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In This Issue

1 **Family Planning
Communication
between Spouses
in Sri Lanka**
*by Thomas T. Kane and
Siva Sivasubramaniam*

11 **The Use of Sampling
in Conjunction with
Population Censuses**
by Vijay Verma

21 **Is the Fertility of
Asian and Pacific
Islander Americans
Converging to the
U.S. Norm?**
*by Robert D. Retherford
and Michael J. Levin*

27 **Reviews**

32 **News from the
Region**

Family Planning Communication between Spouses in Sri Lanka

*Thomas T. Kane
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During recent years there has been an increasing recognition of the importance of communication between spouses in successful family planning behavior (Severy 1982; Polit-O'Hare and Kahn 1985). Some recent studies have also examined the inconsistencies in husband-wife fertility attitudes and reporting of contracep-

tive use (Card 1978; Coombs and Chang 1981; Koenig et al. 1984).

Other studies have examined the role of wives and husbands in contraceptive decision making (Hollerbach 1980; Severy 1984; Bean et al. 1984; Sayed et al. 1985; Cook and Maine 1987; Alcantara 1988; Nag and Duza 1988; Warren et al. 1988). Germain (1987) calls attention to the need for greater male responsibility and participation in contraceptive communication and behavior.

The results of these studies have policy implications for family planning programs and efforts to improve the status of women around the world because they demonstrate the important roles played by both sexes in the adoption and effective use of family planning and suggest ways that family planning information and education might be more effectively delivered to couples wishing to practice contraception.

Drawing upon data from a national follow-up survey conducted in Sri Lanka in 1985, this study examines

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Is the Fertility of Asian and Pacific Islander Americans Converging to the U.S. Norm?

*by Robert D. Retherford
and Michael J. Levin*

CURRENT FERTILITY theories view differences in fertility among populations as caused by a complex interaction of social, economic, political, and cultural factors (see, for example, Bulatao and Lee 1983). An implication for studies of the fertility of migrants is that the process of social, economic, political, and cultural assimilation should lead to assimilation in the realm of fertility behavior as well.

In this article we examine the process of assimilation in fertility behavior for Asians and Pacific Islanders in the United States, using census-based estimates of recent fertility trends for the period 1965-80. We examine fertility trends for all Asians and all Pacific Islanders, and separately for Asian Indians, Chinese, Filipinos,

Japanese, Koreans, Vietnamese, Guamanians, Hawaiians, and Samoans. We also examine, for each of these groups, differential fertility by urban-rural residence, educational attainment, nativity, and year of immigration if foreign-born.

■ Data and methodology

We identify groups of Asians and Pacific Islanders in accordance with the 1980 U.S. census question on race. Answers to this question were based on self-identification. (For some groups the term "ethnic group" may seem more appropriate than the term "race" or "racial group"; however, we retain the U.S. Census Bureau's terminology.)

Asians and Pacific Islanders include persons who selected from the census questionnaire one of the specified race categories of Chinese, Filipino, Japanese, Asian Indian, Korean, Vietnamese, Hawaiian, Samoan, or Guamanian, as well as persons who selected the category of "other" and then provided written entries such as Kampuchean, Cambodian, Cantonese, Laotian, Pakistani, or Tongan. Where appropriate, these written entries were recoded into the specified categories; for example, Cantonese were recoded as Chinese.

If an entry for race was missing on the questionnaire for a member of a household, an answer was assigned by computer according to reported entries for race for other household members, using a set of rules of precedence of household relationship. If race was not entered for anyone in the household (excluding paid employees), race was assigned by a variant of the Census Bureau's general allocation process for missing entries. In the census as a whole, 1.5 percent of race entries were allocated.

Although the race question was asked of all persons, questions about educational attainment, nativity, and period of immigration if foreign-born were asked only on the census sample long form, covering about 19 percent of the population. Therefore, the present analysis is based on the 19 percent sample.

The own-children method of fertility estimation was applied to the 19 percent sample tape to generate estimates of fertility trends and differentials for the above-mentioned groups of Asians and Pacific Islanders in the United States. For comparison purposes, a 1 percent sample tape was used to generate estimates for the United States as a whole and for Blacks and Whites separately. Also for comparison pur-

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poses, a 19 percent sample tape of American Indians was used to generate estimates for American Indians.

The own-children method has been described in earlier publications (see especially Cho et al. 1986) and needs to be recapitulated only briefly here. The method is a reverse-survival technique for estimating age-specific birth rates for years previous to a census or household survey. Enumerated children are first matched to mothers within households on the basis of responses to questions on age, sex, marital status, relationship to householder, and, in the present application, number of children ever born. The matched (i.e., "own") children, classified by own age and mother's age, are reverse-survived to estimate numbers of births by age of mother in previous years. Reverse-survival is also used to estimate numbers of women by age in previous years.

After adjustments are made for incorrect enumeration (undercount and age misreporting) and unmatched (non-own) children, age-specific birth rates are calculated by dividing the number of births by the number of women. Estimates are computed for each previous year or group of years back to 15 years before the census.

In the present application no corrections for incorrect enumeration are made. Calendar years are grouped into three periods, 1965-69, 1970-74, and 1975-79. Because the census was taken on 1 April, these periods run from 1 April to 31 March. For example, 1975-79 means 1 April 1975 to 31 March 1980. Age-specific birth rates are aggregated to total fertility rates (TRFs), and only the latter are

reported here. It has been shown previously that own-children estimates of TRFs for the United States agree closely with corresponding estimates derived from vital statistics sources (Retherford and Cho 1978). Methodological details about this particular application of the own-children method to 1980 U.S. census data are contained in the Appendix.

■ Profile of the base populations

The 1980 U.S. census enumerated 3,726,440 Asians and Pacific Islanders in the United States, of whom about 90 percent were Asians. Chinese were the largest group, followed by Filipinos (Table 1). Both groups exceeded Japanese, who were the largest group in 1970 but third largest in 1980. Each of these groups constituted more than one-fifth of the U.S. Asian population in 1980. Asian Indians (labeled simply as Indians in this article) ranked fourth, followed by Koreans and Vietnamese. "Other Asians" constituted about 5 percent of all U.S. Asians. The largest groups in this category were Laotians, Thais, Cambodians, and Pakistanis.

The surpassing of Japanese by Chinese and Filipinos between 1970 and 1980 reflects a selective surge of increased immigration during the 1970s, following changes in U.S. immigration law after 1965. The increased flow of new immigrants was especially great from the Philippines, the Republic of Korea, China, India, Pakistan, and Thailand. In addition, more than 400,000 Indochinese refugees entered the United States between 1975 and 1980 under a series of parole authorizations granted by the Attor-

ney General (U.S. Department of Justice, various years).

Among Pacific Islanders, Hawaiians constituted the largest Pacific Islander group in 1980. Samoans, including both American and Western Samoans, were next largest, followed by Guamanians. No other Pacific Islander group had more than 10,000 persons in 1980.

Table 2 shows the base populations of females underlying the estimates of differential fertility. Since most immigrants settle in urban areas, rural populations tend to be very small. As calculated from Table

Table 1. Asians and Pacific Islanders in the United States: 1980

Group	Population size
Asians	3,466,874
Chinese	812,178
Filipino	781,894
Japanese	716,331
Indian	387,223
Korean	357,393
Vietnamese	245,025
Laotian	47,683
Thai	45,279
Cambodian	16,044
Pakistani	15,792
Indonesian	9,618
Hmong	5,204
Other Asians	27,210
Pacific Islanders	259,566
Hawaiian	172,346
Samoan	39,520
Tongan	6,226
Other Polynesian	2,186
Guamanian	30,695
Other Micronesian	4,813
Melanesian	3,311
Other Pacific Islanders	469

Source: United States, Bureau of the Census (1988:table 1).

Note: By comparison, the total U.S. population numbered 226,545,805 in 1980 (U.S. Department of Commerce, Bureau of the Census 1986).

Table 2. Asian and Pacific Islander women aged 15-64 in the United States, by selected characteristics: 1980

Group	Residence		Education (in years)			Nativity			
						Foreign-born			Native-born
	Urban	Rural	<12	12	>12	1965-80	pre-1965		
Asians	1,159,685	78,798	345,349	332,007	561,127	349,987	888,496	742,434	146,062
Chinese	273,421	8,358	84,324	62,185	135,270	75,794	205,985	162,520	43,465
Filipino	260,558	19,532	73,496	53,206	153,388	56,882	223,208	192,519	30,689
Japanese	268,785	25,411	53,616	114,185	126,395	185,872	108,324	56,342	51,982
Indian	106,703	9,479	28,833	22,803	64,546	18,990	97,192	92,080	5,112
Korean	129,000	9,356	43,160	46,565	48,631	8,199	130,157	118,244	11,913
Vietnamese	69,892	3,554	35,812	21,491	16,143	1,405	72,041	71,506	535
Pacific Islanders	71,725	11,457	29,704	34,879	18,599	71,564	11,618	8,987	2,631
Hawaiian	47,155	9,717	18,902	25,220	12,750	55,936	936	567	369
Samoaan	10,482	484	4,839	4,182	1,945	5,618	5,348	3,649	1,699
Guamanian	9,161	883	3,683	3,972	2,389	8,814	1,230	950	280

Source: Unpublished tabulations from the 1980 U.S. census. The population estimates in this table are derived from the census long form, covering about 19 percent of the population.

2, among women aged 15-64, 6 percent of Asians and 14 percent of Pacific Islanders were rural in 1980. By comparison, 26 percent of the total U.S. population were rural in 1980 (U.S. Department of Commerce, Bureau of the Census, 1983:table 98).

Table 2 also shows that there is a correlation between the time of peak immigration and the proportion of foreign-born women in particular racial groups. For example, since Japanese immigration slowed to a trickle some time ago, the current proportion of foreign-born among Japanese is comparatively low. The proportion of foreign-born among Koreans and Vietnamese, on the other hand, is much higher.

Substantial proportions of Samoans and Guamanians were foreign-born in 1980. The foreign-born include many Samoans in the United States who were born in Western Samoa and Guamanians who were born in the Philippines.

Table 3. Estimated trends in total fertility rates for Asians and Pacific Islanders in the United States, derived from the 1980 U.S. census

Group	1965-69	1970-74	1975-79
Asians	2399	2179	1948
Chinese	2331	1869	1597
Filipino	2574	2319	2148
Japanese	1880	1651	1409
Indian	2155	2115	2239
Korean	2404	2391	2183
Vietnamese	5435	4395	2671
Pacific Islanders	3711	2847	2531
Hawaiian	3331	2513	2296
Samoaan	6143	4494	3765
Guamanian	4002	2946	2074
United States	2601	2070	1810
White	2488	1959	1714
Black	3182	2487	2115
American Indian	3398	2722	2409

Source: Unpublished tabulations from the 1980 U.S. census.

Notes: Rates are per 1,000 women. The aggregated categories of "all Asians" and "all Pacific Islanders" include all subcategories, not just the specific subcategories shown.

Persons born in American Samoa and Guam are classified as native-born.

Findings

Table 3 shows estimated trends in total fertility rates (TFRs) for Asians

and Pacific Islanders, with comparison figures for the United States and the major racial groups of Whites, Blacks, and American Indians.

Asians as a whole show a modest fertility decline, from about 2.4 children per woman in 1965-69 to about 1.9 children per woman in 1975-79. Because fertility was already fairly low to start with, the decline of about half a child was sufficient to bring fertility below replacement by 1975-79. The pattern was similar for each of the specific groups shown, except for Vietnamese, who began with a comparatively high TFR of 5.4, which declined by 50 percent to 2.7 by 1975-79. By 1975-79, Chinese and Japanese had total fertility rates that were well below replacement, at 1.4 to 1.6 children per woman. Indians, Filipinos, and Koreans had close to replacement-level fertility, which at 1980 mortality levels would correspond to a TFR of about 2.1 children per woman.

Fertility levels for Pacific Islanders were generally higher than those for Asians. For Pacific Islanders as a whole, the TFR declined from 3.7 children per woman in 1965-69 to 2.5 children per woman in 1975-79. The TFR of Guamanians dropped precipitously over the same period, from 4.0 to 2.1. Hawaiians experienced a more modest decline, from 3.3 to 2.3. Samoans experienced a decline from 6.1 to 3.8. Among the specific groups shown in Table 3, Samoans were the only group with a TFR greater than three children per woman by 1975-79.

By comparison, total fertility for the United States as a whole fell from 2.6 to 1.8 children per woman between 1965-69 and 1975-79. To-

tal fertility fell from 2.5 to 1.7 for Whites, from 3.2 to 2.1 for Blacks, and from 3.4 to 2.4 for American Indians. Fertility levels and declines therefore do not differ much between Asians and the total U.S. population—with the exception of Vietnamese, who experienced a major fertility decline during the estimation period considered here, but whose fertility remains high.

In contrast with the Asian pattern, Pacific Islanders started with considerably higher fertility and experienced larger fertility declines than either Asians or the United States as a whole. Thus Pacific Islanders show some evidence of convergence toward the U.S. fertility norm, whereas Asians were largely assimilated in their fertility behavior to start with, except for Vietnamese.

Fertility trends by selected characteristics of Asian and Pacific Islander groups (Table 4) reveal that rural fertility exceeded urban fertility for both the United States as a whole and the Asian and Pacific Islander groups, except among Samoans in 1970-74 and 1975-79. Within urban and rural categories, fertility fell over the three periods for all groups, except for urban Indians and rural Koreans, whose fertility increased slightly. The rural-urban difference in the TFR sometimes increased and sometimes decreased, with no general tendency either way.

For the United States as a whole the rural-urban difference in the TFR was about 0.3 to 0.4 child in each of the three periods. By 1975-79 Chinese, Japanese, Indians, and Vietnamese had rural-urban differentials that differed little from the U.S. average. The rural-urban

differential increased somewhat for Chinese and Japanese, however, owing to the achievement of extremely low fertility among urban Chinese and Japanese. The fertility of the latter fell to well below replacement level, lower even than the fertility of urbanites in the United States as a whole.

Among Filipinos, Koreans, Hawaiians, and Guamanians, the rural-urban fertility difference in 1975-79 was higher than that for the United States as a whole, owing to the maintenance of moderately high rural fertility among the former groups. Among Samoans fertility was higher in urban than in rural areas in 1970-74 and 1975-79, possibly because recent Samoan migrants with higher fertility are heavily concentrated in urban areas.

Fertility declined in the three educational categories shown in Table 4 for the United States as a whole and in the Asian and Pacific Islander groups, except among Koreans with less than 12 years of education, for whom it increased slightly. Fertility was lower among those with more education than among those with less, except for Koreans in 1965-69. Vietnamese and Guamanians had considerably larger fertility differentials by education than did the United States as a whole; the other groups tended to have differentials that were about the same or smaller than those for the United States as a whole.

Among the various race-education groups, the lowest TFRs were attained by Japanese and Guamanians with more than 12 years of education, at 1.3 children per woman. This extremely low fertility implies a net reproduction rate

Table 4. Estimated trends in total fertility rates for Asians and Pacific Islanders in the United States, by selected characteristics, derived from the 1980 U.S. census

Group	Residence		Education (in years)			Nativity			
	Urban	Rural	<12	12	>12	Native-born	Total	Foreign-born	
								1965-80	pre-1965
Asians									
1965-69	2378	2709	3090	2447	2202	2196	2484	2574	2677
1970-74	2143	2744	2988	2243	1947	1576	2335	2490	1787
1975-79	1918	2455	2451	1978	1763	1345	2133	2207	1595
Chinese									
1965-69	2321	2614	3131	2414	2067	2093	2384	2335	2646
1970-74	1857	2184	2583	2014	1689	1306	2005	2098	1706
1975-79	1584	2001	1983	1722	1529	1161	1737	1800	1415
Filipino									
1965-69	2516	3353	3018	2926	2409	2910	2523	2376	3601
1970-74	2268	3026	2844	2396	2167	2112	2323	2388	2252
1975-79	2100	2820	2325	2152	1988	1788	2177	2228	1843
Japanese									
1965-69	1858	2148	2239	2085	1808	1987	1787	1860	2090
1970-74	1615	2083	2267	2028	1481	1426	1929	2181	1429
1975-79	1377	1851	1683	1698	1299	1209	1761	1831	1432
Indian									
1965-69	2124	2561	2671	2340	2060	2172	2216	2209	2536
1970-74	2104	2363	2422	2162	2126	1803	2176	2204	1899
1975-79	2226	2455	2357	2207	2209	1478	2302	2343	1322
Korean									
1965-69	2365	3026	2258	2370	2632	1834	2412	2427	2637
1970-74	2311	3465	2478	2300	2425	1765	2408	2473	1845
1975-79	2117	3104	2262	2099	2154	1519	2216	2238	1695
Vietnamese									
1965-69	5406	5965	6251	4942	4410	3739	5473	5513	3154
1970-74	4353	5186	5584	3977	2899	3638	4408	4440	1642
1975-79	2671	2738	3474	2473	1739	1812	2687	2699	1256
Pacific Islanders									
1965-69	3646	4112	4760	3661	2803	3539	4904	4778	5233
1970-74	2798	3153	3590	2967	2175	2676	3825	3923	3836
1975-79	2486	2835	2892	2628	2071	2360	3443	3702	2611
Hawaiian									
1965-69	3180	4067	4268	3464	2629	3347	*	*	*
1970-74	2391	3095	2999	2773	1971	2531	*	*	*
1975-79	2189	2825	2472	2464	1853	2306	*	*	*
Samoa									
1965-69	6126	7647	7415	5435	4181	5623	6522	6764	6306
1970-74	4471	4417	5281	4399	3624	4162	4807	5226	4426
1975-79	3795	3222	4062	3758	3205	3609	3922	4483	2895
Guamanian									
1965-69	3913	4885	4210	4201	3641	4235	2561	2466	2972
1970-74	2940	3050	3408	3245	2080	3018	2443	2563	1982
1975-79	1984	3072	2485	2333	1287	2055	2126	2244	1885
United States									
1965-69	2514	2847	3311	2676	2231	NC	NC	NC	NC
1970-74	1978	2361	2805	2185	1668	NC	NC	NC	NC
1975-79	1727	2090	2150	1880	1473	NC	NC	NC	NC

Source: Unpublished tabulations from the 1980 U.S. census.

Note: Rates are per 1,000 women.

* Numbers of foreign-born are too small to tabulate.

NC-Not calculated.

of about 0.6 and a long-run stable population rate of decline of about 40 percent per generation. Fertility differences by education tended generally to contract over the three periods.

Among the foreign-born, some past fertility may have occurred in the country of origin, not in the United States (last three columns of Table 4). Because applications of the own-children method tabulate TFRs by characteristics evaluated at the time of the census, not at the time the births occurred, the assumption is not always correct that the characteristic at the time of the census is unchanged throughout the entire 15-year estimation period.

The fertility of both native-born and foreign-born Asians and Pacific Islanders declined over the three time periods, except among foreign-born Indians, whose fertility increased very slightly. The fertility of the native-born was lower than the fertility of the foreign-born, as expected, except for Filipinos and Japanese during 1965-69, among whom the difference was slightly reversed. The fertility difference between native-born and foreign-born did not show any consistent trend, in some cases increasing and in others decreasing. Native-born Chinese and Japanese achieved an extremely low fertility of 1.2 children per woman by 1975-79.

Fertility declined during 1965-80 among both pre-1965 and post-1965 immigrants, except post-1965 Indian immigrants, whose fertility increased very slightly (last two columns of Table 4). The fertility of post-1965 immigrants was higher than that of pre-1965 immigrants, as expected, except in 1965-69, during which the difference was usual-

ly reversed. This reversal, which characterized all groups except Vietnamese and Samoans, is puzzling, and we are unable to explain it. Some of the pre-1965 immigrant groups had very low fertility by 1975-79; TFRs were 1.3 for Indians, 1.4 for Chinese, 1.4 for Japanese, and 1.3 for Vietnamese.

■ Summary and conclusion

The fertility of most Asian and Pacific Islander groups in the United States fell substantially between 1965 and 1980, as did the fertility of the U.S. population as a whole. The fertility of most Asian groups was initially lower than that of most Pacific Islander groups. Most Asian groups experienced fertility trends not much different from those of the United States as a whole. In contrast, most Pacific Islander groups experienced faster than average fertility decline, thereby showing some evidence of assimilation toward the U.S. fertility norm.

Differential fertility conformed to familiar patterns: urban fertility tended to be lower than rural fertility; the fertility of the more-educated tended to be lower than the fertility of the less-educated; the fertility of native-born tended to be lower than the fertility of foreign-born; and the fertility of established migrants tended to be lower than the fertility of recent migrants. Fertility tended to fall not only for each racial group as a whole, but also for each socioeconomic category of urban-rural residence, educational level, and nativity. These generalizations are confirmed not only for the all-Asians category and the all-Pacific Islanders

category, but also for virtually every specific racial subcategory.

Although many of the racial groups considered here have fertility patterns that do not differ greatly from those for the United States as a whole, moderate fertility differences nevertheless persist in most cases, indicating that the assimilation process in fertility behavior is not yet complete.

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APPENDIX: DETAILS OF APPLICATION OF THE OWN-CHILDREN METHOD

The first stage of the own-children method of fertility estimation involves matching children to mothers within the same household. Children are computer-matched on the basis of responses to questions on age, sex, marital status, relationship to householder, and number of children ever born. In the present application, race of mother was used as the classifier. Children were matched to mothers by means of the census questions, irrespective of the children's own identified race.

Race of mother could not be used, however, in the computation of adjustment factors for non-own (unmatched) children, since mothers of these children could not be identified. To deal with this problem,

(continued on page 35)