

INTERRACIAL MARRIAGE AND STATUS EXCHANGE: A STUDY OF PACIFIC ISLANDERS IN HAWAI'I FROM 1983 TO 1994

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Intermarriage is one of the most salient demographic features of Hawai'i. Between 1983 and 1994, 46 percent of all marriages contracted in Hawai'i were racially exogamous. This article examines socioeconomic status exchange in out-group marriage and explores the impact this status change has had on the social well-being of four ethnic groups of Pacific Islanders (Hawaiians, part-Hawaiians, Samoans, and other Pacific Islanders). Status homogamy emerges as the most important pattern of mate selection. In a broad sense, people choose their mates on the basis of equal socioeconomic status, either within or across boundaries of race and ethnicity. Gender differences are very small, indicating that status is equally important for both men and women in choosing a marital partner. These general patterns, however, suggest that groups of very high and very low status have a restricted marriage market, and high-status individuals from the Pacific Islander groups tend to marry out, leaving future generations in a comparatively unfavorable family socioeconomic environment.

HIGH RATES OF INTERMARRIAGE are a unique demographic characteristic of the people of Hawai'i. Historically intermarriage has been common in Hawai'i, and the outmarriage rate during the last decade was around 46 percent in the state (HSMDH 1995). Many factors have contributed to the high rate of exogamy, among which the most important are ethnic heterogeneity and the relatively small size of the ethnic groups. These demographic structures set constraints on rates of endogamy and have created an island culture of intermarriage. Pacific Islanders are especially vulnerable to intermarriage because of their relatively small group size and their tradition of accepting people of all origins. This article examines patterns of status

exchange in marriage for four Pacific Islander groups from 1983 to 1994 and discusses the possible consequences for future-generation Pacific Islanders in Hawai'i. Based on the assumption of equal-status matching in mate selection, it is anticipated that Pacific Islanders will be negatively affected by intermarriage, because they currently have a low group socioeconomic status, which makes it more likely for their high-status members to outmarry. In the long run, this trend will reduce the socioeconomic resources of their future generations and isolate them in a restricted marriage market.

Hawai'i's Demographic Profile

The history of Hawai'i can be traced back at least fifteen hundred years, to the time when Polynesians from the Marquesas Islands and Tahiti came to live in the Hawaiian Islands. Hawaiians had an estimated population of 300,000 at their first encounter with Europeans in 1778 (Howard 1980).¹ Within the next fifty years, the native population decreased by 40 to 65 percent as a result of diseases such as syphilis, gonorrhea, smallpox, measles, cholera, and respiratory illnesses brought to the islands by foreign sailors. The indigenous population gradually became a small fraction among Hawai'i's ethnic stocks after the need for workhands on the sugar plantation fields brought in large numbers of foreign laborers. The first credible missionary count in 1832 reported only 130,000 Hawaiians living in the islands. The first official census in 1853 tallied 73,000 Hawaiians, and in 1878 the Hawai'i Kingdom counted fewer than 58,000. The number of full-blooded Hawaiians was reduced to 30,000 by 1900 and to 8,711 in 1990 (Buck 1993; Lind 1980; Schmitt 1968, 1973; Kitano 1991; Nordyke 1989; Hawai'i State Data Book 1993–1994). Since the late nineteenth century, however, the most important reason for the decline of the full-blooded Hawaiian population has been intermarriage (Fu and Heaton 1997). Today, native Hawaiians and part-Hawaiians have relatively low group socioeconomic status among the island populations (Nordyke 1989; Schoen and Wooldredge 1989; Kitano 1991; Buck 1993).

In the nineteenth century sugar production was the most important industry in Hawai'i. Because of a shortage of laborers, many immigrants from Asia, Europe, and America came to the islands to work on sugar plantations, and Hawai'i quickly became ethnically diverse. Owing to the high sex ratio within immigrant populations, many foreign male laborers married local women, initiating a tradition of intermarriage in the islands. Stigma against outgroup marriage has been historically weak in Hawai'i, especially after World War II, when minority groups gradually gained social and economic parity with the dominant group (Labov and Jacobs 1986). Table 1 reports

the ethnic distribution of Hawai'i's population in 1990 by the state government and by the U.S. Census Bureau. The state still collects data on native Hawaiians and part-Hawaiians separately, while the U.S. Census Bureau combined the categories of native Hawaiians and part-Hawaiians in 1960 (U.S. Census 1961) and has since reported part-Hawaiians as either Hawaiians or non-Hawaiians. The 1990 U.S. census counted 138,742 Hawaiians, about 12.5 percent of the state population (U.S. Census 1991, 1994). For the same year, however, the Hawai'i State Department of Health reported 8,711 native Hawaiians and 196,367 part-Hawaiians, totaling nearly 19 percent of the state population. The drastically different counts from the two agencies were due largely to the situational definition of self-reported racial identity, a result of many generations of intermarriage.

Intermarriage rates in Hawai'i have gradually increased ever since data on marriage were collected in the late nineteenth century (Schmitt and Strombel 1966; Nordyke 1989; Fu and Heaton 1997). Table 2 reports the outmarriage rates for the major ethnic groups in the state from 1920 to 1994. The different outmarriage rates across ethnic groups are mainly a function of their relative size, and those between genders are mainly a function of their unbalanced sex ratio. However, part-Hawaiians have comparatively higher rates of outmarriage than ethnic groups of similar size, indicating a closer link between them and other groups. The difference occurs in part because part-Hawaiians, by definition, have a family history of intermarriage and more easily accept people of other racial origins.

Theoretical Perspectives of Intermarriage

There are a rich variety of theories that explain why people marry out of their racial and ethnic groups and whom they marry. These theories can be roughly divided into two groups: availability and choice. Availability is constrained by structures of the marriage market, including ethnic heterogeneity, relative group size, and the sex ratio of the marriageable population, all of which affect chances of outmarriage. With this given availability, the choice of a spouse often reflects racial or ethnic proximity, cultural preference, and exchange of socioeconomic status.

Availability

For someone to marry out of his or her group, there must be potential mates available from a different group. Thus demographic structures of the marriage market, including the relative size of ethnic/racial groups, ethnic heterogeneity, and the sex ratio of marriageable populations, set constraints on

TABLE 1. Racial and Ethnic Distribution in Hawai'i, 1990

Ethnic Group	Counts from State of Hawai'i	
	State Total	% of State Total
All groups	1,089,572	100.00
Unmixed	(702,416)	(64.47)
Caucasian	262,604	24.10
Japanese	222,014	20.38
Chinese	51,293	4.71
Filipino	123,642	11.35
Hawaiian	8,711	0.80
Korean	11,597	1.06
Black	16,180	1.48
Puerto Rican	3,140	0.29
Samoan	3,235	0.30
Mixed	(387,156)	(35.53)
Part-Hawaiian	196,367	18.02
Non-Hawaiian	190,789	17.51
	Counts from U.S. Census	
Race or Hispanic Origin	State Total	% of State Total
All races	1,108,229	100.00
White	369,616	33.35
Black	27,195	2.45
American Indian/Eskimo/Aleut	5,099	0.46
Asian or Pacific Islander	(685,236)	(61.83)
Chinese	68,804	6.21
Filipino	168,682	15.22
Japanese	247,486	22.33
Korean	24,454	2.21
Vietnamese	5,468	0.49
Hawaiian	138,742	12.52
Samoan	15,034	1.36
Other Asian/Pacific Islander	16,566	1.49
Other race	21,083	1.90
Hispanic origin	(81,390)	(7.34) ^a

Sources: Hawai'i State Department of Health, Hawai'i Health Surveillance Program, special tabulation; Hawai'i State Data Book 1993–1994, Table 1.25; U.S. Bureau of the Census, Release CB91–42 (Feb. 1991) and Summary Tape File 1A.

^a Persons of Hispanic origin can be of any race.

TABLE 2. Interracial Marriage as a Percentage of All Marriages by Sex and Ethnic Populations in Hawai'i, 1920 to 1994

	1920s	1930s	1940s	1950s	1960s	1970s	1980–1985	1994
Native Hawaiian								
Grooms	33.3	55.2	66.3	78.9	85.8	87.1	89.2	78.9
Brides	52.1	62.7	77.2	81.5	90.1	85.9	84.5	72.7
Part-Hawaiian								
Grooms	38.8	41.0	36.9	41.3	61.3	57.2	55.8	54.3
Brides	57.7	57.9	64.2	58.4	56.7	57.9	59.1	58.8
White								
Grooms	24.3	22.4	33.8	37.4	28.2	26.1	21.9	38.9
Brides	13.8	10.7	10.2	16.4	19.8	20.8	15.8	25.9
Chinese								
Grooms	24.8	28.0	31.2	43.6	58.2	60.2	60.1	57.6
Brides	15.7	28.5	38.0	45.2	61.5	65.2	63.9	66.2
Japanese								
Grooms	2.7	4.3	4.3	8.7	19.6	33.1	40.5	45.3
Brides	3.1	6.3	16.9	19.1	28.1	40.3	47.4	54.3
Filipino								
Grooms	25.6	37.5	42.0	44.5	50.6	47.0	44.3	43.0
Brides	1.0	4.0	21.0	35.8	47.9	50.9	54.6	56.6
Korean								
Grooms	17.6	23.5	49.0	70.3	75.1	62.0	47.3	34.9
Brides	4.9	39.0	66.7	74.5	82.1	82.4	77.2	63.8
Black								
Grooms					45.9	60.2	52.7	57.5
Brides					13.2	16.1	17.2	21.4
Samoan								
Grooms					39.2	41.0	44.0	47.8
Brides					50.7	40.3	39.9	38.1
Total	19.2	22.8	28.6	32.8	36.0	38.4	35.5	46.9

Sources: Lind 1980:114; Department of Health, State of Hawai'i, Annual Report, Statistical Supplement, 1971–1985; Vital Statistics Supplement, 1991–1992, Table 92–86 (A–144), Aug. 1994; marriage certificate data, 1994.

rates of exogamy (Blau and Schwartz 1984). The percentage of outgroup marriage increases as the proportion of the group in the marriage market decreases (Adams 1937; Fishbein 1971; Blau 1977; Blau, Blum, and Schwartz 1982; Blau and Schwartz 1984; Blau, Becker, and Fitzpatrick 1984; Schoen 1986; Fu and Heaton 1997). This inverse relationship between group size and outmarriage has been repeatedly observed in empirical research, and virtually all ethnic minorities in the United States have interracial marriage rates considerably higher than that of whites (Hollingshead 1950; Barnett 1962; Heer 1962, 1966; Thomas 1972; Blau, Blum, and Schwartz 1982; Gurak and Fitzpatrick 1982; Labov and Jacobs 1986; Heaton 1990; Tucker and Mitchell-Kernan 1990; Kalmijn 1993; Fu and Heaton 1997).

At the same time, ethnic heterogeneity is positively associated with the likelihood of interracial marriage. The presence of multiple groups increases the probability of intergroup interactions, and a higher intermarriage rate is often expected where there are multiple racial groups than where there are only two. Not only does the existence of several groups reduce the feeling of "them versus us" that exists when there are two groups, having a variety of groups from which to choose also decreases the perceived undesirability of outmarrying (Spickard 1989; Jacobson and Heaton 1995; Fu and Heaton 1997). Related to the effect of ethnic heterogeneity on interracial marriage is residential concentration. Ingroup solidarity is stronger when there is a high ethnic residential concentration, which provides social networks among group members and exerts a strong cultural pressure against outgroup relationships (Boissevain 1974; Jackson, Fischer, and Jones 1977; Ridley and Avery 1979; Spickard 1989; Tucker and Mitchell-Kernan 1990). Empirical research has confirmed the negative association between residential concentration and outmarriage among several ethnic minorities in the United States (Fitzpatrick and Gurak 1979; Kitano, Yeung, Chai, and Hatanaka 1984).

The sex ratio of the marriageable population is another structural constraint on endogamy (Blau, Blum, and Schwartz 1982). If there is a shortage of one gender, the surplus members of the opposite gender will have to find marital partners outside their group if they want to marry at all (Gurak and Fitzpatrick 1982). Intermarriage patterns of minority groups in the United States provide strong support for the sex ratio theorem (Spickard 1989:345). In Hawai'i the Chinese and Japanese who composed about half of Hawai'i's population in 1900 had a sex ratio of four to one (Parkman and Sawyer 1967), and when the Koreans first immigrated to Hawai'i in 1910, their sex ratio was six and a half to one (Nordyke 1989). All these immigrant groups at that time had a higher outmarriage rate for males than for females, but the rates gradually evened off when they later balanced their sex ratio through a large inflow of female immigrants (Fu and Heaton 1997).

In brief, availability of potential mates can significantly affect outgroup marriage, independent of social and cultural forces. For intermarriage to take place certain structures of the marriage market are thus necessary, but they are not sufficient to determine the scope and depth of such marriages. With the given availability of mates from different groups, whom to choose as a marital partner is an individual decision, influenced primarily by cultural preference, economic considerations, and matching of personal attributes.

Choice

Most people choose to marry within their ethnic groups not only because mates are generally more available within one's group, but also because members of the same group do not have cultural conflicts. Even when marrying out of one's group, individuals tend to choose mates based on cultural proximity (Parkman and Sawyer 1967; Kitano et al. 1984; Kalmijn 1993). Cultural preference is built on the basis of factors such as ethnic origin, national origin, religious beliefs, languages, and dietary habits. When there are more than two groups to choose from, there tends to be a gradient of perceived closeness among the diverse groups. The closer any two groups perceive each other to be culturally, the more likely intermarriage will occur between them. For example, Hispanics of different nationalities tend to intermarry more often than they marry non-Hispanics (Gurak and Fitzpatrick 1982), and Asian Americans have a higher rate of intermarriage among themselves than with non-Asians (Parkman and Sawyer 1967; Kitano et al. 1984; Kalmijn 1993). Preference in an outmarriage is based on many factors, ranging from skin color to cultural compatibility, but similar criteria tend to be emphasized by all ethnic groups (Spickard 1989).

Exchange theory has frequently been used to account for both endogamy and exogamy (Edwards 1969; Blau, Becker, and Fitzpatrick 1984; Schoen and Wooldredge 1989). The greater the demand for a social attribute, the higher its price will be in a social exchange setting, including marriage formation (Wallace and Wolf 1991). Most marriages are homogamous, because persons with equivalent resources are most likely to maximize each other's rewards (Campbell 1971; Schoen 1986). However, those who lack a highly desirable social attribute or ability will be willing to give up much in an exchange for this attribute or ability when selecting a mate.

Expectations of exchange theory in mate selection can thus be summarized in terms of two tendencies. First, couples tend to be alike in most aspects of their demographic and social characteristics, including race, ethnicity, age, religious beliefs, political views, socioeconomic status, and

physical attractiveness. Second, if some of the couple's characteristics are dissimilar, exchange in others tends to make up for the imbalance. To be specific, the theory implies a hierarchy of status among ethnic groups that needs to be matched by a compensatory system of intermarriage. People of different ethnic groups may perceive themselves as possessing different ascribed status and believe that they have an unbalanced set of resources, other things being equal (Spickard 1989). Minority men who are upwardly mobile are assumed to have an incentive to marry white women because such a marriage signals greater prestige, whereas white women of low achievements are willing to accept as husbands minority men of high achievements (Schoen and Wooldredge 1989; Kalmijn 1993). Statistically significant interactions have been found between a black husband's higher education and a white wife's younger age and low socioeconomic status on the U.S. mainland (Heer 1974; Schoen and Wooldredge 1989; Heaton 1990; Heaton and Albrecht 1996).

In sum, both availability of potential mates and choices made by individuals based on cultural and economic considerations will affect outgroup marriage. Hawai'i's unique ethnic diversity and history of interracial marriage make it one of the best places in the world to study marriages across groups.

Data and Method

Analysis in this article is based on marriages registered in the state of Hawai'i from 1983 to 1994. Marriage certificate data were obtained from the Office of Health Status Monitoring, Department of Health, State of Hawai'i (HSMDH 1995). From 1983 to 1994 there were 117,428 resident marriages registered in the state of Hawai'i (a resident marriage has at least one spouse who is a Hawai'i resident). Grooms and brides are classified by the state into fourteen ethnic groups based on their self-reported entries on marriage certificates,² as shown in Table 3. Because some groups are very small, statistical analysis of the unions between them and Pacific Islander groups will not be reliable (such unions may be fewer than ten). A few groups are thus combined. Groups 7 to 10 (Chinese, Japanese, Koreans, and other Asian) are combined into an Asian group, and groups 11 to 14 (Black, Hispanic, Native American, and Portuguese) are combined into an "other" group. Analysis in this article will be conducted on patterns of intermarriage using these combined groups.

Demographic characteristics provided in the marriage certificate data include brides' and grooms' age, education, occupation, and number of prior marriages. My analysis will focus on how mate selection is affected by

TABLE 3. Grooms and Brides by Ethnicity and Socioeconomic Status in Hawai'i, 1983 to 1994

	Groom			Bride		
	Count	%	Average SES ^a	Count	%	Average SES ^a
1. Hawaiian	974	0.8	6.12	706	0.6	5.75
2. Part-Hawaiian	17,746	15.1	6.46	19,179	16.3	6.16
3. Samoan	2,324	2.0	6.31	2,092	1.8	5.99
4. Other Pac. Islander	1,614	1.4	6.34	1,268	1.1	6.33
5. Caucasian	46,400	39.5	7.22	39,984	34.0	7.10
6. Filipino	13,816	11.8	6.47	17,666	15.0	6.44
7. Chinese	4,640	4.0	7.93	5,195	4.4	7.81
8. Japanese	16,628	14.2	7.79	19,324	16.5	7.78
9. Korean	1,868	1.6	7.27	3,817	3.3	6.84
10. Other Asian	984	0.8	6.83	1,613	1.4	6.48
(Asian) ^b	(24,120)	(20.5)	(7.74)	(29,949)	(25.5)	(7.59)
11. Black	6,116	5.2	6.58	3,329	2.8	6.78
12. Hispanics	2,037	1.7	6.24	1,299	1.1	6.16
13. Native American	907	0.8	6.74	759	0.6	6.47
14. Portuguese	1,374	1.2	6.36	1,197	1.0	6.09
(Other) ^b	(10,434)	(8.9)	(6.50)	(6,584)	(5.6)	(6.50)
Total	117,428	100.0		117,428	100.0	

Source: Department of Health, State of Hawai'i, marriage certificate data, 1983–1994.

^a SES (Socioeconomic Status) is a scale of educational attainment and occupational prestige. Job prestige scores are assigned as follows (see Treiman 1977): professional (5.9), farm owner/manager (5.0), clerical (4.0), craftsman (3.9), operative (3.0), private service (2.8), laborer (2.0), military (4.2), and no occupation (4.1). These scores are combined with the five categories of education, ranging from 1 to 5 respectively for below high school, high school, some college, college, and graduate degree. The scale has a range of 3.00 to 10.90, with a mean of 7.02 and 6.90, and a standard deviation of 1.59 and 1.67 for all grooms and all brides, respectively.

^b Groups 7 to 10 are combined into "Asian," and groups 11 to 14 are combined into "other."

education and occupation, indicators of socioeconomic status. Education is recorded in a five-level ordinal scale, and occupation is grouped in nine categories. Table 4 lists percentages for level of education and occupation by groom and bride for the four Pacific Islander groups and the state total (grooms and brides of all groups combined).

Apparently there exists a gap in socioeconomic status across the ethnic groups, reflecting deep-rooted historical, social, and economic differences among them. Compared to the state total, the four Pacific Islander groups have much smaller proportions of grooms and brides who have a college or

TABLE 4. Percentage Distribution of Education and Occupation for Grooms and Brides by Ethnicity in Hawai'i, 1983 to 1994

	Hawaiian		Part-Hawaiian		Samoan		Other Pacific Islander		State Total	
	Groom	Bride	Groom	Bride	Groom	Bride	Groom	Bride	Groom	Bride
Education										
Below high school	19.1	18.1	10.4	10.0	12.1	13.6	17.5	12.6	6.7	7.9
High school	59.3	55.1	56.3	54.1	58.6	55.4	46.7	43.6	42.4	38.4
Some college	16.1	19.9	23.0	26.4	23.1	25.1	24.4	31.9	27.4	31.3
College	3.2	4.0	5.6	5.1	4.2	4.0	6.0	7.4	11.6	12.3
Graduate degree	2.3	2.8	4.7	4.5	2.1	1.9	5.3	4.5	11.9	10.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	974	706	17,746	19,179	2,324	2,092	1,614	1,268	117,428	117,428
Occupation										
Professional	4.6	6.0	6.6	7.0	5.4	4.1	4.5	4.3	12.9	13.7
Managerial	8.7	5.4	10.5	7.9	5.4	4.2	6.7	5.2	12.4	8.5
Clerical	6.3	21.2	8.4	33.5	5.0	25.2	4.3	24.4	8.3	28.8
Craftsman	19.7	1.0	21.8	1.1	12.4	1.3	19.0	0.7	15.3	1.2
Operative	19.0	2.7	15.2	1.7	14.9	1.7	5.3	1.0	7.2	1.1
Private service	16.6	20.5	16.5	12.5	17.5	10.4	14.8	13.0	10.7	12.0
Laborer	14.5	0.9	9.2	0.4	9.9	0.3	14.8	0.5	4.3	0.4
Military	2.5	0.4	3.5	0.5	7.9	1.1	8.3	1.7	22.6	6.5
No occupation	8.1	41.9	8.3	35.5	21.6	51.6	22.2	49.3	6.3	27.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	974	706	17,746	19,179	2,324	2,092	1,614	1,268	117,428	117,428

Note: Percentages may not sum to precisely 100.0 due to rounding.

graduate degree, or hold a job with high prestige. Filipinos and the "other" group (neither shown in the table) are similar to the Pacific Islander groups in this regard, while Asian grooms and brides have the highest education and job prestige, followed by Caucasians. Asians are about four times more likely to have a graduate degree or to hold a professional job than part-Hawaiians, who have the highest SES (socioeconomic status) among the four Islander groups. Within groups gender differences are very small in education and in professional jobs but noticeable in other types of occupation, reflecting a sexual division of labor in the workplace and a traditional gender role expectation that men are breadwinners.

To make standardized comparisons across groups, a scale of socioeconomic status was created by combining education and occupation. Treiman's international occupational prestige scale was used to assign occupational prestige scores to the job categories (1977),³ and these scores were combined with levels of education to compose a scale of socioeconomic status (SES). The scale ranges from 3.00 to 10.90, with a mean of 7.02 and 6.90 and a standard deviation of 1.59 and 1.67 for all grooms and all brides, respectively (see details in Table 3). The average group SES by this scale is listed in Table 3 (the magnitude of the group difference will be discussed below), and the scale will be used to examine degrees of status exchange in outgroup marriage.

The analysis in this study comprises three steps. First, ratios of endogamy and exogamy are presented to detect the general patterns of mate selection across groups. Second, the average group socioeconomic status of grooms and brides by types of marriage is examined. Finally, a multivariate logistic regression model explores the effect of SES on odds of marriage after controlling for important demographic variables.

Findings

Ratios of Endogamy and Exogamy

Table 5 presents percentages of endogamy and exogamy for the four Pacific Islander groups in Hawai'i between 1983 and 1994. Each row of the table reports for a gender/ethnic category how many of its members chose their spouses from a particular ethnic group. For example, 18.8 percent of the Hawaiian grooms married endogamously, while 31.3 percent, 0.8 percent, 0.9 percent, 29.0 percent, 7.3 percent, 6.7 percent, and 5.2 percent married a wife from the groups of part-Hawaiians, Samoans, other Pacific Islanders, Caucasians, Filipinos, Asians, and other, respectively. Shown in parentheses following the percentages are ratios of endogamy or exogamy, given the

model of independence. These ratios report how far the observed counts in each type of marital union deviate from the expected counts if group size is the only factor that affects chances of mate selection. A ratio of one suggests no preference, while a ratio higher (or lower) than one indicates a greater (or smaller) likelihood of marriage than availability of potential mates can explain. For example, 18.8 percent of all Hawaiian grooms married within their group, while only 0.6 percent of all brides are Hawaiian (see Table 3), resulting in an endogamy ratio of 31.33 (18.8 divided by 0.6). In other words, a Hawaiian groom is thirty-one times more likely to marry a Hawaiian wife than expected by chance.

Several patterns can be detected from these percentages and ratios. First, ingroup marriage is the strongest tendency in mate selection. The endogamy ratios are all greater than one, indicating selective matching on the basis of ethnicity (endogamy ratios are comparable across groups of similar sizes). Second, in both endogamy and exogamy, gender differences are small. Grooms and brides tend to have a similar ratio of marrying into a particular group, with the only exception that Hawaiian and part-Hawaiian brides are more likely to marry into the Samoan or other Pacific Islander groups than their grooms would. Third, there is a slight tendency for the four groups to marry each other more frequently than they marry others. Samoans and other Pacific Islanders are about twice as likely to marry each other as would be predicted by chance, and similar trends are evident between the two Hawaiian groups. For the four Pacific Islander groups under study, intermarriage with other groups is not highly selective, as suggested by the similar exogamy ratios. The probability of marrying an Asian, however, seems to be the lowest.

These results confirm early research findings that there exist large racial/ethnic clusters in the islands: Pacific Islanders and Asians tend to marry within their racial groups more often than they would marry each other (Parkman and Sawyer 1967; Fu and Heaton 1997). The above analysis of selective mate selection focused on structures of the marriage market by taking into consideration two factors: group size and sex ratio. These two variables determine the structural availability of potential spouses, and high odds of ingroup marriages clearly indicates that race/ethnicity is an important consideration in mate selection.

Socioeconomic Status

Table 6 reports for grooms and brides their average SES scores by ethnicity. For example, the average group SES ("Total") is 6.12 and 5.75 for all

TABLE 5. Patterns of Endogamy and Exogamy for Pacific Islanders in Hawai'i, 1983 to 1994

Spouse's Ethnicity	Hawaiian		Part-Hawaiian		Samoans		Other Pacific Islanders	
	Groom % (Ratio)	Bride % (Ratio)	Groom % (Ratio)	Bride % (Ratio)	Groom % (Ratio)	Bride % (Ratio)	Groom % (Ratio)	Bride % (Ratio)
Hawaiian	18.8 (31.33)	25.9 (32.38)	0.9 (1.50)	1.6 (2.00)	0.9 (1.50)	0.4 (0.50)	1.9 (3.17)	0.7 (0.88)
Part-Hawaiian	31.3 (1.92)	21.4 (1.42)	45.8 (2.81)	42.4 (2.81)	24.3 (1.49)	8.9 (0.59)	20.3 (1.25)	6.9 (0.46)
Samoan	0.8 (0.44)	3.1 (1.55)	1.0 (0.56)	2.9 (1.45)	51.1 (28.39)	56.8 (28.40)	4.7 (2.61)	3.9 (1.95)
Other Pac. Islander	0.9 (0.82)	4.4 (3.14)	0.5 (0.45)	1.7 (1.21)	2.2 (2.00)	3.6 (2.57)	41.1 (37.36)	52.3 (37.36)
Caucasian	29.0 (0.85)	21.2 (0.54)	18.3 (0.54)	18.4 (0.47)	10.5 (0.31)	12.4 (0.31)	17.6 (0.52)	20.9 (0.53)
Filipino	7.3 (0.49)	8.1 (0.69)	12.8 (0.85)	11.0 (0.93)	4.3 (0.29)	2.2 (0.19)	5.6 (0.37)	2.9 (0.25)
Asian	6.7 (0.26)	7.5 (0.37)	16.7 (0.65)	12.3 (0.60)	4.2 (0.16)	2.9 (0.14)	4.9 (0.19)	4.4 (0.21)
Other	5.2 (0.93)	8.4 (0.94)	4.0 (0.71)	9.6 (1.08)	2.5 (0.45)	12.8 (1.44)	3.8 (0.68)	7.9 (0.89)

Note: The percentages in this table show proportionally how many grooms and brides in each of the four ethnic groups married spouses of a specific group. The ratio (endogamy or exogamy ratio) indicates the likelihood of the marriage when group size is the only consideration (see text for an explanation).

TABLE 6. Average Socioeconomic Status for Couples by Ethnicity in Hawai'i, 1983 to 1994^a

Bride's Ethnicity	Groom's Ethnicity								Total
	Hawaiian	Part-Hawaiian	Samoaan	Other Pacific Islander	Caucasian	Asian	Filipino	Other	
Hawaiian									
Husband	6.02	5.87	6.25	6.13	6.41	6.73	5.81	6.15	6.13
Wife	5.58	5.58	5.17	5.26	6.12	6.39	5.42	5.95	5.75
Part-Hawaiian									
Husband	5.96	6.27	6.25	6.27	6.91	7.07	6.28	6.20	6.48
Wife	5.65	5.89	5.86	5.96	6.76	6.75	5.86	6.01	6.16
Samoaan									
Husband	6.53	6.29	6.21	6.10	6.76	6.77	6.12	6.27	6.30
Wife	5.68	5.93	5.83	5.65	6.71	6.15	5.41	6.23	5.99
Other Pacific Islander									
Husband	6.32	6.44	6.59	6.35	6.86	7.16	6.16	6.69	6.53
Wife	6.28	6.11	6.46	6.08	6.82	7.09	5.80	6.61	6.33
Caucasian									
Husband	6.30	6.70	6.85	6.44	7.22	7.75	6.83	6.73	7.16
Wife	6.20	6.51	6.57	6.33	7.22	7.44	6.51	6.67	7.10
Asian									
Husband	6.60	6.95	6.39	6.98	7.67	7.92	6.97	6.82	7.66
Wife	6.34	6.82	6.13	6.71	7.69	7.84	6.81	6.77	7.59
Filipino									
Husband	6.18	6.30	6.33	6.31	6.88	7.10	6.34	6.31	6.54
Wife	5.79	6.03	5.99	6.14	6.87	6.96	6.23	6.33	6.44
Other									
Husband	5.75	6.23	6.20	5.92	6.84	6.79	6.32	6.49	6.52
Wife	5.70	5.92	5.93	5.80	6.82	6.52	5.88	6.59	6.50
Total									
Husband	6.12	6.46	6.31	6.34	7.22	7.74	6.47	6.50	7.02
Wife	5.86	6.18	5.94	6.09	7.20	7.60	6.26	6.48	6.90

^a Socioeconomic Status (SES) is a composite measure of education and occupational prestige, ranging from 3.00 to 10.90. See Table 3, note a.

Hawaiian grooms and brides, and 6.02 and 5.58 for inmarrying Hawaiian husbands and wives, respectively. Similarly, all husbands who married Hawaiian wives have an average SES of 6.13, and all wives who married Hawaiian husbands have an average SES of 5.86.

The magnitude of the average group difference in SES can be interpreted in comparison with the overall mean and standard deviation (see note to Table 3). Taking part-Hawaiians and Asians for examples, the difference in their group averages ($7.74 - 6.46 = 1.28$ for grooms and $7.59 - 6.16 = 1.43$ for brides) in SES indicates that the percentile rank is 76.4 (75.8) for the average Asian groom (bride) but only 28.8 (23.6) for the average part-Hawaiian groom (bride). Stated differently, on a scale that combines educational achievement and occupational prestige for grooms and brides of all groups, Asians stand on average 47.6 percent (grooms) and 52.2 percent (brides) higher than part-Hawaiians. Average status varies considerably across racial combinations of husband and wife, and the pattern clearly demonstrates a tendency toward status homogamy in mate selection. Compared within their own groups, grooms and brides have higher status if they marry out of a low-status group into a high-status group, while the opposite is true if they marry out of a high-status group into one of low status. With few exceptions, grooms and brides from the four Pacific Islander groups who marry Caucasians or Asians have the highest average status in their

TABLE 7. Correlations of SES between Couples by Ethnicity and Types of Marriage in Hawai'i, 1983 to 1994^a

	Ingroup Marriages	Outgroup Marriages		All Marriages	
		Groom	Bride	Groom	Bride
Hawaiian	0.517	0.430	0.495	0.477	0.500
Part-Hawaiian	0.484	0.573	0.588	0.550	0.559
Samoaan	0.422	0.525	0.534	0.483	0.435
Other Pac. Islander	0.566	0.502	0.596	0.527	0.591
Caucasian	0.620	0.640	0.600	0.628	0.616
Asian	0.721	0.658	0.667	0.713	0.706
Filipino	0.599	0.567	0.567	0.585	0.591
Other	0.472	0.512	0.520	0.500	0.495
Total	0.684	0.624		0.662	

Source: Department of Health, State of Hawai'i, marriage certificate data, 1983–1994.

^a *Outgroup marriages* are all types of outmarriages combined. For example, the SES correlation between all outmarrying Hawaiian grooms and their wives is 0.430 (these wives could come from any non-Hawaiian group). *All marriages* combine both ingroup and outgroup marriages.

groups, while Caucasians and Asians who marry Pacific Islanders have the lowest status within their groups. Marriage is still “traditional” in that husbands tend to have a slightly higher status than wives, regardless of ethnicity.

Status homogamy is also indicated by the similar SES scores between partners. Regardless of inmarrying or outmarrying, the difference in SES between couples is rather consistent across groups. Correlations of SES between husbands and wives are presented in Table 7. Although these correlations do not differ with a pattern between couples in endogamous and exogamous marriages, they are consistently higher in marriages involving a spouse from a high-status group (Caucasian or Asian). Evidently couples tend to match their socioeconomic status more closely if at least one spouse is from a high-status group, as compared to couples who both come from groups of comparatively low status. Intermarriage in Hawai'i is thus marked by equal status between couples across racial and ethnic groups, and status homogamy is especially important if the marriage involves a spouse from a high-status group.

Multivariate Analysis

The above analysis only focuses on the effect of SES and does not take other factors into consideration. Age at marriage, for example, can influence SES, since a group with a larger proportion of young grooms and brides will tend to have a lower status. Young people may yet complete more schooling or move into better jobs after they get married. In this section the effect of socioeconomic status on mate selection is further tested in logistic regression models controlling for age at marriage and number of marriages. Group size and sex ratio cannot be included in this analysis, because they are constants in any specific ethnic group.

Logistic regression analysis is appropriate for dependent variables with only two outcomes (outmarrying or inmarrying in this case). Coefficients in the logistic regression analysis describe the log odds of outmarrying. Although in everyday language “odds” is often used interchangeably with “probability,” mathematically the two are different quantities and can be expressed as below (when there are only two outcomes):

$$\text{Odds } A = \text{Probability } A / \text{Probability } B$$

The odds of outmarrying is therefore defined as the probability of outmarrying divided by the probability of inmarrying, or more simply as the ratio of

outmarriages to inmarriages. The regression equation expressing the log odds is

$$\text{Ln (odds of outmarrying)} = B_0 + B_1X_1 + B_2X_2 \dots + B_pX_p$$

where B_0 is the constant and B_1 is the estimated coefficient for the independent variable X_1 . The hypothesis that a coefficient is not different from zero is usually tested with a Wald statistic (a chi-square-type statistic), based on degrees of freedom for that variable (Hosmer and Lemeshow 1989). The logistic regression coefficient can be interpreted as the change in the log odds for the dependent variable associated with one unit change in the independent variable. The results of the logistic regression analysis are reported in Table 8, and they reflect the effect of socioeconomic status on selective outmarriage after controlling for age at marriage and number of marriages.

To make comparisons easier to read, odds ratios instead of log odds are reported in the table (coefficients are not estimated where cases are fewer than fifty). The statistical significance of the coefficients is also given as an indicator of their strength, although the data are not considered as a sample. Endogamous marriage is the implicit comparison group in all models, indicated by 1.00 in the table. In other words, deviation from 1.00 shows the percentage difference in SES for those who outmarry as compared to those who inmarry. The table should be read only along the rows, not down the columns. For example, Hawaiian grooms and brides who married Asians have an average SES respectively 48 percent and 40 percent higher than Hawaiians who married endogamously. Hawaiians who married part-Hawaiians, in contrast, have a slightly lower SES than those who in-married (6 percent and 1 percent lower, respectively, for Hawaiian grooms and brides).

Consistent with the findings in Tables 6 and 7, status emerges as a salient factor in mate selection among the ethnic groups, even after controlling for important demographic characteristics. To marry a Caucasian or an Asian, Pacific Islanders need to have higher status than those who inmarry, while Asians and Caucasians who marry Pacific Islanders are of lower status in their own groups. With one unit increase on the socioeconomic status scale (ranging from 3.0 to 10.9; see Table 3), the probability that a Hawaiian groom will marry an Asian wife increases by a factor of almost 1.5, compared to marrying endogamously. Mate selection seems to be guided by a hierarchy of status compensation. Stated differently, the lower one's group status, the more important one's own status will have to be in marrying into a high-

TABLE 8. **Logistic Regression Coefficients (Odds Ratios) Showing Effects of Socioeconomic Status on Selective Marriage**

Group of Origin	Group of Destination							
	Hawaiian	Part-Hawaiian	Samoan	Other Pacific Islander	Caucasian	Asian	Filipino	Other
Hawaiian								
Groom	1.00	0.94			1.18°	1.48°°	1.07	0.76
Bride	1.00	0.99			1.27°°	1.40°°	0.94	1.19
Part-Hawaiian								
Groom	0.73°°	1.00	1.02	1.12	1.25°°°	1.44°°°	1.03	0.96
Bride	0.84°°	1.00	1.00	1.04	1.45°°°	1.42°°°	0.99	1.06°°
Samoan								
Groom		1.04	1.00	1.39	1.64°°°	1.18		0.98
Bride		1.07	1.00	0.89	1.65°°°	1.21		1.37°°°
Other Pacific Islander								
Groom		0.95	0.83	1.00	1.06	1.45°°°		0.74°°°
Bride		1.03	1.24°	1.00	1.42°°°	1.52°°°		1.33°°°
Caucasian								
Groom	0.62°°°	0.86°°°	0.83°°°	0.85°°°	1.00	1.13°°°	0.85°°°	0.87°°°
Bride	0.54°°°	0.67°°°	0.72°°°	0.60°°°	1.00	1.04°°	0.70°°°	0.77°°°
Asian								
Groom	0.66°°°	0.74°°°	0.65°°°	0.79°°	0.96°°°	1.00	0.75°°°	0.67°°°
Bride	0.65°°°	0.75°°°	0.60°°°	0.76°°°	0.99	1.00	0.74°°°	0.74°°°
Filipino								
Groom	0.77°	0.97	0.90	0.91	1.25°°°	1.32°°°	1.00	1.00
Bride	0.85°	0.95°°°	0.95	0.99	1.32°°°	1.32°°°	1.00	1.07°°
Other								
Groom	0.77°	0.74°°°	0.79°°	1.17	1.16°°°	1.22°°°	0.83°°°	1.00
Bride	0.51°°°	0.58°°°	0.55°°°	0.59°°°	1.13°°°	0.91°	0.55°°°	1.00

Note: Endogamous marriage is the comparison group for estimation of coefficients. Age at marriage and number of marriages are controlled in the model, and their coefficients are not reported in this table. Where cases are fewer than fifty, coefficients are not estimated.

° $p < 0.05$ °° $p < 0.01$ °°° $p < 0.001$

status group. Conversely, the closer the average status between two groups, the easier it will be for their members to intermarry because of their comparable socioeconomic status.

Conclusion

In this study status exchange between couples is examined for four Pacific Islander ethnic groups, and findings lend strong support to the expectations of exchange theory. There are several important patterns of mate selection in Hawai'i. First, ingroup marriage is the strongest norm, despite a long tradition of interracial marriage in the islands. For the four groups under study, grooms and brides are 2.8 to 37 times more likely to marry within their own groups than chance would predict. This tendency, however, is weaker for part-Hawaiians than for other groups (even compared to groups of similar size), probably because part-Hawaiians have a family history of intermarriage, and the racial and ethnic background of a potential spouse is not as important a consideration as it might be for other groups.

Second, intermarriage among the four groups is slightly more frequent than among non-Pacific Islander groups, and the bond seems especially close between the two Hawaiian groups. This finding indicates the existence of a large racial/ethnic cluster that includes all Pacific Islanders. However, ratios of exogamy are basically proportional to group sizes across all groups, indicating that no group is particularly favored in outmarriage, nor is any undesirable. Since marriage is the most intimate relationship between two individuals, similar rates of intermarriage across groups suggest that groups accept each other equally. The only exception is a comparatively low rate of intermarriage between Pacific Islanders and Asians, probably due to cultural dissimilarity and status gaps.

Third, if mate selection at the aggregate group level is not very selective, at the individual level it certainly is. In endogamy as in exogamy, mate selection is, in part, an issue of status matching, with little difference between genders. Grooms and brides have basically the same probability of marrying into a certain ethnic group, and status is thus equally important for both men and women. In a broad sense, those who marry exogamously are more likely to choose a mate on the basis of equal socioeconomic status than on the basis of racial or ethnic background. The Asians have the highest socioeconomic status among the groups, and to have a high status is thus essential in marrying an Asian spouse, regardless of one's racial and ethnic origin. In other words, failure to marry into a certain ethnic group could be a result of status incompatibility rather than preference among ethnic groups. Status matching also explains why, apart from cultural reasons, part-Hawaiians are

less selective in outmarriage: They have the highest SES among the four Pacific Islander groups, and this status makes it easier for them to marry into all groups, as far as status compatibility is concerned.

These patterns of selective outmarriage, however, suggest that groups of very high and very low status could face a restricted marriage market and are somewhat isolated within their own groups. Along the SES continuum, those at the higher end of a low-status group and those at the lower end of a high-status group are more likely to intermarry, while those with low status in low-SES groups and those with high status in high-SES groups tend to marry within their own groups. This status matching at the individual level may help perpetuate socioeconomic gaps along racial lines. For example, the comparatively low status of the Pacific Islander groups could have been, in part, a result of many generations of intermarriage in which they have lost high-status individuals to other groups. If the pattern persists, high-status Pacific Islanders would be more likely to outmarry and have children with multiple ethnic identity, while low-status Islanders would be more likely to inmarry and have children who keep their Islander ethnic identity, resulting in an unfavorable family SES environment for future-generation Pacific Islanders. This tendency would in turn enlarge group difference in SES and strengthen the tendency toward ingroup marriage. The island culture of intermarriage thus to some extent works to the disadvantage of low-status groups when status exchange is considered. The pattern especially affects native Hawaiians, because they have no ethnic reserves outside the islands. If higher-status native Hawaiians tend to marry out and have children who are no longer native Hawaiians, it will be difficult to raise the group status for future-generation Hawaiians. The data under study have clearly indicated that part-Hawaiians have higher status than native Hawaiians, and this trend is expected to continue if the current pattern of intermarriage persists.

Sustained high frequency of intermarriage also raises questions about how to measure race and ethnicity. Generations of intermarriage have made it very difficult for many in Hawai'i to classify themselves into only one racial category. The ethnicity classification in the data set is self-reported, and for many who have a multiethnic background, it may reflect only their perception of which racial/ethnic identity is the most important. The racial categories in this article may therefore overstate the amount of homogamy but at the same time overstate the degree of ethnic differences in intermarried couples. Despite this inaccuracy of categorizing ethnicity, it is important to recognize that racial identity, even when it is a self-reported choice, is a very important factor in mate selection.

NOTES

1. Howard estimated a population of 300,000 for native Hawaiians when they had their first contact with Europeans. This figure is probably based on Schmitt and Zane's hypothesized calculation (1977). Stannard argues that the Hawaiian population at the time of Cook's arrival in 1778 was 800,000 to over one million (1989). Dudley and Agard claim that a number of scholars in Hawaiian Studies adopt the higher number (1990).

2. On the marriage license application form, grooms and brides are given a variety of racial and ethnic categories to choose from, and they are free to select multiple entries. When marriage certificate data are compiled by the Department of Health, only one ethnic identity is finally chosen for statistical reporting purposes. If more than one ethnicity is checked on the marriage certificate, the following rules apply to code multiethnicity into one category.

- 1) If Hawaiian is one of the multiple ethnicities listed, Part-Hawaiian is coded.
 - 2) If a non-Caucasian ethnicity is listed with a Caucasian ethnicity, the non-Caucasian ethnicity is coded.
 - 3) If there is more than one non-Caucasian ethnicity listed, the first one is coded.
 - 4) If there is more than one Caucasian ethnicity listed, the first one is coded.
- (Vital Statistics Supplement 1996)

Once the data are compiled, it is not possible to recode the ethnic categories back to their original entries. Thus, compilation may pose potential inaccuracies in measuring ethnic identity of the grooms and brides.

3. Occupational prestige has been studied for decades, and its measurement has been stable across nations. See Stark 1998:440–442 for a detailed discussion.

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