

**NEW TRENDS IN MICRONESIAN MIGRATION:
FSM MIGRATION TO GUAM AND THE MARIANAS, 1990-1993**

Francis X. Hezel, S. J.
Micronesian Seminar
Pohnpei

Michael J. Levin
U.S. Bureau of the Census
Washington, D. C.

THE AIR ROUTES THAT CRISSCROSS the Pacific have carried thousands of islanders away to more developed Pacific Rim countries for some years now. Extensive out-migration has become a fact of life for many Pacific Island nations--Samoa, Tonga, Fiji, the Cook Islands, and Kiribati, to mention just a few. In recent years the Federated States of Micronesia (FSM), a newly formed nation of 105,000 people divided into four states (Yap, Chuuk, Pohnpei, and Kosrae), has joined the coterie of island countries sending large numbers of their people abroad. The FSM's Compact of Free Association with the United States, implemented in November 1986, granted its citizens free access to the United States and its territories. This created new opportunities for Micronesians, who hitherto had been allowed into the United States for schooling but not for employment. It also opened a "new and rather unique chapter in Pacific Islander migration" (Rubinstein 1991: 1). This article will chronicle the latest developments in this "new chapter" of Pacific migration.

The first significant emigration from the Federated States began in the years following the implementation of the Compact 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 Hawai'i and the mainland United States even before implementation of the compact, but always sporadically and in small numbers. The emigration was overdue, for this new island nation was beset by high population growth and almost no job expansion. 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).

The explanation of the outflow, at least in its earliest years, is simple. Citizens of the FSM, disappointed at the lack of employment at home, left in search of the many jobs available in Guam and the CNMI. These islands were enjoying an economic boom fueled by a surge in Japanese tourism. Guam was the preferred destination of migrants, but some moved to Saipan in the Marianas to join relatives and take work in its expanding garment industry. The proximity of Guam and Saipan to the FSM 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 compact, with its free-entry provisions, removed the last immigration barricade. At the same time, the compact signaled the beginning of the reduction of the large U.S. subsidies to which Micronesia had become accustomed since the 1960s. So it was that island peoples who had never in recent memory 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).

In this article the authors, using more recent data on migrant communities, propose to furnish an update on the magnitude of this migration and to present a profile of Micronesian migrant communities in Guam and the Northern Marianas. We draw mainly on two sources. The first is a 1992 census of Micronesians residing on Guam, supervised by Donald Rubinstein, an anthropologist at the University of Guam who has studied the new migration from the beginning. The second source is a 1993 survey of FSM citizens residing in the CNMI. To the best of our knowledge, this article is the first attempt to analyze the data collected on the Northern Marianas. We are using that data here to shed light on the significant differences between the migrants on Guam and those in the CNMI. Since the data on which this article is based are two or three years old at the time this is written, we will

be offering a description of a social phenomenon that has probably already undergone further transformation. Nonetheless, we can hope that this essay, building on the analysis of Rubinstein and others, will show trends in the new migration and patterns in the social development of Micronesian households in Guam and the CNMI. On the basis of the survey data for Guam and the CNMI, this article will provide a comparative view of the characteristics of the FSM migrant populations and their economic well-being in these two destinations. Moreover, this article offers, for the first time, a comparison between the educational attainments of migrants and those of the population still resident in the FSM in order to establish whether the vaunted “brain drain” is reality or myth. Finally, drawing on data from the 1994 FSM census, the article also quantifies the economic impact of this migration on the FSM in the form of remittances.

Sources of Migration Data

As Table 1 shows, 4,954 FSM citizens were residing on Guam in 1992 and 2,261 were living in the Northern Marianas in 1993.

We have been able to plot the growth of the migrant community on Guam during its nascent years since we have four sets of data, derived from surveys conducted there between September 1988 and September 1992. The first was based on a partial household survey done in the fall of 1988. Estimates of the size of the migrant populations for each state were extrapo-

TABLE 1. FSM Citizens Residing in Guam and the CNMI by State of Origin and Year

Year	Total FSM	Chuuk	Pohnpei	Yap	Kosrae
Guam					
1988 (Sept.)	1,700	1,100	300	150	150
1990 (April)	2,944	1,843	662	303	136
1990 (Sept.)	2,973	2,143	377 ^a	318	135
1992 (Sept.)	4,954	3,587	866	309	192
CNMI					
1990	1,754	1,063	522	152	17
1993	2,261	1,119	717	376	49

Sources: Hezel and McGrath 1989; U.S. Department of Commerce 1992; Unpublished survey of FSM migrants on Guam, September 1990; University of Guam 1992; CNMI 1994.

^a The Pohnpei figure is an undercount, by admission of those who conducted the survey, due to the failure to contact many of the widely dispersed Pohnpeian households.

lated from the sample on the basis of the ratio of the known number of college students to the total number of migrants. These estimates were checked against the emigration rate from sample FSM municipalities, as calculated by a gate count, and found to concur nicely (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 drawn from the decennial U.S. census conducted on Guam in April 1990 (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. The survey, which was never published, includes infants born on Guam as well as those born abroad. The fourth set of figures comes from the census of migrants to Guam from the FSM and the Marshall Islands that was probably the most thorough to date. This census, using mid-1992 as the reference date, was conducted by a paid and trained staff of Micronesian interviewers under the supervision of Don Rubinstein (University of Guam 1992).

It should be noted that, in view of the methodological unevenness of the surveys, the internal consistency of the resulting figures is remarkable and should inspire greater confidence in these data than methodological considerations alone might warrant.

For the Northern Marianas the two data points are 1990 and 1993 (CNMI 1994). The 1990 data are taken from the U.S. decennial census, while those for 1993 come from a household survey done by the CNMI Central Statistics Division. Although the figures show an increase in the migrant population, the paucity of data points makes it difficult to extrapolate with any statistical confidence the FSM population living in the Northern Marianas today.

Increase in Migration

The FSM population on Guam has grown rapidly, but not as alarmingly so as some seem to think. Early, wildly exaggerated estimates 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 postcompact immigration (for example, Territory of Guam 1995).

The FSM population on Guam, already about 1,700 two years after the Compact of Free Association was implemented, numbered 4,954 by 1992 and was estimated at about 6,330 in 1994 (see Tables 1 and 2). In the North-

TABLE 2. Estimated FSM-born Population in Guam and the CNMI by State of Origin, 1994

	Total FSM	Chuuk	Pohnpei	Yap	Kosrae
Total	8,750	5,900	1,800	750	300
Guam	6,330	4,770	1,000	320	240
CNMI	2,420	1,130	800	430	60

Source: Authors' projections.

em Marianas the FSM-born population increased by 29 percent, from 1,754 to 2,261, between 1990 and 1993 and was estimated at 2,420 in 1994. Growth of the migrant community there has been much slower than on Guam. Table 2 shows the projected size of the migrant population from each state in Guam and the CNMI in 1994.

The growth of FSM migration to Guam by state of origin between 1988 and 1992 is graphed in Figure 1. Migrants from Chuuk State, who have outnumbered those from the other three states combined, constituted 72 percent of the total FSM population on Guam in the fall of 1992. As the graph

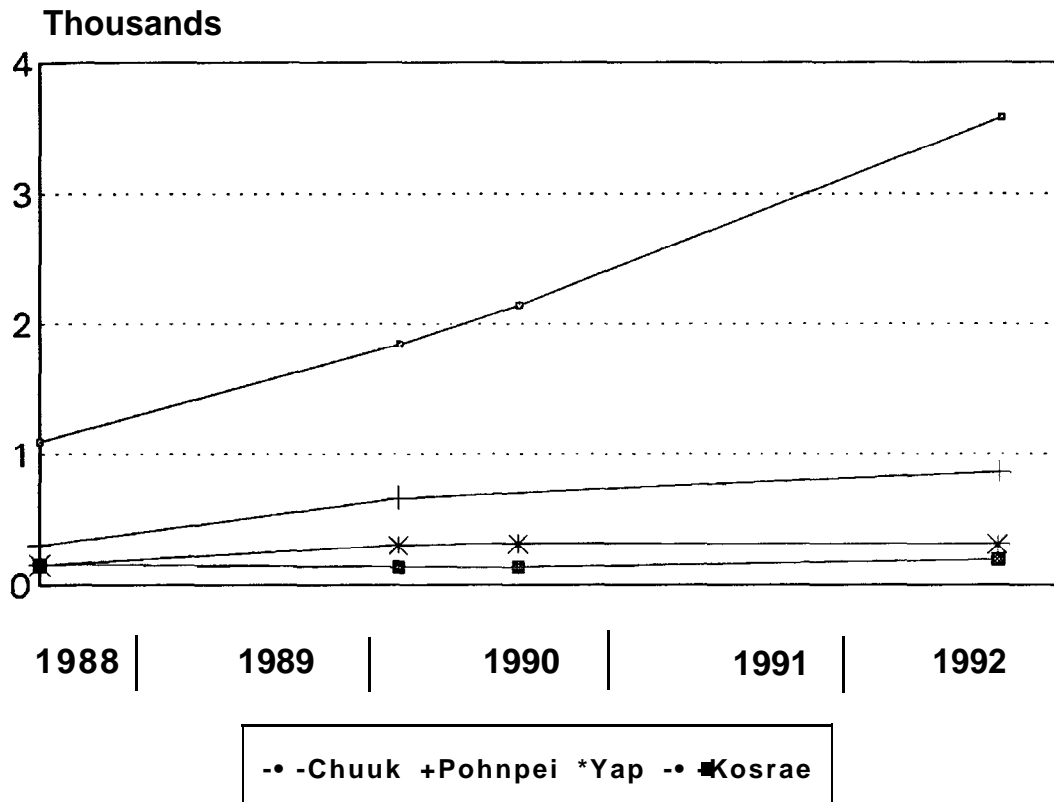


FIGURE 1. Emigration from the Federated States of Micronesia to Guam by state of origin, 1988-1992.

indicates, the flow of Chuukese migrants to Guam has been linear, with the Chuukese population there growing by almost 600 a year.

The Pohnpeian community's growth, unlike that of the Chuukese, has not been steady and progressive. Table 3 shows that, while Pohnpeians have continued migrating to Guam year by year, the number moving there each year did not increase between 1990 and 1992. There were roughly 180 Pohnpeians a year who first entered Guam during this period. Although Table 3 indicates 563 Pohnpeians first arriving on Guam during those three years, the Pohnpeian migrant community showed a net increase of only 204 persons during this period (Table 1). The difference may be attributable to back-migration, that is, the return of earlier Pohnpei migrants to their home island. The data are not robust enough to determine a reliable growth rate, but it appears that the upward trend of migration from Pohnpei has slowed compared to that of the first six years following the compact. We can make only a crude estimate that in 1994 the Pohnpeian population on Guam must have been a little more than 1,000.

The size of the Yapese migrant population on Guam has hovered at a little more than 300 between 1990 and 1992 (see Table 1). The number of Yapese arrivals in more recent years has remained steady at 50-60 a year (Table 3), with many of the new migrants presumably offset by those returning to their home islands. The Yapese community on Guam has shown no signs of expansion in the 1990s.

The Kosraean population on Guam is growing slowly, as the survey data in Table 1 reveal and the arrival data in Table 3 confirm. Since 1986 the number of arrivals from Kosrae has been increasing each year. The data do not furnish a basis for reliable prediction of future growth, however.

TABLE 3. Year of First Arrival on Guam for FSM-born Migrants by State of Origin, 1992

Year	Total FSM	Chuuk	Pohnpei	Yap	Kosrae
Total	4,953	3,586	866	309	192
1992 or later	1,191	894	184	63	50
1991	1,036	743	208	50	35
1990	920	658	171	61	30
1989	611	438	120	31	22
1988	425	308	87	20	10
1987	276	222	34	14	6
1986	155	119	16	17	3
1985 & before	273	172	40	26	35
NA	66	32	6	27	1

Source: University of Guam 1992: table 19.

TABLE 4. Year of First Arrival in the CNMI for FSM-born Migrants by State of Origin, 1993

Year	Total FSM	Chuuk	Pohnpei	Yap	Kosrae
Total	2,261	1,119	717	376	49
1992 or later	281	142	75	51	13
1991	226	117	81	24	4
1990	268	143	88	31	6
1989	235	133	69	31	2
1988	182	112	61	4	5
1987	178	109	51	16	2
1986	119	54	47	18	0
1985 & before	439	193	144	92	10
NA	333	116	101	109	7

Source: CNMI 1994: table 19.

The data for the CNMI are inadequate for the purpose of extracting migration rates, but some important inferences can be made. An average of 134 Chuukese a year arrived during the period 1990-1992 even though the Chuukese population in the CNMI had a net growth of only 56 people during that whole period (Table 4; see Table 1). This substantial back-migration among Chuukese may largely be the return of women who once held jobs in the garment factories on Saipan. By contrast, the other states had little back-migration; the more recent arrivals from Pohnpei, Yap, and Kosrae, when added to the 1990 figures, roughly account for the increase in the migrant population between 1990 and 1993. Hence, we can assume that Chuukese migrants tend to drift in and out, much like Chuukese residing on Guam, while those from the other states move to the CNMI to stay.

Migration Rates

Table 5 shows the resident population of each FSM state, as recorded in the 1994 census, alongside the total estimated size of its migrant population in Guam and the CNMI combined. The table also shows the percentage of the total population that has emigrated to the northern islands since the compact took effect and the approximate annual migration rate.

A full 10 percent of the entire Chuuk-born population was living in Guam and the Northern Marianas in 1994, and there is every reason to believe that the 1.2 percent annual emigration rate will continue in the years to come. The preliminary 1994 FSM census figures show no evidence of a decline in Chuuk's fertility rate, and the state's economy is unlikely to take an upswing. The annual growth rate of the resident population in Chuuk for

TABLE 5. FSM Resident Population and Migrant Population (in Guam and the CNMI) in 1994, with Migrants as Percentage of Total FSM-born Population and Yearly Migration Rate

State	Resident Population	Migrants (est.)	Total	Migrants (%)	Rate/Yr. (%)
FSM Total	105,146	8,750	113,896	7.7	1.0
Chuuk	53,292	5,900	59,192	10.0	1.2
Pohnpei	33,372	1,800	35,172	5.1	0.6
Yap	11,128	750	11,878	6.3	0.8
Kosrae	7,354	300	7,654	3.9	0.5

Sources: FSM 1995; Table 2.

the intercensal period 1989-1994 was 2.3 percent despite the fact that its migration rate of 1.2 percent was the highest in the Federated States.

The annual net out-migration rates from the other states were lower, ranging from 0.5 percent for Kosrae and 0.6 percent for Pohnpei to 0.8 percent for Yap. These figures reflect the lower annual growth rates of the population in these states, and perhaps the slightly better economic conditions there as well.

An-estimated 8,750 FSM citizens resided in Guam and the CNMI in 1994 (see Table 2), representing 7.7 percent of the entire FSM-born population. The emigration rate for the FSM between 1986 and 1994 was about 1 percent a year.

Composition of Migrant Populations

The earliest FSM migrants to Guam were predominantly young males in search of jobs. Many of the original households were inherently unstable, composed as they were of several young men in their twenties or thirties working at low-paying jobs and pooling their income to cover rent and other expenses (Hezel and McGrath 1989:58-60). 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). Rubinstein went on to note the gradual evolution of this fragile type of household into more typically Micronesian forms. In the second stage of the pattern Rubinstein identified on Guam, two-generation households emerged around a nuclear family, but they contained a potpourri of loosely related kin and friends. In the final stages, the household members were selected according to the kinship principles normative back home, and grandparents or other

older people were added, giving the household important generational depth (Rubinstein 1993:260-261).

Guam has had a broad range of migrant household types, extending from "peer-group households" to the much more stable types that mirror social organization in the migrants' home islands. Data on gender and age distribution of migrants in Guam and the CNMI offer strong hints about how far households in each place have advanced on Rubinstein's spectrum.

The overall ratio of males to females among FSM migrants on Guam is 132:100 (Table 6). Thus, in 1992 there were about four FSM males for every three females. Surprisingly, the preponderance of males on Guam had increased since 1990, when the ratio was 121 males per 100 females (Rubinstein and Levin 1992:354). Males outnumbered females on Guam among the migrants from every state but was greatest for Yapese and Kosraeans, an imbalance approaching a ratio of two males for each female. For Chuukese and Pohnpeians, the ratio was highest for those from the outer islands of both places and from Faichuk.

In the CNMI, on the other hand, the overall ratio was reversed and women outnumbered men. Only among Kosraeans and Yapese were males more numerous, and even among them the ratio was much lower than on Guam. Although the higher percentage of women in the Northern Marianas might be attributed in part to employment that the garment industry offers women, it could also indicate the relatively high degree of normality found in composition of the migrant households there. The data on age distribu-

TABLE 6. Males per 100 Females in Guam and the CNMI by Birthplace, 1992/1993

Birthplace	Total	Guam	CNMI
FSM Total	116	132	88
Chuuk	115	129	77
N. Namoneas	97	112	75
S. Namoneas	106	118	70
Faichuk	150	155	100
Mortlocks	109	126	79
Oksoritod	123	146	57
Pohnpei	103	115	90
Pohnpei Island	102	115	86
Outer Islands	110	135	101
Yap	152	209	119
Yap	188	188	NA
Outer Islands	296	296	NA
Kosrae	156	167	123

Sources: University of Guam 1992; CNMI 1994.

tion in the Marianas, as we shall see, support the latter interpretation. Our assumption, of course, is that equal numbers by sex and a broader age spread reflect a normal demographic pattern and suggest that migrant households are beginning to resemble households back home.

Age distribution is a further index of the stability of migrant households, since the presence of children and older persons to fill out the normal family unit usually indicates readiness to settle into their new homeland for a long duration. By this index, migrants in the CNMI show a much greater degree of stability than those on Guam. As indicated in Table 7, in 1993 the percentage of children (that is, persons under the age of 15) in the CNMI, at 30 percent of the total migrant population, is significantly higher than on Guam in 1992 (20 percent), although much lower than the 43 percent recorded for the FSM in the 1994 census (FSM 1995). A look at the other end of the population tells much the same story, for elderly migrants (age 60 and older) represent about 8 percent of the CNMI population, as compared to less than 2 percent on Guam. This age group comprises about 5 percent of the total population of the FSM (FSM 1995).

To gauge the extent to which migrant communities in Guam and the CNMI have been normalized, we can look at the changes in the age distribution in both places between 1990 and 1992/1993. On Guam no appreciable reduction occurred in the relative size of the 15-29 age cohort, the largest among migrant communities inasmuch as it comprised the students and many of the workers. This age cohort, which represented 51 percent of all

TABLE 7. FSM Migrants in Guam and the CNMI by Age, 1990 and 1992/1993

Age Group	1990		1992/1993	
	Guam	CNMI	Guam	CNMI
Total number	2,963	1,817	4,932	2,212
Percentage	100.0	100.0	100.0	100.0
Under 15 years	21.8	19.8	19.5	30.3
15 to 29 years	50.7	44.5	49.7	34.4
30 to 44 years	20.5	21.8	23.4	22.6
45 to 59 years	5.2	8.8	5.7	4.9
60+ years	1.8	5.1	1.8	7.8
Dependency ratio	31.0	33.0	27.0	61.6

Sources: U.S. Department of Commerce 1992: table 46; University of Guam 1992; CNMI 1994.

Note: Percentages in this and following tables may not sum to 100.0 percent owing to rounding.

migrants on Guam in 1990, still contained 50 percent in 1992. During the same two years, the size of the elderly population on Guam remained the same, while the percentage of children on Guam fell slightly--from 22 to 20 percent (see Table 7).

In the CNMI, on the other hand, the size of the 15-29 age cohort dropped from 45 percent to 34 percent over the three-year period 1990-1993. During the same period, the percentage of children rose sharply from 20 to 30 percent, and the over-60 age bracket showed a slight increase, from 5 to 8 percent (see Table 7).

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 dependents (children and elderly) per 100 workers. While Guam's dependency ratio dropped slightly during this period, from 31 dependents for every 100 workers to 27, the ratio in the CNMI nearly doubled. It rose from 33 to nearly 62 in three years, indicating a substantial increase in the number of nonworking members of FSM households (see Table 7).

The data in these tables convincingly show that the FSM migrant community in the CNMI was being rapidly transformed during these years, while the FSM community on Guam showed little evidence of parallel changes. It would appear that migrant households in the CNMI are much further along the road of normalization and stabilization than are Guam's

Housing

FSM citizens living on Guam in 1992 were distributed in 599 housing units, with an average of 8.3 persons in each (see Table 8). The average migrant housing unit in the CNMI held only 5.1 persons. Housing units in general in the CNMI tend to be physically larger than those on Guam, in part because many more of the CNMI migrants lived in single-family houses while Guam migrants lived in apartments. Migrant housing on Guam was considerably more crowded than housing in the CNMI, owing in great measure to the much higher rental rates on Guam. A single room on Guam had an average of 2.4 occupants, 50 percent higher than the 1.7 figure for the CNMI.

Although crowded, the housing on Guam was superior to that in the CNMI. More of the units were built of concrete and had cement rather than metal roofs. Additionally, Guam migrants also enjoyed other amenities (Table 9). Many more had hot water than did migrants in the CNMI, almost one-third of whom did not have even running water in their houses. Nearly two out of five of the CNMI migrants had to do without a flush toilet or a shower in their houses, conveniences that only a very small percentage of the Guam residents lacked. The contrast between Guam and CNMI mi-

TABLE 8. Housing Conditions of FSM Migrant Households in Guam and the CNMI, 1992/1993

	Number		Percentage	
	Guam	CNMI	Guam	CNMI
Units in building				
Total buildings	599	440	100.0	100.0
1	324	380	54.0	86.4
2	103	26	17.1	5.9
3 or 4	70	19	11.6	4.3
5 to 9	41	7	6.8	1.6
10 or more	61	8	10.1	1.8
Persons per unit				
Total buildings	599	440	100.0	100.0
1	10	42	1.6	9.5
2-4	137	162	22.8	36.8
5-7	184	136	30.7	30.9
8-10	123	71	20.5	16.2
11-14	77	24	12.9	5.5
15 or more	68	5	11.4	1.2
Persons per room				
Total buildings	599	440	100.0	100.0
Less than 0.5	6	22	1.0	5.0
0.5 to 0.9	34	58	5.7	13.2
1 to 1.9	170	203	28.4	46.2
2 to 2.9	198	86	33.1	19.6
3 to 3.9	97	35	16.2	8.0
4 to 4.9	55	17	9.2	4.0
5 or more	39	19	6.5	4.3
Material in construction of building				
Total buildings	599	440	100.0	100.0
Concrete	405	202	67.6	46.0
Metal	50	131	8.4	29.8
Wood	142	106	23.7	24.0
Thatch	2	1	0.3	0.2

Sources: University of Guam 1992: table 2; CNMI 1994: table 2.

grants extended to other amenities like sewage disposal and to appliances like electric stoves, refrigerators, and television sets.

In short, Guam offered its migrants well-built but rather cramped housing with less living space per person than those in the CNMI enjoyed. Even recreational spaces and cooking areas were indoors, in marked contrast to Micronesian custom on their home islands (Levin and Mailos 1992:5-7). On the other hand; the housing on Guam was equipped with all of the conve-

TABLE 9. Conveniences in FSM Migrant Households in Guam and the CNMI, 1992/1993

	Number		Percentage	
	Guam	CNMI	Guam	CNMI
Running water				
Total	599	440	100.0	100.0
Hot & cold	348	60	58.1	13.6
Cold	241	247	40.2	56.2
None	10	133	1.7	30.2
Flush toilet				
Total	599	440	100.0	100.0
None	37	184	6.2	41.8
1 or more	562	256	93.8	58.2
Electricity				
Total	599	440	100.0	100.0
None	39	84	6.5	19.1
With electricity	560	356	93.5	80.9
Cooking facilities				
Total	599	440	100.0	100.0
Electric stove	481	215	80.3	48.9
Gas stove	67	94	11.2	21.4
Other. or none	51	131	8.5	29.8

Sources: See Table 8.

niences that a significant number of the CNMI migrants lacked. In short, the CNMI offered migrants a lifestyle not too dissimilar to the one they had become habituated to back home. Whatever the housing facilities there may lack, the environment seems to be a more comfortable one for the larger families that are gradually being assembled there.

Language Use

Guam and CNMI residents born in the FSM spoke English at home much less frequently than did the general population (Table 10). Only 6 percent of FSM citizens on Guam used English as their only language, compared with 37 percent of the total Guam population. In the CNMI the difference between FSM migrants and the general population was not nearly as great, since a very small fraction (5 percent) of the local people use English as their only language, preferring instead the still widely used Chamorro and Carolinian languages and the newer Filipino languages.

It is not very remarkable that migrants as recent as those from the FSM should favor speaking their own language within their households or com-

TABLE 10. Frequency of English Use of FSM-born and General Populations in Guam and the CNMI, 1990 and 1992/1993

	1990				1992 Guam FSM- born	1993 CNMI FSM- born
	Guam		CNMI			
	Total	FSM- born	Total	FSM- born		
	Number					
Total (age 5+)	118,055	2,791	39,206	1,754	4,739	1,941
Speak English only	44,048	180	1,878	38	139	294
Speak other language	74,007	2,611	37,328	1,716	4,291	1,512
Not stated					309	135
	Percentage					
Speak English only	37.3	6.4	4.8	2.2	2.9	15.1
Speak other language						
More than English	35.6	71.5	65.4	75.6	86.9	60.2
Both equally often	36.2	19.4	17.4	16.1	9.8	32.5
Less than English	26.6	7.2	7.2	6.6	3.3	6.3
Don't speak English	1.6	1.9	9.9	1.6	NA	NA

Sources: U.S. Department of Commerce 1992: table 50; University of Guam 1992; CNMI 1994: table 12.

munities. More noteworthy is how slowly the migrants on Guam are entering the mainstream, as measured by language use, in contrast to those in the CNMI. Between 1990 and 1992, the percentage of FSM migrants on Guam recorded as speaking their own language more than English jumped from 72 to 87 percent, while the corresponding percentages for FSM citizens in the CNMI dropped from 76 to 60. Accordingly, the percentage of migrants to the CNMI who spoke English as much as their own language rose from 16 to 33 percent, with the figures for Guam falling from 19 to 10 percent. This finding is a surprising reversal of what we might have expected, for the FSM migrant population on Guam is still heavily young and male--and presumably relatively well educated. The FSM community in the CNMI, by contrast, shows a broader range of age and aptitude than that formed by the educated young men or women who first set out for employment.

Education

The data in Table 11 reveal that the average education of the migrant from the FSM was substantially poorer than that of the general populations in the

TABLE 11. Educational Attainment of FSM Migrants and Total Populations in Guam and the CNMI, 1990 (cumulative percentages)

Level Completed	Guam & CNMI		Guam		CNMI	
	Total	FSM-born	Total	FSM-born	Total	FSM-born
Total (age 25+)	91,333	2,268	66,700	1,347	24,633	921
Finished elementary	87.7	84.1	88.4	88.3	85.8	78.0
High school graduate	71.4	56.3	73.3	62.4	66.3	47.4
College, no degree	37.6	26.3	39.9	31.9	31.1	18.1
Associate's degree	19.5	7.9	20.0	8.1	18.1	7.7
Bachelor's degree	17.0	5.1	17.5	5.3	15.6	4.8
Graduate/professional degree	3.8	0.7	4.3	0.6	2.5	0.8

Sources: U.S. Department of Commerce 1992: table 51; CNMI 1994.

CNMI and Guam in 1990. While 73 percent of the Guam population over the age of 24 had a high school diploma, only 62 percent of the FSM citizens on Guam did. The gap was slightly greater in the CNMI, where 66 percent of the general population had finished high school, compared with only 47 percent of FSM citizens. The difference in the college-educated was even greater: the percentage of the FSM-born with college degrees was only about one-third that of the general population in both places. This relatively low level of educational attainment explains why FSM migrants have usually held entry-level jobs (for example, security guards, chambermaids, seamstresses, waiters, and cooks), even after several years abroad.

The comparison in Table 12 between the educational levels of migrants

TABLE 12. Educational Attainment of FSM Migrants and FSM Residents (cumulative numbers and percentages)

Level Completed	FSM Residents (1994)		FSM Migrants in CNMI (1993)		FSM Migrants in Guam (1992)	
	No.	%	No.	%	No.	%
Total (ages 2544)	22,655	100	1,406	100	2,032	100
High school degree	8,955	39.5	827	58.8	1,077	53.0
Some college	4,981	22.0	268	19.1	544	26.8
Associate's degree or equivalent	2,633	11.6	45	3.2	74	3.6
Bachelor's degree or equivalent	951	4.2	35	2.5	33	1.6

Sources: FSM 1995; University of Guam 1992; CNMI 1994.

and the resident FSM population is more illuminating. Since the older age cohorts, underrepresented in the migrant communities, have had fewer opportunities for schooling inasmuch as many were raised during the time of Japanese colonization, we selected only a mid-range age group (ages 25-44) in an effort to make a more-valid comparison. For this age group, migrant communities in the CNMI and Guam had a significantly greater percentage of those who had obtained their high school diplomas. Fully 53 percent of all FSM citizens on Guam and nearly 59 percent in the CNMI had finished high school, compared with less than 40 percent of the FSM resident population in 1994. As we progress up the educational ladder, however, the figures lean in the other direction. The percentage of those who had some college but did not finish their degree was roughly the same in all three populations, while the rate of college degree holders in the FSM was much higher than in either of the migrant communities abroad. Nearly 12 percent of all FSM residents ages 25-44 had either associate's or bachelor's degrees, whereas only 4 percent of FSM migrants on Guam and about 3 percent of those in the CNMI had such degrees.

These data reveal that the outflow of migrants to Guam and the CNMI cannot be called a "brain drain" in the usual sense of that term. They also confirm the authors' suspicion that those Micronesians with the best degrees, and thus the brightest prospects for employment, will remain in the FSM and take the best jobs (Hezel and McGrath 1989:62). Those who, have left home characteristically have been those with a high school diploma, or perhaps a year or two of college, who would be entering the labor pool in the FSM without the kind of credentials that would have given them a competitive edge in the battle for employment there.

Employment

Figures from 1990 indicate that Micronesian participation in the labor force on Guam was comparable to that of the general population on the island (Table 13). Close to 70 percent of all FSM-born migrants were either working or seeking employment at the time, whatever their original reason may have been for moving to Guam. In the CNMI there was an appreciable difference in participation in the labor force: 64 percent of FSM migrants versus 82 percent of the general population. The Micronesian participation in the labor force in the CNMI was lower than for Guam because of the higher ratio of dependents in the CNMI, as we have already seen, while the very high rate of participation of the general population there can be explained by the great number of foreign-born workers in the commonwealth.

Unemployment was higher among FSM migrants who entered the labor

TABLE 13. Labor Force Status of FSM-born and General Populations in Guam and the CNMI, 1990

	Guam		CNMI	
	Total	FSM-born	Total	FSM-born
Persons (age 16+)	90,990	2,280	32,522	1,425
In labor-force	66,138	1,579	26,589	905
Percentage	72.7	69.3	81.8	63.5
Armed forces	11,952	11	8	0
Civilian labor force	54,186	1,568	26,581	905
Employed	52,144	1,410	25,965	830
Percentage	96.2	89.9	97.7	91.7
Unemployed	2,042	158	616	75
Percentage	3.8	10.1	2.3	8.3
Not in labor force	24,852	701	5,933	520

Sources: U.S. Department of Commerce 1992: table 53; CNMI 1994.

force than among the general Guam and CNMI populations. Eight to 10 percent of FSM-born seeking employment were unemployed, compared to under 4 percent of the Guam labor force and 2 percent of the CNMI labor force (see Table 13). Inasmuch as Micronesians were new arrivals and many were still looking for work or were between jobs, the higher unemployment rate is not surprising.

The common perception in the past year or two is that fewer FSM migrants now come to Guam to work; many simply wish to educate their children in Guam's schools or take advantage of the munificent welfare benefits that the island offers. The data in Table 14 would seem to offer some support for this perception, although we should recall that the early 1990s was a slack economic period for Guam because of the Japanese recession, several serious typhoons, and a downturn in tourism. The percentage of adult Micronesians on Guam who were employed decreased from 62 percent to 56 percent between 1990 and 1992. It is unlikely that this drop can

TABLE 14. FSM Migrants Employed in Guam and the CNMI, 1990 and 1992/1993

	1990		1992/1993	
	Guam	CNMI	Guam	CNMI
Persons (age 16+)	2,280	1,425	3,904	1,479
Employed	1,410	830	2,185	826
Percentage	61.8	58.2	56.0	55.8

Sources: U.S. Department of Commerce 1992; University of Guam 1992; CNMI 1994.

be ascribed mainly to Guam's economic troubles, though, since total island employment rose by 24 percent during this same two-year period (Territory of Guam 1993).

The decrease of employed adult FSM migrants in the CNMI during roughly the same period was much smaller, down from 58 to 56 percent. We can expect this downward trend in employment to continue as migrants reconstitute their households and bring in an increasingly large number of housewives and older people who will not enter the labor force.

Income

The 2,185 FSM-born persons working on Guam in 1992 were earning an average of \$6.43 an hour (Table 15), a figure that was \$2.18 above the minimum wage at the time but significantly lower than the \$8.61 average hourly wage of Guam private-sector employees and the \$16.91 average of those employed by the government (Territory of Guam 1993). Although the salaries of migrants were low, their cumulative earnings were significant and could have considerable impact on the FSM economy. If we assume that all were working full-time (that is, 2,000 hours a year), the total annual wages earned by FSM migrants would have come to about \$28 million.

There were 825 FSM citizens working in the CNMI in 1993 for an average hourly wage of \$6.30 (Table 16). If they averaged about 2,000 work

TABLE 15. Hourly Income of Employed FSM Migrants on Guam by State of Origin, 1992

	Total FSM	Chuuk	Pohnpei	Yap	Kosrae
Persons (age 16+)	2,185	1,534	348	184	119
Less than \$2.00	10	6	4	0	0
\$2.00-2.99	4	2	0	2	0
\$3.00-3.99	5	3	1	1	0
\$4.00-4.99	656	529	75	37	15
\$5.00-5.99	753	542	103	57	51
\$6.00-6.99	352	243	60	23	26
\$7.00-7.99	200	129	40	20	11
\$8.00 to \$9.99	113	50	45	9	9
\$10.00 to \$20.00	53	14	19	15	5
\$20.00 or more	13	10	1	0	2
NA	26	6	0	20	0
Median (dollars)	5.73	5.41	5.91	5.74	5.87
Mean (dollars)	6.43	6.03	6.35	6.29	7.03

Source: University of Guam 1992: table 30.

TABLE 16. Hourly Income of Employed FSM Migrants in the CNMI by State of Origin, 1993

	Total FSM	Chuuk	Pohnpei	Yap	Kosrae
Persons (age 16+)	825	415	277	108	25
Less than \$2.00	5	2	1	2	0
\$2.00-2.99	352	229	93	29	1
\$3.00-3.99	132	59	54	16	3
\$4.00-4.99	60	19	23	14	4
\$5.00-5.99	42	16	14	11	1
\$6.00-6.99	30	11	13	3	3
\$7.00-7.99	47	19	19	7	2
\$8.00 to \$9.99	49	13	22	11	3
\$10.00 to \$20.00	49	10	26	9	4
\$20.00 or more	15	5	5	2	3
NA	44	32	7	4	1
Median (dollars)	4.44	2.83	3.68	4.25	7.00
Mean (dollars)	6.30	3.89	6.12	6.26	8.71

Source: CNMI 1994: table 30.

hours during the year, their annual earnings would total more than \$10 million.

Five or six dollars an hour can seem like a regal salary to an islander who has just arrived from a place where the minimum wage may be little more than a dollar an hour. In fact, the high salaries to be made on Guam and in the Northern Marianas are one of the main attractions of these places. Nonetheless, the average Micronesian salary is small by Guam or Saipan standards, and most migrants find themselves hard-pressed to stretch their take-home pay enough to provide all the necessities, especially in view of the high cost of housing, the need to buy all their food, and the outlay they are required to make for suitable clothes in the workplace. Indeed, the 1990 U.S. census revealed that about 59 percent of the FSM migrants in the CNMI and 51 percent of those on Guam were classified as living at or below the U.S. poverty level (Table 17). We may safely assume that these figures did not change much in the past two or three years.

Remittances

With the new jobs in Guam and the CNMI has come a substantial amount of additional income for FSM citizens. We need only recall that in 1992 FSM-born migrants earned an estimated \$28 million on Guam and in 1993 another \$10 million in the CNMI. The remittances that economic planners have been anticipating since the beginning of the outflow have been slow in

TABLE 17. Ratio of Income to Poverty Level for FSM-born and General Populations in Guam and the CNMI, 1990 (cumulative numbers and percentages)

Income	Number				Percentage			
	Guam		CNMI		Guam		CNMI	
	Total	FSM-born	Total	FSM-born	Total	FSM-born	Total	FSM-born
Persons	126,460	2,933	43,025	1,797	100.0	100.0	100.0	100.0
Below 50% of poverty level	8,022	862	11,449	541	6.3	29.4	26.6	30.1
Poverty level	18,957	1,497	22,084	1,056	15.0	51.0	51.3	58.8
Below 125% of poverty level	27,323	1,859	26,109	1,236	21.6	63.4	60.7	68.8
Below 185% of poverty level	47,916	2,312	31,878	1,481	37.9	78.8	74.1	82.4

Sources: U.S. Department of Commerce 1992: table 52; CNMI 1994.

coming, though, because of the migrants' set-up needs in Guam and the CNMI. Hitherto, the major benefits those at home received from their relatives abroad were the cases of frozen chicken and boxes of secondhand clothing that were being shipped back regularly

Finally, after several years of population outflow, we have begun to see the first clear sign of monetary remittances. 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 18). Remittances reported everywhere in the FSM totaled \$1.26 million, 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 18. Total Remittances from Abroad Received in FSM, 1994

	Total FSM	Chuuk	Pohnpei	Yap	Kosrae
Total households	22,423	9,904	7,779	2,632	2,108
Households reporting remittances	3,290	2,831	260		
Total amount	\$1,260,000	\$952,750	\$196,200	\$41,725	\$69,325
Average amount per household reporting remittances	\$383	\$336	\$755	\$614	\$529

Source: FSM 1995.

In Chuuk, a populous state with a depressed economy, few jobs, and a plethora of its people abroad, remittances have had a particularly great impact. About 29 percent of households, or twice that of the FSM as a whole, reported receiving remittances (see Table 18). 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.

Conclusions

The migration rate from the FSM, which has been rather steady since 1986, shows no signs of falling off in the immediate future. The outflow from Pohnpei and Kosrae slowed down between 1990 and 1992, and the Yapese stream was diverted to the Northern Marianas, but emigration from Chuuk, which supplies about two-thirds of the migrant pool, has continued unabated. In view of the high total fertility rate recorded for Chuuk in the recent FSM census (more than six children per woman), we can expect Chuukese emigration either to maintain its present level or to increase, unless the governments of Guam and the CNMI intervene.

Over the first six years of the compact period (1986-1992), the average annual migrant outflow was about 1,000 persons, or 1 percent of the FSM resident population per year. In all likelihood, this rate will not be reduced significantly in the near future. By the year 2000, at the present rate, there will be 10,000 FSM people on Guam, including more than 8,000 Chuukese.

We know from census items that the traffic to Guam and the CNMI is not one-way; considerable back-migration occurs, that is, return of former emigrants to their original home. Indeed, much of the appeal of Guam and the CNMI, in contrast to Hawai'i or the mainland United States, is the ease and inexpensiveness of a return trip to one's home island. The extent of back-migration has yet to be adequately measured, however.

The data for 1992-1993 reviewed in this article reveal some pronounced differences between the FSM migrant communities in Guam and the Northern Marianas. The households in the CNMI were rapidly filling out with dependents--women, children, and the elderly--and were evidently well on the way to full reconstitution as normal Micronesian households. Although no strong evidence exists that this was happening on Guam, the data provide hints of the ways in which the Micronesian community there was being transformed between 1990 and 1992. The drop in employment rate among Guam migrants and the possible increase in the number of those who do not speak English suggest that more migrants are choosing not to enter the labor force. We can expect that in future years the size and pattern

of the FSM-born households will continue to develop along the lines of the model elucidated by Rubinstein.

A comparison of the educational achievement of migrants with the resident FSM population 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 citizens, those with college degrees, generally stayed home to take their pick of 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 and the CNMI. 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," out-migration is a spillway for excess bodies in the labor pool--that is, those who would be unemployable at home.

The total income earned by migrants in Guam and the CNMI is estimated at more than \$38 million a year during the period studied and ought to be well over \$40 million by now. This represents a substantial sum of money, given the present feeble condition of the FSM's economy. The remittances that were recorded in 1994 signal for the first time a change in direction of the dollar tide; the money has at last begun to flow inward rather than outward and the remittances of \$1.26 million last year should increase in years to come.

The data on the short period between the 1990 census and the surveys in Guam and the CNMI a few years later are less significant for the numbers they record than for the trends they reveal. Not only are the extent and rate of the FSM 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. In a word, the survey data offer us a surer base from which to project migration and its attendant consequences on the FSM and the destinations to the north in years to come.

REFERENCES

- [CNMI] Commonwealth of Northern Mariana Islands
1994 *Survey of Micronesians in the CNMI*. Report from CNMI Central Statistics Division, Saipan.
- Connell, John
1991 The New Micronesia: Pitfalls and Problems of Dependent Development. *Pacific Studies* 14 (2): 87-120.

[FSM] Federated States of Micronesia, National Census Office

- 1995 1994 FSM Census of Population and Housing: Preliminary Counts. Office of Planning and Statistics, FSM, Pohnpei.

Hezel, Francis X., and Michael J. Levin

- 1989 Micronesian Emigration: The Brain Drain in Palau, Marshalls, and the Federated States. In *Migration and Development in the South Pacific*, ed. John Connell, 42-60. Canberra: Australian National University.

Hezel, Francis X., and Thomas B. McGrath

- 1989 The Great Flight Northward: FSM Migration to Guam and the Northern Mariana Islands. *Pacific Studies* 13 (1): 47-64.

Levin, Michael J., and Eflove Mailos

- 1992 Homelessness on Guam. Paper presented at American Anthropological Association meeting, San Francisco, December 3.

Rubinstein, Donald H.

- 1990 Coming to America: Micronesian Newcomers in Guam. Paper presented at College of Arts and Sciences Research Conference, University of Guam, March 5.
1991 The Future of Micronesian Migration to Guam. Paper prepared for the 27th Pacific Science Congress, 27 May-2 June, session on "The Future of Migration in the Pacific and Asia." Unpublished.
1993 Movements in Micronesia: Post-Compact (1987) Micronesian Migrants to Guam and Saipan. In *A World Perspective on Pacific Islander Migration: Australia, New Zealand and the USA*, ed. Grant McCall and John Connell, 259-263. Kensington: Centre for South Pacific Studies, University of New South Wales.

Rubinstein, Donald H., and Michael J. Levin

- 1992 Micronesian Migration to Guam: Social and Economic Characteristics. *Asian and Pacific Migration Journal* 1 (2): 350-385.

Smith, Kyle D.

- 1994 *A Survey of Micronesian Immigrants to Guam: Predictors of Coping and Access to Life Essentials*. Mangilao: Micronesian Language Institute, University of Guam.

Territory of Guam

- 1993 Current Employment Report: December 1992. Prepared by Gary A. Hiles, Department of Labor, Guam.
1995 Impact of P.L. 99-239 on the Territory of Guam: The Compact of Free Association with the Federated States of Micronesia and the Republic of the Marshall Islands, FY 1989 Through FY 1994. Preliminary draft, Office of the Governor, Guam, January.

University of Guam

1992 Micronesian Census: Guam 1992. Produced by University of Guam in cooperation with Government of Guam Bureau of Planning. Unpublished.

U.S. Department of Commerce

1992 *1990 Census of Population and Housing: Social, Economic, and Housing Characteristics: Guam*. Washington, D.C.: Department of Commerce, Bureau of the Census.