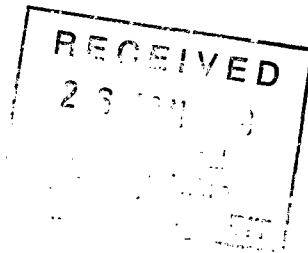


**MIGRATION, EMPLOYMENT AND DEVELOPMENT
IN THE SOUTH PACIFIC**

**COUNTRY REPORT NO. 3
FEDERATED STATES OF MICRONESIA**

John Connell



This research programme is being carried out and its results published with the financial support of the United Nations Fund for Population Activities (UNFPA)

**SOUTH PACIFIC COMMISSION
NOUMEA, NEW CALEDONIA, 1983**

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Preface

This report is one of a series of country reports covering all the countries in the South Pacific Commission area that have been produced as part of the Migration, Employment and Development in the South Pacific project. This project is administered jointly by the South Pacific Commission and the International Labour Organisation and was established in April 1981 with funds provided by the United Nations Fund for Population Activities. The project, which is based in Noumea, covered all the countries and territories in the South Pacific Commission area and also investigated migration from the region into Australia, New Zealand, Canada and the United States of America. The series of specific country reports is listed on the back cover of this report.

In consultation with the SPC, the ILO appointed Mr John Connell as a resident expert to co-ordinate the implementation of the project. Within the SPC, Drs Ko Groenewegen provided guidance on technical and administrative aspects of the project. Work on the preparation of the reports was undertaken by Mr John Connell with some early research assistance from M. Jean-Marie Delmas and the secretarial assistance of Ms Maeva Betham. Advice, comments and assistance, both technical and administrative, were also provided by the ILO's Labour and Population Team for Asia and the Pacific (LAPTAP). The project is indebted to many individuals within the countries, in SPC and elsewhere, who helped in the compilation, analysis and assessment of the data and related reports, and these are acknowledged in specific country reports.

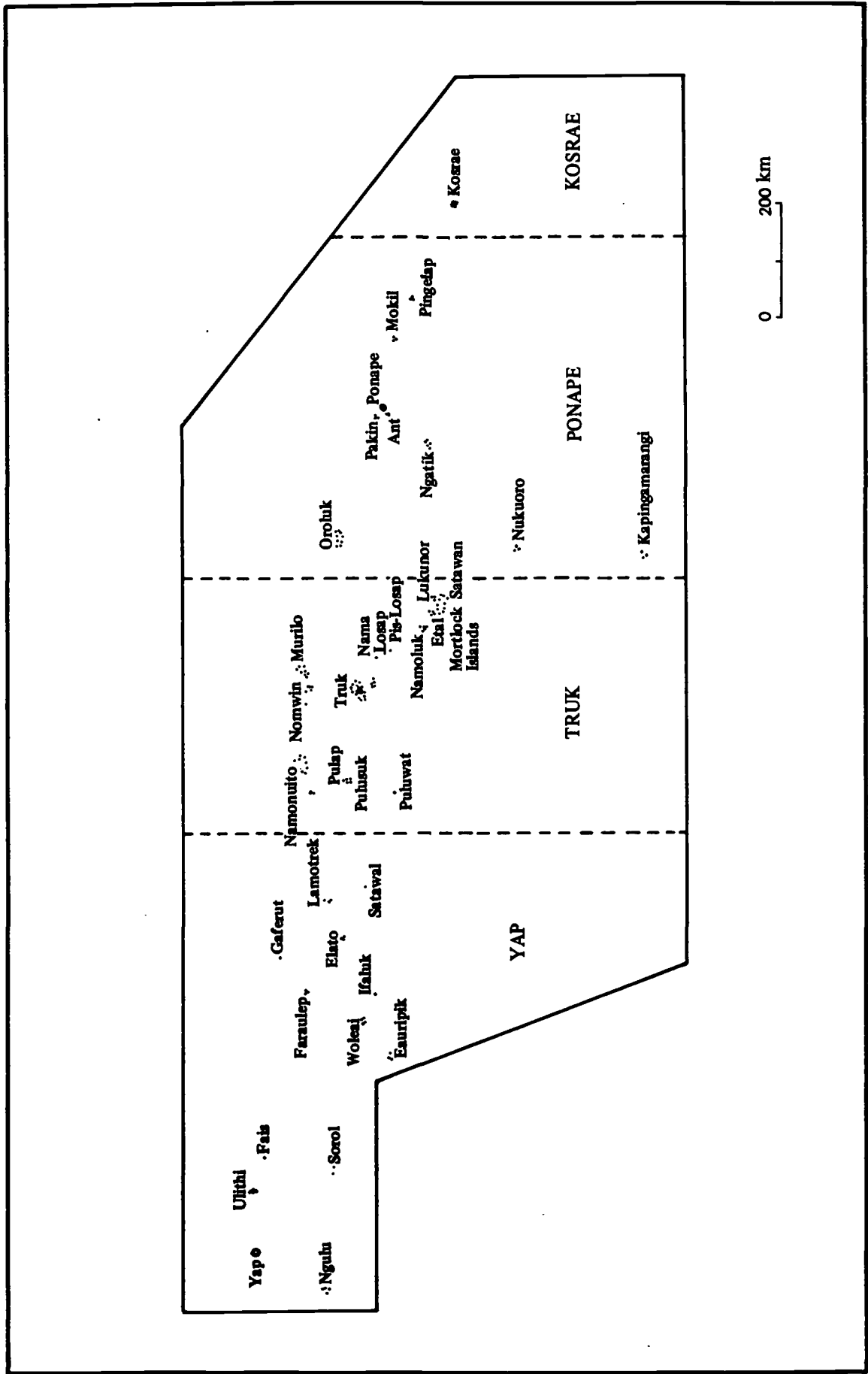
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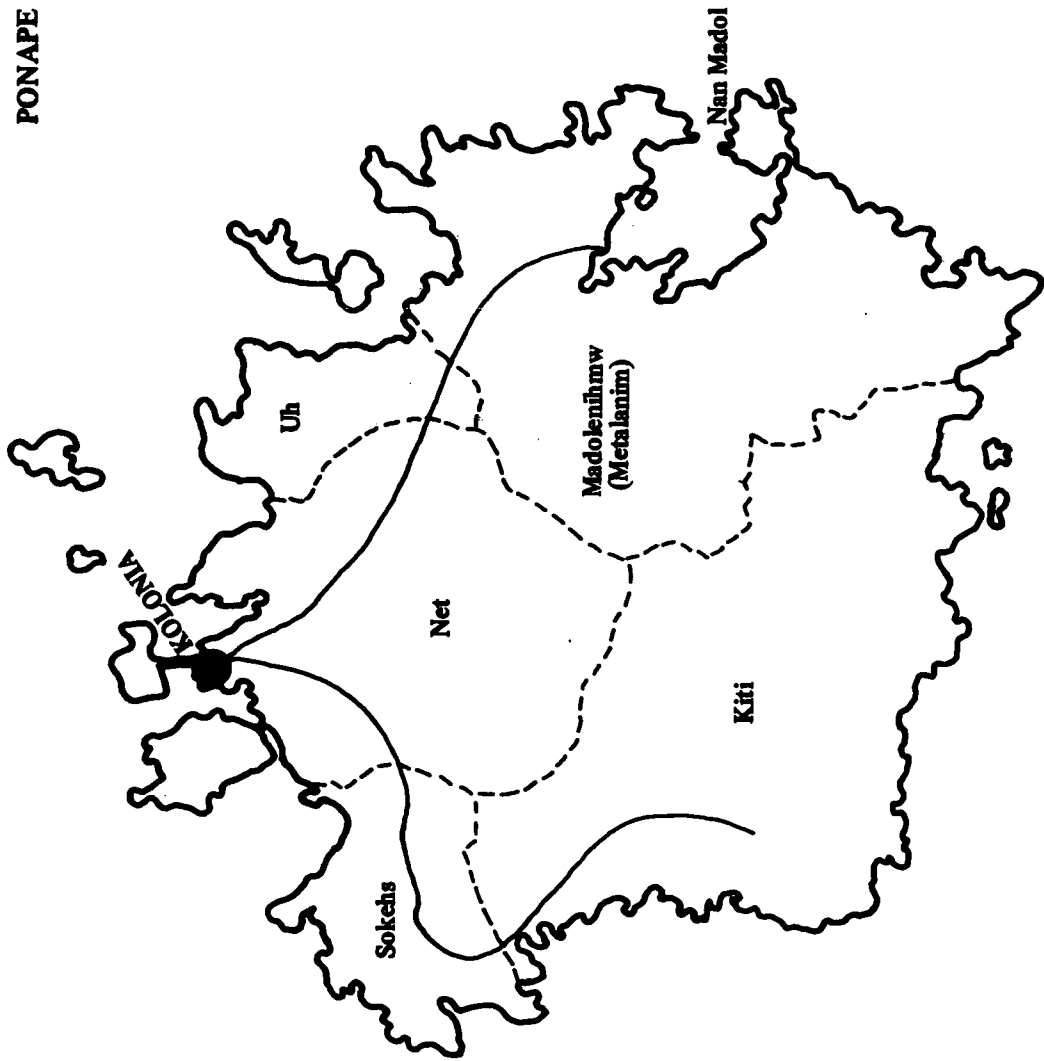
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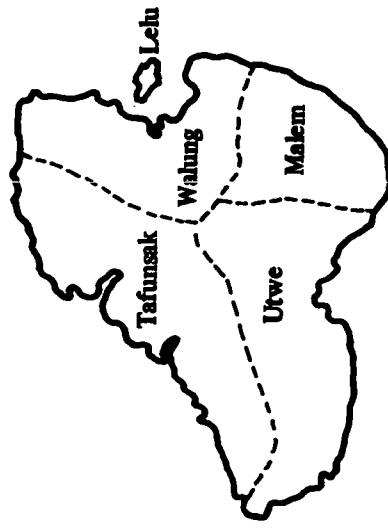
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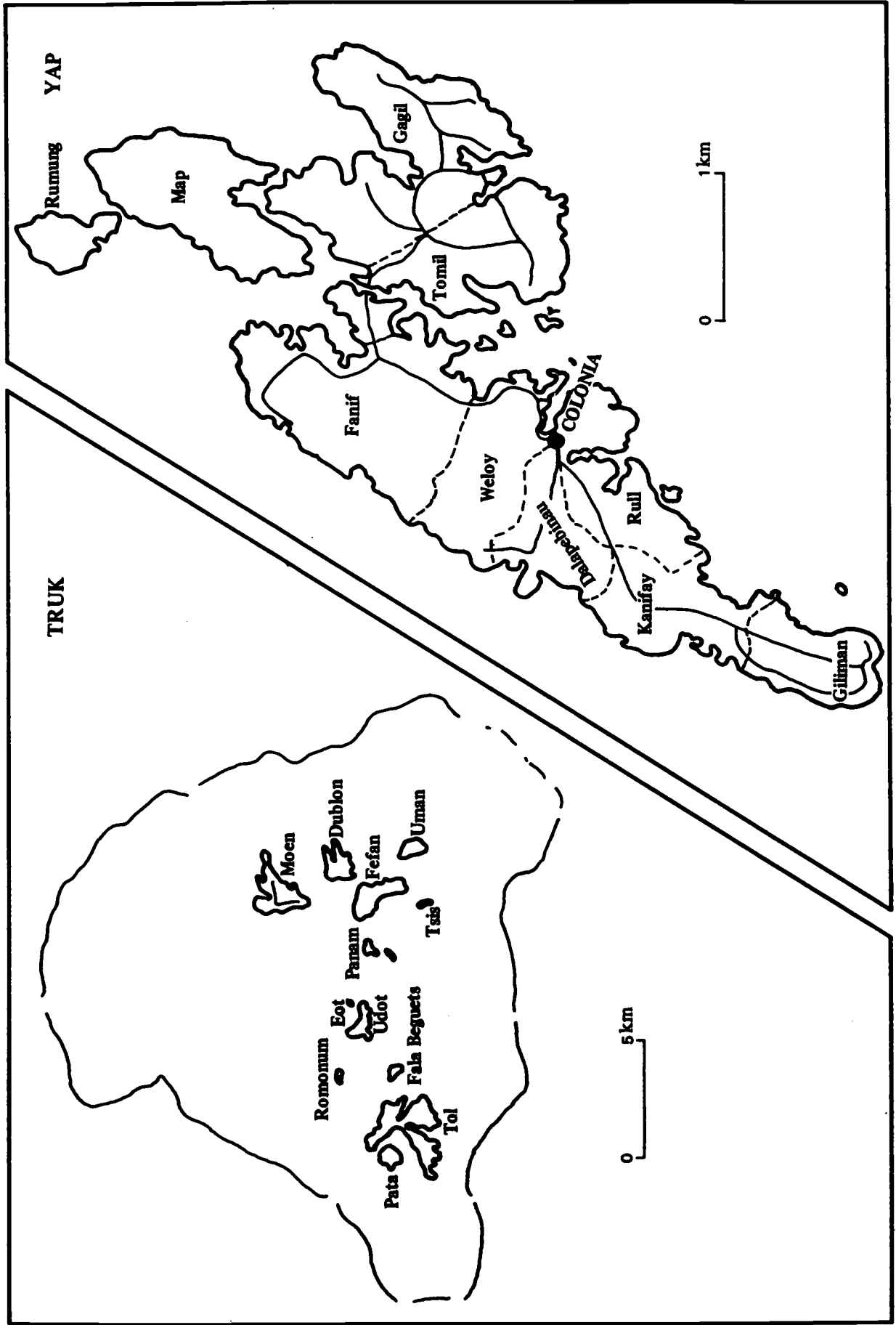


PONAPE



KOSRAE





'Just as their great grandfathers signed aboard trading and whaling vessels a century ago to "see the world" so Namoluk young persons today (especially young men) set off to "see the world" on a Boeing 727' (Marshall, 1979a:7).

'We the people of Micronesia exercising our inherent sovereignty do hereby establish the Constitution of the Federated States of Micronesia. With this Constitution we affirm our common wish to live together in peace and harmony, to preserve the heritage of the past, and to protect the promise of the future. To make one nation of many islands, we respect the diversity of our cultures. Our differences enrich us, the seas bring us together, they do not separate us. Our islands sustain us, our island nation enlarges us and makes us stronger. Our ancestors, who made their homes on these islands, displaced no other people. We, who remain, wish no other home than this. Having known war, we hope for peace. Having been divided we wish for unity. Having been ruled we seek freedom. Micronesia began in the days when man explored seas in rafts and canoes. The Micronesian nation is born in an age when men voyage among stars. Our world itself is an island. We extend to all nations what we seek from each: peace, friendship, cooperation and love in our common humanity. With this constitution we, who have been the wards of other nations, become the proud guardians of our own islands, now and forever' (Preamble to the Constitution of the Federated States of Micronesia, 1981).

Of all the countries in Micronesia the Federated States of Micronesia (FSM) is much the most complex. Geographically it is composed of a mixture of high islands and coral atolls collectively, with Palau (Country Report No.13), known as the Caroline Islands. Each state has a high island at its centre; Yap, Ponape and Kosrae are single islands but Truk has a complex of high islands (the main ones being Moen, Tol and Dublon), that may once have been one, within a single large coral ring. The state of Kosrae (formerly Kusaie) consists of that high island. The other three states, especially Yap and Truk, have a number of atolls. The high islands comprise the vast majority (92%) of the land area of the country (and in Ponape State as much as 97%), have high rainfalls (especially in Ponape and Kosrae), some potential for agricultural development (especially on Ponape) and a diversity of vegetation and land use. Rainfall is much lower on the atolls, land is often scarce and has extremely restricted potential for other than the traditional atoll crops of coconuts, pandanus and taro. Climatic hazards are not unusual. The large extent of land on the high islands has ensured that they have the district centres and the degree of centralisation of population and formal sector employment in the state capitals is greater than anywhere else in Micronesia (other than Palau) and the South Pacific region in general.

There are also considerable social variations of which the most noted is that between the general Micronesian population and the Polynesian population of the two outlying atolls of Nukuoro and Kapingamarangi (many of

whom now live on Ponape). There are a number of main languages in the country of which the principal ones are Yapese, Ulithi-Woleaian, Trukese, Ponapean, Kosraen and the Polynesian languages of Kapingamarangi and Nukuoro. There are everywhere significant social differences between the occupants of the outer islands and those of the central high islands.

The states have experienced quite different past histories. The high islands may have been colonised first and the atolls of the eastern Carolines between 100 and 1000 A.D. Recent researches however have suggested that the high islands may have been colonised from the low islands (Underwood, 1983). Those atolls of the central Carolines may have been colonised somewhat later than those to the west but almost certainly all were colonised by 1300 A.D. (Alkire, 1978:21). On the Polynesian atoll of Nukuoro excavations also suggest occupation by A.D. 1300. In prehistoric times the island of Ponape was governed from Nan Madol, a massive stone construction in the south-east of the island that can be considered one of the earliest, if not the earliest, townships in the Pacific. Nan Madol is now the most impressive archaeological site in Micronesia. Similar ruins have been found on Kosrae where there was 'a guarded capital city since Kusaie was the most centralized of all Micronesian chiefdoms' (Alkire, 1977:66; 1981); this city is believed to have been of that extent for at least four hundred years (Cordy, 1982). Historically the island of Yap controlled a far-flung empire extending hundreds of miles to the east; within this empire Ulithians were considered low-caste with respect to the Yapese caste system and paid annual rent to Yap. Beyond Ulithi, the other islands, sometimes collectively referred to as the Woleai, are low caste with respect to both Yap and Ulithi (Lessa, 1964:5-7). There are further variations in rank between the atolls as far to the east as Namonuito (Alkire, 1977:49-52). This traditional social hierarchy has significantly affected contemporary social organisation on Yap and migration movements within the district. Status, success and achievement in Yapese society continue to be measured in Yapese terms, and to the present day Yap has a reputation as one of the more traditional and "conservative" cultures of Micronesia (Alkire, 1977:33). In pre-contact times there was a well-organised, hierarchical system of chiefdoms throughout the FSM area both on high islands but also small atolls like Pingelap (Damas, 1983), a feature which characterises virtually the whole country. To a significant extent these chiefly systems have been maintained into contemporary times. The stratified caste and class systems of Yap are extremely important for social and economic life there (Labby, 1976; Marksby, 1982) and on Ponape too, classes, including a distinct 'royal class', a 'prestige economy' and extensive ranking retain their prominence (Hughes, 1982; Petersen, 1979). On Truk and Kosrae the contemporary significance of chiefly systems has not been described, although there is good evidence for a complex stratified society on Kosrae in historic times.

In post-contact times each state has experienced a phase of historic depopulation, none more so than Yap (cf. Hunt, Kidder and Schneider, 1964), but throughout the country depopulation has been as marked as anywhere else in the Pacific (except for the Marquesas, the Marianas and Tokelau) both on the atolls and on the high islands. For example, in Ponape, a major smallpox epidemic in the 1850s significantly reduced the population and the men of Ngatik atoll were murdered by the crew of a visiting ship. Perhaps the most detailed evidence of depopulation is for Kosrae where not only was there a well-recorded post-contact population decline from 1,106 in 1855 to 397 in 1874 (Ritter, 1981:22) but there was also a significant pre-contact depopulation, principally as a result of typhoons (and resultant starvation) and warfare, indicating that there was no necessary population equilibrium

before contact (op. cit:24). On many islands throughout FSM there was labour migration, sometimes viewed as 'blackbirding' (Burrows, 1963:411-2), which resulted in population decline in a number of places. Atolls especially have been characterised by unstable populations (cf. Lessa and Myers, 1962) demonstrated in the cases of historic population fluctuations on Ulithi (ibid), Lamotrek and Woleai (Alkire, 1982:32-39). On some atolls populations have never again reached pre-contact levels.

Some of the Caroline Islands (including Palau) were 'discovered' by the first European navigators in the Pacific but the archipelago remained largely unvisited until the end of the Eighteenth Century. The atolls of Ulithi and Fais may have been the first to be visited and new atolls were being discovered in the Nineteenth Century. By the middle of the century there were missions and trading posts on each of the main islands; British, American and especially German companies became rivals in the copra trade. The Germans purchased 1,200 hectares of land in Yap as a half-way station between Samoa and Cochin (Pacific Islands Yearbook, 1981:516) and recruited labour from most parts of FSM for both Nauru and Angaur (Firth, 1978). In 1886 the Spanish brought Ponape and Yap under their administration but, in 1899, after the Spanish-American war, Germany purchased all the Caroline Islands. The Germans constructed roads on Ponape and in the course of the construction a German overseer was killed and the German navy moved to restore the colonial order; fifteen Ponapeans were executed and 200 deported to Angaur (Ponape) to work in the German phosphate mines.

The Japanese quickly captured the Carolines at the start of the First World War and after the war the islands were mandated to Japan by the League of Nations. The headquarters of the Japanese administration were at Koror (Palau) and there were district offices in Truk, Yap and Ponape. Truk later became an important Japanese military base and before the end of the war there were 30,800 Japanese on and around Truk. Fais was a Japanese phosphate mine and the Japanese also recruited labour, often forcibly (cf. Burrows, 1963:413) for many projects in FSM, Palau and elsewhere. During the war captive islanders from the Gilbert Islands (Kiribati), Banaba and Nauru, were brought to work as labourers on Truk and Kosrae, where many died. From 1947 onwards the Carolines were incorporated into the United States Trust Territory of the Pacific Islands (TTPI). In 1977 Kosrae (Kusaie) became a separate state in an attempt to gain extra revenue and consideration from the Trust Territory government. In 1978 in the referendum on the proposed Constitution of the Federated States of Micronesia, Truk (9,762 to 4,239), Yap (2,359 to 168), Ponape (5,970 to 2,020) and Kosrae (1,188 to 704) voted in favour of the constitution, and became the FSM, whilst the Marshall Islands and Palau voted to remain outside as separate entities. Thus the heartland of Micronesia became the FSM and became self-governing in May 1979 (This report therefore considers some issues of wider relevance in Micronesia, rather than issues specific only to FSM). Significantly the three districts (including the Northern Marianas) that seceded were the richest and relatively developed areas in Micronesia, whereas the greatest problems of development are concentrated in the FSM. Since then the occupants of Faichuk (the western part of Truk lagoon) have requested that they be a separate state, but this was vetoed by the President of FSM in November 1981, and there has been subsequent secessionist sentiment in Ponape (Marshall Islands Journal, 4 August 1982). It seems probable that some districts may subsequently request secession or a separate identity in some form. Yap, for example, is only linked by air to the remainder of FSM by way of Guam, and Kosrae is only linked by air to Ponape by an unscheduled eight-seater plane. Moreover each state has telephone communications with the others only through Saipan.

Within FSM the four states are quite separate and distinct entities and each have their own legislature. In Yap district especially there are substantial linguistic, cultural and ecological differences between the central high island and the outlying atolls and it was not until 1969 that the outer islands were finally allowed representation in the Yap District legislature. Each State has, or is in the process of producing, its own Development Plan, alongside the national plan. Thus FSM has the most comprehensive federal government system in the Pacific although that of Papua New Guinea exhibits some similarities. During 1982 there were extensive discussions between FSM and USA on the terms of agreement of the proposed Compact of Free Association between the two countries and the FSM officially signed the fifteen-year contract in October 1982, giving extensive American aid to FSM and enabling the FSM to achieve a much greater control over domestic and foreign affairs. The agreement was ratified by a national plebiscite in June 1983 by the country as a whole, although in Ponape a majority of voters opposed the contract.

Economy

The traditional socio-economy throughout the FSM was based on a combination of agriculture and fishing, with the dominance of agriculture being most marked on the high islands and, on every island, both remain of importance. The preferred staple crops vary on the principal high islands in FSM. In Truk breadfruit is the preferred staple, and yam and pandanus relatively important whereas on Ponape both breadfruit and yams (for which there is still competitive production) are consumed in almost equal amounts and on Yap taro is the most important root crop and breadfruit rarely eaten. Everywhere coconuts are a major component of the diet and the agricultural economy is supplemented by fishing. In some places, such as Ponape, traditional food crop production is an integral part of competitive feasting to achieve prestige and rank.

The traditional agricultural economies of the outlying atolls are typical of those of atolls elsewhere in the Pacific. Since the soil is invariably poor and coralline, although rainfall is generally adequate except in isolated Kapingamarangi, under normal circumstances the atolls were self-sufficient. The principal food crop was usually taro, grown in quite large swampy fields (as on Woleai), alongside breadfruit, sweet potatoes and inevitably coconuts. Breadfruit, though seasonal, can be preserved. On very small islands such as Eauripik and Faraulep, where both taro and breadfruit are more scarce, coconuts are a staple food (and, on Eauripik, are rarely turned into copra since food supplies would otherwise be inadequate). Most gardening activities are undertaken by women. Fishing is of much greater relative importance for the atolls and is principally a male activity; fishing is most critical on the small, densely populated atolls such as Eauripik, and Fais, where sharks too are hunted and eaten (Alkire, 1978:27-28). With some variations, that appear to be a function of both population density and rainfall, the agricultural economies of the atolls are not fundamentally different. Especially in the eastern part of Yap state these are some of the most traditional atoll economies in the South Pacific region.

Throughout FSM the traditional self-sufficient agricultural systems have been modified by modern trends towards both cash crop production (essentially of copra) and wage labour employment, both resulting in the purchase rather than production of food. This is especially true on the high islands where the possibilities of non-agricultural employment are greater, although the movement away from subsistence agricultural production

has been much less significant than in other parts of Micronesia (which are richer, with a larger urban population or composed entirely of atolls). The same trends are also apparent on the atolls, as is the movement towards individualism, despite the argument that this 'can only be a short-lived and unviable phenomenon for an atoll community' (Nason, 1975a:36). In general trends in food production and consumption are typical of other parts of the Pacific. In some places the movement away from dependence on locally produced food has been accentuated by rapid population growth; for example by 1975 it was argued that some of the outer islands of Truk were fast approaching a situation where self-sufficiency was no longer possible due to very high population pressure on limited land resources, necessitating either out-migration or family planning (Migvar, 1975:10). In others, such as Pis-Losap, Yap and elsewhere the trend has been accelerated by federal surplus food distribution programmes (Severance, 1980; Marksbury, 1980) and almost everywhere by a situation that discourages local agricultural development, and hence results in high prices (and less convenience) for local produce (Peoples, 1978). Generally population pressure is increasing and self-sufficiency on atolls is an aim that could not now be realised.

Agriculture is the major income producing sector in the Micronesian economy but very little domestic production is locally marketed; only in Ponape is there a significant urban food market. The principal export from the FSM is copra, and copra production is also the principal income-earning activity on many of the outer islands; however the copra is not turned into oil (which would raise its value) and copra prices are notoriously unstable. Moreover many of the coconut plantations in FSM are in urgent need of upgrading and replanting. A very high quality pepper is produced on Ponape; however this is a comparatively labour-intensive activity and in 1975 there were no more than 20 acres. There are considerable constraints to increased agricultural production: land shortage (and land tenure constraints) in many places, high labour costs, an educational system oriented to 'white collar' occupations rather than agricultural development, consumer tastes oriented to imported goods (which may be of lesser nutritional value), no taxation on imported goods (even those produced locally), limited marketing infrastructure and inadequate and expensive transport (TTPI, 1976:44). Given these constraints only limited developments in the agricultural economy are possible. Taxation policies are urgently in need of revision.

The failure to develop productive activities in FSM has resulted in an economy highly dependent on imports of some basic commodities; in 1977 nearly one-third of the value of imports were foodstuffs and a further 10% were beverages and tobacco, very high proportions compared with other states of the South Pacific region. The reduction of imports and agricultural development are thus high priorities for FSM. However rapid population increase, growing urban populations and problems of transport are likely to result in that percentage increasing. Despite a number of projects aimed towards food self-sufficiency, such as the Ponape rice project (Hiyane, 1975), food imports have continued to increase, the trade balance has worsened and 'we must remain pessimistic in regards to reducing Micronesia's trade imbalance, unless a massive effort is immediately directed to export development' (Celis, 1975:23) so that 'The Micronesian family is becoming increasingly dominated by foreign influences. The Micronesian is trading his self-sufficiency and healthy life-style for one which is costly, physically and financially' (Rody, 1976:21). Imports of alcohol have been both expensive and a cause of social disorganisation (cf. Marshall, 1979b) to the extent that in 1978 Moen Island (Truk) was declared 'dry' and alcohol has not subsequently been legally on sale there. Kosrae is also a 'dry' island.

The development of fisheries in FSM has been extremely limited and almost all the commercial fish production in the former Trust Territory area has come from Palau (Country Report No.13). Small-scale commercial fishing is constrained by a number of factors including traditional fishing rights, the lack of infrastructure (especially refrigeration) and excessive imports of tinned fish. However the establishment of a fisheries complex at Dublon (Truk) may enable some movement towards self-sufficiency although large-scale fishing projects are fraught with macro-economic problems. Agreements have been concluded between FSM and Japan on the leasing of territorial waters and early in 1983 there were 608 tuna fishing vessels in FSM waters, especially from the United States, Korea and Taiwan. This is therefore an extremely important source of national revenue, earning around \$3 million in 1982. The significance of small-scale fisheries development is that it potentially enables participation by the people of the outer islands as new methods of reef and deep water fishing are developed yet fish marketing demands freezers and other expensive infrastructural developments.

There is virtually no manufacturing in the FSM with the exception of very minor food processing, that constitutes import substitution rather than export promotion. The only 'manufactured' goods that are exported are handicrafts and they make a trivial contribution to the national economy, although they do generate some income for outer islands (but perhaps, more particularly, outer island migrants to high islands, especially those of Kapingamarangi in Ponape). The FSM has potential for tourist development, although the extent to which such development would benefit FSM is debatable since 90% of tourist expenditure leaves the TTPI area (Knowles, 1976:13), a drain which appears more substantial than in most other countries, and is indicative of the structure of foreign control of the national economy. Tourist developments already favour the high islands, in particular because of transportation links, but also relate to the diving potential of Truk lagoon, Nan Madol on Ponape and the stone money of Yap, and further development might be expected to accentuate this. There are no known mineral resources in FSM of potential economic significance (although small deposits of phosphate exist and a feasibility study for phosphate mining on Fais has recently been undertaken) hence almost all FSM's energy requirements are imported although there is considerable potential for innovations in appropriate technology.

As elsewhere in the former TTPI the basis of the contemporary FSM economy is government sector employment, financed from outside, whilst the contemporary productive sector is conspicuous by its absence. In 1980 only 9% of the funds for the whole of the Trust Territory were derived from tax revenues, whilst the annual U.S. grant and U.S. Federal Program grants represented 87% (USA, 1981:18). For the whole of the TTPI taxable revenue was highest in the Northern Marianas and Ponape and lowest in Kosrae and Yap, whilst 1975 average GDP per capita was estimated at \$2,713 (Northern Marianas), \$1,103 (Palau) and \$853 (Marshall Islands) in other parts of the Trust Territory compared with \$974 (Yap), \$839 (Ponape) \$630 (Kosrae) and \$600 (Truk) within the FSM (USA, 1981:24). Income levels within the FSM were thus significantly lower than incomes elsewhere in the TTPI. In 1976 a Five Year Indicative Development Plan for Micronesia (1976-1981) was prepared with UNDP assistance for the Congress of Micronesia. The basic recommendations of the plan were aimed at establishing a self-supporting economy in Micronesia primarily by expanding agriculture and fisheries and by cutting down on government expenditure, so that the productive capacity of the economy would catch up with consumption and the trade gap would be

reduced. Import substitution (for foodstuffs, fuels and construction materials especially) is increasingly essential, given rising fuel and therefore transport costs and the necessity to encourage development of the private sector.

The principal development potential of the FSM rests in agriculture and fisheries, but the failure to develop these industries stems from a combination of factors, some of which, especially for agriculture, are a function of world commodity prices, remoteness from world markets, small local markets and unreliable transportation but are also a function of wage levels in the government sector, which particularly account for the failure to produce products for the local market, and inadequate government support which exacerbate basic geographical constraints. Thus in Ponape 'it seems no wonder that primary interest lies in wage labour and in the entrepreneurial opportunities it brings...It is externally imposed economic and organisational factors which stand in the way. And so it may be that it is in fact political change which precedes economic independence, rather than the converse' (Petersen, 1976:267, 280). Thus, as in Fiji, 'the transition from subsistence farming to fully commercialised farming is much more difficult than the transition from subsistence farming to the structured framework of wage or salary employment' (Crocombe, 1971, cited by Petersen, 1979:37). This is even more true of fisheries where the transition to commercialised fishing demands new techniques and periods of work. Consequently, 'entrepreneurial activity clusters around service activities because there is a high demand for these services and the goods they provide, and they offer a low risk means of acquiring income compared to agriculture and other primary investments' (Peoples, 1978:549). The rational decisions of entrepreneurs thus conflict with the needs of economic development.

The establishment of a FSM Development Bank in 1982 is a measure of increasing interest in stimulating productive development. By October 1982 loans had been distributed as follows: Kosrae (\$65,000 transportation project, \$13,000 poultry project, \$23,000 commercial fishing project, \$3,000 handicrafts project), Truk (\$19,000 poultry, \$3,200 fishing) and Ponape (\$60,500 transport, \$15,000 poultry, \$3,000 handicrafts, \$23,500 fishing) (Marianas Variety, 15 October 1982). The emphasis on poultry and fishing projects does indicate a desire to achieve some greater degree of self-reliance although two-thirds of all loans were for transport projects which may be of limited value to productive development. The size of the loans also suggests that only relatively large projects, which are therefore almost certainly on high islands, have so far been supported.

Beyond stimulating productive activities the most important task of development planning in FSM is to attempt to reverse the general urban (high island)-rural (atoll) bias in the distribution of development activities of all kinds. Here the irregular schedules of ships (which have resulted in periods when medical supplies and foodstuffs ran out), the cost of fuel, the lack of employment opportunities, the problems of agricultural and fisheries development and increasing dependency are most acute. However redistribution is extremely difficult given the distribution of land areas, the problems in generating employment or job opportunities on atolls and the necessity for some centralisation of both government and private sector operations. However without some decentralisation, population pressures, and attendant social problems of urbanisation, are likely to continue to increase and worsen in the urban centres as people move away from the limited opportunities of the outer atolls. The social problems of urbanisation were well demonstrated in July 1982 when sewage disposal in

Truk lagoon contaminated seafood and resulted in a severe cholera outbreak, with a mortality rate similar to that in Kiribati (Country Report No.7); subsequent studies revealed that only 6% of households in Moen had adequate sanitation (flush toilets and a central water supply). Otherwise data on the health status of the population of FSM is slight. Because of the geographical dispersion of the islands it is extremely difficult to achieve economies of scale. Manpower planning in the early 1970s thus concentrated on two issues, the replacement of expatriate manpower by Micronesians (since in 1972 there were 1,946 expatriate wage earners, representing 12% of Micronesia's total labour force) and encouragement of the concentration of government and private sector activities in central places, the principal islands served by airlines, where some economies of scale might be made. (Only Pingelap and Ulithi of the outer islands have airstrips). Consequently this tended to emphasize disparities between centres and the peripheries to the extent that there was disinvestment in the outer islands, as in the case of health services,

'Despite efforts to provide new dispensaries...the number of dispensaries and medical posts in the Territory appears to have decreased. The Mission was informed on a number of occasions that dispensaries have been closed owing to a lack of staff or funds...Almost every dispensary visited by the Mission experienced problems in obtaining medical supplies; some had completely run out of essential drugs in common use. All complained of the slowness and uncertainty of deliveries, especially in the outer islands, where visits by field trip ships did not follow a regular schedule and were often diverted, for example to take an emergency case to the hospital...The Mission was concerned to discover that not only were dispensaries being closed because of lack of staff, but that the MEDEX staff who operated the dispensaries in the past had been replaced by health assistants, some of whom had received as little as nine months' training. The situation is particularly serious in the case of the outer islands. It is also a false economy since it increases the number of medical referrals' (United Nations, 1980:68).

In these kinds of worsening conditions the probability of migration away from atolls is increased, especially in the case of referrals, and the incentives to develop and service the outer atolls appear reduced (as the populations fall). It is a vicious circle which has not yet been broken. The principal obstacles to development then are the distances between islands (and to larger markets and distribution centres), the lack of infrastructure, raw materials, land and local energy sources, high (and rising) freight rates, limited skills and entrepreneurial ability of the local labour force, the stultifying effects of western education for government employment (at high wage rates), and the small and fragmented nature of the domestic market. These issues are considered further in the conclusion.

Employment

The manpower problems of Micronesia were set out clearly in the introduction to the 1976 Development Plan,

'Micronesia finds itself with an economy that is grossly distorted in favour of a large cadre of highly paid government workers while 60% of its people still live in a subsistence economy. Its consumption levels are far beyond current levels of production, and the huge cost of the present government is far beyond the ability of the economy to support. Soon it will also be faced with serious unemployment problems unless more jobs are created and its manpower trained to carry out more productive work' (TTPI, 1976:1-2).

The significance of government employment is apparent from Tables One, Two, Three and Four and the relative contribution of government wages and salaries is indicated in Tables Five and Six. In 1972 some 68% of Micronesians in formal sector employment in FSM worked in the public sector; in 1982, although this had fallen to 59%, it nevertheless represented a very high proportion of the workforce. Thus the structure of employment in FSM is little different from that elsewhere in Micronesia. In 1982 the public sector had a workforce of 4,070 and the private sector had 2,866 (1,356 in Truk, 540 in Yap, 778 in Ponape and 192 in Kosrae) and a much higher proportion, estimated at about 27%, are economically active in the village economy compared with elsewhere amongst the Micronesian entities (Poll, 1982). This fact, hitherto seen as an indicator of the relative lack of development in FSM, may prove to be an advantage in the next decade of development. It is anticipated that public sector employment will tend to decline in the next few years, and that this will then have a similar impact on some parts of the private sector, notably general merchandising, transportation, food services and construction which, with government employment, account for well over 90% of all Micronesian formal sector employment in FSM (Table Five) whilst the employed labour force in directly productive activities is a miniscule 1.3%, an incredibly small proportion for a country of this population size.

Table 1. Micronesian Employment, June 1972.

	Trust Territory Govt	Local Govt	Federal Govt	Total Govt	Private	Total
Northern Marianas	1,586	75	155	1,816	1,636	3,452
Marshall Islands	946	64	180	1,190	1,544	2,734
Palau	1,018	89	110	1,217	811	2,028
FSM (Ponape (and (Kosrae)	1,353	94	81	1,528	622	2,150
(Truk	1,221	54	74	1,349	820	2,169
(Yap	655	69	86	810	311	1,121
TOTAL	6,779	445	686	7,910	5,744	13,654

Source: Kanost, 1973:34.

Table 2. Micronesian Employment as Percentage of Micronesian Work Force, 1972

	Population	Work Force	Employed Micronesians	% Work Force Employed
Northern Marianas	13,381	5,672	3,452	61
Marshall Islands	24,248	11,549	2,734	24
Palau	13,025	6,379	2,028	32
FSM (Ponape (and (Kosrae)	23,723	12,097	2,150	18
(Truk	32,732	17,319	2,169	13
(Yap	7,536	4,078	1,121	27

Source: Kanost, 1973:34.

Table 3. Employment Status of Micronesians in States of the FSM, 1977.

Employment Status	Percent of Persons				Total FSM	
	Kosrae	Ponape	Truk	Yap	Percent	Number
Employer	0.0	0.2	0.3	0.5	0.3	26
Self-Employed	4.1	1.6	2.4	1.9	2.2	209
Government						
Wage Earner	66.7	53.1	59.1	59.0	57.4	5,488
Private						
Wage Earner	9.5	25.9	35.0	19.4	27.6	2,641
Unpaid						
Family Worker	16.5	0.5	1.6	16.1	4.2	399
Other	3.2	18.6	1.5	3.1	8.3	797
TOTAL NUMBERS	714	3,637	3,971	1,238		9,560

Source: TTPI Quarterly Bulletin of Statistics, 2(3), September 1979:60-64.

Table 4. Manpower Planning Data, FSM, 1982.

	Truk	Yap	Ponape	Kosrae	FSM
Total Resident Population	41,460	9,944	24,733	5,300	81,437
Total Labour Force (aged 15-64)	21,178	5,194	12,430	2,733	41,535
Total Employed	9,925	3,134	6,428	1,653	21,140
Private Sector	1,356	540	778	192	2,866
Public Sector	1,326	818	1,399	527	4,070
Village Economy	7,243	1,776	4,251	934	14,204
Total Unemployed	976	308	633	163	2,080
Others Not Working	10,278	1,752	5,369	917	18,316

Source: Poll, 1982.

Table 5. Wage Earners and Income by Economic Activity, FSM, 1976.

Economic Activity	% Wage Earners	% Wage Income
Trust Territory Government	60.4	72.6
Other Government	11.2	9.6
Manufacturing, processing, handicrafts	0.3	0.1
General merchandising	13.8	8.1
Transportation	5.5	3.0
Bars, hotels, restaurants	3.5	2.0
Agriculture and fishing	1.0	0.4
Construction	4.5	2.9
Other Services	1.0	1.3

Source: TTPI Quarterly Bulletin of Statistics,(1), December 1977
(Table 10).

Table 6. Employment and Earnings, 1979.

Employment Category and area	Micronesians number	average wage	number U.S. Citizens	number other expatriates
Kosrae Island				
Public Sector	366	3,808	1	8
Private Sector	205	824	-	-
Total	571	2,737	1	8
Ponape Island				
Public Sector	2,226	3,042	70	36
Private Sector	1,425	1,065	12	85
Total	3,651	2,271	82	121
Truk Island				
Public Sector	3,470	2,525	42	18
Private Sector	2,251	1,151	1	112
Total	5,721	1,984	43	130
Yap Island				
Public Sector	1,174	2,994	42	20
Private Sector	582	934	3	42
Total	1,756	2,311	45	62
TOTAL FEDERATED STATES OF MICRONESIA				
Public Sector	7,236	2,825	155	82
Private Sector	4,463	1,080	16	239
Total	11,699	2,160	171	321

Source: TTPI, Quarterly Bulletin of Statistics, 3(1), 1980, 13-15.

The money economy of the FSM is heavily dependent on the wages of government employees (Table Five) which indicates that nearly two-thirds of 1977 employment was with the government (although the high proportion of 'other' employment status, especially in Ponape, suggests that the data is inconsistent and unreliable). Since the estimated population of FSM aged 14+ in 1977 was 40,389, this also indicates that, even including 'unpaid family workers', a small percentage of the potential workforce (24%) is participating in the cash economy. The situation was broadly similar in 1979 (Table Six). Government wages are set without regard to supply and demand for labour, productivity or wage costs in the private sector or in neighbouring countries; the private sector attempts to match these wages and hence the economy is at a comparative disadvantage for many import-substitution activities let alone any export-oriented development strategy. Even so government sector wages in 1979 were almost three times as high as private sector wages (Table Six). The minimum salary in FSM increased from \$700 to \$2,100 per year in the past sixteen years until 1981 (an increase which is not based on increased production or productivity) whilst the minimum government salary (\$1 per hour) is up to 40% above the minimum salary in the private sector, although in June 1982 the official minimum wage was 80 cents per hour, the lowest in the former TTPI area. Such wage scales create an enormous incentive to seek work with the government, which results in withdrawal from local production. This is further associated with skills and motivation; thus the Yap State plan comments, 'The major reason for this [the failure of development in the agriculture and fisheries sector] is the present "easy money" situation (with the abundance of government jobs especially). Why should I work hard as a fisherman and may not earn any money at all, when I can spend my time with my friends in the government receiving a decent salary almost without doing anything' (Yap State, 1981:64-5; cf. Hezel, 1976:111). This has also produced a 'dual economy' where the estimated incomes of those in the subsistence sector are very low in comparison with the wage sector. In turn this has produced a demand for educational opportunities (see below) which is not in line with job opportunities and so resulted in a rise in the level of unemployment and non-participation in productive employment where opportunities exist in the village economy. As Knowles points out, 'It has been shown that it pays the individual to remain unemployed rather than take up employment in the traditional sector. If one descends into the traditional sector, one never gets a chance at a government job. It is better to remain unemployed (if someone supports you) while continually seeking wage employment' (Knowles, 1976:12; my emphasis). Thus there is unemployment and a lack of skills for employment in one sector and appropriate skills but under-utilised resources in another. It is precisely to discourage this situation that Kiribati has devised policies on government job allocation that should enable people to remain within the traditional sector (see Country Report No.7). However, in FSM, existing wage levels lead to misallocation of labour, underemployment in the traditional sector and non-participation by young people, which increases the demand for education, encourages the use of alien labour (see below) and increases capital investment requirements for job creation (Knowles, 1976:15). The demand for education on the part of almost all the young in Micronesia, but the minimal technical component of that education (see below), alongside high unemployment (see below) had resulted in a situation where by 1981 the Yap State government was advertising positions for asphalt paver operators and carpenters who were expected to be high school graduates, although it was extremely improbable that such graduates would have relevant technical skills. The mismatch between manpower requirements and the availability of skills is nowhere greater than Micronesia.

Although the breakdown of employment is given by states for FSM at different times there is little information on the distribution of employment within the states. There is however a very strong concentration of formal sector employment on the high islands at the centre of the group and very little wage employment elsewhere, especially in the private sector. Etal atoll (Truk), a relatively large atoll in FSM, had in 1978 nine school teachers, a medical aide and three policemen who were paid \$1 per month; the Peace Corps volunteer, with a wage income of \$42 per week, was the 'richest man on the atoll' (Hillinger, 1978). There were also eight small stores on the atoll. On most other atolls formal sector employment is even less evident and, to a substantial extent, many of the atolls remain outside the monetary economy. To earn a significant cash income therefore individuals must migrate to the state centres. Overall data on income distribution, beyond that in Table Six, is of limited value.

It is generally conceded that the public services are overstuffed because of the tendency of government to hire surplus high school graduates, irrespective of whether they are needed, and because of the availability of funds. Thus the Ponape Five Year Indicative Economic Development Plan (1976-1981) commented, 'The present number of government employees is far too high and could be decreased substantially without decreasing the quality of public services' (Ponape District, 1976:90) whilst wages are much higher than in other developing countries, including those with economies that are more self-reliant than those of FSM. It is not therefore true that the relatively high proportion of government workers is actually a function of the limited development of the private sector, rather than an oversupply (cf. Kanost, 1973:35). As elsewhere in Micronesia public sector employment is more attractive than private sector employment, not only because of higher wages; 'job security, prestige, influence, the psychic satisfaction of directly participating in the building of one's own nation - all these are enjoyed more by a civil servant than by his counterpart in a private firm' (Chew, 1980:3) and hence are elsewhere usually 'compensated' by higher wages in the private sector. In Micronesia the reverse occurs, hence, as in Ponape, the economy experiences 'the worst of both worlds - a private sector deprived of potentially high quality workers and a public sector characterised by low productivity' (op cit:5-6). This also contributes to substantial income inequalities, higher imports, the discouragement of domestic production and the necessity to import alien labour. The transformation of the sectoral distribution of employment alongside a wage and income policy remains a priority in Micronesia.

The above description of the employment situation in FSM, and associated movement between sectors, indicates that it is in fact almost impossible to define employment except in terms of duration of participation in work activities. Consequently Table Seven is both out-dated and only useful for crude inter-state and state-urban comparisons. The actual situation is further complicated by the presence of many of those over 15 in the education system and the extent to which there are job opportunities available, especially in rural areas, that are voluntarily not taken up. In 1976, in Peniyesene village on Moen, 68 out of 129 adult men were without wage jobs and, in the age group 15-24, 35 out of 40 men were unemployed; for women, only 18 out of 136 were employed and only 5 out of 52 in the age group 15-24 were employed (Marshall, 1979b:22) although in both groups at least a third of the total were still in the education system. Two-thirds of those who were employed were in government employment and only one-third in the private sector (op cit:28-9); these differences in employment and thus income levels have given rise to considerable inequalities within Truk. Similarly a survey of workers from nearby Iras village (Moen) found that in

1977 the average salary for government workers was \$109 per fortnight and for workers in local private businesses \$66 (Jack et al, 1977:6). Unless more detailed studies are made of job opportunities in the rural sector, the issue of voluntary and involuntary unemployment will remain partially unresolved in FSM. Unemployment itself must be considered in association with income levels. In 1981 it was estimated that in Yap State, on average, every household had someone on a pay-cheque job dependent directly or indirectly on U.S. grants (Yap State, 1981:29); this and government salaries results in such a high level of support from or dependence on cash incomes (from the non-productive sector) that a cash flow throughout society may minimise the problem of unemployment resulting in a lack of income (and hence a further disincentive to local production). There are no readily available studies of the sources of rural and urban incomes in Micronesia to demonstrate what these effects might be. However the evidence indicates that involuntary unemployment is rising, especially in the urban sector and that, since the population is growing rapidly, this is likely to continue to increase. Although there is evidence that many graduates who cannot find employment in urban areas are eventually willing to return to rural areas (see below) their participation rate in the rural economy is not known.

Table 7. Unemployment (1973).

District		Urban Centres	
Marshall Islands	16.4	Majuro	21.5
		Ebeye	18.1
Northern Marianas	9.3		
		Palau	16.2
FSM (Ponape	19.0	Koror	13.6
		Kolonia	22.4
		(Truk	14.1
	8.7	Moen	20.8
	8.7	Colonia	12.3
TTPI	15.0		

Source: TTPI 1973 Population Census, 213-214.

Population and Migration

Analysis of population change and migration in FSM is severely constrained by the almost complete absence of adequate data, principally because of the non-availability of the 1980 census (as in other parts of the former Trust Territory) and hence the necessity of estimating trends from earlier censuses. The first reliable census of the Trust Territory was in 1973 and this is not without some flaws. The 1970 census gave a massive undercount almost everywhere and the 1977 census (incorporated in the Occupation and Skill Survey) has so far provided only a head count. Since arrival and departure cards are not analysed there is no data on migration into and out of FSM other than a list of the number of short-term visitors. Overall, therefore, a priority for development planning in FSM and elsewhere in the former Trust Territory area is good population data. Here, as elsewhere in Micronesia, the figures that are given in Tables Eight, Nine, Ten, Eleven and Twelve are, with the exception of those for 1978, unlikely to be accurate. The 1980 census of the Trust Territory of the Pacific

Islands (TTPI), which included FSM, contained a number of useful questions relating to migration; however there is considerable concern in FSM (and everywhere else in the TTPI area) that this and other census data may never be processed in sufficiently detailed and hence useful form for any planning purpose. There is also uncertainty over the availability of anything other than the summary statistics, available in mid-1983, because of doubts concerning the U.S. Bureau of Census budget and processing priorities.

Table 8. FSM Population.

	Yap	Truk	Ponape	(Kusaie) Kosrae	FSM
1920	8,439	15,394		7,069	30,902
1939	4,227	18,838		12,922	35,987
1950	4,717	15,617	8,159	1,865	30,358
C 1958	5,540	18,065	11,253	2,510	37,368
C 1967	6,761	25,107		18,304	50,172
C 1970	7,020	28,540	17,390	3,620	56,570
C 1973	7,870	31,609	19,263	3,989	62,731
C 1977	8,150	36,562	22,524	4,731	71,967
C 1980	8,100	37,488	22,081	5,491	73,160

Source: TTPI Quarterly Bulletin of Statistics, 3(2), 1980:1-19;
TTPI 1980 Census. Final Tables.

Table 9. Yap State.

	1950	1958	1963	1966	1973	1977	1980
Dalipebinau	-	202	237	310	169	233	211
Fanif	-	356	319	454	367	376	392
Gagil	-	400	335	515	537	601	616
Giliman	-	143	180	182	217	212	228
Kanifay	-	181	199	231	235	239	225
Map	-	300	305	382	337	322	319
Rull	-	524	628	741	1,463	1,366	1,436
Rumung	-	120	121	174	129	131	130
Tomil	-	503	406	615	666	643	713
Weloy	-	514	778	496	1,020	1,021	926
YAP	2,709	3,243	3,508	4,100	5,140	5,144	5,196
Ulithi	433	460	529	521	710	859	710
Woleai	399	488	612	554	608	668	638
Eauripik	138	141	101	149	127	116	121
Elato	37	40	36	36	32	54	51
Fais	225	234	216	233	212	195	207
Faraulep	117	118	158	132	122	147	132
Ifaluk	237	301	323	300	314	359	389
Lamotrek	148	172	194	191	233	204	242
Ngulu	53	45	30	46	8	16	21
Satawal	207	285	303	329	354	382	386
Sorol	14	13	11	15	8	6	7
Not Specified	-	-	-	-	2	-	-
TOTAL	4,717	5,540	6,021	6,606	7,870	8,150	8,100

Table 10. Ponape State.

	1950	1958	1963	1973	1977	1980
Sokehs	-	1,671	2,354	3,216	3,616	3,632
Kitti	-	1,896	2,631	2,427	3,163	3,401
Kolonia	-	1,720	1,273	4,795	6,009	5,549
Metalanim (Madolenihmw)	-	1,794	2,567	2,627	3,085	3,376
Net	-	1,068	1,407	2,357	2,672	2,226
Uh	-	1,190	1,641	1,837	1,635	1,851
PONAPE	6,316	9,339	11,873	17,259	20,180	20,035
Oroluk	-	-	-	-	4	6
Mokil	311	338	608	321	327	290
Pingelap	618	627	840	641	703	375
Ngatik	252	298	464	408	565	560
Nukuoro	208	247	371	245	315	307
Kapingamarangi	454	404	491	389	430	508
TOTAL	8,159	11,253	14,647	19,263	22,524	22,081

Table 11. Kosrae State.

	1950	1958	1963	1973	1977	1980
Walung	-	-	-	137	126	151
Malem	-	543	-	788	905	1,091
Utwe	-	385	-	698	774	912
Tafunsak	-	692	-	981	1,284	1,342
Lelu	-	890	-	1,385	1,642	1,995
TOTAL	1,865	2,510	3,060	3,989	4,731	5,491

Although this concern has been expressed throughout FSM it has been best articulated in Yap where, by April 1980, Yap State wanted its own census on the grounds that the 1980 census was inappropriate and unreliable. The reasons for this concern were, firstly, that there was no accurate, cross-checked information on the native population of Yap; secondly, there was no information on migration within or outside Yap of local-born citizens of Yap, other citizens, alien residents and non-residents (other than alien workers, but not their dependents) so that there was no indication of major reasons for migration, or origin and destination of migrants; thirdly, there was no information on people moving from place to place, seeking jobs, education or for other reasons, within the state, and whether such movements were permanent; fourthly, there was no information on that part of the population who are foreign citizens or of the foreign-born population who have become citizens of Yap State; finally, the 1980 U.S. Census has been estimated to be a more than 9% undercount (Ken, 1980). In general these criticisms are also true of the other states of FSM and other entities within TTPI, where the inadequate migration data has also been stressed, although detailed calculations have not been attempted elsewhere to demonstrate the limited value, even at the crudest population total levels,

of the 1980 census hence the extent to which the 9% undercount (even if valid for Yap) is true elsewhere is unknown. There is however some evidence that there was an undercount but that this undercount was not true in all places but resulted from some villages, small islands or parts of urban areas simply being excluded. In general it is believed that there was an undercount in Kosrae in 1973, undercounts in Yap (and also Palau) in 1980 but that Ponape, Truk (and also the Marshall Islands) were enumerated fairly accurately in both years (M. Levin, pers. comm. 1980).

Table 12. Truk State.

	1950	1958	1963	1973	1977	1980
Dublon	-	1,528	2,022	2,558	2,820	3,223
Moen	-	4,169	3,829	9,568	10,977	10,351
Fefan	-	1,546	1,908	2,478	3,028	3,076
Tsis	-	180	176	241	361	324
Uman	-	1,430	1,681	1,891	1,925	2,298
Param	-	101	147	203	248	225
Eot	-	184	223	192	198	181
Udot	-	184	844	930	1,146	1,082
Romanum	-	240	325	375	481	462
Fala-Beguets	-	261	283	341	395	401
Tol	-	2,202	4,541	5,439	6,480	6,705
TRUK	10,252	12,025	15,979	24,216	28,059	28,328
Etal	226	268	312	266	368	446
Lukunor	817	904	1,110	909	1,118	1,146
Losap	717	634	756	664	691	827
Namoluk	234	250	314	263	314	324
Satawan	1,299	1,479	1,814	1,881	1,944	2,177
Nama	544	689	876	702	818	1,021
Murillo	259	304	342	383	572	618
Nomwin	261	330	434	472	575	557
Namonuito	354	358	441	640	660	783
Pulap	187	301	348	470	592	615
Puluwat	261	288	347	435	491	441
Pulusuk	206	235	270	265	360	205
Not Specified	-	-	-	43	-	-
TOTAL	15,617	18,065	23,343	31,609	36,562	37,488

Note 1. Unlike the other states in FSM some atoll data is here aggregated according to traditional groupings. This provides some comparability with 1950 data. For the 1973, 1977 and 1980 censuses the data is given in disaggregated form in the TTPI Quarterly Bulletin of Statistics, 3(2), 1980, pp.14-22. The regional groupings are given in Table Seventeen.

In support of the claim that the U.S. census of Yap was inaccurate the Yap statistician prepared additional 1980 population data on Yap, based on both the 1973 census and an estimated growth rate of 2.2% between 1973 and 1980 and also on estimates derived from card files. This produced a set of comparative figures for 1980 (Table Thirteen) which casts doubts on both the

calculation of growth rates in Yap and the card files (which are acknowledged to be an undercount). Even correct calculations of the growth rates could not give accurate population totals hence the data on Yap are as inadequate as elsewhere in the TTPI area.

Table 13. Yap State Population Estimates, 1980.

	Yap Card Files	1980 U.S.Census	Growth Estimate
Yap Island	4,788	5,196	6,086
Dalapenibau	378	211	378
Fanif	574	392	574
Gagil	688	616	688
Gilman	193	228	222
Kanifay	263	225	263
Map	504	319	504
Rull	848	1,436	1,436
Rumung	244	130	244
Tomil	741	713	741
Weloy	375	926	926
Ulithi Atoll	797	710	1,053
Asor	106	72 (a)	106
Falalop	163	418	419
Fassarai	188	101 (a)	188
Lathou	14	0 (a)	14
Mogmog	326	128 (a)	326
Woleai Atoll	328	638	672
Falalus	98	85 (a)	98
Falalap	38	352 (a)	0
Mariang	0	0 (a)	0
Paliau	0	0 (a)	0
Siliap	34	79 (a)	79
Taganlep	25	38 (a)	38
Wottagai	103	105 (a)	105
Faraulep Atoll	223	132	167
Faraulep	113	92 (a)	113
Pigue	54	43 (a)	54
Eauripik	200	121	200
Elato	28	51	51
Fais	175	207	210
Ifaluk	399	391	399
Lamotrek	243	243	243
Ngulu	50	21	50
Satawal	391	386	391
Sorol	18	7	18
State Total	7,640	8,244	9,540

Note: (a) Provisional totals only.

Source: Ken, 1980. (These data are recorded as given and, in some cases, are inconsistent).

In terms of basic population characteristics there are substantial differences between the states; Truk has more than half the population of FSM and a population density four times that of Yap, the next most densely populated state (and almost twice that of the Marshall Islands). At a local level there are also major differences in population densities between different atolls in the region. The population of FSM has grown rapidly in the past three decades (Table Eight) at a rate of perhaps as high as 4.5% per annum, which suggests that FSM has one of the fastest growing populations in the world (although the data are inadequate to demonstrate this), but also that the growth rate is unevenly distributed between states, with Yap having a much slower growth rate and Kosrae a much faster growth rate. These variations are difficult to explain, especially without reliable data on variations in natural increase between the states.

In Yap State the average rate of population growth between 1950 and 1980 has been approximately 2.4% per annum but there are significant differences between the island of Yap itself with a rate of 3.1% and the outer islands with a growth rate of no more than 1.6%. Historically there were exceptionally long post-partum taboos on intercourse in Yap, perhaps as long as seven years (Pitt, 1976:45), and this may, to some extent, be currently maintained. Differentials between centre and periphery are similar in the other states. For the high islands of Truk lagoon the growth rate was 5.9% and for Moen itself 7.1% (from 1958-80) whilst for the outer islands the growth rate was 2.2%. In Ponape the growth rate for Ponape island was 7.4% and for the outer islands a mere 0.4%. Although there are differences in the rate of natural increase between central high islands and outer islands these differentials are partially a function of migration from the peripheries to the centres.

There is little reliable data on birth rates and death rates for the FSM although the crude birth rates have been recorded at 31.5 per thousand in 1973 and 33.5 in 1980 whilst crude death rates have been recorded at 4.2 per thousand in 1973 and 4.9 in 1980 (Weital, 1982). Both sets of figures are almost certainly too low, so that it is impossible to make reasonable estimates of the current rate of natural increase. The population is also extremely youthful with 49% of the population aged 15 or under in 1980; this proportion varies from 50% in Kosrae, the fastest growing state, to 44% in Yap. There appears to be no information on the extent of modern family planning in FSM, although it has been noted that 'the majority of the FSM families are not considering family planning due to such factors as lack of knowledge, and the notion that it contradicts traditional beliefs' (Weital, 1982:7-8). A 1971 survey found very little knowledge and even less practice of modern contraceptive techniques throughout FSM (Wolff et al, 1971) and very strong opposition to the extension of family planning (Fox, 1976:160-161).

The absence of contemporary data on population change for the whole of the TTPI area, for the FSM or the other parts of the Trust Territory, except from a small number of village-level surveys, necessitates some analysis of the regional migration data from the 1973 Census. Because of the absence of more recent data at this level there is little indication of changes in subsequent and more recent years. Crude data on the inter-district lifetime migration of the non-citizen population is given in Table Fourteen, and indicates that inter-district migration is relatively unimportant in the

Table 14. De Facto Population. Lifetime Migration by District.

RESIDENCE	BIRTHPLACE					TOTAL	
	Northern Marianas	Marshall Islands	Palau	Ponape	Truk		Yap
Northern Marianas	11,280	79	562	197	260	196	12,574
Marshall Islands	17	23,783	24	407	32	12	24,275
Palau	55	131	11,548	150	112	126	12,122
Ponape	67	131	68	22,160	405	47	22,878
Truk	36	43	55	176	30,926	34	31,270
Yap	18	1	250	46	25	7,262	7,602
TOTAL	11,473	24,168	12,507	23,136	31,760	7,677	110,721

Note: These and subsequent tables exclude data on those whose birthplace is unstated.

Source: TTPI, 1973 Census, 109-116.

TTPI areas, except in the Northern Marianas, the seat of government of the TTPI (see Country Report No.12), where migrants from the rest of the TTPI constituted in 1973 10% of the total population. Within the FSM the percentage of in-migrants varies from a high of 5% in Yap to a low of 3% in Ponape (a variation accountable principally by the relative population size of those districts); in Palau the percentage was 4% and in the Marshall Islands 2%. By contrast of those born in the Northern Marianas less than 2% had moved elsewhere in the TTPI area; for the Marshall Islands this was also less than 2% and for Palau, which had the highest proportion, it was 8%. Within FSM the proportion varied from 3% in Truk to 6% in Yap. Thus, within the TTPI area, the Marshall Islands stands out as the district that has experienced relatively little migration to or from the rest of the area; Palau has the highest rate of out-migration and the Northern Marianas the highest rate of in-migration (which does suggest the greater availability of job opportunities there). The component states of the FSM are at neither extreme.

Table 15. Population Sex Ratios, 1973.

		Total Population		Non-migrants		Same district migrants		Other district migrants	
Northern Marianas	M	6,343		5,436		289		618	
			1.02		1.03				0.91
	F	6,234		5,275		280		679	
Marshall Islands	M	12,416		6,503		5,621		292	
			1.05		1.05		1.03		1.46
	F	11,859		6,196		5,463		200	
Palau	M	6,229		4,134		1,702		393	
			1.06		1.01		1.05		2.17
	F	5,893		4,086		1,626		181	
Ponape	M	11,685		8,621		2,647		417	
			1.04		1.05		0.98		1.36
	F	11,199		8,195		2,697		307	
Truk	M	15,905		12,705		2,990		210	
			1.04		1.02		1.09		1.69
	F	15,355		12,488		2,743		124	
Yap	M	3,867		2,695		1,001		171	
			1.03		1.02		1.07		0.96
	F	3,745		2,632		934		179	

Note: 'other district' migrants includes 'not stated'.

Examining these patterns of migration in greater detail demonstrates that the bulk of migration flows are over relatively short distances (such as from Palau to Yap and the Marianas and from Yap to Palau and the Marianas) although for the Marianas the distance-decay relationship is less apparent, presumably because of the almost certainly higher skill levels of

migrants to and from Saipan. Disaggregating the data by sex (Table Fifteen) demonstrates that there is very little sexual bias in migration; migrants are marginally more male than the non-migrant population, or the population as a whole, in four of the states (and especially Yap and Truk) but in the Marshall Islands and Ponape migrants are marginally more female. As the distance of migration increases so too does the male bias in migration. However lifetime migration streams in the TTPI area demonstrate a remarkable sexual equality, much like that throughout most of Polynesia, hence sexual differences in migration streams are only briefly considered further here.

The 1973 Census data can be further analysed for the component states (with Kosrae combined with Ponape) as is demonstrated in Tables Sixteen (Ponape), Seventeen (Truk) and Eighteen (Yap). In the case of Ponape a number of features are apparent; firstly, there has been an excess of migration from every atoll in the state, but especially from Mokil, where only 33% of those born on the atoll lived there in 1973, whilst on Ngatik, which had retained 64% of the population born there (the highest proportion of any atoll), a mere 3% of the population were born off the atoll. Overall the atolls had retained only 49% of the population that had been born there although 13% of the 1973 atoll population had been born away from that atoll. Secondly, the pattern of migration for the two Polynesian outlier atolls, Kapingamarangi and Nukuoro, was essentially the same as that of the other atolls. Thirdly, the two easternmost atolls of Mokil and Pingelap have stronger migration links with the Marshall Islands and Nukuoro has stronger links with Truk than the other atolls, variations that are quite predictable. Above all the Ponape state data demonstrates the heavy out-migration from all the atolls.

For Ponape itself the growth of Kolonia is most apparent since 59% of its present population were born outside Kolonia; only Sokehs and Net, both of which adjoin Kolonia, approach this proportion. The post-war resettlement of Mortlock (Etal, Lukunor and Satawan) Islanders on Sokehs Island is apparent in Table Sixteen. Two other aspects of urbanisation are interesting; firstly, apart from the resettled Mortlock Islanders, migrants from other districts are overwhelmingly concentrated in Kolonia. Secondly, some 40% of the population born in Kolonia no longer live in the town, a higher proportion than for any other municipality on Ponape, which indicates considerable out-migration from the town. In the absence of data on the age of migrants it is only possible to hypothesize that the lifetime out-migrants are principally children born in town returning with their parents to their original places of residence. This indicates that 'circular migration' has been extremely significant in urbanisation on Ponape; without data on trends over time it is difficult to assess the extent to which this is currently maintained. Ritter has hinted that, in the case of Kosraens on Ponape, circular migration may not now be so important (Ritter, 1980) a situation which may also be true of other migrant groups in Kolonia. Within Ponapean municipalities there has been the greatest out-migration from, and the least migration to, Kiti, the most remote municipality from Kolonia and the poorest provided for in transport facilities (a situation that has largely continued since 1973). In the absence of other social and economic indices at municipality level it is only possible to derive such loose geographical correlations. Thus in terms of lifetime migration there has been a movement away from the more distant parts of Ponape Island and continued urban growth in Kolonia. Finally, with the exception of Kolonia, the population on Ponape has been much less mobile than that of the atolls (although census classifications may hide inter-village migration).

Table 16. Lifetime Migration. Ponape District, 1973.

Birthplace	Residence							Total
	Same municipality	Other Ponape	Marianas	Marshall Islands	Palau	Truk	Yap	
Mokil	249	444	2	34	9	4	1	743
Pingelap	557	467	8	47	18	2	8	1,107
Ngatik	390	209	1	6	3	1	1	611
Nukuoro	189	141	1	2	6	9	0	348
Kapingamarangi	326	326	2	4	13	1	0	672
Uh	1,620	419	3	1	9	2	1	2,055
Metalanim	1,806	420	8	5	13	5	1	2,258
Kiti	2,256	960	6	6	6	10	7	3,251
Sokehs	2,183	475	19	35	22	76	14	2,824
Net	1,554	261	28	8	10	5	1	1,867
Kolonia	1,909	908	73	40	20	31	9	2,990
Kosrae	3,777	263	43	213	16	14	3	4,329

	Birthplace							Total
	Same municipality	Other Ponape	Marianas	Marshall Islands	Palau	Truk	Yap	
Mokil	249	65	0	1	0	2	0	317
Pingelap	557	70	0	5	0	1	0	633
Ngatik	390	13	0	0	0	0	2	405
Nukuoro	189	54	0	0	2	0	0	245
Kapingamarangi	326	62	1	0	0	0	0	389
Uh	1,620	189	4	0	2	9	0	1,824
Metalanim	1,806	662	5	18	7	93	20	2,611
Kiti	2,256	148	0	2	1	12	0	2,419
Sokehs	2,183	797	10	27	9	162	4	3,192
Net	1,554	643	2	1	16	19	2	2,237
Kolonia	1,909	2,485	43	30	30	104	19	4,620
Kosrae	3,777	105	2	47	1	3	0	3,935

Source: TTPI 1973 Census, 103-104:109-116. This table excludes a small number of individuals whose birthplace is not stated.

Table 17. Lifetime Migration, Truk District, 1973.

Birthplace	Residence							Total
	Same municipality	Other Truk	Marianas	Marshall Islands	Palau	Ponape	Yap	
Moen	5,398	450	118	6	21	53	2	6,048
Dublon	2,283	323	21	13	5	18	0	2,663
Fefan	2,345	339	13	2	12	34	1	2,746
Tsis	213	90	1	1	0	0	0	305
Uman	1,769	385	15	0	2	10	1	2,182
Param	188	25	1	0	0	2	0	216
Eot	163	116	0	0	0	0	0	279
Udot	748	258	12	0	0	6	0	1,024
Romanum	348	53	0	0	0	2	0	403
Fala-Beguets	335	44	0	0	1	2	1	383
Tol	5,185	688	22	1	26	10	1	5,933
Nama	696	433	2	2	5	8	0	1,146
Losap (Losap	423	407	5	0	4	27	0	866
(Pis-Losap	188	101	0	0	0	46	0	335
Namoluk	252	112	7	1	3	3	2	380
Etal	223	72	0	0	3	3	0	301
Lukunor (Lukunor	443	264	4	0	4	47	0	762
(Oneop	360	222	0	0	4	9	0	595
Satawan (Satawan	440	175	2	1	2	14	1	635
(Kutu	344	317	12	2	5	12	0	692
(Moch	425	159	3	0	1	2	0	590
(Ta	151	69	2	1	3	60	0	286
Pulusuk	235	53	3	0	1	2	2	296
Puluwat	408	34	0	0	2	2	11	457
Pulap (Pulap	311	53	5	0	0	1	0	370
(Tamatom	152	37	0	0	1	0	0	190
Namo- (Magur	22	10	0	0	0	0	0	32
nuito (Ulul	174	49	0	0	0	3	0	226
(Ono	31	35	0	0	0	0	0	66
(Onari	33	37	0	0	0	0	0	70
(Pisaras	78	41	0	0	0	0	0	119
Nomwin (Nomwin	284	53	0	0	3	1	0	341
(Fananu	176	48	1	0	1	0	0	226
Murillo (Ruo	168	23	0	0	0	0	0	191
(Murillo	201	84	1	0	1	0	0	287

Residence	Birthplace							Total
	Same municipality	Other Truk	Marianas	Marshall Islands	Palau	Ponape	Yap	
Moen	5,398	3,674	22	34	47	75	29	9,279
Dublon	2,283	245	0	3	1	6	2	2,540
Fefan	2,345	125	0	0	0	0	0	2,470
Tsis	213	27	0	0	0	1	0	241
Uman	1,769	109	0	0	3	2	0	1,883
Param	188	15	0	0	0	0	0	203
Eot	163	29	0	0	0	0	0	192
Udot	748	180	0	0	0	0	0	928
Romanum	348	27	0	0	0	0	0	375
Fala-Beguets	335	5	0	0	0	0	0	340
Tol	5,185	222	0	1	2	2	0	5,412
Nama	696	5	0	0	0	0	0	701
Losap (Losap	423	13	2	0	0	0	0	438
(Pis-Losap	188	35	0	0	0	2	0	225
Namoluk	252	9	0	0	0	0	1	262
Etal	223	35	1	0	1	6	0	266
Lukunor (Lukunor	443	53	0	0	0	5	0	501
(Oneop	360	36	0	4	0	0	0	400
Satawan (Satawan	440	350	2	0	0	23	0	815
(Kutu	344	38	0	0	0	1	0	383
(Moch	425	18	0	0	0	0	0	443
(Ta	151	39	3	0	0	35	0	228
Pulusuk	235	28	2	0	0	0	0	265
Puluwat	408	25	0	0	0	1	1	435
Pulap (Pulap	311	5	0	0	0	0	0	316
(Tamatom	152	2	0	0	0	0	0	154
(Magur	22	44	0	0	0	0	0	66
(Ulul	174	194	3	0	0	0	0	371
Namo- (Ono	31	10	0	0	0	0	0	41
nuito (Onari	33	14	0	0	0	0	0	47
(Pisaras	78	30	1	0	0	1	0	110
Nomwin (Nomwin	284	5	0	0	0	0	0	289
(Fananu	176	3	0	0	0	0	0	179
Murillo (Ruo	168	10	0	0	0	2	0	180
(Murillo	201	2	0	0	0	0	0	203

The lifetime migration situation in the municipality of Kosrae, now the state of Kosrae, is quite different from that of other parts of the Ponape state. Firstly, compared with all other municipalities there has been very low out-migration. Only 13% of those born in Kosrae were not living there in 1973; the distinctiveness and relative isolation of Kosrae may explain this low proportion (although this does not explain high out-migration from the distinctive and remote Polynesian outliers where population densities are much higher). Secondly, compared with all other municipalities, there has been extremely low in-migration; 4% of the population were born outside Kosrae (a proportion greater only than Ngatik). Thirdly, a third of all in-migrants to Kosrae were from the Marshall Islands whilst 39% of all out-migrants were in the Marshall Islands. (Since Kosrae is linked with the rest of Ponape in the FSM data it is impossible to compare this data with the extent of migration from the Marshall Islands to Kosrae). The uniqueness and isolation of Kosrae is apparent from the migration data, factors which eventually enabled Kosrae to gain separate district status and statehood.

The data on lifetime migration in Truk (Table Seventeen) reveal a more complex migration situation than in the other states. As elsewhere there has been significant migration into the principal urban area on Moen Island and migrants from other districts in TTPI are highly concentrated on Moen; some 42% of the population of Moen were born elsewhere. This is a lower proportion than in other states of FSM, which may reflect both the partly rural character of Moen Island and the limited job opportunities there. Out-migration from Moen is also significantly lower than for other urban areas of FSM; only 11% of the population born on Moen had moved elsewhere. In general, movement away from the islands of Truk lagoon was extremely small, except for the small island of Tsis where 30% of those born there had moved away, and (with the exception of Moen) movement to those islands was also extremely small. For example, on Fala Beguets, over 98% of the population living there had been born there and only 13% of those born there lived elsewhere. Thus within Truk lagoon, with the exception of Moen, the population has experienced very low mobility and migration has limited impact on population structure, a situation that reflects distinct social divisions between many of the lagoon islands.

For the atolls of Truk district the situation is somewhat different from that of Truk lagoon and there are significant differences between atolls in different parts of the district. Unusually high migration rates for Ulul, Satawan, Tol and Dublon are explained by the presence of junior high schools there. In the south-east atolls from Nama to the Mortlock group (Etal, Lukunor and Satawan) there have been generally high rates of out-migration, although only Losap and Kutu have lost more than half the population born there. From all these atolls there has been migration to Palau and especially to Ponape, where there have been formal administration resettlement schemes; this link with Ponape is also reflected in the movement into these atolls from Ponape (presumably principally of those born to migrant parents in Ponape). By contrast the other atolls of Truk district (with the exceptions of the two small Namonuito atolls, Ono and Onari) have very low rates of out-migration, similar to those of Truk lagoon, and even lower rates of in-migration, which have also given them relatively stable populations. For example, on the two atolls of Nomwin 98% of those living there had been born there and only 19% of those born there had moved away; on the atolls of Murillo the relative proportions were 23% and 4%. Migration to and from the westernmost atolls of Puluwat and Pulusuk and the Yapese atolls of Lamotrek and Satawal indicate some traditional movement between arbitrarily defined districts. Overall the western atolls

Table 18. Lifetime Migration. Yap District, 1973.

Birthplace	Residence							Total
	Same municipality	Other Yap	Marianas	Marshalls	Palau	Ponape	Truk	
Rumung	62	73	3	0	1	0	0	139
Map	288	136	1	0	0	2	3	430
Gagil	330	79	5	0	6	3	0	423
Tomil	573	122	8	0	7	1	2	713
Fanif	307	132	3	1	6	7	1	457
Welay	515	446	29	2	8	6	4	1,010
Rull	690	141	73	3	30	7	3	947
Gilman	132	32	5	0	0	1	1	171
Kanifay	202	38	2	0	2	0	1	245
Dalapebinau	46	94	4	4	3	3	0	154
Ulithi	432	84	8	0	6	2	5	537
Fais	189	43	1	0	1	0	0	234
Sorol	8	6	0	0	0	0	0	14
Ngulu	7	33	0	0	0	1	0	41
Woleai	504	130	4	0	11	5	2	656
Eauripik	119	82	0	0	4	2	5	212
Ifaluk	294	34	2	0	8	2	2	342
Faraulep	110	41	0	0	2	1	0	154
Elato	17	15	1	0	0	0	0	33
Lamotrek	184	51	0	0	2	1	1	239
Satawal	318	75	0	0	7	2	3	405

Residence	Birthplace							Total
	Same municipality	Other Yap	Marianas	Marshalls	Palau	Ponape	Truk	
Rumung	62	66	0	0	0	0	0	128
Map	288	49	0	0	0	0	0	337
Gagil	330	194	0	0	1	8	1	534
Tomil	573	48	0	0	1	0	0	622
Fanif	307	56	0	0	0	0	0	363
Welay	515	394	6	1	46	7	8	977
Rull	690	382	13	0	191	31	2	1,309
Gilman	132	76	1	0	7	0	0	216
Kanifay	202	31	0	0	1	0	0	234
Dalipebinau	46	114	0	0	0	0	0	160
Ulithi	432	252	1	0	3	0	1	689
Fais	189	23	0	0	0	0	0	212
Sorol	8	0	0	0	0	0	0	8
Ngulu	7	1	0	0	0	0	0	8
Woleai	504	97	3	0	0	0	0	604
Eauripik	119	8	0	0	0	0	0	127
Ifaluk	294	17	0	0	0	0	0	311
Faraulep	110	7	0	0	0	0	0	117
Elato	17	15	0	0	0	0	0	32
Lamotrek	184	30	0	0	0	0	9	223
Satawal	318	27	4	0	0	0	4	353

of Truk have experienced similar patterns of migration to those of the atolls of Yap and a much lower rate of in- and out-migration than that of the south-east atolls, which are more like the atolls of Ponape where migration has been extremely important.

Migration data from Yap (Table Eighteen) generally indicate the relatively limited importance of migration to the population composition of the state. The district centre of Colonia has not been separately classified as an urban centre but is geographically defined as three villages in Weloy and four in Rull. Unlike other district centres Colonia has never become a significant urban centre and few Yapese have moved to live there; the majority of occupants are from off-island (including Americans and Palauans), especially from the outer-islands, who have their own village-area (Madrich) in the Rull part of Colonia town. Government employees usually commute from their villages (where traditional customs and agricultural systems have been much more successfully retained than on the other high islands of Micronesia). Nevertheless the data indicates that most migration movements in Yap are to and from the two urban municipalities. Some 84% of all migrants from other districts in TTPI are in Colonia whilst migrants make up 48% of the population of both Rull and Weloy, a significantly higher proportion than in all other municipalities on the island of Yap (except Rumung, whose high in- and out-migration rate cannot here be explained). Again, as in Kolonia (Ponape), there is also a high out-migration rate from Colonia which suggests lifetime circular migration but may be a function of the presence of the hospital there. The high migration rate for Dalapebinau can only be explained here (unless there is a high school there) if parts of the municipality are effectively 'urban' with a relative mobile population. Apart from the urban area and the anomalous case of Dalapebinau; other municipalities on Yap Island have retained a high proportion of the population born there, Kanifay leading with 82%. Three partial exceptions to this are the relatively remote municipalities of Rumung, Map and also Fanif. However what is perhaps surprising, in view of the small size of Colonia and the limited economic development in Yap, is that in comparison with the municipalities of Ponape Island Yap has experienced greater levels of out-migration.

In contrast to the situation in Ponape the atolls of Yap state have retained a much higher proportion of their population than those of Ponape. There are five exceptions: the tiny atolls of Sorol, Ngulu and Elato. Ngulu lost 33 (83%) out of 41 people born there, perhaps the highest rate of out-migration for a currently populated atoll in normal conditions, and gained only one. The other two exceptions are the densely populated atolls of Eauripik and Faraulep, which retained 56% and 71% of their populations and gained very few. In general the larger, less densely populated atolls have retained and gained populations. This is particularly true of Ulithi, the location of the Outer Islands High School and the principal centre for the Yapese atolls. The only other atoll that has experienced significant in-migration is Woleai but this is exceeded by out-migration. Thus for the atolls migration has been essentially confined within the atolls; few have migrated to Yap itself and few have gone beyond the state. There has never been any administration-sponsored resettlement within Yap district so that unlike the outer islanders of Ponape potential migrants have no adequate base settlement on the high island; outer islanders are confined to the single overcrowded settlement of Madrigh in Colonia and there are Yapese objections to settlement extending beyond that. Moreover outer islanders in Yap state are more 'conservative' than those in Ponape.

Although the data on migration from the 1973 census is limited, since it does not and cannot include movements into and outside the TTPI area, it covers only lifetime migration (with no indication of times of movement and temporal trends), it effectively distinguishes within-island rural-urban movements only in Ponape (and then the defined urban area excludes some semi-urban settlements on Sokehs island and elsewhere), it provides an inadequate breakdown of origins and destinations and gives no information on the characteristics of migrants. However it does indicate some important features of migration in FSM, including some which appear to have been subsequently maintained. Firstly, in almost all cases, the outer islands, that is the atolls and especially the smaller and more densely populated atolls, have lost population relative to the central high islands (a feature which is also apparent from the data on crude population change over time) but some islands are more successful in retaining population than others, especially those to the west of Truk. (The data cannot explain whether this is because of resistance to migration, in origin or destination, an improved quality of life on those islands or what feature or features might explain such a variation). Secondly, and obviously conversely, the principal centres in each state (unless Kosrae is now classified separately) have gained population relative to other areas but they nevertheless have had an extremely mobile population from which there appears to have been a significant degree of return migration. Thirdly, there are variations in the migration situation from state to state, variations that might be expected from their different economic and social situations, and some of these variations must be examined in more detail and with more recent data than is possible from the data provided in 1973.

Migration has a long history in the Caroline Islands. In fact, one of the earliest recorded statements about the central atolls dates from 1664 when some 30 Carolinian canoes drifted to the Philippines; missionaries in the Philippines were told by the voyagers that the islands from which they came were 'as populated as an anthill' (Kramer, 1917, cited by Alkire, 1978:31). Some even worked as wage labourers there (Lessa, 1962:328-335). The traditional voyaging response to over-population may have been fairly common since these voyagers were reported to have come from some 50 islands. Moreover, especially on the more isolated atolls, for example Kapingamarangi, at times of over-population there was resort to abortion, lengthening of time between pregnancies and postponement of marriage (Emory, 1965:174, 155-156) and, during the 1916-18 drought, existing marriages were actually dissolved (cf. Lieber, 1974). These social controls have now weakened everywhere. Population pressures also resulted in intensive agricultural development. Thus in many parts of Micronesia, not only in FSM, there has been a long experience of substantial population pressure and a variety of responses to it, including migration. In the context of Kosrae, whose contact history was not dissimilar to that of other parts of Micronesia, Ritter has identified five stages in migration history, firstly, a partly pre-contact era of traditional canoe voyages; secondly (1852-1890), work on whaling ships, a minimal degree of blackbirding and depopulation; thirdly (1880-1914), the German period when migrants worked on phosphate mining in Nauru; fourthly (1914-1944), the Japanese period, when migration was 'a nearly universal experience for adult men' and, fifthly, the post-war era when migrants went to Ponape for education but work migration was more limited (Ritter, 1980). Whilst the post-war era was rather more complex this general periodicity, with some variations, fits the wider Micronesian experience.

In some parts of FSM there was considerable labour migration before the last war, particularly from the eastern Carolines, and especially from Kosrae to Nauru (see also Country Report No.9), and from the western Carolines, but especially from Yap and Ulithi, Truk and the Mortlock Islands (Purcell, 1976:193), to the phosphate mines of Angaur and Fais, where 'some stayed abroad for many years and repeatedly returned to their jobs after brief visits home' (Hunt *et al*, 1954:31). For example, virtually all men from Etal Island worked on both Angaur (in the mine) and Ponape (on copra plantations) in the 1930s, for periods ranging from the required 6 months to up to 6 or 7 years. Although some men volunteered to work, island quotas were established by the Japanese administration (Nason, 1970:217) and there is a doubt over the extent to which labour migration was voluntary (Purcell, 1976:194). The same was true on Namoluk (Carroll, 1975:168-9). Similarly, on Lukunor, all men had worked away for at least a year, and many for much longer periods (Tolerton and Rauch, 1949:163-4). However Japanese census material on the more remote Nukuoro atoll from 1930 and 1935 shows that there was little migration from there; in 1935 of 198 people born on Nukuoro only 7 were off the atoll (Carroll, 1975:370) so the norms that governed more central atolls may not have applied in remote atolls. Interestingly, men with the longer periods of absence, at least from Yap, had a slightly larger number of children, although the difference was not statistically significant (*ibid*:32). Returning migrants to Lukunor spent much money on clothes and presents, and more than half of this was given to the headman for distribution (Tolerton and Rauch, 1949:164). Otherwise the impact of these early migrations is little known, and may have been slight in material ways (comparable to pre-war movements to Melanesian plantations) having little impact on village society and economy, being essentially a necessary but brief interruption to traditional society and economy.

In many respects the principal influences on population movement in FSM, at least on the outer islands, are typhoons. One of the major population movements in early Nineteenth Century Micronesia was that of Carolinians, escaping the impact of typhoons principally around Satawal, and migrating to Saipan, in the Northern Marianas (see Country Report No.12). One of these atolls might have been Olimarao, devastated by typhoon early in the Nineteenth Century and never repopulated (Alkire, 1978:229). In 1907 a major typhoon ravaged the Mortlock Islands and the German administration responded by relocating large numbers of Mortlock Islanders on Ponape (and also Saipan) and these new Ponape communities have become major centres of opportunity for the remaining atoll dwellers especially following subsequent typhoons (Marshall, 1976:39) whilst, at least in the case of Pingelap, there are more Pingelapese (about 900) in Ponape than on Pingelap (about 400). Typhoons in the post-war years have prompted out-migration and, because of the availability of store food and relief support, have often resulted in the partial abandonment of traditional agricultural systems, such as pit taro cultivation, destroyed in the typhoon. Because of external support, disasters may now claim fewer lives but they cause a more dramatic re-ordering of the social and economic system on the atolls (cf. Lessa, 1964) and off the atolls as new urban communities increasingly become the focus for displaced atoll residents.

Droughts have also significantly altered population distribution; for example the 1916-18 drought in Kapingamarangi stimulated much migration as 'individuals and their families were offered the chance to go to Ponape and get work and wages as an alternative to starving at home' (Lieber, 1968:7). For the country as a whole, migration in the FSM may have been more strongly affected by natural hazards than anywhere else in the Pacific; such hazards cannot be combatted but can only be met with traditional and modern economic

systems that encourage diversity and administrative structures that enable a flexibility of response to include the possibility of resettlement. In this latter respect the FSM has been fortunate, even though that response has tended to result in substantial food distribution programmes with resultant changes in tastes and expectations. Disease too has significantly influenced migration; in 1982 it was estimated that perhaps as many as 2,000 people, mainly school personnel and their families, left Truk to the outer islands (although most probably temporarily) after the cholera outbreak there (South Seas Digest, 21(2), 28 January 1983).

The trends that emerged in the earlier analysis of lifetime migration from the 1973 Census data (especially those of migration from outer islands, urbanisation and return migration) can now be examined in the context of other more specific studies relating to migration, which enable an alternative perspective on migration (from a particular atoll, village or urban area) and enable some consideration of the rationale for migration. To a considerable extent migration is confined within states, principally from the outer-islands to the centre, but there are exceptions. Firstly, there are some traditional movements between the eastern atolls of Yap district and the western atolls of Truk. However these kinds of movements are quite limited; for example, of the ethnic population of Nukuoro, close to the border of Truk district, only one was actually in that district in 1965 (Carroll, 1975:387), a situation quite different from the analysis of lifetime migration in the 1973 census (see above) suggesting that older patterns of lifetime migration between atolls have given way to more modern movements to the district centres. Secondly, there have been major resettlements from the Mortlock Islands (Etal, Lukunor and Satawan) in Truk district to Ponape, at different periods of the present century. This has given the remaining Mortlock Islanders special ties to Ponape and this is reflected in contemporary migration to and from those atolls. Thirdly, Kosrae was an outer-island of Ponape until 1967 and there was some migration from there to Ponape (Ritter, 1980); although the achievement of statehood slowed down this movement the Kosraean population on Ponape remains significant. Finally, there have been some movements of public servants between districts; the numbers involved are unknown but it is a significant influence on the development of cohesion within the FSM.

On the large central islands, that is essentially Yap and Ponape, there has been very little internal migration; many commute to work and those who are farther away return to their home communities at weekends. Moreover out-migration from Kiti, the most remote municipality on Ponape, appears to have been slowed or reversed by the completion of a road to the fringes of the area. Thus where commuting is possible it is preferred to migration, a situation that is not unusual in the Pacific, and enables urban workers to retain contact both with traditional culture and the agricultural economy. This desirable situation places such workers in a much superior position to that of migrants from more remote atolls, who are more likely to experience deculturation and dependence on imported foods and other goods. Significantly, in the 1975 referendum on future political status, rural Ponapeans voted for independence whilst both town dwellers and outer islanders voted for continued trust status or some form of financial association with the U.S. so that cash would continue to flow into the economy (Petersen, 1979:32; see also Hamnett, 1979). Thus within a single state, a situation replicated in the other states of FSM, there are two quite different socio-economic systems, one (rural Ponape) that has achieved a reasonable balance between tradition and modernity and another (out-islanders and their urban kin) that has become highly dependent on urban wages, and the commodities that can be purchased with them, with a

minimal productive economy. These differences are reflected in social and political divisions, and considerable distrust by outer islanders of the central governments on the high islands.

The main trends that emerged from lifetime migration in the 1973 census was that of movement from the outer islands to the high islands at the centre and also to a very small number of larger atolls. Modern health facilities and medicines, increased opposition to traditional forms of fertility control, improved housing conditions and economic status have resulted in more rapid natural increase of population throughout the FSM and therefore in most atoll situations. As atoll populations increase, the problems of satisfying basic needs (e.g. housing and food) on the atolls also increase; thus on Eauripik (with a population density of 950 sq.km. in 1980) locally generated income is earned solely from handicraft production since all coconuts are essential for eating rather than copra production. It is the smallest atolls that are most likely to lose population, in part because it is impossible for adequate social services or jobs to be provided there and, in part, because it is increasingly difficult for them to provide an acceptable standard of community life. The combination of higher post-war rates of population increase, the increased desire for consumer goods, the location of higher education facilities and hospitals either on one central atoll or on a high island, the concentration of formal sector employment there, the monotony and boredom of atoll life and the 'slice of the action' (Hezel, 1976:112) available in the centres has, in many cases, resulted in considerable out-migration from atolls to the extent that many atoll populations (such as those from Namoluk on Moen, and those from Kapingamarangi on Ponape) have established a relatively permanent community on the high island.

As elsewhere in the Pacific, migration is predominantly from the youthful age groups; for example, for Namoluk atoll (Truk state), it has been estimated that nearly 90% of the estimated de jure population in the age group 15-29 have left the atoll (Marshall, 1979a:10) and Marshall has titled an unpublished paper on Namoluk, 'Where have all the young folks gone? Gone to Truk everyone' (1972). The same is essentially true for Etal (Nason, 1975b:139) and is likely to be true throughout FSM. This is especially so on the outer islands where job opportunities are extremely limited; for example,

'there are only two high school graduates on Eauripik, and both of them are teaching in the school. There is one further government position as health aide on the atoll, but when that is filled, there will be no more government positions requiring education. High school graduates will have to make copra and catch fish' (Levin, 1976:180).

On larger atolls there may be more jobs for teachers, health aides or even pastors but little productive employment or any employment in the private sector. Migration for work is therefore not only scarcely surprising but almost inevitable. Although, in formal surveys, employment does not figure prominently in the reasons for migration the possibilities of employment underlie more apparently casual motivations whilst movement for education is a precursor to employment. Moreover many migrants are the relatives of those who have found work, but are not themselves working. In FSM, as elsewhere in Micronesia,

'as people come to the district centers, they come hoping for a government job - if not for themselves, then for their newly half-educated

children. For here government is not the employer of last resort, but of first resort ...working in business...is considered demeaning, while working for government is seen as prestigious. The salary scale reinforces this attitude. Government salaries are pegged at U.S. levels' (Nevin, 1977:32).

It is not however just a movement of workers and the most fertile group of the population (who may then reproduce overseas) but it is also an internal brain drain of the skilled and talented (Marshall, 1979a:10). Out-migration has increased the dependency ratio of atolls and has resulted in a labour shortage for some activities, including fishing (cf. Carroll, 1975:374-5). Atolls are increasingly becoming places of 'vacation homes' (Marshall, 1979a:10) so that, for example, the atoll of Namoluk 'may be described quite accurately as a combination "old folk's home" and "day care centre" (Marshall, 1979a:3). The burdens of dependency for the remaining workers are thus very great.

Since the 1973 data indicate the equivalence of males and females in migration streams, the increase in female migration is a relatively belated phenomenon, perhaps especially in Truk state where there is a slight male bias. On Namoluk, three times as many females were located off-island in 1976 as there were in 1971; while males outnumbered females off the atoll by more than two-to-one in 1971, by 1976 they were nearly equal. This change occurred, firstly, because women increasingly obtained a post-elementary education hitherto denied them by cultural and social attitudes and, secondly, because few eligible young men remained on the island (Marshall, 1979a:3-5). This is a particularly striking situation since throughout Micronesia kinship systems, and hence the inheritance of land rights, are matrilineal so that women are at a disadvantage if they migrate, a situation which explained low rates of female migration on Ulithi around 1960 (Lessa and Myers, 1962: 255). The current migration of females suggests that these traditional considerations are of declining significance, or that females are more likely to intend to return. The consistency with which individual studies record significantly higher numbers of males absent (Tables 19 and 23), and never record higher numbers of females absent, demonstrates that although males and females are equally likely to migrate (Table 14) females are more likely to return.

Despite the clear indications of urban growth in the 1973 census the actual destination of migrants was relatively unclear (especially for those who may have moved outside the Trust Territory area). Whilst more detailed data emphasize the contribution of migration to urbanisation they also indicate a diversity of migration moves that is not apparent in the census. For example, in the case of Namoluk atoll, migrants were located as shown in Table Nineteen; this demonstrates two features that are not apparent in the 1973 census data, the significance of movements to other atolls in the same district and also outside the Trust Territory area. Migrants from three municipalities in Kosrae were located as shown in Tables Twenty and Twenty-one and indicate a similar kind of distribution, but without the complications of inter-atoll migration, whilst Tables Twenty-two, Twenty-three and Twenty-four again depict more complex atoll situations. What is abundantly clear in all these cases is the strength of the movement to high islands and the increasing significance of more distant migration, especially for education, and especially for males. Significantly, the most recent of these studies (Namoluk in 1976) demonstrates this the most clearly.

Table 19. Migrant Locations, Namoluk Atoll (Truk).

	1971	1976
(Moen	69)	
(Other Truk lagoon islands	4)	145
(
FSM (Other Truk atolls	24	50
(
(Ponape	3)	
(Yap	2)	
)	
Palau	1)	17
)	
Northern Marianas	3)	
Guam	4	1
U.S.A.	4	24
TOTAL	114	237

Note 1. The figure for U.S.A. in 1976 includes one in Thailand.

Source: after Marshall, 1975:180 and Marshall, 1979a:6-7.

Table 20. Location of Migrants. Utwe and Malem (Kosrae), 1975.

	M	F	Total
FSM (Ponape	49	38	87
(Palau	5	0	5
Marshall Islands	10	11	21
Northern Marianas	6	1	7
Guam	7	5	12
Nauru	3	0	3
U.S.A.	8	3	11
Australia	1	0	1
Papua New Guinea	1	0	1
Ship	6	0	6
TOTAL	96	58	154

Source: Ritter, 1980:365.

Table 21. Location of Migrants, Lelu (Kosrae), 1967.

	In-migration	Out-migration
Kosrae	73	55
FSM (Ponape ((Truk (Yap	5 (including Mokil 1, Kapingamarangi 1). 3 1	8 (including Mokil 1). 1 1
Marshall Islands	1	1
U.S.A.	1	-
TOTAL	84	66

Source: Wilson, 1968:167-169.

Table 22. Location of Eauripik Population 1963.

	(a) 1950 Population in 1963			(b) 1963 Ethnic Population		
	M	F	Total	M	F	Total
FSM (Eauripik	22	30	52	61	69	130
(Woleai	12	15	27	3	11	14
(Yap	11	5	16	8	5	13
(Ulithi	5	0	5	3	0	3
(Fais	0	1	1	0	2	2
(Ifaluk	1	0	1	0	0	0
(Lamotrek	1	0	1	1	0	1
(Ponape	0	0	0	2	0	2
Fiji	1	0	1	1	0	1
Palau	4	0	4	4	1	5
USA/Guam	3	0	3	3	0	3
Philippines	0	0	0	1	0	1
Dead/unknown	11	17	28	0	0	0
TOTAL	71	68	139	87	88	175

Source: Levin, 1976:189.

Table 23. Location of Etal Absentees, 1968.

	M	F	Total
FSM (Moен, Truk	11	3	14
(Tol, Truk	0	1	1
(Uman, Truk	1	1	2
(Fefan, Truk	0	1	1
(Namonuito	1	0	1
(Namoluk	2	1	3
(Satawan	9	13	22
(Lukunor	3	0	3
(Ponape	10	13	23
Palau	2	1	3
Saipan (Marianas)	0	1	1
Guam	1	1	2
Unknown	4	1	5
TOTAL	44	37	81

Source: Nason, 1975b:141.

Table 24. Location of Nukuoro Ethnic Population, 1965.

	M	F	Total
FSM (Kapingamarangi	7	10	17
(Ngatik	2	0	2
(Yap	2	0	2
(Kosrae	1	1	2
(Truk	1	0	1
Marshall Islands	2	2	4
Palau	1	0	1
Saipan (Marianas)	1	0	1
Hawaii, U.S.A.	2	0	2
Samoa	1	0	1
Ship	6	0	6
TOTAL	26	13	39

Source: Carroll, 1975:387 (This does not include a large Nukuoro population in Ponape).

Relatively little information has been collected on the origin of in-migrants to particular communities in Micronesia that would also be comparable with the 1973 census data. However for Lelu municipality (Kosrae) the origin of in-migrants (Table Twenty-one) indicates that of the 73 migrants from Kosrae, all but twelve had married in, whilst only 11 (1%) out of a total population of 1,066 came from outside Kosrae. The same sort of distribution is recorded by Ritter; the origins of those migrants who had married into Utwe and Malem from outside Kosrae were as follows: Ponape 6,

Mokil and Pingelap (Ponape state) 5, Truk 1, Ulithi (Yap state) 1, Marshall Islands 2, Nauru 3, Tuvalu 1, Philippines 1 (Ritter, 1980:364). Both studies indicate the relatively closed population of Kosrae. As in the case of out-migration the significance of long distance migration is more important than appears in the census data, in part because the census records an earlier era of migration.

As elsewhere, establishing the reasons for migration through any kind of questionnaire format is fraught with problems where migration is one part of a complex of social and economic changes, and retrospective opinions on the reasons for migration may not necessarily validate earlier decisions. Elucidating the social and economic situation of contemporary migrants, however, presents less difficulties and has been done in the case of Namoluk and Etal atolls (Table Twenty-five). However it is clear that the derivation of categories presents problems (especially in the third category) and, in this particular case, permits only one reason for migration which dramatically minimises the complexity and systemic nature of migration and does not differentiate reasons for different age groups or destinations.

Table 25. Reasons for Absence. Namoluk and Etal off-islands Populations, 1971 and 1968.

	Namoluk, 1971			Etal, 1968		
	M	F	Total	M	F	Total
Away at school	34	12	46	14	12	26
Employed for wages off-island	21	4	25	5	2	7
Married, unemployed, or living off-island	6	11	17	12	14	26
Accompanying parents off-island	7	6	13	7	7	14
Visiting off-island	7	1	8	5	2	7
Adopted off-island	1	3	4	-	-	-
Away at hospital	1	0	1	1	0	1
TOTAL	77	37	114	44	37	81

Source: Marshall, 1975:181; Nason, 1975b:140.

Similarly it is scarcely possible to compare reasons from survey to survey both because of the different categories and because of different definitions of migrant and migration. Nonetheless the data indicate both the major significance of education and employment but also the importance of a variety of social reasons that are hard to quantify but account for 42% of all migration. When initial reasons for migration are recorded, as in the case of Kosrae migrants to Ponape (Table Twenty-six) who have married outside the Kosrae ethnic group, the situation appears slightly different. Education again dominates but employment is insignificant since domestic service constitutes a Kosraean custom (kulansap) of young women working as temporary domestic helpers in the households of near kin. (This is however a small unique population and generalisations from this data may be inappropriate). Elsewhere, however, Ritter (1977) notes that out of 547 Kosraeans visiting Ponape between August 1974 and July 1975 only 7 moves were related to employment. Finally there is the unusual case of migration from Nukuoro to Ponape, all of which is supposed to result from personal

conflicts and social discord; 'anyone will tell you that people leave home because they are unhappy' (Carroll, 1977:72). This however appears to confuse the actual catalyst to migration with the social and economic structure in which context decisions are made; after all not all those with conflicts move.

Table 26. Reasons for Migration. Kosraeans in Ponape, 1975.

Education	11
Domestic Service	9
Visiting Kin	6
Visiting	1
Married, with spouse	8
With parents	4
Employment	1
Medical	1
Unknown	3
TOTAL	44

Source: Ritter, 1980:359.

The significance of casual visiting is apparent from these kinds of surveys and demonstrates both the continued significance of old Micronesian traditions of inter-island movement and the fact that many migration movements begin in a rather casual manner and only later incorporate employment (whilst movement for education is a precursor to employment), thirdly, that visiting may be a rationalisation for a movement that is also intended to examine employment opportunities, but with no certainty or guarantee of success and, fourthly, that the 'bright lights' are of some significance. This last factor is particularly true in certain circumstances; in Kosrae,

'travel abroad also serves the dual purpose of satisfying individual desire for excitement and novelty as well as fulfilling kin obligations. On the other hand, many young people (especially men) travel abroad for no other reason than the excitement and the experience of travel. Kusaie is a legally dry island with no bars or dancing and such forbidden pleasures are readily available on Ponape and in the Marshalls' (Ritter, 1975:19).

Such pleasures are likewise unobtainable on most atolls. Fourthly, movements of students for education and health reasons often involve other members of the family, especially in the latter case as for example in Eauripik (Table Twenty-seven), and these moves occasionally become permanent, as also for example for Pitcairn Island (see Country Report No.15). On Eauripik and Pitcairn, and certainly elsewhere, migration is gradual with persons or families leaving for a time, returning, leaving for a longer time and finally becoming essentially members of other communities. The fact that apparently casual, temporary movements often become long-term or permanent, indicates that migration must be viewed in a structural context rather than through a simple classification of reasons; it is in this context that Levin views the situation in Eauripik as one of 'institutionalized migration' (1976:259) rather than as a sum of individual reasons.

Table 27. Reasons for Absence. Eauripik, 1973.

Education	22
Visit/Health	3
With student/patient	9
Employment	6
Adopted/Married	13
TOTAL	53

Source: Levin, 1976:192.

One underlying factor in differential rates of migration from place to place is population density however since there are few long-term studies of migration whilst population density falls following migration the correlation is difficult to establish. Nonetheless the evidence suggests that within FSM out-migration is generally greatest from those atolls where population density is also greatest. Levin examined migration between 1949 and 1974 for all the atolls of Yap State (Table Twenty-eight) finding that out-migration is greatest on Mogmog and Eauripik. Mogmog, an atoll of Ulithi, is unusual being at the top of the hierarchy of the Yapese empire, a situation in which greater mobility was and is expected of its residents (Levin, 1976:197). Eauripik however has the highest population density in Yap state. Moreover, after Mogmog, Eauripik and Satawal (the two atolls with the highest population densities) have the greatest percentage of their population on Yap itself. The implication is that, as population densities continue to rise, out-migration from the atolls is likely to increase especially to Madrich in Colonia, which was already experiencing over-population in 1974.

If population density is a factor that encourages out-migration the implication is that return migration may also be reduced because opportunities are relatively limited. Where this situation is unchanged over a period of time an appropriate strategy for residents of areas of limited potential is 'education for migration' to ensure a better position in a distant labour market to which access is based principally on merit. Levin analysed the proportion of students away from their home islands (at high school or tertiary education) for each atoll in Yap state and found that the proportion away from Eauripik was more than twice that of any other atoll (1976:200). Whilst Levin notes that this has caused a loss of fishermen greater than elsewhere (op cit:201) it suggests, more importantly, that other things being equal such a strategy exists in Eauripik (especially because there were then no jobs available relevant to the skills of high school graduates). It is rare that other things are equal; for example, Eauripik may have had a more successful (in an academic sense) primary school education and Levin actually surprisingly notes that education 'does not seem to be the migration mechanism it might be' (1976:264). However the extent to which this strategy is more general is considered elsewhere (see Country Report No.14).

There is a general consensus, in Micronesia as elsewhere, that education produces out-migration, as children go to high school and further education elsewhere. This situation is demonstrably clear in analyses of

Table 28. Distribution of 1949 Outer Islands Residents, February 1974.

Residence February, 1974	Residence 1949						Total				
	Mogmog	Asor	Falalop Woleai	W.Woleai	Eauripik	Ifaluk		Faraulep	Lamotrek	Elato	Satawal
Mogmog	35	4	-	-	-	-	-	1	-	-	40
Falalop, Ulithi	21	74	5	7	6	4	1	2	-	3	123
Falalop, Woleai	1	-	77	6	21	3	5	3	-	2	118
Western Woleai	-	-	3	59	17	-	1	1	1	-	82
Eauripik	-	-	-	-	37	-	-	-	-	-	37
Ifaluk	-	-	4	-	-	95	-	3	1	-	103
Faraulep	-	-	3	1	-	-	48	1	-	-	53
Lamotrek	1	-	1	-	3	-	4	63	3	2	77
Elato	-	-	1	1	-	-	-	2	8	-	12
Satawal	-	-	6	-	-	-	-	-	3	96	105
Fais	-	-	-	-	-	-	-	-	-	-	1
Sorol	1	1	1	-	-	-	-	-	-	-	3
Sub-Total Outer Islands	59	79	101	74	85	102	59	76	16	103	754
Yap	21	5	14	6	18	5	2	3	-	16	90
Palau District	-	-	3	-	4	3	-	-	1	1	12
Truk District	1	-	-	-	-	-	-	-	-	6	7
Ponape District	-	-	-	-	-	-	-	1	-	1	2
Saipan & Guam	5	3	-	-	-	-	1	-	-	-	9
United States	4	2	-	1	1	-	-	-	-	-	8
Philippines	-	1	-	-	-	-	-	-	-	-	1
On board ship	-	-	-	1	-	-	-	-	-	-	1
Total	90	90	118	82	108	110	62	80	17	127	884
Unknown	11	13	13	14	-	24	4	12	3	20	114
TOTAL	101	103	131	96	108	134	66	92	20	147	998

Source: Levin, 1976:197.

the reasons for migration where education is everywhere the most important stated reason. Thus the location of schools influences migration; invariably high schools are located in urban areas. However there is one exception in the FSM and that is the Outer Islands High School on Ulithi; there is some indication that graduates from this School (who are exclusively from the outer islands) are more likely to return to their own atolls than go on to Yap or Guam (although this may also be related to other social and economic factors). Location may reduce migration, if only perhaps by slowing it for the individual or for the society as a whole. Even the location of primary schools may result in migration as on Ulithi where primary schools on four islands resulted in population concentrations there and a depopulation of the other islands (Yap State, n.d.). The implication of these kinds of situations for the distribution of social services is apparent.

As important as the location of education is the content of education and in Micronesia this is essentially based on an American model; it is

'an unformed educational system transposed onto a poor model of a typical American system...emphasis is placed on career objectives which frequently have little meaning for Micronesian youth. Even worse, Americans have fostered false education values which now are held by many Micronesians and which may well lead Micronesia into political and economic difficulties' (J.Hawkins, cited by Nevin, 1977:160).

The education system has both provided training appropriate to white-collar work and inculcated a value system which is not conducive to farming or manual labour. This results in migration to the district centres in search of white-collar work where there are also higher consumption levels (because of external subsidisation and tax-free imports) whilst wages earned in the urban sector are distributed through the extended family system to rural households thus further stultifying local agricultural production and encouraging the consumption of imported foods and other goods. As Nevin observes,

'The fact seems to be that life on an island a half-mile square with a hundred-odd people, where ideas are foreign and antithetical, and the ruling forces are a combination of magic and physical facts is basically boring. When children's minds have been opened, first by the island school and then by advanced school in the district center, naturally it is difficult to get them to go home - and more difficult to keep them there' (1977:51).

In this context Micronesia exhibits not so much a particular case of the old saying 'How do you keep them down on the farm when they've seen Paris?' but a version that reads 'How do you keep them down on the farm when they've seen the farm?' As the example of Truk (below) demonstrates, reality is rather more complex.

In the 1960s Truk High School graduates found few problems in obtaining work as high school teachers on their home islands; since then graduates have had to 'leave their home islands and follow the job harvest' (Hezel, 1979:177). If jobs are unavailable elsewhere then many do return to their home islands; however 70% of the class of 1966 returned to their home island compared with 45% of the class of 1972.

'They may dally in the district center for a year or two to "catch a piece of the action" while they half-heartedly hunt for a job but they soon tire of this footloose life and return home to live with their families ...Most simply marry, have children and settle into the quiet village life that they had known before their high school days....Admittedly this description runs contrary to the prevailing myth that high school students, once seduced by the bright lights of Moen, will not willingly "return to the farm". Whether willingly or not they do return' (Hezel, 1979a:178).

Over 60% of all high school graduates not currently in college returned to live on their home islands (ibid). A subsequent survey recorded that 69% of Truk graduates returned to their home islands, the same proportion as in 1966 (Robert et al, 1981:6) but that of that group only 29% were employed compared with a much higher proportion in 1966. In 1979 73% of graduates returned and in 1980 some 77% whilst simultaneously there were the highest recorded dropout rates from high school and similar numbers of graduates (Robert et al, 1981). Thus in some cases the aspirations of school leavers may be abandoned; for example,

'several hundred Trukese graduates, displaying powers of readjustment greater than many of us would have imagined possible have settled back to their island communities with apparent good grace' (Hezel, 1979a:184)

despite the fact that, as on Patta, which has a 'woefully stagnant economy' like that of just about every other island in Truk, no new jobs for graduates are becoming available, despite the fact that in 1976 and 1977 the number of jobs in Truk expanded at a greater rate than ever before (op cit:183) a rate which is unlikely to be ever approached again. Trukese high school graduates in 1979 and 1980 were less likely to find jobs than graduates in earlier years, especially in the government (Robert et al, 1981:8), hence, return to their home islands occurs increasingly, and the problem of generating outer island employment is intensified.

The impact of education on out-migration is intensified by the more recent expansion in the number of Micronesians experiencing college education, the 'education explosion' witnessed by Hezel (1979a) in his account of its dramatic expansion in Truk in the 1970s. For example, in the case of Namoluk, between 1971 and 1976, the number of migrants in the U.S.A. increased from four to twenty-three as a direct result of new educational opportunities, to the extent that 'going to the U.S.A. for college and junior college education has become the latest status symbol of educational achievement for Namoluk young adults' (Marshall, 1979:7) and has dramatically increased the distance of migration moves. This is demonstrated for the whole of Truk by Hezel (1979a:173). Only one of the 25 migrants from Kosrae to U.S.A., Guam, Australia and Papua New Guinea was not in full-time education (Table 19). The spatial universe of young Micronesians has rapidly expanded and with it the potential for acculturation into modern western lifestyles. Moreover, whilst the smaller number of earlier college students attended special training courses (nursing, surveying, etc.), the more recent students are undertaking a more general academic college education (Hezel, 1979a:174-5). Consequently with the single exception of law, there are insufficient professionals in public administration, economics, physical and natural sciences and engineering for the country's needs (Workman et al, 1981). Even though, at least in the case of Ponape, more than half the college students were studying in areas

related to Micronesian manpower priorities (natural resources development, health services, education, business and engineering) most graduates subsequently obtained work outside these priority areas, more than three-quarters of them in education (Cantero, 1980).

Trukese college graduates have so far usually managed to find employment in Truk state, and especially on Moen. The likelihood of remaining in Moen can be correlated directly with the length of post-primary education (Hezel, 1979a:178-9). Thus, until the late 1970s, there had been no appreciable 'brain-drain' in Truk, and no significant brain-drain elsewhere in Micronesia (see however Country Report No.13). Nevertheless, in Truk, as in other parts of the Trust Territory, almost two-thirds of those who have gone on to college are still away (op cit:180) so that the probability of a future brain-drain remains unknown, until jobs are filled in Truk. The same was also true of Ponape and Kosrae (Workman et al, 1981:14). However more recently the number of Trukese high school graduates going on to college has fallen, in part because of high airfares. By contrast a separate and recent survey of Ponape college graduates found that only 62 of the 110 graduates (between 1970 to 1979) had returned to the TTPI area (Cantero, 1980). Moreover, 'the massive exodus to college within the last four or five years has softened the impact of the hordes of recent high school graduates on the creaking job market' (Hezel, 1979a:182). It is certainly probable that college graduates will be less willing or able to readjust to a village economy than high school graduates. There is then an internal brain-drain which causes concern on outer islands, but one that has scarcely begun to be felt at the national level (see below).

The shortage of labour on some atolls and the very high dependency ratios have resulted in often worsening economic and social situations on the atolls. The impact of migration is continuous and its systemic nature apparent: 'people are being pushed toward the centers because of the bankruptcy of the peasant economy, brought about by the pressures of migration and commercialization' (Heine, 1974:33). There is a downward spiral in the impact of migration on atoll economy and society. Although school graduates are returning to atolls, especially since the TTPI budget peaked in 1975, the principal return movement that is commented on is the return migration of retired people who have previously used their incomes to build houses in the atolls. This form of retirement return migration is typical of other areas in the Pacific, for example Tokelau (Country Report No.17), and contributes little to atoll development. This situation, which at least maintains atoll populations, is only possible where government welfare support is considerable.

The 1973 census data necessarily provides little information on return migration and the degree of stability apparent there may be much smaller if it were possible to account for all those who had moved away and subsequently returned to their home area. Indeed there is an assumption that the majority of migration in Micronesia is intendedly circular; Ritter suggests that it is only those Kosraeans who marry abroad who sometimes become permanently oriented to their new home (1980:352), a similar conclusion to that of Marshall (1975) so that migration is essentially a 'temporary phenomenon' related to specific conditions and stages in the life cycle (Ritter, 1980:372). Whilst it is impossible to determine which, if any, migration movements are permanent (and even at death the bodies of migrants are often returned to their 'home area' for burial) it is apparent that many movements must be considered permanent, at least for planning purposes, whilst others (such as those of public servants in urban areas) are at least long-term. However it is instructive to compare the 1973

census data for Kosrae (which indicated that only 13% of those born in Kosrae were not living there in 1973) with that collected by Ritter (1980) in the two municipalities of Utwe and Malem. From an almost complete sample (about 85%) of adults, only one man and twenty women (4% of the population) had never left Kosrae, and 63% of the Malem population (a 'progressive' village) and 45% of the Utwe population had either spent two years abroad or made at least five trips from Kosrae (Ritter, 1980:363). This massive mobility is not reflected in the lifetime migration statistics and certainly indicates the enormous extent of return migration, at least in this case, and thus the possibility that the 1973 census measure of migration does no more than capture a large group of people temporarily absent from the home island. The 1973 census therefore provides no indication of the permanence or otherwise of migration moves.

Despite the problems of dependency that have followed high rates of out-migration it is clear that on a number of atolls, if all the de jure population were to return (which is certainly unlikely), there would be very severe problems of maintaining even basic subsistence organisation. For example, Levin notes,

'since there are almost as many persons living off Eauripik as living on the atoll, if these persons were to return there would be difficulties providing fish and housing for all of them' (1976:192).

The same is essentially true of Namoluk and many atolls where migration has been a 'safety-valve' for over-population (Levin, 1976:259). Moreover return migrants invariably have higher expectations than can be met on atolls; they are often discontented and the discontent affects others. Migration creates greater consumer wants whilst simultaneously diminishing the chance of satisfying them at home.

Remittances to atoll communities are often high relative to the general level of remittances by migrants in the South Pacific (cf. Connell, 1980). However, in some cases, as in that of Nukuoro migrants in Ponape, the rural-urban flow may actually exceed the urban-rural flow (Chalkley, 1972). More generally, throughout the Micronesian atolls, both 'good' and 'bad' times can usually be distinguished and in the 'bad times' both money and foodstuffs flow to the towns (Alkire, 1978:145). In the early post-war years incomes were much smaller and in the late 1940s when some Mokilese workers were employed on Ponape, they '...were barely able to break even, after buying cigarettes, soap, etc. The Mokilese speak of such men as being truly "working men", men who worked for nothing but their keep' (Bentzen, 1949:49). Remittances were unlikely to have been large. But as urban incomes have risen, especially in government, remittances have also grown. In some towns, notably Kolonia, there is movement in on Fridays so that rural people can claim a share of urban wages. Although remittances paradoxically enable those remaining on the island both to maintain a relatively traditional life-style and also to benefit from the imported consumer goods that these remittances purchase, traditional social structures tend to break down as traditional obligations and authority are fragmented or ignored (especially where there is a significant off-atoll community). High levels of out-migration tend to emphasize trends that monetization and modernisation have already initiated.

Out-migration may solve the immediate population problems of some small, densely populated atolls but may increase the problems of destination areas, especially in the urban areas (although not to the same extent in FSM as in the 'atoll states' of Marshall Islands and Kiribati, where urban

population densities are extremely high). There are many reasons for growing urban concentrations; a centralised administration has spawned the centralisation of the service sector and hence most formal sector employment is concentrated in town. This centralisation of wage employment suggests that even where urban unemployment, however recorded, is growing, the chances of obtaining wage employment appear to be greater at the centre. Since social services, the 'bright lights' and, for many, a significant proportion of relatives are also at the centre these are powerful attractions to rural-urban migration. This centralisation may be compounded, as it is in Palau (Country Report No.13), by 'urban bias' where financial and technical resources are overwhelmingly concentrated in the urban area. Urbanisation has produced particular kinds of political change. Heine argues that this process, which he calls 'districtization', has produced a situation in which Micronesian politics are primarily urban or district politics and that in the process of districtization three groups have emerged, firstly, the current Westernised leadership which is, 'the new elite society', secondly, the restless, aspiring younger generation and, thirdly, a group which has continued ties with both towns and rural areas and migrates back and forth between the two (Heine, 1964:33-4). In these divisions, however hard to differentiate adequately, are the genesis of urban bias.

Urbanisation

Just as districtization may be a more appropriate term than urbanisation, so the towns are in some ways unique,

'The district centers serve as the towns of Micronesia, but the word should be used with caution, for they are nothing like towns in any developed part of the world. They are more rural villages than urban centers and most of them are crazy collections of little buildings made of concrete or sheet metal or packing cases or thatch strung at odd and individualistic angles, along winding, muddy, pot-holed dirt roads that climb hills and plunge into gullies' (Nevin, 1977:141).

This depressing environment is emphasized both by Marshall: 'the rusting automobiles, decrepit toilets and ubiquitous beer cans symbolise the contact culture life style of Micronesia's district centers' (1979b:6), and by Labby on Colonia: 'the few stores, government buildings and residences that were its nucleus had become surrounded by clusters of small shacks, many of which were of scrap metal and discarded packing crates' (1976:7). These may be unflattering accounts of Micronesian towns (most of which are on level land) but they are indicative of the minimal urban infrastructure inherited from the American era (despite the massive urban bias in the distribution of that infrastructure!).

Throughout Micronesia there are considerable difficulties involved in defining urban areas and most definitions follow arbitrary municipal boundaries; this is particularly true in the FSM where neither in Truk, Yap or Ponape is there a satisfactory definition of the urban area. Consequently the data on the urban population is of limited value as, for example, in the case of Ponape where boundaries exclude people (on Sokehs) who might rather be considered urban whilst the reverse is true in Truk, where Moen incorporates some relatively rural people. These problems of definition parallel those of employment and unemployment. However the 1973 and 1980 censuses suggest that the population of Kolonia fell between 1973 and 1980 whilst that of Moen grew (to 10,391) and Colonia remained about the

same (at only 1,474). In 1973 approximately 28% of the population could be considered as town-dwellers and in 1980 some 26%; the extent to which there has been a real fall is doubtful (and is more likely to reflect inadequate enumeration especially on Truk). It does however indicate two important conclusions. Firstly, that towns in the FSM are not growing as fast as might have been feared from the evidence of the migration literature and therefore that there is significant return migration. Secondly, the urban population of FSM is much smaller than that of any other entity within Micronesia; this reflects the smaller proportions in the formal sector of the economy and, again like that, is an indication that a development strategy which attempts to move towards agricultural and fisheries development may have some greater chance of success in FSM, if only because of the existing population distribution.

Of the three towns in FSM, Kolonia, the capital of FSM (and previously intended to be the capital of the whole of Micronesia following the secession of the Northern Marianas), is the only distinctively urban centre although its population in 1980 was only 5,549. However the urban boundary of Kolonia then (unlike that of 1973) appears to have been drawn particularly close to the town centre and excludes communities from the Mortlock atolls, Ngatik, Mokil and Pingelap, which have been long-established on nearby Sokehs island, have little access to land there and are in many respects 'urban'. Within the town there are well-defined groups from Kapingamarangi, Nukuoro and Kosrae; migrants from Kapingamarangi tend to remain in the Porakiet settlement whereas those from Nukuoro and Kosrae are more dispersed. That their presence in town is significant is indicated by the fact that ethnic outer islanders, even if born on Ponape, tend to dominate the Ponape district government (Ritter, 1980:357-8). In Yap and Truk this has not happened and in Yap especially would be improbable; 'Micronesians discriminate shamefully against outer islanders. Most district centers have ghettos to which outer islanders are consigned' (Nevin, 1977:54). Whether through discrimination or not the urban areas all have some distinct migrant areas, thus even on Moen, Filipinos live in a distinct 'Philippines triangle' close to the airport and western islanders live in a cluster of houses in Iras village, on the edge of the airport. Within the towns many migrants find work with and through their kin; for example migrants from Eauripik on Yap work mainly in the hospital in jobs 'obtained by nepotism' (Levin, 1976:180). In their social and economic organisation (apart from the unusually high government component of employment) the towns of Micronesia are smaller, and with less 'civic pride', but ultimately little different from those elsewhere in the Pacific.

The case of Colonia (Yap) is interesting; although the urban population is only recorded as 1,474 in 1980, in the mid-1970s urban changes suggested to Labby that 'a large proportion of the population had moved there' (1976:7) and to Lingenfelter that 'many people have moved to town' (1975:16). However both authors also recorded significant commuting, hence there was rather an urbanisation shadow across a larger part of the island than any physical urbanisation in Colonia, a situation which may also have been partly true of Ponape. Labby noted that an 'important division has come between the westernised town of Colonia...and the outlying villages. Colonia has replaced the villages as a focal point in society' (1976:1,7) yet this is curious since migration to town was in large part a function of the 'feudal socio-political organisation' (Hughes, 1982:21). It was always extremely difficult for low-caste Yapese to advance economically, politically or socially hence there was much migration of low castes to Colonia, (and to some extent overseas), which was viewed as 'a haven from servitude to the high class' away from traditional obligations and with some

slight opportunity for advancement in the modern economy (op cit:24). Thus whilst migrants throughout FSM have sought higher wages in urban areas, Yap migration, small though it is, has a very strong social component.

Centralisation within the districts of FSM is matched by centralisation within particular atolls. Thus, on Ulithi atoll, twelve islands were once occupied but by 1949 only five were populated and the growth of Mogmog island was such that it was referred to as

'A kind of "urbanisation"...I would like to venture the suggestion that the places being abandoned are villages with little opportunity, activity and excitement, whereas those that are expanding offer advantages in trade, education, medical facilities and recreation' (Lessa, 1964:43).

Comparing the two multi-island atolls elsewhere in FSM for which data are separately available indicates that the same trends have also occurred between 1958 and 1980 on the atolls of Satawan and Namonuito (Truk). Thus at micro-scale the same processes are being replicated that occur at district and national level throughout Micronesia.

Attitudes to urbanisation varied significantly during different phases of the American administration; in 1950 it was observed that, in the pre-war years,

'Where towns did exist, such as on Guam and Koror, they were made up mainly of workers who held government jobs or were engaged in servicing the foreign group. It is to the interest of the natives to remain close to their land and home villages. The primary advantages of town life are that it makes more accessible to government a large labor supply and widens the range of cultural opportunities open to the natives. Both ends could be accomplished without building small cities of the Agana (Guam) type. It is urged that the Administration refrain from the ever-present temptation to draw natives from their local villages into towns located at the seat of government. Moreover, it is recommended that, outside of Agana, no other large towns be developed in Micronesia' (Oliver, 1951:5).

In the next decade towns scarcely developed in Micronesia to the extent that policies urging a greater concentration of the dispersed population became more acceptable. The principal report on economic development in Micronesia in the 1960s, the Nathan Report, argued,

'The economic development advantages of being able to pull together a labor force from throughout Micronesia, and of facilitating the flow of people from labor surplus to labor shortage areas will be beneficial to the ultimate objective of economic development. It will also be of benefit to the people - both those who move, and those who stay at home. This kind of mobility can facilitate the creation of a Micronesian entity to replace the present somewhat artificial association of a dozen or so somewhat similar but nevertheless distinctly different cultural, political and economic

entities. Increased mobility can speed the replacement of local particularism with a cohesive Micronesia' (Nathan, 1966:100).

hence

'As economic development proceeds, some of the district center islands will experience more serious labor shortages than others. Many people are now located in remote areas and on outer islands where they can neither contribute to the development of new economic opportunities in Micronesia nor share in the benefits. The Trust Territory government should encourage and facilitate the relocation of people from the outer islands to the district centers and from one district to another. This will give more people from the Trust Territory the opportunity to locate, adapt to and perform the more productive and higher paying jobs. This will not only serve the interests of the individuals but will also contribute to the development of the economy' (Nathan, 1967:14).

Although the plan itself met with opposition from both government and private bodies and from the Congress of Micronesia, so that its specific recommendations were largely ignored, in practice urban development tended to follow the relocation procedures suggested in the report as public services became highly concentrated on a single island within each district.

Information on the economic and social status of urban populations in FSM, and indeed for the whole of Micronesia, is conspicuous by its absence. Many urban residents have migrated from very densely populated atolls where subsequent population increases may well have reduced their opportunities to return to their home islands and take up even a subsistence lifestyle; there is no information on this and hence the extent to which any migrants in the urban areas may, in some sense, be dispossessed. If this were in fact the case it might be expected that many migrants in urban areas would be poor and with an inadequate health and nutritional status; the extent to which basic needs are satisfied in town is essentially unknown. There is a need for undertaking some basic studies of the socio-economic position of migrant communities within the FSM which would have some important planning implications.

International Migration

Apart from issues relating to the possible brain-drain, some of which were discussed above, available data on external migration from FSM is extremely poor, a situation that is identical to that of other entities within the TTPI area and until more adequate census data is available for the region this situation is unlikely to be improved. The evidence suggests that most FSM residents who are educated overseas return, other than a small number who marry overseas or find highly paid employment consistent with their education levels. However the number of these is small and only Palau, from the TTPI area (see Country Report No.13), is known to have a significant overseas community, both in Guam and the U.S.A. In general, FSM citizens currently have limited skills to give them access to overseas job markets although there are small communities, in uncertain legal positions, of Kosraeans, Trukese, and Ponapeans on Guam who have stayed on after graduating from college. The signing of the Compact of Free Association

gives FSM citizens free access to the U.S.A. The Compact provides that FSM citizens 'may enter into, lawfully engage in occupations and establish residence as a non-immigrant in the United States and its territories and possessions' (cited in FSM, Office of Planning and Statistics, 1982:135). Although this is likely to immediately encourage a movement of some of those with skills who cannot find government employment and more permanent residence of students it is possible that, in the future, access to the U.S. labour market will become more widespread as the domestic economy worsens, so that it is probable that the international migration situation in Micronesia will come to resemble that of the Polynesian states, and especially American Samoa, a situation which is beginning to be seen as a partial model for the future direction of Micronesia. Marshall has suggested that eventually Micronesian residents of the U.S.A. may outnumber 'the folks back home' (1979a:10-11), a situation that already exists in Niue and the Cook Islands. Moreover, even to attempt to retain skilled Micronesians in Micronesia may necessitate providing salaries at close to U.S. levels, for a small number, and hence enormous disparities between their incomes and those of other Micronesians (cf. Schwalbenberg, 1982:31). The alternative is to enable returning migrants, like the Trukese graduates, to find an environment in their home islands where a satisfactory balanced economic and social development is possible. As the foregoing suggests, this will not be easy especially at prevailing population growth rates.

Concern over the possible impact of a 'brain drain' in FSM, in terms of the loss of a high proportion of the skilled labour force, has prompted consideration of policies to minimise this impact. Ending migration has been ruled out as 'repugnant to the concept of enlarging the freedom of society. Whereas control of the magnitude and classes of migration may be acceptable, the creation of walls is not' (FSM, Office of Planning and Statistics, 1982:137). The alternative of rationalising education to meet the needs of FSM is regarded as difficult but a primary aim of development in FSM; the means of achieving this have not yet been officially specified (*ibid*). The third method of reducing skilled emigration, that of bonding Micronesian students to return to FSM, is regarded as 'reasonable and can easily receive political support' (*op cit*:138) hence has been recommended as national policy, along with developing employment opportunities for these graduates and providing 'equal training, employment and advancement opportunities for all FSM citizens, regardless of their sex, political or family influence' (*op cit*:140). There is no evidence that any of these policies have been implemented, or even considered in detail, and they have limited significance for unskilled workers, the bulk of the FSM population.

A major problem throughout FSM (and Micronesia as a whole) is the shortage of skilled labour. For example the 1980 United Nations mission drew particular attention to the lack of Micronesian doctors and skilled maintenance workers (especially in construction and engineering activities); there is also a lack of qualified accountants, machine operators, qualified managers and entrepreneurs. This is compounded by a Micronesian absentee rate of 25% or more in many jobs. Related to this is the situation (again true throughout Micronesia) where many young Micronesian graduates are attracted to government employment but are less interested in entering the teaching profession (United Nations, 1980:75). Consequently FSM has imported workers from overseas in areas either where skills are unavailable within FSM or where Micronesians are unwilling to work at the prevailing wage rate (especially in the construction industry). Alien workers offer substantial advantages in high productivity and reliability and offer employers flexibility in discharging unsatisfactory workers and in obtaining overtime work. Micronesians tend to be often absent from work and it is

virtually impossible to discharge Micronesian workers however unsatisfactory they may be; especially in the public sector 'the employee protection laws amount to an unwritten rule that no employee should be fired regardless of performance. In the private sector these laws provide an added incentive for hiring alien workers' (FSM, Office of Planning and Statistics, 1982:26). Since all alien workers are employed under the work permit scheme the registration of migrants into FSM is good (although since arrival and departure cards are not analysed there is no analysis of the migration of Micronesians from other entities in Micronesia). The earliest comprehensive data available on the origin of alien workers and their occupations is from 1978 (Tables Twenty-nine and Thirty) although the 1973 census (Table Thirty-one) provides some information on the origin of all non-Micronesians in the whole of the TTPI area in 1973. Little of this data is readily comparable to indicate trends; for example the data on alien workers provides no information on those who are accompanied by their families and includes no data on workers from elsewhere in Micronesia. Similarly the census provides no indication of the employment status or duration of residence of the non-Micronesian population; the 1973 census necessarily does not exclude inter-state migrants hence this can be compared with 1981 Yap population data (Table Thirty-two) which includes Trukese and Ponapeans, as well as Marshallese and Palauans, as 'aliens'. (Indeed they are definitely regarded as aliens and all migrants from outside Yap island itself have considerable difficulty in gaining legal status as a permanent resident or in obtaining land there.) The data, and also the specific data for the whole of FSM (Table Thirty-three), do indicate that there has been a significant Filipino (and U.S.) workforce in the TTPI area for the past decade but that in very recent years this has begun to increase more rapidly. In general, U.S. citizens predominate in the public sector and Filipinos in the private sector, and especially construction.

Table 29. Aliens in the TTPI area, July 1978.

Citizenship of Permit Holder	Districts					Total
	Palau	Marshalls	Yap	Ponape	Truk	
Philippines	178	157	106	78	36	555
Korea	247	17	60	4	23	351
U.S.A.	47	107	25	49	41	269
Japan	207	5	15	17	23	267
China	25	8	1	0	1	35
Thailand	0	0	14	1	0	15
Hong Kong	0	9	0	0	0	9
Fiji	0	8	0	0	0	8
Kiribati	0	8	0	0	0	8
United Kingdom	0	6	0	0	0	6
Canada	0	2	0	2	2	6
Australia	0	3	0	0	0	3
Nauru	0	3	0	0	0	3
Singapore	1	1	0	0	0	2
Argentina	1	0	0	0	0	1
Greece	1	0	0	0	0	1
Italy	1	0	0	0	0	1
Malaysia	0	0	1	0	0	1
Netherlands	1	0	0	0	0	1
TOTALS	709	334	222	151	126	1,542

Source: Bowlby, 1978:7.

Table 30. Occupational Groups of Aliens with Work Permits, July 1978.
Number of Aliens with Work Permits

Occupational Group	Palau	Marshalls	Yap	Ponape	Truk	Total
Construction craftsmen	159	155	145	49	10	518
Fishermen and other						
Maritime occupations	358	12	4	7	23	404
Managerial and Clerical						
occupations	54	70	26	37	42	229
Engineers and other						
professional and tech-						
nical occupations	55	58	32	25	38	208
Mechanics, repairmen and						
other service workers	72	30	11	29	13	155
Other occupations	11	9	4	4	0	28
TOTALS	709	334	222	151	126	1,542

Source: Bowlby, 1978:8.

Table 31. TTPI De Facto Population born outside TTPI (1973).

Place of Birth	Citizens			Non-Citizens		
	M	F	Total	M	F	Total
Japan	9	6	15	159	82	241
South Korea	4	0	4	285	11	296
Philippines	13	6	19	844	206	1,050
Other Asia	0	1	1	16	19	35
Kiribati/Tuvalu	23	29	52	139	108	247
Fiji	3	0	3	14	8	22
Guam	45	44	89	167	194	361
Hawaii	2	4	6	56	38	94
Other Pacific Islands	9	2	11	6	4	10
U.S.A.	8	6	14	1,016	574	1,590
Europe	1	1	2	46	28	74
Australia/New Zealand	1	0	1	5	8	13
All other	6	1	7	17	14	31
TOTAL	124	100	224	2,770	1,294	4,064

Source: TTPI Census, 1973:95-99.

Table 32. Yap State Alien Population Estimates, March 1981.

	Wage Earners		Dependents	Total
	M	F		
U.S.A.	35	- 20	27	82
Japan	-	17 -	-	17
South Korea	3	- -	-	3
Philippines	126	- 9	-	135
Germany	1	- 3	-	4
Switzerland	1	- -	-	1
Canada	-	2 -	-	2
Marshall Islands	1	- -	-	1
Palau	-	375 -	-	375
Truk	-	7 -	-	7
Ponape	-	36 -	-	36
Others	14	- 19	-	33
TOTAL				696

- Notes: 1. There are some inaccuracies in this table which have been smoothed out as far as possible but there is certainly some under-registration of dependents especially for the Micronesians.
2. 'Others' includes 1 male "Jew" and 13 PCV's.
3. There were no migrants from Kosrae, Guam or the Northern Marianas.

Source: Ken, 1980.

Table 33. Alien Workers - FSM - October 1980.

	FSM	Kosrae	Ponape	Truk	Yap
U.S.A.	31	2	20	5	4
Filipinos	237	2	96	61	78
Japanese	145	-	44	85	16
Koreans	76	70	1	4	1
Europeans	2	-	-	-	2
TOTALS	491	74	161	155	101

The occupational distribution of alien workers (Table Thirty-four) is very similar to that of other TTPI states within Micronesia, being heavily concentrated in construction and engineering activities and has arisen for exactly the same reasons. The principal occupations distinguished in FSM for October 1980 are: engineers (105), construction machinery operators (61), carpenters (52), masons (24), mechanics (34), electricians (36), metal workers (16), plumbers (15) and managers (29). The deficit of skilled tradesmen in FSM is particularly apparent. Similarly the national origin of alien workers is similar to that of the other Micronesian entities; as elsewhere Japanese and U.S. aliens are concentrated in more elite

occupations such as those of manager. For example, all six alien attorneys are from U.S.A. The supply of skilled workers is restricted essentially either to the small number of graduates from the limited resources of the Micronesian Occupational Center (Palau), the Ponape Agriculture and Trade School (PATS) and the Micronesian Trades Apprenticeship Program in Guam, and an even smaller number of workers who are trained on the job.

Table 34. Alien Employment - FSM - September 1980.

Architects, Engineers, Surveyors, Pilots	109
Accountants	22
Surveyors	7
Managers	41
Cooks and Bakers	14
Fishermen	8
Production Supervisors	13
Mechanics, electricians, Plumbers, Welders	116
Construction Workers	128
Ships crews	8
Hairdresser	1
TOTAL	467

Source: U.S.A., 1981:45-46.

In 1981 the alien labour force had grown to 877 (with 746 in the private sector) and in early 1982 to 1,140 (with 1,009 in the private sector). Thus, as elsewhere in the former TTPI area, the FSM has a considerable and rapidly growing number of alien workers, a situation which makes it paradoxically similar to that of those countries of the Middle East especially, and to a lesser extent Europe, where economic growth has been very rapid. Despite the lack of economic growth in Micronesia there are no indications that the proportion of aliens will diminish in the near future. Thus at the same time as educated Micronesians appear more likely to migrate overseas, skilled aliens are taking up a larger number of positions within the local labour force. It is these migratory movements that well illustrate the paradoxes of Micronesian development.

Unlike the last years of the Nineteenth Century and the early decades of the Twentieth Century (see above) there has been very little labour migration, as such, from FSM. There have recently been some expressions of interest in developing a form of labour migration; FSM has considered the possibility of exporting labour, and has conducted preliminary discussions with Ministers of Labour in neighbouring South Pacific countries. Saipan (Northern Marianas) and Guam have been considered as possible destinations for migrant workers and there has also been consideration of the possibility of negotiating with certain regional shipping lines to hire workers from FSM. Thus FSM has very recently begun the process of looking outward for job (and income) opportunities, apart from towards external aid sources, in virtually the same way and in the same job categories that both Kiribati and Tuvalu (Country Report Nos. 7 and 19) have been doing for many years. This was also recommended in a 1979 survey of employment and wages (Chew, 1980). The principal difference between those two countries and FSM is in the

extent to which workers in FSM will be willing to take up unskilled overseas employment at relatively low wages. This does not now seem likely. Noting what appeared to be limited prospects for local development, the FSM Secretary for External Affairs, Andon Amaraich, commented: 'Our population is small, but we can train people to work overseas. Also they can work on ships. And they can all send their money back home' (cited by Madhavan, 1981). In practice FSM must import trained people and the wages available in ships or for technical workers overseas could not result in FSM establishing such institutions; the Kiribati situation (Country Report No.7) is no longer appropriate. Consequently the only current international migration from FSM is that of students, most of whom are in the United States of America (especially Hawaii and California), and it has been estimated that about 400 students were overseas in 1980 (M. Levin, pers. comm. 1980). Although many students do return there is the genesis of a brain drain from Micronesia. The combination of high population growth and no restrictions on migration to U.S.A. (including Guam) under the provisions of The Compact of Free Association (see below) is likely to result in a significant increase in emigration in the future, and the FSM is likely to become more like Palau (Country Report No.13) where a high proportion of Palauans are overseas. The outcome of this is likely to be the immigration of more workers from outside Micronesia, resulting in a situation steadily becoming more like that in the Northern Marianas (Country Report No.12), a consolidated brain drain, the establishment of a remittance economy (Schwalbenberg, 1982) and the erosion of any last hopes of establishing a minimally self-reliant economy. Nevertheless lower levels of external finance prevent these extremes being reached in FSM. This is considered further in the Conclusion.

Conclusion

The Federated States of Micronesia exemplifies many of the same problems as each of the other Micronesian states (except Nauru and Kiribati), principally a massive dependence on aid flows from the U.S.A. and hence for basic commodities, construction equipment and so on. Material aspirations have thus gone far beyond the ability of the local economy to support them. Consequently a combination of high aspirations and limited local resources has produced a task of development planning in the FSM which is perhaps greater than anywhere else in the Pacific. Viable development strategies are certain to demand extensive external funding and expertise for some years, a situation that is written into The Compact of Free Association. Most of the reasons for this lie in the post-war history of Micronesia and specifically the imposition of a large non-productive government employment sector and a comprehensive education system oriented towards academic goals (producing extensive unemployment), at the same time that domestic agricultural production has failed to develop. This situation, which is no different from elsewhere in Micronesia, is compounded principally by the geography of the FSM, specifically the major differences between central high islands and outlying atolls and the federated system whereby balances must be achieved between quite different states each with its own language (or languages), which have little essential unity (hence separatist tendencies are likely to increase) and which cover a massive area of the Pacific Ocean, so that transport costs are considerable. This present situation is exacerbated by a very high population growth rate that suggests that the population will double by the year 2000 and result in extreme pressures on a job market that shows little sign of expanding. In the next five years it is likely that government jobs will decline rather

than increase. Whilst these factors suggest the appropriateness of a more decentralised, self-reliant development strategy, the post-war history of development has been exactly the opposite of that and attempts to reverse more than three decades of change would be an enormous undertaking.

Incomes within FSM are significantly lower than elsewhere in the TTPI area and traditional life-styles have changed relatively little compared with other parts of formerly American Micronesia. Given appropriate development strategies this may prove to be a major advantage for the FSM

'For the reality is that in Micronesia the term developing nation is a hollow compliment - so little is there to develop. Paradise turns out to be particularly ill equipped to supply the raw materials and systems and manufactures that make modern success. Furthermore, the cultural patterns of subsistence life in paradise turn out to be very poorly fitted to the organised, structured, scheduled modern world. The basic Micronesian attitudes toward work, family and society are exactly the opposite of what the technical west expects in its workers' (Nevin, 1977:24).

But then the whole experience of development in Micronesia has been quite unusual. The U.S.A. barred visitors for years and all foreign trade until 1974; few other developing countries have been so oriented towards a single colonial power whilst simultaneously being swamped by its ministrations:

'one of the least developed nations on earth has been encouraged to see itself in terms of the richest, most highly developed nation on earth...This unreality...is at the heart of the Micronesian dilemma' (Nevin, 1977:25-6).

It is in this context that 'the islands might better be called a colony in the making rather than a developing country' (Hezel, 1976:112). Even the progress towards a Compact of Free Association detracts little from this observation.

Whilst the FSM remains more 'traditional' than most other parts of Micronesia development is tending to break down much of the self-reliance inherent in traditional socio-economic ties. For example, modern transport systems, and especially modern trading vessels, have eliminated the isolation of some of the more remote atolls (although in places like Kapingamarangi this isolation is still considerable) but have often contributed to the breakdown of contact between atolls that traditionally had close social and economic ties with each other. Thus inter-island canoe transport has rapidly declined and at times of stress individual atolls are more likely to depend on the central high island. Thus the port town-hinterland orientation of Pacific interaction networks (Spoehr, 1960) is now particularly characteristic of the atoll clusters of FSM (cf. Alkire, 1978:144) and transportation links are emphasized in migration movements. The radial nature of population movement within Truk and Ponape especially is increasingly apparent. More generally, both tradition and modernity have their virtues and failings. In Woleai, the young, educated in American-oriented boarding schools, increasingly view situations from a western perspective,

'Here is the genesis of what is a more serious local cultural conflict that probably derives from the need to adapt to two differently conceived social environments - the more restricted traditional world of the older generation and the

wider American-inspired "worldly" perspective of the younger generation. It is arguable which of these environments is the more important for the ultimate survival of the people of Woleai' (Alkire, 1978:65).

Whilst the argument is unresolved the modern global perspective will inevitably outweigh the more parochial traditional world and its more limited quality of life. And tradition places a constraint on some developments; for example on Yap it is shameful to be unable to produce adequate quantities of local foodstuffs so that it is permissible to buy imported goods (that cannot be produced locally) but not local foods, thus hampering the development of a local market. Given development trends in Micronesia it is doubtful if traditional economic and social structures are sufficiently cohesive and flexible to provide genuinely viable alternatives at village level.

Perhaps the most encouraging aspect of development in FSM is the increasing orientation towards the Pacific states south of the equator where traditional values are much more evident. The prospective decline of American aid and technical assistance has prompted the increasing southwards orientation of most of the entities in the TTPI area (primarily Palau, FSM and the Marshall Islands) both to participate as individual states in regional organisations such as SPEC and SPC and, more generally, to examine the development experiences and strategies of other small states especially neighbours like Kiribati, which the TTPI entities, both inadvertently but partly also through deliberate choice, are increasingly likely to resemble. With development strategies that are currently oriented towards self-reliance and self-sufficiency the southern states provide more relevant parallels than the existing models of Guam and Hawaii. The extent to which their experience will benefit the emerging states of the north will be an important theme in the present decade. As the FSM Secretary for External Affairs, Andon Ameraich, has commented; 'we have been spoiled by our association with the United States and we want to get to know the South Pacific better' (quoted by Madhavan, 1981). It may perhaps be almost too late.

A set of assumptions, oriented towards self-reliance and economic sovereignty, underly FSM development strategy; since 95% of the finance required to operate the FSM national and state governments comes directly or indirectly as a gift from the U.S.A. (and 2% in grant assistance is from Japan) the measure of this task is apparent. The American legacy is one of a highly dependent economy where the ability, but also the will, to affect significant changes is limited. As elsewhere in the TTPI area a relatively small number of individuals in FSM are powerful, receive high salaries (or business incomes) are well-travelled (especially in U.S.A.) and have little interest in significantly changing the structure of dependence; there are also an increasing number of relatively young and educated Micronesians who realise this but merely want to change their own position within the system and, finally, there is a much smaller group who recognise the long-term problems of increased dependence, and are interested in considering the possibility of moving the trajectory of development towards self-reliance. Whilst development plans may articulate the aspirations of this latter group, development is also shaped in the context of an American free enterprise system (without guidance or direction) and an overdeveloped legal system, that combine to remove local initiative and responsibility, within a democratic system, where decisions are made by a few in terms of short-term goals, with a largely uninformed public.

One of the development assumptions stresses that the key to development is a Micronesian manpower base so that investments in manpower development at all levels must take precedence in development programs. The constraints to any form of relatively non-dependent development are enormous in a nation of only 75,000 people, spread over a massive area of the Pacific Ocean, with one state, Yap, linked to the rest of the FSM through Guam (which exercises unrealistic influence over much of Micronesia as one form of 'development'). These general problems are exacerbated by rapid population increase, a limited resource base and the existence of one relatively well-endowed large island in each state and atoll peripheries where employment opportunities are non-existent (apart from in government employment), services are limited and both money and manpower are probably inadequate to substantially improve the situation. Consequently there is a strong, recognised urban bias in service provision which is extremely difficult to reverse. It is in this kind of context that planners are increasingly considering migration beyond FSM as one possible strategy of development.

It has recently been noted that,

'Planning for economic development in the TTPI has been on-going for more than a decade now, and no one has yet succeeded in making a plan that works' (Poll, 1982:1).

The FSM is currently consolidating development plans obtained from the states which will become the national economic development plan; thus planning in the FSM is from the state upwards rather than through the initial production of a national plan. This will then incorporate a draft employment and manpower plan which has apparently yet to be finalised. Thus, at the time of writing, the development proposals for FSM are not yet clear. However five basic assumptions will determine the orientation of this plan; these are, firstly, that 'it is the desire of the people to create a free and sovereign FSM', secondly, that 'political sovereignty is not meaningful without economic sovereignty', thirdly, that 'the creation of a self-supporting FSM economy is the primary goal of the five year development programs', fourthly, that 'increased investments in manpower development at all levels in all phases of activity must take precedence in our development programs', and, fifthly, 'that planning and project programs must begin with the people at the grassroots' (FSM, Office of Planning and Statistics, 1981). These underlying assumptions are typical of the initial phases of plan formulation in other parts of the Pacific.

For a long period, especially during the 1960s, 'what stood for economic development...was fundamentally a cosmetic exercise' (Petersen, 1976:242) since both the Nathan and Solomon reports were principally aimed at directing Micronesia into permanent integration with the U.S.; thus the Nathan report encouraged the centralisation of the population in district centres where they might fit in better with government social benefits and employment schemes. Whilst this policy never became official practice it underlined the reality of a development based on the expansion of government employment and welfare payments. Indeed the Nathan report recognised that government employment was absorbing all available labour:

'The government employees are usually seen as the relatively wealthy members of the Micronesian communities. They are well-dressed, frequently seen riding in government vehicles or in their own automobiles or motor scooters, they have motor boats, generally better housing, imported foodstuffs and enjoy American indulgences such as cigarettes, beer and whiskey' (Nathan, 1966:171)

but noted that government wages had not entirely priced labour out of the agricultural market, as on Guam. However the report concluded that if agriculture were to survive, labour would have to be imported from some of the low wage areas of Asia (op cit:173-4), where workers willing to accept low pay scales could be found. Before long this became a reality. However at much the same time Micronesians themselves began to demand increased self-reliance even though it was already apparent that 'the asceticism that would have to be borne was seen as paying rich dividends in the self-esteem and political autonomy of a people who were destined to rule themselves' (Hezel, 1979b), yet this was before universal secondary education, the extension of welfare programmes, and the realisation that national incomes could be increased not only by increased production but also by the sale (or denial) of land and sea rights. In this context self-reliance became little more than the attempt to establish a guaranteed income from any possible source; 'Micronesia's meal ticket has become its rights, not its resources, and economic development has lately become a superfluity' (ibid). A service economy, fuelled by government salaries, cannot become a productive economy without motivation. Thus 'self-reliance..will mean reliance by Micronesians upon their own abilities to negotiate what sums of money they need in return for whatever marketable rights they are willing to surrender...It could be that the course Micronesian leaders are plotting is the only viable one at this time' (ibid). It is in the shadow of this rapid transition in the approach to Micronesian development that current plans are being formulated.

The major characteristic of development planning in Micronesia, until extremely recently, has been the absence of Micronesians from the planning process. It was not until the late 1960s and early 1970s when a private consultancy company, Hawaii Architects and Engineers, drew up a set of district centre plans that there was any consultation with Micronesians, but the disjunction between the power base in Saipan and more localised problems prevented this being a success (Kent, 1982:7). A series of plans, also including the present Compact of Free Association, have been drawn up, often by outside agencies, with an undefined status, without reference to previous plans and experience and with no stated objectives (op cit: 15-18), to the extent that 'there has been too much planning of the wrong kind by the wrong people for the wrong purposes' (op cit:20). Most recently a review of the obstacles to self-sufficiency included excessive dependence on U.S. financial aid, insufficient funds for capital improvement, poorly managed and inadequate infrastructure, limited resources for health and education problems and financial and personnel mis-management in government, hence the review recommended greater U.S. technical assistance (Bowsher, 1983). No mention was made of the fundamental issues of achieving general local productive activities and encouraging economic growth. Moreover the economic concerns of the planners often confronted the realities of a Micronesian social structure that was based on social relationships and in which exchange played a major part. In the circumstances there was both incomprehension and resistance, alongside dependence. But, as Petersen argues in the case of Ponape, dependency may actually be a form of resistance to American influence; 'by remaining so dependent they fail to transform their society... and it is this adaptation that preserves the culture, in its basic structures, and permits it, and the Ponapeans, to survive' (1980:23-4). Alternatively, as Micronesians have argued, 'if the U.S. is foolish enough to pile one gift upon another Micronesians can take advantage of its silly liberality without "getting hooked"' (Hezel, 1980:10). These issues are elaborated elsewhere (Hanlon, 1982) and demonstrate that, as elsewhere in the South Pacific, development plans must consider social structures and community attitudes, the wide-ranging social

and economic variations in Micronesia but also the 'Americanisation' of the attitudes and aspirations of some Micronesians and especially those of influence in the state capitals. It is a formidable task.

Priorities within the current structure of development planning in FSM are likely to include the completion of adequate road networks on the major islands, and especially Ponape, to enable increased agricultural production and marketing; the re-outfitting of field trip vessels to be able to transport perishable products such as root crops, vegetables and meat to the atolls from the high islands (rather than simply imported goods) and improving the refrigeration facilities in outlying areas for both food storage (from the centre) and fish (to be exported). These kind of developments will only be viable in association with strong fiscal measures against imports in competing categories. The terms of the Compact of Free Association indicate that the level of assistance from the U.S.A. will fall over the next fifteen years. For the first five years, payments to the three entities (FSM, Palau and Marshall Islands) will be a combined sum of \$86 million per annum (about \$710 per capita) but in the final five years will have been reduced to \$59 million per annum (representing about \$289 per capita assuming that population grows at the anticipated rate) which represents a very substantial decrease (McCarley, 1980:10). Thus the FSM (and the other entities) must either renegotiate, diversify its sources of aid, achieve greater self-reliance in some sectors of the economy (notably in food production), drastically reduce government expenditure and/or experience a decline in living standards. However discussions on the exact terms of the Compact were still underway in 1983 so that the future economic situation of FSM remains uncertain.

The combination of a rapidly growing population (since there is virtually no interest in family planning), extremely limited opportunities for formal sector employment (and no indication that these are likely to increase significantly or, indeed, at all) and the possibility of free movement to U.S.A., if and when the Compact is signed, suggests that out-migration from FSM is likely to become increasingly important in the future at the same time as skilled positions are filled by aliens. Although there are important constraints to out-migration (including language skills, distance and the necessity to work in unskilled, manual occupations) these are likely to be overcome in time, and this prospect is one that is not feared in the FSM. For example, as elsewhere in Micronesia, the potential 'brain-drain' of students from FSM is not a cause for deep concern. Thus in Truk there is a recognition,

'that Trukese may not remain in or return to Truk. But that decision is up to the individual. If the kids want to work in Honolulu and be able to compete in the employment market, fine with me, so long as we get some benefits out of that individual. The benefits may be in terms of pride or in terms of in kind.....even if they become U.S. citizens we can always get them back by offering an employment contract' (Governor E. Aten, New Pacific, March-April 1981, p.59).

However to retain skilled Micronesians in Micronesia may necessitate providing salaries at United States levels for a small number and hence would result in enormous disparities between their incomes and those of other Micronesians (cf. Schwalbenberg, 1982:31) whereas the 1973 U.N. mission to the Trust Territory, commenting on high wage and salary levels, noted that 'if Micronesia is to move at all towards increasing self-sufficiency in future, there will be a need for Draconian action in

regard both to salary and wage levels, and to the cost of living' (U.N. 1973:61). Thus the FSM is faced with the uncomfortable choice of substantial out-migration of the few skilled professionals that the country is so short of, and having them replaced by alien professionals (as in Guam and the Northern Marianas), or adopting a wage and salary structure, that is the direct opposite of U.N. recommendations and is likely to result in the exacerbation of existing income inequalities. Thus FSM is tending to move closer to the models of Guam, the Northern Marianas and American Samoa (and also the U.S. Virgin Islands) where government employment is predominantly indigenous whilst other formal sector employment is increasingly taken up by aliens at lower wage and salary rates. It is however a situation that can only be supported by substantial external financial assistance.

Almost every report that has been commissioned in the past decade on issues relating to manpower and development in Micronesia has criticised the large size of the government bureaucracy (and, conversely, the small size of the private sector, although it is occasionally argued that it is unrealistic to expect a significant private sector in a country of this population size and geographical fragmentation) and the disparities in wage rates between the two sectors. Thus

'As recently as five years ago Micronesian political leaders commissioned a team of U.N. advisors to draw up a development plan to assist them in preparing for the termination of the trusteeship. Today that plan, which called for a drastic reduction in the cost of government and a diversion of manpower into the private sector, lies on the shelves ignored. To slash government operations would mean closing schools and dispensaries, curtailing youth programs in the towns and laying off a large number of government employees. In short it would be political suicide' (Hezel, 1980:7).

Whilst the expansion of the government sector can be curtailed and some federal welfare programmes phased out it is unrealistic to expect that the numbers in government employment will actually fall. The implications of non-growth in government sector employment are that, without alternative formal sector employment in the private sector, there will be an urgent necessity to generate job opportunities outside the formal sector, primarily in the village sector. This can only be achieved through financial assistance (price and infrastructure support, for which finance may be hard to find, and against which there are numerous vested interests) involving both a greater emphasis on outer island development and some reform in the educational system. Such changes are both extremely difficult to achieve, since the choices are few, and hence do not guarantee any certainty of success in employment creation.

Although populations on atolls may be extremely small (Sorol atoll has had one resident family for many years), when the population falls below around 50 (Alkire, 1978:28-30) it cannot be maintained in isolation and its survival is a matter for outside support of some kind. Atolls like those of Ngulu, Sorol and Elato appear to be in a dying phase but elsewhere populations are rarely below 100 and despite 'population pyramids that resemble hourglasses' (Alkire, 1978:146) appear capable of surviving in the contemporary world with some degree of external support, by way of government assistance for social services and individual remittances plus some copra and/or handicraft production to enable participation in the cash economy and therefore commodity purchase. The extent to which the

possibility of survival, which is considerable, will be set against the future quality of life on atolls is a question that cannot be answered. There are other pressures on atoll life: costs of transportation (either of commodities or services) have rapidly increased and some transport services have declined. Migration increasingly becomes a cheaper alternative than remaining. Atoll populations are increasingly dependent on high islands and the world beyond, to the extent that achieving self-sufficiency is virtually impossible (cf. Connell, 1982). Although it has been suggested that, 'outer-island communities may undergo a demographic revitalisation as educated migrants, longing to re-establish their cultural and ethnic roots, forego the urban centers and work towards building a new economic future in their home communities' (Marshall, 1979:11), such minority movements are usually born out of idealism which, compared with the reality of economic change, has not proved to be alone an adequate basis for development. Where solutions to problems of migration exist they are likely to be in the area of economic development and job provision on atolls.

Atoll development options are naturally constrained by limited land (and sometimes lagoon) areas and the simplicity of atoll environments (so that natural ecosystems may easily be disrupted); options are also diminished by changes in attitudes to traditional agriculture and some loss of the skills and knowledge (as modern 'school' knowledge replaces inherited traditional skills) that enable survival and success in environments that are often threatened by hazard. Moreover movements towards the reduction of dependency would be difficult, painful and not always welcomed (cf. Connell, 1982). On Ponape itself, villagers are not interested in adequate subsistence, nor even 'the right to subsistence' but rather 'they desire continued and increased access to the goods and prestige provided by employment' (Petersen, 1979:37). These are the measures of the difficulty of any outer island development policy.

It is often argued that a more appropriate education would produce a social context in which people were more likely to accept rural life and/or to gain skills that would be relevant there. The manpower needs of small countries like FSM (and larger countries elsewhere in the Pacific) cannot cope with large numbers of school leavers with a strictly academic education. As Hezel has observed the problems of development were quite unlike those in other Third World countries since some 'problems' were overcome without even recognising that they were problems: "'let there be education" and lo, there was education. They were lifted falsely to a level where they cannot compete on their own merits' (Hezel, cited by Nevin, 1977:193). This then leads to a particular form of unemployment,

'Unemployment among young people is one of the most serious problems facing the authorities in the various entities....it is important that... educational policy should take into account the desirability of encouraging studies in subjects which will be relevant to the future development of the Trust Territory. This would not only be in the interest of the Territory, but would also be important for the students themselves. It is particularly demoralising after years of study to find that hard-earned qualifications prove to be in a field which offers no career opportunities. There is concern in Micronesia at the increasing number of suicides by young people, many of whom are reported to have been unemployed students or school drop-outs' (United Nations, 1980:79).

Finding jobs for school leavers is one of the most critical development problems in the FSM (and indeed for much of the Pacific). Similarly the content of a more appropriate curriculum that is not obviously 'second best' remains a source of debate whilst,

'Vocational education is something that the people apparently need and equally apparently do not want. Their attitude toward it reflects their attitude toward work and thus relates to the overall dilemma that grips them. If they are ever to be self-sufficient, the achievement will turn around work. Presumably at some point the relationship between work and possessions and even survival in a money economy will become more clear and then it will be useful to know labouring skills. In the meantime there is a shortage of fresh vegetables and fresh fish in the district centers...and building is done by skilled workmen from Korea and the Philippines who hire Micronesians to labor as hod carriers because they do not know how to do more and are not reliable in their work habits' (Nevin, 1977:171).

The necessity for a more vocational education is particularly apparent in mechanical repair construction, and commercial agriculture and fishing; even where this exists, the agricultural students of Ponape 'do not expect to go into farming - they expect to become teachers of agriculture and work for the government' (Nevin, 1977:173). Thus the existing educational system has trained students away from the requirements of village economy and society but provided a system in which learnt skills are of little use in Micronesia, hence skilled workers must be drawn from overseas.

At the moment, as in other parts of the TTPI, the FSM are short of important data relating to planning, notably accurate data on a range of population, migration and employment issues. Data that has been collected has often been badly collected and/or has not been analysed (as in the 1980 census or the 1977 Skill Survey) and made available to policy makers for an unacceptable length of time. There have been no follow-up studies of the graduates of vocational schools, although the analysis of the employment and location of Truk high school graduates could be a model for such a survey. In terms of employment, the 1980 census data is unavailable, whilst occupational data information from the 1970 U.S. census, the 1973 Trust Territory Census, the 1977 Skills Survey and data gathered for the 1982 Development Plan all use different methods of classifying and defining job titles. Since the 1980 census adopted a further new classification employment data are unlikely to be useful for some years. There is no information on the movement or employment of Micronesians from outside FSM; increasing population pressures within FSM indicate that it will become more important to monitor the movements of Micronesian and non-FSM citizens and that the present system of arrival and departure cards should be made operational. To collect appropriate data for development places considerable pressures on a small office, such as that of the Office of Planning and Statistics, especially since each government agency collects specific information for its own functions but these data are not adequately collected for the country as a whole and integrated into one system.

Despite the enormous significance of migration in the FSM there is very little information on migration and the labour force and much of the information that does exist is extremely dated. The only detailed studies of migration have been of single atoll communities and, as the by-products

of anthropological or demographic research, have been less concerned with the impact of migration in the atoll and the destination or employment status of the migrants; there is little information on the migration of women (which, as this report suggests, may be quite different in its characteristics from that of men) or of the impact of migration on the work and social life of those (often women) remaining in the community of origin. Although this chapter has attempted to synthesize the studies of individual atolls or communities into an analysis of migration in the FSM as a whole ultimately the typicality, or otherwise, of particular atolls is largely unknown or unstated; certainly some of the atolls that have been studied in some detail, including Namoluk, Kapingamarangi and Eauripik, are all in different ways exceptional. (Indeed it might be argued that this atypicality was often one reason for their choice as a study site). Overall, then, as in the Marshall Islands (Country Report No.8), there is little information on the impact of selective out-migration on the outer islands and minimal indication of the extent to which such communities maintain viable economic and social communities in the face of significant population movements. Moreover, despite Hezel's assertions that Trukese graduates return satisfactorily to their home atolls there is no indication of the contribution that such graduates make there, or the frustrations that they and the more permanent residents may experience. The extent of return migration suggests that this is an important area for analysis, especially given the possibility of returning graduates making a positive contribution to atoll development. The absence of information on various aspects of population growth, migration and employment presents problems for development planning in a situation where (especially because of apparently rapid population growth) the necessity for good data on population issues is extremely important. The problems of development planning in FSM are great enough without there being an absence of basic information for informed decision making.

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