31	3,062	2,944	90	28
55 to 59	2,194	2,105	60	29	1,986	1,898	70	18
60 to 64	2,052	1,985	45	22	2,094	2,034	47	13
65 to 69	1,446	1,395	44	7	1,476	1,428	34	14
70 to 74	1,242	1,229	-	13	1,156	1,141	12	3
75 + yrs	1,304	1,171	-	133	1,575	1,561	7	7
Median	22.0	17.8	24.4	23.9	20.3	18.0	22.3	20.7

Sources: 1994 FSM Census, 1998 FSM HIES, 1992 & 1997 Guam Surveys, 1993 & 1998 CNMI Surveys

*Median Age.* The median age for all FSM born in the three areas – the FSM, Guam, and the CNMI – decreased by about 2 years over the approximately 5 year period. This decrease is not expected as fertility rates around the world continue to decline, and the FSM is no exception. However, while the median age in the FSM remained at about 18 years, low by world standards and showing continued high fertility, the median ages of the migrants were somewhat higher. The median ages for both Guam and the CNMI decreased by more than 2 years during the period, probably showing increased migration of young people for schooling.

Table 13.2 shows the age distribution for the three areas and the two time periods for males only. Males should similar age distributions and median ages as the whole population.

Table 13.2. Age distribution for Males, FSM-born in FSM, Guam and the CNMI: 1992 to 1998

Age	1992 to 1994				1997 and 1998			
	Total	FSM 94	Guam 92	CNMI 93	Total	FSM 98	Guam 97	CNMI 98
Total	57,779	53,923	2,801	1,055	59,834	55,575	3,374	885
0 to 4	8,458	8,211	131	116	8,034	7,496	416	122
5 to 9	8,389	8,051	226	112	8,134	7,596	403	135
10 to 14	7,811	7,534	173	104	9,404	8,985	314	105
15 to 19	6,811	6,431	279	101	7,813	7,419	305	89
20 to 24	5,045	4,321	599	125	5,280	4,722	468	90
25 to 29	4,078	3,496	480	102	3,805	3,215	500	90
30 to 34	3,833	3,311	393	129	3,393	2,989	324	80
35 to 39	3,338	3,077	188	73	2,961	2,648	254	59
40 to 44	2,855	2,661	138	56	3,036	2,847	149	40
45 to 49	2,025	1,930	69	26	2,539	2,378	123	38
50 to 54	1,162	1,101	47	14	1,520	1,466	42	12
55 to 59	1,077	1,033	32	12	904	857	36	11
60 to 64	1,049	1,018	23	8	1,058	1,032	21	5
65 to 69	692	668	23	1	676	658	13	5
70 to 74	576	567	-	9	602	597	5	-
75 + yrs	580	513	-	67	675	670	1	4
Median	22.1	17.5	24.9	23.8	20.6	18.3	22.1	21.3

Sources: 1994 FSM Census, 1998 FSM HIES, 1992 & 1997 Guam Surveys, 1993 & 1998 CNMI Surveys

Similarly, table 13.3 shows numbers and median ages for females in the three areas during the two time periods. The female median ages were about the same as the males for all three areas and both time periods. In most populations, female median ages are usually higher the male medians because of higher male mortality, but the situation found for the small FSM populations seen here is not unlikely.

Table 13.3. Age distribution for Females, FSM-born in FSM, Guam and the CNMI: 1992 to 1998

Age	1992 to 1994				1997 and 1998			
	Total	FSM 94	Guam 92	CNMI 93	Total	FSM 98	Guam 97	CNMI 98
Total	55,690	52,353	2,131	1,206	60,053	55,925	3,221	907
0 to 4	7,849	7,643	83	123	8,408	7,884	417	107
5 to 9	7,562	7,279	170	113	7,431	6,936	374	121
10 to 14	7,504	7,215	177	112	8,144	7,742	312	90
15 to 19	6,234	5,820	299	115	7,999	7,582	319	98
20 to 24	5,145	4,507	461	177	5,039	4,438	496	105
25 to 29	4,055	3,567	333	155	4,496	3,969	414	113
30 to 34	3,643	3,287	221	135	3,589	3,204	305	80
35 to 39	3,216	3,002	138	76	3,057	2,778	205	74
40 to 44	2,536	2,410	75	51	3,141	2,955	148	38
45 to 49	1,743	1,649	69	25	2,835	2,711	89	35
50 to 54	1,169	1,118	34	17	1,542	1,478	48	16
55 to 59	1,117	1,072	28	17	1,082	1,041	34	7
60 to 64	1,003	967	22	14	1,036	1,002	26	8
65 to 69	754	727	21	6	800	770	21	9
70 to 74	666	662	-	4	554	544	7	3
75 + yrs	1,494	1,428	-	66	900	891	6	3
Median	22.1	17.7	24.7	23.9	20.8	18.6	21.9	21.8

Sources: 1994 FSM Census, 1998 FSM HIES, 1992 & 1997 Guam Surveys, 1993 & 1998 CNMI Surveys

The sex ratio is the number of males in a population for each 100 females. The value of 104 in Table 13.4 for the total of the 1992 to 1994 period means that the total population had 104 males for each 100 females, so was slightly more male. The ratio decreased to 100 in the second period, showing even numbers of each sex. FSM and Guam showed decreases in the sex ratio over the period, the CNMI showed an increase, while remaining skewed female.



Table 13.4. Males per 100 Females by Age Group, FSM-born in FSM, Guam and the CNMI: 1992 to 1998

Age	1992 to 1994				1997 and 1998			
	Total	FSM 94	Guam 92	CNMI 93	Total	FSM 98	Guam 97	CNMI 98
Total	104	103	131	87	100	99	105	98
0 to 4	108	107	158	94	96	95	100	114
5 to 9	111	111	133	99	109	110	108	112
10 to 14	104	104	98	93	115	116	101	117
15 to 19	109	110	93	88	98	98	96	91
20 to 24	98	96	130	71	105	106	94	86
25 to 29	101	98	144	66	85	81	121	80
30 to 34	105	101	178	96	95	93	106	100
35 to 39	104	102	136	96	97	95	124	80
40 to 44	113	110	184	110	97	96	101	105
45 to 49	116	117	100	104	90	88	138	109
50 to 54	99	98	138	82	99	99	88	75
55 to 59	96	96	114	71	84	82	106	157
60 to 64	105	105	105	57	102	103	81	63
65 to 69	92	92	110	17	85	85	62	56
70 to 74	86	86	...	225	109	110	71	-
75 + yrs	39	36	...	102	75	75	17	133

Sources: 1994 FSM Census, 1998 FSM HIES, 1992 & 1997 Guam Surveys, 1993 & 1998 CNMI Surveys

*Marital Status.* Table 13.5 shows changing numbers and percentages for the populations 15 years and over during the two time periods. The percentage of never married males remained about the same in the FSM itself over the 5 years, but a much larger percentage of the “newer” migrants were never married. The percentage of never married adult males on Guam increased from 26 percent to 43 percent during the period, and the percentage for CNMI increased from 21 percent to 38 percent. Again, some of the explanation may be the emigrants and immigrants, who partially offset each had different profiles, but part is real.

For the females, the percentage of never married in the FSM remained about the same, but those in Guam and the CNMI showed a very different pattern than the males. About half of the adult females in these two areas were never married in the early 1990s, but by the late 1990s, a much larger percentage were married, either because the married in the receiving areas, or came as part of a family unit.

Table 13.5. Marital Status, FSM-born in FSM, Guam and the CNMI: 1992 to 1998

Marital Status	1992 to 1994				1997 and 1998			
	Total	FSM 94	Guam 92	CNMI 93	Total	FSM 98	Guam 97	CNMI 98
Males, 15+ yrs	31,184	30,127	612	445	36,096	32,888	2,586	622
Never married	12,655	12,403	158	94	14,512	13,165	1,109	238
Percent	40.6	41.2	25.8	21.1	40.2	40.0	42.9	38.3
Now married	16,594	16,362	133	99	20,237	18,441	1,427	369
Separated	570	379	98	93	432	400	24	8
Widowed	780	599	93	88	616	601	12	3
Divorced	585	384	130	71	299	281	14	4
Females, 15+ yrs	31,972	29,446	1,708	818	38,199	35,036	2,470	693
Never married	11,430	10,201	862	367	13,403	12,225	906	272
Percent	35.8	34.6	50.5	44.9	35.1	34.9	36.7	39.2
Now married	16,966	15,802	763	401	20,743	18,944	1,420	379
Separated	667	626	33	8	589	512	57	20
Widowed	2,204	2,178	16	10	2,704	2,620	66	18
Divorced	705	639	34	32	760	735	21	4

Sources: 1994 FSM Census, 1998 FSM HIES, 1992 & 1997 Guam Surveys, 1993 & 1998 CNMI Surveys

*Fertility.* Unfortunately the 1998 FSM Household Income and Expenditure did not include fertility questions so the impact on fertility cannot be displayed for the FSM-born in the FSM and total as a whole (Table 13.6). However, in the earlier part of the decade, we see that older women, those with clearly completed fertility, were having as many as 6 children, on average, over their reproductive life spans.

The number of children born to FSM women in Guam and CNMI decreased between the two periods. For every age group in CNMI, the average number of children ever born decreased. Part of the explanation could be selective migration of women with fewer children, who could more readily travel, partly real decline occurred to better care for and educate a smaller number of offspring.

Table 13.6. Children Born per Woman by Age of Woman, FSM-born in FSM, Guam and the CNMI: 1992 to 1998

Age of Woman	1992 to 1994				1997 and 1998			
	Total	FSM 94	Guam 92	CNMI 93	Total	FSM 98	Guam 97	CNMI 98
15 to 19	0.1	0.1	-	0.3	...	...	0.1	0.1
20 to 24	0.7	0.8	0.3	1.0	...	...	0.5	0.5
25 to 29	2.0	2.1	1.2	1.9	...	...	1.3	1.1
30 to 34	3.4	3.5	2.7	2.5	...	...	2.0	1.8
35 to 39	4.7	4.7	4.1	3.7	...	...	3.3	3.0
40 to 44	5.6	5.7	5.3	6.3	...	...	4.2	3.4
45 to 49	6.3	6.3	6.3	4.8	...	...	4.5	2.9

Sources: 1994 FSM Census, 1998 FSM HIES, 1992 & 1997 Guam Surveys, 1993 & 1998 CNMI Surveys

*Language spoken at home.* Table 13.7 shows the distribution of languages reported to be spoken at home during the two periods. Unfortunately, the FSM decided not to collect information on language spoken at home in the 1998 Household Income and Expenditures Survey, so only information for Guam and CNMI can be used for trend analysis. These data are tabulated only for persons 5 years and over. During the first of the two periods, about 4 percent of the populations reported speaking English only at home – about 4 percent in the FSM, but a slightly smaller percentage in Guam, and a much larger percentage – 15 percent – in the CNMI.

By the second period, about 5 years later, the percentages for Guam and the CNMI jumped considerably – to 16 percent for Guam and 19 percent for CNMI. Part of the difference, at least for Guam, is that 1992 was at the height of the FSM (particularly Chuukese) migration to Guam, and by 1997, many of the Micronesians had assimilated somewhat into English speaking for jobs, schooling, and interaction. By 1998, about 1 in every 5 Micronesian Migrants to the CNMI spoke only English at home.

Table 13.7. Language, FSM-born in FSM, Guam and the CNMI: 1992 to 1998

Language	1992 to 1994				1997 and 1998			
	Total	FSM 94	Guam 92	CNMI 93	Total	FSM 98	Guam 97	CNMI 98
Total	96,332	89,652	4,739	1,941	7,325	...	5,762	1,563
Speak English	4,127	3,699	139	289	1,206	...	909	297
Percent	4.3	4.1	2.9	14.9	16.5	...	15.8	19.0
Other language	92,205	85,953	4,600	1,652	6,119	...	4,853	1,266
Percent	100.0	100.0	100.0	100.0	100.0	...	100.0	100.0
Chuukese	52.9	51.8	75.3	50.8	80.0	...	84.5	63.1
Pohnpeian	25.7	26.7	13.9	8.6	9.2	...	7.3	16.3
Ping./Mokilese	0.2	0.0	0.1	12.5	0.1	...	0.1	0.3
Polynesian	1.6	1.7	0.7	0.7	0.0	...	0.0	0.0
Kosraean	7.0	7.2	4.0	1.3	3.2	...	3.4	2.2
Yapese	6.1	6.2	4.2	7.1	3.1	...	2.4	5.6
Yap Outer Is	4.3	4.3	1.8	9.2	2.9	...	2.0	6.4
Other Language	2.2	2.2	0.0	9.7	1.5	...	0.4	6.1

Sources: 1994 FSM Census, 1998 FSM HIES, 1992 & 1997 Guam Surveys, 1993 & 1998 CNMI Surveys

For those who did not speak English at home, the majority spoke Chuukese, as would be expected since about half of FSM's population remains Chuukese. However, while about half of the non-English speakers spoke Chuukese in the CNMI in 1993 (and about 5 in 8 in 1998), about 3 in every 4 of the non-English speakers in Guam spoke Chuukese and more than 4 in 5 in 1997. These figures show a preference of Chuukese for Guam, where they have relatives from the early migration, and the advantage of the so-called "turn around" flights on Continental Air Micronesia to stay in close touch with their home land (and continued speaking of Chuukese at home.)

*Educational Attainment.* Table 13.8 shows change in educational attainment for persons 25 years and over between the two periods for the three areas. The percentages are cumulative so the figure of 32.3 percent for high school graduates in the 1992 to 1994 period means that about 1 in 3 FSM born had at least a high school diploma. That is, a person could have *more* education than high school graduate, but not less. The percentage of high school graduates did not increase during the period, perhaps reflecting a stagnant education system in the FSM. The percentage of high school graduates on Guam increased slightly during the 5 years to about half, while the percentage in the CNMI jumped by 20 percentage points, perhaps because of the relative accessibility of jobs and better acceptance of Micronesians in the CNMI than Guam.

Table 13.8 Educational Attainment, FSM-born in FSM, Guam and the CNMI: 1992 to 1998

Educational Attainment	1992 to 1994				1997 and 1998			
	Total	FSM 94	Guam 92	CNMI 93	Total	FSM 98	Guam 97	CNMI 98
Total 25+ yrs	43,079	38,494	2,339	2,246	44,134	40,633	2,771	730
Cumulative percent:								
None	99.9	100.0	97.6	100.0	100.0	100.0	100.0	100.0
Elementary school	78.4	77.2	94.3	82.8	95.9	95.8	96.8	97.0
High school, not grad	48.1	46.9	64.3	52.8	51.4	49.7	69.4	74.7
HS graduate	32.3	31.8	47.1	24.8	32.8	31.4	50.3	44.8
Some college	18.0	18.2	24.2	7.7	18.6	18.4	22.3	15.8
AA/AS occupational	9.9	10.7	4.1	0.9	9.8	10.2	5.6	6.3
AA/AS academic	7.0	7.6	3.0	0.6	6.9	7.2	3.2	4.0
Bachelor's degree	4.3	4.7	2.4	0.6	3.5	3.7	2.0	2.5
Grad/Prof degree	1.5	1.6	0.6	0.2	0.7	0.8	0.2	0.5

Sources: 1994 FSM Census, 1998 FSM HIES, 1992 & 1997 Guam Surveys, 1993 & 1998 CNMI Surveys

Notes: Sum is sometimes not 100 percent because of "unknown educational attainment".

The percentage of persons with at least a Bachelor's degree decreased during the period, perhaps reflecting increased migration of higher educated Micronesians to Hawaii and the U.S. Mainland. For the CNMI, the percentage college graduates increased from less than one percent to 2.5 percent, again, probably reflecting better working conditions.

Males, as expected, had higher educational attainment than females (Tables 13.9 and 13.10). About 41 percent of the males in the first period were high school graduates compared to 39 percent in the second period, showing a slight decline. The percentage high school graduates increased for Guam, from 48 percent to 54 percent while CNMI saw a larger jump, from 28 percent to 53 percent. The fact that more than half the male emigrants had high school diplomas bodes well for them, as they are likely to get better jobs, but not for the FSM which loses some of its better educated individuals to other areas.

Table 13.9 Male Educational Attainment, FSM-born in FSM, Guam and the CNMI: 1992 to 1998

Educational Attainment	1992 to 1994				1997 and 1998			
	Total	FSM 94	Guam 92	CNMI 93	Total	FSM 98	Guam 97	CNMI 98
Males, 25+ yrs	21,822	19,375	1,398	1,049	21,172	19,360	1,468	344
Cumulative percent:								
None	99.9	100.0	97.2	100.0	100.0	100.0	100.0	100.0
Elementary school	82.4	81.4	94.8	83.2	97.5	97.5	97.5	98.0
High school, not grad	57.5	57.0	66.9	55.5	57.4	55.8	73.2	81.4
HS graduate	40.9	41.1	48.5	28.3	38.9	37.5	54.4	52.9
Some college	24.5	25.2	25.3	10.7	24.0	24.0	25.4	21.2
AA/AS occupational	14.1	15.5	4.3	1.5	13.5	14.0	6.8	9.9
AA/AS academic	10.2	11.2	3.4	1.1	10.0	10.6	4.1	6.1
Bachelor's degree	6.6	7.2	2.5	1.1	5.4	5.7	2.5	4.7
Grad/Prof degree	2.5	2.8	0.9	0.4	1.1	1.2	0.3	1.2

Sources: 1994 FSM Census, 1998 FSM HIES, 1992 & 1997 Guam Surveys, 1993 & 1998 CNMI Surveys

Notes: Sum is sometimes not 100 percent because of "unknown educational attainment".

Male college graduates showed a slightly different pattern. The percentage of male college graduates decreased during the period, from 7 percent to 5 percent, with FSM showing roughly the same decrease. The percentage for Guam remained about the same, at 2.5 percent, while CNMI showed a large increase in male college graduates, from 1 percent in the first period, to almost 5 percent in the second.

The female patterns differed from the males, as well. Table 13.10 shows that less than 1 in every 4 FSM born adult females was a high school graduate as measured during the first period. The percentage increased somewhat between the two periods. Also, the percentage for FSM increased for females during the period, to about 1 in every 4 females. Almost half of the adult females on Guam were high school graduates in both periods, while the percentage for CNMI increased from 22 percent in the first period to 38 percent in the second period. These movements showed, again, the attractiveness of the move to CNMI (or, alternatively, that selective "outmigration" from Saipan during the period included more less educated adults.)

Table 13.10 Female Educational Attainment , FSM-born in FSM, Guam and the CNMI: 1992 to 1998

Educational Attainment	1992 to 1994				1997 and 1998			
	Total	FSM 94	Guam 92	CNMI 93	Total	FSM 98	Guam 97	CNMI 98
Females, 25+ yrs	21,257	19,119	941	1,197	22,962	21,273	1,303	386
Cumulative percent:								
None	99.9	100.0	98.3	99.2	99.9	99.9	100.0	100.0
Elementary school	74.4	73.0	93.5	82.4	94.3	94.2	95.9	96.1
High school, not grad	38.5	36.7	60.5	50.5	45.8	44.2	65.0	68.7
HS graduate	23.4	22.4	45.1	21.7	27.1	25.8	45.7	37.6
Some college	11.3	11.2	22.5	5.1	13.6	13.3	18.8	10.9
AA/AS occupational	5.5	5.9	3.9	0.4	6.5	6.7	4.3	3.1
AA/AS academic	3.8	4.1	2.6	0.2	4.0	4.2	2.1	2.1
Bachelor's degree	2.0	2.1	2.1	0.2	1.8	1.8	1.4	0.5
Grad/Prof degree	0.4	0.4	0.3	0.0	0.4	0.4	0.2	0.0

Sources: 1994 FSM Census, 1998 FSM HIES, 1992 & 1997 Guam Surveys, 1993 & 1998 CNMI Surveys

Notes: Sum is sometimes not 100 percent because of "unknown educational attainment".

The percentage of female college graduates remained about the same in the two periods – about 2 percent of the adult females. The percentages in the three areas also didn't change very much.

*Labor Force Participation.* The labor force participation rates of FSM residents and migrants for both sexes increased between the two periods. Less than half of persons 16 years and over were in the labor force during the first period, but this figure increased to about 3 in every 5 by the second period (Table 13.11). Even in the FSM, during the time of the third step-down in Compact funding, about 3 in every 5 potential workers were in the labor force. The rate for Guam was about the same as for the FSM, the rate in the CNMI was slightly higher.

Table 13.11. Labor Force Participation, FSM-born in FSM, Guam and the CNMI: 1992 to 1998

Labor Force Participation	1992 to 1994				1997 and 1998			
	Total	FSM 94	Guam 92	CNMI 93	Total	FSM 98	Guam 97	CNMI 98
Total, 16+ yrs	62,279	56,896	3,904	1,479	68,829	63,506	4,249	1,074
In labor force	27,383	24,372	2,185	826	41,502	38,317	2,508	677
Percent	44.0	42.8	56.0	55.8	60.3	60.3	59.0	63.0
Males, 16+ years	31,664	28,745	2,246	673	33,538	30,852	2,186	500
In labor force	17,590	15,646	1,488	456	23,805	21,890	1,529	386
Percent	55.6	54.4	66.3	67.8	71.0	71.0	69.9	77.2
Females, 16+ years	30,615	28,151	1,658	806	35,291	32,654	2,063	574
In labor force	9,793	8,726	697	370	17,697	16,427	979	291
Percent	32.0	31.0	42.0	45.9	50.1	50.3	47.5	50.7

Sources: 1994 FSM Census, 1998 FSM HIES, 1992 & 1997 Guam Surveys, 1993 & 1998 CNMI Surveys

As expected, males had higher labor force participation rates than females, but the difference decreased slightly between the two periods – from about 24 percentage points (56 percent for males and 32 percent for females in the first period, to 71 percent for males and 50 percent for females in the second period). Again, the rates in the three areas followed the average fairly closely.

*Occupations.* Table 13.12 shows the distribution of major occupational categories for the FSM born employed population (16 years and over) for the two periods in the three areas. About 1 in every 3 employed persons during the first period were working as technicians, in sales, or administrative support, but this figure decreased to about 1 in 4 during the second period. In both cases, though, this category was largest.

Table 13.12. Occupation, FSM-born in FSM, Guam and the CNMI: 1992 to 1998

Occupation	1992 to 1994				1997 and 1998			
	Total	FSM 94	Guam 92	CNMI 93	Total	FSM 98	Guam 97	CNMI 98
Employed, 16+ yrs	21,911	18,918	2,185	808	33,720	30,911	2,188	621
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Managers and Profess	14.8	16.3	2.7	11.3	17.6	18.8	2.9	8.4
Tech, sales, admin	31.4	33.7	13.9	25.2	26.3	27.2	15.7	21.3
Service	16.3	13.9	39.3	9.7	17.4	15.8	42.2	12.6
Farm, fish	6.7	7.2	4.2	1.2	2.5	2.4	4.1	0.8
Crafts	12.1	13.0	5.5	7.2	10.6	11.0	7.4	2.1
Oper., fabr, labor	18.0	15.8	31.3	35.1	24.8	24.7	18.8	50.6
Unknown (incl AF)	0.7	0.0	3.2	10.3	0.7	0.1	8.9	4.3

Sources: 1994 FSM Census, 1998 FSM HIES, 1992 & 1997 Guam Surveys, 1993 & 1998 CNMI Surveys

The greatest change was seen in the category for “operators, fabricators, and laborers” which increased from about 18 percent to almost 25 percent during the period. The increase was particularly large for the FSM (from 16 percent to 25percent) and CNMI (35 percent to 51 percent), while Guam saw a decrease in this category (from 31 percent to 19 percent). More than half of the CNMI employed in 1998 were in this one category. By 1997, more than 2 in every 5 of Guam’s FSM-born employed were in service occupations.

For the males, during the first period, about even numbers were working in “technical, sales, and administrative support” occupations and as “operators, fabricators, and laborers” (Table 13.13). By the second period, the percentage working as operators increased while the percentage in technical fields decreased, but these remained the two largest categories. About 1/3<sup>rd</sup> of the males in the CNMI in the first period were operators, fabricators, and laborers, but this increased to half during the second period; the percentage for FSM increased during the period, while the percentage for Guam decreased considerably.

Table 13.13. Occupation for Males, FSM-born in FSM, Guam and the CNMI: 1992 to 1998

Occupation	1992 to 1994				1997 and 1998			
	Total	FSM 94	Guam 92	CNMI 93	Total	FSM 98	Guam 97	CNMI 98
Employed males, 16+	14,893	12,961	1,488	444	20,798	19,062	1,384	352
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Managers and Profess	16.1	17.8	2.8	14.0	18.7	20.0	3.4	9.4
Tech, sales, admin	22.6	24.0	10.4	22.7	21.0	21.7	11.8	17.9
Service	14.1	12.2	31.2	11.3	16.3	15.1	33.8	13.1
Farm, fish	8.7	9.3	5.6	1.8	2.8	2.6	5.9	1.4
Crafts	15.3	16.5	8.0	5.6	12.6	12.9	11.3	3.7
Oper., fabr, labor	22.5	20.2	39.0	34.5	28.0	27.7	26.1	49.7
Unknown (incl AF)	0.6	0.0	3.0	10.1	0.7	0.1	7.7	4.8

Sources: 1994 FSM Census, 1998 FSM HIES, 1992 & 1997 Guam Surveys, 1993 & 1998 CNMI Surveys

Finally, Table 13.14 shows the changing occupational distribution for females. About half of the females in the first period were in technical, sales, and administrative support occupations, but only 1/3<sup>rd</sup> of them were in this category in the second period. Almost all of the change was accounted for by the increase in the percentage of female operators, fabricators, and laborers. More than half of the females workers in the CNMI in 1998 were operators and laborers, and more than half of those in Guam in 1997 were in service occupations.

Table 13.14. Occupation for Females, FSM-born in FSM, Guam and the CNMI: 1992 to 1998

Occupation	1992 to 1994				1997 and 1998			
	Total	FSM 94	Guam 92	CNMI 93	Total	FSM 98	Guam 97	CNMI 98
Employed Females 16+	7,018	5,957	697	364	12,922	11,849	804	269
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Managers and Profess	11.9	13.3	2.7	8.0	15.8	17.0	2.1	7.1
Tech, sales, admin	49.9	54.6	21.4	28.3	34.9	36.0	22.3	25.7
Service	21.0	17.7	56.5	7.7	19.2	16.8	56.7	11.9
Farm, fish	2.5	2.8	1.0	0.5	2.0	2.2	0.9	0.0
Crafts	5.2	5.6	0.1	9.1	7.5	8.1	0.6	0.0
Oper., fabr, labor	8.5	6.1	14.6	36.0	19.8	20.0	6.3	51.7
Unknown (incl AF)	0.9	0.0	3.6	10.4	0.8	0.0	11.1	3.7

Sources: 1994 FSM Census, 1998 FSM HIES, 1992 & 1997 Guam Surveys, 1993 & 1998 CNMI Surveys

*Remittances.* After several years of population outflow, we have begun to see the first clear sign of monetary remittances – return of financial sums to FSM. The 1994 FSM census has provided us with our first measure of the magnitude of remittances to Micronesia. In the FSM as a whole, 3,290 households, or 14.7 percent of all households in the nation, reported receiving remittances (Table 13.14a). Remittances reported everywhere in the FSM totaled \$1.26 million – about \$400 per house for those reporting remittances income – constituting nearly 15 percent of the total income of the households reporting them, according to the 1994 FSM census. Remittances appear to have become a significant source of income for families remaining in the FSM.

Table 13.14a. Remittances from Abroad Received in FSM: 1994

Remittances	Total	Chuuk	Pohnpei	Yap	Kosrae
Total households	22,423	9,904	7,779	2,632	2,108
Reporting remittances	3,290	2,831	260	68	131
Amount of remittances	\$1,260,000	\$952,750	\$196,200	\$41,725	\$69,325
Average for houses reporting	\$383	\$337	\$755	\$614	\$529

Source: FSM 1995

In Chuuk, the most populous state with the most depressed economy, remittances have had a particularly great impact. About 29 percent of households, or twice that of the FSM as a whole, reported receiving remittances. The total dollar figure put on the remittances Chuukese received in 1994 was about \$950,000, more than three-quarters of the total reported remittances for the FSM, and, even at that, probably greatly under-reported.

*Housing.* As noted previously, the 1994 Census and the surveys provided information on housing conditions. Housing variables give information in themselves for planning, but also serve as social indicators. By considering these items by themselves, and in combination with other variables, government agencies can assess changing housing conditions, energy consumption, water and sewer distribution and use, and so forth.

For the FSM born, the number of units in the three areas “increased” only very slightly between the two periods. The increase was so small because the 1998 FSM Household Income and Expenditures Survey used a sample of housing units from the 1994 Census, but controlled the weights so that the same number of units appeared in each case. So the figure for number of housing units in the FSM remained at 15,320, while the number of units on Guam increased, and the number of units with FSM-born householders in the CNMI decreased. The CNMI decrease probably reflects some older people returning to the FSM as retired persons, their units taken over by CNMI-born children or other relatives, and perhaps there was some real return migration as well.

Table 13.15. Housing, FSM-born in FSM, Guam and the CNMI: 1992 to 1998

Housing	1992 to 1994				1997 and 1998			
	Total	FSM 94	Guam 92	CNMI 93	Total	FSM 98	Guam 97	CNMI 98
Total Units	16,269	15,230	599	440	16,641	15,230	1,070	341
Public system water	24.2	19.5	99.0	88.2	31.0	25.0	97.5	90.6
Inside tub/shower	18.9	14.9	91.0	57.3	N/A	N/A	89.3	62.8
Public sewer	15.2	11.7	87.8	36.8	N/A	N/A	86.4	42.8
Hot/cold water	6.6	4.4	58.1	13.6	N/A	N/A	69.5	36.1
Cold water only	43.6	43.4	40.2	56.1	N/A	N/A	28.6	63.0
No flush toilet	68.3	71.5	6.2	41.8	N/A	N/A	1.9	2.6
Electricity	58.0	55.9	93.5	80.9	61.4	58.1	97.3	93.8
Electric stove	13.0	9.3	80.3	48.9	N/A	N/A	89.2	46.9
Refrigerator	28.7	25.6	87.6	57.3	N/A	N/A	93.3	72.1
Television	34.1	31.9	73.1	55.9	28.5	24.5	76.9	58.7
Radio	52.3	50.8	79.5	65.2	N/A	N/A	32.2	61.0
Air conditioner	7.0	5.9	23.0	22.5	N/A	N/A	30.3	26.1
Telephone	30.1	29.3	49.4	33.9	38.6	38.1	50.1	29.0
No car	79.4	83.7	12.2	24.1	N/A	N/A	27.9	0.0

Sources: 1994 FSM Census, 1998 FSM HIES, 1992 & 1997 Guam Surveys, 1993 & 1998 CNMI Surveys

The 1998 FSM survey requested little housing information, so trend analysis is very difficult. One of the problems with multiple advisors, both at one time, and over time, is that different advisors seek different information. While the variables obtained for the HIES are the ones needed to develop the market basket, the FSM government loses the opportunity to see change in the other housing variables. Of those variables collected, the proportion of units connected to the public water system increased from 1 in 5 to 1 in 4 (a large increase, but it is important to remember that housing units constructed in the period between 1994 and 1998 are excluded from the sample). The percentage of units with electricity increased from 56 percent to 58 percent between 1994 and 1998, the percentage reporting having a television actually decreased from 32 percent to 25 percent, while those with a telephone increase from 29 percent to 38 percent.

The 25 percent of FSM-born units in 1998 connected to the public water system in the FSM was still far below those who moved to Guam (98 percent in 1997) and the CNMI (91 percent in 1998). Similarly, the percentage with electricity (58 percent in the FSM), was far exceeded by the 97 percent for Guam in 1997 and the 94 percent for CNMI in 1998. More than 3/4<sup>th</sup> of the Guam units had a television as did almost 2/5<sup>th</sup> of those in the CNMI compared to the 1/4<sup>th</sup> for FSM. But, according to the 1997/1998 data, the FSM residents were more likely to have a telephone than the FSM-born in the CNMI, but both were much less likely to have a phone than the Guam resident FSM born.

We have previously discussed the within-area housing changes for Guam and the CNMI, so the reader can refer to the respective chapters for more detailed information.

*Conclusions.* The FSM born migration continues, although probably not as rapidly as in the late 1980s and early 1990s. Conditions in the FSM have improved somewhat, but the government still needs to continue to work to provide improved education, social, and housing conditions to keep its population in the FSM.

## CHAPTER 14

### IMPACT ON THE REPUBLIC OF PALAU <sup>6</sup>

#### Introduction

The Republic of Palau and the United States implemented the Compact of Free Association (“the Compact”), in October, 1994. The Compact grants Palau’s citizens free access to the United States and its territories, opening a new and unique chapter in Palauan migration. Before the Compact, Palauans were only allowed into the United States for schooling, but not for employment. Here we will look at some of the characteristics of the migrants, and compare them with the Palauans who remained in Palau.

The first significant emigration from the Republic of Palau began in the years before the implementation of the Compact with the United States of America in 1994, as hundreds of Palau citizens left for Guam, the Commonwealth of the Northern Mariana Islands, Hawaii, the U.S. mainland, and the military. The recently completed Office of Insular Affairs surveys apparently show that the numbers in Guam and the CNMI decreased in the years after Compact implementation. After Compact implementation, new opportunities in the labor market and education became available in the US Mainland, and also back in Palau. These migrants seem to have moved with the new flow of opportunities, and left Guam and CNMI. The influx of the Compact funds, Palau’s small natural growth, and more positive living and working conditions probably caused movements to the US Mainland, Hawaii and Palau itself. After the Compact, those who left had the freedom to move back and forth due to the removal of immigration barriers by the Compact. At the same time, 1994 was the beginning of the reduction of the large US subsidies to which Palau had become accustomed to since the 1960s.

Unfortunately, although the 1995 Census tried to collect simultaneous data on Palauan emigrants, much of the collected data were ambiguous. In order to compare the collected 1995 data with outside sources, we used two sources: the 1997 Census of Micronesians on Guam and the 1998 Survey of Micronesian Migrants to the CNMI. We compare these data with the 1990 Censuses of Palau, Guam and CNMI. These data shed light not only the differences between the immigrants and the Palauans who remained in Palau, but also the differences between the migrants to Guam and CNMI.

The 1997 Census showed that 560 persons born in the Republic of Palau had migrated to Guam, and the 1998 Survey showed 1,063 Palau-born persons having migrated to the CNMI. The number of persons born in Palau who migrated to Guam decreased by 1,233 in 1990 (1990 Guam Census), to 560 in 1997 (1997 Census of Micronesians, Guam). The number of Palau-born migrants to CNMI decreased by 1,407 in 1990 (1990 CNMI Census), to 1,063 in 1998 (Survey of Micronesian Migrants, CNMI).

The numbers do not show the exact number of Palauans living in Guam and the CNMI, as those who were born in Guam and CNMI to Palauan migrants were not included. This is because we want to show only the migration trend from Palau to Guam and the CNMI.

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## Demography

The earliest Palau migrants to Guam and CNMI were predominantly young people, mostly males, in search of jobs. Many of the original households were inherently unstable, composed of several young men in their twenties or thirties working at low-paying jobs and pooling their income to cover rent and other expenditures. In the absence of a viable authority structure and generational depth, such "peer-group households," as Rubinstein terms them, were continually "dissolving and reforming, with new arrivals coming in, others moving out" (Rubinstein 1993:260). These households inevitably follow the immigration model found so often around the world, as two generation and later multi-generation households have been forming. What is somewhat surprising is the rapidity of the change. Where other migrant communities in other places take a generation or two to form nuclear families, even with many loosely related kin and friends, the process has been slowed down considerably in the Palauan case. Rubinstein noted (1993:260-1) that in recent years household members are being selected according to kinship principles seen in the home populations, with grandparents and other older people being added, giving the household important generational depth. The Palau case was in fact in complete contrast to this.

*Age and Sex Distribution.* Table 14.1 shows age distributions among residents in the Republic of Palau and migrants to Guam and the CNMI before and after the Compact implementation. The median age — the point where half the population is older and half is younger — was 23.6 years for Palau residents and about 24 years for migrants in 1990. After Compact implementation (1997 for Guam and 1998 for CNMI), the median age for the Palauan migrants went up to 37.6 years for Guam and 32.1 years for the CNMI. These high values indicate that second and third generation migrants were giving birth to children outside of Palau, and very few Palau-born young migrants were emigrating to Guam or the CNMI.

Table 14.1. Population distribution by Age, 1990/95 Palauans & Palau-born in Guam & CNMI: 1997/98

Age	1990				1995 to 1998			
	Total	Palau	Guam	CNMI	Total	Palau 95	Guam 97	CNMI 98
Total	14,961	12,321	1,233	1,407	14,099	12,476	560	1,063
0 to 4	1,472	1,391	23	58	1,553	1,514	9	30
5 to 9	1,432	1,355	28	49	1,402	1,335	17	50
10 to 14	1,574	1,411	48	115	1,369	1,291	8	70
15 to 19	1,597	1,342	107	148	1,177	1,073	21	83
20 to 24	1,330	934	178	218	1,101	935	61	105
25 to 29	1,353	1,002	150	201	1,114	917	66	131
30 to 34	1,238	920	133	185	1,187	963	73	151
35 to 39	1,114	848	145	121	1,100	918	49	133
40 to 44	826	623	103	100	961	782	60	119
45 to 49	641	499	86	56	768	633	56	79
50 to 54	535	408	75	52	543	456	37	50
55 to 59	436	348	59	29	454	401	27	26
60 to 64	436	358	54	24	375	321	31	23
65 to 69	347	312	22	13	339	307	28	4
70 to 74	277	241	12	24	282	263	13	6
75 + yrs	353	329	10	14	374	367	4	3
Median	23.3	23.6	24.2	23.6	29.9	25.5	37.6	32.1

Source: 1990 and 1995 Palau Censuses, 1997 Guam and 1998 CNMI Surveys of Micronesians

In the early years of the migration, the distribution of the ages by sex probably differed considerably, but by the time of the surveys and the census, the distributions were about the same, and about the same as for the total population (Tables 14.2 and 14.3).



Table 14.2. Age distribution for males, 1990/95 Palauans & Palau-born in Guam & CNMI: 1997/98

Age	1990				1995 to 1998			
	Total	Palau	Guam	CNMI	Total	Palau 95	Guam 97	CNMI 98
Total	7,531	6,339	526	666	7,188	6,405	257	526
0 to 4	745	703	15	27	809	788	4	17
5 to 9	742	695	15	32	712	686	6	20
10 to 14	829	746	22	61	723	677	6	40
15 to 19	834	722	42	70	640	583	10	47
20 to 24	688	500	81	107	601	519	30	52
25 to 29	709	553	62	94	558	470	33	55
30 to 34	624	490	49	85	628	523	35	70
35 to 39	560	455	60	45	594	490	25	79
40 to 44	424	335	42	47	506	421	23	62
45 to 49	311	249	35	27	399	335	27	37
50 to 54	254	201	29	24	254	221	12	21
55 to 59	209	164	34	11	204	181	11	12
60 to 64	194	156	23	15	171	146	16	9
65 to 69	155	139	10	6	139	125	12	2
70 to 74	124	112	3	9	119	110	6	3
75 + yrs	129	119	4	6	131	130	1	-
Median	22.6	22.6	22.5	22.6	25.4	24.5	35.9	32.3

Source: 1990 and 1995 Palau Censuses, 1997 Guam and 1998 CNMI Surveys of Micronesians

Table 14.3. Age distribution for Females, 1990/95 Palauans & Palau-born in Guam & CNMI: 1997/98

Age	1990				1995 to 1998			
	Total	Palau	Guam	CNMI	Total	Palau 95	Guam 97	CNMI 98
Total	7,430	5,982	707	741	6,911	6,071	303	537
0 to 4	727	688	8	31	744	726	5	13
5 to 9	690	660	13	17	690	649	11	30
10 to 14	745	665	26	54	646	614	2	30
15 to 19	763	620	65	78	537	490	11	36
20 to 24	642	434	97	111	500	416	31	53
25 to 29	644	449	88	107	556	447	33	76
30 to 34	614	430	84	100	559	440	38	81
35 to 39	554	393	85	76	506	428	24	54
40 to 44	402	288	61	53	455	361	37	57
45 to 49	330	250	51	29	369	298	29	42
50 to 54	281	207	46	28	289	235	25	29
55 to 59	227	184	25	18	250	220	16	14
60 to 64	242	202	31	9	204	175	15	14
65 to 69	192	173	12	7	200	182	16	2
70 to 74	153	129	9	15	163	153	7	3
75 + yrs	224	210	6	8	243	237	3	3
Median	24.1	23.6	25.9	24.5	28.0	26.6	39.3	31.9

Source: 1990 and 1995 Palau Censuses, 1997 Guam and 1998 CNMI Surveys of Micronesians

The median age for males in Palau was about a year younger than for the females. The median ages for males and females were about the same in the CNMI, and males were more than 3 years younger than females on Guam, which could reflect a selective migration of both sexes to Guam.

Probably the most striking measure of the contrast between migrants to Guam and the CNMI is in the dependency ratio — that is, the number of dependent children and elderly for every 100 workers. While Guam's dependency ratio was 16 dependents for every 100 workers, the ratio was 18 in the CNMI. Guam's dependency ratio went up by 3 from the 1990 Census, but CNMI's went down by six. The dependency ratio has almost evened out, compared to 1990 when Guam's dependency ratio was 13 and CNMI 24 for every 100 workers.

*Sex Ratio.* The 1995 Census showed about 106 males for every 100 females in the Republic of Palau. The overall ratio for migrants to Guam was 85. In the CNMI however, the overall ratio almost evened out, with 98 males per 100 females. The higher proportion of women in both Guam and the CNMI might be attributed in part to higher paying jobs made accessible by the implementation of the Compact, and a better chance for women to move up the "corporate ladder" in Guam and the CNMI.

Table 14.4. Males per 100 Females by Age Group, 1990/95 Palauans & Palau-born in Guam & CNMI: 1997/98

Age	1990				1995 to 1998			
	Total	Palau	Guam	CNMI	Total	Palau 95	Guam 97	CNMI 98
Total	101	106	74	90	104	106	85	98
0 to 4	102	102	188	87	109	109	80	131
5 to 9	108	105	115	188	103	106	55	67
10 to 14	111	112	85	113	112	110	300	133
15 to 19	109	116	65	90	119	119	91	131
20 to 24	107	115	84	96	120	125	97	98
25 to 29	110	123	70	88	100	105	100	72
30 to 34	102	114	58	85	112	119	92	86
35 to 39	101	116	71	59	117	114	104	146
40 to 44	105	116	69	89	111	117	62	109
45 to 49	94	100	69	93	108	112	93	88
50 to 54	90	97	63	86	88	94	48	72
55 to 59	92	89	136	61	82	82	69	86
60 to 64	80	77	74	167	84	83	107	64
65 to 69	81	80	83	86	70	69	75	100
70 to 74	81	87	33	60	73	72	86	100
75 + yrs	58	57	67	75	54	55	33	-

Source: 1990 and 1995 Palau Censuses, 1997 Guam and 1998 CNMI Surveys of Micronesians

For Guam, the surplus of females appeared at almost every age group, peaking at 55 males per 100 females for the age group 5 to 9 years and, 48 for ages 40 to 44 and 33 for ages 75 years and over. The same was true for CNMI with 67 males per 100 females for the age group 5 to 9 years and, 64 for the 60 to 64 year age group. With new and better job opportunities available for women in Guam and the CNMI, this migration trend is not surprising.

*Marital Status.* Marital status of migrants is also an important way of looking at the migration trends. Usually, it is easier for unmarried persons to migrate, but after the implementation of the Compact, migration may have been coming to a standstill, with some migrants moving out of Guam and the CNMI. The percentage of never married Palau-born adult males in Palau, Guam, and the CNMI decreased from 44 percent in 1990 to 30 percent during the 1995-1998 period (Table 14.5). The percent never married decreased in all three areas, indicating earlier age at first marriage and/or more marriage to non-Palauans causing the percentage who have never married to decline considerably. The percentage of never married females decreased as well, from 32 percent in 1990 to 27 percent in the 1995-1998 (females tend to marry younger than males so female percentages never married usually are less than males.)

The percentage married for males and females in Guam went up to 67 percent and 64 percent respectively from the 1990 Census count, while CNMI went up to 58 and 53 percent respectively for males and females. Percent married for Palau increased to 54 and 55 percent, respectively, showing little change from the 1990 Census. These data indicate that a certain percentage who migrated to Guam and the CNMI before Compact implementation married and probably had children, and did not move back. But the single migrants might be moving out of Guam and the CNMI, as they need not settle down – this migration is easiest.

Table 14.5. Marital Status, 1990/95 Palauans & Palau-born in Guam & CNMI: 1997/98

Marital Status	1990				1995 to 1998			
	Total	Palau	Guam	CNMI	Total	Palau 95	Guam 97	CNMI 98
Males, 15+ yrs	5,215	4,195	474	546	4,944	4,254	241	449
Never married	2,293	1,841	194	258	1,946	1,700	74	172
Percent	44.0	43.9	40.9	47.3	39.4	40.0	30.7	38.3
Now married	2,611	2,089	255	267	2,700	2,279	162	259
Separated	110	99	2	9	82	74	1	7
Widowed	81	71	5	5	86	79	1	6
Divorced	120	95	18	7	130	122	3	5
Females, 15+ yrs	5,268	3,969	660	639	4,831	4,082	285	464
Never married	1,678	1,202	212	264	1,293	1,069	62	162
Percent	31.9	30.3	32.1	41.3	26.8	26.2	21.8	34.9
Now married	2,724	2,104	335	285	2,689	2,263	181	245
Separated	134	99	15	20	122	93	3	26
Widowed	526	430	43	53	530	482	27	21
Divorced	206	134	55	17	197	175	12	10

Source: 1990 and 1995 Palau Censuses, 1997 Guam and 1998 CNMI Surveys of Micronesians

*Fertility.* By age 49, most women have completed their families. The data on children ever born in the 1995 census showed that the average woman in Palau aged 45 to 49 had had 3.8 children. This was also the value for the migrant females of this age group in the CNMI; however, women of this age group residing in Guam had fewer children, only 2.8, on average. Similarly, at ages 40 to 44 years, the average for Guam of 2.2 was between 1.5 and 1 child less than for Palau and for migrants to the CNMI. This was also true for all age groups, as Guam migrants consistently had fewer children than those in the Republic of Palau and the Commonwealth of the Northern Mariana Islands.

Table 14.6. Children Born per Woman by Age of Woman, 1990/95 Palauans & Palau-born in Guam & CNMI: 1997/98

Age of Woman	1990				1995 to 1998			
	Total	Palau	Guam	CNMI	Total	Palau 95	Guam 97	CNMI 98
Total	1.8	1.8	2.0	2.1	1.7	2.0	1.5	2.0
15 to 19	0.1	0.1	0.1	0.1	0.1	0.1	-	0.1
20 to 24	0.7	0.8	0.6	0.8	0.6	0.8	0.2	0.6
25 to 29	1.4	1.6	1.4	1.6	1.1	1.5	0.9	1.4
30 to 34	2.1	2.2	2.2	2.6	1.8	2.3	1.5	2.1
35 to 39	3.0	3.3	2.7	3.4	2.4	2.8	2.1	2.9
40 to 44	3.7	3.8	3.8	4.3	3.0	3.7	2.2	3.1
45 to 49	4.4	4.6	4.3	4.4	3.5	3.8	2.8	3.8

Source: 1990 and 1995 Palau Censuses, 1997 Guam and 1998 CNMI Surveys of Micronesians

While the average female migrant to Guam aged 20 to 24 years had about 0.2 children, the average migrant to the CNMI had 0.6 children, while Palau had 0.8 children for women of this age group. The average for women 25 to 29 years in Palau and CNMI had about 1.5 children per woman compared to only 0.9 on Guam. Once again, fewer women with children were migrating out of Palau, proving once again that the migration trend is now reversing.

### Social Characteristics

*Language.* The percentage of the total Palauan population speaking only English at home has increased considerably during the decade, boding well for Palau's economic development (although this rapid change is also cautionary – Palauans wanting to maintain their identity as Palauans almost certainly want their children to be bilingual.) Only 2 percent of the combined Palauan population in 1990 spoke only English at home, compared to more than 9 percent in the 1995-1998. While less than one percent of Palau's population in 1990 spoke only English by 1995 the figure was more than 8 percent. Similarly the for Guam, the proportion increased from 1 in 8 to 1 in 4 in the short period, and for CNMI, from more than 2 percent to more than 14 percent, all large increases in a short period. Some of the increase, however, might be attributed to different enumeration techniques, since the 1990 censuses in Guam and CNMI were collected by non-Palauans, all of the other were collected by Palauan enumerators, so it is difficult to assess how this might have affected the results.

Table 14.7. Language, 1990/95 Palauans & Palau-born in Guam & CNMI: 1997/98

Language	1990				1995 to 1998			
	Total	Palau	Guam	CNMI	Total	Palau 95	Guam 97	CNMI 98
Total	13,489	10,930	1,210	1,349	12,546	10,962	551	1,033
Speak English	252	74	145	33	1,184	907	130	147
Percent	1.9	0.7	12.0	2.4	9.4	8.3	23.6	14.2
Palauan	12,725	10,718	937	1,070	10,893	9,723	401	769
Percent	94.3	98.1	77.4	79.3	86.8	88.7	72.8	74.4
Other language	512	138	128	246	469	332	20	117
Chamorro	240	1	76	163	51	-	1	50
Asian	93	47	24	22	32	31	-	1
Other Language	179	90	28	61	386	301	19	66

Source: 1990 and 1995 Palau Censuses, 1997 Guam and 1998 CNMI Surveys of Micronesians

All of the areas also saw decreases in the percentages primarily speaking Palauan at home [whether or not they also spoke English or another language as well.] The percentage for Palauans in the three areas decreased from 94 percent in 1990 to about 87 percent in 1995-1998. For this last period, about 89 percent of Palauans in Palau spoke their own language compared to 73 percent for Guam and 74 percent for the CNMI. In this same period, those who stated languages other than English and Palauan were about 3 percent for Palau, 4 percent for Guam, and 11 percent for the CNMI. Chamorro was the dominant language for this group. These are migrants who had been living in Guam and CNMI prior to the Compact implementation, and could have married to persons of Chamorro descent.

*Educational Attainment.* The usual measures of educational attainment are numbers and percentages of high school graduates and college graduates with bachelor’s degrees. By these measures, Palauans showed considerable advancement during the 1990s. The percentage of high school graduates for Palauans in the three areas increased from 54 percent in 1990 to 59 percent in 1995-1998 (Table 14.8). The data in this table show cumulative percentages, that is the 54 percent figure for 1990 is for persons who were *at least* high school graduates, even if they had *more* education. Even in 1990, more than half of Palau’s population 25 years and over in Palau were high school graduates; by 1995, 56 percent of the population was in this category. Similarly, the percentage high school graduates increased in Guam from 64 to 73 percent during the period, and in the CNMI, from 67 percent to 79 percent. While these figures look good for Palauans in Guam and CNMI seeking jobs, it is also true that these individuals are not in Palau assisting in the country’s economic development.

Table 14.8 Educational Attainment of persons age 25 & over, 1990/95 Palauans & Palau-born in Guam & CNMI: 1997/98

Educational Attainment	1990				1995 to 1998			
	Total	Palau	Guam	CNMI	Total	Palau 95	Guam 97	CNMI 98
Total, (25+ yrs)	7,556	5,888	849	819	7,497	6,328	444	725
None	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Elementary	97.8	97.8	96.3	99.0	96.4	95.8	99.8	99.4
High School	68.2	64.8	79.2	81.2	75.5	72.9	88.1	90.6
HS graduate	53.9	50.5	64.3	67.4	59.1	55.9	72.7	79.0
Some college	27.4	27.0	31.4	25.9	32.7	32.7	45.3	24.3
AA/AS occup	16.6	17.6	10.5	15.9	19.1	19.9	16.2	13.5
AA/AS academic	11.4	11.7	8.2	12.7	13.2	13.7	12.4	8.7
Bachelor's degree	7.9	8.0	7.1	8.3	8.5	8.7	9.7	6.2
Grad/prof degree	1.4	1.3	1.4	1.8	1.4	1.3	2.0	1.2

Source: 1990 and 1995 Palau Censuses, 1997 Guam and 1998 CNMI Surveys of Micronesians

Palau is fortunate to have its own two-year college – Palau Community College (PCC) – and access to the University of Guam, Guam Community College, and the College of the Northern Mariana Islands. However, the percentage of college graduates did not change very much during the 1990s, with the percentage increase only from 7.9 percent to 8.5 percent. The percentages for Palau and Guam increased somewhat, while the percentage for CNMI decreased. Since Guam’s percentage is higher than Palau’s, if percentage of college graduates is a measure of the “Brain Drain”, we see that there exists a drain of highly educated persons from Palau, while still a small percentage, but growing.

For males, the percentage of high school graduates increased from 58 percent in 1990 to 63 percent in the 1995-1998 period (Table 14.9). All three areas showed increases in the percentage of high school graduates, with about 4 in every 5 adults in Guam and the CNMI being high school graduates. As expected, the percentage of male college graduates was larger than for females or for the total population. About 8.4 percent of the Palauan population in the three areas were college graduates in 1990 compared to 8.5 percent in 1995-1998. The percentage decrease for Palauan college graduates males in the CNMI was considerable, while the other two areas showed slight increases. Since the data set for CNMI was small, it is difficult to tell whether the decline is real, or the result of reporting problems.

Table 14.9 Educational Attainment of Males, 1990/95 Palauans & Palau-born in Guam & CNMI: 1997/98

Educational Attainment	1990				1995 to 1998			
	Total	Palau	Guam	CNMI	Total	Palau 95	Guam 97	CNMI 98
Males, 25+ yrs	3,693	2,973	351	369	3,703	3,152	201	350
None	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Elementary	98.1	98.0	97.7	99.7	97.8	97.5	99.5	99.4
High School	72.2	69.6	84.3	82.1	79.7	77.5	90.5	93.7
HS graduate	58.2	54.8	72.6	71.5	62.7	59.6	79.1	80.9
Some college	31.0	31.0	36.2	25.5	34.9	35.4	49.8	22.0
AA/AS occup	18.6	19.6	13.4	14.9	20.0	21.3	17.9	10.3
AA/AS academic	11.8	12.0	10.5	10.6	12.9	13.7	13.4	4.6
Bachelor's degree	8.4	8.4	9.1	8.1	8.5	8.9	10.0	3.7
Grad/prof degree	1.8	1.7	2.0	2.7	1.8	1.7	3.0	1.1

Source: 1990 and 1995 Palau Censuses, 1997 Guam and 1998 CNMI Surveys of Micronesians

For the females, the percentage of high school graduates increased from about half in 1990 to 56 percent in 1995-1998 (Table 14.10). As before, the percentages increased for each of the three areas during the time period. Also, the percentage of college graduates increased from 7.4 percent in 1990 to 8.6 percent in the 1995-1998 period. Palau and Guam saw increases in the percent college graduates, while the percentage remained about the same in the CNMI.

Table 14.10 Educational Attainment of Females, 1990/95 Palauans & Palau-born in Guam & CNMI: 1997/98

Educational Attainment	1990				1995 to 1998			
	Total	Palau	Guam	CNMI	Total	Palau 95	Guam 97	CNMI 98
Females, 25+ yrs	3,863	2,915	498	450	3,794	3,176	243	375
None	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Elementary	97.4	97.6	95.4	98.4	94.9	94.0	100.0	99.5
High School	64.4	60.0	75.5	80.4	71.3	68.3	86.0	87.7
HS graduate	49.8	46.2	58.4	64.0	55.6	52.2	67.5	77.3
Some college	24.0	23.0	28.1	26.2	30.4	30.0	41.6	26.4
AA/AS occup	14.7	15.5	8.4	16.7	18.1	18.6	14.8	16.5
AA/AS academic	11.1	11.3	6.6	14.4	13.5	13.7	11.5	12.5
Bachelor's degree	7.4	7.6	5.6	8.4	8.6	8.5	9.5	8.5
Grad/prof degree	1.0	0.9	1.0	1.1	1.0	0.9	1.2	1.3

Source: 1990 and 1995 Palau Censuses, 1997 Guam and 1998 CNMI Surveys of Micronesians

These data show that the outflow of migrants to Guam and the CNMI really can be called a “brain drain” in the usual sense of that term, that educated persons who could be in Palau involved in the country’s economic and social development are elsewhere. They also confirm that those Palauans with the best degrees, and thus the brightest prospects for employment, may emigrate for better employment and pay. Those who left home may be those most likely to enroll in school or enter the labor pool where pay is substantially better than those in Palau.

### Economic activity

*Labor Force Participation.* The United States and Palau measure whether people 16 years and over are in the labor force. If someone is working for pay, or actively looking for a job, they are considered part of the labor force, but if they are in school or doing housework or doing only subsistence work or retired, they are not part of the labor force.

Unlike educational attainment, however, labor force participation depends on current economic conditions. So, fluctuations in the Asian economies (and the tourists they send), or the U.S., or Compact funding levels, all affect the labor force in Palau and Palauans in Guam and the CNMI.

With all of this, partly because of Compact implementation, and increased numbers and proportions of high school graduates, the percent of Palauans in the labor force for the three areas increased from 55 percent in 1990 to 60 percent in 1995-1998 (Table 14.11). The percentage in the labor force increased considerably in Palau, decreased on Guam, and stayed about the same in the CNMI. About 59 percent of Palau’s population 16 years and over in 1995 were in the labor force, compared to about 54 percent for Guam migrants and 69 percent for the CNMI.

As expected, males had higher labor force participation rates than females. About 64 percent of Palauan males 16 years and over in 1990 were in the labor force compared to 68 percent in 1995-1998. The females increased from 47 percent to 51 percent during the same period. The percentages for the three areas showed similar increases and decreases as the total, although the decrease for females in the CNMI was greater, perhaps having to do with work in the garment factories.

Again, the data on labor force participation, while extremely susceptible to the whims of inflation/deflation and recession/expansion of the major powers like the United States and Japan, also can show real change. These data may be showing some back migration to Palau after the implementation of the Compact. The 2000 Censuses for Palau, Guam, CNMI, and the United States will allow a snapshot similar to the 1990 Census data, so the labor force participation of all Palauans at the same time can be determined.

Table 14.11. Labor Force Participation, 1990/95 Palauans, Palau-born in Guam & CNMI: 1997/98

Labor Force Participation	1990				1995 to 1998			
	Total	Palau	Guam	CNMI	Total	Palau 95	Guam 97	CNMI 98
Total, 16+ yrs	10,146	7,874	1,118	1,154	9,542	8,121	521	900
In labor force	5,624	4,161	648	815	5,715	4,815	279	621
Percent	55.4	52.8	58.0	70.6	59.9	59.3	53.6	69.0
Males, 16+ years	5,047	4,045	468	534	4,806	4,127	238	441
In labor force	3,249	2,503	339	407	3,284	2,781	163	340
Percent	64.4	61.9	72.4	76.2	68.3	67.4	68.5	77.1
Females, 16+ years	5,099	3,829	650	620	4,736	3,994	283	459
In labor force	2,375	1,658	309	408	2,431	2,034	116	281
Percent	46.6	43.3	47.5	65.8	51.3	50.9	41.0	61.2

Source: 1990 and 1995 Palau Censuses, 1997 Guam and 1998 CNMI Surveys of Micronesians

*Occupation.* The number of employed Palauans decreased during the decade, from about 7,000 in 1990 to about 5,000 in the 1995 to 1998 period (Table 14.12). For Palau, and persons are included, but for Guam and CNMI, only persons born in Palau were included, so Palauans who were the children or grandchildren of Palau born, but not Palau born themselves, were not included. Hence, the numbers do not reflect the reality of all Palauans, but do satisfy the criteria needed for Impact reporting. What is likely to be happening, is that some Palau-born become of retirement and retire, and are replaced by persons born on Guam and CNMI, but still Palauan, and therefore not included here.

Table 14.12. Occupation, 1990/95 Palauans & Palau-born in Guam & CNMI: 1997/98

Occupation	1990				1995 to 1998			
	Total	Palau	Guam	CNMI	Total	Palau 95	Guam 97	CNMI 98
Employed, 16+yrs	6,969	5,599	602	768	5,159	4,330	268	561
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Managers and Profess	22.2	24.0	13.0	16.3	29.0	31.5	17.2	15.7
Tech, sales, admin	23.7	21.6	28.7	35.0	28.5	27.8	21.6	37.1
Service	20.8	19.8	32.1	19.5	15.7	14.9	29.9	15.2
Farm, fish	5.4	6.4	0.7	1.7	6.4	7.5	0.7	0.7
Crafts	15.5	16.8	12.0	8.5	7.8	7.8	11.6	5.7
Oper., fabr, labor	12.4	11.4	13.6	19.0	12.2	10.6	14.6	23.2
Unknown (incl AF)	0.0	0.0	0.0	0.0	0.5	0.0	4.5	2.5

Source: 1990 and 1995 Palau Censuses, 1997 Guam and 1998 CNMI Surveys of Micronesians

However, even in Palau, the number of employed Palauans decreased from 5,599 to 4,300 (23 percent), probably indicating that the work force of Palauans was decreasing because non-Palauans were doing more of the work, and some Palauans were leaving for other areas (not Guam and the CNMI) and, perhaps, the U.S. military. The numbers of Palau born workers in both Guam and the CNMI decreased during the period.

The largest category of Palauan workers in 1990 was “technical, sales, and administrative support” occupations (24 percent), although closely “followed” by “managers and professionals” (22 percent), and service workers (21 percent). By the 1995-1998 period, “managers and professionals” (29 percent) took a very slight lead over “technical, sales, and administrative support” (28 percent), while a much smaller percentage were doing sales jobs (16 percent). The first two categories are the traditional “white collar” jobs – many are government jobs – so it is not surprising that so many Palauans in Palau are in these categories.

For Guam, the largest category in both 1990 and 1997 was service occupations, with technical, sales, and administrative occupations following. For Saipan, technical, sales, and support occupations were first throughout the 1990s, but the percentage in service occupations decreased during the decade while the percentage working as “operators, fabricators, and laborers” increased.

The number of males also decreased during the decade (Table 14.13). The largest category for males was crafts (construction) in 1990, about 1 in 4 of the employed males, while this category decreased to only about 1 in 8 for the late 1990s. The percentage of males “managers and professionals” increased during the decade, from 1 in 5 in 1990 to 1 in 4 in 1995-1998. The percentages in “technical, sales, and administrative support” and service occupations also increased during the decade.

Table 14.13. Occupation for Males, 1990/95 Palauans & Palau-born in Guam & CNMI: 1997/98

Occupation	1990				1995 to 1998			
	Total	Palau	Guam	CNMI	Total	Palau 95	Guam 97	CNMI 98
Employed males, 16+	4,240	3,542	318	380	2,978	2,512	157	309
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Managers and Profess	20.4	21.9	12.6	12.9	24.9	27.2	17.8	10.0
Tech, sales, admin	14.6	13.3	21.4	20.3	18.8	18.0	12.7	29.1
Service	14.2	13.1	18.2	20.8	15.6	14.9	22.9	17.5
Farm, fish	8.2	9.4	1.3	3.4	8.7	10.2	1.3	1.0
Crafts	24.5	25.6	22.3	16.3	12.6	12.6	17.8	9.7
Oper., fabr, labor	18.2	16.7	24.2	26.3	18.8	17.2	22.9	29.8
Unknown (incl AF)	0.0	0.0	0.0	0.0	0.5	0.0	4.5	2.9

Source: 1990 and 1995 Palau Censuses, 1997 Guam and 1998 CNMI Surveys of Micronesians

As noted, the largest category for Palau males was crafts in 1990, but the largest category in 1995 was managers and professionals (27 percent). For Guam, the largest categories in 1990 were “operators, fabricators, and laborers” (24 percent) and crafts (22percent), but in 1997, “operators” remained (23 percent), but second was service occupations (also 23 percent). “Operators, fabricators, and laborers” (26 percent) was also the largest category for the CNMI Palauans in 1990 (because of the garment industry), but by 1998, while “operators” continued high (30 percent), and almost equal number were in “technical, sales, and administrative support” occupations.

The number of employed Palauan females decreased considerably in all three geographical areas during the 1990s. The total employed females went from 2,729 to 2,181, a decrease of 20 percent. Both Guam and CNMI showed very large decreases in numbers as well, but part of the decrease may be attributed to the definition of a Palauan – that the female would have had to be born in Palau to be included here (Table 14.14).

Table 14.14. Occupation for Females, 1990/95 Palauans & Palau-born in Guam & CNMI: 1997/98

Occupation	1990				1995 to 1998			
	Total	Palau	Guam	CNMI	Total	Palau 95	Guam 97	CNMI 98
Employed Females 16+	2,729	2,057	284	388	2,181	1,818	111	252
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Managers and Profess	25.1	27.8	13.4	19.6	34.5	37.3	16.2	22.6
Tech, sales, admin	37.9	35.8	37.0	49.5	41.6	41.4	34.2	46.8
Service	31.1	31.3	47.5	18.3	15.9	15.0	39.6	12.3
Farm, fish	1.0	1.3	0.0	0.0	3.2	3.7	0.0	0.4
Crafts	1.4	1.7	0.4	0.8	1.2	1.2	2.7	0.8
Oper., fabr, labor	3.5	2.1	1.8	11.9	3.1	1.5	2.7	15.1
Unknown (incl AF)	0.0	0.0	0.0	0.0	0.5	0.0	4.5	2.0

Source: 1990 and 1995 Palau Censuses, 1997 Guam and 1998 CNMI Surveys of Micronesians

For Palauan females, the largest category in both 1990 and 1995-1998 was technical, sales, and administrative support occupations. The percentage increased from 38 percent in 1990 to 42 percent in the 1995 to 1998 period. The percentage of females working as managers and professionals increased from 25 percent to 34 percent during the period (moving from third to second position), while those in service occupations decreased from 31 percent to 16 percent.

For Palau itself, the percentage distribution did not differ much from the total since so many of the Palauans were living in Palau. Almost half the Guam females were in service occupations in 1990, but this decreased to about 2 in 5 in 1997. The largest category for CNMI females in both years was “technical, sales, and administrative support”, which was about half of the employed females in each case.

## Housing

The 1990 Censuses, 1995 Palau census and the surveys in Guam and the CNMI provided information on housing conditions in their respective areas. Housing variables give information directly for planning, but also serve as social indicators. By considering these items by themselves, and in combination with other variables, government agencies can assess changing housing conditions, energy consumption, water and sewer distribution and use, and so forth. Total Palauan occupied units (based on “race” of the householder) decreased from 4,095 to 3,816 during the period.

This decrease was partly due to changes in the population because of the definition of a Palauan household – if the Palauan householder was at least one generation removed from Palau, his or her housing unit did not appear here. The data also a decrease in the number of households in Palau, but this is probably due to some consolidation of households, particularly movements of individuals from the States to the South and North of Koror into Koror itself. In the 1995-1998 period, Palau had 3,183 housing units compared to the 242 units in Guam and 391 units in the CNMI.

Table 14.15. Materials for Walls and Roof, 1990/95 Palauans, Palau-born in Guam & CNMI: 1997/98

Housing	1990				1995 to 1998			
	Total	Palau	Guam	CNMI	Total	Palau 95	Guam 97	CNMI 98
<b>WALL MATERIALS:</b>								
Total	4,095	3,312	411	372	3,816	3,183	242	391
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Poured concrete	7.1	4.1	29.0	9.7	10.8	7.2	47.1	17.9
Concrete blocks	27.4	22.4	48.7	48.7	28.0	26.0	34.3	39.6
Metal	39.5	45.1	11.9	20.2	26.2	28.5	4.5	20.7
Wood	25.4	27.9	9.2	21.5	29.8	32.2	12.8	21.2
Other	0.5	0.4	1.2	0.0	5.2	6.1	1.2	0.5
<b>ROOF MATERIALS:</b>								
Total	4,095	3,312	411	372	3,816	3,183	242	391
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Concrete	19.1	10.5	70.1	39.8	18.8	12.2	78.5	35.8
Metal	77.9	86.8	24.8	57.8	71.6	77.3	12.4	62.1
Wood	1.6	1.3	3.2	2.4	2.5	2.6	1.7	1.5
Thatch	0.6	0.7	0.5	0.0	1.8	2.1	0.0	0.3
Other	0.8	0.8	1.5	0.0	5.4	5.8	7.4	0.3

Source: 1990 and 1995 Palau Censuses, 1997 Guam and 1998 CNMI Surveys of Micronesians

About 26 percent in Palau in 1990 had either poured concrete or concrete block walls compared to 77 percent of those on Guam and 58 percent of those in the CNMI (Table 14.15). While the CNMI’s percentage didn’t change in the 1990s, Guam continued to increase to 81 percent, but Palau’s increase was greater, to about 33 percent in 1995. Houses with metal roofs showed the decreases for Palau and Guam, so households were able to build concrete structures (or, in the case of Guam, move into these better structures), and this phenomenon was partly based on better jobs and higher incomes, partly as a result of Compact implementation.

Type of roof, however, showed less change, showing, perhaps a lag in movement to more substantial materials among Palauans in the three areas. The large number of “other” in the 1995-1998 data, though, makes trend analysis difficult. The percentage of metal roofs remains high, which while generally protecting from the elements, are no match from some of the region’s major typhoons.

As noted, knowledge about housing conditions is essential in planning, and also in determining how best to serve the people living in them. As we can see, the living standards of the Palauan migrants in Guam and the CNMI, especially Guam, seem to exceed the living standards of those in Palau, based on just these two variables. With more highly educated and professional Palauans migrating out of Palau to Guam and the CNMI, it is not surprising that living standards in Palau are lower.

### Conclusion

The migration from Palau seems to have been slowing considerably since 1990, at least to Guam and the CNMI. In view of the continued low fertility in the Republic of Palau, emigration will maintain Palau’s low level of “natural” growth – that is, the out-migration balances the increase from fertility (almost no one dies in Palau.) Students looking for better education will certainly continue to travel.

Over the first few years of the Compact period, the number of migrants to Guam and the CNMI has been dropping steadily. In all likelihood, these numbers will not increase in the near future, taking into account the Asian economic crisis affecting the economies of Guam and the CNMI.

The data from the 1997 and 1998 surveys reveal some pronounced differences between the Republic of Palau’s migrant communities on Guam and the Commonwealth of the Northern Mariana Islands, and of the resident population in Palau. The households in Guam and the CNMI were rapidly shrinking, showing fewer and fewer dependents -- children, women and the elderly -- and were evidently breaking up, as opposed to regular households. Drops in employment rates are expected over time if the number of migrants decreases, with migrants opting to return to Palau or not emigrating at all.



As we look at all the indicators as provided by the 1997 Survey of Micronesian Migrants in Guam and the 1998 CNMI Survey of Micronesians, we see that the tide of migration *may be* reversing. Except for a large number of highly educated Palauans, as seen in their occupation and educational attainment, a large number of migrants seem to have returned back to Palau.

This is a stark contrast to what was previously believed. After the implementation of the Compact of Free Association with the United States of America, a lot of people believed, especially some Guam bureaucrats, that a lot of Palauans would migrate to Guam and the CNMI, even the state of Hawaii. The survey done in Hawaii may not be complete, and in any case this is the first survey so we don't have any trends, so data from Hawaii appear in this chapter. The surveys were done in order to study the impact of the migration, in the belief that the Compact implementation would create an all out migration into the US Insular Areas of Guam and CNMI and the state of Hawaii. The surveys seem to show that there *was* an impact, but in reverse.

The data on the short period between the 1990 Census and the surveys on Guam and the CNMI a few years later are less significant for the numbers they report than for the trends they reveal. Not only are the extent and rate of the Republic of Palau's population outflow more precisely defined, but the changing patterns of household composition and other features of life in the migrants' destinations are taking clearer shape.

## CHAPTER 15

## PROJECTIONS

*Projections based on the 1990 Census.* Under the terms of the Compacts of Free Association, the Federal government measures the impact of the migration of Micronesians to Guam, CNMI, and the other U.S. Areas as a *result of the Compact itself*. That is, any migration resulting from the “free entry” provision of the Compact would be included, but any migration which would have occurred even if there had been no Compact – for example, migration for schooling, or because a person is married to a U.S. citizen – is to be excluded. Unfortunately, no data exist to differentiate these two groups. Even when our surveys include “reason for migration” it is difficult to assess the underlying reasons for migration (as was seen in the earlier Chapters on reason for migration for each of the three receiving areas.)

The data in Table 15.1 illustrate the problem. This table uses data from the 1990 Decennial censuses of Guam and the CNMI to show numbers of persons born in the Freely Associated States and arriving in Guam or the CNMI before the Census. The data are divided into two groups – those arriving in years up to and including 1986 (pre-Compact), and those arriving in 1987 through April 1, 1990 (post-Compact). About 7,600 persons arrived in these areas from the Freely Associated States; about 3,200 arrived before Compact implementation, and about 4,400 arrived afterward. These data include people born in Palau; since Palau’s Compact was not implemented until 1994, the 1,000 persons arriving between 1987 and 1990 were considered.

Table 15.1. Year of entry by Freely Associated States: 1990

Year of Entry	Total	Federated States of Micronesia	Republic of Marshall Islands	Republic of Palau
Total	7,612	4,781	191	2,640
Before 1987	3,210	1,493	92	1,625
Percent	42.2	31.2	48.2	61.6
1987 to 1990	4,402	3,288	99	1,015
Guam	4,285	2,964	88	1,233
Before 1987	1,550	679	25	846
Percent	36.2	22.9	28.4	68.6
1987 to 1990	2,735	2,285	63	387
CNMI	3,327	1,817	103	1,407
Before 1987	1,660	814	67	779
Percent	49.9	44.8	65.0	55.4
1987 to 1990	1,667	1,003	36	628

Source: Unpublished 1990 Census data

Table 15.1 also shows that for the FSM and RMI, about 1,600 persons reported arriving before Compact implementation and continuing residence until the 1990 Census, about 1/3<sup>rd</sup> of the FSM born and about half of the RMI born. The two countries showed markedly different migration patterns: only 23 percent of the FSM born and 28 percent of the RMI born on Guam arrived before the Compact implementation compared to 45 percent of the FSM born in the CNMI and fully 65 percent of the Marshalls born. Hence, the Marshall Islands, which experienced little net migration to these Areas in any case, experienced about the same amount of migration pre- and post-Compact.

Clearly, this was not the case for the FSM. About 3,300 FSM born persons migrated to Guam and the CNMI between 1987 and 1990, about 1,000 per year. About 2/3<sup>rd</sup>s of the migration was to Guam, and the rest to the CNMI. Because of the strong flow, it is likely that Compact implementation was the impetus to the migration.

However, the data for Palau seem to obscure the issue. Even without the Compact, Palauans continued to migrate to Guam and the CNMI, although the percentages were lower (although a larger proportion of Palauans moved to the CNMI “Post-Compact” than did Marshallese). As noted, about 1,000 Palauans moved to Guam and the CNMI between 1987 and 1990, about 1/3<sup>rd</sup> to Guam and about 2/3<sup>rd</sup> to CNMI – the CNMI apparently accepted Palau born as “U.S.” after the Covenant was implemented.

Table 15.2 shows similar data from the 1997/8 Censuses of Micronesian Migrants to Hawaii, Guam, and the CNMI. About 10 percent of the migrants (excluding persons born in Hawaii, Guam or the CNMI, respectively), reported coming to the respective Areas before Compact Implementation (that is, Implementation for FSM and the Marshall Islands in late 1986.)

Table 15.2. Pre- and Post-Compact Migration, Hawaii, Guam and CNMI: 1997 and 1998

Place and Period	Total	FSM	RMI	Palau
Total	13,977	9,893	2,192	1,892
Pre-Compact	2,532	791	205	1,536
Percent	18.1	8.0	9.4	81.2
Post-Compact	11,445	9,102	1,987	356
Hawaii 1997	5,425	3,085	2,024	316
Pre-Compact	610	232	185	193
Percent	11.2	7.5	9.1	61.1
Post-Compact	4,815	2,853	1,839	123
Guam 1997	6,176	5,524	107	545
Pre-Compact	730	270	2	458
Percent	11.8	4.9	1.9	84.0
Post-Compact	5,446	5,254	105	87
CNMI 1998	2,376	1,284	61	1,031
Pre-Compact	1,192	289	18	885
Percent	50.2	22.5	29.5	85.8
Post-Compact	1,184	995	43	146

Sources: Censuses of Micronesian Migrants to Hawaii, Guam, and Saipan

The percentages for Hawaii, Guam, and the CNMI for the 3 Micronesian countries combined were remarkably similar. For the individual countries, however, we see some differences: more than half of the Palauan migrants arrived in Guam before Compact Implementation for FSM and the Marshalls compared to about 2 in 5 for Hawaii. Only 3 percent of the Marshallese to Guam were pre-Compact compared to 9 percent for Hawaii.

Table 15.3 shows projected levels of migrants if the number of migrants at the time of Compact implementation is used as a base, and the number arriving in the 4 years following the implementation is used for subsequent 4 year intervals. This progression is a *very crude* linear extrapolation and should not be used in isolation by planners and policy makers. Nonetheless, the numbers are revealing because, if late-1980s trends did continue, more than 20,000 Freely Associated States persons would be living in Guam and the CNMI in the early 21<sup>st</sup> century.

Table 15.3. Estimates/Projections for FAS populations: 1987 to 2002

Year of Entry	Federated States of Micronesia			
	Total	Marshall Islands	Palau	
<b>Total</b>				
Before 1987	3,210	1,493	92	1,625
1990	7,612	4,781	191	2,640
1994	12,014	8,069	290	3,655
1998	16,416	11,357	389	4,670
2002	20,818	14,645	488	5,685
<b>Guam</b>				
Before 1987	1,550	679	25	846
1990	4,285	2,964	88	1,233
1994	7,020	5,249	151	1,620
1998	9,755	7,534	214	2,007
2002	12,490	9,819	277	2,394
<b>CNMI</b>				
Before 1987	1,660	814	67	779
1990	3,327	1,817	103	1,407
1994	4,994	2,820	139	2,035
1998	6,661	3,823	175	2,663
2002	8,328	4,826	211	3,291

Source: Unpublished 1990 Census data

Note: Estimates based on pre- and post-Compact 1990 populations.

In looking at these numbers, it is important to remember that the pool of migrants is not infinite. Therefore, while it looks like the number of Micronesian migrants could increase indefinitely, only some Micronesians could afford to make the move – financially, socially, and/or culturally. The data do not reflect return migration for those who went to Guam or the CNMI but returned to Micronesia before the 1990 Census and would not return to Guam or the CNMI. Nor do the data account for possible economic development within the Micronesian areas which might encourage increased return migration and decreased out migration.

*CNMI based on the 1995 Census.* Similar linear projections were made for the 1995 Census of the CNMI, for the CNMI only. As Table 15.4 shows, the flow of Micronesian born would be greater under both assumptions – the current migration rate in the right hand columns (based on the average of the three years preceding the 1995 Census) or a reduced migration rate in the left hand columns. In both cases, the migration at the time of the 1995 Census was probably unusual for the long term since CNMI is in the middle of a migration boom. This boom started in the late 1980s and continued into the 1990s, which encouraged many skilled and unskilled workers to come to the CNMI to work in the garment factories, in construction, and in other industries.

Table 15.4. Estimates of FAS born in CNMI, based on 1995 Census: 1986 to 2001

Year	Estimates Using 8 Percent Annual Immigration				Estimates Using 16 Percent Annual Immigration			
	Total	FSM	RMI	Palau	Total	FSM	RMI	Palau
1986	1,039	534	37	468	1,039	534	37	468
1987	1,194	622	44	528	1,194	622	44	528
1988	1,563	723	45	595	1,363	723	45	595
1989	1,643	878	49	716	1,643	878	49	716
1990	1,940	1,048	64	828	1,940	1,048	64	828
1991	2,165	1,188	64	913	2,165	1,188	64	913
1992	2,456	1,366	68	1,022	2,456	1,366	68	1,022
1993	2,774	1,545	77	1,152	2,774	1,545	77	1,152
1994	3,210	1,811	105	1,294	3,210	1,811	105	1,294
1995	3,865	2,141	130	1,594	3,865	2,144	130	1,594
1996	4,178	2,314	141	1,723	4,491	2,488	151	1,852
1997	4,516	2,502	152	1,063	5,219	2,891	176	2,152
1998	4,882	2,705	164	2,014	6,064	3,359	204	2,501
1999	5,278	2,924	178	2,177	7,047	3,903	237	2,906
2000	5,705	3,160	192	2,353	8,188	4,536	275	3,377
2001	6,167	3,416	207	2,544	9,515	5,271	320	3,924

Source: Unpublished 1995 Census data

## CHAPTER 16

### CONCLUSIONS

The migration rates from the Micronesian countries vary depending on the islands' economies and their relative closeness to Guam, the CNMI, and Hawaii. The migration rate to Guam and the CNMI may be diminishing, partially taken up by increased migration to Hawaii, particularly from the FSM and the Marshall Islands. During the first years of the Compact period, the average annual migrant outflow was about 1,000 persons per year, or 1 percent of the FSM resident population per year. This flow to Guam, at least, seems to have diminished considerably in recent years.

Census items show that the traffic to Guam and the CNMI is not one-way; with considerable back migration occurring, that is, return of emigrants to their original home. Indeed, much of the appeal of Guam and the CNMI for many FSM migrants, in contrast to Hawaii (except for Kosraeans, and now Pohnpeian) or the mainland United States, is the ease and little expense of a return trip to the home island. The extent of back migration has yet to be adequately measured, however.

The data from the 1992 and 1993 surveys, the 1995 CNMI Census, and the 1997/8 Censuses of Micronesian Migrants reveal some pronounced differences among the Micronesian migrant communities in Guam, CNMI, and Hawaii. In the early years of the migration, single individuals migrated. In recent years, the households were filling out with dependents – women, children, and the elderly – and were evidently well on their way to full reconstitution as normal Micronesian households. Although the relative economies of the sending and receiving areas play a big role in the migration -- drops in employment rates among migrants and the possible increase in the number of those who do not speak English suggest that more migrants could choose not to enter the labor force. We can expect that in future years the size and pattern of the migrant households will likely look – statistically, at least – much more like other households in Guam, the CNMI, and Hawaii.

A comparison of the educational achievement of migrants with the resident FSM population, as an example, explodes the myth of a "brain drain" from the FSM since the implementation of the Compact. Contrary to what we read in the academic and popular press, the FSM is not being deprived of its most valuable human resources through migration. The best educated of FSM born, those with college degrees, generally stayed home to take their pick of the jobs on their own islands. Meanwhile, the unemployed high school graduates without the skills or educational attainment to compete for jobs at home left to take advantage of the job markets in Guam, the CNMI, and Hawaii. By and large, they took jobs having little appeal for local people and lack the background to advance beyond these entry-level occupations. Far from being a "brain drain", emigration is an escape valve for excess bodies in the labor pool -- that is, those who would be unemployable at home.

The total income earned by migrants in Guam, the CNMI, and Hawaii is increasing rapidly. These incomes represent substantial sums of money, especially given the present feeble condition of the sending countries' economies. The remittances that were recorded in 1994 for the Federated States of Micronesia signaled for the first time a change in direction of the dollar tide, and the 1997/8 confirm the findings -- money has at last begun to flow inward rather than outward and the remittances of \$1.26 million in 1993 have increased since.

The data on the short period between the 1990 census and the censuses in Guam, the CNMI, and Hawaii are less significant for the numbers they record than for the trends they reveal. Not only are the extent and rate of the migrant outflow more precisely defined, but the changing patterns of household composition and other features of life in the migrants' destinations are taking clearer shape. The census data offer us a surer base from which to project migration and its attendant consequences on the sending countries and the emigrant destinations.

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