DETERMINANTS OF CUMULATIVE FERTILITY IN GHANA

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Abstract—The relatively few studies conducted on fertility differentials in Ghana have not controlled for the effect of important demographic variables, such as age at first marriage and current age of respondent. This paper attempts a multivariate analysis of the relationship between cumulative fertility and age at first marriage, level of education, religion, form of marriage and residence of husband. Data drawn from a census sample survey in 1971 include 72,816 currently married females aged 15–49 years. Age at first marriage was inversely related to cumulative fertility. The differentials were more pronounced for older women. Among the older women, the differentials were larger for rural than urban women. There were also significant fertility differentials associated with level of education, religion and form of marriage. Husband’s residence was a poor predictor of cumulative fertility. As a policy measure, it is suggested that priority be given to providing young women with more education or employment opportunities as an alternative to early marriage.

Ghana, like most tropical African countries, is still characterized by high fertility. In 1969 the Government of Ghana published a population policy paper with the specific objective of reducing fertility (Republic of Ghana, 1969). However, despite the formal adoption of a population policy and national family planning program, the impact on high fertility levels to date has been minimal. Previous fertility studies in Ghana have established fertility differentials according to level of education, religion, urban-rural residence, and ethnic group, although some of these studies have not controlled for the confounding effect of such important demographic variables as age at first marriage and current age of respondent. This paper reports on a multivariate analysis of the relationship between cumulative fertility and socioeconomic factors such as age at first marriage and residence of husband.

MATERIALS AND METHOD

The data reported here are derived from a 5 percent sample survey of the total population of Ghana conducted in August/September 1971. The survey collected additional information which, for reasons of cost, could not be asked in the 1970 Population Census of Ghana. A total of 122,976 females aged 15 years and over were interviewed. The present analysis is based on 72,816 currently married females between the ages of 15 and 49 years. Multiple classification analysis (MCA) (Andrews et al., 1973) is used to study differentials among subpopulation groups.

A thorough evaluation of the quality of the data is not attempted here; however, some brief comments are in order. Most female respondents did not know their age according to western reckoning. The determination of age was therefore done by references to local and national historical events or by biological relationships; this leads to an inherent bias in the data on age. A visual inspection of the single years of age data for all females aged 15–49 years shows heaping on ages ending in 0, 1, 6, and 8. For instance, whereas 12,990 females were recorded
as aged 30 years, only 3,126 females were recorded as aged 31 years. The subjects are divided for analysis into two broad age groups, under 34 and 34-49 years, which allows for probable cohort effect in the relationship studied and minimizes the effect of age heaping.

The 1971 Supplementary Enquiry collected information on current fertility (births occurring in the 12 months preceding the survey). An application of the Brass P/F Ratio Method gave an adjusted total fertility rate of 6.9 for all women, and this figure compares favorably with the reported completed family size of 6.8 for currently married women aged 45-49 years. This latter figure is also in close agreement with a completed fertility of 6.9 for currently married women as evidenced from Ghana Fertility Survey data. This comparison indicates that the quality of the fertility data from the 1971 Supplementary Enquiry is good.

The measure of fertility (the dependent variable) used is the number of children ever born to currently married females. Retrospective data are subject to distortions (see Brass, 1975, p. 56). To circumvent omission errors due to memory lapses, respondents were asked to give the total number of children ever born to them who live (a) in the house, (b) elsewhere in the town or village of enumeration, (c) another town or village in Ghana, and (d) outside Ghana. The fifth entry elicited information on children who were dead at the time of the survey.

The analysis is performed separately for urban and rural women in the two broad age groups. The 1960 Post Enumeration Survey of Ghana revealed that the mean number of children ever born to the older group was 5.5, compared to 2.3 for the young group (Census Office, 1971: Table D.1, p. 275). The findings based on the older group (34-49) reflect largely completed fertility, while the young group (under 34 years) has yet to complete its potential reproductivity.

RESULTS

Urban Women Under 34 Years of Age

Table 1 shows the relationship between the number of children ever born to currently married urban women under 34 years of age and the five selected variables. Age at first marriage is inversely related to cumulative fertility; women who married before 15 years of age have 1.5 more children than women who married after 30 years of age. Education tends to delay marriage either directly or by changing the alternatives available to women. Controlling for level of education and the other variables does not reduce the effect of age at first marriage on cumulative fertility.

The effect of level of education on cumulative fertility also is shown in Table 1. In general, increasing level of education is associated with a steady fall in fertility. Illiterate women have 1.3 more children than their counterparts with post-middle education. Women with few years of education (primary education) have virtually the same fertility as illiterate women. The fertility differentials among the different educational levels are slightly affected when the other variables are controlled. The squared correlation eta for the five selected predictors indicates that for these young urban women the level of education is associated more with cumulative fertility than are other predictors in the model.

Religion is associated with fertility differentials. Controlling for age at first marriage, level of education, residence of husband, and form of marriage increases the differential, and this seems to suggest that these factors are, in part, accountable for the differentials among the various religious groups. Moslem women have the lowest fertility, while Christian women have the highest fertility. Fertility of Traditional worshippers is similar to that of Christian women,