

MIGRATION TO AMERICAN SAMOA*

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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; Prothero and Chapman, 1984). However, there is now substantial evidence that migration within and from the Pacific is permanent and involves longer distances (Shankman, 1976; Connell, 1983 studies; Connell, 1984a and b; McPherson, 1985). International migration beyond the South Pacific also appears to be increasingly important (Connell 1984b:307).

There has long been concern within the Pacific that the costs of migration outweigh the benefits, particularly for international migration (see Connell, 1983, especially country reports 18 and 22). 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) an understanding of migration will also aid in the understanding of population dynamics in many South Pacific nations.

What is planned in this study is an investigation of the characteristics of international and, to a limited extent, internal migration in the Pacific and in a second study the characteristics of migration from the Pacific to the United States. These investigations should illuminate the individual rationale for migration and inform policy making in the area of migration.

Ideally one would like to discuss migration among all nations of the Pacific. However as Greenwood and Stuart (1986) have shown, the different ways

in which countries collect migration data and define migration make even a simple 2 x 2 matrix of international migration flows of doubtful accuracy. As a consequence we will focus on migration to American Samoa. The advantage of using American Samoa is that the 1980 Census allows us to investigate the detailed characteristics of several migrant groups - Western Samoans, Tongans, and Samoans born in the U.S. and to compare these groups with the American Samoa-born population. By comparing these characteristics with those of the home or country of birth populations it may be possible to uncover the rationale for migration in the Pacific, since migration in the Pacific is primarily a Polynesian phenomenon (Connell, 1987).

The flow of Pacific migrants to American Samoa 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 percent 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 percent of the population). Of these a very small percentage would have been American Samoan.

A Model of Migration

Many paradigms have been used to explain migration (see 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). Basically individuals or families migrate to increase their well-being, principally their economic well-being.

More formally, an individual will migrate if

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

where PDV_m = present discounted value of migration

B_{jt} = the utility derived from the new location in year t

B_{ot} = 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 this study, the new location is American Samoa and the original location Tonga, Western Samoa, or the United States.

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 and 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 (American

Samoa) 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 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):

1. the younger the potential migrant (and thus the longer the period over which returns from migration can be earned and the lower psychic costs of attachment to the place of origin);
2. the larger the difference in income between place of destination and place of origin;
3. the larger the difference in locational amenities between the destination and location;
4. 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);
5. the stronger the individual's labour force attachment. Since 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);

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

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 (Report 22, 1983) 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 U.S. through American Samoa (p. 35/6). 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 unfavorably 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 1 41% of Samoan males and 31% of females who gave a motive for migration to New Zealand cited "job/income" or "to support the family" as the motive for migration. When locational amenities and education (long-run earnings potential) are added these percentages rise to 77% for males and 61% for females. Connell (Country Report 18, 1983:40) 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 (Country Report 18, 1983:45) cites a South Pacific Commission survey of reasons for emigration from Tonga. In the sample 47% of respondents cited education/training or work/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 SPC sample indicates. Indeed, Whitehead (1974) found that employment and income-earning dominates 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 the 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 (members): "in an attempt to spread and diversify the sources of income and welfare, and minimize risk" (Connell, Country Report 22, 1983:39).

FACTORS AFFECTING MIGRATION

Age

Consistent with the model discussed above migration from Western Samoa and Tonga to American Samoa seems to be motivated by labour market considerations. The 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 U.S. 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 2. Of the 796 Tongans in American Samoa in 1980, 617 (78%) were adults (taken to be 15 years and over). Of those born in Western Samoa, 80% were adults, while only 46% of those born in the U.S. were adults. Sixty percent 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 U.S. were 66% and 67% respectively. Note that these figures refer to all migrants in American Samoa at the time of the Census no matter when they migrated to American Samoa. Table 1 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 place of birth is discussed in Section II. 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, nd.; Government of Western Samoa, 1983) the home country populations are much younger than the

migrant populations. In Tonga 44% of the population was less than 15 years of age compared to 45% in Western Samoa. The adult migrant populations were also somewhat younger than the home populations. In Tonga 15-34 year olds constitute 57% of adults and in Western Samoa 60%.

The age structure of the migrant groups also differs from that of the American Samoa-born population. Individuals less than 15 years of age constitute 52% of the population and young working-age individuals constitute only 54% 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 America-Samoa born was 14.4 years, a little more than the 13.8 years for those born in the U.S. 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 motivation for migration among the U.S. born unless they simply reflect differences in composition of similarly motivated households. This issue will be addressed below.

The gender and ethnic distribution of migrants from Tonga and Western Samoa differ from those from the U.S. More young female than male workers migrate from Tonga and Western Samoa (sex ratio, males/females = .95) while an even larger percentage of females migrate from the U.S. (sex ratio = .86). However, the sex ratios for all adult migrants (those aged 15 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 .86 and .90, reflecting the male bias in American Samoan international migration (see the second report). 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 (1983, Country Report 18:46) claimed that there is a male bias in Tongan emigration although the extent of the bias is unknown. He cites a study of Tongan migration to New Zealand in the early 1970s that indicated 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 2 reports a male bias in total adult Tongan migration to American Samoa of 12% but females outnumber males in the 5-9 years, 15-19 years, and 30-34 years age brackets and thus in the young worker age group. (sex ratio = .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 U.S. 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 95% of Tongans and Western Samoans responded with place of birth corresponding to ethnicity (see Table 3). In the migration flow from the U.S. those of Samoan ethnicity made up 70% of individuals stating ethnicity. Thus, this flow was not simply the return of Samoans born in the U.S. to Samoa; a large part of the remainder, however, were white contract workers.

Household Structure, Fertility, and Parent's Place of Birth

The household structure of the population groups born in American Samoa, Tonga, Western Samoa, and the U.S. differed considerably in 1980 (Table 2). Household data is based on the ethnicity or birthplace of the householder. If the householder was born in the U.S. then the household becomes "U.S." no

matter where the remaining individuals were born. Family households constituted over 95% of all households except for U.S. born householders where they are only 70% of all households. In addition, the migrants 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% of households were husband-wife whereas for Tonga-born, Western Samoa-born, and U.S.-born the figures were 81%, 89%, and 86%. These figures point to a high incidence of the migration of complete households rather than single individuals - except in the case of U.S. born migrants. Here those households that move are intact but a significant number of U.S. born are not in family households, again underscoring the different nature of the migration of U.S.-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 U.S.-born households contained 3.9 children. In addition American Samoa-born and U.S.-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 U.S.-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 U.S.-born households were composed of a husband and wife and approximately four children. Also, as noted before, a significant percentage of U.S. born households were non-family households.

In the home population the average size of a Western Samoan household is 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 U.S.-born migrant group is rather more heterogeneous with its family households resembling American Samoan family households in their composition.

As shown in Table 2 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 Census was roughly equal. The fertility of U.S.-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 3 also contains data on the place of birth of the parents of the population of American Samoa. Fully 70% of those born in American Samoa had parents who were also born in American Samoa, while 25% had parents born in

Western Samoa. When the minority is added to Western Samoans in American Samoa at least 45% 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%) 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 of a fairly recent vintage - a point supported by the data on immigration by year by place of birth.

Approximately 90% of the Western Samoa-born had parents born in Western Samoa and 10% had parents born in American Samoa. Those of U.S. birth were a much more diverse group. Approximately 50% had parents born in American Samoa and were in a sense "returning home", as were the 10% of Western Samoa-born migrants, or this could reflect women travelling to Hawaii to give birth. About 40% had parents born in the U.S. and, given the ethnic diversity of this group, represented more than a second-generation "returning home." Slightly more than 5% had parents born in Western Samoa and may reflect the use of American Samoa as a way-station to the U.S. for American Samoans.

Income

Income differences between American Samoa and the home countries of the migrant groups are quite marked. In 1981, for example, income per capita (\$ U.S.) in American Samoa was \$4167 whereas it was only \$830 in Western Samoa and \$528 in Tonga (Chilcott and Lucas, 1985:3). Connell (1983, Country Report 22:37) noted that the daily wage rate in Western Samoa is approximately the

same as the hourly rate in American Samoa. Higher incomes in American Samoa are an important motive for migration.

A straightforward comparison of the earnings of migrants and non-migrants, however, tends to overstate the potential gain to migration because migrants are non-randomly distributed within the population as a whole (see Nakosteen and Zimmer, 1980). That is, migrants tend to have some characteristics which both cause them to migrate and to have a higher expected income in the absence of migration. Thus the earnings of the population from which the migrant is drawn (the home population) may provide an underestimate of the earnings the migrant would receive in the absence of migration (see Greenwood, 1975). As a consequence a comparison of the 1979 income of migrant groups in American Samoa 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 4 reports the income distribution within American Samoa of individuals with earnings by place of birth. Although both median and mean incomes are reported in Table 4 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 migrants groups only those born in the U.S. have higher income than those born in American Samoa. Those born in Tonga have the lowest income. The median incomes for U.S.-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 U.S. the groups we are studying have lower

income than all other immigrant groups. Reasons for these differences will be explored in the succeeding parts of this section.

For all the groups the median income is less than the mean. Thus, the income distribution is skewed to the right. The income distributions for American Samoa-born and U.S.-born appear to be more skewed than those of the other groups with the mean income being about 50% higher than the median, while for Tongans and Western Samoans the mean is only about 15% 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% of individuals earn above the mean while for American Samoan-born and U.S.-born the percentages are 14 and 20 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 5 reports household income by source of income for all households. No breakdown by place of birth of households is available at this stage. Almost all households receive income (95%) and of households receiving income 96% receive wage and salary earnings. The next largest category of income is "other income". Fourteen percent 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.

Locational Amenities

There has been a tradition in studies of migration in the Pacific 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 really a consumption theory of migration rather than an investment theory.

However, Graves and Linneman (1979) have shown that these theories are complementary not competitive.

In the integrated theory of migration there are traded and non-traded goods. The non-traded goods are location-specific and only changing demands for or supplies of non-traded goods 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): "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, VCRs and video cassette movies replace cinemas. Thus 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 the bright lights hypothesis is not very strong. Sevele (1973:84-85), for example, tends to discount it as a motive, at least for internal migration in Tonga.

Table 6 contains some data on commodities that may be thought of as signalling "bright lights". 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" 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 points out the difficulty of testing the "bright lights" theory.

An argument can be made for the inclusion of education and health as non-tradeable commodities-although they may clearly be viewed as being primarily investment goods not consumption goods (see Lazear, 1977 for a discussion of this issue). There is ample evidence of a deficit of educational and health services in outlying areas because of the inability to attract and maintain qualified personnel in these areas. 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, Country Report 18, 1983:41) attributed an important role to education in Tongan international migration. Also, as shown in Table 1, 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."

Education

Table 7 contains detailed educational data by place of birth. However because the age breakdowns do not correspond to those in Table 2, school enrollment rates cannot be calculated and compared to those in the home

countries. However, the data do suggest reasons for the income differences observed in Table 4.

Almost all individuals over 25 and born in the U.S. 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 population. For example, in Tonga in 1976 only 16 percent of those age 25 years or older had completed at least Form 4 of high school. The modal level of education was class 5 of primary school (25 percent). In Western Samoa in 1981 26 percent of those over 15 years of age had attended at least Form 4 of high school. The modal level of education was Form 2 of high school (22 percent of those 15 years and over).

A large proportion of the U.S.-born group also had some college (75%), significantly greater than the 15% for American Samoa-born, 10% for Tonga-born, and 9% for the Western Samoa-born. Similar differences, although of lesser degree, held for vocational training. About 18% of U.S.-born had some vocational training, while for American Samoa-born, Tonga-born, and Western Samoa-born the figures were 13%, 5%, and 5% respectively. In the home populations less than one percent of Tongans and 2% of Western Samoans had some college. In Tonga 2.3% of those over 25 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 U.S. and Asia and, at least in part, explain the marked income differences between these groups.

School enrollment and labour force status data for 16 - 19 year olds is also reported in Table 7. The educational differences noted for those aged 25 years or older also occur in the 16-19 age group. Slightly more than 80% of U.S.-born and American Samoa-born individuals were currently enrolled in school. For Tonga-born and Western Samoa-born the figures were 30% and 51% 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% of American Samoa-born 16-19 year olds were high school graduates, while 38% of Tonga-born, 35% of Western Samoa-born, and 77% of U.S.-born youths were in this category. For all groups except the U.S.-born these figures represent a modest increase in educational attainment relative to the older age-group. However, the pattern of marked educa-

tional differences among the groups remains and implies that the income differences observed in Table 4 will carry over into the new generation of workers.

The importance of educational attainment to labour market success is also shown in Table 7. The employment rate of high school graduates is several times higher than that of young people who are not graduates in the American Samoa and U.S.-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 U.S.-born youths but not for the Tonga or Western Samoan-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 U.S.-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.

Labour Force Attachment and Unemployment

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. If this is correct the labour force participation rates and unemployment rates are biased down. However, it is not known whether this error, if it exists, is more serious for some place-of-birth groups than for others. Thus even though the absolute rates may be in error the relative rates may not be. These reservations should be kept in mind when looking at the labour force and unemployment data discussed.

In the latest Censuses the percentages of those 15 years and over who were economically active in Tonga was 43% and in Western Samoa in 1981 was 47%. In the migrant populations in American Samoa in 1980 46% of Tongans and 45% of Western Samoans were in the labour force or were involved in subsistence activity only. Thus Tongan migrants seem to have a slightly higher labour force attachment than in their home population while the attachment of Western Samoan migrants is slightly less than that in Western Samoa. These conclusions are tentative given the difficulties of defining economically active and the comparison of data across years and countries.

Within the population groups only those born in the U.S. have a significantly higher participation rate than the average. These aggregate rates, however, mask some gender differences. The participation rates for males 16 and over are 56%, 59%, 52%, and 70% for those born in American Samoa, Tonga, Western Samoa, and the U.S. respectively. For females, the rate for Tonga-born women is lower and that for U.S.-born women higher than the average.

The participation rates for males are much lower than those recorded in the home countries. The male participation rate in Tonga was 72% in 1976 and in Western Samoa it was 79% in 1981. The participation rates for females born

in Western Samoa was more than twice the rate of women in Western Samoa (15%) while the rate for Tonga women was slightly higher than that of women in Tonga (14%).

The labour force participation rates of the Pacific groups are 15 to 20 points lower than those for New Zealand-born and Asian-born groups. Since the rates for females are greater than or equal to those of 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 5). 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% of Samoans 16 years and over were engaged in subsistence activity compared to about 5% for the other groups. Of those employed, 15% of Samoans also engaged in subsistence activities compared to about 7% for the other groups. These subsistence activities are not purely related to relatively lower incomes otherwise we would have expected the Tongan-born to be engaged in them to a greater extent.

Among females, those with children under six years had a higher participation rate than all women except for Tongans. This reversal of the pattern observed in many developed countries may reflect the fact that the participation rates of young women are higher than those for older generations of women and those women having children are predominantly young. The exception in the case of Tongan women may be because, relative to the other groups, they

are more likely to drop out of the labour force to have children. Similar to the pattern in developed countries, those women with children older than six are more likely to be in the labour force than women with children under six.

Unemployment rates do not vary greatly except for Tongan women who, although they have a much lower participation rate, have an unemployment rate double that of other groups. This is somewhat surprising given that their educational attainment is similar to that of American Samoan-born and slightly better than that of Western Samoan-born women. The Tongan figures are small relative to the size of the other groups and reporting errors are correspondingly more important and may explain these differences.

The unemployment rates for Tongans are much lower than those recorded in the 1976 census of Tonga. The unemployment rate for males was 12% and for females 18%. The 1981 census of Western Samoa, in contrast, recorded almost no reported unemployment. In 1980 the unemployment rate for Samoans in the U.S. was 9.7%.

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.

Class of Worker

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% and 63%, respectively). The majority of American Samoa-born workers were employed by the government (70%) with lower representation among U.S.-born (58%) and Western Samoa-born (34%). Very few Tongan workers are employed by any level of government (9%) and were the only group with much self-employment (8%). These patterns were similar for both male and female

workers. In contrast, 24% 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 5. 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.

Occupation

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

It is difficult to compare occupational classifications across countries. However, some general statements are possible. Very few migrants in American Samoa worked in agriculture whereas half of all employed Tongans worked in agriculture in 1976 and 64% of Western Samoan males and 10% of Western Samoan females worked in agriculture in 1981. In these years 20% of those employed in Tonga were in professional, technical, administrative, or managerial occupa-

tions whereas only 8% of Western Samoan men and 38% of Western Samoan women were in these occupations.

The importance of the occupational distribution by place 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 place of birth is consistent with the income differences observed in Table 4.

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.

Based on these data on occupational distributions it seems that migrants from Western Samoa and Tonga are more skilled than individuals in the home countries.

Industry

The major differences among the groups in industry of employment are also shown in Table 8. Tongan employment is heavily concentrated in construction (23%) and retail trade (27%) and, to a lesser extent manufacturing (18%).

Western Samoans are predominantly in manufacturing (37%) with some representation in professional services (14%) and public administration (11%).

In Tonga over half of the employed are in agriculture. Only 2% are in manufacturing, 4% in retail trade, and 6% in construction. In Western Samoa 68% of males are in agriculture, and 8% in manufacturing and construction. The skills required in these industries are valued in the islands and the 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 U.S.-born are also in professional services and public administration, 56% and 58%, respectively. The median incomes in these industries are considerably higher than those in retail trade and manufacturing that 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, it employs only 8% of all employed persons whereas professional services and public administration employs 41% 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% of workers) and in finance, insurance, and real estate (75%). In managerial and professional occupations women are 37% of those employed, in the business and repair services industry they are 27% of

all employed. These differences in earnings and employment do not necessarily imply sex discrimination. Women have lower educational attainment than males (Table 7) 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. Still, these differences and the reasons for their existence should be studied.

Labour Force Status in 1979

Earlier entries in Table 8 gave current labour force status (1980). The last part of Table 8 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 35 or more hours per week.

Summary

In this section of the study we have concentrated on explaining differences between the characteristics of migrants and their home populations to help us understand who migrates 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 behavior, occupational and industrial distribution of the U.S.-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, itself a somewhat puzzling finding.

SECTION II: ANALYSIS OF MIGRATION BY YEAR
OF IMMIGRATION TO AMERICAN SAMOA

In this section data on migrants classified by year of immigration to American Samoa is examined. The reader should be aware that these data apply to the characteristics of migrants resident in American Samoa 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 American Samoa (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 American Samoa 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.

Another limitation of the data is that a breakdown by place of birth is not available at this time. Thus differences between individuals by year of immigration may reflect place of birth differences (identified in Section I) if the composition of immigrant groups varies over time. This issue is addressed in Table 9.

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% of immigrants from that period whereas Tongans and U.S.-born accounted for only 2% each. The 1960s constitute a second phase in which the proportion of Tongan and, in particular U.S. born migrants increased. The third phase is the 1970s in which the makeup

of the immigrant population was fairly constant with Tongans composing around 6% of immigrants, Western Samoans around 70%, and U.S.-born about 20%. Consequently interdecade 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 place of birth groups. About 50% of Tongan and Western Samoan migration occurred between 1975 and 1980. For the migration of the U.S.-born, 67% arrived in this period. In the period 1970-74 27% of Tongans, 20% of Western Samoans, and 23% of U.S.-born migrants arrived in American Samoa. Thus the great bulk of all migrants in these groups immigrated within the last 10 years. The U.S.-born are somewhat more recent than the Tonga-born (87% versus 81%) and both are more recent than Western Samoan migrants.

THE CHARACTERISTICS OF IMMIGRANTS BY YEAR OF IMMIGRATION AGE

Age

Table 10 reports the age distribution of all immigrants. The data are 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% of immigrants were less than 15 years of age and 79% of adult immigrants were in the young working-age group (15-34 years). In 1975-76 47% of immigrants were children and 75% of adults were of young working age. In 1970 children constituted 50% of immigrants and younger workers 72% of adult immigrants. The corresponding figures for 1960-69 and 1950-59 are 49% and 78%, and 46% and 87%. 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 in Section 1. The majority of migrants were adults, although this applies more strongly in the post-1975 period. Of the adults most (70-80%) 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.

Income

The median income of American Samoa-born in 1979 was \$4,562. That for all immigrants was \$3,933. As was noted in Section I, only the U.S.-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 11). 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 10). 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% to 78%, that of Tongans jumped from around 2% to 6%, and the U.S.-born share rose dramatically from 2% to 14%. Given the higher income of the U.S.-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 it and younger cohorts.

Another perspective on the success of immigrants is the ratio of those 15 years and over earning income to all persons 15 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 who do not find 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 12). 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% - about 10 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 behavior 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% versus 45% for all cohorts). In contrast the 1960-69 cohort has a relatively high ratio of earners (57%) and labour force participation (53%) although its earnings are low relative to earlier cohorts.

Labour Force Attachment

Immigrants had almost the same aggregate labour force characteristics as American Samoan born workers (Table 12). 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. Note that the relatively low participation rate for the prior to 1950 cohort is explained by the fact that 25% of this cohort is 65 years old or older and that the participation rates are defined on the base of population 16 years and over. These differences in labour force characteristics are broadly consistent with the cohort differences in income observed in Table 11 but do not seem to be explained by the changing place of birth composition of the migrant cohorts.

Industrial Composition of Employment

There are only a few sizeable differences in the industrial composition of workers by year of immigration to American Samoa (Table 13). 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 place of birth composition of the immigration cohorts since Western Samoans and Tongans tend to be more heavily represented in manufacturing and retail and the U.S. born in public administration. Thus a simple place of birth explanation would predict the opposite pattern to that observed.

Summary

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 place of birth composition of immigration to American Samoa changed between the 1950s, 1960s, and 1970s and the place of birth groups differed in their characteristics (see Section I).

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 U.S.-born. In the 1970s the composition of immigration by place of birth was relatively constant.

As was found in Section I, 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 cohorts was more likely than others to be employed in public administration and less likely to be employed in the retail and manufacturing industries.

The intercohort differences in labour force attachment and industry of employment were consistent with the intercohort differences in income and do not seem to have been explained by the different place of birth composition of the cohorts.

SECTION III. ANALYSIS OF MIGRATION BASED ON
PLACE OF RESIDENCE IN 1975: INTERNATIONAL AND INTERNAL MIGRATION

Data from the Census are 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 U.S., or American Samoa in 1975.

The data focus on recent migrants, that is, those who have migrated within the last five years, therefore, complementing the analysis of Section II. However, these data have a great advantage over those classified by year of immigration, for it is possible to identify which place of birth (national) 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 U.S. in 1975 39% were born in American Samoa and are, therefore, return migrants. A further 4% are returning Western Samoans and 54% were born in the U.S. (Table 14). Of those born in the U.S. probably two-thirds are Samoan or part-Samoan (Table 3).

The residence data also addresses internal migration since in addition to identifying those living outside the country in 1975 it also identifies those living in the same house in 1975 and 1980, those living in a different house in the same county, and those living in a different house in a different county.

INTERNATIONAL MIGRATION

Age

As in Sections I and II the majority of migrants were adults, especially young-working age adults (Table 15). Only 15% of Tongans who moved to American Samoa between 1975 and 1980 were less than 15 years of age. The percentages

for Western Samoa and U.S.-born were 19% and 27% respectively. The percentages of Tongans and especially the U.S. born were lower than those based on all place of birth data. The percentages of Tonga and Western Samoa-born who were of young working-age were also higher than in the place of birth data. For Tonga and Western Samoa-born the figures were 73% versus 60% and 81% versus 66%, respectively. For the U.S.-born the corresponding percentages were 62% and 67%. These figures are consistent with an increasing importance of labour market driven immigration among more recent immigrants from Tonga and Western Samoa.

Income

Those resident in their home country in 1975 (recent immigrants) had a lower median income than American Samoans and longer term immigrants (Table 16 compared to Table 4). The relative disadvantage of recent Tongan migrants exceeded that of other groups. For Western Samoan and U.S.-born those who were resident in the home country in 1975 earned about 85% of the income of all migrants. Recent Tongan migrants received only 69% 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 4 the income distribution for Tongans and Western Samoans was more compact than that for the U.S.-born. The percentage of all individuals 15 years and older who were income recipients was 30% both for Tongans and American Samoans-similar to that of 1979-80 immigrants. In contrast 66% of the U.S. born were income recipients.

Labour Force Attachment

The labour force attachment of more recent migrants was less than that of all migrant groups (Table 17). More recent Tongan and Western Samoan migrants had a labour force participation rate about 10 percentage points lower than all place of birth migrants (32% versus 42%). For U.S.-born immigrants there was little difference. Those immigrating in 1975-76 and 1979-80 had the lowest participation rates (Table 12).

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% and 2.4% for Tongans, and 5.1% and 1.6% for Western Samoans. The rates for the U.S.-born were 3.1% and 2.8%. Thus more recent immigrants from the Pacific are less likely to be in the labour force than all immigrants and those that are in the labour force are more likely to be unemployed. The latter finding was expected but the low labour force participation remains a puzzle.

Industry

The representation of recent Tongan immigrants in agriculture was three times that for all Tongan immigrants (Table 18 and Table 8). 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% versus 11.1%). For U.S.-born migrants the recent migrants had a distribution of employment by industry which was much like that of all immigrants.

INTERNAL MIGRATION

Age

Internal migration in American Samoa is selective by age and appears to be motivated by labour market considerations (Table 15). Thirty-four percent of individuals 5 years and over who remained in the same house between 1975 and 1980 were children and 53% of adults were of young working-age. For those who moved to a different house within the county the corresponding figures were 27% and 62% and for those who moved counties, 24% and 70%, 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 intercounty than intracounty migration and greater for international than internal migration.

Income

Adults who did not change residence between 1975 and 1980 had a median income in 1979 of \$4,221 (Table 16). 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% and 9.3%, 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.

Labour Force Attachment

The participation rate of inter and intra county migrants is about 8 percentage points higher than that of non-migrants, thus the labour force

attachment of adult internal migrants is stronger than that of adult non-migrants (Table 17).

The unemployment rate of inter-county migrants is lower than that of intra-county and non-migrants. (1.1% versus 2.1%, Table 17). 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 destination country.

Industry

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 18). 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.

Summary

International Migration

As in the previous sections most migrants were adults and in particular, young working-age adults. The median income of recent migrants (those resident outside American Samoa in 1975) 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% of all recent Tongan and Western Samoan migrants were income recipients. This reflects the relatively low labour force participation rates of these groups (32%) and their relatively high unemployment rates (3.6% and 5.1%, respectively).

Internal

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.

SECTION IV: RETURN MIGRATION

To adequately explain the phenomenon of return migration one must expand the human capital model of migration presented above 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 underestimated 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.

Who is Likely to Return?

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.

That is, an individual who migrates from American Samoa is more likely to return:

- a. the longer their initial residence in American Samoa.

- b. the shorter their stay away from American Samoa (since, like other forms of human capital, location-specific capital depreciates over time).
- c. the lower their level of education (higher levels of education are associated with more efficient processing of information).
- d. the closer is the place to which they migrated.

DaVanzo (1981, 1983) found that in the U.S. migrants who returned quickly to their original location conform 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.

The published Census data do not allow us to directly examine return migration 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 1976-1980 are not included.

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

Of those persons resident in the U.S. in 1975 43% were Samoa-born and 54% U.S.-born. Twenty seven percent of those resident in the U.S. in 1975 were children less than 15 years of age and a further 7% were youths 15-19 years of age. Thus it is reasonable to assume that the data on those resident in the U.S. in 1975 reflect, to a large extent, the characteristics of return migrants and their offspring. To directly address return migration data on the characteristics of those American Samoa-born who were resident overseas in 1975 but resident in American Samoa in 1980 are needed. Failing this, data on those resident in the U.S. in 1975 are used as a proxy. These data are reported in Tables 15 through 18.

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, we do not know 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 U.S. returnees had a slightly lower participation rate (56.7% versus 60.2%) but a much higher representation in professional services and public administration (60% versus 25%). 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 capital to contribute to development."

Unpublished Census data on individuals who had lived in the U.S. for 6 or more consecutive months between 1970 and 1980 and who were resident in American

Samoa at the time of the 1980 Census allow us to explore the demography and timing of the return migration flow.

Over the 1970s, 3,591 persons resident in American Samoa in 1980 had lived in the U.S. for six or more consecutive months. Of these 53% had been born in American Samoa. The rate of return implied in Table 19 is almost 10% higher than that implied in Table 14, supporting the assertion that the Census question on residence five years ago underestimates return migration. Table 19 also underestimates return migration because of the requirement that 6 or more consecutive months were spent in the U.S. Based on the data in Table 19, slightly more than 1% of the 1980 population returned from the U.S. annually between 1970 and 1980. The flow of American Samoa-born was 11% higher than that of those born overseas, perhaps 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 U.S. Thus over the decade 1970 - 1980 return migrants were less than 10% of the number of Samoans in the U.S. in 1980. Thus we concur with McPherson (1985) that the probability of return migration for Samoans is lower than is commonly believed.

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

The majority of return migrants are young. Forty-one percent were less than 25 years old and 63% were less than 35 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 35 years of age.

Individuals who have been away for at least 6 years constitute the largest group of returnees for males and females. Forty-seven percent of males and 41% of females have been absent for this period. Short-term absences (6 months to 2 years) are the next most common, accounting for 30% of male and 37% of female returnees. (Table 21). 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 6 months of residence in the U.S. was lower than that for persons in American Samoa in 1979 (Table 22). Only 41% of male returnees and 29% of female returnees were engaged in working at a job or business while 58% and 39% 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 23), lower labour market participation, or higher unemployment precipitating return migration.

The role of education in explaining return migration is not clear. Of the 3,591 individuals who had resided in the U.S for 6 or more consecutive months 35% reported school attendance during the last 6 months of residence (Table 23). This percentage is considerably less than the 47% of all American Samoans 5 years and older who were enrolled in school in 1980. However 45% of returnees were at risk of being in school or college, that is, were aged 5-24 years, while 56% 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 was 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 more adequately test the role of education in return migration.

Summary

The annual flow of return migrants from the U.S. is about 1% 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% were less than 25 years old and 63% less than 35 years old. The flow of American Samoan-born was 11% 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 in 1978 through 1980 than in previous years and was largely composed of those who had been absent 6 or more years (over 40%) and those who had been absent 6 months to 2 years (around 35%).

Although returnees were more successful after their return than other groups they may have been less so immediately before their return.

There is no clear evidence that education played a major role in explaining return migration to American Samoa.

MAIN FINDINGS

- The motivation for migration to or within American Samoa is clearly economic.
- Migrants are predominantly of working age and the majority of these are of young working age (15 - 34 years).
- Males are a larger percentage of adult migrants (those 15 years or over) than are females, but females outnumber males among the young working-age migrants.
- Ninety-five percent of migrant households are family households and most of these are husband-wife households.
- Migrants had lower fertility than American Samoans and much lower fertility than their home populations.
- Tongan and Western Samoan migrants have lower median incomes than all other groups in American Samoa. U.S.-born immigrants have 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 have 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 U.S.-born workers were employed by the government.
- Migrants seem to have more job-related skills than individuals in the home populations.

- Relatively few migrants are employed in agriculture whereas over half of the labour force in Tonga and Western Samoa is employed in this sector. Migrant employment is concentrated in construction and manufacturing whereas employment of American Samoans and U.S.-born migrants is concentrated in professional services and public administration.
- The median earnings of women are 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 U.S.-born migration increased rapidly. In the 1970s the shares were relatively constant (6% Tongan; 70% Western Samoan, 20% U.S.-born).
- Labour force attachment and income generally rise with longer residence in American Samoa.
- Return migration among Samoans was relatively rare.
- Return migrants to American Samoa are more successful economically than other American Samoans and other Pacific migrants.
- Almost half of the individuals returning to American Samoa from the U.S. had been resident in the U.S. for 6 or more years.
- Completing education did not seem to be a major reason for return migration.

Discussion

If the governments of Tonga and Western Samoa are concerned that they are losing valuable human resources through migration then this concern is well founded. Migrants to American Samoa are young, educated, and skilled. If these migrants are similar to Samoan migrants to the U.S. then the loss is permanent since return migration is unlikely.

Given that migration involves a loss of valuable human resources, should governments restrict migration? If so can they restrict migration?

From a conventional development viewpoint, governments should restrict migration if the losses outweigh the benefits.. The losses are clearly the loss of educated, skilled labour. The benefits are the flow of remittances from migrants abroad and skills acquired abroad. Remittances are important in the Pacific, although they are spent on luxury consumption rather than investment (Connell, 1985; Ahlburg, 1986). Benefits from the acquisition of skills abroad are unlikely given the small amount of return migration (Shankman, 1976; McPherson, 1983). There is no agreement on whether the benefits of migration outweigh the costs. Hayes (1985) argues that if benefits and costs are 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) concluded that the benefits appeared to exceed the costs, although the evidence was not wholly conclusive. (See Connell; 1983; numbers 18 and 22; and Connell, 1985, for a discussion of the costs and benefits of migration.)

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, 1983; number 22:54). 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