

RECENT FERTILITY TRENDS AMONG AMERICAN INDIANS IN THE UNITED STATES

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Between 1970 and 1980 the population of American Indians in the United States experienced phenomenal growth. The count of American Indians in the 1980 census was 1,364,033, an increase from 1970 of 571,303 or 72 percent (Table 1 and Figure 1). There are several possible explanations for the enormous change. Immigration as a cause of this growth can be easily dismissed since barely 1 percent of the Indian population in 1980 was foreign born. Either the relationship between the other parts of the demographic equation - fertility and mortality - changed drastically or there were dramatic changes in racial identification during the decade. Passel and Berman (1986) and Snipp (1987a) have recently shown that much of this change should be attributed to changing self-identification rather than to natural growth alone; in fact, natural growth can only account for 39.7 percent of the difference between the 1970 and 1980 counts of American Indians in the United States (Passel and Berman 1986:165).

The research reported here uses the own-children reverse survival method of fertility analysis to help substantiate the hypotheses presented by Snipp and by Passel and Berman about the error of closure, but also has as an equally important purpose, to explore differential fertility by characteristic of women. Most large-scale fertility research relies on censuses and intercensal estimates for denominators and vital registration for births in analyzing fertility: this research focuses on fertility information derived from a single source - the 1980 census - to assess the contribution of fertility to the growth of the Indian population.

The method used for this paper is the own-children method of fertility estimation, developed and refined by Cho, Retherford, and others (see especially Cho, Retherford, and Choe, 1986). 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 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.

For this analysis no corrections have been made for incorrect enumeration. Years of time are grouped into periods 1965-69, 1970-74, and 1975-79. Since the Census was taken April 1, 1980, these periods run from April 1 to April 1. For example, 1975-79 means April 1, 1975 to April 1, 1980. Age-specific birth rates are aggregated to total fertility rates.

The own children method has three stages - a matching of women, husbands, and children; creation of mother-children matrices for various characteristics of women (or their husbands); and the fertility estimation procedures.

The first stage of the method involves matching of children to mothers within the same household. Children are computer-matched to mothers on the basis of responses to questions on age, sex, marital status, relation-