Papers of the East-West Population Institute No. 79

> Migration and unemployment in Hawaii

> > Robert D. Retherford



PAPERS OF THE EAST-WEST POPULATION INSTITUTE, published about eight times a year, facilitate early dissemination of research findings and state-of-the-art essays on the demography of Asia, the Pacific, and the United States. Annual subscription rate, \$12.

NOTE TO CONTRIBUTORS: The Population Institute considers unsolicited as well as commissioned manuscripts for the Paper Series. Appropriate topics are population estimation and analysis, causes and consequences of demographic behavior, urbanization and population distribution, and population policies and programs. All manuscripts are reviewed. In selecting manuscripts for publication, the Institute considers quality of scholarship and usefulness to public officials and other professionals in the field of population; it also seeks contributions reflecting diverse cultural and disciplinary perspectives on population. The series can accommodate articles not necessarily suited for journals because of unusual length or treatment of subject. All copy must be typed double-spaced. For additional information on manuscript preparation, write to the Publications Officer, East-West Population Institute.

#### OTHER SERIAL PUBLICATIONS OF THE EAST-WEST POPULATION INSTITUTE:

Working Papers are circulated for comment and to inform interested colleagues about work in progress at the East-West Population Institute. They are intended to complement evidence of completed work as reflected in Papers of the East-West Population Institute and the Reprint Series. \$2 per copy.

Reprint Series brings selected articles originating from Institute research but published elsewhere to the attention of population specialists who might not otherwise see them. Single copies available upon request.

Asian and Pacific Census Forum is a quarterly periodical reporting on census, vital registration, and population survey activities in Asia and the Pacific. The Forum contains technical articles on a range of topics related to demographic measurement, and reviews of new publications in the field. Issued in August, November, February, and May. Annual subscription rate, \$5.

Serial publications except Working Papers are available without charge to libraries serving population specialists and to professionals and scholars in the field of population. Requests describing the nature of the research or program and the intended use of the publications should be addressed to the Publications Office of the Institute.

East-West Population Institute East-West Center 1777 East-West Road Honolulu, Hawaii 96848 Acting Director Keith E. Adamson
Publications Officer Sandra E. Ward
Editor Robert L. Hearn
Production Specialist Lois M. Bender
Cartographer Clyde Kanehiro

# Migration and unemployment in Hawaii

Robert D. Retherford

A joint publication of the East-West Population Institute and the Hawaii State Commision on Population and the Hawaiian Future

Number 79 • January 1982

PAPERS OF THE EAST-WEST POPULATION INSTITUTE

ROBERT D. RETHERFORD is Assistant Director for Graduate Study of the East-West Population Institute.

# Library of Congress Cataloging in Publication Data

Retherford, Robert D.

Migration and unemployment in Hawaii.

(Papers of the East-West Population Institute; no. 79)

Bibliography: p.

1. Unemployment—Hawaii. 2. Hawaii—Immigration and emigration. I. East-West Population Institute.

II. Hawaii. Commission on Population and the Hawaiian

Future. III. Title. IV. Series. HD5725.H3R47 331.13'7

331.13'72'09969 81-22204 AACR2

# **CONTENTS**

Acl	know!	led	lgm€	ent	ν
-----	-------	-----	------	-----	---

Abstract 1

Data sources 2

Findings 3

Conclusion 17

References 18

# **TABLES**

- 1 Unemployment rates by age, sex, marital status, education, ethnicity, occupation, industry, and migration status: Hawaii and its counties, 1975 4
- 2 Distribution of migrants by place of origin: Hawaii and its counties, 1975 7
- 3 Percentage distribution of place-of-birth migrants and nonmigrants in the labor force by age, sex, marital status, education, ethnicity, occupation, and industry: Hawaii, 1975 9
- 4 Percentage distribution of five-year migrants and nonmigrants in the labor force by age, sex, marital status, education, ethnicity, occupation, and industry: Hawaii, 1975 10
- 5 Labor force participation rates of place-of-birth migrants and nonmigrants of ages 25-64 by sex, age, marital status, education, and ethnicity: Hawaii, 1975 13
- 6 Unemployment rates for place-of-birth migrants and nonmigrants by age, sex, marital status, and education: Hawaii, 1975 14
- 7 Unemployment rates for five-year migrants and nonmigrants by age, sex, marital status, and education: Hawaii, 1975 14
- 8 Age-standardized unemployment rates by marital status, education, ethnicity, place of birth, and residence five years ago: Hawaii and its counties, 1975 15
- 9 Per capita income by migration status and current county of residence: Hawaii, 1975 16

# **ACKNOWLEDGMENT**

I am grateful to Robin Loomis for extensive research assistance and to Eleanor Nordyke, Robert Schmitt, and the Hawaii Department of Planning and Economic Development for many helpful comments and suggestions. This study was supported in part by the Hawaii State Commission on Population and the Hawaiian Future.



ABSTRACT Using data from the 1975 Census Update Survey conducted by the U.S. Office of Economic Opportunity, this study examines the effects of in-migration to Hawaii on unemployment rates in the state by analyzing socioeconomic characteristics and unemployment rates of migrants and nonmigrants.

The survey data indicate that unemployment rates were highest in 1975 among those who were young, female, never married, with less than a high school education, blue-collar, and recently migrated to Hawaii. Among Hawaii's ethnic groups, Hawaiians had the highest unemployment rates, followed by Caucasians; local Japanese had the lowest unemployment rates.

Persons who had moved from the U.S. mainland to Hawaii within the five years preceding the survey constituted about four-fifths of all migrants and one-sixth of the state's population. Although these recent mainland migrants had substantially higher unemployment rates than nonmigrants, they were much more highly educated and professionalized than nonmigrants, and their per capita income was almost as high as that of nonmigrants. The high unemployment rate of recent mainland migrants evidently occurred not because they lacked employable skills, but because, as new entrants to Hawaii's labor force, they were not immediately able to find suitable and stable jobs. It is clear that mainland migrants were competing with the local population for the best jobs.

Mainland migrants defined by place of birth constituted about two-thirds of all migrants and about one-fourth of the state's population. Unemployment rates for place-of-birth migrants were lower than those for five-year migrants but still higher than those for nonmigrants. Mainland place-of-birth migrants had higher per capita income than either foreign migrants or nonmigrants. No doubt because mainland migrants were more highly educated and professionalized than either foreign migrants or nonmigrants, they eventually tended to do quite well in Hawaii, once established.

In contrast, foreign migrants were substantially less educated and professionalized than either mainland migrants or nonmigrants, and the difference was more pronounced for place-of-birth migrants than for five-year migrants. Per capita incomes were consistently lower for foreign migrants than for mainland migrants or nonmigrants. Recent foreign migrants had somewhat higher unemployment rates than

recent mainland migrants; both groups had rates that were about twice as high as those for nonmigrants. Less recent foreign migrants, defined by place of birth, were on average much older and had unemployment rates considerably lower than those of mainland migrants similarly defined, and only slightly higher than those of nonmigrants.

Although migrants compete with nonmigrants for jobs, migration to Hawaii has been associated with rapid economic growth and expansion of employment opportunity, so that unemployment rates of the nonmigrant local population have remained comparatively low. Migrant competition for jobs does not appear to have had a significant adverse employment effect on the nonmigrant local population.

Much of the debate about limiting migration to Hawaii has revolved around the issue of jobs and the effects of in-migration on unemployment rates. This paper attempts to inform this debate by analyzing recent socioeconomic characteristics and unemployment rates of migrants and nonmigrants.

#### DATA SOURCES

Data for the study are taken mainly from the U.S. Office of Economic Opportunity's (OEO) 1975 Census Update Survey, which was based on a 6.2 percent sample of Hawaii's population, or 14,773 households comprising 52,541 individuals (Survey and Marketing Services, Inc., 1976). The survey was sponsored by the Community Services Administration (formerly the Office of Economic Opportunity), with funding from federal, state, and county agencies, except for the Kauai portion, which was conducted as an independent survey by the Kauai County government in cooperation with other agencies. Tabulations for the present study were made directly from a household record tape.

The survey asked questions on both place of birth and residence five years ago, making it possible to define migrants alternatively as place-of-birth migrants or as five-year migrants. Five-year migrants are persons who had migrated into the state within the five years preceding the survey, whereas place-of-birth migrants included, besides most five-year migrants (but not all, because some persons who had lived outside Hawaii five years before the survey were born in the state), all persons not born in Hawaii who had migrated to Hawaii more than

Data Sources 3

five years earlier. Whichever way migrants are defined, they may be further classified as mainland migrants (those from the U.S. mainland) or foreign migrants (those from foreign countries).

The OEO survey results also allow examination of various demographic and socioeconomic characteristics. Those considered in this study are age, sex, marital status, education, ethnicity, occupation, industry, and income. The OEO survey was large enough that unemployment rates can usually be cross-classified by both socioeconomic characteristics and by county, so that the counties can be compared. Unfortunately, there are some problems with the Kauai data, which, as mentioned, were collected separately, so that Kauai County must be excluded from some of the tabulations. (For further discussion of the Kauai phase of the survey, see Anderson et al., 1975; Kauai County, 1978.)

Unemployment rates are based on the work experience of the entire labor force, excluding military but including military dependents, except where otherwise indicated.

#### FINDINGS

The data revealed substantial variation in unemployment rates by demographic characteristics of respondents. Age differentials in unemployment rates were quite large, with the 15-24 age group showing by far the highest unemployment rates. Rates for the 25-39 age group were considerably lower, and rates for the 40-64 age group were by far the lowest, as shown in Table 1. Kauai's unemployment rate at ages 15-24 was exceptionally low, for reasons that are not clear. The sex differential in unemployment rates was also large, women reporting unemployment rates almost one and one-half times as high as those for men. The female disadvantage was, however, less if military dependents are excluded, in which case the unemployment rate for women in the state as a whole was 8.9 instead of 9.3. The exclusion of military wives reduces the female disadvantage but by no means eliminates it. Unemployment rates for never married persons were about three times as high as rates for ever married persons for the state as a whole, with some variability among counties. Never married persons tend to be considerably younger on average than ever married persons, so that marital status differentials in unemployment rates are influenced by age.

Unemployment rates also showed substantial variability by educa-

TABLE 1 Unemployment rates by age, sex, marital status, education, ethnicity, occupation, industry, and migration status: Hawaii and its counties, 1975 (in percentages)

	· · · · · · · · · · · · · · · · · · ·	County			
Characteristic	State	Honolulu	Hawaii	Maui	Kauai
AGE 15-24 25-39 40-64	17.1 6.6 2.8	17.9 6.6 2.8	14.5 8.0 4.1	16.6 6.1 1.7	5.3 4.1 1.1
SEX Male Female	6.4 9.3	6.6 9.7	7.4 8.2	5.5 9.3	2.5 3.8
MARITAL STATUS Ever married Never married	5.0 15.0	5.0 15.1	6.0 13.8	4.1 15.1	NR NR
EDUCATION Below grade 12 Grade 12 Above grade 12	12.4 6.9 6.1	13.8 7.0 6.2	8.9 7.6 6.9	10.8 6.7 4.5	1.2 2.2 5.4
ETHNICITY Caucasian Filipino Hawaiian Japanese Other	9.5 6.6 11.7 4.1 9.8	9.9 7.2 12.3 4.1 9.8	10.0 4.5 10.1 4.7 12.3	6.9 6.8 12.5 2.5 11.7	4.5 2.1 2.2 3.1 4.1
OCCUPATION Professional Clerical Service Trades Miscellaneous	4.4 5.7 7.4 5.9 6.8	4.2 5.9 7.7 5.5 7.1	7.0 4.5 6.3 10.5 4.9	4.8 3.4 5.9 4.0 6.9	NR NR NR NR NR
INDUSTRY Service Government Trade Construction Manufacturing Miscellaneous	6.2 4.0 6.1 7.1 3.9 5.9	6.9 4.1 6.5 6.5 4.0 7.5	5.0 4.2 5.0 15.2 5.5 3.3	3.7 4.9 4.0 5.9 2.8 8.6	NR NR NR NR NR
PLACE OF BIRTH Hawaii Elsewhere Mainland Foreign	6.9 9.2 10.1 7.7	7.1 9.5 10.3 8.2	7.0 10.8 13.2 5.2	7.2 6.9 7.7 5.5	2.6 4.5 6.2 2.8

TABLE 1 (continued)

		County				
Characteristic	State	Honolulu	Hawaii	Maui	Kauai	
RESIDENCE 5 YEAR	S AGO					
Hawaii	6.9	6.9	6.9	6.7	NR	
Elsewhere	12.9	13.2	12.9	9.2	NR	
Mainland	12.6	12.8	13.8	9.3	NR	
Foreign	13.7	14.1	7.6	8.5	NR	

NOTE: The survey data for Kauai are not as complete as those for other counties. Survey sampling fractions are 6.2 percent for the state as a whole, 4.9 percent for Honolulu County, 11.5 percent for Hawaii County, 13.3 percent for Maui County, and 8.8 percent for Kauai County. In this and subsequent tables, labor force counts exclude active military personnel but include military dependents. The unemployment rate for the entire state in 1975, based on the OEO survey, was 7.7 percent.

NR-no response.

SOURCE: OEQ 1975 Census Update Survey.

tional level and ethnicity. Persons with less than a high school education had unemployment rates about twice as high as those with a high school education or higher; Kauai was again an exception, for reasons that are not clear. Among Hawaii's major ethnic groups, Japanese had by far the lowest unemployment rates and Hawaiians (including part-Hawaiians) by far the highest. Filipinos also had quite low rates, and Caucasians had rather high rates. The unemployment rate for Caucasians was influenced by the inclusion of military dependents (who had quite high unemployment rates) in the civilian labor force; if military dependents are excluded, the unemployment rate for Caucasians is reduced from 9.5 to 8.9 percent.

Unemployment rates varied also by occupation. In the state as a whole, the "professional" category (which, as defined in this paper, includes technical, managerial, and administrative workers as well as professional workers) had the lowest unemployment rate. This was also true in Honolulu County, which contains more than three-quarters of the state's population. In Hawaii and Maui Counties, however, clerical workers reported the lowest unemployment rates. Together, the professional and clerical occupations comprise the bulk of white collar occupations, and it is evident that unemployment rates for these occupations were comparatively low. Unemployment rates for service and trades, or blue-collar, workers were higher than rates for white-collar workers in most cases.

Unemployment rates by major industry groups indicate some.

variability by county. In the state as a whole the construction industry showed the highest unemployment rate, reflecting a construction slump in the year of the survey. Construction industry unemployment rates were particularly severe in Hawaii County, and this coincidentally explains why unemployment rates for the trades occupations were also unusually high for Hawaii County. Unemployment rates in other industries show less variation than those in the construction industry. Statewide, the lowest unemployment rates were in manufacturing, followed closely by government.

Comparison of migrants and nonmigrants by place of birth shows that mainland migrants had considerably higher unemployment rates in 1975 than either foreign migrants or nonmigrants. For the state as a whole and in Honolulu County, foreign migrants reported somewhat higher unemployment rates than nonmigrants, whereas in Hawaii and Maui Counties, foreign migrants had lower unemployment rates than nonmigrants.

When migration status is defined by residence five years ago instead of by place of birth, foreign migrants are found to have had only slightly higher unemployment rates than mainland migrants, and both categories of migrants had considerably higher unemployment rates than nonmigrants. Again this is true both for the state as a whole and for Honolulu County, whereas in Hawaii and Maui Counties foreign migrants had lower unemployment rates than mainland migrants. The difference between results based alternatively on place of birth and residence five years before the survey occurs principally because on the outer islands most foreign migrants had been Hawaii residents for a long time and had found stable employment, whereas in Honolulu County new residents who had not yet found stable employment were proportionately more numerous, as shown in Table 2. Whichever way migration is defined, migrants as a whole had substantially higher unemployment rates than nonmigrants.

Unemployment rates for all migrants were closer to unemployment rates for mainland migrants than to unemployment rates for foreign migrants (Table 1). This pattern reflects the predominance of mainland migrants among all migrants. As shown in Table 2, mainland migrants comprised about two-thirds of all place-of-birth migrants and about four-fifths of all five-year migrants. Kauai was an exception to the predominant pattern, however. There, 62 percent of the place-of-birth migrants were foreign-born.

TABLE 2 Distribution of migrants by place of origin: Hawaii and its counties, 1975

-		County			
Migration status	State	Honolulu	Hawaii	Maui	Kauai
PLACE OF BIRTH					
Mainland	213,532	191,129	9,462	10,033	2,908
Foreign	106,484	88,745	6,069	6,962	4,708
All migrants	320,016	279,874	15,531	16,995	7,616
% mainland	67	68	61	59	38
% foreign	33	32	39	41	62
RESIDENCE 5 YEARS AGO	)				
Mainland	130,561	119,432	5,300	5,829	NR
Foreign	38,975	36,248	1,328	1,399	NR
All migrants	169,536	155,680	6,628	7,228	NR
% mainland	77 <sup>°</sup>	77	80	81	NR
% foreign	23	23	20	19	NR

NOTE: The State of Hawaii's data on Intended residents arriving in Hawaii from the U.S. mainland indicate 199,916 in-migrants during 1970—74, compared with 130,561 mainland five-year migrants shown in the table (Hawaii DPED, 1981b: table 1). The discrepancy occurs partly because some intended residents returned to the mainland soon after arriving in Hawaii and hence did not appear in the survey data, and partly because Hawaii's population, according to the 1980 census, grew faster between 1970 and 1980 than previously thought (Hawaii DPED, 1981c), resulting in too small an inflation factor for the 1975 OEO sample. The survey data on residence five years ago for Kauai are not complete.

NR-no response.

SOURCE: OEO 1975 Census Update Survey.

Table 2 highlights the migrant character of the state's population. According to the OEO survey, the state in 1975 had a resident population of approximately 845,440, including 320,016 place-of-birth migrants and 169,536 five-year migrants. (The figure of 845,440, which is not shown in the table, includes military personnel and dependents lodged in government housing but excludes military personnel lodged in barracks or on ships and institutional population living in hospitals, nursing homes, college dormitories, and prisons.) These figures imply that approximately 38 percent of the state's population were migrants by place of birth and 20 percent were migrants by residence five years before the survey. Further tabulations from the OEO survey (not shown) indicate that about 10 percent (13.4 percent for males and 8.7 percent for females) of mainland five-year migrants who were in the Hawaii labor force at the time of the survey were born in Hawaii and thus were returning migrants.

The total volume of migration in and out of the state was much greater than the above net migration figures suggest. Over the period 1970-80, the annual growth rate of the civilian population (excluding military personnel but including their dependents) was about 2.3 percent. Over half of this growth (1.4 percent) resulted from natural increase (the excess of births over deaths); 0.9 percent was due to net in-migration, including a small net influx resulting from military separations (Hawaii DPED, 1981a: tables 2 and 6). Net in-migration thus comprised about 37 percent of total population growth (calculated from more exact figures than given above). The figure is 54 percent if military dependents as well as military personnel are excluded. It is reasonable to assume that these figures apply approximately to the 1970-75 period as well. Under this assumption, the gross inmigration rate was about 4.0 percent annually, computed roughly as one-fifth the number of five-year migrants shown in Table 2, divided by the total population of 845,440, as estimated from the OEO survey. Hence, to give a net in-migration rate of 0.9 percent, the annual outmigration rate during 1970-75 must have been about 3.1 percent. It is evident from this rough calculation that the volume of gross migration (out-migration plus in-migration) was about eight times greater than the volume of net migration; that is, most of the in-migration was offset by out-migration.

In relation to unemployment rates, it should be noted that most of this migration has been job-related. In 1980, for example, only about 1.2 percent of migrants came to Hawaii to retire (Hawaii DPED, 1981b: table 10). Of course, many migrants are additionally attracted by Hawaii's pleasant environment (SMS Research, 1978: vol. 2).

The variations in unemployment rates by age, sex, marital status, education, occupation, and industry shown in Table 1 help explain the high unemployment rates of migrants, who tend especially to be young and never married in contrast to most nonmigrants. Tables 3 and 4 compare the distributions of migrants and nonmigrants on these variables. Only migrants and nonmigrants who were in the labor force (working or looking for work during the week before the survey) are considered. When migrants are defined by place of birth as in Table 3, mainland migrants are seen to have been considerably younger than foreign migrants; 27 percent of mainland migrants were between ages 15 and 24, whereas only 18 percent of foreign migrants were in this age group. The percentage of foreign migrants of ages 15–24 was even

TABLE 3 Percentage distribution of place-of-birth migrants and nonmigrants in the labor force by age, sex, marital status, education, ethnicity, occupation, and industry: Hawaii, 1975

	Migrants				
Characteristic	Mainland	Foreign	Total	Nonmigrants	
AGE			. – –		
1524	27.0	18.8	23.9	24.5	
25-39	41.6	39.2	40.7	32.3	
40–64	31.4	42.0	35.4	43.2	
SEX	•				
Male	54.4	52.7	53.8	58.0	
Female	45.6	47.3	46.2	42.0	
MARITAL STATUS					
Ever married .	71.1	77.9	73.6	70.2	
Never married	28.9	22.1	26.4	29.8	
EDUCATION					
Below grade 12	9.9	34.9	19.3	21.4	
Grade 12	28.6	26.7	27.9	42.0	
Above grade 12	61.5	38.4	52.8	36.6	
ETHNICITY					
Caucasian	85.4	12.3	57.6	9.4	
Filipino	1.3	51.8	20.5	6.2	
Hawaiian	1.5	0.4*	1.1	21.4	
Japanese	3.0	14.3	7.3	47.7	
Other	8.8	21.2	13.5	15.2	
OCCUPATION	44.5	01.0		252	
Professional	44.0	21.3	35.5	26.9	
Cerical	24.6	18.3	22.3	26.2	
Service Trades	15.4	26.4	19.5	14.6	
Miscellaneous	9.6 6.4	16.5 17.6	12.2 10.5	18.9 13.4	
INDUSTRY	2				
Service	27.0	26.6	26.8	19.0	
Government	21.8	11.6	18.0	22.7	
Trade	27.3	25.9	26.7	24.3	
Construction	7.8	8.2	7.9	10.9	
Manufacturing	12.5	15.4	13.6	16.1	
Miscellaneous	3.7	12.2	6.9	6.9	

NOTE: Percentages may not sum to 100 because of rounding. In this and subsequent tables, values for place-of-birth migrants by marital status, occupation, and industry exclude Kauai.

SOURCE: OEO 1975 Census Update Survey.

<sup>\*</sup> Percentage based on fewer than 50 sampled persons in the numerator.

TABLE 4 Percentage distribution of five-year migrants and nonmigrants in the labor force by age, sex, marital status, education, ethnicity, occupation, and industry: Hawaii, 1975

	Migrants			Nonmigrants	
Characteristic	Mainland	Foreign	Total		
AGE .					
15-24	33.9	27.8	32.1	22.7	
25-39	48.2	45.9	47.6	32.6	
40-64	17.9	26.2	20.3	44.6	
SEX					
Male '	47.1	53.0	48.8	57.9	
Female	52.9	47.0	51.2	42.1	
MARITAL STATUS			•		
Ever married	66.5	69.5	67.4	72.3	
Never married	33.5	30.5	32.6	27.7	
EDUCATION					
Below grade 12	9.9	26.2	14.6	21.7	
Grade 12	29.0	25.5	28.0	39.2	
Above grade 12	61.1	48.2	57.4	39.1	
ETHNICITY					
Caucasian	76.5	16.5	59.2	19.5	
Filipino	3.2	45.1	1 <i>5</i> .3	9.8	
Hawaiian	2.9	2.9*	2.9	16.7	
Japanese	6.5	10.6	<b>7</b> .7	39.3	
Other	10.9	24.9	14.9	14.8	
OCCUPATION					
Professional	39.7	23.4	35.1	28.8	
Clerical	26.3	18.4	24.1	24.9	
Service	18.8	28.3	21.5	15.3	
Trades	9.3	15.8	11.1	17.7	
Miscellaneous	6.0	14.0	8.2	13.2	
INDUSTRY					
Service	28.1	26.0	27.5	20.4	
Government	20.1	13.6	18.3	21.8	
Trade	29.7	29.3	29.6	24.9	
Construction	6.8	8.0	7.2	10.5	
Manufacturing	11.4	14.3	12.2	16.2	
Miscellaneous	3.9	8.7	5.3	6.3	

NOTE: Percentages may not sum to 100 because of rounding. In this and subsequent tables, values for five-year migrants exclude Kauai.

SOURCE: OEO 1975 Census Update Survey.

<sup>\*</sup> Percentage based on fewer than 50 sampled persons in the numerator.

Findings 11

lower than the percentage of nonmigrants in this age group, by almost 6 percentage points. These differences reflect the older character of foreign migrants, most of whom came to Hawaii as laborers earlier in this century. This age differential helps to explain the unusually low unemployment rates of foreign migrants.

Table 3 also shows that the migrant labor force in 1975 had proportionately more females than the nonmigrant labor force, although males predominated in both. Because female unemployment rates were higher than male unemployment rates (Table 1), the more feminine sex distribution of the migrant labor force also helps to explain why migrants had especially high unemployment rates. It is noteworthy, however, that although foreign migrants in the labor force had a higher proportion of female workers than did mainland migrants, their unemployment rates were nevertheless quite low. In fact, the differences in sex ratios among migrant groups were small enough that the effect of the sex ratio on differences in unemployment rates was quite small.

Comparison of migrants and nonmigrants in the labor force by marital status shows that foreign migrants, being older, not surprisingly had higher proportions ever married than either mainland migrants or nonmigrants. The marital status distributions of mainland migrants and nonmigrants were rather similar, even though, as shown in the first panel of Table 3, mainland migrants were somewhat younger than nonmigrants.

Mainland migrants were much more highly educated than either foreign migrants or nonmigrants. They were also concentrated in white-collar occupations. The proportion in professional occupations was slightly more than twice as high for mainland migrants as for foreign migrants, and slightly less than twice as high for mainland migrants as for nonmigrants. Quite clearly, despite their comparatively high unemployment rates, mainland migrants on the whole were highly educated and professionalized and provided the local population with stiff competition for the best jobs.

Caucasians constituted about 85 percent of mainland migrants and Filipinos about 52 percent of foreign migrants. Caucasians comprised about 58 percent and Filipinos about 20 percent of all place-of-birth migrants.

Recent migrants tended to be especially young (Table 4). The age difference between recent migrants and place-of-birth migrants was particularly large among the foreign-born.

Five-year migrants in the labor force were even more proportionately female than migrants by place of birth. In fact, mainland five-year migrants were predominantly female. Foreign five-year migrants were still predominantly male; but because they comprised only about one-fifth of all migrants in 1975, five-year migrants as a whole were predominantly female. The predominance of women among mainland five-year migrants is accounted for by the presence of a large number of recently married military wives working or looking for work. When military wives are excluded, remaining mainland five-year migrants were 55 percent male and 45 percent female. Further tabulations, not shown in Table 4, show that military dependents, consisting mainly of military wives, constituted 2.9 percent of the labor force in 1975, and almost all of them were in the age group 15–39. They had an overall unemployment rate of 20 percent.

Mainland and foreign migrants differed less on proportions highly educated and on proportions in white-collar occupations when migration status is defined by residence five years before the survey than when it is defined by place of birth. The explanation is that recent foreign migrants were more educated and professionalized on average than were foreign migrants who came to Hawaii many years ago.

Labor force participation rates for males did not differ much between migrants and nonmigrants, as shown in Table 5. Participation rates for females, however, were usually somewhat lower among migrants than among nonmigrants.

Migrants who were young, female, never married, or with less than a high school education had much higher unemployment rates than those who were older, male, ever married, or with at least a high school education, as shown in Tables 6 and 7. The more highly educated foreign migrants, however, had slightly higher levels of unemployment than did the less educated foreign migrants, who, it seems, were able to find and were willing to take lower-paying retail and service jobs, many of which are generated by Hawaii's tourism industry.

The question arises whether the differentials in unemployment rates by socioeconomic characteristics and migration status can be explained, at least in part, by the fact that migrants were younger than nonmigrants. That is, were the high unemployment rates of those who had never married, had little education, and had recently arrived in Hawaii a result of being young, with little in the way of acquired job experience and skills? Or were the effects on unemployment rates of

TABLE 5 Labor force participation rates of place-of-birth migrants and nonmigrants of ages 25-64 by sex, age, marital status, education, and ethnicity: Hawaii, 1975 (in percentages)

	Migrants			•
Characteristic	Mainland	Foreign	Total	Nonmigrants
MALES			•	
Age				
25-39	93.1	928	93.0	95.9
40-64	82.7	84.3	83.4	85.9
Marital status				
Ever married	87.6	88.3	87.9	90.3
Never married	89.6	86.0	88.4	86.6
Education				
Below grade 12	78.2	83.2	82.0	81.3
Grade 12	85.3	94.2	88.2	91.8
Above grade 12	90.1	90.6	90.2	94.5
Ethnicity				
Caucasian	87.9	88.2	88.0	87.1
Filipino	82.1*	87.6	87.4	90.9
Hawaiian	86.0*	88.2*	86.4*	88.4
lapanese	90.9*	91.7	91.5	92.1
Óther	87.2	87.4	87.3	87.0
FEMALES				
Age				
<sup>25</sup> –39	47.8	53.3	49.8	65.0
40–64	47.4	56.7	51.7	57.7
Marital status	•			
Ever married	44.4	53.2	47.8	58.6
Never married	85.2	80.6	83.5	83.6
Education				
Below grade 12	32.2	49.2	44.7	43.5
Grade 12	41.4	53.9	45.9	62.1
Above grade 12	53.8	61.6	56.0	75.0
Ethnicity				•
Caucasian	48.2	51.6	48.5	44.5
Filipino	29.6*	58.9	57.8	62.6
Hawaiian	58.5*	50.0*	56.3*	53.0
Japanese	62.2	50.0	52.1	68.4
Other	39.9	53.8	48.7	56.9

NOTE: Ages below 25 are excluded from this table in order to eliminate distorting effects of school attendance on labor force participation rates. Labor force participation rates are computed as the sum of the unemployed (those looking for work during the week before the survey) and the employed as a percentage of all persons in a given category.

SOURCE: OEO 1975 Census Update Survey.

<sup>\*</sup> Rate based on fewer than 50 sampled persons in the denominator.

TABLE 6 Unemployment rates for place-of-birth migrants and non-migrants by age, sex, marital status, and education: Hawaii, 1975 (in percentages)

	Migrants	Migrants			
Characteristic	Mainland	Foreign,	Total	Nonmigrants	
AGE					
15-24	18.1	17.3	17.8	16.8	
25-39	8.6	7.5	8.2	5.5	
40-64	5.3	4.0	4.7	2.0	
SEX					
Male	7.9	5.6	7.0	6.2	
Female	12.8	10.1	11.8	8.0	
MARITAL STATUS				•	
Ever married	8.2	6.1	7.4	3.7	
Never married	15.4	14.4	15.1	15.0	
EDUCATION				-	
Below grade 12	20.6	7.4	11.6	12.9	
Grade 12	11.6	7.9	10.2	5.7	
Above grade 12	7.8	8.1	7.9	4.8	

SOURCE: OEO 1975 Census Update Survey.

TABLE 7 Unemployment rates for five-year migrants and nonmigrants by age, sex, marital status, and education: Hawaii, 1975 (in percentages)

	Migrants	nts			
Characteristic	Mainland	Foreign	Total	Nonmigrants	
AGE			•		
15-24	17.6	22.0	18.7	17.1	
25-39	10.8	11.3	10.9	5.5	
40-64	6.9	10.0	8.0	2.4	
SEX					
Male	9.9	10.1	10.0	6.0	
Female	14.9	17.8	15.7	8.1	
MARITAL STATUS					
Ever married	11.4	11.7	11.5	3.8	
Never married	14.9	18.6	15.9	14.8	
EDUCATION	•				
Below grade 12	22.3	15.5	18.8	· 12.3	
Grade 12	14.5	10.8	13.6	6.1	
Above grade 12	9.9	14.2	11.0	4.7	

SOURCE: OEO 1975 Census Update Survey.

TABLE 8 Age-standardized unemployment rates by marital status, education, ethnicity, place of birth, and residence five years ago: Hawaii and its counties, 1975 (in percentages)

<del></del>		County			
Characteristic	State	Honolulu	Hawaii	Maui	Kauai
MARITAL STATUS					
Ever married	6.7	6.8	6.8	5.9	NR
Never married	8.6	8.5	10.3	7.2	NR
EDUCATION					
Below grade 12	14.0	14.9	12.8	11.5	NR
Grade 12	7.1	7.3	7.6	6.6	NR
Above grade 12	5.7	5.8	6.3	4.3	NR
ETHNICITY					
Caucasian	9.4	9.8	10.0	6.5	4.2
Filipino	6.9	٠7.4	5.2	7.4	2.3
Hawaiian	10.0	10.5	9.5	9.6	1.9
Japanese	4.7	4.7	5.1	3.1	4.1
Other	8.9	8.9	10.4	9.2	4.4
PLACE OF BIRTH					
Hawaii	6.8	6.9	7.2	6.9	2.8
Mainland	9.6	9.7	12.6	7.3	5.8
Foreign	8.4	8.8	6.8	<b>7.</b> 7	3.3
RESIDENCE 5 YEARS	AGO				
Hawaii	7.1	7.0	7.3	6.7	NR
Mainland	10.8	11.0	11.8	8.8	NR
Foreign	13.4	13.8	6.1	7.1	NR

NOTE: Rates are standardized on the age distribution of the entire sample. Proportions used are  $P_{15-24} = .244$ ,  $P_{25-39} = .351$ , and  $P_{40-64} = .405$ . The age-standardized unemployment rate is calculated as  $\sum_i P_i U_i$ , where  $P_i$  is the proportion of labor force in the *i*th age group,  $U_i$  is the unemployment rate in the *i*th age group, and the summation ranges over all three age groups.

NR-no response.

SOURCE: OEO 1975 Census Update Survey.

such variables as marital status, education, and residence five years before 1975 independent of age? Table 8 approaches these questions by age-standardizing some of the unemployment rates presented in Table 1. Again, it is seen that differentials, though somewhat reduced, persist and are substantial.

Mainland place-of-birth migrants, despite their youthful age distribution and high unemployment rates, had higher per capita income than either foreign migrants or nonmigrants (Table 9). Mainland five-year

TABLE 9 Per capita income by migration status and current county of residence: Hawaii, 1975 (current dollars)

Migration status	State	Honolulu	Hawaii	Maui
ALL PERSONS AGED 14+		- · ·		
Place of birth				
Hawaii	\$ 3,884	\$ 3,946	\$ 3,262	\$ 3,672
Eisewhere	4,498	4,522	3,715	4,520
Mainland	4,961	4,956	4,226	5,017
Foreign	3,569	3,587	2,919	3,804
Residence 5 years ago				
Hawaii	4,631	4,787	3,684	4,305
Elsewhere	4,338	4,343	4,170	4,383
Mainland	4,520	4,502	4,581	4,840
Foreign	3,728	3,820	2,529	2,477
ALL PERSONS AGED 14+ WHO WERE IN THE LABOR FORCE AND REPORTED INCOME				
Place of birth				
Hawaii	10,209	10,189	9,700	9,184
Elsewhere	10,073	10,036	9,532	9,353
Mainland	11,160	11,137	10,073	10,634
Foreign	8,299	8,247	8,254	7,507
Residence 5 years ago				
Hawaii	10,309	10,463	9,705	9,336
Elsewhere	8,681	4,640	9,391	8,658
Mainland	9,190	9,156	9,676	9,184
Foreign	7,380	7,435	7,472	5,592

NOTE: Income data were obtained for all persons 14 years old and over. In the first half of the table, the numerator of per capita income includes all income reported by persons 14 and over and the denominator includes the entire population of all ages. In the second half of the table, the numerator includes all income reported by persons 14 and over who were in the labor force and the denominator includes only those persons who both were in the labor force and reported income. Income figures in the table are considerably lower than those published by the State of Hawaii, because many persons in the OEO sample refused to divulge information about their incomes. (About 20 percent of respondents either refused to answer or gave "don't know" responses.) Differences between groups may still be approximately valid, if one can assume that the extent of underreporting was about the same for all groups. Income figures for Kauai County are not comparable with those for other counties and are therefore not shown.

SOURCE: OEO 1975 Census Update Survey.

migrants had substantially higher per capita income than foreign migrants but slightly lower per capita income than nonmigrants.

#### CONCLUSION

Unemployment in Hawaii in 1975 was especially high among recent migrants, about four-fifths of whom had come from the U.S. mainland. Despite their high unemployment rates, however, mainland migrants were highly educated and professionalized and were in competition with the local nonmigrant population for the best jobs. The high unemployment rate of recent mainland migrants occurred not because they lacked employable skills but because it was taking them a while to find stable jobs. Despite their initially high unemployment rates, recent migrants do not appear to have posed a significant economic burden on the state. Moreover, because in-migration has been associated with a rapidly expanding economy, migrant competition for jobs does not appear to have had a significant adverse employment effect on the nonmigrant local population, whose unemployment rates were comparatively low. Although there was some concentration of migrants in service-sector jobs, migrants were employed throughout the economy and were not highly concentrated in the tourism industry.

# REFERENCES

Anderson, Robert N., Gary R. Vieth, Benjamin J. Seidenstein, and Blaine Bradshaw

1975 Kauai Socioeconomic Profile. Dept. Paper 35. Honolulu: Center for Nonmetropolitan Planning and Development, University of Hawaii.

Hawaii Department of Planning and Economic Development (DPED)

The Population of Hawaii, 1980: Final Census Results. Statistical 1981a Report 143. Honolulu.

1981b Hawaii's In-Migrants, 1980. Statistical Report 146. Honolulu. Preliminary Intercensal Population Estimates, 1970-1980. Sta-1981c

tistical Report 147. Honolulu.

Kauai County

1978 Poverty data from Kauai socioeconomic profile. Mimeo. . .

Survey and Marketing Services, Inc.

1976 OEO 1975 Census Update Survey: Oahu (also Hawaii County and Maui County J. Honolulu: Survey and Marketing Services, Inc.

#### SMS Research

Migration in Hawaii. Report prepared for the Commission on 1978 Population and the Hawaiian Future. In three volumes, plus an addendum to Volume 1 and a Summary Report. Honolulu.

# RECENT AVAILABLE PAPERS OF THE EAST-WEST POPULATION INSTITUTE

No.

- 57 Infant and child mortality in Thailand: levels, trends, and differentials as derived through indirect estimation techniques, by John Knodel and Apichat Chamratrithirong, November 1978, vii + 40 pp.
- Regression estimates of changes in fertility, 1955-60 to 1965-75, for most major nations and territories, by James A. Palmore, December 1978, vii + 59 pp.
- 59 Comparison of three acceptance strategies: a progress report, by Robert G. Potter, Frances E. Kobrin, and Raymond L. Langsten, February 1979, vii + 16 pp.
- 60-A On the nature of the transition in the value of children, by Rodolfo A. Bulatao, March 1979, xvi + 104 pp.
- 61 Prediction of family planning and family size from modernity value orientations of Indian women, by Bishwa Nath Mukherjee, April 1979, v + 50 pp.
- 62 Issues in the comparative analysis of World Fertility Survey data, by Ronald Freedman, July 1979, v + 22 pp.
- 60-B Further evidence of the transition in the value of children, by Rodolfo A. Bulatao, November 1979, vii + 84 pp.
- Own-children estimates of fertility for Thailand based on the 1970 Census, by Robert D. Retherford, Chintana Pejaranonda, Lee-Jay Cho, Apichat Chamratrithirong, and Fred Arnold, November 1979, vii + 52 pp.
- 64 Socioeconomic and cultural aspects of marriage and fertility in urban Pakistan, by Mehtab S. Karim, December 1979, v + 26 pp.
- 65 Voluntary sterilization: its demographic impact in relation to other contraceptive methods, by Dorothy L. Nortman, January 1980, vii + 23 pp.
- Prevalence and demographic significance of contraceptive sterilization in Fiji, the Republic of Korea, and Sri Lanka, by Charles F. Westoff, Noreen Goldman, and Minja Kim Choe, April 1980, vii + 27 pp.
- 67 Urbanization and the growth of small towns in Sri Lanka, 1901-71, by Dayalal Abeysekera, April 1980, v + 42 pp.
- The intellectual's image of the city in Taiwan, by James Chan, May 1980, v + 22 pp.
- 69 Nuptiality in Thailand: a cross-sectional analysis of the 1970 Census, by Aphichat Chamratrithirong, November 1980, vii + 55 pp.
- 60-C The value of children to Australian, Greek, and Italian parents in Sydney, by Victor J. Callan, December 1980, vii + 60 pp.
- 70 Urbanization, education, and marriage patterns: four cases from Asia, by Peter C. Smith and Mehtab S. Karim, December 1980, vii + 51 pp.
- 60-D Two are not enough: the value of children to Javanese and Sundanese parents, by Russell K. Darroch, Paul A. Meyer, and Masri Singarimbun, February 1981, viii + 86 pp.
- 71 Surveys of migration in developing countries: a methodological review, by Sidney Goldstein and Alice Goldstein, April 1981, v + 120 pp.
- 72 Filipinos on Oahu, Hawaii, by Benjamin V. Cariño, July 1981, vii + 46 pp.
- 73 Nonfamilial roles of women and fertility: Pakistan and the Philippines compared, by Nasra M. Shah and Peter C. Smith, July 1981, iv + 47 pp.
- 74 Korean immigration to the United States: Its demographic pattern and social implications for both societies, by Hagen Koo and Eui-Young Yu, August 1981, v + 31 pp.
- 75 Regional patterns of intercensal and lifetime migration in Sri Lanka, by Dayalal Abeysekera, September 1981, vil + 46 pp.
- 76 Economic consequences and future implications of population growth in China, by Robert F. Dernberger, October 1981, v + 32 pp.
- 77 An assessment of fertility and contraception in seven Philippine provinces: 1975, by Wilhelm Flieger and Imelda Pagtolun-an, November 1981, x + 154 pp.
- 78 The population dynamics of Nepal, by Judith Banister and Shyam Thapa, December 1981, vii + 119 pp.

THE EAST-WEST CENTER—officially known as the Center for Cultural and Technical Interchange Between East and West—is a national educational institution established in Hawaii by the U.S. Congress in 1960 to promote better relations and understanding between the United States and the nations of Asia and the Pacific through cooperative study, training, and research. The Center is administered by a public, nonprofit corporation whose international Board of Governors consists of distinguished scholars, business leaders, and public servants.

Each year more than 1,500 men and women from many nations and cultures participate in Center programs that seek cooperative solutions to problems of mutual consequence to East and West. Working with the Center's multidisciplinary and multicultural staff, participants include visiting scholars and researchers; leaders and professionals from the academic, government, and business communities; and graduate degree students, most of whom are enrolled at the University of Hawaii. For each Center participant from the United States, two participants are sought from the Asian and Pacific area.

Center programs are conducted by institutes addressing problems of communication, culture learning, environment and policy, population, and resource systems. A limited number of "open" grants are available to degree scholars and research fellows whose academic interests are not encompassed by institute programs.

The U.S. Congress provides basic funding for Center programs and a variety of awards to participants. Because of the cooperative nature of Center programs, financial support and cost-sharing are also provided by Asian and Pacific governments, regional agencies, private enterprise, and foundations. The Center is on land adjacent to and provided by the University of Hawaii.

THE EAST-WEST POPULATION INSTITUTE, established as a unit of the East-West Center in 1969 with the assistance of a grant from the Agency for International Development, carries out multidisciplinary research, training, and related activities in the field of population, placing emphasis on economic, social, psychological, and environmental aspects of population problems in Asia, the Pacific, and the United States.