Fertility intentions: Are the undecided more like those who want more or want no more children?

Stan Becker and Santosh Sutradhar
Department of Population and Family Health Sciences
Johns Hopkins University
Baltimore, Md. USA

Internationally, fertility intentions are estimated from data from individuals in Demographic and Health Surveys (DHS) who are asked "Would you like to have (a/another) child or would you prefer not to have any (more) children?" But a non-negligible percentage of persons in some countries respond that they are undecided (or "don't know", or say "it is up to God"). In a study of women in Morocco who said they were uncertain about whether they wanted another birth, after two years 47% had had another birth, intermediate between those who said that they wanted more (62%) and those who said they wanted no more (29%) (Bankole and Westoff, 1998). The objective of this research with cross-sectional data is to determine if women (and men) who give this response have characteristics more like those who want no more children or like those who want more children.

We utilize DHS data from 23 countries with husbands and wives in matched couples. Sample sizes of couples vary from 331 in Comores to 3037 in Bangladesh. The percentage who were undecided ranges from 1% (in Dominican Republic) to 14% (in Central African Republic) for wives and from 1% (in Uganda) to 19% (in Pakistan) for husbands.

Four methods were used to determine whether the undecided were more similar to those wanting more births or to those wanting no more births. In the first method logistic regression model was developed for the sample with known desires in each country. Covariates in the regression were: age, education, number of children ever born, presence of electricity in the household and ownership of a radio or bicycle. After fitting the model, the probability of group membership was estimated for each person. Then a cutoff between 0 and 1 for classification was determined so that the total number of persons correctly classified in the survey was maximized. The logistic equations were then applied to the undecided cases and each was classified using the cutoff rule just described. This procedure gives an estimate of the percent of undecided cases who are predicted to want more children and an estimate of the percentage who do not want more children.

In the second method the whole group of "undecideds" is considered together and their closeness in terms of the covariates to each of the other two groups is determined. We utilized the same covariate set as for method one and a likelihood approach. We calculate the mean and covariance matrices for the covariates for the want more and the want no more groups and then, assuming a multivariate normal distribution, we constructed the ratio of the likelihood for the two known groups given the observed data from the undecided group. We determine a priori that a likelihood ratio of above 32 (or below 1/32) represents strong evidence to decide in favor of one or the other hypothesis (Royall, 1999).

In the third method, we calculated the difference between actual and ideal family size for each person and compared these for the three groups. Three categories were made: ideal family size was non-numeric (e.g. "Up to God" response); it was numeric and less than or equal to current number of surviving children, and it was greater than the number of surviving children. We compare the proportion who have ideal family size less than of equal to actual number of children among those who say they want no more births, want more births, or are undecided. We utilize likelihood methods and consider where the proportions for those wanting more or wanting no more fall with respect to the likelihood interval for the undecided group. Either one, both or neither proportion may fall in the likelihood interval (Royall, 1999).

In the 4th method, we examined the proportion of wives and husbands who were using contraception or intend to use contraception within 12 months for the three fertility desires groups. Again we utilized likelihood methods to examine whether the estimates for those who want no more or want more are included in the likelihood interval for the estimator for the undecided group.

RESULTS

All four methods gave results in the same direction for both wives and husbands, with one exception (Table 1). That is, for seven of the eight comparisons, the number of countries in which those who were undecided are more like those who want more births is higher than the number of countries where they are more like those who want no more. The exception is for the proportion of undecided husbands who have ideal family size less than actual number of children-this proportion is closer to that of husbands who say they want no more children in nine countries.

2

CONCLUSIONS
Obviously those who say they are undecided about having future
births either will or will not proceed to have a birth. In some
sense then this group is a mixture of those who say they want and
those who say they do not want more births. From analyses of
data for these three groups in 23 DHS surveys, we tentatively
conclude that husbands and wives who respond that they are
undecided are more similar to those who do want more children.
The placement of these "undecideds" in the group having unmet
need contraception for spacing in the definition of unmet need
(Westoff and Bankole, 1995), is not contradicted by these
results.

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Table 1: Number of DHS countries (of 23) according to whether those respondents undecided about having further births are statistically: more like those wanting more births, more like those wanting no more births, similar to either group, or different from both groups, by sex and statistical method.

Group to classify "undecideds" into	Statistical method			
	Logistic	Multivariate Normal	Binomial likelihood with variable:	
			IFS-CS[3]	Contraceptive use or intent[4]
Wives				
Want no more	7	1	3	3
Want more	16	9	7	9
Either of the two groups[1]	–	13	1	8
Neither of the two groups[2]	–	–	12	3
Husbands				
Want no more	4	1	9	1
Want more	19	12	6	9
Either of the two groups[1]	–	10	4	10
Neither of the two groups[2]	–	–	4	1

– The method does not allow this category.

[1] For the multivariate normal likelihood, either means that the likelihood ratio is between 1/32 and 32. For the binomial likelihood, the proportions for the no more and more groups are both within the 1/32 likelihood interval for the proportion in the undecided group.

[2] Neither means that the proportions for the no more and more groups are both outside the 1/32 likelihood interval for the proportion in the undecided group.

[3] Proportion of persons reporting ideal family size greater than the actual family size.

[4] Two countries (Cameroun and Cote d'Ivoire) did not have questions to men to determine the intention to use contraception in the next 12 months.