THE IMPACT OF COUPLE'S DISCUSSION OF DESIRED FAMILY SIZE ON PREDICTING FERTILITY

Nagambal Shah, Spelman College
Box 63 Atlanta, Georgia 30314

Abstract

The magnitude and differentials in unwanted fertility (fertility that exceeds a couple's or individual's desired) deserve the attention of demographers, policy makers and social scientists. Excess fertility is defined by the number of live births minus the number of children desired by the couple. It is shown that excess fertility is one and a half times more among those couples who did not discuss their desired family size prior to marriage than those who did. The result is consistent when controlled for respondent's race, education, duration of marriage, region of residence, religious affiliation, childhood residence and employment status. The results are based on the 1973 National Survey of Family Growth data from the National Center for Health Statistics.

Introduction

Predicting the size and composition of future population is useful for many reasons, including economic forecasting, evaluations of quality of life, projections of school-enrollment and assessments of our ability to prosper given finite resources (Placek and Hendershot, 1981). Population forecasting is mainly based on fertility predictions.

Three components of fertility, namely, Social Structure variables, family planning variables and fertility pattern variables, were suggested by Kiser et. al. (1968). Findings conclude that on the average, black women have more children than white, higher the educational attainment for women, the lower the number of children born and the lower the income level, the higher the number of children (Hendershot and Placek, 1981). Women born and raised in the South tend to have more children than those in the rest of the nation (U.S. Bureau of Census, 1977).

This paper deals with one aspect of family planning variable, namely couple's desired family size and one aspect of fertility pattern variable, number of live births and their impact on predicting fertility when couples discuss desired family size prior to marriage.

The variable used in this research for fertility predictions is excess fertility, the difference between completed fertility and desired fertility.

Research Hypothesis

Most prevalent in the literature concerning fertility predictions is the controversy over the use of birth expectations data to make fertility predictions. In many fertility surveys, women are asked the number of births expected in the belief that their responses are realistic estimates of their future fertility. Ryder's (81) study conclude that Orientations toward family size declined between 1970 and 1975, whether measured by ideal, desired or intended family size. The magnitude and differentials in unwanted fertility (i.e. fertility that exceeds a couple's desire) deserve the attention of demographers, policy makers, and social scientists. Thus the present study examines the departure from couple's desired family size by studying the excess fertility - the difference between actual fertility and desired fertility. It is hypothesized that: Excess fertility is lower when couples discuss the desired family size prior to marriage.

Methodology

Data for this research come from the 1973 National Survey of Family Growth (NSFG), cycle I, from the National Center for Health Statistics. The NSFG is a national probability sample of 9,797 women 15-44 years of age, who were married, previously married or single with children of their own in the household.

Desired family size or desired fertility denotes the number of children couples would like to have. The measure used for total or completed fertility is the total number of live births. Excess fertility is then defined as:

Excess fertility = No of live births - Desired fertility. The impact of discussion among couples about desired family size prior to marriage on excess fertility is examined. It is hypothesized that excess fertility is higher among couples who did not discuss family size before marriage than for those who did discuss. Further the effect of couple's agreeing on desired fertility on excess fertility is also investigated.

The study includes (1) the distribution of excess fertility in U.S. (2) some correlates of excess fertility (3) the effect of couples' discussion of family size on excess fertility and (4) the effect of some confounders such as couples agreement on desired family size, race, education, religious affiliation, duration of marriage, region of residence, childhood residence and employment status.

Results

Some demographic characteristics of the NSFG respondents are shown in Table 1.

Table 1 shows that couples who did not discuss family size are more likely to be black and have lower education level, but there are no differences with regards to religious affiliation. They are more likely to have been brought up in a rural area; have a short duration of marriage; are similar in terms of employment status and regional distribution. The data show that 58% of the couples had discussed their family size. Of those 80% had agreed on the desired family size. 27% of the respondents had excess fertility. 86% of the respondents had 4 or less live births. The distributions of desired fertility, completed fertility and excess fertility are given in Tables 2, 3 and 4 respectively.

Looking at the main hypothesis (Table 5) excess fertility is one and a half times higher among those couples who did not discuss their desired family size prior to marriage than those who discussed. This result yields a significant chi-square (p < .005). This implies that excess fertility is much lower among couples discussing their desired family size. However, the couples agreeing on their desired family size had no significant effect on excess fertility (p > .1)

See Table 6.

Confounders (All confounding variables are on the respondent)

As discussed in the main hypothesis, discussion of desired family size prior to marriage among couples has significant effect on excess fertility.

When controlled for race, it is again shown in Table 7 that excess fertility is one and a half times more among couples who did not discuss family size than those who discussed, for both Black and White ($P < .005$).

Consistent results are found when controlled for education ($P < .005$ for below high school and high school graduates, $P < .05$ for those with minimum college education) - see Table 8.

Relationship is stronger among Catholics (excess fertility for couples who did not discuss is 1.8 times more than those who discussed, $P < .005$) than Protestants; relationship stronger among respondents brought-up in the urban area than rural (both $P < .005$); relationship is stronger for those respondents that reside in the north central and northeast regions (both $P < .005$) than the residents in South ($P < .005$) and west regions ($P < .025$) - see Tables 9-11.

The other control variables used are duration of current marriage and respondent's employment status. Couples married for at least four years and respondents that were employed full-time or were housewives show a consistent relationship between couples' discussion of family size and excess fertility - Tables 12 and 13.

Conclusion

Couple's discussion of desired family size has significant effect on controlling excess fertility. Further, discussion of family size by couples can be looked upon as a method of family planning. It promotes positive communication and good health and thus results in a positive environment for family growth.

Table 1

Some Demographic Information on the
NSFG Cycle I Respondents

	Discussed Family Size prior to Marriage	Did not discuss Family size prior to Marriage (n%)
Race		
Black	1154 (26)	1027 (34)
White	3219 (73)	1990 (60)
Other	35 (1)	33 (1)
Education		
< High school	200 (4)	323 (11)
HS graduate	2890 (66)	2178 (71)
At least college	1318 (30)	549 (18)
Religious Affiliation		
Protestant	3014 (68)	2190 (72)
Catholic	1109 (25)	677 (22)
Other	285 (7)	183 (6)
Duration (yrs) of Current Marriage		
≤ 3	1091 (26)	437 (15)
4-8	1201 (29)	712 (24)
9-13	769 (19)	603 (21)
14-18	573 (14)	569 (19)
19	494 (12)	615 (21)
Region of Residence		
North East	672 (20)	582 (19)
North Central	1101 (25)	750 (25)
South	1680 (38)	1286 (42)
West	755 (17)	432 (14)
Childhood Residence at age 6-16		
Urban	3354 (76)	2113 (69)
Rural	1054 (24)	937 (31)
Employment Status		
Employed (FT)	1363 (31)	991 (32)
Housewife	2364 (54)	1649 (54)
Other	681 (15)	410 (14)
TOTAL	4408 (58)	3050 (40)

Table 2

Distribution of Desired Fertility of Respondents

No. Births Desired	Freq.	Percent
0	709	7.2
1	511	5.3
2	4098	41.8
3	2002	20.4
4	1660	16.9
5 or more	817	8.4
TOTAL	9797	100%

Table 3

Distribution of Completed Fertility (Live Births)

No. Live Births	Freq.	Percent
1	2140	25.5
2	2434	29.0
3	1671	19.9
4	921	11.0
5 or more	1224	14.6
TOTAL	8390	100%

Table 4

Distribution of Excess Fertility

Exfert	Freq.	Percent
* < 0	3276	39.0
0	2903	34.6
1	731	8.7
2	638	7.6
3	354	4.2
4	231	2.8
5 or more	257	3.1
TOTAL	8390	100%

*Desired no. of children > no. of live births.

Table 5
Excess Fertility by Discussion of Family Size
Excess Fertility n(%)

		Yes	No	Total
Discussed family size n(%)	Yes	645(18)	2858(82)	3503
	No	752(28)	1942(72)	2694

$$x^2 = 82.999 , P < .005$$

Table 6
Excess Fertility When Couples Agree on Family Size
Excess Fertility n(%)

		Yes	No	Total
Agree on family size n(%)	Yes	514(18)	2285(82)	2799
	No	106(19(	463(81)	569

$$x^2 = .03, P > .1$$

Table 7
Percent - Excess Fertility Controlled %(n) for Race

Race		Black	White	Other
Discussed family size %(n)	Yes	27.55(267)	14.95(375)	11.54(3)
	No	39.72(369)	21.81(380)	13.04(3)

$$x^2 = 32.05 \quad x^2 = 34.6$$
$$P < .005 \quad P < .005$$

Table 8
Percent Excess Fertility Controlled for Education %(n)

		High School	High School Graduate	CH Least College
Discussed family size %(n)	Yes	28.16(49)	19.29(462)	14.35(134)
	No	42.81(128)	27.66(541)	18.91(83)

$$x^2 = 10.846 \quad x^2 = 45.27 \quad x^2 = 6.28$$
$$P < .005 \quad P < .005 \quad P < .05$$

Table 9
Percent Excess Fertility Controlled for Religion %(n)

		Protestant	Catholic	Other
Discuss Family Size %(n)	Yes	19.58(471)	15.21(136)	18.72(38)
	No	28.36(555)	27.06(161)	25.35(36)

$$x^2 = 49.92 \quad x^2 = 31.88$$
$$P < .005 \quad P < .005$$

Table 10
Percent Excess Fertility Controlled for Childhood Residence at Age 6-16 %(n)

		Urban	Rural
Discuss Family Size %(n)	Yes	17.4 (456)	21.43 (189)
	No	26.89 (492)	30.09 (260)

$$x^2 = 61.61 \quad x^2 = 17.65$$
$$P < .005 \quad P < .005$$

Table 11**
Percent Excess Fertility Controlled for Region %(n)

	Discussed Family Size %(n)		
	Yes	No	
Northeast	18.44(128)	29.22(149)	$x^2 = 21.34$ $P < .005$
North Central	17.49(153)	27.80(195)	$x^2 = 28.134$ $P < .005$
South	19.62(259)	28.26(319)	$x^2 = 27.8$ $P < .005$
West	17.10(105)	25.34(89)	$x^2 = 7.37$ $P < .025$

Table 12**
Percent Excess Fertility Controlled for Duration of Marriage %(n)

	Discussed Family Size %(n)		
	Yes	No	
3	13.04(84)	16.39(50)	$x^2 = 3.09$
4-8	12.57(129)	18.77(116)	$x^2 = 14.93$ $P < .005$
9-13	20.79(148)	27.34(155)	$x^2 = 9.34$ $P < .01$
14	26.65(275)	36.42(417)	$x^2 = 27.16$ $P < .005$

Table 13
Percent Excess Fertility Controlled for Employment Status %(n)

		Full-time	Housewife
Discuss Family Size %(n)	Yes	20.86(190)	17.43(358)
	No	28.27(227)	27.91(429)

$$x^2 = 13.71 \quad x^2 = 57.86$$
$$P < .005 \quad P < .005$$

References

1. G.E. Hendershot and Paul J. Placek, Predicting Fertility, 1981, D.C. Heath & Co.

2. Current population reports - population characteristics, U.S. Bureau of Census, 1977.

3. Norman B. Ryder, Changes in parity orientation from 1970 to 1975, Predicting Fertility G.E. Hendershot and P.E. Placek, 1981. D.C. Heath Company, P101-127.

4. C.F. Westoff, R.G. Potter et.al., Family Growth in Metropolitan America, 1961, Princeton University Press.

5. National Survey of Family Growth, Cycle I: Sample Design, Estimation procedure, and variance estimation, DHEW publication no. (PHS) 78-1350, NCHS, January 1978.

**Readers' Note: The independent and dependent variable positions in Tables 11 and 12 have been interchanged.