

**POVERTY AMONG PACIFIC ISLANDERS
IN THE UNITED STATES: INCIDENCE, CHANGE,
AND CORRELATES**

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Although poverty in the United States increased over the 1980s, it decreased for Pacific Islanders. But the incidence and severity of Pacific Islander poverty remained greater than that of other Americans. Poverty among Pacific Islanders declined because their attachment to the labor market increased, as did average education and work experience. The article shows that remittances may increase the poverty of some sending households and plunge other households into poverty. Also, the poverty of elderly and single-female-headed Pacific Islander households is so severe that increased welfare and Social Security payments do not lift them out of poverty. Raised are a number of unresolved issues about the meaning of poverty and the economic status of elderly households.

OVER THE 1980s, both the percentage and the number of people in the United States who lived in households with an income below the official poverty level, and who are thus classified as being poor, increased. In 1980, 13.0 percent of the population lived in poverty; in 1990, 13.5 percent of the population did so. The rates were unequal by race and ethnicity. The rate for whites in 1990 was 10.7 percent; African Americans, 31.9 percent; Native Americans, 30.9 percent; Hispanics, 28.1 percent; and the rate for Asian and Pacific Islanders was 12.2 percent (Danziger and Weinberg 1994:37). Over the 1980s the rates for whites, Native Americans, and Hispanics increased, while the rates for the other groups, including Asians and Pacific Islanders, declined. However, insights into the economic condition of Pacific Islanders that can be gained from statistics based on Asians and Pacific Islanders are

limited, as Asians make up much of the group and have very different socioeconomic characteristics than Pacific Islanders.

For the individual, poverty is associated with poor health, a relatively low level of education, exposure to social stress and crime, and diminished economic prospects. Growing up in a poor household increases the chance that an individual will experience poverty as an adult (Gottschalk, McClanahan, and Sandefur 1994:100). At the national level, poverty and rising inequality have often been viewed as the necessary price of increased economic efficiency as the economy adjusts to the rigors of the new international economic order. After the necessary adjustment, economic benefits should be shared more widely. However, some economists have begun to question the belief in a necessary trade-off between efficiency and equity, as others have long doubted the belief in eventual “trickle down.” For example, a recent study of fifty-six countries concluded that rising inequality, which is often accompanied by increased poverty, may harm economic growth. Inequality may cause either real or perceived social and political conflict (as it does at the individual level) and may lead to government policies that retard economic growth (Persson and Tabellini 1994).

Because they have higher levels of poverty than other groups in American society (30.3 percent in 1980 compared to 13.0 percent for all Americans and 20.5 percent in 1990 versus 13.5 percent), Pacific Islanders are at greater risk of suffering the negative consequences of poverty. But what are the extent and severity of poverty among Pacific Islanders? How did they change over the 1980s? And what factors affect the probability that a Pacific Islander household will be in poverty? These are the questions to be addressed in this study.

Data

The data used to address these questions are taken from the Public Use Micro Sample (PUMS) of the 1980 and 1990 censuses of the United States. The 1980 PUMS is a 1 percent sample of the U.S. population and the 1990 PUMS a 5 percent sample. Pacific Islanders are defined in this study on the basis of the race questions in the census. The focus of the study is on Polynesians, Melanesians, and Micronesians who came to the United States as migrants or are the descendants of migrants. As a consequence, Hawaiians are not included in the analysis. According to the U.S. Bureau of the Census (1993), Hawaiians were 58 percent of 365,024 Pacific Islanders in the United States in 1990. Samoans were 17 percent, Tongans 5 percent, Fijians 2 percent, and Guamanians 14 percent. Palauans, Northern Mariana Islanders, and Tahitians were each less than one-half of 1 percent of Pacific Islanders.¹

The majority of Tongans (61 percent) and Melanesians (78 percent) were born outside the United States and are first-generation migrants. Only 23 percent of Samoans and 18 percent of Micronesians were foreign-born, so most of these individuals are second- or higher-generation migrants (U.S. Bureau of the Census 1993).²

The unit of observation is the household headed by an individual sixteen years of age or older, now referred to by the Bureau of the Census as the "householder."³ The 1980 PUMS yields 143 households headed by a Pacific Islander (other than a Hawaiian) sixteen years or older, and the 1990 PUMS lists 1,168 such households. Of concern is whether income from all sources is sufficient to raise the household above the official poverty level.

It should be noted that, while I refer to Pacific Islanders as a group, there are sizable differences among groups of Pacific Islanders and also among different locations for a particular group. For example, the poverty rate of Guamanians, Melanesians, and Micronesians in 1990 was only 50 percent of that of Samoans and Tongans, and poverty rates of Pacific Islanders in Hawai'i were about twice those in California. The size of the PUMS sample is too small to carry out a separate analysis for each group and each location.

Table 1 reports some descriptive statistics regarding the samples of householders for 1980 and 1990. The sample for 1990 is large, but that for 1980 is small. Since there is so little information available about the poverty situation of Pacific Islanders in the United States, I present the information for 1980, recognizing that it may lack precision and that differences between 1980 and 1990 in individual characteristics may reflect the small size of the 1980 sample.⁴

Between 1980 and 1990 the average age of Pacific Islander householders rose by two years, average work experience rose by a little less than two years, and average years of education rose by about one-third of a year. The incidence of a work disability rose by a little over two percentage points, and the percentage who spoke English well or very well was constant.⁵ There were no notable changes in occupational distribution. Average weeks worked in 1989 were more than in 1979, and average hours worked per week were higher, yielding a larger number of hours worked in 1989 than in 1979. Most of these changes were such that poverty could be expected to fall, which it did.

There are clear differences between the average householder in 1990 and the householder of a household that is in poverty. The householder in poverty has 6 percent less education, is 77 percent more likely to have a work disability, is 8 percent less likely to speak English well or very well, is twice as likely to be female, is more likely to be a white-collar worker than a blue-collar worker, and is likely to work fewer than half the weeks per year and hours per week of the average householder. Most of these differences remain statistically significant in the multivariate analysis discussed below.

TABLE 1. Descriptive Statistics on Pacific Islander Householders Sixteen Years of Age or Older: 1980 and 1990

	1980		1990	
	All	In Poverty	All	In Poverty
Age (years)	36.7	37.8	38.8	37.6
Education (years)	11.9	11.2	12.3	11.6
Work experience (years)	18.8	20.6	20.5	20.1
Disability (percentage)	7.7	13.9	10.0	17.7
Speak English well or very well (percentage)	93.0	86.1	93.0	85.3
Female (percentage)	20.3	44.4	24.1	44.6
Occupations (percentage)				
Service	15.4	13.9	15.1	19.5
Farm	1.4	2.8	3.9	4.3
Blue-collar	37.1	22.2	37.3	24.7
White-collar	46.2	61.1	43.7	51.5
Weeks worked	37.9	17.4	38.4	19.4
Hours per week	33.7	14.8	34.9	19.8
Annual hours	1,551	566	1,628	707
Sample size	143	36	1,168	231

Sources: Calculated from 1980 and 1990 PUMS, U.S. Bureau of the Census.

The Measurement of Poverty

Before moving to a discussion of the incidence of poverty, it is useful to be clear on the definition used. The definition of poverty used in this study is the federal definition established by the U.S. Office of Management and Budget. The core of the definition is the amount of money needed to purchase a least-cost nutritionally adequate food plan. Since on average families spent one-third of their budget on food, the poverty level is roughly three times the value of the core food budget. The poverty line varies for each household depending on its size, the presence of children under the age of eighteen, and the age of the household head (under sixty-five years and sixty-five years old and over). For example, in the 1990 census the poverty level for a family of four was \$12,674. For a family of four with two children, it was \$12,575. The average household in the sample had 4.3 members, more than one person more than the average for the whole United States. To establish poverty status, the total income of each household or unrelated individual in the sample was compared with the appropriate poverty threshold. If total

income was less than the cutoff, the household or individual was classified as being in poverty.

The above definition of poverty has been criticized for overestimating poverty, because it does not include noncash benefits such as food stamps and Medicaid, and it does not take into account improvements in the quality of commodities over time. In the case of Pacific Islanders, it excludes in-kind transfers such as food from family in the United States and from those at home. If Pacific Islanders receive cash transfers but do not report them in the census form, then their poverty status will be overestimated.⁶ However, households may overstate the size of these transfers to save embarrassment at not receiving them (Ahlburg 1991:24). Ethnographic studies of resource flows among Pacific Islander households in the United States are needed to resolve this and other issues that arise from this study.

The official definition of poverty has also been criticized for underestimating poverty. Families now spend less than one-third of their income on food, so it is argued that the poverty multiplier should be greater than that used. A higher multiplier would increase the proportion of the population in poverty. The definition also ignores differences in the cost of living. Many Pacific Islanders live in high-cost states such as Hawai'i and California, and thus the poverty figures reported here that are based on the national poverty line may understate their "true" poverty level.⁷

Neither of these criticisms questions the fundamental approach used to establish the poverty line. Amartya Sen (1985, 1987), however, has argued that such measurement schemes use the wrong metric. He argues that they are concerned with "opulence" (income or commodity possession) rather than with the essence of human well-being, which is *being* well. Poverty should be concerned with fundamental "capabilities" such as being able to live long, being well nourished, being healthy, being literate, having personal and political freedom, and the like.⁸ Such an approach seems more consistent with a Pacific viewpoint, where money per se does not generally dominate other considerations.

Research has shown that the official poverty line has the highest correlation with other definitions of poverty among eight commonly used absolute, relative, and subjective definitions of poverty (Hagenaars and de Vos 1988: 219). The official poverty line is a key policy variable, used in the United States and elsewhere (including Fiji, Vanuatu, and other Pacific islands) for the allocation of funds and the targeting of programs. The concept of poverty is one that Pacific Islanders can relate to. For example, a recent survey carried out by Richard Brown and collaborators asked respondents if their parents and their spouses' parents were poor. Respondents had no problems replying to

TABLE 2. Poverty in Pacific Islander Households: 1980 and 1990

	All		Employed Head	
	1980	1990	1980	1990
No. of persons in households	65,100	99,560	49,300	74,719
No. of persons in households in poverty	19,700	20,440	7,700	9,720
Percentage in poverty	30.3	20.5	15.6	13.0

Source: See Table 1.

the survey question; that is, the response rate was high (Brown and Walker 1995). In addition, the recent study of poverty in Fiji used the concepts of absolute, relative, and subjective poverty in data collection without encountering difficulties on the part of respondents (Government of Fiji and UNDP 1997).

Faced with these different approaches, one must decide whether to accept the official measure of poverty as a useful, although imperfect, measure of “poverty” or to reject it out of hand as inapplicable to Pacific Islanders. I choose to accept it as one useful measure of the condition of Pacific Islanders in the United States and as a rough guide to the challenges they face. Pacific Islanders in the United States are part of American culture, just as they are a part of their home island culture.⁹ The same as other Americans, their “capabilities” or “well-being” are affected by income, although not necessarily defined by it. Low income in the United States makes it harder although not impossible for an individual to acquire at least some important attributes of “well-being.”

The Incidence of Poverty

Table 2 presents data on the incidence of poverty among Pacific Islander households as reported in the 1980 and 1990 censuses. Since income data in the census refer to the previous year, the poverty data refer to 1979 and 1989. More Pacific Islanders lived in poverty in 1989 than in 1979, but a smaller percentage of Pacific Islanders were in poverty: 21 percent compared to 30 percent. Thus, the growth in the number of Pacific Islanders in poverty was due to a growth in the number of Pacific Islanders, not to an increase in the incidence of poverty. The decrease in the incidence of poverty was counter to the national trend, which was an increase in poverty from 13.0 percent to 13.5 percent. It was also counter to the change for some other minority

TABLE 3. Pacific Islander Poverty by Age of Householder: 1980 and 1990

	Age Group					
	16-25	26-35	36-45	46-55	56-65	> 65
1980						
No. of persons in households	8,200	26,200	13,900	13,500	2,400	900
No. of persons in households in poverty	2,800	8,900	3,600	3,400	400	600
Percentage of age group in poverty	34.1	34.0	25.9	25.2	16.6	66.6
Percentage of those in poverty	14.2	45.1	18.3	17.3	2.0	3.1
Sample size	24	58	27	21	8	5
1990						
No. of persons in households	8,820	35,680	25,620	17,440	7,440	4,560
No. of persons in households in poverty	2,840	8,760	3,500	2,520	1,560	1,260
Percentage of age group in poverty	32.2	24.6	13.7	14.4	21.0	27.6
Percentage of those in poverty	13.8	42.8	17.2	12.4	7.6	6.2
Sample size	146	441	263	177	87	54

Source: See Table 1.

groups: an increase for American Indian, Eskimo, or Aleut individuals from 27.5 percent in 1979 to 30.9 percent in 1989 and from 25.7 percent to 28.1 percent for Hispanics. Poverty among African Americans declined slightly, from 32.5 percent to 31.9 percent. For whites it increased from 10.2 percent to 10.7 percent (Danziger and Weinberg 1994:37). The last two columns of Table 2 show that the incidence of poverty among employed Pacific Islander households also declined.

Table 3 reports Pacific Islander poverty data for 1979 and 1989 by age of the householder. The incidence of poverty is highest for young householders (ages sixteen to thirty-five) and for the elderly (over sixty-five years). The incidence of poverty dropped considerably over the 1980s for all age groups except those fifty-six to sixty-five years of age. The 1980 estimates for those

TABLE 4. Pacific Islander Poverty by Gender and Marital Status of Householder: 1980 and 1990

	Male		Female	
	Married	Single	Married	Single
1980				
No. of persons in households	51,000	2,000	3,400	8,700
No. of persons in households in poverty	11,900	200	1,600	6,000
Percentage of group in poverty	23.3	10.0	47.1	69.0
Percentage of those in poverty	60.4	1.0	8.1	30.5
Sample size	104	10	8	21
1990				
No. of persons in households	69,740	8,240	7,140	14,440
No. of persons in households in poverty	10,440	1,860	1,940	6,200
Percentage of group in poverty	15.0	22.6	27.2	42.9
Percentage of those in poverty	51.1	9.1	9.5	30.3
Sample size	741	146	72	209

Source: See Table 1.

fifty-six and older should be viewed with considerable caution, because they are based on only a small number of observations. A certain amount of caution should be applied to all of the other 1980 estimates as well, since the sample sizes for these age groups are also small.

The incidence of poverty is greater in Pacific Islander households headed by women, in particular those headed by an unmarried woman. Fully 69 percent of individuals in single-female-headed households were in poverty in 1979 and 43 percent in 1989. Single women and those living in their households constituted slightly more than 30 percent of all Pacific Islanders in poverty in both 1979 and 1989, although they were only 13.4 percent of Pacific Islanders in 1979 and 14.5 percent in 1989. The incidence of poverty is also high in families headed by women whose husbands were not present in the home at the time of the census. Over the 1980s the incidence of poverty declined for each household type shown in Table 4 except those headed by

single males. In contrast, for the United States as a whole, poverty increased slightly for these groups (U.S. Bureau of the Census 1992:460). For example, the poverty rate for single mothers with children rose from 42 percent to 44 percent. Again, the declines for Pacific Islanders must be viewed with caution for household types where the sample size is small, that is, all except married male households.

Children in Poverty

One of the major policy concerns about poverty is its effects on the life chances of children. To obtain estimates of the percentage of children in poverty I shift my analysis of the PUMS data from the household to the individual. Such an analysis shows that poverty among Pacific Islanders in the United States falls disproportionately on children: 27 percent of all Pacific Islander children (younger than eighteen years of age) in 1989 lived in households below the poverty line compared to 21 percent for all Pacific Islanders. Pacific Islander children were also more likely to be poor than other children in the United States: 27 percent compared to 20 percent for all children in the United States (Danziger and Weinberg 1994:37). Although 53 percent of Pacific Islander children who lived in poverty lived in married-couple households, only 20 percent of children in such households lived in poverty, whereas 63 percent of Pacific Islander children living in female-headed households lived in poverty.

The Correlates of Poverty

The incidence of poverty is a function of both economic and demographic characteristics of individuals and households. Poverty may be related to a lack of human capital (education, work experience, language skills) sufficient to obtain a job with adequate pay or to a shift in the demand for labor. In the 1980s there was a shift in demand in the U.S. economy toward higher levels of skill and from higher-paying manufacturing jobs to lower-paying service jobs (Murphy and Welch 1993). It is also related to demographic events such as marital disruption and unmarried childbearing (Moffitt 1992; Danziger and Weinberg 1994; Garfinkel and McClanahan 1994; Ahlburg and De Vita 1992).

Reported in Table 5 are results of a regression of the variables commonly identified in the literature to be associated with poverty (see, for example, Danziger and Weinberg 1994) that are available in the PUMS. The first column shows the regression coefficient, the second the standard error, and the third marginal effects. Since the dependent variable, poverty, is a zero-

TABLE 5. Determinants of Pacific Islander Poverty: 1990

	Coefficient	Standard Error	Marginal Effect (percentage)
Education	-0.094	(0.024)**	-2.0
Age	-0.016	(0.005)**	-0.4
English	-0.478	(0.170)**	-10.3
Disability	0.405	(0.157)*	8.7
Head employed	-0.976	(0.117)**	-21.0
Spouse employed	-0.608	(0.145)**	-13.1
Occupation			
Service	0.311	(0.143)*	6.7
Farm	-0.048	(0.255)	-1.0
Blue-collar	-0.166	(0.122)	-3.6
Household type			
Married/kids	0.359	(0.207)	7.7
Single father	0.165	(0.303)	3.6
Single male	0.655	(0.378)	14.1
Single mother	0.921	(0.226)**	19.8
Single female	0.470	(0.346)	10.1
Nonfamily	0.957	(0.221)**	20.6
Household size	0.084	(0.027)**	1.8
U.S.-born	-0.824	(0.172)**	-17.7
Year of immigration			
1980-1984	-0.381	(0.169)*	-8.2
1970-1979	-0.706	(0.146)**	-15.2
1960-1969	-0.762	(0.178)**	-16.4
Before 1960	-1.054	(0.225)**	-22.7
Constant	1.815	(0.470)**	
Log likelihood	-428		
Restricted log likelihood	-580		
Chi-square (21)	306**		

*Signifies statistical significance at at least the 0.05 level

**Signifies statistical significance at at least the 0.01 level

one variable (a household is either not in poverty or it is in poverty), probit analysis is used, because ordinary least squares is inappropriate with a binary dependent variable. The major problem with applying ordinary least squares to the binary dependent variable poverty is that the probability of being in poverty is not constrained to be between zero and one (see Griffiths, Hill, and Judge 1993:738-740).

The marginal effects in this case are the effects of each independent variable on the probability that a Pacific Islander household will be in poverty. For example, the marginal effect of a continuous variable such as years of

education indicates that each extra year of education possessed by the head of the household decreases the probability that the household will be in poverty by 2.0 percent. The marginal effect of each dummy variable such as English language proficiency, whether the householder is employed, whether the householder has a disability, whether the spouse is employed, household type, job type, and being U.S.-born is measured relative to that of the category omitted from the regression. For English language, it is speaking English well or very well relative to speaking it less well or not at all; for service, farm, and blue-collar occupations, it is being in these occupations rather than in white-collar occupations; for employed head or employed spouse, it is being employed rather than not; for disability, it is the presence of a disability rather than not being disabled; for being U.S.-born, it is being born in the United States rather than being born elsewhere (presumably in the Pacific Islands); and for each household type shown, it is this type compared to a married couple without children. For example, holding the effects of the other variables constant, a female-headed household with children was 19.8 percentage points more likely to be in poverty than a household composed of a married couple without children. These estimates assume that the factors that affect the probability of being in poverty are those shown in the tables. If there are other factors that affect this probability and they are correlated with the factors being considered, household type for example, then the estimated effects are biased. That is, they are either too big or too small.

The overall model is statistically significant as indicated by the chi-square statistic, and the fit of the model is superior to that of reasonable alternative models.¹⁰ Most of the variables in the model were statistically significant (determined by asymptotic *t* tests), most at least at the 0.01 level (signified by ** in Table 5) and the remainder at least at the 0.05 level (signified as * in Table 5). The factors that determine whether a Pacific Island household is in poverty are similar to those that determine the poverty status of other American households: employment, human capital (education and language proficiency), no disability, and household structure.¹¹ Not surprisingly, they are also the factors that determine whether a Pacific Islander is employed and whether he or she has a "good" job (see Ahlburg 1997b).

In 1990, employment was a major factor in avoiding poverty. If the householder was employed, the probability that the household was living in poverty was 21 percent lower than if the head was not employed. If the spouse of the householder was employed, the probability was 13.1 percent lower. If employment and the other variables shown are held constant, each extra year of education possessed by the householder reduced the probability of the household being in poverty by two percentage points. Households headed by older individuals were less likely to be in poverty, each extra year of age

decreasing the probability by about one-half a percentage point. Speaking English well or very well had a large impact on the incidence of poverty. Those in a household whose head spoke English well or very well were 10.3 percent less likely to be in poverty than those in households where the head spoke English less well. The economic importance of education and English language proficiency for all Pacific Islanders reinforces an earlier finding by Robert Franco. He found that low educational attainment and language problems contributed to the high unemployment of Samoans in Hawai'i.¹²

The only occupational group with a higher incidence of poverty than others was services. A householder who was employed in a service occupation was 6.7 percent more likely to be in poverty than if employed in another occupation.

The household structures associated with a higher incidence of poverty were single female with children and nonfamily households (individuals unrelated by blood or marriage). Households headed by unmarried women with children and nonfamily households are about 20 percent more likely to be in poverty than other households even after controlling for other factors that affect the incidence of poverty. It is not clear whether the structure of the household causes poverty or poverty causes the form the household takes. There are arguments made and data presented for both directions of causality (see McClanahan and Booth 1989; Moffitt 1992). Some argue that welfare payments lead to behaviors such as lower work effort and single-parent families that lead to poverty (Murray 1984). Others challenge the existence or importance of such effects. Moffitt (1992) considers the evidence and concludes that, although welfare does have some disincentive effects, they are sufficiently small that increases in welfare will not increase the number of families in poverty. It is also possible that both are caused by some third factor, such as family background. Finally, larger households are more likely to be in poverty than smaller families. Each additional household member increases the probability of poverty by about 2 percent.¹³

Recent immigrants, those who entered the United States in or after 1985, are significantly more likely to be in poverty than Pacific Islanders who immigrated before 1985. If other factors are held constant, those who immigrated before 1960 were 23 percent less likely than new immigrants to have been in poverty in 1989. The corresponding figures for those who immigrated between 1960 and 1969 are 16 percent; for those who entered the United States between 1970 and 1979, 15 percent; and for those who entered between 1980 and 1984, 8 percent. While these differences could reflect differences in abilities, education, and experience, their trend indicates that they could reflect the time it takes to adjust to the U.S. labor market. Pacific Islanders

who were born in the United States were 18 percent less likely than those born overseas to be in poverty. These differences could reflect differences in the quality of their education and training, or differences in other factors. These findings support the observation made by Michael Levin that, for Pacific Islanders, “the farther from the Pacific Islands in time, space, and orientation, the more integrated into American society [they become]” (Barringer, Gardner, and Levin 1993:311–312).

A comparison of the regression results for 1990 and those for 1980 (not shown) reveals that the improved situation for Pacific Islanders resulted primarily from an increase in the advantageous effects of education, age, and English language skills on avoiding poverty and the fact that Pacific Islanders acquired more education and the age of household heads increased. Although the percentage of Pacific Islander heads of household who spoke English well or very well did not increase, the importance of the English language skills they had increased significantly, thus helping to reduce poverty. A decline in the size of households contributed to a decline in the incidence of poverty, but a rise in the percentage of households headed by single mothers at a time when the impact of this characteristic increased tended to increase the incidence of poverty.

The Poverty Gap

The number and percentage of individuals living in poverty provides a notion of how extensive poverty is among Pacific Islanders, but how intensive is their poverty? The poverty “gap,” the difference between household income and the poverty level, gives an indication of the intensity of poverty among Pacific Islander households, and the gap per person gives an even better indication of the intensity of poverty for a member of that household. In 1979, the poverty gap for the average poor American was \$1,660 (in 1989 dollars) compared to \$2,476 (in 1989 dollars) for the average poor Pacific Islander. In 1989, the average Pacific Islander household in poverty had an income deficit of \$2,450 per person compared to the U.S. average of \$1,870 (see Danziger and Weinberg 1994:33 for U.S. averages). Thus, not only did the proportion of Pacific Islander households in poverty decline over the 1980s, but the intensity of poverty per household in real terms also declined, although the intensity per person declined only slightly.

The income required to lift all Pacific Islander households out of poverty (the total poverty gap) in 1979 was \$28.5 million dollars and in 1989, \$50 million dollars. To put these sums in perspective, they are equal to 7.6 percent of total Pacific Islander income (excluding Hawaiians) in 1979 and 3.7 per-

cent of the total income in 1989. Thus, the relative scale of Pacific Islander poverty declined over the 1980s because of growth in overall income earned by Pacific Islanders rather than an improvement in the income deficit per poor person.

Remittances, Social Programs, and Poverty

Pacific Islanders in the United States and elsewhere commonly send remittances back to relatives in their country of origin. Remittances have been studied widely, but most of the attention is focused on the size of remittances, their duration, and what they are spent on (see, for example, Ahlburg 1991; Brown and Connell 1993). Little, if any, attention has been paid to the impact of remittances on the sending household. For example, in the in-depth studies of overseas Polynesians by Pitt and Macpherson (1974) and Small (1997), only passing mention is made of the impact of remittances on the senders. Similarly, the studies by Shankman (1976 and 1993), Ahlburg (1991), Bedford (1991), and O'Meara (1993) have little to say about the impact of remittances on their donors. Barringer, Gardner, and Levin speculated that "if remittances were to show up in the income and poverty statistics, the economic situation of Samoans would look even worse [than it already does]" (1993:313). Franco (1985) reported cases of malnutrition among Samoans in Hawai'i as a consequence of meeting remittance claims. James (1993) concluded that such claims can result in the migrant household being in debt for months or even years.

Although estimates of remittances are not available from the census, their value can be estimated from a number of other sources. Ahlburg (1991) estimated that the average level of cash remittances per migrant in the United States was about \$1,000 for Tongans and \$700 for Samoans, and Brown and Connell (1993) estimated that remittances per household from Australia to Tonga and Western Samoa were \$1,083.¹⁴ Brown and Connell (1993) argue that cash remittances significantly underestimate the remittance claim placed on a household. They estimated average cash remittances plus unrecorded remittances in the form of cash carried, goods sent and carried, and other payments made on behalf of the migrant to be \$2,513 per household. Ahlburg reported that most studies of Pacific remittances conclude that the average household remitted from 12 percent to 15 percent of household income (1991:25–26). With a median household income of \$30,000 in 1989, this finding implies remittances of \$3,600 to \$4,500 for the average household. The sending of remittances is also widespread. For Tongans, about 90 percent remit, with 75 percent of those with incomes below \$7,500 remitting,

TABLE 6. Illustration of the Impact of Remittances on Pacific Islander Poverty

Remittances	Additional Families in Poverty	Additional People in Poverty	Percentage of Those Already in Poverty
\$1,000	400	1,360	6.7
\$2,000	740	2,670	13.1
\$3,000	1,360	5,750	28.2
\$4,000	1,960	8,100	39.6
\$5,000	2,240	10,160	49.2

Source: Calculations by the author.

For Samoans, the respective figures are 70 percent to 90 percent, and around 50 percent for low-income earners (Brown and Walker 1994).

To throw some light on the possible effect of remittances on poverty among Pacific Islander households, the following exercise has been carried out: I calculated how many additional households in 1989 would fall below the poverty line if each sent \$1,000 in remittances, \$2,000, and so on up to \$5,000 per household. The results of this exercise are shown in Table 6. Remittances of \$1,000 per household in 1989 would cause a further 400 households to fall below the poverty line; this would add 1,360 persons to the poverty roll, almost 7 percent of the number of Pacific Islanders who are already on it. Each additional \$1,000 of remittances would add a further 350 to 620 households (1,320 to 3,100 persons). Thus, at least in the United States, many Pacific Islander households live close to the poverty line. The payment of average remittances can force many of them into poverty and those already in poverty even deeper into poverty.

Welfare payments may help raise a household out of poverty. In particular, Aid to Families with Dependent Children (AFDC) payments are designed to raise the income of single mothers and their children. However, there is debate over whether welfare helps or hinders those it is designed to help. To see whether increased welfare payments would have much of an effect on Pacific Islander poverty, I calculated the number of households headed by single mothers that would be raised out of poverty by an additional welfare payment of \$1,000 or \$2,000. In 1989, an additional \$1,000 payment would raise an additional 100 households out of poverty (5 percent of single-mother households and 2 percent of all Pacific Islander households in poverty). A \$2,000 payment would move 180 households out of poverty (10 percent of

single-mother and 4 percent of all households in poverty). Such increases would be large in comparison to the direct AFDC benefit for a single-parent family of three people of about \$4,500 in 1991 (Danziger and Weinberg 1994:39). Even these small effects are overstated because of “leakage” from welfare payments. Because of disincentive effects, it takes a transfer of \$1.60 to raise the income of a recipient by \$1.00 (Moffitt 1992). Thus, changes in the welfare system are unlikely to have much of an effect on Pacific Islander poverty, and welfare is unlikely to explain much of such poverty. This finding holds more generally. Danziger and Weinberg (1994) found that in 1990 cash transfers moved only about 10 percent of female-headed families out of poverty.

Poverty and the Elderly

When the income sources of elderly Pacific Islander households are examined, the reasons for their deep poverty become obvious. One-third of the households reported no source of income at all. By far the most important source of income was Public Assistance. Half of the households received Public Assistance (mean \$3,924), while one-third received Social Security (mean \$3,169), 17 percent had income from some form of employment (average \$4,640), and 10 percent received income from a retirement fund or some “other source.” Reliance on the state for reported income is clear: two-thirds of households received income from some government source. Another contributing factor is the presence of children in households headed by the elderly. The average elderly household contains one child under the age of eighteen years, and the average poor elderly household contains 1.4 children. Some elderly households have as many as five or six children.

Increased Social Security payments over the last twenty years have been found to explain a large part of the decrease in poverty among the elderly in the United States (Weinberg 1987; Danziger and Weinberg 1994). Additional Social Security payments of \$2,000 in 1989 to elderly Pacific Islander households would have had little impact on poverty, raising only 40 of the 360 elderly Pacific Islander households out of poverty. The average poverty gap for these elderly households was \$7,334. An increase of \$1,000 or \$2,000 is quite large. For example, in 1992 the annual benefit level for Supplemental Security Income (SSI), a means-tested program, was \$7,596 for a couple (Danziger and Weinberg 1994:39). For Pacific Islander elderly households in poverty in 1989, their poverty was sufficiently deep that they were relatively untouched by even large increases in Social Security.

The data on the elderly raise several unanswered questions. First, since only 6 percent of elderly households reported income from a source other

than the government or themselves (through work or a retirement plan), did they receive no income from family and relatives, or did they not report such income? Second, if almost one-third of elderly households lived in poverty and one-third of these had no reported source of income, how do these households survive? Third, why is it that individuals with higher incomes are less likely to head their own households when it is those with the lowest income that most need the economic security of being a part of a larger household? Fourth, despite advantages for the elderly and the children of intergenerational households, what are the economic implications for the elderly, and is the economic future of the children compromised? An unquestioned element of the "Pacific way" is that the elderly are respected and supported. The data from the census are therefore surprising. Further quantitative and qualitative research on Pacific Islander households is needed to investigate these puzzling results and establish the types and amounts of support provided to the elderly.

Conclusion

While the incidence of poverty in the United States increased in the 1980s, it declined for Pacific Islanders, although it was still considerably higher than the national average. The observed decline in poverty was most likely associated with increased employment, earnings, and hours worked by Pacific Islander householders. These were in turn associated with gains in average educational attainment and work experience, factors associated with a lower probability of a householder earning less than the poverty level (Ahlburg 1997b). Other factors that contributed to the decline in poverty were a reduction in average household size and an increase in the average number of income earners per household.

While the incidence of poverty decreased, the number of Pacific Islanders in poverty increased because of growth in the population. The severity of poverty for those in poverty was considerable and decreased only slightly in real terms over the decade. Poverty occurs when household income is insufficient to cover a basic minimum standard of living. However, Pacific Islander households often send a portion of their income back home to relatives, so their disposable income may be less than that measured in the official poverty calculations. An exercise illustrated that the sending of remittances by those above the poverty line could significantly increase the percentage of Pacific Islanders living in poverty. Other exercises suggest that poverty among Pacific Islanders would not be greatly affected by increases in either AFDC or Social Security payments. There are several troubling aspects of the poverty of the elderly: a large proportion of elderly households have no reported

income at all; relatively few report any source of income other than the government or themselves; and those with the lowest incomes are more likely than those with higher incomes to head their own households.

Poverty has considerable negative effects on the welfare of Pacific Islands individuals, families, and households. Although an inescapable welfare “trap” does not exist in the United States, those who are raised in poverty are more likely to experience poverty as adults than those who are not. Thus, the overrepresentation of children in poverty is particularly troubling. The keys to avoiding poverty are clear: work and productive attributes such as education and English language proficiency, which increase the chances of employment and increase earnings.

Although this analysis contributes to an understanding of poverty as defined in the census, it has several limitations that should be kept in mind. It assumes that all income is correctly reported in the census; otherwise, estimates of poverty are biased. In-kind transfers are believed to be more important among Pacific Islanders than in the general population, and the extent of poverty is believed to be overestimated. However, the impact of intrafamily transfers on measured poverty depend on the size of these transfers and the incomes and location of those sending and receiving such transfers. Without knowledge of transfers among Pacific Islander households, one cannot know whether the estimates of poverty reported here are too high or too low. This study has uncovered significant poverty among elderly Pacific Islanders. It is not clear how such households survive given their reported income. Further statistical and ethnographic study is needed to increase knowledge of coping strategies used by poor households, particularly among the elderly, and of resource flows among households. Finally, researchers need to know how Pacific Islanders view poverty. Does the approach used here approximate, at least roughly, perceptions of categories of “well-being”: that is, poor and nonpoor? Can better measures of poverty and well-being be constructed? Should attempts be made to do so?

NOTES

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1. These data are based on the census race question but some groups identified, such as Northern Mariana Islander, are not distinct racial groups.

2. These percentages are likely too low for at least two reasons. The first is a tendency to report that one is born in the United States to avoid immigration problems, and the second is a Bureau of the Census coding procedure that treats American Samoans and certain groups of Micronesians as born in the United States. Thanks to Michael Levin for pointing this out to me.

3. One person in each household is designated the "householder." The householder is, in most cases, the person, or one of the persons, in whose name the household is owned, being bought, or rented and the one whose name is listed as person one on the census questionnaire. If there is no such person in the household, any adult household member fifteen years or over can be designated the householder. Households are classified by type according to the sex of the householder and presence of relatives. A family household is composed of persons living together who are related by birth, marriage, or adoption. Non-family households are composed of a householder living alone or with nonrelatives only.

4. It is difficult to compare the sample data to the published census data, because the latter are for all Pacific Islanders, not just householders, and generally present distributions, not means or medians. Average education of householders in the sample is the same as that for Pacific Islanders twenty-five and over in the census, and the percentage of householders who spoke English well or very well is within three percentage points of the census figure for persons eighteen years of age or older (Barringer, Gardner, and Levin 1993). Since education and English language proficiency are both important determinants of earnings and poverty, these similarities give some confidence in the 1980 sample despite its size. For a discussion of the social and economic characteristics of Pacific Islanders in the United States, see Ahlburg and Levin 1990 and Barringer, Gardner, and Levin 1993.

5. The figures for English language proficiency may be overstated, since they are self-reported data. In a study of Samoans in Southern California, Shu and Satele (1977) found that, although only 8 percent of the sample reported that they were unable to speak English, about half of the respondents either were not fluent in English or could not speak it at all. English language proficiency also varies among Pacific Islanders. For example, in 1980, 96 percent of Guamanians, 87 percent of Samoans, and 74 percent of Tongans reported that they spoke English well or very well (Barringer, Gardner, and Levin 1993).

6. The census question on sources of income includes an item for "financial assistance from outside of the household." Such assistance includes periodic payments from non-household members but excludes gifts or sporadic assistance. It is thus likely that the amount of remittances received is underreported, but the extent is unknown.

7. In 1990, 51 percent of Samoans, 45 percent of Tongans, 82 percent of Fijians, 51 percent of Guamanians, and 28 percent of Palauans lived in California, while 24 percent of Samoans, 18 percent of Tongans, 4 percent of Fijians, 25 percent of Palauans, and 4 percent of Guamanians lived in Hawai'i (Barringer, Gardner, and Levin 1993:275).

8. A related view, although with different policy prescriptions, is expressed by Rahnama (1992), who criticizes what he calls poverty based on “materialities.” He is concerned with how perceptions of what constitutes poverty vary across cultures and over time and with how the “poor” perceive their own situation. He believes that “the answer to imposed forms of material poverty are to be found in people’s own ethical and cultural approach to poverty” (p. 171) and calls for a form of “voluntary” or “convivial” poverty (p. 172).

9. In 1990 in the sample, 44 percent of those born outside the United States had become citizens. In 1980, 60 percent of Western Samoa-born migrants were naturalized, whereas 30 percent of Tongan and Fijian migrants were naturalized. Naturalization may indicate a sense of wanting to identify with the United States or an acceptance of at least some of the values of the United States. It may also indicate the economic benefits associated with citizenship.

10. A number of measures of goodness of fit have been proposed for models with discrete dependent variables, such as the one estimated here. One measure, the likelihood ratio index, is an analog to the *R*-square of the conventional model. It is bounded by zero and one; however, values between zero and one have no natural interpretation. If all of the slope coefficients are zero, then the likelihood ratio index is zero. As the fit of the model improves, the value of the index increases. The equation in Table 5 has a likelihood ratio index value of 0.23. Another measure of goodness of fit is the percentage of correct predictions the model makes. The model in Table 5 correctly predicts 96 percent of those not in poverty and 41 percent of those in poverty. A reasonable naive alternative model that is often used to check the usefulness of the estimated model is one that predicts everyone is in poverty if the sample proportion in poverty is greater than or equal to 0.5 and no one is in poverty if the sample proportion is less than 0.5. This naive model predicts 100 percent of those not in poverty but none of those in poverty. The model estimated here produces several significant influences on the probability of being in poverty and makes 37 more correct predictions than the naive prediction model. See Greene 1993:651–653 for a discussion of these measures. A more reasonable “naive” model is to generate a random draw for each household with a probability of 0.8 of not being in poverty and a probability of 0.2 of being in poverty. The fitted model also performs considerably better than this naive model.

11. I carried out a similar analysis of poverty in the state of Minnesota, a state with a predominantly white population. Compared to the average Minnesotan, Pacific Islander householders were penalized much more heavily for lower education, lacking English language skills, lacking jobs, and being single mothers. The marginal effects for Pacific Islanders were at least twice the size of those for the average Minnesotan (Ahlburg 1997a).

12. Franco’s conclusion holds more generally. Using the PUMS data for all Pacific Islanders, I estimated employment equations separately for male and female householders. Each year of education increased the probability of employment of males and females by 0.6 percentage points. Speaking English well or very well increased the probability of employment for men by 4.3 percentage points and for women by 11.7 points.

13. The poverty of large families is probably underestimated for at least two reasons. First, the definition of poverty is based on household size but has the same cutoff for households of nine or more. Pacific households can be larger than nine persons, and so

the income needed to avert poverty is underestimated. Second, large Pacific households are likely to have a higher ratio of adults, and their consumption demands are greater than the representative household that has a higher ratio of children. The average Pacific Islander household had one more person than the average American household, and the average Samoan household had two more people. In addition, while in the average American household only 4 percent of people were "other relatives," in the average Pacific Islander household 10 percent of the members were "other relatives." For Samoans 13 percent were "other relatives," and for Micronesians 12 percent were "other relatives" (Barringer, Gardner, and Levin 1993).

14. My estimates were based on national accounts data and data from a number of surveys of receiving households. The estimates of Richard Brown and his collaborators are from surveys of sending households. See Ahlburg 1991 for a discussion of the various estimates.

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