

Fertility and Education: A Case Study of the Teachers of Tribhuvan University, Kirtipur, Nepal

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INTRODUCTION

Recent literature shows great interest in the quantitative study of the determinants of fertility. A number of studies have reported a stronger relationship between fertility and education. An UN study (1976) carried out in the United States of America and in the socialist countries (Hungary, Poland, Yugoslavia etc.) concluded that there exists a strong negative co-relation between the educational attainment of the spouses and the achieved fertility. The study made by K.C. Zachariah and Sulekha Patel (1984) in India supports this negative relationship between fertility and the years of schooling. In Bangladesh, husband's education is found inversely related to fertility in a survey by Mohammad Alauddin and Rashid Farugee. This study seeks similar type of causal relationship between fertility and education of the highly educated couples of Nepal.

METHODOLOGY

The tool used in data collection was questionnaire based on the model developed in Hawaii - a conceptual model (see Fred Arnold and et. al., the value of children, Vol. 1, 1975) for the study of the value of children. Eighty-five married male teachers of Tribhuvan University, Kirtipur, were the total respondents of the study. They were selected on the basis of random stratified proportionate sampling. All of them hold MA and some of them have Ph.D. Degree.

CHARACTERISTICS OF THE RESPONDENTS

The mean age of the respondents is found 39.7 years. The mean age of the respondent's wife is found 34.4 years, which is about 4 years higher than the age indicated by both the Nepal Contraceptive Prevalence Survey 1981 and the Nepal Fertility Survey 1976. It may be due to late marriage of the respondents and the inclusion of women who have already undergone through the process of menopause. The mean age at marriage of the respondents and their wives is calculated 26 and 20 years respectively.

A large majority of the respondents were Hindus (82.3 percent) followed by Buddhists (16.4 percent) and Muslims (1.18 percent). Among the wives of the respondents, one-third were engaged in gainful economic activities outside the home at the time of survey. The average income of each couple from the employment outside the home was estimated at rupees 2894.35 a month.

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FERTILITY

Historically, the relationship between educational level and the fertility is inverse -- the higher the education, the lower the fertility. Since all the respondents possess MA or even Ph.D. degree, this is not shown in the table. Fertility analysis is done age-specifically on the basis of mean number of children everborn/surviving and a national comparison is presented afterwards.

MEAN NUMBER OF CHILDREN EVERBORN/SURVIVING

The measure of fertility used, here, is women's average number of children everborn/surviving at the time of survey. This information was obtained from each respondent by asking questions "how many children were born to you including those who were born but died later" and "how many children are alive at present."

Table 1 shows the mean number of children everborn/surviving by the age of women (mothers). It shows a positive relationship between the age of women and the mean number of children everborn. The completed mean number of children everborn and surviving is 2.64 and 2.45 respectively. The total number of children dead were only 17.

Table 1
Mean Number of Children Everborn/Surviving by the Age of Women, Tribhuvan University, Kirtipur, 1985

Age	Number of Women	Number of Children Everborn	Mean	Number of Children Surviving	Mean	Number of Children Dead
20-24	6	6	1	6	1	0
25-29	21	28	1.33	28	1.33	0
30-34	21	55	2.62	48	2.28	7
35-39	15	46	3.07	45	3.00	1
40-44	8	31	3.87	29	3.62	2
45-54	14	59	4.21	52	3.71	7
Total	85	225		208		17
Mean		2.64		2.45		

Source: Field Survey.

Table 2 compares the mean number of children everborn by age for the present study called Fertility Survey 1985 (FS), hereafter, Nepal Contraceptive Prevalence Survey 1981 (NCPS), and Nepal Fertility Survey 1976 (NFS).

Table 2
Mean Number of Children Everborn by Age of Currently Married Women: FS
1985, NCPS 1981 and NFS 1976

Age	FS 1985	NCPS 1981	NFS 1976
15 - 19	-	0.4	0.3
20 - 24	1	1.5	1.4
25 - 29	1.33	2.8	2.9
30 - 34	2.62	4.0	4.2
35 - 39	3.07	4.7	5.2
40 - 44	3.87	5.5	5.7
45 - 49	4.57	5.9	6.1
50 - 54	3.86	-	-
Mean for all	2.64	3.2	3.3

Source: NCPS 1981.

The difference of mean number of children everborn between NCPS 1981 and NFS 1976 is very slight. Each ten couple is seen to have controlled only one child over a period of five years. But the difference between NCPS 1981 and FS 1985 is worth explaining irrespective of time lag. In FS 1985 each three couple is found to have eight children as compared to sixteen children of each five couple in NCPS 1981.

The observed difference on the level of mean number of children everborn may be related to many reasons. First, the number of sample under study is very small. It might effect on such a lower level of fertility. Another important reason is the higher level of education attained by the present respondents. It is apparent that the respondents' level of education is many-time higher than that of those studied in the above samples.

The difference of fertility that we found between the educated couples and the other couples of previous national survey is noteworthy. However, a more significant difference can exist among the present respondents themselves when classifications are made on the basis of women's (respondents' wife) age at marriage and their employment/unemployment. Therefore, the later part of this study is directed in this line in order to seek such type of fertility differences.

Marriage

It is noted that women who marry late tend to have fewer children than those who marry early. When viewed on a world wide basis, we can say that early marriage is associated with high fertility.

Mean Number of Children Everborn by Age at Marriage

Table 3 presents the mean number of children everborn by the age at marriage of women. The age at marriage has been classified into three groups namely less than 19, between 19 and 21, and above 21. According to the table, as the age at marriage has gone up, the mean number of children everborn has significantly come down. Those women who were married after 20 years were just replacing themselves and their husbands. However, the next group of women who was married before 19 years had nearly twice as much as the mean number of children everborn to the women married after 21 years.

Table 3
Mean Number of Children Everborn by Age at Marriage For
Women, Tribhuvan University, Kirtipur 1985

Age	N (Total)	Number of Children Everborn	Mean
Less than 19	26	100	3.85
19-21	20	47	2.35
Above	21	78	2.00
Total	85	225	
F			14.98*

*Significant at 0.01 level of significance.

Source: Field Survey.

The inter-mean variation in the mean number of children everborn is found statistically significant at 0.1 significance level. It suggests that even among the educated couples early marriage is associated with high fertility.

Employment/Unemployment

It is a valid belief that female employment helps in slowing down the rate of population growth. Participation of the female labour force is, therefore, given special emphasis. The claim that women's employment is negatively related to fertility has been shown by a number of empirical studies.

Mean Number of Children Everborn by Working Status

Table 4 compares the mean number of children everborn to working (outside the home in gainful activities) and non-working (engaged in household affairs) women by their age. In reality, a little difference in fertility between the working and non-working women has been noted. Although there is slightly greater tendency for the working women (the difference of children everborn is observed by 0.8 children per woman

between working and non-working women - when t-test was applied this difference did not appear significant at 0.05 level of significance) to form attitudes towards small family, the observed differences are little and not significant statistically.

Table 4
Mean Number of Children Everborn to Working and Non-Working Women by Age
Tribhuvan University, Kirtipur 1985

Age	Number of Women		Number of Children Ever-born to		Mean	
	<u>Working/Non-Working</u>		<u>Working/Non-Working</u>		<u>Working/Non-Working</u>	
15-24	-	6	-	6	-	1.00
25-34	19	23	34	49	1.79	2.13
35-44	6	17	14	63	2.33	3.71
45-54	4	10	13	46	3.25	4.60
Total	29	56	61	164	2.1 ¹	2.93 ¹
t					- 0.352*	

*Not significant at 0.05 level of significance.

1. Mean for all age.

Source: Field Survey.

The relationship between the work and the fertility has been found difficult to establish for the present study. Heer noted that the chief impact of participation of women in the work "is to raise the mean age at marriage and to increase the proportion of females who never marry." The study seems to support this statement.

One could reason that the relation between the two variables might not have been established due to the exclusion of women who were not married. Again, the study does not make sure that all the women who were studied, were working before they got married. It might be the case that the women can go to work even after completing the birth of their children. When one starts her work it is very important to predict the relation between the work and fertility.

CONCLUSION

Education, as indicated by many studies, plays a greater role to determine the level of fertility resulting in late marriage and employment. However, in a traditional society like ours, it cannot be considered as the only determinant factor, for we have already noted that there exists a significant difference in fertility level among the educated couples.

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