

The **N**orth East Passage

Pacific Islander Migration

*To our parents
Gwen and Martin Ahlburg
Bea and Frank Levin*

The **N**orth East Passage

A study of Pacific Islander Migration to American Samoa and the United States

Dennis Ahlburg and Michael J. Levin

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Series editor Maree Tait

National Centre for Development Studies
Research School of Pacific Studies
The Australian National University

Canberra 1990

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2152.55

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1990

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National Library of Australia
Cataloguing-in-publication entry

Ahlburg, Dennis A.
The north-east passage.

Bibliography.
ISBN 0 7315 0678 2.

1. Oceania – Emigration and immigration. 2. United States – Emigration and immigration. 3. Samoan Islands – Emigration and immigration. I. Levin, Michael J., 1947– . II. Australian National University. National Centre for Development Studies. III. Title. (Series : Pacific research monograph; no. 23).

304.80995

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Australia

CRAD
18199.33
3-4-91

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Acknowledgements

Funding for this study was provided by the National Centre for Development Studies, Australian National University, from a grant from the Australian International Development Assistance Bureau. The authors would like to thank Maree Tait for her editorial assistance.

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Symbols used in tables:

- na not applicable
- .. not available
- zero
- insignificant
- nr not recorded separately

Chapter 1

Migration from the Pacific

Patterns of migration

MIGRATION, both internal and international, is the 'major regulator of demographic change in many of the small Pacific nations' (Connell 1984a:175). In the past, migration tended to be circular — often seasonal and of short duration (see Bedford 1980; Chapman 1981; and Chapman and Prothero 1983). However, there is now substantial evidence that migration within and from the Pacific is permanent and involves longer distances (Shankman 1976; Connell 1983a and 1983b, 1984a and 1984b; McPherson 1985). International migration beyond the South Pacific also appears to be increasingly important (Connell 1984b:307).

Three main international migration flows affect the populations of south Pacific island nations (Hayes 1985). They are:

- (i) movement from Pacific islands to the Pacific rim countries of New Zealand, the United States, and Australia;
- (ii) the movement from one Pacific island country to another; and
- (iii) movement from the Philippines to Papua New Guinea and western Micronesia.

The international migration of Pacific islanders to the Pacific rim countries is the most important of the three flows and is primarily a Polynesian phenomenon. Historically, New Zealand had been the most important host country for Pacific island migrants. However, in the last three decades the United States has emerged as the major receiving country. Canada and Australia have also been receiving increasing numbers of Pacific islanders.

In 1981, 100,739 Pacific islanders and Pacific island-born were recorded as usually resident in New Zealand. Ninety-eight per cent of these individuals were Polynesian and 2 per cent Melanesian. It is generally thought that there was net out-migration of

Pacific islanders from New Zealand between 1977 and 1981 (Hayes 1985:10) due to economic declines in New Zealand. Bedford (1983) claims that in fact there were modest gains in Pacific island immigrants and that the number of Polynesians in New Zealand is significantly higher than the census numbers.

Until the late 1970s there was little immigration of Pacific islanders to Australia. Between 1976 and 1981 there was a 270 per cent increase in the number of Pacific-born immigrants, although much of the increase was attributable to immigration of Papua New Guinea-born individuals of European ancestry. Nevertheless, there were significant increases in other groups. Fiji-born immigrants increased by 57 per cent to 9,357 and Tonga-born immigrants by 190 per cent to 2,615. Migration from other parts of the Pacific increased by 400 per cent to 16,898 (Hayes 1985:24). The increases recorded probably reflect the change to a more open immigration policy in Australia.

Migration of Pacific islanders, principally Indo-Fijians, to Canada dates from the late 1960s. Over the period 1965–84 there were 15,106 immigrants whose last permanent residence had been a Pacific island nation, 96 per cent of whom were from Fiji. In the 1981 Census of Canada, 10,120 residents recorded Fiji as their place of birth. Of these, most were Indo-Fijians. Connell (1984c) discussed this migration flow in detail.

The United States is now the most important destination for Pacific island migrants. Greenwood and Stuart (1986) found that the United States was named as the dominant destination for migrants from seven of the nine Pacific countries that reported such data. In the 1980 Census there were 83,037 Pacific islanders by birth, 259,566 by race, 67,720 who spoke a Pacific island language and 259,255 by Pacific island ancestry, (Table 1). Significant migration of Samoans to the United States began in the early 1950s and

Table 1 Pacific Islanders resident in the United States, 1980

Pacific Islanders	Race	Identification as Pacific Islander defined by			Race or ancestry
		Country of birth	Language spoken	Ancestry	
Fijian	2,834	7,538	1,033	3,566	4,857
Samoaan	41,948	21,943	27,475	51,282	58,302
American Samoa	..	9,361	..	..	..
Western Samoa	..	12,582	..	..	..
Tongan	6,226	5,619	4,857	8,511	9,661
All Pacific Islanders	259,566	83,037	67,720	259,255	..

Source: United States Bureau of the Census, 1984; and unpublished data.

was precipitated by the economic crisis that followed the cessation of hostilities in the Pacific arena. Samoan migration has continued since then, although there has recently been a shift towards more migration from Western Samoa than from American Samoa (Connell 1984c). In 1980 there were 21,943 Samoans in the United States. Of these, 43 per cent were born in American Samoa and 57 per cent in Western Samoa.

Table 2 Pacific Island-born populations resident in Pacific rim countries, 1980-81

Resident in:	Country of birth		
	Fiji	Tonga	Samoa
<i>Number</i>			
American Samoa ^a	nr	796	9,686 ^e
New Zealand ^b	6,372	5,232	24,141 ^f
Australia ^c	9,357	2,615	nr
Canada ^d	10,120	nr	nr
United States	7,538	5,619	21,943 ^f
<i>Number as a percentage of home country population</i>			
American Samoa	..	0.8	6.2
New Zealand	1.0	5.4	12.8
Australia	1.5	2.7	..
Canada	1.6	nr	..
United States	1.2	5.8	11.4

^a 1980 Census.

^b Hayes 1985:19.

^c Hayes 1985.

^d Connell 1984. Connell estimated that there were approximately 100 Polynesians in Canada in the mid 1980s.

^e Western Samoa only.

^f American and Western Samoa.

Sources: J. Connell, Migration, employment and development in the South Pacific, Country Report No.24, 1984 (mimeo.); G. Hayes 'International migration in the Pacific Islands: a brief history and a review of recent patterns' in *International Migration in the Pacific, Sri Lanka and Thailand*, Asian Population Studies Series No.G4, ESCAP, Bangkok, 1985.

Tongan migration to the United States is more recent, dating from the late 1960s, and was facilitated by the growth of the Mormon church in Tonga (Connell 1984c). Immigration of Fijians to the United States, principally Indo-Fijians, also dates from the late 1960s. Since 1978 the United States has been the most important receiving country for Fijian migrants (Bienenfeld 1984:36). In 1980 there were 5,619 Tonga-born residents in the United States and 7,538 Fiji-born residents. A recent report by the International Monetary Fund (Browne 1984) estimated that 30,000 Tongans lived in the United States, Australia or New Zealand. This is a little less than one-third of the current population of Tonga.

The first part of this study will be concerned with the migration of Pacific islanders to the United States. Compared to migration to New Zealand, migration to the United States is poorly documented, especially in relation to changing patterns through time (Hayes 1985:20). This investigation will be based upon data gathered in the 1980 US Census and will focus on Samoans, Tongans, and Fijians, the main Pacific island migrant groups.

Readers interested in the history of Pacific migration to the Americas should consult Connell (1984c). Those primarily interested in the second flow, namely international migration within the Pacific will find that Chapter 4 of this study, as well as Lieber (1977), and Walsh (1982) provide a starting point. Studies on internal migration, which Connell (1984c) has characterized as being principally a Melanesian phenomenon, are to be found in Lieber (1977), Chapman and Prothero (1985), and Walsh (1982). Appendix 2 of this study also briefly addresses internal migration in American Samoa. In addition, all aspects of migration and further references

to the voluminous literature on the subject are to be found in the series of country reports written by J. Connell for the South Pacific Commission in the early 1980s. Migration of Filipinos to the Pacific islands is discussed in Hayes (1985).

Importance of the United States as a destination

How many Pacific islanders lived in the United States in 1980? This question can be answered in at least four different ways depending upon whether 'Pacific islander' is defined by race, country of birth, language spoken, or ancestry. In 1980, there were 259,566 Pacific islanders by race, 83,037 Pacific island-born, 67,720 who spoke a Pacific island language, and 259,255 of Pacific island ancestry (Table 1). Since the 1980 Census was the first to publish data on specific island groups other than Hawaiians, only estimates of numbers of Pacific islanders have been previously available. The numbers in Table 1 and calculations made by Levin (1984) and Hayes and Levin (1984) suggest that previous estimates were too high—in the case of Samoans and Tongans by perhaps a factor of 2.5.

The concept of race used by the Census Bureau reflects self-identification by respondents, not a scientific definition of biological stock. Of the 259,566 self-identified Pacific islanders, 41,948 were Samoan (16.2 per cent), 6,226 Tongan (2.4 per cent), and 2,834 Fijian (1.1 per cent). The number for Samoans is based on the 100 per cent count while data on other groups is available only from samples (see Levin 1984 for further details).

In 1980, 67,720 persons in the United States spoke a Pacific island language at home. The largest single group spoke Samoan, (27,475 or 40.6 per cent). There were 4,857 (7.2 per cent) Tongan speakers and 1,033 (1.5 per cent) Fijian speakers. The Census also recorded 51,282 individuals of Samoan ancestry, 8,511 of Tongan ancestry, and 3,566 of Fijian ancestry. The number reporting Pacific island ancestry or race was somewhat larger than those figures.

For the purposes of studying migration, country of birth data is to be preferred. In 1980, there were 83,037 individuals who had been born on a Pacific island. Of these, 12,582 had been born in Western Samoa (15.2 per cent), 9,361 in American Samoa

(11.3 per cent), 5,619 in Tonga (6.8 per cent), and 7,538 in Fiji (9.1 per cent). The largest single Pacific island group by country of birth was Guamanians (36,782 or 44.3 per cent of the Pacific island-born United States population). Data by country of birth and race and language spoken allow one to conclude that those born in Samoa would be almost entirely racially Samoan. Of those born in Western Samoa, 96.2 per cent self-identified as Samoan by race. It is assumed that the figures for American Samoa are similar. The Tonga-born were predominantly racially Tongan (83 per cent). Two per cent were white and 13 per cent categorized as 'other races'. It is not clear what groups were included in this category. Of the Fiji-born, 85 per cent were 'other Asian and Pacific islanders', that is, not Japanese, Chinese, or Filipinos. Based on the data for language spoken, it is clear that most of the Fiji-born were Indo-Fijians. Only 3.8 per cent of the Fiji-born were white and 2.2 per cent Chinese.

American Samoans may enter the United States freely and become citizens after fulfilling residence requirements. Western Samoans, Fijians, and Tongans must meet normal immigration requirements and generally enter the United States on the basis of occupational skills or family reunification. This latter route is easier for Western Samoans because of their family connection with American Samoans.

As we have noted above, we have chosen country of birth data to study migration of Pacific islanders to the United States. Country of birth data is preferred as it refers only to first generation migrants, whereas race data may include first, second, or higher order generations of migrants. Thus race data may give a less clear picture of the characteristics of migrants and possible motives for migration which are the primary concern of this study. One example shall suffice to illustrate this point. Connell (1984c), using data on Pacific islanders in the United States by race, concluded 'as is common with most predominantly migrant groups, the median age...was lower than that for the United States population as a whole. The Samoan and Tongan groups were particularly youthful'. The median age of the United States population was thirty years and that of the Samoan and Tongan groups 19.3 years. However, when data by country of birth is used, the median age of Samoans born in American Samoa or

Western Samoa was twenty-eight years, quite close to the US average. The median age of Samoans born in the United States was 10.4 years. forty per cent of Samoans by race were born in the United States and 67 per cent of these were less than fifteen years of age in 1980. By comparison, only 18 per cent of those born in Western Samoa and 22 per cent of those born in American Samoa were less than fifteen years of age. Thus data by race gives us a downward biased estimate of the age of migrants because of the inclusion of second-generation Pacific islanders. Those readers interested in the characteristics of Pacific islanders in the United States by race should consult Levin (1984), Hayes and Levin (1983a, b), and Connell (1984c).

This section began with the question, 'how many Pacific islanders were there in the United States in 1980?' It will conclude by posing and answering two more questions: 'How many Pacific islanders born in the islands live in the Pacific rim countries?' and 'where in the United States do most islanders live?'

In 1980-81, 13.9 per cent of Tonga's population was resident in four of the Pacific rim countries: Australia, New Zealand, Canada, and the United States. New Zealand accounted for 5,232 (5.4 per cent), the United States for 5,619 (5.8 per cent), and Australia for 2,615 (2.7 per cent). In 1980-81, 24.2 per cent of the population of Western Samoa and American Samoa resided in these Pacific rim nations. Most resided in the United States (21,943 or 11.4 per cent of the home population) or New Zealand (24,141 or 12.6 per cent of the home population). These numbers are much smaller than commonly believed. For example, in 1972, Margaret Mead wrote 'for nowadays half the Samoan population lives in the United States' (Mead 1972:166). Even if data for Samoans by race is used only 22 per cent of the 1980 population was resident in the United States in 1980. In 1972 the percentage was even smaller. The number of Fijian-born resident overseas was relatively small, only 5.3 per cent of the home population. The distribution among the Pacific rim countries was fairly even: 1 per cent in New Zealand, 1.5 per cent in Australia, 1.6 per cent in Canada, and 1.2 per cent in the United States.

All these estimates are lower bounds since not all countries record all groups individually and also because of potential under-

enumeration in the censuses and illegal immigration.

Pacific islanders in the United States are heavily concentrated in two states, California and Hawaii. In 1980, 51 per cent of Western Samoa-born resided in California and 29 per cent in Hawaii. A further 6 per cent were in Washington and 3 per cent in Utah. Thirty-seven per cent of the Tonga-born were in California, 23 per cent in Hawaii, and 27 per cent in Utah, reflecting the important role played by the Mormon Church in Tongan migration. The Fiji-born population was the most concentrated. Seventy-eight per cent resided in California, 5 per cent each in Washington and Hawaii, and 4 per cent in Oregon. Within these states, Pacific islanders lived in cities. For example, 95 per cent of Fiji-born lived in metropolitan statistical areas.

Migration to American Samoa

It is often claimed that American Samoa is an intermediate stop-over for Pacific islanders migrating to the United States. It is also possible that American Samoa is a final destination because the income of immigrants from Tonga and Western Samoa who were in American Samoa in 1980 exceeded that of non-migrants in the home populations. It is extremely difficult, if not impossible, to test with existing data whether American Samoa is an intermediate or final migration destination. Longitudinal data on migrants would be needed to clarify this question.

Western Samoans and Tongans have no special immigration status in the United States whereas American Samoans have free entry and can become citizens after fulfilling residence requirements. Since immigration to the United States is aided by the possession of special skills and by family reunification, using American Samoa as an entry-point to the United States implies that immigrants acquire desired skills in American Samoa or marry an American Samoan. It will be shown later that Tongan and Western Samoan immigrants in American Samoa have more work skills than non-migrants in the home population. However, the data does not allow us to conclude whether the immigrant came with these skills or acquired them in American Samoa. Immigrants to the United States are a little older than those to American Samoa, which is consistent with a 'stop-over' in American Samoa, but is not conclusive.

Despite the differences in legal right of access to the United States there were 12,582 Western Samoa-born and 9,361 American Samoa-born persons in the United States in 1980. However, the former was only 8 per cent of the 1980 Western Samoan population whereas the latter was 29 per cent of the American Samoan population. Thus the incidence of immigration of Western Samoans to the United States is lower than that of American Samoans although the absolute level is higher. The differences probably reflect differential legal access for as Connell (1987: 382-3) notes, political status constrains migration from the South Pacific region.

Although it would be ideal to have data on the characteristics of migrants flowing in both directions, it is unlikely that much information is probably lost by focusing on the flow

to American Samoa since this flow of Pacific migrants dominates the flow from American Samoa to other Pacific countries. For example, in 1981, individuals resident in Western Samoa but born in American Samoa were only 11 per cent of those resident in American Samoa but born in Western Samoa. In 1976 only 265 individuals from other Pacific countries were enumerated in the Tongan Census (0.3 per cent of the population). Of these, a very small percentage would have been American Samoan.

Although it cannot be concluded from the census data that migrants from the Pacific islands use American Samoa as a stopping-off point on the journey to the United States, a knowledge of the characteristics of these migrants will add to an understanding of international migration within the Pacific.

Chapter 2

Issues in migration

THERE has long been concern within the Pacific region that the costs of migration outweigh the benefits, particularly for international migration (see Connell 1983a and 1983b). Thus, as Connell (1984b:310) has noted 'countries must understand the rationale for migration in order to devise strategies to minimize or redirect some migration streams, while encouraging others, in order to generate a more appropriate form of development'. Since 'migration behavior (also) has such an important bearing on the causes and consequences of population trends' (Connell 1984a:175) a knowledge of migration is helpful for understanding population dynamics in many South Pacific nations.

There is no agreement in the Pacific as to whether emigration is 'good' or 'bad'. Some argue that Pacific island nations are losing valuable human resources that have been subsidized by the home nations (see Connell 1983a, 1983b and 1987). It is clear that the nations in this study are losing valuable human resources. Migrants to the United States and to American Samoa are young, educated, and skilled. The majority obtain United States citizenship and are unlikely to return to their home islands. However, establishing this loss does not necessarily mean that emigration is 'bad'. Others have argued that even though valuable human resources are lost, emigration is a necessary 'safety valve' for the labour market (Fawcett and Carino 1987:12). In the absence of effective family planning programs and effective job creation policies, migration provides an alternative outlet for the unemployed or underemployed, and the politically dissatisfied. Hayes (1985) argued that if the benefits and costs of emigration were calculated for all individuals (migrants and non-migrants), then benefits outweigh costs. However, if the calculation is based only on those who remain in the home country, benefits are less than costs. Blazic-Metzner and Hughes (1982) considered that benefits appeared to exceed the

costs, although the evidence was not wholly conclusive.

It is possible that no agreement can be reached as to whether emigration is 'good' or 'bad' because its impact on the sending country is extremely difficult to estimate, even if it is agreed on whose welfare the estimate should be based—the resident population or the total population. Lucas (1981) showed that simply comparing Gross National Product or Gross Domestic Product per capita before and after migration may provide incorrect estimates. For example, if the wealthy migrate, income per capita of those who remain may rise, yet overall income per person might fall. It is also quite possible for international migration to lead to a lower income per capita in both sending and receiving countries yet leave everyone better off.

If markets are perfect, the impact of emigration on economic efficiency is a function of:

- (i) the effects on non-migrants;
- (ii) the degree of openness of the economy;
- (iii) the extent to which migrants are owners of capital and whether they take this capital with them (see Lucas (1981) for details).

However, if markets are not perfect, which is the likely case in the Pacific, the calculation of the impact of emigration may be affected by unemployment; distorted commodity prices; distorted foreign exchange rate; subsidized education; capital market imperfections as well as non-economic cost factors. If unemployment exists, the migration of a worker may have no impact on production. If market prices are below social value, for example for medical professionals, their emigration leads to a net loss to non-migrants. If the current exchange rate does not reflect the true worth of foreign exchange reserves to the economy then emigration of a worker from export industries or import-replacing industries involves a loss to

society, but if, at the same time, the social value of remittances exceeds the private value, then too little emigration may occur. If education is self-financed, emigration has no impact on non-migrants, provided education costs do not rise with emigration. However, in the Pacific as in most other countries, education is subsidized and emigration may have a negative effect on non-migrants. If capital market imperfections exist, so that different groups have a lower cost of capital than others, other things being equal, then emigration may occur at a level above that which is usually desirable. Finally, there may be costs of migration. For example, the non-economic migration of male household heads may involve costs to women and children if they have not participated in the migration decision. Another non-economic cost may result if returning migrants disturb traditional values. Connell (1983a and 1983b) discusses these issues further.

Although most of the market imperfections noted above are known to affect Pacific island developing nations, some have gained particular attention in the migration debate and are discussed in more detail below. It is not possible to conclude that emigration has either a positive or negative impact on Pacific island developing nations without a thorough investigation of, at least, the factors noted above. In fact, it is unlikely that sufficient information exists for such an assessment to be made.

Migration in the presence of unemployment

Where unemployment exists, the calculation of the impact of emigration depends on the nature of unemployment. Lucas (1981) outlined five feasible scenarios:

(i) the emigration of a worker has no effect on production but reduces the population, raising Gross National Product per capita;

(ii) the emigration of an urban unemployed worker has no direct effect on production but stimulates migration from rural to urban areas, which may result in a decline in rural production;

(iii) there is unemployment overall but full employment of skilled workers and professionals, so that in the short-run, emigration of skilled workers or professionals will decrease output. In the long-run, this loss may be

reduced if unskilled workers can be trained to fill these vacancies, although training costs will offset to some degree production gains;

(iv) labour is heterogeneous, with both skilled and unskilled labour unemployed, in which case output is unaffected or may fall under certain conditions; and

(v) unemployment is Keynesian (insufficient aggregate demand) so that aggregate demand and production may expand if remittances flow in, unless unemployment is structural, in which case spending remittances would not reduce unemployment or expand production.

It seems that scenario (iii) applies to the Pacific island case. According to Hughes, Ahlburg and Lee (1986:106) and Browne (1989:181) general unemployment exists but skilled workers are in critically short supply.

Migration and subsidized education

It is commonly believed that 'having supported the education of others through taxation or donation, one loses by subsequent emigration of the educated who owe a debt to their country' (Lucas 1981:98-9). However, the argument is not as simple as it first appears. The impact of the emigration of individuals educated at public expense is complicated by the inter-generational nature of the process. Through earning higher incomes and paying higher taxes the educated adults of each generation tend to pay for the education of the next generation and hence in a steady flow situation are really paying for their own education (Lucas 1981:99). Although emigration reduces tax income, the migrant's heirs will not require educational expenditures in the home country, and the effects may balance. There are, however, several important qualifications to this argument, such as declining average costs of education as utilization expands, heterogeneity of educational groups and externalities, all of which increase the potential for loss from the emigration of educated labour.

Where emigration of educated and skilled labour is likely to result in a loss to the nation, education and training programs attuned to the development needs of the nation rather than to external markets and demands have been proposed (South Pacific Commission 1982; Carino 1987). These poli-

cies often include taxation policies, bonding and similar schemes and revisions to educational curricula intended to reduce the loss of educated, skilled labour. However, revision of curricula is often unpopular with students and parents, and bonding schemes are difficult to design and operate. Western Samoa used a bonding scheme but abandoned it in 1983 (Connell 1983b:53).

Emigration and remittances

Remittances are often cited as a benefit of emigration, although their impact in offsetting production and tax revenue losses depends largely on whether they flow into investment or current consumption. Studies in a wide variety of national settings indicate that the overwhelming majority of migrants invest little or none of their income in capital-generating activities in their home communities. Remittances are used for current consumption in the home community (Reichert and Massey 1982; Carino 1987). In particular remittances are often invested speculatively in land and are used to increase status. The result has been reduced agricultural productivity and rising land prices (Reichert and Massey 1982:9). Evidence suggests that this may be the case in the Pacific (South Pacific Commission 1982; Connell 1983a and 1983b; Ahlburg 1986; Connell 1987; Carino 1987).

Greenwood and Stuart (1986:124) have pointed out that it is difficult to generalize about the effects of remittances since 'whether remittances are channelled into investment or are used primarily for current consumption seems to depend upon economic and social conditions in the country of emigration'. At least in the case of Western Samoa, economic and social conditions limit the availability of profitable investment opportunities (McPherson 1985, Hayes 1985). Also, as pointed out above, the impact of remittances is conditioned by whether unemployment is Keynesian or structural. In the former case, remittances may have a productive impact whereas in the latter they are unlikely to do so.

Even though the marginal propensity to consume out of remittances may be high among those who receive them, the full impact of remittances is determined by whether the consumption goods are imported or locally produced and the marginal propensities to consume shown by

higher order recipients of remittances. Thus, it is possible, although not highly likely, that remittances may have some productive impact in the Pacific.

Most of the discussion on the impact of emigration has focused on questions of economic efficiency. There are, however, distributional impacts as well. Lipton (1980:1) has argued that remittances and return migration increase interpersonal and inter-household inequality within and between villages, since wealthier families and villages have higher rates of emigration. Lipton cites evidence from Papua New Guinea and Shankman (1976:63 and 66) cites evidence from Western Samoa that such an effect has occurred in the Pacific. Lipton (1980:11), however, points out that such inequality may have a positive effect on production (see Lipton 1980:11-13 for further discussion of remittances). However, inequalities in wealth may lead to, as well as result from, emigration. Thus it is difficult to evaluate the impact of emigration on inequality.

Migration and the return of skilled migrants

Another argument often used in favour of emigration is that migrants travel overseas and receive training, often at the expense of the receiving country, then return home to apply these skills. There are several problems with this argument, a central tenet being that 'a labour force oriented towards agricultural skills can be transformed into one oriented towards urban industrial skills through a period of employment in an industrialized economy' (Greenwood and Stuart 1986:124). Unfortunately little is known about the applicability of skills learned in a developed country to a developing country, as Greenwood and Stuart concede (1986:124).

Further, there is considerable doubt that migrants acquire useful skills when they migrate. Reichert and Massey (1982:8) concluded that 'migrants who leave without skills generally return in a similar state' (see also Connell 1983b:48). There is little evidence in this study that new immigrants to American Samoa and the United States have a very different occupational distribution to immigrants of longer residence. Of course, given the broad occupational definitions and time periods available, this evidence is merely suggestive.

Even if migrants were to acquire skills overseas which were applicable to their country of origin, the Pacific would not benefit as migrants seldom return (Shankman 1976; Hayes 1985; Connel 1987; Xenos, Gardner, Barringer and Levin 1987). This study will show that given the high rate of naturalization of Pacific island migrants to the United States, the rate of return of skilled migrants is likely to be small. Thus it does not seem likely that migrants from the Pacific are migrating in order to acquire skills that may be productively applied upon their return home.

Migration and the 'bright lights'

A tradition in studies of migration in the Pacific has been to stress the strong social element in migration—the so-called 'bright lights' motive (see Connell 1984:310). The 'bright lights' theory of migration is a theory of consumption rather than investment, although Graves and Linneman (1979) have argued that these aspects are complementary, not competitive.

According to the integrated theory of migration there are traded and non-traded goods. Non-traded goods are location-specific and only changing demands for such goods or changing supplies will result in changing optimal locations, that is, migration. Examples of 'bright lights' non-traded goods are the 'excitements and variety of town life' described by Maude (1965:89); as well as 'cinemas, sport, social clubs, dances and other amusements, and the endless opportunities for conversation and kava'. However, it is difficult to argue that all of these attractions are non-tradeable. In addition, the distinction between traded and non-traded goods depends upon the level of a society's technology. In general the costs of trade are negatively related to technology and as technology improves relatively fewer goods will be categorized as non-traded. For example, video cassette recorders and movies come to replace cinemas. As a particular society develops its own 'bright lights', motivation for migration should decline.

Since 'bright lights' are positively related to destination income, the 'bright lights' hypothesis is difficult to test directly. Places of relatively higher income also have 'brighter lights' since incomes create the demand for these non-tradeable goods. Empirical support

for this hypothesis is not very strong. Sevele (1973:84–5), for example, tends to discount it as a motive, at least for internal migration in Tonga.

Table 3 contains some data on commodities that may be thought of as signalling 'bright lights' in American Samoa. For those commodities for which we have complete data, levels of consumption are higher in American Samoa than in Tonga or Western Samoa. Thus we expect migration driven by 'bright lights' to be consistent with these differences. However, with the possible exception of cinemas, these commodities are tradeable, not non-tradeable, and reflect income differences among the countries. This fact highlights the difficulty of testing the 'bright lights' theory.

Table 3 Data on commodities, locational analysis, circa 1980

	Western Samoa	Tonga	American Samoa
Cars per '000 population	10	10	78
Radios per '000 population	385	209	..
Telephones per '000 population	37	23	..
Cinema seats per '000 population	28	25	..
TVs per '000 population	28	..	110
Population per physician	2,884	3,446	..
Population per hospital bed	214	326	..

Source: ESCAP, *Statistical Yearbook for Asia and the Pacific*, Bangkok, 1981; D.A. Ahlburg, 'Population and economic development in the island nations of the South Pacific' in R.V. Cole and T.G. Parry (eds), *Selected Issues in Pacific Island Development*, National Centre for Development Studies, Canberra, 1986.

An argument can be made for the inclusion of education and health as non-tradeable commodities although they may be clearly viewed as primarily investment goods not consumption goods (see Lazear 1977 for a discussion of this issue). There is ample evidence of a deficit in educational and health services in outlying areas because of an inability to attract and maintain qualified personnel there. There may also be perceived quality differences between local and

overseas education. These real or perceived differences may motivate migration either for consumption or investment (future income) reasons.

Ahlburg (1986) and Connell (1983) have emphasized the importance of educational and health services in internal migration in the Pacific and Thaman (1983, cited in Connell 1983a:41) attributed an important role to education in Tongan international migration. Also, as shown in Table 52, education was a major motive for Samoan migration to New Zealand.

Changing demands for and supplies of education and health services are thus more likely to be the locational amenities motivating migration than are 'bright lights'.

Can migration be reduced?

Even if it were clear that the benefits of migration were less than the costs, could governments reduce migration? For political reasons direct control of migration is unlikely (Connell 1983b:54). Since the main motivation for migration is economic the governments may deter migration by reducing the earnings difference between the home country and overseas destinations. However, the difference between domestic and overseas earnings is so large that policies to close the

gap are unlikely to be successful. For example, job creation in Western Samoa has been much lower than expected (McPherson 1983:52-3) and over the last two decades the earnings differential has increased (Connell 1987). In addition, development projects that increase urban skilled wages will increase internal migration, impede agricultural development, exacerbate income inequality, and have little impact on overseas migration. Lipton (1980) and the South Pacific Commission (1982) suggest policies to increase rural resources. Care must be taken in designing such policies. Land reform is thought by some to be the key to the economic future of the islands. However, if land reform were to increase the value of children as potential agricultural labourers, large families would become more desirable and rural fertility rates could rise. The positive fertility response would conflict with population growth reduction policies and could also create additional out-migration after a generation or two (Schapiro 1986:132). Such policy conflicts need not occur. Out-migration could be reduced at the same time rural fertility could be decreased if, for example, non-farm rural employment opportunities were created for women. Policy options are discussed further in a report of the South Pacific Commission (1982) and by Bienefeld (1984).

Chapter 3

Pacific island migrants to the United States

Demographic characteristics

MIGRATION from the Pacific islands to the United States seems to be motivated by labour market considerations. This is consistent with the migration model discussed in Appendix 1. Migrants were primarily of working age and the majority of these were of young working age (15–34 years), the group most likely to benefit from migration.

The age-sex distribution of migrants is shown in Table 4. Of the 5,619 Tongans in the United States in 1980, 4,362 (78 per cent) were adults (taken to be fifteen years and over). Of those born in Western Samoa, 10,410 (83 per cent) were adults and 6,279 (83 per cent) of those born in Fiji were adults. Fifty-nine per cent of Tonga-born adults were of young working age (15–34 years), while the corresponding figures for those born in Western Samoa and Fiji were 60 per cent and 62 per cent respectively. Note that these figures refer to migrants in the United States at the time of the 1980 Census. The percentage of migrants who migrated at young working age is probably higher than these percentages because many of the older migrants have been resident in the United States for a time. Offsetting these figures would be differential 'failure' and return migration of older migrants. However, this is unlikely since the very young (less than twenty years) are more likely to 'fail' and return home (DaVanzo 1983:556).

The age structure of migrants is quite different to that of their home country populations. Based on 1976 Census data for Tonga (Kingdom of Tonga n.d.), 1981 Census data for Western Samoa (Government of Western Samoa 1983), and estimates of the 1980 population of Fiji (United Nations 1982) the home country populations are much younger than the migrant populations. In Tonga 44 per cent of the population was less than fifteen years of age. In Western Samoa and Fiji 45 per cent and 38 per cent of the

population was less than fifteen years of age. The adult migrant populations were also somewhat younger than the adult home populations. In Tonga 15–34 year olds constituted 57 per cent of adults, in Western Samoa and Fiji 60 per cent. These figures point to the age selectivity of migrants. Adults are more likely to migrate, and, in particular, young adults of working age.

The age structure of the Pacific island migrant groups also differed from that of the total US population and from that of all migrants in the United States. Note that this comparative data on all immigrants refers to those immigrating between 1970 and 1980 and so will be biased towards those who are younger. The Tonga and American Samoa-born groups have a similar percentage of children to the US population but the Western Samoa-born and Fiji-born groups have a lower percentage of children (this does not reflect lower fertility since, as we shall see, these groups have higher fertility than the US average). The Pacific island migrant groups differ most dramatically from the US population in the very small percentage of the aged (65 years and over). As a consequence, they have a higher proportion of individuals of working age (15–64 years). Whereas only 66 per cent of the US population was of working age, 76 per cent of all migrants, 75 per cent of Tongans, 80 per cent of Western Samoans, 81 per cent of Fijians, and 75 per cent of American Samoans were of working age. All of the migrant groups, but in particular Western Samoans and Fijians, were concentrated at younger ages (15–34 years).

The age distribution of Tonga-born migrants to the United States was similar to that of Tonga-born migrants to American Samoa. However, Western Samoa-born migrants to the United States were slightly older than those to American Samoa (83 per cent adult as opposed to 80 per cent adult) and had a lower percentage of young

working-age among the adult migrants (60 per cent versus 66 per cent). This finding is consistent with Western Samoa-born migrants using American Samoa as a 'staging post' for migration to the United States by which the potential migrant first migrates to American Samoa to gain education, skills, experience, or family connections and then migrates to the United States.

The gender distribution of migrants varies among the country of birth groups. Overall, Tongan and Western Samoan migration was more male than female (the ratio of males to females was 1.13 for Tongans and 1.03 for Western Samoans). For Fiji-born migrants, females outnumbered males (sex ratio - 0.95). The sex ratio was more masculine than the Tonga home population (101 in 1976) but less masculine than the home populations of Western Samoa (108 in 1981) and Fiji (103 in 1980). The sex ratios for adult migrants (fifteen years and older) were more masculine: 1.19 for Tongans, 1.09 for Western Samoans, and 1.00 for Fijians. The ratios for adult Tongans and Western Samoans were more masculine than the ratios for migration to American Samoa (1.12 for Tongans, 1.01 for Western Samoans).

There are some differences in the sex ratios of migration by age. The sex ratio for Tongans is heavily masculine for 15-34 year olds (1.18) and 35-64 year olds (1.27). These male biases are larger than those we found for Tongan migration to American Samoa but not as large as those reported by Connell (1983a:46). Females outnumber males among young Tonga-born migrants (under fifteen years, sex ratio - 0.93) and older migrants (over sixty-five years, sex ratio - 0.51). For Western Samoa-born migrants, males predominate in age groups less than fifteen years (sex ratio - 1.04) and young working age (15-34 years, sex ratio - 1.08). However, females are more numerous at age 35-64 (sex ratio - 0.99) and sixty-five years and over (sex ratio - 0.56).

The gender distribution of Fiji-born migrants is quite different. Females dominate among children (less than fourteen years, sex ratio - 0.73) and young workers (sex ratio - 0.86). Males dominate at older working age (sex ratio - 1.33) and among the aged (sex ratio - 1.13).

The marital status of migrants is presented in Table 5 and their fertility in Table 6. By and large all immigrants displayed the same

Table 4 Sex and age of immigrants by region and country of birth, 1980

	Country of birth		
	Fiji	Tonga	Western Samoa
Sex			
Both sexes	7,538	5,619	12,582
Male	3,677	2,975	6,376
Female	3,861	2,644	6,206
Age			
Under 5 years	200	148	397
5 to 9 years	486	416	743
10 to 14 years	573	693	1,032
15 to 19 years	799	507	1,318
20 to 24 years	1,019	641	1,726
25 to 29 years	1,162	725	1,562
30 to 34 years	926	695	1,613
35 to 39 years	765	604	1,302
40 to 44 years	492	387	851
45 to 54 years	657	477	1,053
55 to 59 years	157	132	370
60 to 64 years	153	64	224
65 years and over	149	130	391
Median			28.1 years
Percentages			
All persons			
≤14 years	16.7	22.4	17.3
15-34	51.8	45.7	49.4
35-64	29.5	29.6	30.2
65+	2.0	2.3	3.1
Female			
Under 5 years	122	103	203
5 to 9 years	286	201	332
10 to 14 years	319	346	531
15 to 19 years	374	274	712
20 to 24 years	609	305	767
25 to 29 years	639	313	721
30 to 34 years	489	284	785
35 to 39 years	291	203	732
40 to 44 years	220	187	372
45 to 54 years	280	242	536
55 to 59 years	77	59	168
60 to 64 years	85	41	99
65 years and over	70	86	248
Percentages			
Female			
<14 years	18.8	24.6	17.2
15-34	54.7	44.5	48.1
35-64	24.7	27.7	30.7
65+	1.8	3.3	4.4

Source: United States Bureau of the Census, unpublished tabulations.

marital status patterns as the total US population. The largest percentage was married. The next largest category was single, followed by widowed, divorced, and separated. However, among all immigrants in the United States in 1980, a larger percentage of males and females was single than in the overall population. Among all immigrant males, marriage and divorce were slightly lower than among all US males and among all immigrant females marriage was more prevalent and widowhood and divorce less prevalent than for all US females. The higher incidence of single individuals among all migrants is consistent with the findings of studies of internal migration. Marriage deters migration because in families returns from migration increase less than costs as household size increases in the presence of spouse and children (Mincer 1978:752). The finding that marriage was more prevalent among all immigrant females than immigrant males is consistent with Mincer's (1978) characterization of married females as 'tied' movers in migration.

Among male Pacific island migrants, Samoa- and Fiji-born had similar percentages of single people to the US population.; The percentage of single Tonga-born males was considerably lower. All Pacific island groups had a lower percentage of single males than all immigrants. The Tonga- and Fiji-born had much higher percentages married than all immigrant males and Samoans had a somewhat higher percentage married.

Samoan females had a similar rate of being single to the US population whereas the rate for Tongans was higher and the rate for Fijians lower. All Pacific island female groups had higher proportions married than in the US population. The percentage was particularly high among Fiji-born women. Migrant males and females from Western Samoa were much less likely to be single and much more likely to be married than males in the home population in 1981. The same was true of migrants from American Samoa. The higher incidence of marriage among migrants is the reverse of that usually found in studies of internal migration. Although returns to migration tend to increase less than the costs for married migrants, gains to migration may be positive for both male and female migrants from the Pacific islands to the United States, so that marital status does not adversely affect the behaviour of the husband or wife. This result occurs if gains (or losses) from migration are perfectly correlated, or when one spouse's gain (or loss) is negligible and therefore always dominated by the other (Mincer 1978:752).

Thus a feasible explanation exists for why marriage does not deter migration from Pacific island nations, although there is still no explanation for why the married are more highly represented among migrants to the United States than in the home population. One possible explanation is the youth of the home population compared to the

Table 5 Marital status of Pacific Island immigrants in the United States, by sex and country of birth, 1980 (percentage)

Marital status	Country of birth					
	All United States	All Immigrants	American Samoa	Fiji	Tonga	Western Samoa
Males (15 years and over)						
Single	29.7	38.0	31.0	26.5	22.2	30.9
Married	60.7	56.5	64.8	69.3	71.8	63.2
Separated	1.9	2.2	0.8	1.7	2.6	2.1
Widowed	2.5	0.8	0.7	0.5	0.5	0.9
Divorced	5.3	2.5	2.7	2.0	2.8	3.0
Females (15 years and over)						
Single	22.9	25.3	23.9	17.4	26.9	22.6
Married	55.2	62.3	58.4	72.6	63.0	62.0
Separated	2.6	3.2	6.4	0.8	1.1	4.2
Widowed	12.3	5.5	7.6	3.2	5.2	6.0
Divorced	7.1	3.7	3.8	6.0	3.8	5.1

Source: United States Bureau of the Census, unpublished tabulations.

population in the United States. However, a comparison of data by age, sex, and marital status for Western Samoa-born migrants in the United States and Western Samoans enumerated in the 1981 census of Western Samoa, leads to the same result—a higher percentage of migrants were married than among individuals in the home country (except for women aged 35–44 years). Therefore, age differences between the two groups cannot explain the higher incidence of marriage among migrants.

The fertility of Pacific island migrants was much higher than the fertility of US women and of all immigrant women in the United States for all ages over twenty-five years. The difference is particularly marked in the case of Western Samoa-born (and based on other data, also for American Samoa-born) and Tonga-born. The ratio between own fertility and that of all US women increases with age for Western Samoa-born and Fiji-born and is constant for Tonga-born. This could reflect a decline in fertility among the 15–24 year olds or a pattern of proportionately greater later fertility among the Pacific island groups.

As explained later in this study, Tongans in American Samoa had 1,768 children ever-born per woman 15–44 years. For

Western Samoa-born the figure was 1,916 and for American Samoa-born 2,071. For Tonga-born, Western Samoa-born, and American Samoa-born women in the United States the respective numbers of children ever-born per woman were 2.062, 2.332, and 2.360. Thus, the fertility of migrants to the United States appears to have been higher than that of migrants to American Samoa. These differences may reflect differences in percentages married. Roughly 35 per cent of Pacific island immigrants in American Samoa in 1980 were single, while only about 25 per cent of those in the United States in 1980 were single.

The fertility of migrant groups was lower than that of the home populations. Tonga-born women 15–44 had 2.062 children ever-born while women in the home population (in 1976) had 4.1 children. Western Samoa-born women in the United States had 2.332 children while those in the home population (in 1981) had 4.2 children. When age-specific fertility rates were compared for Western Samoan women in the United States and those in Western Samoa the rates were equal for women of 15–19 years (0.1 children ever-born per woman) and women 25–29 (2.1 children).

Table 6 Fertility (average number of children ever born per woman) of Pacific Island immigrants in the United States, by age and country of birth, 1980

	Country of birth				
	All United States	All Immigrants	Fiji	Tonga	Western Samoa
All women 15 years and over	..	..	2.0	2.9	3.0
15–24 years	0.3	0.4	0.3	0.4	0.6
25–34 years	1.5	1.5	1.7	2.4	2.5
25–29 years	..	..	1.3	1.8	2.1
30–34 years	..	..	2.2	3.1	3.0
35–44 years	2.6	2.6	3.2 ^a	4.1 ^a	4.7 ^a
35–39 years	..	..	2.6	3.2	4.2
40–44 years	..	..	3.7	4.8	4.8
45–59 years	..	..	3.5	4.7	5.6
50 years and over	..	..	5.6	6.6	5.6
Married women 15 years and over	..	..	2.3	3.8	3.8
15–24 years	..	..	0.6	1.4	1.3
25–29 years	..	..	1.5	2.2	2.3
30–35 years	..	..	2.4	3.5	3.2
35–39 years	..	..	2.6	3.6	4.4
40–44 years	..	..	3.8	4.8	5.2
45–49 years	..	..	3.5	5.1	6.0
50 years and over	..	..	5.5	6.7	6.0

^a Includes women 35–49.

Source: United States Bureau of the Census, unpublished tabulations.

The rates were higher for women in Western Samoa for ages 30-34 (3.8 versus 3.0), 35-39 (5.2 versus 4.2), 40-44 (6.3 versus 4.8), and 45-49 (6.6 versus 5.6). Only for women aged 20-24 did the rate in the United States exceed that for women in Western Samoa (1.0 versus 0.7).

For all Fiji-born women the fertility of migrant women was below that of women in Fiji in 1976. The comparative rates were 0.0 and 0.08 (15-19 years), 0.5 and 0.95 (20-24 years), 1.3 and 2.42 (25-29 years), 2.2 and 3.81 (30-34 years), 2.6 and 4.95 (35-39 years), 3.7 and 5.91 (40-44 years).

This data is consistent with the commonly held belief that women with more children are less likely to migrate overseas (Government of Western Samoa 1983:31). This is because the presence of children increases the costs of migration. Migrants also have lower completed fertility which probably reflects their higher opportunity cost of children because of their higher education and stronger work attachment than non-migrants. It may also reflect differences in the tastes for children or convergence to the fertility norms of the receiving country.

In Table 7 the country of birth of children under twenty years old of Pacific island

householders and householders with a Pacific island-born spouse is reported. Twenty per cent of Tongan and Western Samoan households have no children whereas 30 per cent of Fijian households do not contain children. Of the remaining Tongan and Western Samoan households, roughly 20 per cent each have one child, two children, or three children. About 25 per cent have four or more children. The distribution for Fijian households is quite different. One child and two child households each constitute 25 per cent of all Fijian households. Of the remainder, 10 per cent have three or four children.

In Tongan and Western Samoan households with three children or less, the majority of children were born in the United States. Among Tongan households with four or more children, most had at least one child and 55 per cent had all children born overseas, presumably Tonga. In Western Samoan households roughly half had at least one child born overseas. Thus relatively few Tongan or Western Samoan households in the United States had no children. Those households that did have children had most of those children in the United States, which means that the householders migrated as

Table 7 Birthplace of children under 20 years old of United States households with Pacific island immigrant householder or spouse, 1980

	Fiji		Tonga		Western Samoa	
	Total	Per cent	Total	Per cent	Total	Per cent
Total households	2,510		1,838		4,855	
No children	766	30.5	372	20.2	1,040	21.4
One child	579	23.1	393	21.4	719	14.8
with none foreign born	323	55.8	337	85.8	532	74.0
with child foreign born	256	44.2	56	14.2	187	26.0
Two children	658	26.2	361	19.6	867	17.9
with none foreign born	350	53.2	237	65.6	645	74.4
with one child foreign born	67	10.2	23	6.3	114	13.1
with two children foreign born	241	36.6	101	28.0	108	12.5
Three children	266	10.6	267	14.5	929	19.1
with none foreign born	67	25.2	153	57.3	622	67.0
with one child foreign born	22	8.3	34	12.7	46	5.0
with two children foreign born	31	11.7	30	11.2	98	10.5
with three children foreign born	146	54.9	50	18.7	163	17.5
Four or more children	241	9.6	44.5	24.2	1,300	26.8
with none foreign born	49	20.3	112	25.2	617	47.5
with one child foreign born	-	-	35	7.9	144	11.1
with two children foreign born	9	3.7	20	4.5	109	8.4
with three children foreign born	6	2.5	34	7.6	109	8.4
with four or more children foreign born	177	73.4	244	54.8	321	24.7

Source: United States Bureau of the Census, unpublished tabulations.

young single or married individuals. However, there were a significant proportion of households, roughly 25 per cent, which had four or more children, many of whom were born overseas, particularly among Tongan households. Thus among Tongans and to a lesser extent Western Samoans there was migration of households with a large number of children. This finding is similar to the migration of complete Tongan and Western Samoan households to American Samoa.

Among Fijian households, no matter what size, most children were born overseas, presumably in Fiji. This is particularly so for households with three or more children. These findings are consistent with the belief that Fijian immigration to the United States is recent and that households with no, one, or two children predominate.

Income and employment characteristics

As noted above, income differences, either current or expected, between a country of origin and a potential receiving country increase the probability of migration to that receiving country. In 1980 there were significant differences in income between Pacific island nations and the United States. In 1981, for example, Gross National Product per capita (US\$) in the United States was \$13,856 whereas it was only \$4,167 in American Samoa, \$830 in Western Samoa, \$528 in Tonga, and \$1,997 in Fiji (Chilcott and Lucas 1985:3; United States Bureau of

the Census 1987). Higher incomes in the United States were, therefore, an important potential motivation for migration.

A straightforward comparison of the earnings of migrants and non-migrants tends to overstate the potential gain to migration because migrants are non-randomly distributed within the population as a whole (Nakosteen and Zimmer 1980). In other words, migrants tend to have characteristics which may cause them to migrate but which also result in their having a higher expected income were they not to migrate. Thus the earnings of the migrant's home population may not be a sufficient basis for estimating the earnings the migrant would receive in the absence of migration (Greenwood 1975). As a consequence, a comparison of the 1979 income of migrant groups in the United States with the income in their home countries may overstate the gains from migration. This comparison is further complicated by the use of exchange rates to express the incomes in a single currency.

Table 8 reports the income distribution for Pacific island households and Table 9 reports the income distribution of South Pacific island-born males and females with income in 1979. Tongan and Western Samoan households have a lower median and mean income than all US households, but Fijian households have higher median and mean incomes. Because of the much larger size of Pacific island households (or more specifically, the larger numbers of non-

Table 8 Household Income of Pacific Island Immigrants in the United States, 1979

	All United States		Country of birth of head of household		All Immigrants		Fiji		Tonga		Western Samoa	
		%		%		%		%		%		%
Households (total)	80,467,427		1,596,929		2,275		661		3,914			
Less than \$5000	10,663,441	13.3	276,874	17.3	111	4.9	117	7.0	549	14.0		
\$5000-\$7499	6,439,024	9.1	144,801	9.1	151	6.6	148	8.9	310	7.9		
\$7000-\$9999	6,333,385	7.9	145,396	9.1	196	8.6	173	10.4	423	10.8		
\$10,000-\$14,999	12,342,073	15.3	280,941	17.6	309	13.6	314	18.9	847	21.6		
\$15,000-\$19,999	11,379,049	14.1	230,346	14.4	499	21.9	287	17.3	630	16.1		
\$20,000-\$24,999	10,004,409	12.4	173,873	10.9	278	12.2	269	16.2	354	9.0		
\$25,000-\$34,999	12,659,261	15.7	190,805	11.9	442	19.4	217	13.1	511	13.1		
\$35,000-\$49,999	6,954,720	8.6	96,189	6.0	225	9.9	92	5.5	225	5.7		
\$50,000 or more	3,692,065	4.6	57,704	3.6	64	2.8	44	2.6	65	1.7		
Median income (\$)	16,841		13,979		18,712		16,386		13,985			
Mean income (\$)	20,306		17,435		21,165		18,075		16,325			
Per capita (\$)	7,411		5,189		5,198		3,599		3,193			

Source: United States Bureau of the Census, unpublished tabulations.

earners), all Pacific island groups had lower per capita household income. The income of Western Samoan households is the lowest of all the Pacific island groups reported in Table 8. Although Fijians and Tongans have higher income than all immigrants in the United States in 1980, their larger household size leads to a lower per capita household income for Tongans and roughly equal per capita income for Fijian households.

When income differences by gender and country of birth were compared, the same results were found. The median income of Fiji-born males and females, whether

year-round full-time workers or not, exceeded that of Tonga-born and Western Samoa-born migrants. This result held even though fewer Fiji-born were year-round full-time workers. Tonga-born males had a higher median income than Western Samoa-born males, but a slightly lower median income for year-round full-time workers. Tonga-born and Western Samoa-born males over fifteen were more likely to be year-round full-time workers than all other immigrant males (48.6 per cent) and all males in the United States (52.4 per cent). Although a larger percentage of

Table 9 Income of Pacific Island immigrants in the United States by sex, work status and country of birth, 1979

	Country of birth					
	Fiji	Per cent	Tonga	Per cent	Western Samoa	Per cent
Males, 15 years and over with income	2,829	90.3	2,019	85.3	4,420	83.9
Less than \$5000	637	22.5	390	19.3	969	21.9
\$5000-\$7499	308	10.9	346	17.1	719	16.3
\$7500-\$9999	301	12.8	297	14.7	623	14.0
\$10,000-\$14,999	626	22.1	473	23.4	1,009	22.8
\$15,000-\$19,999	465	16.4	241	11.9	531	12.0
\$20,000-\$24,999	220	7.8	218	10.8	326	7.4
\$25,000-\$34,999	108	3.8	35	1.7	191	4.3
\$35,000-\$49,999	60	2.1	19	0.9	30	0.7
\$50,000 or more	44	1.6	-	-	22	0.5
Median income	10,867		9,802		9,595	
Median income of year-round, full-time worker	13,812		12,415		12,549	
Per cent, year-round full-time worker		50.8		55.4		56.4
Females, 15 years and over with income	2,079	66.3	1,162	58.3	3,185	62.0
Less than \$5000	927	44.6	561	48.3	1,628	51.1
\$5000-\$7499	244	21.0	660	20.8	384	18.5
\$7500-\$9999	396	19.0	179	15.4	406	12.8
\$10,000-\$14,999	214	10.3	166	14.3	362	11.4
\$15,000-\$19,999	97	4.7	-	-	97	3.0
\$20,000-\$24,999	25	1.2	4	0.3	16	0.5
\$25,000-\$34,999	28	1.3	8	0.7	16	0.5
\$35,000-\$49,999	8	0.4	-	-	-	-
\$50,000 or more	-	-	-	-	-	-
Median income	5,732		5,205		4,891	
Median income of year-round full-time workers	8,678		7,914		8,512	
Per cent, year-round full-time workers		33.8		40.6		28.8

Source: United States Bureau of the Census, unpublished tabulations.

Fiji-born males had some earnings, a smaller percentage were year-round full-time workers.

The same pattern of income differences held for females. One notable feature of Table 9 is the very high percentage of Tonga-born women who were year-round full-time workers. The rate for all immigrant women was 32 per cent. The rate for Western Samoa-born and Fiji-born women was very close to this figure. The much higher incidence of year-round full-time work among Tonga-born women probably explains the higher income of Tongan households relative to Western Samoan households. This holds even though a slightly smaller percentage of Tongan women had some earnings.

For all groups the median income was less than the mean. Thus, the distributions in 1980 were skewed to the right. The household income distribution for all Pacific island groups was considerably less skewed than that for all US households and all immigrant households. For the Pacific groups, the mean household income exceeds the median by 10 per cent to 17 per cent whereas for all US or immigrant households it exceeds the median by 25 per cent.

The median incomes of Tonga-born and Western Samoa-born males in the United States in 1980 were \$9,802 and \$9,595 respectively. In American Samoa in 1980, the corresponding median incomes were \$4,009 and \$4,075. Tonga-born and Western Samoa-born females in the United States had median 1980 incomes of \$5,205 and \$4,891 respectively. These exceeded the corresponding median incomes of these groups in American Samoa of \$3,173 and \$3,265. Thus the incomes of Tonga- and Western Samoa-born males and females in the United

States were not only greater than those of males and females in the home nations but also greater than those of their fellow migrants in American Samoa.

Although the migrant groups studied earned greater incomes than their fellow countrymen and women at home and in American Samoa, it must be noted that their incomes, and in particular, per capita incomes, were lower than those for all Americans. As a consequence of their lower incomes and larger family sizes, the incidence of poverty among Tongan families was twice the US average, and among Western Samoan families more than two and a half times the US average. For Fijian families, the incidence was only slightly higher than the US average (Table 10). Western Samoan families had a higher incidence of poverty than all migrant families whereas Fijian families had only half the incidence of poverty of all immigrant families.

In 1980, 73.3 per cent of all men over sixteen years of age in the United States were in the civilian labour force (Table 11). The participation rates for Tonga-born and Fiji-born men were higher, that for American Samoa-born men equal to the overall US rate, and that of Western Samoa-born men much lower (66.5 per cent). Note, however, that the participation rates of Western Samoan males in the total labour force, that is, civilian plus military, were much higher than the civilian rates. The rate for all males was 80 per cent, for males 15-44 years 83 per cent, and for males 45-64 years 71.2 per cent. Thus, the rates of participation of Western Samoa-born males in economic activity were much higher than those reflected in the civilian labour force participation rates because significant

Table 10 Poverty status of Pacific island families in the United States, 1980

Families ^a	Country of birth				Western Samoa
	All United States	All immigrants	Fiji	Tonga	
Per cent below poverty line	9.6	20.7	11.4	18.4	25.2
Per capita income	7,061	4,889	5,393	3,552	3,267

^a Includes families in which either householder or spouse is Pacific islander.

Source: United States Bureau of the Census, unpublished tabulations.

numbers were employed in the military. The differences between participation rates for island-born and all males also held for age groups 16-44 and 45-64 years. For Western Samoa-born and Fiji-born men sixty-five and over, their participation rate was about 50 per cent above that for all US men sixty-five and over.

Fiji-born women sixteen and over had a much higher participation rate (63 per cent) than all US women (50 per cent). The rate for Tonga-born women was about five points above the US average and that for Samoan women about five points below. There were, however, differences among women by age. All island women 16-44

Table 11 Civilian labour force participation rate of Pacific island immigrants in the United States by age, sex, and country of birth, 1980

	All US	American Samoa	Country of birth		Western Samoa
			Fiji	Tonga	
Civilian labour force 1980: (participation rates %)					
Males					
All	73.3	73.0	84.6	85.8	66.5
16-44 years	81.2	..	86.5	87.5	67.2
45-65 years	80.8	..	83.6	85.8	69.7
65+ years	19.3	..	32.9	11.4	30.0
Females					
All	49.8	43.9	62.8	53.7	45.6
16-44 years	40.4	..	67.4	57.5	49.9
45-64	50.2	..	46.6	50.9	36.9
65+ years	8.2	..	-	-	4.8
Per cent employed					
Males					
16+ years	93.5	94.2	94.7	91.7	91.2
16-44 years	92.1	..	94.2	91.4	90.1
45-64 years	96.0	..	96.4	93.0	95.0
65+ years	94.8	100.0	100.0	100.0	100.0
Females					
16+ years	93.5	89.2	91.9	91.4	89.9
16-44 years	92.6	..	91.6	91.0	89.7
45-64 years	95.6	..	94.7	93.1	90.5
65+	93.8	na	na	na	na
Per cent unemployed					
Males					
16+ years	6.5	5.8	5.3	8.3	8.8
16-44 years	7.9	..	5.8	8.6	9.9
45-64 years	4.0	..	3.6	7.0	4.1
65+ years	5.2	na	na	na	na
Females					
16+ years	6.5	10.7	8.6	10.1	8.1
16-44 years	7.4	..	8.4	9.0	10.3
45-64 years	4.4	..	5.3	6.9	9.5
65+ years	6.2	na	na	na	na

Source: United States Bureau of the Census, unpublished tabulations.

years were more likely to be in the labour market than all US women while those forty-five years and over were less likely to be in the labour market.

These rates of labour force participation were, in general, considerably higher than those recorded by fellow migrants to American Samoa and non-migrants in the home countries. The participation rates for American Samoan, Tongan, and Western Samoan males in American Samoa in 1980 were 56 per cent, 59 per cent, and 52 per cent respectively. For women the rates were 37 per cent, 23 per cent and 34 per cent. In Tonga in 1976 the male participation rate was 72 per cent and the female rate 14 per cent. In Western Samoa in 1981, these rates were 79 per cent and 15 per cent. In Fiji in 1982 the participation rate of males was 86 per cent and that of females 21 per cent (Bienefeld 1984:178). These results are consistent with the assertion that labour market attachment and earnings are the prime motivators of migration.

In 1980, Tonga-born and Western Samoa-born males and all island-born females had higher unemployment rates than the US averages. Fiji-born and American Samoa-born males had an unemployment rate about a point lower than the US average. The patterns were similar for age-sex groups. The unemployment rates recorded for migrants were, in general, lower than those recorded in their home countries and among fellow migrants in American Samoa in 1980. The unemployment rates for males and females in Tonga in 1976 were 12 per cent and 18 per cent respectively. In Fiji in 1982 the rates were 5 per cent and 14 per cent (Bienefeld 1984:128 and 153). The unemployment rate for American Samoans in American Samoa was 13.1 per cent (Filiga and Levin 1987). The rate for Western Samoans in American Samoa was three or four times as high. Filiga and Levin (1987) found that the unemployment rates reported in the 1980 census of American Samoa were severely biased down by classification errors.

Thus migrants to the United States experienced lower rates of unemployment in the United States in 1980 than non-migrants in the home populations. In addition, their rates of unemployment were much lower than fellow migrants in American Samoa.

Whereas Table 11 reports the labour force status of respondents at the time of the

Census in 1980, Table 12 reports the labour force experience of respondents over the entire year, 1979. In some respects this may be a better representation of the labour market experience of respondents.

In 1979, 98.3 per cent of all those in the US labour force worked at some time in 1979. The figure for all immigrants was a little less at 96.5 per cent. All island male groups and Fiji-born females were slightly above the average for all immigrants but below the US average. About 60 per cent of US workers worked 50–52 weeks in 1979. Thirteen per cent worked 40–49 weeks and 27 per cent worked 1–39 weeks. Among all immigrants 51 per cent worked 50–52 weeks, 17 per cent 40–49 weeks and 33 per cent 1–39 weeks. Roughly 65 per cent of Tonga-born and Western Samoa-born males worked 50–52 weeks, more than all migrants and US workers. Fiji-born males had a lower incidence of year-round work and a higher incidence of working 40–49 weeks.

All island-born female groups had a lower incidence of working forty or more weeks in 1979 and a higher incidence of working 1–39 weeks than all immigrants and all US workers.

In 1979, 19 per cent of US workers experienced unemployment at some time during the year. The incidence was considerably higher among immigrants — 26 per cent. All island-born groups except Western Samoa-born males had a higher incidence of unemployment than all US workers and all groups bar Western Samoan and Fijian males and Tongan women had a higher incidence than all immigrants. The average duration of unemployment in the United States in 1979 was fourteen weeks. The duration of unemployment among Tonga-born and Western Samoa-born males was similar to the US average while the duration was shorter for Fiji-born males and Tonga-born and Fiji-born females. Only Western Samoa-born women had a much longer duration — almost twenty weeks.

The largest class of workers in the United States in 1980 was that of private wage and salary workers (Table 13). three workers in four were in this class. For all migrant groups other than American Samoa-born, eight or nine out of ten workers were private wage and salary workers. Tonga-born males and females were less likely than other workers

Table 12 Labour force status of Pacific Island immigrants in the United States, by sex and country of birth, 1979

	Country of birth		
	Fiji	Tonga	Western Samoa
Males, 16 years and over in labour force in 1979	2,724	2,025	4,117
Worked in 1979	2,659	1,958	4,010
50-52 weeks	1,535	1,246	2,629
40-49 weeks	534	298	530
1-39 weeks	590	414	851
With unemployment in 1979	628	551	806
Mean weeks of unemployment in 1979	12.2	14.3	14.0
Percentages			
Worked in 1979	97.6	96.7	97.4
50-52 weeks	57.7	63.6	65.6
40-49 weeks	20.1	15.2	13.2
1-39 weeks	22.2	21.1	21.2
With unemployment in 1979	23.1	27.2	19.6
Females, 16 years and over in labour force in 1979	1,959	1,124	2,581
Worked in 1979	1,901	1,054	2,355
50-52 weeks	825	575	1,025
40-49 weeks	370	157	370
1-39 weeks	706	322	960
With unemployment in 1979	618	268	817
Mean weeks of unemployment in 1979	13.0	13.3	19.6
Percentages			
Worked in 1979	97.0	93.8	91.2
50-52 weeks	43.4	54.6	43.5
40-49 weeks	19.5	14.9	15.7
1-39 weeks	37.1	30.6	40.8
With unemployment in 1979	31.5	23.8	31.7

to be government employees and Samoan workers were much more likely to be government employees. The incidence of self-employment was relatively low among all island-born groups except Tonga-born males.

The percentages of American Samoa-born and Western Samoa-born who were employed by the government were much smaller than the corresponding percentages in American Samoa in 1980 (70 per cent and 34 per cent). Low percentages of tongans were employed by the government in the United States and in American Samoa (9 per cent). These percentages were lower than the percentage of government workers in Tonga in 1976. Tongans were the only group with much self-employment in both the United States and American Samoa.

In general then, island-born workers in the United States in 1980 were more likely to be private wage and salary earners than their fellow migrants to American Samoa in 1980 and non-migrants in their home countries. This could reflect either different preferences on the part of migrants or the greater availability of employment options outside the government sector.

Island-born immigrants in the United States in 1980 differed considerably from all US workers in their occupational distribution. In

Table 13 Class of Pacific Island immigrant worker in the United States by sex, and country of birth, 1980, 16 years and over (percentage)

	Country of birth				
	All U.S.	American Samoa ^a	Fiji	Tonga	Western Samoa
Private wage and salary					
Males	76.0	73.9	83.1	82.4	80.2
Females	75.0	nr	89.1	91.2	78.7
Government employee					
Males	14.5	24.4	11.6	7.2	17.3
Females	29.5	nr	10.0	6.5	19.4
Self-employed					
Males	9.2	1.5	4.9	10.4	2.2
Females	3.7	nr	0.9	1.5	1.7
Working without pay in family business					
Males	0.3	0.2	0.4	-	0.3
Females	0.8	nr	-	0.8	0.2

^a Data on males and females combined.

Source: United States Bureau of the Census, unpublished tabulations.

Source: United States Bureau of the Census, unpublished tabulations.

addition, island-born males and females differed considerably in the occupations they held.

One in four US male workers was employed in an executive, managerial or professional speciality occupation in 1980. By contrast, only one in ten island-born males was in an occupation of this kind. One in four US male workers was an operator, fabricator, or labourer compared to one in three island-born males. Island-born males were also more likely to be in agricultural and service occupations than other US workers.

It is often claimed that migration from the islands is selective of workers with technical skills. The data in Table 14 is consistent with this belief, as island-born males were just as likely as all US males to be employed in technical or skilled occupations. The per-

centage of Tongan and Western Samoan workers in the US in technical or skilled occupations was roughly three times as large as that in the home nations in 1976 and 1981 respectively. Their concentration in these occupations was also much greater in the United States than in American Samoa.

Migration is also selective of those with managerial skills, which are in extremely short supply in the Pacific (Hughes, Ahlburg and Lee 1986). Over 5 per cent of Western Samoa-born workers in the United States were classified as being in executive, administrative, or managerial occupations whereas only 1 per cent of males and 2 per cent of females were in these occupations in Western Samoa in 1981. The situation in Tonga was similar.

The data on occupational distributions presented in Table 14 and in Table 35 clearly shows that migrants from the Pacific island nations are more skilled than individuals in the home countries. In addition, those migrants who migrated to the United States were more skilled than those whose destination was American Samoa.

The distribution of island-born workers by industry differed from that for all US workers and within the island-born group there were significant differences by sex and place of birth (Table 15).

Tonga-born males were more likely to be employed in agriculture, forestry, and fisheries, construction, and personal services than all US workers and other island-born workers. They were less likely to be employed in wholesale and retail trade, finance, insurance and real estate, and public administration than these groups. Samoa-born and Fiji-born males were less likely to be in agriculture, construction and wholesale and retail trade, than all American workers but more likely to be employed in personal services and entertainment and recreation services than those workers. Western Samoa-born and Fiji-born males were more likely than all males to be in manufacturing and Fiji-born males were over-represented in finance, insurance and real estate and professional and related services.

Whereas males were more heavily concentrated in construction and manufacturing, females were concentrated in wholesale and retail trade, professional and

Table 14 Occupation of Pacific Island immigrants in the United States by sex and country of birth, 1980 (percentage)

Workers, 16 years and over	All U.S.	American Samoa ^a	Fiji	Tonga	Western Samoa
Executive administration and managerial					
Males	12.6	4.6	5.9	3.7	5.2
Females	7.4	-	5.4	4.4	5.6
Professional speciality					
Males	11.0	6.6	6.8	6.6	7.7
Females	14.1	-	4.1	4.4	8.3
Total technical sales and administrative support					
Males	19.0	24.1	21.8	8.0	14.2
Females	45.6	-	33.0	32.9	36.3
Total services					
Males	9.2	20.7	19.0	20.2	15.4
Females	17.9	-	35.4	31.9	21.5
Farm, forestry and fishing					
Males	4.3	1.2	5.4	10.1	2.8
Females	1.0	-	1.4	-	0.5
Precision production craft, and repairs					
Males	20.7	12.2	19.2	19.8	18.5
Females	2.3	-	2.5	3.8	7.0
Total operators, fabricators and labourers					
Males	23.2	30.7	21.9	31.6	36.1
Females	11.7	-	18.3	22.6	20.7

^a Data on males and females combined.

Source: United States Bureau of the Census, unpublished tabulations.

related services, and, to a lesser extent, manufacturing. Island-born female workers differed from the industrial distribution of all US female workers in that they were more likely to be employed in manufacturing and less likely to be employed in wholesale and retail trade and professional and related services. The employment distribution of Fiji-born women was closest to that for all US women while the distribution for Tonga-born women resembled it least.

The distribution of employment of island-born workers in the United States differs radically from that in their home countries. In Tonga in 1976, over half of those employed were in agriculture. Only 2 per cent were in manufacturing and 6 per cent in construction. In Western Samoa in 1981, 68 per cent of males were employed in agriculture and only 8 per cent in manufacturing and construction. The employment of Fijians in the United States differed from that of workers in Fiji in that a smaller percentage were involved in construction and five times the percentage were involved in finance, insurance, real estate, and business services. Only 5.5 per cent of workers in Fiji were employed in the latter areas in 1980 (United Nations 1982:152).

Thus island-born migrants in the United States in 1980 tended to be concentrated in industries that use skills—production or construction skills, and professional/technical or administrative/managerial skills—that are in short supply in the home countries (Hughes et al. 1986; Bienefeld 1984:26-39).

Education and language ability

The enrolment rates of Pacific islanders in 1980 by sex and age are reported in Table 16 and the years of schooling completed for those twenty years and over in Table 17.

Most of the 16-19 year olds enrolled were in high school while most of those twenty or over were enrolled in college or university. Enrolment rates for males were highest for Tonga-born migrants twenty-five years and over. For those under twenty-five about 25 per cent of Tongan and Fijian enrolled males aged 20-24 were in college and about 73 per cent in high school. Sixty-four per cent of Western Samoa-born enrolled males were in high school and about 20 per cent of males aged 20-24 were in college. At older ages (twenty-five and over) a larger percentage of

Table 15 Employment of Pacific Island immigrants in the United States by industry, sex, and country of birth, 1980 (percentage)

Workers, 16 years and over	All U.S.	Country of birth		
		Fiji	Tonga	Western Samoa
Agriculture, forestry, and fisheries				
Males	4.3	3.2	11.2	2.7
Females	1.3	1.1	-	0.2
Mining				
Males	1.6	-	0.6	0.6
Females	0.3	0.5	-	-
Construction				
Males	9.4	2.7	13.8	6.4
Females	1.2	1.1	1.4	1.1
Total manufacturing				
Males	26.6	29.4	22.7	31.0
Females	16.8	18.3	25.3	23.6
Transportation, communication and utilities				
Males	9.5	6.7	9.6	11.8
Females	4.2	3.7	1.2	4.2
Wholesale and retail trade				
Males	19.3	18.5	13.4	15.6
Females	21.9	17.0	10.1	16.2
Finance, insurance and real estate				
Males	4.4	6.7	1.7	2.8
Females	8.2	10.0	3.8	8.1
Business and repair services				
Males	4.8	5.2	3.0	4.5
Females	3.3	3.7	6.0	3.2
Personal services				
Males	1.6	5.0	6.5	3.6
Females	5.2	10.4	21.3	5.9
Entertainment and recreation services				
Males	1.1	3.4	3.8	4.7
Females	1.0	1.9	4.0	3.9
Professional and related services				
Males	11.9	16.0	11.9	9.9
Females	31.6	29.5	23.3	27.6
Public administration				
Males	5.4	3.3	1.7	6.4
Females	5.1	2.9	3.6	6.2

Source: United States Bureau of the Census, unpublished tabulations.

Western Samoans than Fijians were in college.

The pattern for females was roughly the same as that for males. The main exception

is that Fijian females aged 20–24 were least likely of the three groups to be in college whereas Fijian males of the same age were the most likely to be in college. The enrolment rates of island-born females tended to be about five points below that of males for all ages except 20–24 years for Tonga-born and Western Samoa-born where the rates were equal, and 25–29 year-old Fiji-born females whose enrolment rate was two points higher than that of Fiji-born males.

In Western Samoa in 1981, 65 per cent of boys and girls aged 15–19 were attending school (Government of Western Samoa 1983:36). This rate is slightly above the rates for Western Samoa-born boys and girls in the

Table 16 Educational characteristics of Pacific island immigrants in the United States by age, sex, and country of birth, 1980

Currently attending school	Country of birth		
	Fiji	Tonga	Western Samoa
Males			
16 years and over	499	386	846
16–19 years	257	141	300
20–24 years	100	78	189
25–29 years	56	70	118
30 years and over	86	97	239
As percentage of age group			
16 years and over	16.2	16.6	16.5
16–19 years	72.6	72.3	64.1
20–24 years	23.2	19.7	24.4
25–29 years	10.7	17.0	14.0
30 years and over	4.8	7.0	8.3
Females			
16 years and over	410	295	701
16–19 years	184	146	371
20–24 years	107	78	155
25–29 years	80	34	75
30 years and over	39	37	100
As percentage of age group			
16 years and over	13.4	15.2	13.9
16–19 years	66.2	67.3	61.7
20–24 years	17.6	25.5	20.2
25–29 years	12.5	10.9	10.4
30 years and over	2.6	3.4	3.4

Source: United States Bureau of the Census, unpublished tabulations.

United States. In 1981 only 34 per cent of Fijian 15–19 year olds were full-time students (Bienefeld 1984:79). Thus it does not appear that high school attendance was a particularly strong motivation for migration except, perhaps, in the case of Fiji. If it were, one would expect to see a higher high school enrolment rate among those in the United States. However, it does appear that college attendance may be a motivating factor in migration. The highest rate of post-secondary school attendance among Western Samoans in Western Samoa in 1981 was 5 per cent for males 30–39 years. From Table 16 it is clear that post-secondary attendance among island-born males and females exceeds this level for all groups except women thirty years and over. Thus as Connell (1984c) has noted, 'the characteristics and location of education result in considerable migration, especially of those who have already graduated from high school'. Lyons (1980) found that of 233 American Samoans surveyed in Hawaii, seventy stated that the principal reason for migration was a better education for themselves, their children, or another family member. Connell (1984c) cites similar survey evidence. However, it is possible that migration and education are both causally related to another factor, say motivation or drive, rather than migration being caused by education. If this were the case, people who migrate would have achieved higher levels of education than non-migrants even if they had not migrated. Connell (1984c) seemed to be hinting at this selectivity problem when he concluded, 'it is equally probable...that an educational rationale for migration disguised another reason for migration (perhaps an unrealized desire for better employment)'. Although it is likely that selectivity plays some part, the great differences between college enrolment rates of island-born in the United States and in Western Samoa, support a case for college education as motivating migration.

Table 17 reports completed education of Pacific islanders by age and sex. A larger percentage of island-born individuals terminated their education at the lowest level than did all Americans. The percentage of Tonga-born and Western Samoa-born males whose terminal level of education was 0–4 years of elementary education was twice that of all American males. The percentage of

Table 17 Years of schooling completed by Pacific island immigrants to the United States by age, sex, and country of birth, 1980 (percentage)

	Country of birth					Country of birth			
	All US	Fiji	Tonga	Western Samoa		All US	Fiji	Tonga	Western Samoa
Elementary, 0-4 years					High school 1-4 years				
Males, 20 years and over	2.5	9.2	5.3	4.4	Males, 20 years and over	32.8	22.8	33.5	39.9
20-24	0.5	1.0	2.7	1.5	20-24	42.8	40.5	30.4	46.8
25-29	1.2	1.0	5.8	1.7	25-29	36.6	27.0	39.1	45.9
30-34	1.4	5.9	-	1.0	30-34	32.1	15.8	37.0	39.6
35-44	2.0	8.2	8.3	4.4	35-44	35.5	19.4	30.1	41.1
45-64	4.2	25.1	8.2	10.7	45-64	31.4	17.7	34.1	30.3
65+	10.0	29.1	9.1	23.8	65+	19.1	7.6	15.9	9.1
Females, 20 years and over					Females, 20 years and over				
20-24	3.0	14.9	6.8	5.6	20-24	38.4	28.3	39.6	40.6
25-29	0.8	6.7	2.6	-	25-29	43.0	42.4	44.9	54.6
30-34	1.0	2.5	1.6	1.1	30-34	41.4	28.8	43.8	49.5
35-44	1.2	6.1	2.8	0.9	35-44	42.1	30.9	43.7	49.9
45-64	1.6	21.9	4.6	2.8	45-64	44.4	21.1	37.4	33.8
65+	3.2	38.2	16.7	11.1	65+	40.2	17.2	31.9	27.9
	7.7	62.9	24.4	45.2		23.0	7.1	32.6	12.5
Elementary 5-8 years					College, 1-3 years				
Males, 20 years and over	13.1	20.7	10.2	9.1	Males, 20 years and over	18.0	18.5	23.7	20.1
20-24	3.5	5.1	2.7	4.4	20-24	29.4	28.3	39.9	31.1
25-29	3.9	17.0	10.0	5.5	25-29	24.1	30.4	28.2	25.4
30-34	4.9	17.8	4.1	4.1	30-34	23.1	22.4	33.3	20.5
35-44	8.2	28.2	15.1	10.8	35-44	17.2	14.6	15.3	14.4
45-64	17.2	28.6	11.8	15.9	45-64	12.6	4.0	8.5	12.2
65+	35.8	17.7	45.5	37.8	65+	8.3	-	-	-
Females, 20 years and over					Females, 20 years and over				
20-24	13.2	18.6	12.4	13.5	20-24	17.4	14.1	15.5	16.3
25-29	3.1	5.3	7.5	2.5	25-29	31.4	17.9	21.3	25.6
30-34	3.5	14.4	1.9	9.8	30-34	22.8	19.6	18.2	26.1
35-44	4.5	28.0	15.1	7.0	35-44	21.0	12.3	20.1	14.5
45-64	6.8	29.4	11.3	15.5	45-64	17.0	9.8	16.7	15.3
65+	15.0	19.9	27.8	20.1	65+	12.6	10.4	6.7	5.1
	34.1	17.1	33.7	23.8		9.7	-	5.2	-
High school 1-3 years					College, 4 or more years				
Males, 20 years and over	14.3	13.6	13.7	18.1	Males, 20 years and over	18.4	15.2	13.5	8.4
20-24	14.7	15.1	20.2	13.2	20-24	8.6	10.0	4.2	3.0
25-29	10.5	7.6	6.1	11.5	25-29	23.6	17.0	10.9	10.0
30-34	9.2	19.9	11.4	19.2	30-34	29.2	18.1	14.1	15.6
35-44	12.8	10.3	13.8	20.3	35-44	24.3	19.3	17.3	9.1
45-64	17.5	14.1	19.6	24.8	45-64	17.1	10.5	17.8	6.2
65+	17.2	38.0	11.4	26.6	65+	9.9	7.6	18.2	2.8
Females, 20 years and over					Females, 20 years and over				
20-24	15.7	16.1	17.0	21.1	20-24	12.4	7.9	8.7	3.0
25-29	12.6	23.3	19.7	16.4	25-29	9.3	4.4	3.9	0.9
30-34	10.8	20.0	20.1	10.7	30-34	20.5	14.7	14.4	2.8
35-44	11.0	15.5	6.7	22.0	35-44	20.2	7.2	11.6	5.6
45-64	15.2	10.4	20.5	29.8	45-64	14.9	7.4	9.5	2.8
65+	19.7	9.7	18.4	25.2	65+	9.3	4.3	6.4	3.0
	18.3	4.3	9.3	11.3		7.2	8.6	-	2.0

Source: US Bureau of the Census, unpublished tabulations.

Fijian males was four times the national average. This relationship holds across all age groups. The same is true for females with the difference being more marked among women over forty-five years of age.

The percentage of males and females born in Tonga and Western Samoa whose terminal level of education was 5–8 years of elementary education was a little below the US percentage, and that for Fiji-born was about 50 per cent above it. The percentages of island-born males and females twenty years and over who terminated their education with 1–3 or 4 years of high school was roughly equal to the US percentage. There were some differences by age, mainly lower percentages for older Fiji-born individuals.

The percentages of island-born males who completed 1–3 years of college were a little higher than the US figure—about one in five. About 15 per cent of island-born women completed 1–3 years of college, a few points below the rate for all US women over twenty. The differences for women were most marked at younger ages (20–35 years).

A second major difference in educational attainment between island-born immigrants and all US residents was the smaller percentage of island-born males and females who completed college. Eighteen per cent of US males and 12 per cent of US females completed college. Roughly 15 per cent of Tonga-born and Fiji-born males completed college while only 8 per cent of American Samoa-born men completed college. About 8 per cent of Fiji-born and Tonga-born women completed college but only 3 per cent of Western Samoa-born women.

The distribution of educational attainment for Pacific island-born immigrants in the United States in 1980 appears to have differed from the distribution for all Americans by having a larger percentage of individuals with little education and a smaller percentage with a college degree. These differences and the strong link between education and earnings (Lazer 1977) may explain the lower incomes of islanders (Tables 8 and 9). However, the relatively low levels of educational attainment reported by Fijians seem to be inconsistent with their distribution of income reported in these tables.

Although the levels of educational attainment reached by island-born immigrants were below those of all US residents they far exceeded levels attained in the home populations. Whereas only 16 per cent of Tongans aged twenty-five or over in 1976 had completed at least Form 4 of high school, about 70 per cent of those twenty years and over in the United States had at least completed high school. In Western Samoa in 1981, 26 per cent of those fifteen years and over had attended at least Form 4 of high school. In 1980 about 70 per cent of Western Samoans in the United States had at least completed high school. The levels of educational attainment of the island-born in the United States also exceeded those of the island-born groups in American Samoa. For example, the percentages of those with at least some college education were four times the percentages of those in American Samoa.

Connell (1984c) argued that Pacific islanders in the United States are concentrated in 'blue-collar' occupations (as Table 14 seems to suggest) and that this may be 'a function of limited skills and English language ability' and a desire to 'earn money quickly'. Levin (1984:7) also stated that the level of English proficiency among Samoans may be 'inadequate for employment purposes in the United States'.

These conjectures are consistent with a recent empirical study by Kossoudji (1988). Kossoudji found that the inability to speak English imposed a real cost on some immigrant workers to the United States, both by decreasing observed earnings and by altering occupational opportunities. In general, immigrants who did not speak English were pushed down the occupational ladder. The effects did differ by ethnic group.

The data reported in Table 18 shows that the proficiency of island-born migrants in the English language was lower than that of all US residents but far greater than that of all immigrants. Thus deficiencies in language proficiency may explain the heavier concentration of islanders in blue collar occupations relative to the whole population but cannot explain why islanders are more prevalent in these occupations than all immigrants (Table 14).

Relatively few Pacific islanders spoke only English at home—no more than one in

Table 18 Language usage and ability to speak English of Pacific Island immigrants in the United States by age, sex, and country of birth, 1980, (percentage)

	All U.S. ^a	American Samoa ^a	Country of birth Fiji	Tonga	Western Samoa
Speak only English at home					
Males					
5 years and over	89.0	16.0	8.6	5.5	7.9
35 years and over	nr	nr	9.4	15.1	6.4
Females					
5 years and over	nr	nr	8.5	1.4	8.2
35 years and over	nr	nr	11.4	4.5	7.3
Speak English well or very well					
Males					
5 years and over	89.6	49.9	79.3	72.4	81.1
35 years and over	nr	nr	80.1	65.0	77.3
Females					
5 years and over	nr	nr	74.9	71.4	75.4
35 years and over	nr	nr	51.8	53.5	36.0
Do not speak English					
Males					
5 years and over	0.6	12.9	0.5	1.1	0.7
35 years and over	nr	nr	0.7	17.1	1.3
Females					
5 years	nr	nr	2.9	1.0	2.6
35 years and over	nr	nr	9.6	15.9	6.4

^a Data on males and females combined.

Source: US Bureau of the Census, unpublished tabulations.

ten — whereas only one in ten US residents in 1980 spoke a language other than English at home. Eighty per cent of Western Samoan and Fijian males and 75 per cent of Western Samoan and Fijian females spoke English well or very well, about 8 per cent more than for Tongans. The level of language proficiency for Western Samoan and Fijian males was independent of age but the proficiency of Tonga-born males thirty-five years and over was seven percentage points lower than that for males five years and over. The English proficiency of females thirty-five years and over was roughly half that of males and younger females. Relatively few islanders spoke no English, except for Tongans thirty-five years and older among whom two in ten spoke no English, and Western Samoan and Fijian females among whom one in ten spoke no English.

The self-reported English language proficiency of island-born migrants was lower

than that of all US residents but superior to that of all immigrants. Thus language deficiencies may partly explain the heavier concentration of island-born workers in blue collar occupations and their higher incidence of unemployment than all US workers but cannot explain why they suffered in comparison with all immigrants, whose language deficiencies were even greater.

In summary, males outnumbered females among Tonga-born and Western Samoa-born migrants to the United States. The balance in favour of males was larger than in migration to American Samoa. Pacific island migrants to the United States were more likely to be married than all US residents and residents of their country of origin. Their fertility was higher than that of all US residents but lower than that of the home country residents.

Income of immigrants from Tonga and Western Samoa was less than the US average in 1980 while that of immigrants from Fiji

was somewhat higher. Income of island-born migrants to the US was twice that of immigrants to American Samoa and five to ten times that of the home populations. Because of larger household size, income per capita of Pacific island households was much less than that for all US households. As a consequence the incidence of poverty among Tonga-born and Western Samoa-born immigrants was about twice the national level. Poverty among Fijians was similar to the national level.

Island-born immigrants had education levels below the US average but above those of migrants to American Samoa and the home populations. They had higher labour-force participation rates than the US average and were more likely than all workers to be year-round full-time workers. However, they had higher unemployment rates in 1980 and a higher incidence of unemployment in 1979 than all US workers. Their unemployment rates were lower than immigrants to American Samoa and lower than those in their home countries. Island-born workers were more likely to be concentrated in lower-skilled occupations and had poorer English language skills than the average US worker.

Analysis of migration to the United States by year of immigration

The above analysis does not distinguish new immigrants from those who have been in the United States for some time and thus may obscure differences among cohorts of immigrants by year of immigration. Analysis by year of immigration may also shed some light on the degree to which Pacific islanders have assimilated into the mainstream of American life. In a recent study of Hispanics in the United States O'Hare (1989) used assimilation (otherwise known as acculturation, integration, or adaptation) to mean socio-economic parity. This definition of assimilation will be used to examine to what extent Pacific islanders assimilate as time in the United States increases. It should be stressed that here economic and social integration is addressed and not the extent to which immigrants adopt the behaviour and psychological norms of the United States.

When examining data classified by year of immigration, the reader should be aware that this data applies to the characteristics of

migrants resident in the United States at the time of the Census in 1980. Age of the migrant refers to age in 1980, not age at immigration, and the income and labour force characteristics are of those migrants who have remained in the United States (or, if they have left in the interim, returned and were present in 1980). Thus the characteristics of migrants who immigrated before 1980 probably overstate the characteristics of all migrants in these years, since those who 'failed' in the United States would have returned home or possibly migrated elsewhere. As a consequence the data will tend to over- or underestimate the differences between immigrants in earlier years and current immigrants.

Three features of the data on migration by age and year of immigration reported in Table 19 are of note. First, immigration of young working-age individuals dominates. Second, relatively few immigrants are over sixty-five years of age, except for Fiji-born in the most recent migrant cohort. Third, about 25 per cent of Tonga-born and 35 per cent of Western Samoa-born immigrants are children. Among the Fiji-born, the percentage of immigrants who are children seems to have doubled in the most recent cohort. This data seems to indicate a difference between the most recent cohort of Fiji-born immigrants and previous cohorts from Fiji.

The marital status of migrants is presented in Table 20 and their fertility in Table 21. Not surprisingly, perhaps, the proportions of Tonga-born and Samoa-born males and females who were married increased with the time since immigrating to the United States. The proportion married for Fiji-born immigrants varied relatively little, again supporting the importance of migration of families among Fijians. Among the most recent cohort of migrants (1975-80) 70 per cent of Fiji-born were married, only half the Tonga-born or Samoa-born women were married, and 60 per cent of Tonga-born men and 44 per cent of Samoa-born men were married. From the data it seems that most who will marry do so within five years of immigrating.

For all Fiji-born women over fifteen years of age average number of children born was around 2.1 for all immigrant cohorts. However there were some differences by age. Average number of children was lower

Table 19 Immigration to the United States by age and sex, from Fiji, Tonga and Western Samoa as a percentage of total immigrants in period

	1975-80	Years of Immigration		Before 1964
		1970-74	1965-69	
Fiji				
All ages				
≤ 14 years	25.0	5.8	3.4	-
15-34 years	49.9	70.0	51.0	32.4
35-64 years	21.1	25.7	44.5	63.4
65+ years	4.0	1.5	1.1	4.2
Female				
≤ 14 years	25.0	10.8	2.1	-
15-34 years	53.0	75.0	59.1	45.4
35-64 years	18.3	14.2	38.8	52.0
65+ years	3.7	-	-	2.6
Tonga				
All ages				
≤ 14 years	25.7	21.8	22.5	-
15-34 years	48.6	41.4	39.2	16.9
35-64 years	25.7	35.9	36.3	75.4
65+ years	-	1.0	2.0	7.7
Female				
≤ 14 years	28.3	27.4	18.0	-
15-34 years	50.5	36.0	48.9	-
35-64 years	21.2	34.5	29.5	95.2
65+ years	-	2.1	3.6	4.8
Western Samoa				
All ages				
≤ 14 years	34.2	23.4	8.8	-
15-34 years	50.5	58.4	59.5	33.1
35-64 years	13.7	15.6	29.3	60.4
65+ years	1.6	2.6	2.4	6.5
Female				
≤ 14 years	35.9	24.3	8.8	-
15-34 years	45.5	57.6	52.9	37.7
35-64 years	15.9	15.9	34.4	55.5
65+ years	2.7	2.2	3.9	6.8

Source: United States Bureau of the Census, unpublished tabulations.

for young women (15-24 years) in more recent cohorts whereas it was significantly higher for women over thirty-five years of age. Among young Tonga-born and Samoa-born women fertility was also lower in the more recent cohorts, as it was for Tonga-born women 25-34 years. For Tonga-born women over thirty-five years fertility was higher in more recent cohorts of women. The pattern was similar but less distinct among women born in Western Samoa.

Median and mean household incomes rise with time since immigration for households headed by individuals born in Fiji, Tonga, or Western Samoa. The gradient is not very steep except for households headed by individuals in the most recent cohort of immigrants born in Tonga (Table 22). This difference may be overestimated since the income of those who immigrated in 1980 is income earned in country of residence in 1979 which, in general, was below the income that would have been earned in the

Table 20 Marital status of Pacific Island immigrants in the United States, by years of immigration, sex, and country of birth (percentage)

	Years of Immigration			
	1975-80	1970-74	1965-69	Before 1964
Fiji				
Males (15 years and over)				
Single	29.9	24.1	27.2	12.9
Married	68.5	69.5	67.3	77.3
Separated	0.9	4.6	0.7	-
Widowed	0.3	-	0.9	2.3
Divorced	0.5	1.7	3.9	7.6
Females (15 years and over)				
Single	22.1	9.5	19.2	7.1
Married	71.2	82.2	66.4	70.0
Separated	0.1	0.7	2.1	-
Widowed	2.9	1.0	5.1	5.7
Divorced	3.3	6.5	7.2	17.2
Tonga				
Males				
Single	33.2	16.8	8.0	8.2
Married	62.0	77.8	83.1	85.8
Separated	1.1	4.6	2.4	-
Widowed	1.0	0.2	-	-
Divorced	2.7	1.6	6.5	6.0
Females				
Single	40.7	17.8	10.9	11.1
Married	46.5	76.1	76.1	74.7
Separated	1.4	0.6	-	5.1
Widowed	6.9	4.2	-	9.1
Divorced	4.4	1.3	12.9	-
Western Samoa				
Males				
Single	51.0	28.2	28.3	14.6
Married	44.0	68.1	67.3	76.3
Separated	1.9	0.7	1.1	3.6
Widowed	-	2.1	0.4	1.3
Divorced	3.1	0.9	2.9	4.1
Females				
Single	35.8	25.1	16.2	11.3
Married	51.2	59.8	67.8	71.2
Separated	5.2	4.5	4.0	3.1
Widowed	4.2	5.1	4.4	9.3
Divorced	3.6	5.4	7.6	5.1

Source: United States Bureau of the Census, unpublished tabulations.

United States in 1979. Whereas the median income of households headed by Tonga-born individuals who have been in the United States more than five years was above that of all US households in 1980, this was not the case for households headed by

individuals born in Western Samoa. As noted earlier, households headed by individuals born in Tonga or Western Samoa had lower incomes per capita than all US and all immigrant households. This holds true no matter when the household head entered the

Table 21 Fertility (average number of children ever born per woman) of Pacific Island immigrants in the United States, by age, country of birth, and year of immigration

	1975-80	Years of Immigration		
		1970-74	1965-69	Before 1964
Fiji				
All women 15 years and over	2.1	2.0	2.0	2.2
15-24 years	0.3	0.4	0.5	0.9
25-34 years	1.9	1.7	1.2	1.9
35-44 years	3.5	3.3	2.7	2.1
45-49 years	3.7	4.9	2.3	3.2
50+ years	7.0	5.0	6.2	3.1
Tonga				
All women 15 years and over	2.6	3.1	2.7	4.9
15-24 years	0.3	0.5	1.0	1.3
25-34 years	2.0	2.7	2.5	4.0
35-44 years	5.0	3.8	2.7	4.1
45-49 years	5.0	3.1	4.4	4.5
50+ years	6.5	6.7	6.0	7.8
Western Samoa				
All women 15 years and over	2.5	2.6	3.2	3.6
15-24 years	0.5	0.7	0.6	0.9
25-34 years	2.7	2.2	2.6	2.6
35-44 years	4.7	4.0	4.8	4.3
45-49 years	6.7	6.5	5.5	5.4
50+ years	5.6	6.8	5.9	5.1

Source: United States Bureau of the Census, unpublished tabulations.

Table 22 Household income of Pacific Island immigrants in the United States, by years of immigration and country of birth, 1979 (US\$)

	1975-80	Years of immigration		Before 1964
		1970-74	1965-69	
Fiji				
Median income	17,370	18,968	20,817	19,450
Mean income	19,645	20,653	22,827	25,623
Per capita	4,530	5,108	6,225	6,587
Tonga				
Median income	11,310	18,557	18,688	23,958
Mean income	13,654	19,955	20,431	23,499
Per capita	2,857	3,910	3,716	4,776
Western Samoa				
Median income	11,348	13,210	14,332	16,219
Mean income	12,142	14,607	16,623	18,548
Per capita	2,489	2,951	3,120	3,578

Source: United States Bureau of the Census, unpublished tabulations.

United States. Their very low household income per capita can be attributed to low household income in addition to larger household size. For households headed by individuals born in Fiji or Tonga, income per capita is below the US average because household size is above average.

Income by gender, work status, and year of immigration is shown in Table 23. The data indicates that for both men and women of Pacific island birth, income per capita was higher the longer the individual had been in the United States. For Tonga-born males the income of the newest cohort was much lower than that of cohorts of older residence than was the case for other place-of-birth groups or Tonga-born females. For example the income of Fiji-born male full-time workers in the 1975-80 cohort was 85 per cent of that of the equivalent 1970-74 cohort. For those born in Tonga the corresponding figure was 64 per cent.

Much lower percentages of more recent immigrants were not full-time workers but this may reflect the fact that they were relatively younger with more alternative uses of time (school, child-bearing) than older individuals.

The poverty status of families headed by individuals born in the Pacific islands is shown in Table 24. For all place-of-birth groups the percentage of families in poverty declines with the length of residence in the United States (assuming selectivity of return migration is not strongly negatively related to income). The most recent immigrant cohorts from Tonga and Western Samoa exhibited particularly high levels of poverty in 1980, three times the national level and 50 per cent above that for all immigrant families. Poverty among families headed by a Fiji-born or Tonga-born individual who entered the United States in 1965 or before was at or below the national level but poverty was more widespread among all families headed by an individual born in Western Samoa, no matter how long the head of household had resided in the United States, than among all US families.

There are virtually no differences in the labour force participation rates among the different immigration cohorts of Tonga-born individuals (Table 25). However, the most recent cohort of Western Samoa-born males and females has lower participation rates

irrespective of age, whereas only older (over forty-five years) Fiji-born individuals in the most recent cohort have markedly lower participation rates.

The most recent cohort of Fiji-born males had a lower unemployment rate than the US average in 1980 and the rate for females was only slightly higher. Fluctuations by age and year of immigration were large but not systematic. In contrast, the unemployment rates for those born in Western Samoa and males born in Tonga were consistently higher the shorter the residence in the United States. Unemployment rates were very high among all Western Samoa-born immigrants who entered the United States after 1964. A consistent pattern emerges from Table 26 on the labour force status of immigrants in 1979. For males and females of all place of birth groups, the most recent immigration cohort was more likely to experience some unemployment and less likely to work full time than were earlier cohorts.

The occupational distribution of workers by sex, place of birth, and year of immigration is shown in Table 27. For males, the more recent the cohort, the more likely the worker was to be in a less skilled rather than a more highly skilled occupation. Fiji-born males who were more recent immigrants were less likely to be in executive, managerial, and professional occupations and more likely to be operators or labourers. Tonga-born males were less likely to be in precision production and craft occupations and more likely to be in service, operator, or labourer occupations. The occupational distribution for immigrants from Western Samoa shows little change across year of immigration. These differences imply that some skills may be acquired overseas.

There are some differences across year of immigration cohorts in industrial distribution and class of worker. The most marked of these are a larger percentage of the most recent cohort of Fiji-born and Tonga-born males and females in manufacturing and females in services. Relatively fewer Tonga-born females were in wholesale and retail trade. In contrast a higher percentage of the most recent immigrants born in Western Samoa were found in wholesale and retail trade. More recent immigrants were less likely to be in government employment and more likely to be private wage and salary workers.

Table 23 Income of Pacific Island immigrants in the United States, by sex, work status, years of immigration, and country of birth, 1979

	1975-80	Years of Immigration		
		1970-74	1965-69	Before 1964
Fiji				
Males				
Median Income (US\$)	9,174	11,110	12,774	17,420
Median Income of year-round full-time worker (US\$)	12,385	14,488	14,412	18,572
Per cent, year-round full-time worker	47.8	48.3	63.2	47.8
Females				
Median Income (US\$)	4,712	6,006	7,880	6,746
Median Income of year-round full-time worker (US\$)	8,299	8,341	8,989	12,965
Per cent, year-round full-time worker	29.5	38.8	40.7	29.7
Tonga				
Males				
Median Income (US\$)	7,263	12,103	12,061	16,816
Median Income of year-round full-time worker (US\$)	9,127	14,317	13,255	17,313
Per cent, year-round full-time worker	48.5	58.9	60.6	73.9
Females				
Median Income (US\$)	4,203	6,295	6,471	5,402
Median Income of year-round full-time worker (US\$)	6,737	8,630	9,688	9,531
Per cent, year-round full-time worker	32.0	46.2	61.1	27.1
Western Samoa				
Males				
Median Income (US\$)	6,782	9,086	10,376	12,477
Median Income of year-round full-time worker (US\$)	9,930	10,453	12,583	15,168
Per cent, year-round full-time worker	49.4	63.5	60.4	55.4
Females				
Median Income (US\$)	4,081	4,957	5,272	5,357
Median Income of year-round full-time worker (US\$)	6,875	8,253	7,314	9,849
Per cent, year-round full-time worker	19.8	30.7	30.1	32.4

Source: United States Bureau of the Census, unpublished tabulations.

Table 24 Poverty status of Pacific island families in the United States, by years of immigration, 1980

	1975-80	Years of immigration		Before 1964
		1970-74	1965-69	
Fiji				
Per cent below poverty line	14.6	11.8	5.3	8.2
Per capita income (US\$)	4,676	5,183	6,161	7,239
Tonga				
Per cent below poverty line	28.7	15.9	9.6	na
Per capita income (US\$)	2,831	3,709	3,681	5,250
Western Samoa				
Per cent below poverty line	38.3	27.2	24.4	17.7
Per capita income (US\$)	2,477	3,030	3,035	3,792

Source: United States Bureau of the Census, unpublished tabulations.

Table 25 Civilian labour force participation rate of Pacific island immigrants in the United States, by age^a, sex, country of birth and years of immigration, 1980 (percentage)

	1975-80	Years of immigration		Before 1964
		1970-74	1965-69	
Fiji				
Civilian labour force				
Males 16+ years	80.9	88.1	90.8	83.3
16-44 years	83.6	89.0	92.5	83.6
45-64 years	75.2	87.6	94.7	87.4
65+ years	15.6	65.2	na	50.0
Females 16+ years	60.7	67.9	63.8	59.9
16-44 years	65.5	72.2	68.2	63.6
45-64 years	38.3	44.7	48.2	62.8
65+ years	na	na	na	na
% employed				
Males 16+ years	95.3	91.2	100.0	90.5
16-44 years	94.5	92.2	100.0	84.8
45-64 years	100.0	84.9	100.0	100.0
65+ years	100.0	100.0	na	100.0
Females 16+ years	92.5	86.3	93.5	100.0
16-44 years	93.0	85.5	92.7	100.0
45-64 years	87.0	94.7	100.0	100.0
65+ years	na	na	na	na
% unemployed				
Males 16+ years	4.7	8.8	na	9.5
16-44 years	5.5	7.8	na	15.2
45-64 years	na	15.1	na	na
65+ years	na	na	na	na

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Table 25 Continued

	1975-80	Years of Immigration		
		1970-74	1965-69	Before 1964
Fiji (cont'd)				
Females 16+ years	7.5	13.7	6.5	na
16-44 years	7.0	14.5	7.3	na
45-64 years	13.0	5.3	na	na
65+ years	na	na	na	na
Tonga				
Civilian labour force				
Males 16+ years	85.0	86.4	89.4	82.1
16-44 years	86.0	87.6	93.8	89.1
45-64 years	81.4	98.4	65.8	80.0
65+ years	na	na	na	na
Females 16+ years	53.5	55.4	52.7	44.4
16-44 years	58.5	57.5	51.3	62.7
45-64 years	45.8	56.6	64.3	37.5
65+ years	na	na	na	na
% employed				
Males 16+ years	88.6	92.8	95.7	100.0
16-44 years	88.2	92.4	97.2	100.0
45-64 years	91.5	95.0	84.0	100.0
65+ years	na	na	na	na
Females 16+ years	90.4	91.2	92.5	100.0
16-44 years	90.2	91.2	89.9	100.0
45-64 years	91.5	90.6	100.0	100.0
65+ years	na	na	na	na
% unemployed				
Males 16+ years	11.4	7.2	4.3	na
16-44 years	11.8	7.6	2.8	na
45-64 years	8.5	5.0	16.0	na
65+ years	na	na	na	na
Females 16+ years	9.6	8.8	7.5	na
16-44 years	9.8	8.8	10.1	na
45-64 years	8.5	9.4	na	na
65+ years	na	na	na	na
Western Samoa				
Civilian labour force				
Males 16+ years	56.5	71.7	67.0	72.5
16-44 years	57.6	72.6	69.0	74.2
45-64 years	46.8	71.9	59.1	76.9
65+ Years	na	47.1	na	26.4
Females 16+ years	29.6	51.7	43.5	58.7
16-44 years	32.9	54.3	47.1	69.9
45-64 years	14.5	37.6	36.4	45.3
65+ years	na	34.3	na	na

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Table 25 Continued

	1975-80	Years of immigration		Before 1964
		1970-74	1965-69	
Western Samoa (cont'd)				
% employed				
Males 16+ years	87.7	89.8	90.5	95.0
16-44 years	86.8	89.8	89.6	94.4
45-64 years	100.0	85.4	100.0	95.8
65+ years	na	-	na	na
Females 16+ years	83.4	87.3	87.2	95.7
16-44 years	82.6	88.8	87.2	95.8
45-64 years	100.0	68.2	89.3	95.6
65+ years	na	-	na	na
% unemployed				
Males 16+ years	12.3	10.2	9.5	5.0
16-44 years	13.2	10.2	10.4	5.6
45-64 years	na	14.6	na	4.2
65+ years	na	-	na	na
Females 16+ years	16.6	12.7	12.8	4.3
16-44 years	17.4	11.2	12.8	4.2
46-64 years	na	31.8	10.7	4.4
65+ years	na	-	na	na

^a Age in 1980.

Source: United States Bureau of the Census, unpublished tabulations.

Table 26 Labour force status of Pacific Island immigrants in the United States, by sex, country of birth, and years of immigration

	1975-80	Years of immigration		Before 1964
		1970-74	1965-69	
Fiji				
Males 16 years and over in labour force	1,310	670	504	240
Number who worked in	1,259	665	504	231
50-52 weeks	679	379	337	140
40-49 weeks	259	127	93	55
1-39 weeks	321	159	74	36
Number with spell of unemployment	347	155	73	53
Mean weeks of unemployment	11.0	12.8	10.8	20.2
Percentages				
Number who worked in	96.1	99.3	100.0	96.3
50-52 weeks	53.9	57.0	66.8	60.6
40-49 weeks	20.6	19.1	18.5	23.8
1-39 weeks	25.5	23.9	14.7	15.6
Number with spell of unemployment	26.5	23.1	14.5	22.1

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Table 26 Continued

	1975-80	Years of immigration		
		1970-74	1965-69	Before 1964
Females 16 years and over in the labour force	946	466	348	199
Number who worked in	910	449	343	199
50-52 weeks	341	218	178	88
40-49 weeks	178	63	94	35
1-39 weeks	391	168	71	76
Number with spell of unemployment	376	117	92	33
Mean weeks of unemployment	13.8	11.7	11.8	11.9
Percentages				
Number who worked in	96.2	96.4	98.6	100.0
50-52 weeks	37.5	48.6	51.9	44.2
40-49 weeks	19.6	14.0	27.4	17.6
1-39 weeks	42.9	37.4	20.7	38.2
Number with spell of unemployment	39.7	25.1	26.4	16.6
Tonga				
Males 16 years and over in labour force	891	799	216	119
Number who worked in	845	784	210	119
50-52 weeks	482	540	135	89
40-49 weeks	119	127	40	12
1-39 weeks	244	117	35	18
Number with spell of unemployment	329	157	60	5
Mean weeks of unemployment	16.6	11.5	10.3	1.0
Percentages				
Number who worked in	94.8	98.1	97.2	100.0
50-52 weeks	57.0	68.9	64.3	74.8
40-49 weeks	14.1	16.2	19.0	10.1
1-39 weeks	28.9	14.9	16.7	15.1
Number with spell of unemployment	36.9	19.6	27.8	4.2
Females 16 years and over in the labour force	484	475	115	50
Number who worked in	422	467	115	50
50-52 weeks	207	262	87	19
40-49 weeks	54	73	23	7
1-39 weeks	161	132	5	24
Number with spell of employment	176	67	11	14
Mean weeks of unemployment	16.3	8.9	4.8	4.6

Table 26 Continued

	1975-80	Years of Immigration		Before 1964
	1970-74	1965-69		
Tonga (cont'd)				
Percentages				
Number who worked in	87.2	98.3	100.0	100.0
50-52 weeks	49.1	56.1	75.7	38.0
40-49 weeks	12.8	15.6	20.0	14.0
1-39 weeks	38.1	28.3	4.3	48.0
Number with spell of unemployment	36.4	14.1	9.6	28.0
Western Samoa				
Males 16 years and over in labour force	1,133	831	788	1,365
Number who worked in	1,094	809	769	1,338
50-52 weeks	631	560	516	922
40-49 weeks	131	111	132	156
1-39 weeks	332	138	121	260
Number with spell of unemployment	300	142	137	227
Mean weeks of unemployment	15.9	12.7	14.4	11.5
Percentages				
Number who worked in	96.6	97.4	97.6	98.0
50-52 weeks	57.7	69.2	67.1	68.9
40-49 weeks	12.0	13.7	17.2	11.7
1-39 weeks	30.3	17.1	15.7	19.4
Number with spell of unemployment	26.5	17.1	17.4	16.6
Females 16 years and over in the labour force	600	563	439	979
Number who worked in	484	533	418	920
50-52 weeks	165	257	180	423
40-49 weeks	81	63	75	151
1-39 weeks	238	213	163	346
Number with spell of unemployment	257	150	116	294
Mean weeks of unemployment	23.6	20.7	13.1	18.2
Percentages				
Number who worked in	80.7	94.7	95.2	94.0
50-52 weeks	34.1	48.2	43.1	46.0
40-49 weeks	16.7	11.8	17.9	16.4
1-39 weeks	49.2	40.0	39.0	37.6
Number with spell of unemployment	42.8	26.6	26.4	30.0

Source: United States Bureau of the Census, unpublished tabulations.

Table 27 Occupation of Pacific Island Immigrants in the United States, by sex, country of birth and years of immigration, 1980 (numbers are percentages).

	1975-80	Years of immigration		
		1970-74	1965-69	Before 1964
Fiji				
Executive, administrative and managerial				
Male	4.3	7.2	9.3	3.0
Female	5.6	5.4	5.0	5.1
Professional and related services				
Male	5.3	3.3	11.8	14.6
Female	8.6	5.4	2.3	4.5
Total technical sales and administrative support				
Male	22.0	22.0	16.9	31.7
Female	26.5	39.4	31.4	52.8
Total services				
Male	17.7	21.6	22.8	9.5
Female	37.4	33.0	39.2	23.6
Farm, forest and fishing				
Male	5.2	1.7	8.0	12.6
Female	1.0	-	2.3	4.5
Precision production, craft and repair				
Male	20.4	20.8	14.3	18.1
Female	3.0	3.1	-	3.9
Total operators, fabricators and labourers				
Male	25.0	23.3	16.9	11.1
Female	22.4	13.8	19.8	5.6
Tonga				
Executive, administrative and managerial				
Male	12.7	4.2	7.5	10.0
Female	-	7.5	6.1	13.6
Professional and related services				
Male	4.3	6.0	5.0	30.0
Female	7.6	1.5	5.1	-
Total technical sales and administrative support				
Male	5.7	9.3	10.0	12.7
Female	25.6	31.3	53.1	70.5
Total services				
Male	26.6	17.3	13.9	4.5
Female	45.2	25.9	13.3	4.5
Farm, forest and fishing				
Male	10.9	9.4	15.4	-
Female	-	-	-	-
Precision production, craft and repair				
Male	12.8	27.8	17.9	20.0
Female	2.2	6.7	-	-

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Table 27 Continued

	1975-80	Years of Immigration		Before 1964
		1970-74	1965-69	
Tonga (cont'd)				
Total operators, fabricators and labourers				
Male	38.3	26.0	30.3	22.7
Female	19.4	27.1	22.4	11.4
Western Samoa				
Executive, administrative and managerial				
Male	4.7	8.0	0.9	6.3
Female	5.7	5.2	9.3	4.4
Professional and related services				
Male	10.7	5.1	2.6	9.5
Female	5.2	7.2	16.4	7.3
Total technical sales and administrative support				
Male	17.7	8.0	12.1	16.4
Female	42.4	28.9	29.6	40.1
Total services				
Male	18.0	15.2	19.1	11.9
Female	31.0	22.3	19.8	17.5
Farm, forest and fishing				
Male	0.9	2.4	5.2	3.1
Female	1.3	-	-	0.6
Precision production, craft and repair				
Male	10.0	25.1	15.2	22.4
Female	3.9	9.3	3.3	8.5
Total operators, fabricators and labourers				
Male	38.0	36.2	44.9	30.4
Female	10.6	27.1	21.8	21.4

Source: United States Bureau of the Census, unpublished tabulations.

The educational attainment of individuals twenty years of age and over is shown in Table 28. There is a consistent increase in the percentage of individuals twenty years or over in the most recent cohort who have little or no formal education. The increase is most marked for Fiji-born males and females and Tonga-born males. The most recent cohort of Fijian males and females and Tongan females also has a smaller percentage of individuals with at least some college experience, while the most recent cohort of Tonga-born males and Western Samoa-born males and females has a lower incidence of high school completion than earlier cohorts of immigrants.

The English language proficiency of immigrants by age, sex, and year of immigration is reported in Table 29. For all

groups the English language proficiency of the most recent immigrants was below that of earlier immigrants. Among the most recent cohort of males born in Fiji a lower percentage spoke only English at home, and a much higher percentage of males and females, particularly those over thirty-five years old, did not speak English at all. Among the Tonga-born there was a much smaller percentage of recent immigrants who spoke English well or very well, and for females a much higher percentage that spoke no English. For those born in Western Samoa a much smaller percentage of recent immigrants spoke English well or very well and a much larger percentage of those over thirty-five years of age did not speak it at all. Thus, among the most recent cohort of

Table 28 Years of schooling completed by Pacific Island immigrants to the United States, by sex, country of birth and years of immigration

Years of school completed by 1980 by individuals 20 years of age and over	Years of immigration			
	1975-80	1970-74	1965-69	Before 1964
Fiji				
Elementary 0-4 years				
Male	11.0	5.7	6.9	13.6
Female	19.9	6.1	15.2	11.4
Elementary 5-8 years				
Male	22.3	21.6	20.1	10.9
Female	21.4	18.9	16.0	9.6
High school 1-3 years				
Male	14.7	16.3	11.5	4.7
Female	14.8	23.2	13.9	10.4
High school 4 years				
Male	23.4	21.3	26.6	16.7
Female	27.5	29.6	27.0	32.1
College 1-3 years				
Male	14.8	25.4	16.8	22.2
Female	10.5	12.9	19.7	23.2
College 4+ years				
Male	13.8	9.7	18.0	31.9
Female	6.0	9.4	8.2	13.2
Tonga				
Elementary 0-4 years				
Male	8.8	2.5	3.1	3.3
Female	6.5	7.4	3.4	9.8
Elementary 5-8 years				
Male	14.6	8.9	2.2	-
Female	15.6	10.5	6.0	14.1
High school 1-3 years				
Male	12.5	14.7	22.7	-
Female	19.4	16.8	17.3	-
High school 4 years				
Male	29.0	41.5	37.6	4.9
Female	39.2	38.4	44.7	43.4
College 1-3 years				
Male	24.0	23.6	24.9	21.1
Female	14.2	15.4	17.9	22.8
College 4+ years				
Male	11.2	8.8	9.6	70.7
Female	5.2	11.6	10.7	9.8

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Table 28 Continued

Years of school completed by 1980 by individuals 20 years of age and over	Years of immigration			
	1975-80	1970-74	1965-69	Before 1964
Western Samoa				
Elementary 0-4 years				
Male, 20 years+	4.9	3.5	4.3	4.6
Female, 20 years+	7.3	6.8	3.4	4.6
Elementary 5-8 years				
Male	11.0	7.0	7.8	9.3
Female	16.7	8.8	11.1	14.7
High school 1-3 years				
Male	12.4	15.6	21.1	22.7
Female	18.5	20.0	18.5	25.4
High school 4 years				
Male	40.1	51.5	40.6	34.7
Female	38.1	46.4	46.0	36.4
College 1-3 years				
Male	22.3	16.0	21.1	20.0
Female	16.0	15.4	20.3	14.9
College 4+ years				
Male	9.3	8.3	6.4	8.8
Female	3.4	2.6	0.8	3.9

Source: United States Bureau of the Census, unpublished tabulations.

Tonga-born and Fiji-born women thirty-five years or over, about one in five could not speak English. Among cohorts of this age with longer residence in the United States only one in ten spoke no English.

To summarize, a majority of immigrants were married at the time of immigration. Most of the others married within five years. Young women in the most recent immigrant cohort have lower fertility than young women in earlier cohorts but older women in the most recent cohort have higher fertility than in earlier cohorts.

Income increases with time since immigrating to the United States. Although the most recent cohort of immigrants from Fiji and Tonga earn below the US average, older cohorts do not. Immigrants from Western Samoa earn less than the US average irrespective of duration of residence in the United States. Income per capita in households headed by island-born immigrants was below the 1980 US average for all

households, irrespective of the date of immigration of the household head.

The incidence of poverty decreases with length of residence in the United States. Poverty is especially high among recent Tongan immigrant families, and among Western Samoan immigrant families of whatever length of stay.

The educational attainment of the most recent cohort is lower than that of earlier cohorts, as is their proficiency in English. More recent Tongan and Western Samoan immigrants have a higher incidence of unemployment and all recent groups of immigrants are more likely to be found in less skilled occupations than are earlier cohorts.

From the data on characteristics of immigrants by year of immigration it appears that some degree of economic and social integration of Pacific islanders occurs. As length of residence in the United States increases, fertility decreases, income rises, poverty falls, unemployment rates fall,

Table 29 Language usage and ability to speak English of Pacific Island immigrants in the United States, by age, sex, country of birth and years of immigration, 1980

Years of Immigration					Years of Immigration				
				Before					Before
				1964					1964
1975-80	1970-74	1965-69			1975-80	1970-74	1965-69		
Fiji					Females				
<i>Speak only English at home</i>					5+ years	63.2	78.4	85.4	60.6
Males					35+ years	29.9	70.9	63.2	51.3
5+ years	6.8	6.5	14.4	21.2	<i>Do not speak English</i>				
35+ years	7.2	5.0	12.9	17.6	Males				
Females					5+ years	1.4	0.8	-	3.0
5+ years	6.7	8.8	5.8	26.9	35+ years	3.6	2.0	-	4.2
35+ years	2.1	12.9	5.3	41.6	Females				
<i>Speak English well or very well</i>					5+ years	9.5	3.6	2.7	14.1
Males					35+ years	24.5	10.3	7.9	17.5
5+ years	83.2	88.0	79.3	77.7	Western Samoa				
35+ years	80.7	82.6	75.4	81.0	<i>Speak only English at home</i>				
Females					Males				
5+ years	73.5	81.5	82.7	61.3	5+ years	7.0	6.2	5.3	11.8
35+ years	47.9	47.4	71.8	43.3	35+ years	1.9	-	8.8	8.7
<i>Do not speak English</i>					Females				
Males					5+ years	3.9	7.9	8.6	13.8
5+ years	5.5	2.6	-	-	35+ years	2.3	3.5	7.1	10.9
35+ years	14.7	7.4	-	-	<i>Speak English well or very well</i>				
Females					Males				
5+ years	18.8	2.8	-	-	5+ years	73.2	86.4	86.7	83.0
35+ years	16.2	12.9	-	-	35+ years	52.6	79.7	73.8	84.5
Tonga					Females				
<i>Speak only English at home</i>					5+ years	73.4	76.5	76.5	76.3
Males					35+ years	47.1	51.6	65.7	75.1
5+ years	4.6	5.5	11.6	-	<i>Do not speak English</i>				
35+ years	3.9	2.9	7.1	-	Males				
Females					5+ years	1.7	-	0.8	-
5+ years	4.9	5.8	5.8	17.2	35+ years	8.4	-	-	-
35+ years	4.1	-	10.5	21.3	Females				
<i>Speak English well or very well</i>					5+ years	4.2	0.8	3.2	1.6
Males					35+ years	14.2	3.2	8.8	2.6
5+ years	58.8	83.6	77.2	92.5					
35+ years	37.0	73.8	83.5	89.5					

Source: United States Bureau of the Census, unpublished tabulations.

occupational status rises, educational attainment and English language proficiency increase. Nevertheless, economic and social integration is far from complete. With very few exceptions (and these are mostly for Fiji-born males who immigrated before 1969), Pacific island-born immigrants did not

achieve economic and social parity with other US residents in 1980.

Naturalization

Table 30 reports the number and percentage of Pacific islanders naturalized in 1980 by

Table 30 Number and percentage of Pacific island immigrants in the United States naturalized, by country of birth, age, sex, and years of immigration

Age and years of immigration	Number and percentage				Western Samoa	
	Fiji		Tonga			
Males						
0-14 years:		19.4		26.4		46.4
in 1975-80	83	17.8	57	18.3	269	35.5
in 1970-74	5	12.5	69	28.6	181	66.5
in 1969 or before	15	57.7	34	63.0	65	86.7
15-44 years:		31.7		28.8		58.6
in 1975-80	205	16.0	145	16.2	514	34.8
in 1970-74	269	37.9	290	36.8	569	62.5
in 1969 or before	351	58.3	139	565.3	1426	75.3
45-64 years:		36.6		37.8		73.1
in 1975-80	29	13.1	41	28.3	44	31.7
in 1970-74	31	25.6	58	47.2	31	54.4
in 1969 or before	132	72.5	26	41.3	542	83.6
Total		31.0		29.0		59.0
1975-80	331	16.5	243	17.9	831	34.9
1970-74	293	34.8	417	35.3	804	63.1
1969 or before	517	62.0	203	46.5	2125	78.0
Females						
0-14 years:		14.9		29.2		52.0
in 1975-80	75	12.6	60	15.3	313	45.0
in 1970-74	26	23.9	105	44.9	176	72.1
in 1969 or before	7	31.8	25	100.0	65	51.2
15-44 years:		31.2		58.6		30.9
in 1975-80	191	14.0	125	18.2	506	36.7
in 1970-74	198	33.9	245	36.3	503	56.0
in 1969 or before	421	62.4	118	57.6	1389	76.7
45-64 years:		32.1		28.7		56.5
in 1975-80	23	12.8	27	17.4	30	19.7
in 1970-74	16	18.8	25	22.1	28	23.9
in 1969 or before	103	58.2	46	62.2	396	74.2
Total		27.9		30.1		57.3
1975-80	300	13.8	212	16.7	873	38.0
1970-74	240	30.6	383	36.5	723	55.9
1969 or before	536	59.4	201	61.8	1962	75.0

Source: United States Bureau of the Census, unpublished tabulations.

place of birth, age, sex, and year of immigration to the United States. This data allows us to answer the question 'is Pacific island immigration to the United States circular or permanent?' The data may also reflect the degree of integration desired by Pacific islanders.

The rates of naturalization are higher for Samoans than Tongans or Fijians. This

probably reflects the family ties between Western Samoans and American Samoans, who are US nationals. Tongan males have a slightly lower rate of naturalization (29 per cent) than Fijians (31 per cent). This situation is reversed for women: 30 per cent for Tongan women and 28 per cent for Fijian women. The rates of naturalization for males and females were quite close. Only about 2

per cent more Samoan and Fijian males than females were naturalized. About 1 per cent more Tongan females than males were naturalized.

There is no clear relation between age and rate of naturalization for women. However for men the rate is linear. With the exception of Tongan males sixty five years of age and over, the older the male the higher the probability that he was naturalized.

A clear relationship exists between date of immigration and probability of being naturalized. The longer an individual had been resident in the United States the higher the probability that he or she was naturalized. This finding is consistent with the increase in economic and social integration with length of residence noted above. This relationship holds even when age, sex, and country of birth are held constant. The inter-country differences in naturalization for the most part remain unchanged when other factors are controlled for.

There is some debate as to whether migration from the Pacific is circular or permanent (Bedford 1980; Chapman 1981; Connell 1983a, 1983b, 1984c; McPherson 1985; Shankman 1976). From the data on naturalization reported in Table 30, it is clear that most Samoan migration is permanent—signalled by the 60 per cent naturalization rate. The levels of naturalization for Fijians and Tongans are much lower, around 30 per cent. However, Fijian and Tongan migration is much more recent, predominantly post-1970. For both groups, the rate of naturalization for those who immigrated before 1969 is roughly equal to the overall Samoan rate. We may conclude from this that much of the Tongan and Fijian immigration to the United States is permanent and will be followed by US naturalization.

Main findings on migration of Pacific Islanders to the United States

The key characteristics of Pacific island migrants in the United States in 1980 are set out below.

- The motivation of those migrating from Tonga, American Samoa, Western Samoa, and Fiji to the United States was clearly economic.
- Migrants were predominantly of working age and the majority of these were of young working age (15–34 years). The age distributions of Tongan migrants to the United States and to American Samoa were similar. However, Western Samoan migrants in the United States tended to be older than those in American Samoa which is consistent with American Samoa being a 'staging post' for Western Samoan migrants to the United States.
- Tongan and Western Samoan migration was more male than female. Females outnumbered males among Fijian migrants. Tongan and Western Samoan migration flows to the United States were more masculine than those to American Samoa. The male bias in Tongan international migration was much lower than that claimed in previous studies.
- A larger percentage of island-born migrants to the United States were married than was the case in the total US population, the population of all immigrants, or in the home populations. The result is the opposite of that usually found in studies of internal migration.
- The fertility of island-born women was greater than that of all immigrant women and all US women. The fertility of migrant women was much lower than that of women in the home countries.
- The majority of island households in the United States had children as household members. In Tongan and Samoan households with three or fewer children most had been born in the United States. However, in households with four or more children and in Fijian households, most children were born in the home country.
- Tongan and Western Samoan households had lower income than all US households. Fijian households had higher income than all US households. However, because of their larger household size (primarily because of more children) island households had lower per capita income.
- A larger percentage of Tonga-born and Western Samoa-born males than all US males or all immigrant males were year-round full-time workers. Fiji-born males were less likely than these groups to be year-round full-time workers. Tonga-born women had a much higher incidence of year-round full-time work than other island-born women and all US women.

- The income distributions for island-born households were less severely skewed to the right than the distribution for all US households.
 - The 1979 incomes of migrants in the United States were roughly twice as large as those of fellow migrants in American Samoa and roughly five to ten times as large as the incomes of non-migrants in the home countries.
 - Tongan and Western Samoan families were twice as likely as all US families to be below the poverty line. The incidence of poverty among Fijian families was only slightly above the US average.
 - About 75 per cent of Tongan and Fijian males 16–19 years were in high school and about 25 per cent of those 20–24 years were in college. The rates for Western Samoan males were lower: 66 per cent and 20 per cent. In general, the enrolment rates of females were five points lower than those of males. The rate of college attendance among island-born migrants in the United States was five to twenty times that of non-migrants in the home countries. It is likely that the demand for college education was a motivation for migration.
 - The percentage of island-born men and women whose terminal level of education was 0–4 years of elementary education was at least twice the rate for all US males and females. The percentage of island-born migrants who completed college was roughly half that of all US residents. The levels of educational attainment among island-born migrants to the United States far exceeded those of non-migrants in the home populations and fellow migrants in American Samoa.
 - Labour force participation rates for island-born males exceeded those for all US males. All island-born women less than forty-five years of age were more likely to be in the labour market than all US women of the same age. Island-born women forty-five years or older were less likely to be in the labour market than other US women. These rates of labour force participation exceeded those in the home countries and those of fellow migrants to American Samoa.
 - Tonga-born and Western Samoa-born males and all island-born females had unemployment rates above the US average.
- However, the rates were lower than those recorded in the home countries and in American Samoa.
- Almost all island-born males and females sixteen years and over in the United States worked at some time during 1979. Tonga-born and Western Samoa-born men had a higher incidence of year-round full-time work than all US males and Fiji-born males a lower incidence. Island-born females were less likely than all US females to work forty or more weeks.
 - Most island-born workers had a higher incidence of unemployment in 1979 than all US workers and all immigrants. Only Western Samoa-born women had a longer duration of unemployment than the US average.
 - Island-born workers were more likely than all US workers to be private wage and salary workers. They were also much more likely than home country workers and fellow migrants in American Samoa to have private sector jobs.
 - Island-born workers were more likely than all US workers to be in less skilled occupations and less likely to be in professional and managerial occupations. Nevertheless, there was still significant representation of island-born workers in skilled occupations and professional and managerial occupations relative to the home nations and to migrants in American Samoa.
 - Island-born workers in the United States in 1980 tended to be concentrated in industries requiring skills which were in short supply in their home countries.
 - The English language proficiency of island-born migrants was lower than that of all US residents but much greater than that of all immigrants. Language deficiencies may, in part, explain the poorer labour market experience of island-born workers relative to all US workers but cannot explain why these experiences were also poorer than those of all immigrants.
 - Seventy-five to 85 per cent of island-born immigrants were married in 1980. Most were married at the time of arrival or within five years.

- Among the most recent cohort, fertility of younger women was lower and that of older women higher relative to earlier cohorts.
- Income increased with length of time in the United States.
- Tongan and Fijian immigrants incomes rose above the US average within five years of immigration. Western Samoan immigrants' incomes did not.
- The incidence of poverty declined with time in the United States but was very high among recent Tongan and most Western Samoan cohorts.
- Educational attainment and fluency in English was lowest in the most recent cohort of immigrants.
- The most recent Tongan and Western Samoan immigrant cohort had a higher incidence of unemployment than previous cohorts.
- More recent immigrants were more likely to be in less skilled occupations.
- Sixty per cent of Western Samoa-born migrants were naturalized whereas 30 per cent of Tongan and Fijian migrants were naturalized. The incidence of naturalization increased with length of residence in the United States.
- Over 60 per cent of all island-born immigrants will probably become naturalized US citizens. Thus island migration appears to be permanent rather than circular.

Chapter 4

Pacific island migrants to American Samoa

ALTHOUGH the migration of Pacific islanders to the developed Pacific rim countries is the most important of the three international migration flows, international migration within the Pacific is not without interest. This chapter will be an investigation of the characteristics of Western Samoa-, Tonga- and United States-born migrants to American Samoa. The advantage of studying flows to American Samoa is that the 1980 Census of American Samoa makes it possible to investigate the detailed characteristics of several migrant groups and to compare these with the American Samoa-born population, and to some extent, with the home populations. By comparing the characteristics of migrants with those of the home or country of birth populations it may be possible to uncover the rationale for migration in the Pacific and, perhaps, also to shed some light on return migration to American Samoa.

Demographic characteristics

As was the case with migration to the United States, migration from Western Samoa and Tonga to American Samoa seems to be motivated by labour market considerations. Migrants are predominantly of working age and the majority of these are of young working age (15–34 years), the group most likely to benefit from migration. The motivation for migration from the United States to American Samoa is less clear. Only half of these migrants are of working age although the majority of these are of young working age.

The age-sex distribution of migrants is shown in Table 31. Of the 796 Tongans in American Samoa in 1980, 617 (78 per cent) were adults (taken to be fifteen years and over). Of those born in Western Samoa, 80 per cent were adults, whereas only 46 per cent of those born in the United States were adults. Sixty per cent of the Tonga-born adults were of young working age (15–34 years), while the corresponding figures for

those born in Western Samoa and the United States were 66 per cent and 67 per cent respectively. Note that these figures refer to all migrants in American Samoa at the time of the 1980 Census, no matter when they migrated to American Samoa. Table 31 does not refer only to recent migrants and so the percentages of migrants of young working age are probably lower bounds. This point will be addressed when immigration by calendar year and country of birth is discussed below. The age structure of Tongan and Western Samoan migrants in American Samoa is quite different to that of the home country populations. Based on 1976 census data for Tonga and 1981 census data for Western Samoa (Kingdom of Tonga n.d.; Government of Western Samoa 1983) the home country populations are much younger than the migrant populations. In Tonga 44 per cent of the population was less than fifteen years of age compared to 45 per cent in Western Samoa. The adult migrant populations were also somewhat younger than the home populations. In Tonga 15–34 year olds constituted 57 per cent of adults and in Western Samoa 60 per cent.

The age structure of the migrant groups also differs from that of the American Samoa-born population. Individuals less than fifteen years of age constituted 52 per cent of the population and young working age individuals constituted only 54 per cent of the adult population, considerably lower than that of the immigrant groups and a little lower than the Tongan and Western Samoan populations.

The age structure differences are also reflected in the median ages of the populations. The median age of the American Samoa-born was 14.4 years, a little more than the 13.8 years for those born in the United States. The median ages of Tonga and Western Samoa-born were 27.3 and 24.5 years respectively. These differences again point to the possibility of a different motiva-

Table 31 General, family, and fertility characteristics of immigrants in American Samoa, by country of birth, 1980

	Total	Country of birth			
		American Samoa	Tonga	Western Samoa	United States
Sex					
Both sexes	32,297	18,586	796	9,686	2,189
Male	16,384	9,263	425	4,932	1,137
Female	15,913	9,323	371	4,754	1,052
Age					
Total persons	32,297	18,586	796	9,686	2,189
Under 5 years	4,786	3,856	40	459	354
5 to 9 years	4,218	2,984	63	646	436
10 to 14 years	4,203	2,812	76	846	398
15 to 19 years	3,849	2,052	77	1,367	263
20 to 24 years	3,057	1,067	96	1,676	128
25 to 29 years	2,388	856	99	1,188	130
30 to 34 years	2,066	824	100	873	146
35 to 44 years	3,113	1,382	141	1,274	146
45 to 54 years	2,261	1,236	72	744	101
55 to 59 years	776	468	16	227	31
60 to 64 years	635	404	7	168	26
65 to 74 years	650	435	9	150	22
75 to 84 years	245	172	-	59	7
85 years and over	50	38	-	9	1
Median	18.8	14.4	27.3	24.5	13.8
Percentages					
All persons					
≤14 years	40.9	51.9	22.5	20.1	54.3
5-34	35.2	25.8	46.7	52.7	30.5
35-64	21.0	18.8	29.6	24.9	13.9
65+	2.9	3.5	1.1	2.3	1.4
Female	15,913	9,323	371	4,754	1,052
Under 5 years	2,300	1,864	19	217	169
5 to 9 years	2,062	1,442	36	303	230
10 to 14 years	1,947	1,316	29	395	169
15 to 19 years	1,971	1,017	41	730	143
20 to 24 years	1,667	644	48	858	79
25 to 29 years	1,236	471	49	605	75
30 to 34 years	1,033	448	53	420	62
35 to 44 years	1,427	707	50	559	56
45 to 54 years	1,102	645	30	357	36
55 to 59 years	388	249	6	113	12
60 to 64 years	302	194	3	82	12
65 to 74 years	313	213	7	70	6
75 to 84 years	131	89	-	37	3
85 years and over	34	24	-	8	-
Median	19.2	15.2	26.3	24.3	13.8
Percentages					
Female					
≤14 years	39.6	49.6	22.6	19.2	54.0
15-34	37.1	27.7	51.5	55.0	34.1
35-64	20.2	19.3	24.0	23.4	11.0
65+	3.0	3.5	1.9	2.4	0.9
Household type and relationship					
In households	31,963	18,504	776	9,566	2,162
Family householder	4,287	2,268	135	1,409	259
Non-family householder:					
Male	168	44	3	14	59
Female	58	22	2	11	19

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Table 31 Continued

	Total	American Samoa	Country of birth Tonga	Western Samoa	United States
Spouse	3,475	1,742	109	1,258	223
Child	13,593	9,549	196	2,543	1,017
Grandchild	2,922	2,220	5	283	362
Parent	201	125	6	65	-
Other relatives	6,612	2,445	240	3,623	187
Non-relatives	647	89	80	360	36
In group quarters	334	82	20	120	27
Inmates of:					
Correctional inst.	-	-	-	-	-
Other institution	24	8	2	9	-
Non-inmates:					
Military quarters	-	-	-	-	-
College dormitory	29	3	-	26	-
Other	281	71	18	85	27
Marital status					
Male, 15 years and over	9,486	4,233	330	3,896	517
Single	3,990	1,673	120	1,796	208
Now married					
Except separated	5,183	2,406	205	1,998	288
Consensually married	56	21	3	24	6
Separated	69	31	2	28	4
Widowed	132	78	1	37	1
Divorced	112	45	2	37	16
Percentages					
Male, 15 years and over					
Single	42.1	39.6	36.4	46.1	40.2
Married	54.6	56.8	62.1	51.3	55.7
Separated	0.7	0.7	0.6	0.7	0.8
Widowed	1.4	1.8	0.3	0.9	0.2
Divorced	1.2	1.1	0.6	0.9	3.1
Female, 15 years and over	9,604	4,701	287	3,839	484
Single	3,416	1,568	103	1,444	218
Now married					
Except separated	5,230	2,579	166	2,054	252
Consensually married	71	30	4	34	3
Separated	89	38	3	44	3
Widowed	676	412	13	224	3
Divorced	193	104	2	73	8
Percentages					
Female, 15 years and over					
Single	35.6	33.4	35.9	37.6	45.0
Married	54.5	54.9	57.9	53.5	52.1
Separated	0.9	0.8	1.0	1.1	0.6
Widowed	7.0	8.8	4.5	5.8	0.6
Divorced	2.0	2.2	0.7	1.9	1.7
Fertility					
Female, 15 to 44 years	7,334	3,287	241	3,172	415
Children ever born	14,097	6,809	426	6,076	442
Per 1000 women	1,922	2,071	1,768	1,916	1,065
Children still alive	13,706	6,609	420	5,896	439
Per 1000 women	1,869	2,011	1,743	1,859	1,058
Birth in year					
preceding census	975	420	32	431	62
Per 1000 women	133	128	133	136	149

Source: United States Bureau of the Census, 1984.

tion for migration among the US born unless they simply reflect differences in composition of similarly motivated households. This issue will be addressed below.

The gender distribution of migrants from Tonga and Western Samoa differs from that of migrants from the United States. More young female than male workers migrated from Tonga and Western Samoa (sex ratio, males/females – 0.95) while an even larger percentage of females migrated from the United States (sex ratio – 0.86). However, the sex ratios for all adult migrants (those aged fifteen years and over) are 1.12, 1.01, and 1.07 respectively. The young adult and total adult sex ratios for American Samoa-born are 0.86 and 0.90, reflecting the male bias in American Samoan international migration. The sex ratio for both young workers and the total population in Western Samoa in 1981 was 1.08. The corresponding ratios for Tonga (1976) were 1.05 and 1.01.

Connell (1983a:46) claimed that there was a male bias in Tongan emigration although the extent of the bias was unknown. He cited a study of Tongan migration to New Zealand in the early 1970s indicating that male emigration was at least double that of females. The South Pacific Commission (1979) also found a male bias, although not as great as in the earlier study. Table 31 reports a male bias in total adult Tongan migration to American Samoa of 12 per cent but females outnumber males in the 5–9 years, 15–19 years, and 30–34 years age brackets and thus in the young working-age group (sex ratio – 0.95). Thus, although there is male bias in overall Tongan migration, there is a female bias in young working-age Tongan migration — at least to American Samoa (the sex ratio in Tongan migration to the United States exceeds one). Both groups of Western Samoan migrants are more female than the corresponding groups in the home population, indicating a female bias in Western Samoan migration to American Samoa.

The migrant streams from Tonga and Western Samoa are ethnically Tongan and Samoan respectively. Over ninety-five per cent of Tongans and Western Samoans responded with country of birth corresponding to ethnicity (see Table 32). In the migration flow from the United States those of Samoan ethnicity made up 70 per cent of individuals stating ethnicity. Thus, this flow was not simply the return of Samoans born

in the United States to Samoa, as a large part of the remainder were white contract workers.

The household structure of the population groups born in American Samoa, Tonga, Western Samoa, and the United States differed considerably in 1980 (Table 31). Household data is based on the ethnicity or birthplace of the householder. If the householder was born in the United States then the household becomes 'United States' no matter where the remaining individuals were born with one exception. The exception was households headed by US-born individuals where family households were only 70 per cent of all households. In addition, the migrant groups had a higher percentage of family households with husband and wife both present than in American Samoa-born households. For the American Samoa-born, 77 per cent of households were husband-wife whereas for Tonga-born, Western Samoa-born, and US born the figures were 81 per cent, 89 per cent, and 86 per cent. These figures point to a high incidence of the migration of complete households rather than single individuals—except in the case of US-born migrants. Here those households that move are intact but a significant number of US-born are not in family households, again underscoring the different nature of the migration of US-born.

The composition of households also varied. Households with an American Samoa-born householder had on average 4.2 children per household whereas the Tongan and Western Samoan households had 1.5 and 1.8 children respectively. The households of US-born householders contained 3.9 children. In addition American Samoa-born and US-born households contained 1.0 and 1.4 grandchildren whereas very few Tongan and Western Samoa-born households contained grandchildren. Tongan and Western Samoan households, however, contained 2.0 and 2.6 parents or other relatives of the householder while American Samoa and US-born households had only 1.1 and 0.7 parents or other relatives. Thus the Tongan and Western Samoan households tended to be composed of a husband and wife and approximately two children and two relatives whereas the American Samoa and US-born households were composed of a husband and wife and approximately four children. Also, as noted before, a significant percent-

Table 32 Country of birth, ethnicity, and country of birth of parents of American Samoan population, 1980

	Total	Country of birth			
		American Samoa	Tonga	Western Samoa	United States
Father's country of birth					
Total	32,297	18,586	796	9,686	2,189
American Samoa	15,264	13,011	6	1,022	1,150
Tonga	1,058	264	778	8	5
Western Samoa	13,410	4,706	7	8,504	118
United States	1,121	224	1	33	830
Percentages					
American Samoa	-	70	0.8	10.6	54.0
Tonga	-	1.4	97.7	0.1	0.2
Western Samoa	-	25.3	1.9	87.8	5.5
United States	-	1.2	0.1	0.3	38.9
Mother's country of birth					
American Samoa	15,478	13,443	5	881	1,092
Tonga	987	191	781	7	5
Western Samoa	13,586	4,604	5	8,749	148
United States	1,047	158	2	7	858
Percentages					
American Samoa	-	72.3	0.6	9.1	51.3
Tonga	-	1.0	98.1	0.1	0.2
Western Samoa	-	24.8	0.6	90.3	7.0
United States	-	0.9	0.3	0.1	40.3
Ethnicity					
Samoan or part					
Samoan	29,437	18,204	37	9,620	1,381
Tongan	892	127	754	6	3
Not reported	497	43	4	25	201

Source: United States Bureau of the Census, 1984.

age of US-born households were non-family households.

In the home population the average size of a Western Samoan household was 5.11 persons, with 2.07 children, and 1.37 parents or other relatives. Thus migrant households tend to be larger than non-migrant households, the differences being fewer children and more related adults in the migrant households. In contrast, Tongan migrant households are smaller than the average non-migrant household (5.54 versus 6.48 persons).

The structure of the household groups again emphasizes the Tongan and Western Samoan migrant groups as composed of adult families with relatively few children (children usually inhibit migration by imposing extra monetary and psychic costs of

migration) whereas the US-born migrant group is more heterogeneous with its family households resembling American Samoan family households in their composition.

As shown in Table 31 the fertility of Tonga and Western Samoa-born women aged 15-44 is lower than that of American Samoan women — 1.7 and 1.9 versus 2.0 — although fertility in the year preceding the 1980 Census was roughly equal. The fertility of US-born women was much lower than that of all other groups.

The fertility of migrant groups was considerably lower than that of the home populations. In Tonga in 1976, the number of children ever born per woman 15-44 years and children still alive per woman 15-44 years were 4.1 and 3.8 respectively. In Western Samoa in 1981, the number of children

born alive per woman 15–44 years was 4.2. The lower fertility of the migrant groups probably reflects their higher education and work attachment than that of non-migrants.

Table 32 also contains data on the country of birth of the parents of the population of American Samoa. Fully 70 per cent of those born in American Samoa had parents who were also born in American Samoa, whereas 25 per cent had parents born in Western Samoa. When this is added to Western Samoans in American Samoa, at least 45 per cent of the American Samoan population in 1980 was either Western Samoan or of Western Samoan descent.

Almost all Tongan migrants were of Tonga-born parents (98 per cent) and a very small percentage of American Samoa-born were of Tongan parents, although this group of second generation Tongans was one-third the size of the migrant group. Tongans are a small percentage of the American Samoan population and a relatively small percentage of all migrants. These characteristics imply that Tongan migration is a fairly recent phenomenon — a point supported by the data on immigration by year and country of birth.

Approximately 90 per cent of the Western Samoa-born had parents born in Western Samoa and 10 per cent had parents born in American Samoa. Those of US birth were a much more diverse group. Approximately 50 per cent had parents born in American Samoa and were in a sense 'returning home', as were the 10 per cent of Western Samoa-born migrants, although this data could reflect women travelling to Hawaii to give birth. About 40 per cent had parents born in the United States and, given the ethnic diversity of this group, represented more than a second-generation 'returning home'. Slightly more than 5 per cent had parents born in Western Samoa which may reflect the use of American Samoa as a 'staging post' to the United States for Western Samoans.

Income and employment characteristics

Income differences between American Samoa and the home countries of the migrant groups are quite marked. In 1981, for example, income per capita (US\$) in American Samoa was \$4,167 whereas it was only \$830 in Western Samoa and \$528 in Tonga (Chilcott and Lucas 1985:3). Connell (1983b:22–37) noted that the daily wage rate in Western

Samoa was approximately the same as the hourly rate in American Samoa. Higher incomes in American Samoa are an important motive for migration. As discussed previously, however, these straightforward comparisons of the earnings of migrants and non-migrants, may tend to overstate the potential gain to migration.

Table 33 reports the income distribution within American Samoa of individuals with earnings by country of birth. Although both median and mean incomes are reported in Table 33 care must be taken in using the mean for small sub-groups since it is strongly influenced by extreme values in the distribution. The median, which is not affected by extreme values is, therefore, a better measure of central tendency or 'representative' income than is the mean when the population base is small.

Of the migrant groups, only those born in the United States have higher income than those born in American Samoa. Those born in Tonga have the lowest income. The median incomes for US-born, American Samoa-born, Western Samoa-born, and Tonga-born were \$9,222 \$4,562, \$3,650, and \$3,458 respectively. With the exception of those born in the United States the groups studied have lower income than all other immigrant groups. Reasons for these differences will be explored in the succeeding sections of this study.

For all the groups the median income is less than the mean. Thus, the income distribution is skewed to the right. The income distribution for American Samoa-born and US-born appear to be more skewed than those of the other groups with the mean income being about 50 per cent higher than the median, while for Tongans and Western Samoans the mean is only about 15 per cent higher. The relatively more compact nature of the income distribution for Tongans and Western Samoans is also reflected in the fact that only about 11 per cent of individuals earn above the mean whereas for American Samoa-born and US-born the figures are 14 per cent and 20 per cent respectively. These patterns are also true for females separately, although the percentage of Tongan and Western Samoan women with income above the mean is only half that in the overall distribution.

Table 34 reports household income by source of income for all households. No breakdown by country of birth of household members is available. Almost all households

Table 33 Income in 1979 of individuals with earnings in American Samoa, by country of birth (US\$)

	Total (includes persons without income)	Total persons with income)	\$1 to \$499	\$500 to \$999	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 to \$4,999	\$5,000 to \$6,999	\$7,000 to \$8,999	\$10,000 to \$14,999	\$15,000 to \$24,999	\$25,000 or more	Median dollars	Mean dollars
Persons 15 years and over	19,090	9,786	391	387	795	1,354	3,001	1,600	1,017	607	422	212	4,219	6,159
American Samoa	8,934	4,858	170	155	386	618	1,384	884	607	362	207	85	4,562	6,551
Other Pacific Islands	8,518	3,885	163	189	347	677	1,492	581	266	104	49	17	3,649	4,112
Tonga	617	276	11	16	30	48	105	32	25	4	3	2	3,458	4,009
Western Samoa	7,735	3,516	146	171	306	621	1,362	537	228	90	42	13	3,650	4,075
United States	1,001	634	24	25	38	28	64	74	85	95	114	87	9,222	13,825
Females 15 years and over	9,604	3,967	202	217	453	702	1,318	566	296	125	67	21	3,519	4,291
American Samoa	4,701	2,142	94	94	232	351	700	364	193	71	30	13	3,781	4,633
Other Pacific Islands	4,201	1,488	85	95	193	317	568	152	53	15	9	1	3,142	3,251
Tonga	287	76	3	5	21	13	25	4	4	-	-	1	2,600	3,173
Western Samoa	3,839	1,388	78	89	165	303	534	147	49	14	9	-	3,165	3,265
United States	484	247	16	17	21	21	35	39	39	32	22	5	5,964	6,941

Source: United States Bureau of the Census, 1984.

receive income (95 per cent) and of households receiving income 96 per cent receive wage and salary earnings. The next largest category of income is 'other income'. Fourteen per cent of households receive income from unemployment insurance, veterans payments, pensions, alimony and child support and remittances. Average household receipts from these sources are exceeded only by average receipts from wages or salaries and non-farm self-employed income.

Table 34 Households with income in American Samoa, by type of income, 1979

Sources of income in 1979	Number	Amount (US\$'000)	Average (US\$'000)
Wage or salary	4,115	50,086	12,172
Non-farm self-employed income	167	4,054	24,278
Farm self-employment income	127	287	2,263
Interest dividend or net rental income	221	555	2,514
Social Security income	601	1,844	3,068
Public Assistance income	58	111	1,918
Other sources ^a	616	2,647	4,297
Number receiving income	4,299	59,586	13,861
Total number of households	4,513	59,586	13,203

^a Unemployment compensation, veterans payments, pensions, alimony and child support, other regular sources including money transfers from other relatives outside the household.
Source: United States Bureau of the Census, unpublished tabulations.

It is difficult to make comparisons between the labour force status of migrants and those in their home populations because of the paucity of comparable labour force data in Tonga and Western Samoa. In addition, there is a suspicion that the classification of individuals in the 1980 Census as being out of the labour force rather than unemployed may have been in error (Filiga and Levin 1987). If this is correct, the labour force participation rates and unemployment rates are biased

down. However, it is not known whether this error is more serious for some country of birth groups than for others. Thus even though the absolute rates may be in error this may not apply to the relative rates. These reservations should be kept in mind when looking at the labour force and unemployment data shown in Table 35.

In the latest censuses the percentages of those fifteen years and over who were economically active in Tonga was 43 per cent and in Western Samoa in 1981, 47 per cent. In the migrant populations in American Samoa in 1980, 46 per cent of Tongans and 45 per cent of Western Samoans were in the labour force or were involved in subsistence activity only. However, Filiga and Levin (1987) found that the participation rates of Western Samoa-born and 'others' in 1985 were 59.6 per cent and 62.8 per cent, supporting their claim of downward bias in the 1980 Census. Thus Tonga and Western Samoa-born migrants seem to have a higher labour force attachment than in their home population. These conclusions are tentative given the difficulties of defining 'economically active' and the comparison of data across years and countries.

The labour force participation rates of the Pacific groups are fifteen to twenty points lower than those for New Zealand-born and Asian-born groups. Since the rates for females are greater than or equal to the rates for these groups, the differences are in the male rates. These differences contribute to the income differences between these groups in the American Samoan population.

These differences are important because labour force participation is, of course, related to income since the majority of income comes from wages and salaries (see Table 34). Non-participation imposes a heavy income penalty in American Samoa. The median income of those in the labour force in 1980 was \$4,538 while that of those not in the labour force was \$2,670.

Subsistence activity, either alone or in conjunction with other employment, is relatively more prevalent among the two Samoan groups. About 9 per cent of Samoans sixteen years and over were engaged in subsistence activity compared to about 5 per cent for the other groups. Of those employed, 15 per cent of Samoans are also engaged in subsistence activities compared to about 7 per cent

Table 35 Characteristics of labour force in American Samoa, by country of birth, 1980

Labour force status	Total	American Samoa	Country of birth		United States
			Tonga	Western Samoa	
Persons 16 years and over	18,319	8,446	604	7,542	936
Labour force	8,329	3,869	255	3,222	557
Labour force participation rate	45.5	45.8	42.2	42.7	59.5
Civilian labour force	8,308	3,854	255	3,222	551
Employed	8,106	3,761	249	3,132	542
Also did subsistence activity	1,149	583	17	457	40
At work 35 or more hours	7,186	3,359	228	2,721	488
1 to 34 hours	776	333	17	349	47
Unemployed	202	93	6	90	9
Unemployment rate	2.4	2.4	2.4	1.6	2.8
Never worked	76	30	4	41	-
Not in labour force	9,990	4,577	349	4,320	379
Subsistence activity only	403	153	22	204	10
Females 16 years and over	9,208	4,459	278	3,736	446
Labour force	3,266	1,646	64	1,256	213
Labour force participation rate	35.5	36.9	23.0	33.6	47.8
Civilian labour force	3,265	1,645	64	1,256	213
Employed	3,183	1,604	60	1,223	209
Also did subsistence activity	428	231	-	167	17
At work 35 or more hours	2,649	1,367	51	989	172
1 to 34 hours	467	212	6	200	33
Unemployed	82	41	4	33	4
Unemployment rate	2.5	2.5	6.3	2.6	1.9
Never worked	39	15	4	20	-
Not in labour force	5,942	2,813	214	2,480	233
Subsistence activity only	186	71	11	93	6
Labour force participation of women with their own children under 6 years	40.4	44.2	18.5	37.5	52.2
Labour force participation of women with their own children 6-17 years	45.6	46.2	48.1	45.2	46.9
Class of worker					
Employed persons 16 years and over	8,106	3,761	249	3,132	542
Private wage and salary workers	3,728	1,046	207	1,987	205
Federal government workers	223	110	-	60	46
Local government workers (territorial, etc.)	3,934	2,511	22	1,018	268
Self-employed workers	195	80	19	58	21
Unpaid family workers	14	5	-	8	1
Primarily subsistence activity	12	9	1	1	1
Employed females 16 years and over	3,183	1,604	60	1,223	209
Private wage and salary workers	1,637	579	51	864	88
Federal government workers	59	41	-	13	4
Local government workers (territorial, etc.)	1,423	952	2	333	106
Self-employed workers	50	23	7	10	9
Unpaid family workers	8	4	-	3	1
Primarily subsistence activity	6	5	-	-	1

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Table 35 Continued

Labour force status	Total	American Samoa	Country of birth		United States
			Tonga	Western Samoa	
Occupation					
Employed persons 16 years and over	8,106	3,761	249	3,132	542
Percentage of managerial and professional speciality occupations	23.7	28.5	5.2	11.6	57.9
Percentage of technical, sales, and administrative support occupations	22.1	24.5	14.9	19.5	26.2
Percentage of service occupations	12.8	14.3	13.7	13.6	2.4
Percentage of farming, forestry and fishing occupations	2.6	3.4	3.2	1.6	0.9
Percentage of precision production, craft and repair occupations	20.7	15.6	34.1	27.6	8.5
Percentage of operators, fabricators, and labourers	17.9	13.6	28.5	26.1	3.9
Percentage of primarily subsistence activity	0.1	0.2	0.4	-	0.2
Employed females 16 years and over	3,183	1,604	60	1,233	209
Percentage of managerial and professional speciality occupations	22.4	24.5	8.3	14.1	53.1
Percentage of technical, sales, and administrative support occupations	33.0	36.0	26.7	27.6	41.1
Percentage of service occupations	13.2	14.8	25.0	12.7	2.9
Percentage of farming, forestry, and fishing occupations	1.6	2.6	-	0.1	-
Percentage of precision production, craft, and repair occupations	15.8	10.1	30.0	25.2	1.0
Percentage of operators, fabricators, and labourers	13.8	11.6	10.0	19.8	1.0
Primarily subsistence activity	6	5	-	-	1
Percentages in industry data					
All employed persons					
Agricultural, forestry, fisheries, and mining	1.2	0.9	3.2	1.1	1.1
Construction	7.6	5.8	23.3	8.7	7.6
Manufacturing	23.5	14.9	17.7	36.9	5.9
Transportation	5.1	4.6	4.4	5.8	6.5
Communications and other public utilities	3.6	4.4	1.6	2.9	4.2
Wholesale trade	1.9	1.1	4.0	2.5	0.9
Retail trade	9.6	6.6	26.9	11.3	8.7
Finance, insurance, and real estate	1.3	1.7	0.4	0.8	2.8
Business and repair services	1.3	0.9	2.8	1.2	2.0

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Table 35 Continued

Labour force status	Total	American Samoa	Country of birth		United States
			Tonga	Western Samoa	
Personal, entertainment, and recreational services	3.3	2.6	7.6	3.9	1.8
Professional and related services	21.6	27.2	4.8	13.7	37.5
Public administration	19.8	29.1	2.8	11.1	20.8
Primarily subsistence activity	0.1	0.2	0.4	-	0.2
Employed females 16 years and over	3,183	1,604	60	1,223	209
Agriculture, forestry, fisheries and mining	0.3	0.3	-	0.4	-
Construction	0.9	1.0	1.7	1.1	-
Manufacturing	28.5	19.1	25.0	46.0	2.9
Transportation	2.8	2.9	-	1.6	9.6
Communication and other public utilities	1.3	1.6	-	0.9	1.5
Wholesale trade	1.4	1.0	1.7	1.8	1.0
Retail trade	12.4	9.3	31.6	14.8	14.4
Finance, insurance, and real estate	2.5	3.2	1.7	1.5	4.3
Business and repair services	0.9	0.9	1.7	0.7	2.4
Personal, entertainment, and recreational services	4.6	3.4	28.3	4.9	3.8
Professional and related services	29.8	36.5	8.3	18.5	47.3
Public administration	14.5	20.5	-	7.8	12.4
Primarily subsistence activity	0.2	0.3	-	-	0.4
Male 16 years and over, in labour force in 1979	5,428	2,420	204	2,097	361
Worked in 1979	5,189	2,304	197	1,993	354
50-52 weeks	4,125	1,929	152	1,509	265
40 to 49 weeks	461	167	18	213	40
1 to 39 weeks	603	208	27	271	49
Usually worked 35 or more hours per week	4,826	2,145	181	1,840	337
50 to 52 weeks	3,970	1,845	148	1,456	256
With unemployment in 1979	359	157	15	153	20
Mean weeks of employment	24.6	28.7	18.7	22.1	23.5
Percentage					
Male, 16 years and over					
Worked in 1979	95.6	95.2	96.6	95.0	98.1
50 to 52 weeks	79.5	83.7	77.2	75.7	74.9
40 to 49 weeks	8.9	7.2	9.1	10.7	11.3
1 to 39 weeks	11.6	9.0	13.7	13.6	13.8
Usually worked 35 or more hours per week	93.0	93.1	91.9	92.3	95.2
50 to 52 weeks	76.5	80.1	75.1	73.1	72.3
Female, 16 years and over in labour force in 1979	3,624	1,833	82	1,372	232
Worked in 1979	3,412	1,746	69	1,269	230
50 to 52 weeks	2,479	1,360	53	870	129

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Table 35 Continued

Labour force status	Total	American Samoa	Country of birth		
			Tonga	Western Samoa	United States
40 to 49 weeks	348	164	5	139	36
1 to 39 weeks	585	222	11	260	65
Usually worked 35 hours or more per week	2,964	1,533	62	1,100	191
50 to 52 weeks	2,303	1,257	49	814	121
With unemployment in 1979	324	134	15	147	15
Mean weeks of unemployment	18.6	20.5	30.7	17.7	5.9
Percentage					
Female, 16 years and over					
Worked in 1979	94.2	95.3	84.1	92.5	99.1
50 to 52 weeks	72.7	77.9	76.8	68.6	56.1
40 to 49 weeks	10.2	9.4	7.2	11.0	15.7
1 to 39 weeks	17.1	12.7	15.9	20.5	28.3
Usually worked 35 or more hours per week	86.9	87.8	89.9	86.7	83.0
50 to 52 weeks	67.5	72.0	71.0	64.1	52.6

Source: United States Bureau of the Census, 1984.

for the other groups. These subsistence activities are not purely related to relatively lower incomes or it could have been expected that the Tonga-born would have been engaged in them to a greater extent.

The 1980 Census recorded an unemployment rate of 2.4 per cent. However, the 1985 labour market survey analysed by Filiga and Levin (1987) showed an unemployment rate of 13.1 per cent. The rate was 11 per cent for those born in American Samoa, 7.2 per cent for those born in the United States, and 16.2 per cent for those born in Western Samoa. The unemployment rates declined as the duration of residence in American Samoa increased. The unemployment rates for Tongans recorded in the 1976 census of Tonga were 12 per cent for males and 18 per cent for females. The 1981 Census of Western Samoa, in contrast, recorded almost no reported unemployment. In 1980 the unemployment rate for Samoans in the United States was 9.7 per cent. Thus, it appears that unemployment rates were higher in American Samoa than in the United States and, at least for Tongans, may have been lower in American Samoa than in Tonga.

Unemployment carried a heavy income penalty. The median income of males who worked in 1979 was \$4,942 and of those with unemployment in 1979, \$3,227. For females

the corresponding incomes were \$3,730 and \$2,071.

The pattern of employment among the groups also differed by class of worker. Tongans and Western Samoans were predominantly private wage and salary workers (83 per cent and 63 per cent respectively). The majority of American Samoa-born workers were employed by the government (70 per cent) with lower representation among US-born (58 per cent) and Western Samoa-born (34 per cent). Very few Tongan workers were employed by any level of government (9 per cent) and were the only group with much self-employment (8 per cent). These patterns were similar for both male and female workers. In contrast, 24 per cent of Tongans in Tonga in 1976 were employed by the government or semi-government agencies.

Median incomes vary by type of worker. In 1979 median income for wage and salary workers was \$3,871, for local government and federal government employees \$5,170 and \$6,385, respectively, and for the self-employed \$5,750. The heavier concentration of Western Samoans in government employment relative to Tongans may explain one puzzling feature of the income differences in Table 34. Despite having higher educational qualifications, a greater percentage of individuals working, and working 50–52 weeks

in 1979, Tongan median income was lower than that of Western Samoans. Government employment of Western Samoans provides a possible explanation.

In 1980, almost 85 per cent of US-born employed persons were in managerial and professional or technical, sales, and administrative occupations, compared to 53 per cent for American Samoa-born, 20 per cent for Tonga-born, and 31 per cent for Western Samoa-born. Tongan and Western Samoan workers were concentrated in precision production, craft, and repair and operators, fabricators, and labourers occupations (63 per cent and 54 per cent respectively). These figures are twice those for the American Samoa-born and roughly five times those for the US-born.

It is difficult to compare occupational classifications across countries. However, some general statements are possible comparing the position of migrants in American Samoa to the home population. Very few migrants in American Samoa worked in agriculture whereas half of all employed Tongans worked in agriculture in 1976 and 64 per cent of Western Samoan males and 10 per cent of Western Samoan females worked in agriculture in 1981. In these years 20 per cent of those employed in Tonga were in professional, technical, administrative, or managerial occupations whereas only 8 per cent of Western Samoan men and 38 per cent of Western Samoan women were in these occupations. Based on this data on occupational distributions it seems that migrants from Western Samoa and Tonga are more skilled than individuals in the home countries.

The importance of the occupational distribution by country of birth is, of course, its relation to the distribution of earnings. The median income in the managerial and professional occupations was \$7,577 compared to \$5,757 in technical, sales, and administration, \$4,240 in production, craft, and repair, and \$3,778 for operators, assemblers, and labourers. The occupational distribution by country of birth is consistent with the income differences observed in Table 33.

The income advantage of Western Samoans may be related, at least in part, to their larger representation in the managerial and professional occupations. However, given the Tongan advantage in educational attainment one is left to explain why a larger percentage of Western Samoan workers are

in the managerial and professional occupations.

The cross group pattern in occupations applies to both males and females. There are, however, some differences by gender. For all groups, relatively more women are in technical, sales, and administrative occupations than are men. For Tongans, relatively more women than men are in service occupations while the reverse holds for operators, fabricators, and labourers.

The major differences among the groups in industry of employment are also shown in Table 35. Tongan employment is heavily concentrated in construction (23 per cent) and retail trade (27 per cent) and, to a lesser extent manufacturing (18 per cent). Western Samoans are predominantly in manufacturing (37 per cent) with some representation in professional services (14 per cent) and public administration (11 per cent).

In Tonga over half of those employed are in agriculture. Only 2 per cent are in manufacturing, 4 per cent in retail trade, and 6 per cent in construction. In Western Samoa 68 per cent of males are in agriculture, and 8 per cent in manufacturing and construction. The skills required in these industries are valued in the islands and migrants to American Samoa appear to be more well-endowed with these skills than workers in their home countries.

The majority of American Samoans and US-born are also in professional services and public administration, 56 per cent and 58 per cent, respectively. The median incomes in these industries are considerably higher than those in retail trade and manufacturing, which contain roughly half of Tongan and Western Samoan workers. The median incomes are \$5,517 in professional services, \$4,893 in public administration, \$3,766 in retail trade and \$3,853 in manufacturing. The only highly paying industry containing Tongans is construction, with a median income of \$5,153. However, this industry employs only 8 per cent of all employed persons whereas professional services and public administration employs 41 per cent of employed persons.

In all occupations and industries except transportation, females receive median incomes below the median for all workers in that occupation or industry. The ratio of female income to all income varies between

0.71 and 0.95 for industries, with the exception of transportation, and between 0.74 and 0.93 for occupations. The highest representation of women is in technical, sales, and administrative occupations (59 per cent of workers) and in finance, insurance, and real estate (75 per cent). In managerial and professional occupations women are 37 per cent of those employed, in the business and repair services industry they are 27 per cent of all employed. These differences in earnings and employment do not necessarily imply sex discrimination. Women have lower educational attainment than males (Table 36) and worked fewer weeks and fewer hours than males in 1979. In addition, the occupational and industrial classifications used may mask real differences in the occupational and industrial distributions of men and women. Nevertheless, these differences and the reasons for their existence should be studied.

Earlier entries in Table 35 give current labour force status (1980). The last part of Table 35 reports information on the extent of labour force attachment in 1979. There are relatively small differences across groups in the percentage of males who worked in 1979. However, for females, Tongan women were less likely than all others to work in 1979. American Samoan men and women were more likely than others to work 50–52 weeks and all groups were equally likely to work thirty-five or more hours per week.

Education

Table 36 contains detailed educational data by country of birth. Because the age breakdowns do not correspond to those in Table 31, school enrolment rates cannot be calculated and compared to those in the home countries. However, the data does suggest reasons for the income differences observed in Table 33.

Almost all individuals over twenty-five and born in the United States were high school graduates whereas roughly one in two American Samoa-born and one in three Tonga- and Western Samoa-born individuals were high school graduates in 1980. These differences also applied by gender, although the percentage of American Samoan females who were high school graduates is lower than that for males.

The educational level of migrants exceeded that of the home populations. For example,

in Tonga in 1976 only 16 per cent of those aged twenty-five years or older had completed at least Form 4 of high school. The modal level of education was Class 5 of primary school (25 per cent). In Western Samoa in 1981, 26 per cent of those over fifteen years of age had attended at least Form 4 of high school. The modal level of education was Form 2 of high school (22 per cent of those fifteen years and over).

A large proportion of the US-born group also had some college education (75 per cent), significantly greater than the 15 per cent for American Samoa-born, 10 per cent for Tonga-born, and 9 per cent for the Western Samoa-born. Similar differences, although of lesser degree, held for vocational training. About 18 per cent of US-born had some vocational training, while for American Samoa-born, Tonga-born, and Western Samoa-born the figures were 13 per cent, 5 per cent, and 5 per cent respectively. In the home populations less than 1 per cent of Tongans and 2 per cent of Western Samoans had some college. In Tonga 2.3 per cent of those over twenty-five years of age had a vocational or technical certificate or diploma.

Thus Tongan and Western Samoan migrants in American Samoa have much higher levels of education than the home populations, consistent with the predictions of the migration model and the concerns expressed by the home country governments (see McPherson 1984:146 and Government of Western Samoa 1983:37).

Educational differences among groups are important because of the positive relationship observed between education and income (for a theoretical treatment see Lazear 1977). For individuals in American Samoa with only an elementary school education median income in 1980 was \$3,590. For those who had completed high school, vocational school, and college the median incomes were \$5,280, \$6,366, and \$9,694 respectively. The relative gains to high school completion and college completion were higher for females than for males. The educational qualifications of all the island-born groups were lower than those of individuals born in the United States and Asia and, at least in part, explain the marked income differences between these groups.

School enrolment and labour force status data for 16–19 year olds is also reported in Table 36. The educational differences noted

Table 36 Educational characteristics of American Samoan population by country of birth, 1980

	Total	American Samoa	Country of birth Tonga	Western Samoa	United States
School enrolment					
Persons 3 years old and over enrolled in school	12,842	8,659	169	2,585	1,165
Pre-kindergarten	533	414	6	63	40
Kindergarten	1,319	1,043	6	156	98
Elementary (1 to 8 years)	6,843	4,652	102	1,278	677
High school (1 to 4 years)	3,224	2,034	48	815	260
College	923	516	7	273	90
Females 3 years old and over enrolled in school					
Pre-kindergarten	245	186	3	32	21
Kindergarten	646	508	4	75	51
Elementary (1 to 8 years)	3,224	2,187	49	582	328
High school (1 to 4 years)	1,586	985	27	420	128
College	466	281	3	119	47
Years of school completed					
Persons 25 years old and over	12,184	5,815	444	4,692	610
None	303	153	9	134	1
Elementary:					
1 to 4 years	748	249	28	442	2
5 and 6 years	1,605	719	78	758	1
7 years	610	269	34	294	-
8 years	1,094	475	33	549	5
High school:					
1 year	1,670	956	50	607	6
2 years	581	205	25	329	4
3 years	446	173	32	223	2
4 years	3,108	1,756	111	939	129
College:					
1 to 3 years	1,096	534	26	297	156
4 years	491	188	7	70	135
5 and 6 years	295	93	11	37	119
7 or more years	137	45	-	13	50
Per cent high school graduates	42.1	45.0	34.9	28.9	96.6
Females 25 years and over					
None	155	83	4	66	-
Elementary:					
1 to 4 years	402	164	12	215	1
5 and 6 years	902	454	37	389	-
7 years	328	164	14	143	-
8 years	563	268	16	268	-
High school:					
1 year	848	531	20	281	3
2 years	316	120	14	170	2
3 years	220	93	15	108	-
4 years	1,466	857	48	426	66

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Table 36 Continued

	Total	American Samoa	Country of birth Tonga	Western Samoa	United States
College:					
1 to 3 years	490	230	10	148	75
4 years	150	48	3	22	58
5 and 6 years	98	23	5	13	46
7 or more years	28	5	-	2	11
Per cent high school graduates	37.4	38.3	33.3	27.1	97.7
Vocational training					
Persons 16 to 64 years old	17,374	7,801	595	7,324	906
Completed requirements for a program	1,830	1,035	28	469	160
Type of school:					
Business or trade school, or 2-year college	595	313	8	133	84
High school vocational program	322	207	7	81	12
Training program at place of work	552	333	8	172	26
Other school	152	72	4	36	21
School not reported	209	110	1	47	17
School enrolment and labour force status					
Persons 16 to 19 years old	3,078	1,564	64	1,174	198
Armed forces	1	1	-	-	-
Civilian	3,077	1,563	64	1,174	198
Enrolled in school	2,087	1,254	19	596	163
Not enrolled in school	990	309	45	578	35
High school graduate	414	157	17	200	27
Employed	138	66	3	47	16
Unemployed	7	4	-	3	-
Not in labour force	269	87	14	150	11
Not high school graduate	576	152	28	378	8
Employed	103	24	9	68	1
Unemployed	10	1	-	9	-
Not in labour force	463	127	19	301	7

Source: United States Bureau of the Census, 1984.

for those aged twenty-five years or older also occur in the 16-19 age group. Slightly more than 80 per cent of US-born and American Samoa-born individuals were currently enrolled in school. For Tonga-born and Western Samoa-born the figures were 30 per cent and 51 per cent respectively. These differences could reflect real differences in school attendance or differences in the age composition of the group. From the data on the percentage of those not enrolled in school, it appears that real differences in school attendance existed.

Of those not currently enrolled, 51 per cent of American Samoa-born 16-19 year olds

were high school graduates, and 38 per cent of Tonga-born, 35 per cent of Western Samoa-born, and 77 per cent of US-born youths were in this category. For all groups except the US-born these figures represent a modest increase in educational attainment relative to the older age group. However, the pattern of marked educational differences among the groups remains and implies that the income differences observed in Table 33 will carry over into the new generation of workers.

The importance of educational attainment to labour market success is also shown in Table 36. The employment rate of high

school graduates is several points higher than that of young people who are not graduates in the American Samoa and US-born populations. Western Samoan graduates enjoy a modest advantage in employment over non-graduates whereas the position is reversed for Tongans. Educational attainment is also associated with higher labour force participation for American Samoa and US-born youths but not for the Tonga or Western Samoa-born. It is not known whether the large percentage of high school graduates who are not in the labour force are undertaking further education or are engaged in other non-labour market activities.

The labour force participation of young American Samoa and US-born graduates is equal to that of the adult group but for Tongans and Western Samoans it is considerably lower. For non-high school graduates, labour force participation rates are very low compared to those for all adults. It would be very useful to know what activities those not in the labour force were engaged in and what differences exist by gender. The policy implications of being out of the labour market and engaged in further schooling, or childbearing and rearing, or 'doing nothing' are quite different.

To summarize this chapter, so far the emphasis has been to analyse differences between the characteristics of migrants and their home populations to help explain who migrates to American Samoa and why. In general the evidence suggests that the income of migrants exceeds the average income of their home population and that migrants are likely to be younger, better educated, and more skilled than those who do not migrate. In addition, differences among migrant groups were examined and compared with the American Samoa-born. The education, labour force behaviour, occupational and industrial distribution of the US-born all contributed to their higher incomes relative to the other groups. Next in terms of these characteristics and incomes was the American Samoa-born. Western Samoa-born individuals were found to have higher median income than Tongans even though their education attainment was lower. The explanation for this difference seems to lie in the relatively heavier representation of the Western Samoa-born in higher paying occupations and industries, which is a somewhat puzzling finding.

Analysis of migration to American Samoa by year of immigration

In this section the characteristics of migrants to American Samoa by year of immigration will be examined to see if the characteristics of different cohorts differ. Similar provisos apply to this analysis as to the analysis of migrants in the previous chapter. The reader is cautioned that these characteristics may over or underestimate the differences between earlier cohorts of migrants and later cohorts if 'failure' and return migration is non-random. In addition a breakdown of immigration by year and by country of birth was not available in the published census data. Thus differences between individuals by year of immigration may reflect country of birth differences if the composition of immigrant groups varied over time — which appears to be the case (see Table 37).

Three distinct phases in immigration to American Samoa may be discerned. Before 1960 Western Samoans dominated (assuming roughly equal rates of 'failure' among groups). They constituted about 90 per cent of immigrants from that period whereas Tongans and US-born accounted for only 2 per cent each. The 1960s constitute a second phase in which the proportion of Tongan and, in particular US-born migrants increased. The third phase was the 1970s in which the composition of the immigrant population was fairly constant with Tongans composing around 6 per cent of immigrants, Western Samoans around 70 per cent and US-born about 20 per cent. Consequently inter-decade comparisons of all immigrants will be affected by the different composition of the migrant stream in each decade.

These fluctuations in the time profile of immigration also resulted in different vintages of immigrants within country of birth groups. About 50 per cent of Tongan and Western Samoan migration occurred between 1975 and 1980. For the migration of the US-born, 67 per cent arrived in this period. In the period 1970–74 27 per cent of Tongans, 20 per cent of Western Samoans, and 23 per cent of US-born migrants arrived in American Samoa. Thus the great bulk of all migrants in these groups immigrated within the last ten years. The US-born are somewhat more recent than the Tonga-born (87 per cent versus 81 per cent) and both are more recent than Western Samoan migrants.

Table 38 reports the age distribution of all immigrants. The data is not particularly useful in this form but may be used to construct data on the age distribution at the date of immigration for immigrants.

In 1978-80, 33 per cent of immigrants were less than fifteen years of age and 79 per cent of adult immigrants were in the young working-age group (15-34 years). In 1975-76 47 per cent of immigrants were children and 75 per cent of adults were of young working age. In 1970 children constituted 50 per cent

of immigrants and younger workers 72 per cent of adult immigrants. The corresponding figures for 1960-69 and 1950-59 are 49 per cent and 78 per cent and 46 per cent and 87 per cent. The figures for the periods before 1970 are approximate because age correspondences are not exact and mortality affects the older age brackets more than the younger brackets.

These figures on age at immigration agree with those discussed earlier in the chapter. The majority of migrants were adults,

Table 37 Years of Immigration to American Samoa by country of birth, 1980

Year of Immigration to this area	Total	Tonga	Country of birth	
			Western Samoa	United States
Number				
All years	13,442	796	9,686	2,189
1979 or 1980	3,307	241	2,112	734
1977 or 1978	2,420	102	1,647	472
1975 or 1976	1,441	86	1,026	254
1973 or 1974	1,170	107	760	253
1971 or 1972	888	71	625	154
1970	657	40	515	90
1960 to 1969	2,405	127	1,983	210
1950 to 1959	636	15	556	13
Before 1950	518	7	462	9
Percentage				
Distribution of Immigrants by year of arrival				
1979 or 1980	24.6	30.3	21.8	33.5
1977 or 1978	18.0	12.8	17.0	21.6
1975 or 1976	10.7	10.8	10.6	11.6
1973 or 1974	8.7	13.4	7.8	11.6
1971 or 1972	6.6	8.9	6.5	7.0
1970	4.9	5.0	5.3	4.1
1960 to 1969	17.9	16.0	20.5	9.6
1950 to 1959	4.7	1.9	5.7	0.6
Before 1950	3.9	0.9	4.8	0.4
Distribution of Immigrants by country of birth				
All		5.9	72.1	16.3
1979-80		7.3	63.9	22.2
1977-78		4.2	68.1	19.5
1975-76		6.0	71.2	17.6
1973-74		9.1	65.0	21.6
1971-72		8.0	70.4	17.3
1970		6.1	78.4	13.7
1960-69		5.3	82.5	8.7
1950-59		2.4	87.4	2.0
Before 1950		1.4	89.2	1.7

Source: United States Bureau of the Census, 1984.

Table 38 Year of Immigration to American Samoa, by age, 1980

	Total	Under 5 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-44 years	45-54 years	55-59 years	60-64 years	65+ years
Total persons	32,297	4,786	4,218	4,203	3,849	3,057	2,388	2,066	3,113	2,261	776	635	945
Born in American Samoa	18,586	3,856	2,984	2,812	2,052	1,067	856	824	1,382	1,236	468	404	645
Born outside American Samoa	13,442	913	1,212	1,367	1,764	1,946	1,506	1,217	1,707	1,000	297	224	289
1979 or 1980	3,307	469	324	291	516	596	378	259	226	130	47	29	42
1977 or 1978	2,420	291	295	261	314	453	295	186	191	78	21	15	20
1975 or 1976	1,441	94	225	174	181	225	159	120	144	70	18	14	17
1973 or 1974	1,170	-	201	164	140	148	138	128	137	53	12	10	8
1971 or 1972	888	-	120	129	108	99	111	91	124	63	17	8	7
1970	657	-	-	123	92	92	89	56	77	48	16	11	11
1960 to 1969	2,405	-	-	225	412	261	278	293	517	257	64	45	31
1950 to 1959	636	-	-	-	-	71	57	58	208	162	35	18	26
Before 1950	518	-	-	-	-	-	-	26	83	139	67	74	127
Misclassified	79	-	-	-	-	-	-	-	-	-	-	-	-

Source: United States Bureau of the Census, 1984.

although this applies more strongly in the post-1975 period. Of the adults most (70–80 per cent) were of young working age. These findings are consistent with migration driven by labour market considerations, at least for most migrants currently resident in American Samoa.

The median income of American Samoa-born in 1979 was \$4,562. That for all immigrants was \$3,933. As was noted earlier in the chapter, only the US-born within the immigrant group received higher income than American Samoans. Of the immigrants by year of immigration, only those entering American Samoa in 1979–80 had higher median earnings than those entering before 1970 (Table 39). As mentioned before, it is expected that this comparison is biased down because those entering before 1970 are composed of 'successful' immigrants and have more years of work experience than more recent immigrants (based on the age-distributions shown in Table 38). Note that the mean income of all groups since 1975 exceeds that of all earlier immigrants. This suggests greater inequality in the earnings of more recent immigrants which is consistent with our assumption that more recent immigrants are a mixture of 'successes' and 'failures' whereas older groups are more likely to be composed of 'successes' and thus have a more compact income distribution.

Immigrants entering American Samoa between 1960 and 1970 appear to have low income relative to earlier groups. This was the period in which the Western Samoan share in immigration fell from 90 per cent to 78 per cent, that of Tongans jumped from around 2 per cent to 6 per cent and the US-born share rose dramatically from 2 per cent to 14 per cent. Given the higher income of the US-born and their increasing importance among immigrants, the relative disadvantage of the 1960–70 cohort of migrants is puzzling — especially so since their educational attainment was greater than that of earlier migrant cohorts and similar to that of later cohorts. Note also that comparisons of the 1960–70 cohorts with earlier cohorts are unlikely to be affected by selectivity bias from differential return among the groups. It may reflect differences in mean years of labour market experience but seems large relative to the difference between this group and younger cohorts.

Another perspective on the success of

immigrants is the ratio of those fifteen years and over earning income to all persons fifteen years and over. Immigrants have a lower ratio of income-earners than American Samoans. This ratio increases as years since immigration increase. This could reflect individuals finding jobs as they become more familiar with American Samoa or those not finding jobs leaving the country. The ratio of income-earners is very low for the 1979–80 cohort. Although this might reflect the normal period of adjustment as new migrants search for jobs, the evidence from the labour market does not strongly support this (Table 40). Although the most recent cohort has an unemployment rate more than twice that of other groups, consistent with a search interpretation, its labour force participation rate is only 33 per cent—about ten percentage points lower than that for other cohorts. Thus the most recent cohort seems to consist of two groups, one with high income relative to other groups, and another which is either unemployed or not in the labour force. The latter group is by far the larger of the two. The 1979–80 cohort is either very different to other cohorts or else the initial stage of adaptation to a new environment is characterized by low or no earnings and a period of being out of the labour market. If new arrivals were disproportionately classified as 'out of the labour market' rather than 'unemployed' this would explain at least part of the behaviour of this group.

Two other cohorts with unusual ratios of earners are the 1970 cohort and the 1960–69 cohort. The 1970 cohort has a low ratio of earners as well as relatively low median income which is related to its low labour force participation rate (40 per cent versus 45 per cent for all cohorts). In contrast the 1960–69 cohort has a relatively high ratio of earners (57 per cent) and labour force participation (53 per cent) although its earnings are low relative to earlier cohorts.

Immigrants had almost the same aggregate labour force characteristics as American Samoa-born workers (Table 40). However, within the immigrant cohorts, these characteristics vary considerably. Labour force participation rates rise with longer residence in American Samoa (the exceptions are the 1975–76 and 1970 cohorts). Unemployment rates of immigrants who arrived prior to 1970 are lower. Filiga and Levin (1987) also found that labour market attachment and success

Table 39 Income (US\$) in 1979 of individuals with earnings in American Samoa, by year of immigration

	Total (includes persons without income)	Total	Percentage of all persons 15 and over with income	\$1 to \$499	\$500 to \$999	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 to \$4,999	\$5,000 to \$6,999	\$7,000 to \$9,999	\$10,000 to \$14,999	\$15,000 to \$24,999	\$25,000 or more	Median dollars	Mean dollars
Persons 15 years and over Born in American Samoa	19,090	9,786	51	391	387	796	1,354	3,001	1,600	1,017	607	422	212	4,219	6,159
Born outside American Samoa	8,934	4,858	54	170	155	386	618	1,384	884	607	362	207	85	4,562	6,551
	9,950	4,788	48	192	223	390	723	1,598	692	398	240	207	125	3,933	5,796
1979 or 1980	2,223	701	31	42	49	91	95	140	70	49	50	70	45	4,022	7,351
1977 or 1978	1,573	722	46	42	42	63	135	224	74	49	34	40	19	3,577	6,717
1975 or 1976	948	410	43	11	21	30	72	148	47	27	19	21	14	3,747	5,962
1973 or 1974	774	371	48	16	20	28	64	140	48	29	11	9	6	3,625	4,560
1971 or 1972	628	328	52	16	11	18	60	132	37	23	15	11	5	3,702	4,854
1970	492	223	45	11	12	19	30	91	27	17	10	3	3	3,693	4,523
1960 to 1969	2,158	1,223	57	39	39	88	161	466	225	104	50	28	23	4,097	5,339
1950 to 1959	636	450	71	5	15	18	57	156	106	53	26	8	6	4,449	5,438
Before 1950	518	360	70	10	14	35	49	101	58	47	25	17	4	4,491	5,668

Source: United States Bureau of the Census, 1984.

Table 40 Labour force status in 1980 of immigrants to American Samoa, by year of immigration

	Labour force		Civilian labour force			
	Population 16 years and over	Total	Percent of population 16 years and over	Total	Employed 35 or more hours	Unemployed Total
Persons	18,319	8,329	45.5	8,308	7,186	202
Born in American Samoa	8,446	3,869	45.8	3,854	3,359	93
Born outside American Samoa	9,669	4,364	45.1	4,358	3,736	109
1979 or 1980	2,172	719	33.1	715	579	43
1977 or 1978	1,526	688	45.1	687	575	19
1975 or 1976	919	370	40.3	370	321	8
1973 or 1974	744	342	46.0	342	290	9
1971 or 1972	600	291	48.5	291	249	5
1970	470	188	40.0	188	170	1
1960 to 1969	2,084	1,104	53.0	1,103	963	18
1950 to 1959	636	408	64.2	408	370	3
Before 1950	518	254	49.0	254	219	3

Source: United States Bureau of the Census, 1984.

were positively related to length of time in American Samoa. The relatively low participation rate for the prior-to-1950 cohort is explained by the fact that 25 per cent of this cohort is sixty-five years old or older and that the participation rates are defined on the base of population sixteen years and over. These differences in labour force characteristics are broadly consistent with the cohort differences in income observed in Table 39 but do not seem to be explained by the changing country of birth composition of the migrant cohorts.

There are only a few sizeable differences in the industrial composition of workers by year of immigration to American Samoa (Table 41). Immigrants who arrived before 1960 are more likely to be employed in public administration and less likely to be employed in manufacturing or retail trade than are members of previous cohorts. Some of the income advantage enjoyed by earlier cohorts may be related to their heavier representation in the more highly paid public administration field than in the lower paid manufacturing and retail industries.

One other difference in employment by industry is the relatively high proportion of the 1979-80 cohort in the construction industry and its correspondingly lower representation in manufacturing. This difference may, in part, explain the relatively higher income of those of the newest cohort who have income.

These differences in industrial composition do not appear to be explained by the different country of birth composition of the immigration cohorts since Western Samoans and Tongans tend to be more heavily represented in manufacturing and retail and the US-born in public administration. Thus a simple country of birth explanation would predict the opposite pattern to that observed.

To summarize, care must be taken in comparing differences between migrants and members of the home population who did not migrate because migrants are not randomly selected from the home population. Similar care must be taken in comparing migrants of different dates of migration since migrants who remain in American Samoa may not be randomly selected from all original migrants. Further care must be taken in comparing migrant cohorts because the country of birth composition

of immigration to American Samoa changed between the 1950s, 1960s, and 1970s and the country of birth groups differed in their characteristics.

Western Samoan migration to American Samoa dominated that of all other groups up to 1960. Although it was still the largest category of migrants in the 1960s it declined relative to Tongans and, particularly, the US-born. In the 1970s the composition of immigration by country of birth was relatively constant.

Working-age migrants tended to form the bulk of all migrants and the vast majority of adult migrants were of young working age. The income of migrants tended to be below that of American Samoans while within the migrant group only the most recent cohort (1979-80) had higher median income than the older cohorts (those prior to 1970).

Although the most recent cohort had high income relative to other cohorts of the 1970s it had a much lower proportion of income earners, labour force participants, and a much higher unemployment rate than all other cohorts. The cohort seemed to be composed of two very different groups of individuals, one in the labour market and very successful and the other out of the labour market. This latter group was large relative to the former group.

There were only a few differences between immigration cohorts in their industrial distribution. The pre-1960 cohort was more likely than others to be employed in public administration and less likely to be employed in the retail and manufacturing industries.

Inter-cohort differences in labour force attachment and industry of employment were consistent with inter-cohort differences in income and do not seem to have been explained by the different country of birth composition of the cohorts.

Analysis of migration by place of residence in 1975

Census data is also available classified by place of residence in 1975, allowing the comparison of a limited set of characteristics for those resident in American Samoa in 1980 but who had been resident in Western Samoa, Tonga, the United States or American Samoa in 1975.

Table 41 Major industry employment in 1980 of immigrants to American Samoa, by year of immigration

	Employed persons	Agric- culture, forestry and fisheries	Construc- tion and mining	Manu- facturing	Trans- portation, commun- ications, and other public utilities	Whole- sale trade	Retail trade	Finance, insurance and real estate	Business and repair services	Entertain- ment and personal services	Profess- ional and related services	Public adminis- tration	Primarily substance activity
Total persons	8,106	97	623	1,905	704	153	778	106	106	268	1,752	1,602	12
Born in American Samoa	3,761	34	218	559	339	43	248	63	34	98	1,022	1,094	9
Born outside American Samoa	4,249	58	402	1,324	361	106	524	42	72	168	701	488	3
Year of immigration to this area													
1979 or 1980	672	21	87	188	40	15	95	9	13	26	122	56	-
1977 or 1978	668	12	37	264	37	14	92	9	10	19	119	55	-
1975 or 1976	362	4	28	119	28	10	52	8	3	21	57	32	-
1973 or 1974	333	-	31	125	31	14	41	4	3	11	41	32	-
1971 or 1972	286	-	30	104	20	5	38	-	8	15	36	29	1
1970	187	3	18	61	13	4	31	1	7	6	24	19	-
1960 to 1969	1,085	10	103	330	114	30	121	11	22	44	174	124	2
1950 to 1959	405	5	43	96	50	12	35	-	4	14	79	67	-
Before 1950	251	3	25	37	28	2	19	-	2	12	49	74	-
Percentage													
1979 or 1980		3.1	12.9	28.0	6.0	2.2	14.1	1.3	1.9	3.9	18.2	8.3	-
1977 or 1978		1.8	5.5	39.5	5.5	2.1	13.8	1.3	1.5	2.8	17.8	8.2	-
1975 or 1976		1.1	7.7	32.9	7.7	2.8	14.4	2.2	0.8	5.8	15.7	8.8	-
1973 or 1974		-	9.3	37.5	9.3	4.2	12.3	1.2	0.9	3.3	12.3	9.6	-
1971 or 1972		-	10.5	36.4	7.0	1.7	13.3	-	2.8	5.2	12.6	10.1	0.3
1970		1.6	9.6	32.6	7.0	2.1	16.6	0.5	3.7	3.2	12.8	10.2	-
1960 to 1969		0.9	9.5	30.4	10.5	2.8	11.2	1.0	2.0	4.1	16.0	11.4	0.2
1950 to 1959		1.2	10.6	23.7	12.3	3.0	8.6	-	1.0	3.5	19.5	16.5	-
Before 1950		1.2	10.0	14.7	11.2	0.8	7.6	-	0.8	4.8	19.5	29.5	-

Source: United States Bureau of the Census, 1984.

The data focuses on recent migrants, that is, those who have migrated within the last five years, therefore, complementing the analysis in the previous section. However, this data has a great advantage over that classified by year of immigration, for it is possible to identify which country of birth group is associated with each place of residence. Those who were resident in Tonga were almost exclusively Tongan and those who were resident in Western Samoa were predominantly Western Samoan. Of those resident in the United States in 1975 39 per cent were born in American Samoa and were, therefore, return migrants. A further 4 per cent were returning Western Samoans and 54 per cent were born in the United States (Table 42). Of those born in the United States probably two-thirds were Samoan or part-Samoan (Table 32).

As in the earlier analyses, the majority of migrants were adults, especially young working-age adults (Table 43). Only 15 per cent of Tongans who moved to American Samoa between 1975 and 1980 were less than fifteen years of age. The percentages for Western Samoa and US-born were 19 per cent and 27 per cent respectively. The percentages of Tongans and especially the US-born were lower than those based on all country of birth data. The percentages of Tonga and Western Samoa-born who were of young working age were also higher than in the country of birth data. For Tonga and Western Samoa-born the figures were 73 per cent versus 60 per cent, and 81 per cent versus 66 per cent, respectively. For the US-born the corresponding percentages were 62 per cent and 67 per cent. These figures are consistent with an increasing importance of labour market-driven immigration among more recent immigrants from Tonga and Western Samoa.

Those resident in their home country in 1975 (that is, recent immigrants) had a lower median income than American Samoans and longer term immigrants (Table 44 compared to Table 33). The relative disadvantage of recent Tongan migrants exceeded that of other groups. For Western Samoan and US-born, those who were resident in the home country in 1975 earned about 85 per cent of the income of all migrants. Recent Tongan migrants received only 69 per cent of the income of all Tongan migrants. The relative disadvantage of recent immigrants could

reflect their lower years of experience, selectivity among the older migrants (in return migration), or both.

As in Table 33 the income distribution for Tongans and Western Samoans was more compact than that for the US-born. The percentage of all individuals fifteen years and older who were income recipients was 30 per cent both for Tongans and American Samoans — similar to that of 1979–80 immigrants. In contrast 66 per cent of the US-born were income recipients.

The labour force attachment of more recent migrants was less than that of all migrant groups (Table 45). More recent Tongan and Western Samoan migrants had a labour force participation rate about ten percentage points lower than all country of birth migrants (32 per cent versus 42 per cent). For US-born immigrants there was little difference. Those immigrating in 1975–76 and 1979–80 had the lowest participation rates (Table 40).

The unemployment rates of more recent Tongan and Western Samoan migrants were considerably higher than the average for all migrants. The rates for recent and all migrants were 3.6 per cent and 2.4 per cent for Tongans, and 5.1 per cent and 1.6 per cent for Western Samoans. The rates for the US-born were 3.1 per cent and 2.8 per cent. Thus more recent immigrants from the Pacific were less likely to be in the labour force than all immigrants and those in the labour force were more likely to be unemployed. The latter finding was expected but the low labour force participation is still perplexing.

The representation of recent Tongan immigrants in agriculture was three times that for all Tongan immigrants (Table 46 and Table 35). Overall the distribution was similar to that for all Tongans, a heavy representation in construction, manufacturing, and retail and a low representation in professional services and public administration. The distribution for recent Western Samoan immigrants differed in only one major respect from that for all Western Samoans — a much lower representation in public administration (4.6 per cent versus 11.1 per cent). For US-born migrants, the recent migrants had a distribution of employment by industry which was much like that of all immigrants.

Table 42 Residence in 1975 of persons resident in American Samoa in 1980, by country of birth

	Total	American Samoa	Country of birth		
			Tonga	Western Samoa	United States
Residence in 1975					
Numbers					
Persons 5 years and over	27,511	14,730	756	9,227	1,835
Same house	18,198	12,268	347	4,626	685
Different house in this area	2,787	1,325	87	1,124	158
Same county	1,658	811	45	669	86
Different county	1,129	514	42	455	72
Outside the area	5,837	766	312	3,417	967
American Samoa	na	na	na	na	na
Other Pacific Islands	3,812	110	306	3,309	16
Tonga	307	110	306	3,309	16
Western Samoa	3,448	105	5	3,303	14
United States	1,639	632	4	69	893
Percentages					
All persons					
Same house	66.1	83.3	45.9	50.1	37.3
Different house in this area	10.1	9.0	11.5	12.2	8.6
Same county	6.0	5.5	6.0	7.3	4.7
Different county	4.1	3.5	5.6	4.9	3.9
Outside the area	21.2	5.2	41.3	37.0	52.7
American Samoa	na	na	na	na	na
Other Pacific Islands	13.9	0.7	40.5	35.9	0.9
Tonga	1.1	-	39.8	-	-
Western Samoa	12.5	0.7	0.7	35.8	0.8
United States	6.0	4.3	0.5	0.7	48.7
Females 5 years and over					
Same house	13,613	7,459	352	4,537	883
Different house this area	9,123	6,242	156	2,260	347
Same county	1,330	662	37	537	69
Different county	776	394	18	316	37
Outside this area	554	268	19	221	32
Outside this area	2,869	381	152	1,717	452
American Samoa	na	na	na	na	na
Other Pacific Islands	1,903	51	150	1,658	6
United States	796	317	1	36	419
Percentages					
Females					
Same house	67.0	83.7	44.3	49.8	39.3
Different house this area	9.8	8.9	10.5	11.8	7.8
Same county	5.7	5.3	5.1	7.0	4.2
Different county	4.1	3.6	5.4	4.9	3.6
Outside this area	21.1	5.1	43.2	37.8	51.2
American Samoa	na	na	na	na	na
Other Pacific Islands	14.0	0.7	42.6	36.5	0.7
United States	5.8	4.2	0.3	0.8	47.5

Source: United States Bureau of the Census, unpublished tabulations.

Table 43 Residence in 1975 of persons resident in American Samoa in 1980, by age

	Total	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-44 years	45-54 years	55-59 years	60-64 years	65 years and over
Residence in 1975												
Persons 5 years and over	27,511	4,218	4,203	3,849	3,057	2,388	2,066	3,113	2,261	776	635	945
Same house	18,198	2,992	3,202	2,586	1,455	1,167	1,130	2,094	1,695	600	519	758
Different house in this area	2,787	373	334	319	344	335	328	372	222	59	32	69
Same county	1,658	236	205	187	191	192	183	230	130	39	22	43
Different county	1,129	137	129	132	153	143	145	142	92	20	10	26
Outside the area	5,837	651	604	879	1,164	815	562	582	304	102	75	99
Tonga	307	26	21	38	56	51	41	45	14	7	5	3
Western Samoa	3,448	332	337	653	905	460	247	261	125	40	33	55
United States	1,639	239	210	153	164	218	206	204	134	47	30	34
All persons												
Same house		16.4	17.6	14.2	8.0	6.4	6.2	11.5	9.3	3.3	2.9	4.2
Different house in this area		13.4	12.0	11.4	12.3	12.0	11.8	13.3	8.0	2.1	1.1	2.5
Same county		14.2	12.4	11.3	13.6	12.7	12.8	12.6	8.1	1.8	0.9	2.3
Different county		12.1	11.4	11.7	19.9	14.0	9.6	10.0	5.2	1.7	1.3	1.7
Outside the area		11.2	10.3	15.1	18.2	16.6	13.4	14.7	4.6	2.3	1.6	1.0
Tonga		8.5	6.8	12.4	26.2	13.3	7.2	7.6	3.6	1.2	1.0	1.6
Western Samoa		9.6	9.8	18.9	10.0	13.3	12.6	12.4	8.2	2.9	1.8	2.1
United States		14.6	12.8	9.3								
Females 5 years and over	13,613	2,062	1,947	1,971	1,667	1,236	1,033	1,427	1,102	388	302	478
Same house	9,123	1,450	1,473	1,274	830	663	616	1,025	857	309	247	379
Different house in this area	1,330	18	148	174	204	175	148	150	77	31	13	29
Same county	776	112	85	105	108	104	74	95	44	25	8	16
Different county	554	69	63	69	96	71	74	55	33	6	5	13
Outside the area	2,869	330	298	494	604	374	253	233	148	40	37	58
United States	796	123	100	84	100	114	91	75	57	21	18	13

Source: United States Bureau of the Census, unpublished tabulations.

Table 44 Residence in 1975 of persons resident in American Samoa in 1980, by income in 1979 (US\$)

	Total (includes persons without income)	Total persons with income)	\$1 to \$499	\$500 to \$999	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 to \$4,999	\$5,000 to \$9,999	\$7,000 to \$14,999	\$15,000 to \$24,999	\$25,000 or more	Median dollars	Mean dollars
Residence in 1975													
Persons 15 years and over	19,090	9,786	391	387	795	1,354	3,001	1,600	1,017	422	212	4,219	6,159
Same house	12,004	6,380	234	228	508	876	2,058	1,119	693	206	99	4,221	5,739
Different house in this area	2,080	1,223	39	37	73	182	364	209	133	50	20	4,373	6,181
Same county	1,217	732	21	20	47	113	246	117	76	26	11	4,243	6,264
Different county	863	491	18	17	26	69	138	92	57	41	9	4,612	6,058
Outside the area	4,582	1,929	89	104	186	257	507	220	172	153	91	4,174	7,694
Other Pacific Islands	3,079	947	63	71	130	194	338	90	34	11	2	3,076	3,360
Tonga	260	92	7	10	17	23	28	6	-	-	-	2,400	2,553
Western Samoa	2,779	835	54	61	113	170	303	83	32	8	2	3,108	3,335
United States	1,190	787	18	22	48	50	130	101	112	111	78	7,645	12,425
							Numbers						
								Percentages					
All persons same house			3.7	3.6	8.0	13.7	32.4	17.5	10.9	3.2	1.6		
Different house in this area			3.2	3.0	6.0	14.9	31.4	17.1	10.9	4.1	1.6		
Outside the area			4.6	5.4	9.6	13.3	26.3	11.4	8.9	7.9	4.7		
Tonga			7.6	10.9	18.5	25.0	30.4	6.5	-	-	-		
Western Samoa			6.5	7.3	13.5	20.4	36.3	9.9	3.8	1.1	0.2		
United States			2.3	2.8	6.1	6.4	16.5	12.8	14.2	14.1	9.9		
							Numbers						
Females 15 years and over	9,604	3,967	202	217	453	702	1,318	566	296	67	21	3,519	4,291
Same house	6,200	2,712	133	141	318	468	933	397	214	30	13	3,533	4,207
Different house in this area	1,001	449	18	19	33	94	144	78	37	15	1	3,665	4,341
Same county	579	263	12	9	21	52	93	43	18	4	1	3,647	4,299
Different county	422	186	6	10	12	42	51	35	19	6	-	3,697	4,456
Outside the area	2,241	724	47	48	95	121	224	76	40	24	6	3,389	4,514
Other Pacific Islands	1,540	374	30	27	59	85	137	25	7	2	2	2,788	2,838
United States	573	303	14	14	33	31	76	43	31	19	5	4,577	6,444
							Numbers						
								Percentages					
Females			4.9	5.2	11.7	17.3	34.4	14.6	7.9	1.1	0.5		
Same house			4.0	4.2	7.3	20.9	-	17.4	8.2	2.2	0.2		
Different house in this area			6.5	6.6	13.1	16.7	30.9	10.5	5.5	3.3	0.8		
Outside the area			8.0	7.2	15.8	22.7	34.6	6.7	1.9	0.5	-		
Other Pacific Islands			4.6	4.6	10.9	10.2	25.1	14.2	10.2	6.3	1.7		
United States													

Source: United States Bureau of the Census, unpublished tabulations.

Table 45 Residence in 1975 of persons resident in American Samoa in 1980, by labour force status

	Labour force			Civilian labour force					
	Total	Percent of population 16 years and over	Total	Employed 35 or more hours	At work 1-34 hours	Unemployed Total	Percent of civilian labour force		
Residence in 1975									
Persons 16 years and over	18,319	8329	45.5	3,308	3,106	7,186	776	202	2.4
Same house	11,415	5252	46.0	5,247	5,138	4,568	470	109	2.1
Different house in this area	2,015	1083	53.7	1,082	1,062	952	94	20	1.8
Same county	1,174	640	54.5	639	624	561	56	15	2.3
Different county	841	443	52.7	443	438	391	38	5	1.1
Outside the area	4,469	1816	40.6	1,802	1,730	1,505	199	72	4.0
Other Pacific Islands	3,005	973	32.4	973	926	773	137	47	4.8
Tonga	266	84	32.8	84	81	76	4	3	3.6
Western Samoa	2,711	870	32.1	870	826	680	131	44	5.1
United States	1,155	655	56.7	642	622	565	48	20	3.1
Females 16 years and over	9,208	3,266	35.5	3,265	3,183	2,649	467	82	2.5
Same house	5,907	2,168	36.7	2,167	2,127	1782	296	40	1.8
Different house in this area	971	384	39.5	384	376	316	54	8	2.1
Same county	559	219	39.2	219	212	180	31	7	3.2
Different county	412	165	40.0	165	164	136	23	1	0.6
Outside the area	2,169	664	30.6	664	630	509	109	34	5.1
Other Pacific Islands	1,492	385	25.8	385	362	280	74	23	6.0
United States	550	239	43.5	239	229	198	28	10	4.2

Source: United States Bureau of the Census, unpublished tabulations.

Table 46 Residence in 1975 of persons resident in American Samoa in 1984, by major industry employment

	Employed persons	Agriculture, forestry and fisheries	Construction and mining	Manufacturing	Transportation, communications, and other public utilities	Wholesale trade	Retail trade	Finance, insurance and real estate services	Business and repair services	Entertainment and personal services	Professional and related services	Public administration	Primarily subsistence activity
Residence in 1975													
Persons 5 years and over	8,106	97	623	1,905	704	153	778	106	106	268	1,752	1,602	12
Same house	5,138	41	388	1,095	473	79	416	62	59	169	1,184	1,161	11
Different house in the area	1,062	15	85	265	112	28	119	11	8	34	182	193	-
Same county	624	7	61	155	62	13	69	8	8	23	99	119	-
Different county	438	8	24	110	50	15	50	3	10	11	83	74	-
Outside the area	1,730	35	139	497	109	40	227	32	28	61	346	216	-
Other Pacific Islands	926	21	88	407	44	25	147	6	14	38	96	41	-
Tonga	81	8	23	9	2	1	26	-	2	5	3	2	-
Western Samoa	826	12	64	397	40	23	114	6	12	33	87	38	-
United States	622	9	40	36	57	11	56	24	7	14	208	160	-
All persons													
Same house		0.8	7.6	21.3	9.2	1.5	8.1	1.2	1.1	3.3	23.0	22.6	0.2
Outside the area		2.0	8.0	28.7	6.3	2.3	13.1	1.8	1.6	3.5	20.0	12.5	-
Same county		1.1	9.8	24.8	9.9	2.1	11.1	1.3	1.3	3.7	15.9	19.1	-
Different county		1.8	5.4	22.8	11.4	3.4	11.4	0.6	2.3	2.5	18.9	16.9	-
Tonga		9.9	28.4	11.1	2.5	1.3	32.1	-	2.5	6.2	3.7	2.5	-
Western Samoa		1.5	7.7	48.0	4.8	2.8	13.8	0.7	1.5	6.0	10.5	4.6	-
United States		1.4	6.4	5.8	9.2	1.8	9.0	3.9	1.1	2.3	33.4	25.7	-
Females 5 years and over													
Same house	3,183	9	32	907	128	46	395	81	29	145	948	457	6
Different house in the area	2,127	4	22	562	84	22	233	50	16	85	690	354	5
Same county	376	1	2	116	23	10	52	7	6	18	89	52	-
Different county	212	-	2	71	9	5	28	5	2	11	49	30	-
Outside this area	164	1	-	45	14	5	24	2	4	7	40	22	-
Other Pacific Islands	630	2	8	214	18	13	103	23	6	40	157	46	-
Tonga	362	1	6	198	5	7	59	4	2	27	46	7	-
United States	229	1	2	9	12	5	36	18	4	10	93	39	-

Source: United States Bureau of the Census, unpublished tabulations.

Thus whether data was analysed by year of immigration or by residence five years ago, it was found that most migrants were adults and in particular, young working-age adults. The median income of recent migrants was lower than that of migrant groups with longer residence in American Samoa and lower than the American Samoan population. The relative disadvantage of recent Tongan migrants was much larger than that of the other migrant groups. Only about 30 per cent of all recent Tongan and Western Samoan migrants were income recipients. This reflects the relatively low labour force participation rates of these groups and their relatively high unemployment rates.

Main findings on migration of Pacific Islanders to American Samoa

The key characteristics of Pacific island migrants in American Samoa in 1980 can be summarized as follows:

- The motivation of those migrating to or within American Samoa is clearly economic.
- Migrants were predominantly of working age and the majority of these were of young working age (15–34 years).
- Males were a larger percentage of adult migrants (those fifteen years or over) than females, but females outnumbered males among the young working-age migrants.
- Ninety-five per cent of migrant households were family households and most of these were husband-wife households.
- Migrants had lower fertility than American Samoans and much lower fertility than their home populations.
- Tongan and Western Samoan migrants had lower median incomes than all other groups in American Samoa. US-born immigrants had higher median incomes than American Samoans.
- Migrants had higher income than individuals in the home populations. (this simple comparison may overstate the gains to migration.)
- Migrants had higher levels of educational attainment than individuals in the home populations.
- Migrants had lower unemployment rates than workers in the home populations.
- The majority of Tongan and Western Samoan immigrants who worked were employed in the private sector whereas the majority of American Samoan and US-born workers were employed by the government.
- Migrants appeared to have more job-related skills than individuals in the home populations.
- Relatively few migrants were employed in agriculture whereas over half of the labour force in Tonga and Western Samoa was employed in this sector. Migrant employment was concentrated in construction and manufacturing whereas employment of American Samoans and US-born migrants was concentrated in professional services and public administration.
- The median earnings of women were less than those of men in all occupations and industries.
- There appear to be three different phases of migration to American Samoa. Before 1960 almost all migrants were from Western Samoa. In the 1960s Tongan and US-born migration increased rapidly. In the 1970s the shares were relatively constant (6 per cent Tongan, 70 per cent Western Samoan, 20 per cent US-born).
- Labour force attachment and income generally rose with longer residence in American Samoa.

Chapter 5

Return migration

AN adequate explanation of the phenomenon of return migration must involve expanding the human capital model of migration presented in Appendix 1 to include the concepts of location-specific capital and information costs (DaVanzo 1981, 1983).

Only with perfect information and perfect foresight would a potential migrant always correctly weigh the costs and benefits of migration. With costly and imperfect information, costs and benefits may be over- or under-estimated and 'mistakes' may occur. Since migrants have substantial location specific capital, that is, knowledge of and associations with their place of origin they are most likely to return there if their migration was a 'mistake'. Thus, with costly and imperfect information and location-specific human capital return migration is likely. Since initial migration is selective against those who underestimate net benefits, the more costly and less perfect the information, the more numerous are return migrants who overestimated net benefits. We are concerned here with migration as an investment, although some return migrants may have seen initial migration as a consumption good—termed 'the trip' in the literature on Pacific migration—or return migration may be part of the initial migration decision.

According to DaVanzo (1981, 1983) those individuals with the most origin-specific human capital and the highest initial information costs are most likely to return.

In other words, an individual who migrates from American Samoa is more likely to return:

- (i) the longer their initial residence in American Samoa;
- (ii) the shorter their stay away from American Samoa (since, like other forms of human capital, location-specific capital depreciates over time);
- (iii) the lower their level of education (higher levels of education are associated with more efficient processing of information);

(iv) the closer the place to which they migrated.

DaVanzo (1981, 1983) found that in the United States, migrants who returned quickly to their original location conformed to the 'failure' stereotype. However, those who returned after a prolonged absence were as highly educated and had the same probability of employment as the total sample of individuals. This finding suggests that two types of return migration and return migrants exist. The first includes those who make mistakes and return quickly, the second those for whom migration and return migration are rationally planned over the life cycle and whose return occurs after a relatively long period of absence. For example, migration may occur so that an individual can acquire education, training, employment experience, or capital that will be used upon returning to their place of origin.

Evidence based on residence in 1975

The published census data does not make it possible to examine return migration directly but this can be done indirectly through the use of the question on residence five years ago. Responses to this question give an underestimate of the extent of return migration since all those who left American Samoa and returned within the period 1976–80 are not included.

Return migrants, those born in American Samoa but resident overseas in 1975, constituted only 5.2 per cent of the 1980 population of American Samoa. Of these individuals, 82.5 per cent were resident in the United States in 1975 and 13.7 per cent in Western Samoa.

Of those persons resident in the United States in 1975, 43 per cent were Samoa-born and 54 per cent US-born. Twenty-seven per cent of those resident in the United States in 1975 were children less than fifteen years of age and a further 7 per cent were youths 15–

19 years of age. Thus it is reasonable to assume that the data on those resident in the United States in 1975 reflects to a large extent, the characteristics of return migrants and their offspring. To address return migration directly, data is needed on the characteristics of those American Samoa-born who were resident overseas in 1975 but resident in American Samoa in 1980. In the absence of such data, data on those resident in the United States in 1975 is used as a proxy. This data is reported in Tables 43 to 46.

As reported above, return migrants are more successful in American Samoa than other American Samoans and other migrant groups. That is, their median incomes are considerably higher, their labour force participation higher, and their representation in professional services and public administration higher than all other groups. However, it is not known whether these returnees are 'failed' migrants or planned returnees. Their superior performance relative to other American Samoans could, therefore, reflect selectivity, human capital acquired overseas, or both. Compared to Samoans in the United States, returnees had a slightly lower participation rate (56.7 per cent versus 60.2 per cent) but a much higher representation in professional services and public administration (60 per cent versus 25 per cent). These findings are not consistent with Connell's (1984a:192) characterization of returned migrants as 'largely composed of those who have failed to find a niche in the metropolitan countries. They are rarely those with the skills and capi-

tal to contribute to development' (see also Connell (1987:392)). However, the data does not allow Connell's characterization to be rejected since all of those resident in the United States five years ago may not be American Samoa-born.

Unpublished census data on individuals who had lived in the United States for six or more consecutive months between 1970 and 1980 and who were resident in American Samoa at the time of the 1980 Census makes it easier to explore the demography and timing of the return migration flow.

Evidence based on persons who had lived in the United States between 1970 and 1980

During the 1970s, 3,591 persons resident in American Samoa in 1980 had lived in the United States for six or more consecutive months. Of these 53 per cent had been born in American Samoa. The rate of return implied in Table 47 is almost 10 per cent higher than that implied in Table 42, supporting the assertion that the census question on residence five years ago underestimates return migration. Table 47 also underestimates return migration because of the requirement that six or more consecutive months were spent in the United States. Based on the data in Table 47, slightly more than 1 per cent of the 1980 population returned from the United States annually between 1970 and 1980. The flow of American Samoa-born was 11 per cent higher than that of those born overseas, perhaps

Table 47 Persons 5 years and over who lived in the United States for 6 or more consecutive months between 1970 and 1980 and returned to American Samoa

Returned in:	Males		Females	
	Born in the area	Born outside the area	Born in the area	Born outside the area
1979 or 1980	336	363	380	326
1978	166	150	169	158
1977	76	74	76	70
1976	68	52	72	56
1975	57	51	63	55
1974	67	53	61	56
1973	42	34	47	23
1972	35	26	39	21
1970 or 1971	61	67	39	49
Year not reported	17	20	22	14
Total	925	870	968	828

Source: United States Bureau of the Census, unpublished tabulations.

reflecting the greater location specific capital of the former, and the flow was equal for males and females.

In 1980, 39,520 Samoans were resident in the United States (Table 48). Thus over the decade 1970–80 return migrants were less than 10 per cent of the number of Samoans in the United States in 1980. Thus we concur with McPherson (1985) that the probability of return migration for Samoans is lower than is commonly believed.

Table 48 Person 5 years and over who lived in the United States for 6 consecutive months between 1970 and 1980 and returned to American Samoa, by age in 1980

	Males		Females	
	Number	Per cent	Number	Per cent
Under 15 years	396	22.1	383	21.3
15–24 years	269	15.0	426	23.7
25–34 years	396	22.1	410	22.8
35–44 years	298	16.6	210	11.7
45 years and over	435	24.3	369	20.5
Total	1795		1797	

Source: United States Bureau of the Census, unpublished tabulations.

The flow of returnees from 1978 to 1980 was much larger than that of earlier years. This could reflect the worsening economic situation in the United States, where the unemployment rate rose from 5.8 in 1978 to 7.6 in 1980. In 1980 the unemployment rate among Samoans in the United States was 9.7 (Levin 1984).

The majority of return migrants are young. Forty-one per cent were less than twenty-five years old and 63 per cent were less than thirty-five years old in 1980. This is not surprising since migrants are predominantly young and the young are hypothesized to be less efficient decision-makers. Thus the outward and return flows are predominantly young. One feature of the return migrant flow was the larger percentage of female returnees 15–24 years of age and the smaller percentage of female returnees over thirty-five years of age.

Individuals who have been away for at least six years constitute the largest group of

returnees for males and females. Forty-seven per cent of males and 41 per cent of females have been absent for this period. Short-term absences (six months to two years) are the next most common, accounting for 30 per cent of male and 37 per cent of female returnees (Table 49). These figures are consistent with the two types of return migrants discussed above, a group who err in migrating and return quickly (or who are on 'the trip') and another group for whom migration and return migration after an extended absence are planned over the life-cycle.

The labour force activity of returnees during their last six months of residence in the United States was lower than that for per-

Table 49 Persons 5 years and over who lived in the United States for 6 or more consecutive months between 1970 and 1980 and returned to American Samoa, by sex, age, and length of stay in the United States, 1980

	Length of stay in the United States			
	Males		Females	
	Number	Per cent	Number	Per cent
6 months to 2 years				
Under 15 years	99	5.5	126	7.0
15–24 years	74	4.1	137	7.6
25–34 years	95	5.3	132	7.3
35–44 years	87	4.8	68	3.8
45 years and over	189	10.5	200	11.1
3 to 5 years				
Under 15 years	85	4.7	74	4.1
15–24 years	53	3.0	79	4.4
25–34 years	85	4.7	73	4.1
35–44 years	33	1.8	26	1.4
45 years and over	33	1.8	25	1.4
6 or more years				
Under 15 years	136	7.6	104	5.8
15–24 years	126	7.0	185	10.3
25–34 years	206	11.5	199	11.1
35–44 years	172	9.6	114	6.3
45 years and over	209	11.6	133	7.4
Length of stay not reported	113	6.3	122	6.8
Total	1795		1797	

Source: United States Bureau of the Census, unpublished tabulations.

sons in American Samoa in 1979 (Table 50). Only 41 per cent of male returnees and 29 per cent of female returnees were engaged in working at a job or business whereas 58 per cent and 39 per cent of males and females in American Samoa were engaged in this activity, possibly reflecting higher incidence of other productive activities such as education (see Table 51), lower labour market participation, or higher unemployment precipitating return migration.

Table 50 Persons 16 years and over who lived in the United States for 6 or more consecutive months between 1970 and 1980 and returned to American Samoa, by activity for last 6 months of residence in the United States, 1980

Activity for last 6 months in US	Males		Females	
	Number	Per cent	Number	Per cent
Working at job or business	559	40.6	400	29.2
Not working at job or business	642	46.7	819	59.9
Not reporting working (In US armed forces) ^a	175	12.7	149	10.9
	(217)	(15.8)	(17)	(1.2)
Total number	1376	100.0	1368	100.0

^a Those in the armed forces are also recorded in the other categories.

Source: United States Bureau of the Census, unpublished tabulations.

The role of education in explaining return migration is not clear. Of the 3,591 individuals who had resided in the United States for six or more consecutive months, 35 per cent reported school attendance during the last six months of residence (Table 51). This percentage is considerably less than the 47 per cent of all American Samoans five years and older who were enrolled in school in 1980. However 45 per cent of returnees were at risk of being in school or college, that is, were aged 5-24 years, while 56 per cent of the American Samoan population was at risk of being in school or college. Thus the probabilities of an at-risk individual being in school or college were the same. If education were a primary reason for initial migration and subsequent return migration, the probability

should be higher for return migrants. However, data more finely disaggregated by age is needed to test more adequately the role of education in return migration.

Table 51 Persons 5 years and over who lived in the United States for 6 or more consecutive months between 1970 and 1980 and returned to American Samoa, by school attendance for last 6 months of residence in the United States

School attendance for last 6 months in US	Males		Females	
	Number	Per cent	Number	Per cent
Attending school or college	629	35.0	641	35.7
Not attending school or college	915	51.0	933	51.9
Not reporting either	251	14.0	223	12.4
Total	1795	100.0	1799	100.0

Source: United States Bureau of the Census, unpublished tabulations.

Table 52 Reported motivation for Samoan migration to New Zealand

	Male	Female
Economic	71	57
Locational amenities ^a	22	26
Education	41	27
Health	3	2
Travel	22	30
Join relatives	15	39
Not stated	74	56

^a This is referred to as generally improved social conditions in the original survey.

Source: D. Pitt and C. McPherson *Emerging Pluralism: The Samoan Community in Urban New Zealand*, Auckland, Longman-Paul, 1974.

What is known of returnees can be summarized as follows:

- The annual flow of return migrants from the United States is about 1 per cent of the American Samoan population. Return migrants had a higher median income, labour force participation rate, and greater representation in professional services and public administration than other migrant groups and domestically resident American Samoans.

- Return migrants were evenly balanced by sex and were predominantly young. Over 40 per cent were less than twenty-five years old and 63 per cent less than thirty-five years old. The flow of American Samoa-born was 11 per cent higher than that of those born elsewhere, perhaps reflecting their greater knowledge of and contacts with their homeland.

- The size of the return migration stream was significantly larger from 1978 to 1980 than in previous years and was largely composed of those who had been absent six or more years (over 40 per cent) and those who had been absent six months to two years (around 35 per cent).

Based on the data on residence five years ago, on persons who had lived in the United States in the previous decade and on naturalization, it appears that return migration from the United States to the Pacific (or at least to American Samoa) is relatively small. The stream of returnees appears to be composed of those who returned fairly quickly (six months to two years) after having 'failed' in the United States and of those who returned after an extended absence. It is possible that this latter group may have been economically successful but this cannot be said with much assurance since the income data from the census is not adequately disaggregated by ethnicity.

Chapter 6

Concluding comments

FROM the data presented in this study it is clear that emigration results in a permanent loss of young, educated, skilled labour from the Pacific island nations. Skilled labour is in short supply and emigration of skilled labour probably hinders development. However, the calculation of the net cost or benefit of emigration is extremely difficult. It appears that the loss of skilled labour is a loss to the nation but that the loss of unskilled labour may not present an economic loss. It may be possible to recoup some of the loss by bonding or taxing individuals whose education or training has been publicly funded. However, it is quite likely that the administrative costs of such schemes exceed the revenues recovered.

Although remittances represent a potential source of benefit from emigration, perhaps because of economic, institutional and social barriers to investment opportunities, they appear to flow into consumption rather than investment. As a consequence their impact on development is insignificant and they may increase distributional inequality.

Skills may be acquired overseas and may be relevant to the home country, although considerable doubt has been expressed on these points. What seems clear is that this argument is irrelevant since migration from the Pacific islands is now most likely to be permanent. Return migration may often be expressed as a desire but is unlikely to be a reality.

Emigration will continue because emigrants and their families benefit. It is probable that those remaining lose, but it is not known to what degree. Emigration is probably a 'safety valve' for population growth in the Pacific. As Lipton (1980:15) remarked, 'blocking the safety valve is no good — [the task facing governments is] how to rationalize the flow of steam'.

Recently Bertram and Walters (1985, 1986) and Bertram (1986) have argued that the island nations should not be regarded as typical developing nations but as having evolved

into MIRAB economies — economies dominated by migration, aid, and bureaucracy. In these economies, development planning and development aid have very limited scope. In fact, as Tisdell and Fairbairn (1984) have shown, certain development paths currently being followed in the Pacific may be unsustainable. Marginal productive activities have been crowded out by new opportunities to earn cash incomes in government employment and overseas. Bertram and Walters argue that the key elements of this system — remittance and aid flows from overseas — are sustainable as long as migration continues. If these economies are MIRAB economies then the government should not discourage migration. Indeed, the challenge for the government is firstly, how to make remittances and aid more secure and predictable, and secondly, how these financial flows should be allocated (Bertram 1986). Bertram and Walters are not alone in this view of the Pacific. Echoes of the MIRAB analysis are also to be found in Castle (1980) and Connell (1987).

Yusef and Peters (1985:22) have written that whereas such a future can 'be modelled economically [it] is not necessarily viable in sociological terms. No community can function as a giant incubator for male workers, who once they reach maturity, are exported, leaving old people, women and children behind to live off remittances'. Shankman (1976:17) also challenges the MIRAB model. He states that 'there are no examples of countries that have developed through migration and remittances'. Connell (1983b) questions Shankman's claim concerning countries where emigration has been long-term, where migration and the use of remittances are both partially controlled, or where no other viable alternatives to emigration exist. The debate, then, is the extent to which the Pacific island nations correspond to these conditions. Yusef and Peters advise, at least in the case of Western Samoa, that policy should be directed towards drawing

back skilled personnel and inducing those overseas to invest in productive local ventures rather than increasing remittances. McPherson (1983) is sceptical about the existence of such opportunities for investment and argues that the gerontological social organization of island nations further limits individual aspirations of the young and of returnees. Hughes et al. (1986) are more optimistic about the conventional development prospects of at least the larger Pacific island nations. However, even in some of these nations a slowdown in out-migration is unlikely unless the policies of receiving countries change dramatically.

In this study it has been shown that migration takes from Tonga, Fiji, and Samoa their

most valuable resource— young, educated, skilled workers. However, it is not clear that the governments of these nations should or can do anything to reduce migration. The relative costs and benefits are not known with any precision, direct intervention would be hazardous politically, and conventional development strategies, even if successful, are unlikely to deter much international migration and may encourage further internal migration. Nevertheless, the alternative— continued migration and an economy driven by rents (aid and remittances) rather than by productive export-oriented activities— may imply a level of dependence unacceptable to the governments of most small Pacific nations.

Appendix 1. A model of migration

MANY paradigms have been used to explain migration (Sahota 1968; Bedford 1980; Chapman and Prothero 1983; Connell 1984a). By far the most successful, and the one used in this study, is the economic or human capital explanation of migration (Sahota 1968; Sjaastad 1962; Greenwood 1975; Lucas 1981). Basically individuals or families migrate to increase their well-being, principally their economic well-being.

More formally, an individual will migrate if

$$PDV_m = \sum_{t=1}^T \frac{B_t - B_{0t}}{(1+r)^t} - C > 0$$

where

- PDV_m = present discounted value of migration;
- B_t = the utility derived from the new location in year t ;
- B_{0t} = the utility derived from the original location in year t ;
- T = length of time in years one expects to live in the new location;
- r = the rate of discount;
- C = the utility lost in the move itself (direct and psychic costs); and
- Σ = a summation over the yearly discounted net benefits over a period running from year 1 to year T .

In the first part of this study, the new location is American Samoa and the original location Tonga, Western Samoa, or the United States. In the second part the destination is the United States and the original locations Fiji, Tonga, American Samoa, and Western Samoa.

Usually the B s are assumed to be wages or incomes—either actual or expected—and the decision to migrate is based on lifetime wages or earning streams. However, recent work in urban economics has stressed the additional importance of locational amenities such as view, entertainment, community facilities, and climate (Graves 1983; Linneman and Graves 1979). These factors have traditionally been referred to in the Pacific migration literature under the rubric of 'bright lights'. Thus the B s are more completely

viewed as sources of utility—income and locational amenities.

It is also important to note that the present discounted value formula emphasizes differences in utilities over the T years of the migration. Thus a migrant may earn less in the first few years in the new location than in the original location if education or training is initially acquired. One would then expect to see a steep age-earnings profile after education or training to compensate for the early period of low earnings (see Mincer and Ofek 1982).

The cost variable C in the present discounted value formula can encompass cultural explanations of migration. For those with strong ties to family, community, or place, C will be high and migration is less likely to occur than where such ties are absent.

The economic model of migration is useful in that it orders our thoughts about the reasons for migration and thus allows us to predict the characteristics of migrants. An individual is more likely to migrate (or net migration flows are more likely to be observed):

- (i) the younger the potential migrant (and thus the longer the period over which returns from migration can be earned and the lower the psychic costs of attachment to the place of origin);
- (ii) the larger the difference in income between place of destination and place of origin;
- (iii) the larger the difference in locational amenities between the destination and place of origin;
- (iv) the higher the education level of the individual (more educated workers are assumed to be more efficient in processing information or differences in opportunities and are, therefore, more likely to migrate);
- (v) the stronger the individual's labour force attachment since, as income differences are held to be so important, those with a stronger labour market attachment (higher labour force participation rate) are more likely to benefit from income differences and thus to migrate;

(vi) the lower the expected rate of unemployment in the destination location relative to the original location, the monetary returns in the present value calculation being expected returns—calculated as the actual wage multiplied by the expectation of receiving that wage (the employment rate or one minus the unemployment rate).

As Lucas (1981) has pointed out, the above exposition deals predominantly with the decision to move, that is, the supply side. The demand side enters only through wage and employment opportunities. But quotas, visas, and regulation's on access are also important elements of the demand side. Such demand side constraints are absent on movement of Western Samoans to American Samoa and movement of American Samoans and most probably Western Samoans, to the United States. In addition amendments to the United States immigration laws in 1965 may have reduced demand side barriers to Pacific islanders.

Recognition of migration as an investment and the primacy of economic factors is widespread. Shankman (1976), Pitt and McPherson (1974), and Pirie (1976) found that migration was a more lucrative investment than any other available in Western Samoa: 'in many villages migrants yielded more money than any other cash crop' (Pitt and McPherson 1974:13). Connell (1983b:35–6) cites further evidence. In the late 1960s and early 1970s the prime destination for Western Samoan migrants was New Zealand. In the mid-1970s the New Zealand economy slumped and migration was reoriented towards the United States through American Samoa. Between 1974 and 1976 net migration gain to New Zealand from the Cook Islands, Niue, Tokelau, Tonga, and Western Samoa more than halved; by 1979 it halved again (Bedford 1984:124).

The present discounted value of migration is usually calculated over the working life of an individual but logically extends over the whole life when there are differences between the post-retirement incomes of the alternatives. Differences in post-retirement incomes occur in the Pacific. For example, many Samoans interviewed by McPherson (1984:159) compared unfavourably the prospect of low and uncertain retirement income in Western Samoa to the national superannuation scheme in New Zealand which would provide them with an inflation-adjusted, fixed

income tied to the national wage. There are a number of other benefits such as workers compensation, family benefit, widows and orphans benefits, which also affect the calculation.

The primacy of economic factors as a motive for migration is also supported by survey research on stated motives for migration. In Table 52, 41 per cent of Samoan males and 31 per cent of females who gave a motive for migration to New Zealand cited 'job or income' or 'to support the family'. When locational amenities and education (long-run earnings potential) are added these percentages rise to 77 per cent for males and 61 per cent for females. Connell (1983a:40) cites similar evidence for the primacy of economic reasons in the migration decisions of more than half of all migrants in a study of Tongan migration. Connell (1984a) and Walsh (1982:112) have argued that 'internal and external migration are merely variations on similar phenomena'. Connell (1983a:45) cites a South Pacific Commission survey of reasons for emigration from Tonga. In the sample 47 per cent of respondents cited education and training or work and employment as a reason for emigrating. However, the sample excludes households who had emigrated in their entirety, which, given the predominance of complete husband-wife households in the Tonga-born population in American Samoa (see discussion below) would indicate that economic reasons are probably a much more significant factor than the South Pacific Commission sample indicates. Indeed, Whitehead (1974) found that employment and income-earning dominated all other motives reported by Tongan migrants interviewed at the destination.

In addition to individual motivation for migration in the Pacific a number of writers have stressed family motivation. For instance, Harrison (1978:12) has written of Samoan social organization as 'a form of family organization meeting different types of income from different sources, allocating opportunities between individuals to meet the needs and requirements of the family'. The family uses migration to diversify its (locational) portfolio of assets (that is, members): in an attempt to spread and diversify the sources of income and welfare, and minimize risk' (Connell 1983b:39). More completely, if the migrant's mean income in the

country of destination is at least as large as any of his or her non-migratory mean incomes, and if this migration income is distributed independently of all other family incomes (as it is likely to be in international migration), it is mandatory for a risk-averse family to introduce the migration income into

its optimal income portfolio regardless of the variance of each income — provided only that it is finite and non-zero (Stark 1984:208). Stark (1984:209) also shows that if these assumptions are not completely met, migration as diversification is still worthwhile. (See also Stark and Levhari 1982.)

Appendix 2. Internal migration in American Samoa

THE census data on residence five years ago allows a brief look at some of the characteristics of internal migration in American Samoa.

Internal migration in American Samoa is selective by age and appears to be motivated by labour market considerations (Table 43). Thirty-four per cent of individuals five years and over who remained in the same house between 1975 and 1980 were children and 53 per cent of adults were of young working age. For those who moved to a different house within the county the corresponding figures were 27 per cent and 62 per cent, and for those who moved counties, 24 per cent and 70 per cent, respectively.

The percentage of adult internal migrants who were of young working age was similar to that of international immigrants. However, a lower percentage of all internal migrants were adults. This finding agrees with Connell (1984a:183). Young children reduce the probability of migration (Long 1972) and this effect appears to be greater for inter-county than intra-county migration and greater for international than internal migration.

Adults who did not change residence between 1975 and 1980 had a median income in 1979 of \$4,221 (Table 44). Those who migrated within the county had a median income \$22 higher, and those who moved between counties had an income \$391 higher. These differences (0.5 per cent and 9.3 per cent, respectively) are consistent with the predictions of the economic model of migration. Once again, we do not know to what extent these differences are biased up by selectivity among migrants.

The participation rate of inter- and intra-county migrants is about eight percentage points higher than that of non-migrants, so that the labour force attachment of adult internal migrants is stronger than that of adult non-migrants (Table 45).

The unemployment rate of inter-county migrants is lower than that of intra-county and non-migrants (Table 45). DaVanzo

(1978:512) argued that the unemployed are more likely to migrate than the employed and that those migrants who do not find work are likely to move on. Of these, the majority will move back to their place of origin (DaVanzo 1978, 1981). Thus we expect to observe a lower rate of unemployment among migrants. Note that international migrants have a higher rate of unemployment than internal migrants. The appropriate group with whom to compare international migrants is the home population, not internal migrants of their county of destination.

Individuals who migrated within or across counties were more likely to be in wholesale and retail trade and less likely to be in professional services and public administration than non-migrants (Table 46). Since individuals in the latter industries have higher median incomes than those in the former industries, the industrial distribution of internal migrants does not explain the income differentials among internal migrants.

Like international migration to American Samoa, migration within American Samoa was found to be selective by age and appeared to be motivated by labour market considerations. Those who moved internally were likely to be young working age adults: the further the distance moved, the more likely they were to be so. Also those who moved between counties had a higher median income than migrants who moved within a county. Both groups had higher median incomes than those who remained in the same house between 1975 and 1980.

Migrants have higher labour force participation rates and lower unemployment rates than non-migrants, consistent with the hypothesis of stronger labour market attachment among migrants. Migrants were more likely than non-migrants to be employed in wholesale and retail services and less likely to be in professional services and public administration. Their representation in other industries was similar.

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