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SPOUSAL AGREEMENT ON REPRODUCTIVE PREFERENCES IN SUB-SAHARAN AFRICA

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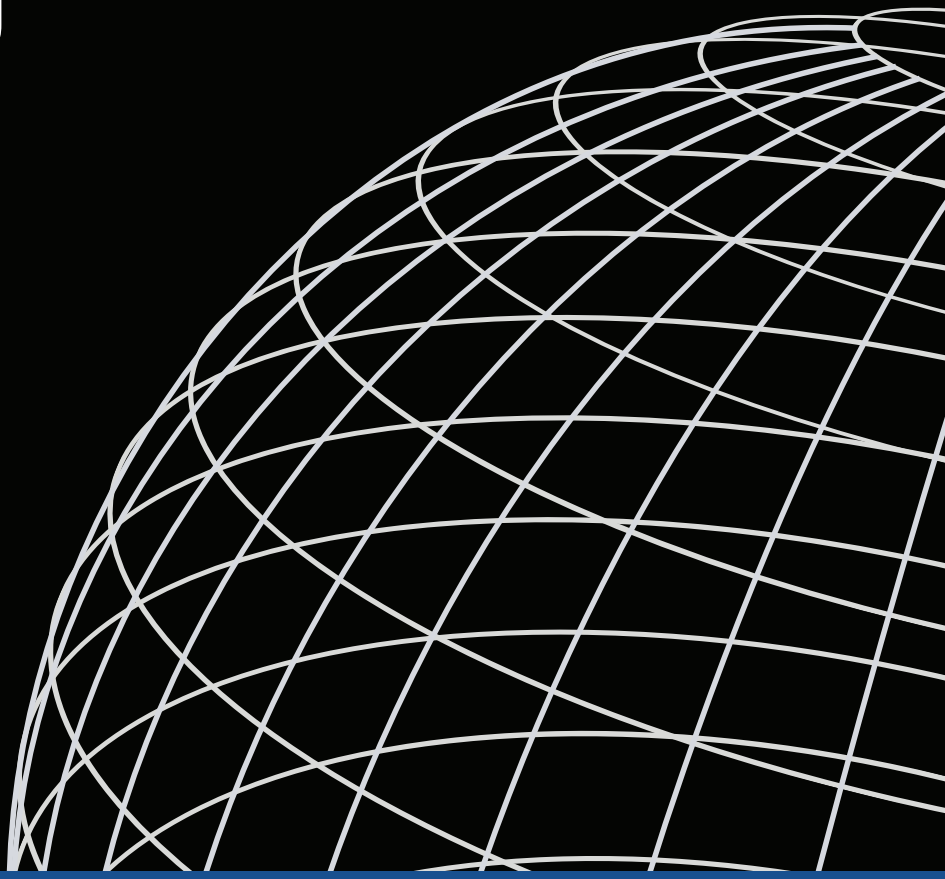

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2) to expand the international population and health database,
3) to advance survey methodology, and
4) to develop in participating countries the skills and resources necessary to conduct high-quality demographic and health surveys.

DHS Analytical Studies No. 10

Spousal Agreement on Reproductive Preferences in Sub-Saharan Africa

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Preface

One of the most significant contributions of the MEASURE DHS program is the creation of an internationally comparable body of data on the demographic and health characteristics of populations in developing countries.

The *DHS Comparative Reports* series examines these data across countries in a comparative framework. The *DHS Analytical Studies* series focuses on analysis of specific topics. The principal objectives of both series are to provide information for policy formulation at the international level and to examine individual country results in an international context.

While *Comparative Reports* are primarily descriptive, *Analytical Studies* comprise in-depth, focused studies on a variety of substantive topics. The studies are based on a variable number of data sets, depending on the topic being examined. A range of methodologies is used in these studies including multivariate statistical techniques.

The topics covered are selected by MEASURE DHS staff in conjunction with the U.S. Agency for International Development.

It is anticipated that the *DHS Analytical Studies* will enhance the understanding of analysts and policymakers regarding significant issues in the fields of international population and health.

Ann Way
Project Director

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Abstract

This study investigates spousal agreement on reproductive preferences (fertility preferences and ideal number of children) in sub-Saharan Africa. The analysis uses matched couples' data from 14 Demographic and Health Surveys (DHS) carried out between 1999 and 2004. Additionally, pooled data from the 14 countries are used to explore the aggregate effect of different levels of polygyny (high and low) on spousal agreement on reproductive preferences.

Agreement between partners/spouses to have another child ranges from 36 percent in Namibia to 90 percent in Chad. The multivariate analysis indicates that in many countries agreement on having another child is less likely if the woman has some formal education. Additionally, in most countries, the results show that wife's age and the number of living children are consistent predictors of spousal agreement on having another child. Economic status has an important role in 7 of the 14 countries; couples living in wealthier households are less likely to agree to have another child than those in poorer households.

Agreement between partners/spouses on the ideal number of children ranges from 13 percent in Chad to 32 percent in Kenya. Overall, a larger proportion of husbands than wives consider a higher number of children to be the ideal. However, the multivariate analysis indicates that, in most countries, the odds of spousal agreement on the ideal number of children are increased if the wife has formal education.

The study also looks at the aggregate effect of high and low levels of polygyny on spousal agreement on fertility preferences and ideal number of children. The findings from the multivariate analysis indicates that, regardless of level of polygyny, the most important factors influencing the likelihood that both partners want another child are wife's education, wife's age, number of living children, and household wealth status. However, in countries with high levels of polygyny, type of marriage, difference in spouses' education, and infecundity can have a significant negative impact on agreement to have another child.

In all 14 countries, wife's education has a positive impact on spousal agreement on the ideal number of children, regardless of level of polygyny. However, if the husband's level of education exceeds that of his wife, the wife is working for cash, or the household is not poor, the likelihood of spousal agreement on ideal number of children is greater only in the high polygyny group.

1

Introduction

Understanding the determinants of fertility behavior is one of the main objectives of demographic research. Collecting and analyzing data on reproductive preferences has been an important part of the Demographic and Health Surveys (DHS) program since it began in 1984. DHS surveys include questions designed to quantify and measure fertility norms (ideal number of children), reproductive intentions (fertility preferences and future childbearing intentions), and the desire for children (wanted and unwanted births).

Many studies in the demographic literature point to the fertility desires of couples as important predictors of fertility levels (Bankole, 1995; DaVanzo et al., 2003; Pritchet, 1994; Thomson, 1997; Westoff and Ryder, 1977). Dasgupta (1993) argues "it is parental demand for children rather than an unmet need for contraceptives that in large measure explains reproductive behavior in developing countries." More recently, Bloom and Canning (2004) concluded that the high fertility rates in sub-Saharan Africa are a result of people wanting a large number of children, rather than high levels of unmet need. On the other hand, some studies have debated whether fertility intentions can actually translate into fertility behavior (Lesthaege and Surkyn, 1988; Miller and Pasta, 1995).

The objective of this study is to examine the determinants of spousal agreement on reproductive preferences. The first part focuses on the characteristics of spouses (demographic, social, and economic) that influence fertility intentions and ideal number of children. The analysis uses data on matched couples from 14 recent DHS surveys in sub-Saharan Africa. In contrast to previous studies, data on infecundity[1] are included in the analysis, and the effects of spousal differences in education and age are examined. Several studies of the determinants of women's reproductive health have used spousal differences in education and age as proxy measures of relative power (Barbieri and Hertrich, 2005; Beegle et al., 2001; Wolff et al., 2000); however, such an analysis is beyond the scope of this report.

Polygyny remains an important social and cultural institution in many parts of sub-Saharan Africa. The second part of this report looks at whether, as marital institution, polygyny has an impact on the reproductive preferences of husbands and wives. To do this, the 14 countries in the study were divided into two groups by prevalence of polygyny. The high polygyny group included countries with a prevalence of 20 percent or more, and the low polygyny group included countries with a prevalence of less than 20 percent. The data in each group were pooled for analysis. The results presented in this report suggest that the effect of polygyny on reproductive preferences cannot be understood solely by comparing the characteristics of monogamous and polygynous couples at the individual level. Rather, the relationship is best understood by comparing characteristics within the two groups.

[1] Infecundity refers to the inability to conceive despite being exposed to the risk of pregnancy. The World Health Organization (WHO, 1975; WHO, 2001) recommends that infecundity can be established after two years of exposure to the risk of pregnancy without conceiving.

2

Background

Couple studies based on data from sub-Saharan countries have identified a strong association between spousal agreement on reproductive goals and the relative influence of each partner's attitudes/preferences on reproductive behavior (Dodoo, 1998a; Ezeh, 1996; Kritz, 1999; Miller et al., 2001). There is also a substantial body of literature indicating that men usually want more children than do women (Bankole and Singh, 1998; Short and Kiros, 2002).

Decisionmaking regarding fertility and family planning usually involves a complex process of negotiation by couples. Decisions may be influenced by the attitudes and intentions of one or both spouses. A number of studies on the reproductive health attitudes and behaviors of husbands and wives have noted the value of couples' data for predicting reproductive outcomes of interest (Becker, 1996; Dodoo, 1993; Greene and Biddlecom, 2000).

Bankole and Singh (1998) examined husband-wife fertility preferences using couples' data from 17 DHS surveys. The results suggested that there were substantial differences in husbands' and wives' fertility preferences. Using longitudinal data from the Malaysian Family Life Surveys, DaVanzo et al. (2003) reported that women who wanted more children in the first survey (and whose husbands agreed) were much more likely to have a birth compared with those who did not want more children. If there was disagreement between spouses, husbands tended to have an advantage in the decision regarding the next child. Spousal disagreement on having another child may be related as much to lack of communication between spouses as to articulated opposition of one spouse to the other's reproductive preferences (Greene and Biddlecom, 2000; Odhiambo, 1997).

Spousal agreement on ideal number of children varies substantially in sub-Saharan Africa. In Western Africa, men want more children than do women, but in Eastern Africa, men and women express similar desires (Ezeh et al., 1996). In most developing countries, including sub-Saharan Africa, spousal agreement on ideal number of children tends to be low (Becker, 1996). DeRose and Ezeh (2005) report that the husband's level of education has a stronger influence on the wife's fertility intentions than does the wife's own education. A study in Uganda that explored negotiations about reproductive outcomes within sexual unions reported that women were more likely than men to be aware of disagreement with their partner on reproductive issues (Blanc et al., 1996).

In sub-Saharan Africa, marriage not only represents the union of husband and wife, but also the union of families and kinship groups. Polygyny (having more than one spouse) plays a major role in shaping family life, and the practice remains widespread. Caldwell (1976) argues that high fertility in many societies has been sustained by cultural norms manifested through religious systems and through the social structure of lineages and clans. Pollak and Watkins (1993) have emphasized the importance of culture in shaping reproductive preferences. Fertility decisions such as use of contraception, spacing of births, and stopping childbearing, occur in a social context, and social norms restrict individual decisions on fertility and family planning. In particular, Ezeh (1997) argues that polygyny is not an individual-level variable, and comparing women in polygynous unions with women in monogamous unions, at the individual level, does not explain the overall impact of polygyny on reproductive processes. Furthermore, the observation

of patterns in the variables associated with polygyny suggests that there may be differences in reproductive preferences among men and women.

Many studies that examine the link between polygyny and reproductive outcomes (fertility rates and contraceptive prevalence) argue that it is important to understand how the type of union affects reproductive preferences (Dodoo, 1998b; Effah, 1999; Ezeh, 1997; Pebley and Mbugua, 1989). Tertilt (2005) reported substantial differences in fertility levels, age gap between spouses, and age at marriage between countries with high and low prevalence of polygyny.

Results from studies that examined the relationship between reproductive preferences and type of marriage at an individual level are mixed. Using DHS data from Ghana and Kenya, Dodoo (1998b) found no consistent support for the hypothesized negative effect of polygyny on women's ability to implement their fertility preferences. Another study in Ghana (Sichona, 1993) found that polygyny had no effect on the number of children ever born. In Kenya, Fapohunda and Poukouta (1997) reported that there were no significant differences in desired family size between women in a polygynous union and women in a monogamous union. Hogan et al. (1999) found a significant effect of polygyny in predicting the desire for additional children among urban women.

3

Data and Methods

To better understand couple dynamics, the DHS men's questionnaire asks husbands about their reproductive preferences and attitudes toward family planning. For husbands in a polygynous marriage, the questions are asked for each of their wives/partners.

This analysis uses DHS matched couples' data from 14 sub-Saharan countries: Benin, Burkina Faso, Ghana, and Mali from Western Africa; Chad from central Africa; and Ethiopia, Kenya, Malawi, Mozambique, Namibia, Rwanda, Uganda, Zambia, and Zimbabwe from eastern and southern Africa. All surveys in this analysis were conducted between 1999 and 2004.

The data for women are based on women age 15-49, while the data for men are based on men age 15-59 (with the exception of Kenya, Malawi, Uganda, and Zimbabwe, where the interviewed men are age 15-54; and Benin, where the interviewed men are age 15-64).

The men's questionnaire is similar in structure to the women's questionnaire but shorter. To the extent possible, the questions and response categories in the two questionnaires are worded identically to be comparable across countries. The section on fertility preferences includes a question on fertility intentions and ideal number of children. For fertility intentions, women and men were asked, "Would you like to have (a/another) child or would you prefer not to have any (more) children?" For ideal number of children (ideal family size), women and men were asked one of two questions, depending on whether or not they had children. Those who did not have children were asked, "If you could choose exactly the number of children to have in your lifetime, how many would that be?" Respondents who had at least one living child were asked, "If you could go back to the time you did not have children and could choose exactly the number of children to have in your lifetime, how many would that be?"

In this study, a woman is defined as infecund if she had no births and no pregnancies in the past five years but has had a birth or pregnancy at some time, and has been married for the past five years but did not use contraception during that period.

3.1 Measuring Outcome Variables

Agreement on fertility preferences indicates that spouses jointly agree to have another child or agree to want no more children. Agreement on ideal number of children indicates that spouses regard the same number of children to be their ideal number. Disagreement on fertility preferences occurs when one of the spouses wants to have another child but the other spouse wants no more children. Disagreement on the ideal number of children occurs when one of the spouses considers a certain number of children to be ideal but the other spouse considers another number to be ideal.

Fertility Preferences

A variable reflecting spousal agreement on fertility preference was created by combining each spouse's response to the question: "Would you like to have (a/another) child or would you prefer not to have any (more) children?" Response categories included the following:

- Have (a/another) child
- No more/none
- Cannot get pregnant (declared infecund, sterilized)
- Undecided/don't know and pregnant, or
- Not pregnant or unsure.

Using the first two categories above, the combined responses were grouped into the following four categories:

1) Both spouses agree to have another child;
2) Both spouses agree to have no more children;
3) The husband wants another child but the wife does not; and
4) The wife wants another child but the husband does not.

The first two categories represent joint agreement, while the last two represent spousal disagreement.

Ideal Number of Children

Both husband and wife were asked the number of children that they desire in their whole reproductive life irrespective of the number of children they currently have: "If you could choose exactly the number of children to have in your whole life, how many would that be?" A variable reflecting spousal agreement on ideal number of children was created by calculating the difference between the numeric response of the husband and the wife. The calculated difference is used to generate a three-category variable:

1) A difference of zero indicates that both spouses want the same ideal number of children;
2) A positive difference indicates the husband considers more children to be the ideal than does his wife; and
3) A negative difference indicates the wife considers more children to be the ideal than does her husband.

The first category represents joint agreement, while the last two categories represent spousal disagreement.

3.2 Modeling Outcome Variables

In modeling spousal agreement on fertility preferences, multinomial logistic regression is used to predict the determinants of agreement to have another child and agreement to have no more children, relative to disagreement. If a parameter estimate is greater/less than one, it indicates that the independent variable is associated with a probability of outcome that is greater/less than the probability of the base group. The relative risk ratios (RRR) are reported. The RRRs show the effects of the independent variables on the probability of agreement to have another child and agreement to have no more children, relative to disagreement on fertility preferences.

In modeling spousal agreement on ideal number of children, a binary logistic regression is used to examine which demographic, social, and economic factors influence spousal agreement on ideal number of children. Odds ratios (OR) are reported. The ORs indicate the effect of the odds of a one-unit increase in the independent variable on spousal agreement to consider the same number of children to be the ideal.

One of the limitations of the matched couples' data is that for partners in a polygynous union there are multiple wives matched with one husband. Researchers have raised concerns about the statistical

independence of responses from a polygynous husband (Bankole and Singh, 1998; Speizer and Yates, 1998). To investigate this, we selected one wife at random for each polygynous husband and calculated the proportion of couples in which both spouses agree/disagree on fertility preferences and ideal number of children. This enabled more precise calculation of the proportion of couples in which both spouses agree/disagree on fertility preferences and ideal number of children.

The proportion of couples in which both spouses agree/disagree is similar to the proportion calculated when couples include the multiple wives of one husband.[2] The analysis presented here uses results from the original matched couples' data, in which the number of couples in a polygynous union is the same as the number of wives.

3.3 Effects of Polygyny on Fertility Preferences

The men's questionnaire asked all men in the sample: "Do you have one wife or more than one wife?" The proportion of men with more than one wife is used to estimate the prevalence of polygyny in each country.

The data from the countries were pooled in two groups based on the prevalence of polygyny—countries with a high level of polygynous unions (20 percent or more) were in one group and countries with a low level of polygynous unions (less than 20 percent) were in another group. Appropriate sampling weights were applied to the data from several countries to take into account the size of the population of these countries. Studies looking at the role of polygyny at the macro level have used similar systems of classification (Ezeh, 1997; Tertilt, 2005).

[2] In most cases, the difference in spousal agreement between the two data sets is less than 2 percent for fertility preferences and less than 4 percent for ideal number of children. Results for fertility preferences and ideal number of children obtained from the data in which a wife was selected at random are attached in Appendix Tables A.3.1 and A.3.2.

4

Spousal Agreement on Fertility Preferences and Ideal Number of Children

4.1 Overview of the Data

Table 4.1 lists the surveys in the study and presents background information on the survey samples: number of currently married women, number of currently married men, number of matched couples, percentage of matched couples relative to currently married women, and the percentage of couples in a polygynous union.

The percentage of matched couples relative to currently married women ranges from 14 percent in Ethiopia to 58 percent in Ghana. The countries in Western Africa have a higher proportion of matched couples than the countries in eastern and southern Africa. In most countries, male interviews are carried out using a subset of all the households selected for the survey, so the maximum number of matched couples cannot exceed the size of that subsample.

The prevalence of polygyny varies greatly across sub-Saharan Africa (Table 4.1). The proportion of wives in a polygynous union is higher in Western Africa, compared with eastern and southern Africa. Overall, the proportion of polygynous unions ranges from 4 percent in Namibia to 48 percent in Burkina Faso.

Table 4.1 Characteristics of the sample and percentage of women in a polygynous union, DHS surveys in sub-Saharan Africa 1999-2004

		Characteristics of the sample				
		Number				
Country	Survey year	Currently married women	Currently married men	Number matched couples	Percentage of matched couples relative to currently married women	Percentage of couples in a polygynous union
Western and Central Africa						
Benin	2001	4,587	1,607	1,609	35.1	42.1
Burkina Faso	2003	9,537	1,973	2,340	24.5	47.9
Chad	2004	4,415	1,063	924	20.9	34.1
Ghana	2003	3,694	2,726	2,133	57.7	22.6
Mali	2001	10,697	2,138	2,191	20.5	41.1
Eastern and Southern Africa						
Ethiopia	2000	9,380	1,433	1,271	13.6	11.3
Kenya	2003	4,876	1,855	1,430	29.3	11.7
Malawi	2000	9,361	1,903	1,677	17.9	10.4
Mozambique	2003	8,377	1,780	1,435	17.1	19.2
Namibia	2000	2,827	1,184	805	28.5	3.9
Rwanda	2000	4,891	1,362	1,156	23.6	5.5
Uganda	2000/01	4,675	1,167	944	20.2	20.5
Zambia	2001/02	4,731	1,249	1,120	23.7	11.8
Zimbabwe	1999	3,553	1,203	907	25.5	9.5

4.2 Fertility Preferences

Table 4.2 shows spousal agreement on fertility preferences. Agreement is high in all countries, whether both want another child or both want no more children. The percentage of couples in which both spouses

want another child is above 50 percent in Benin, Burkina Faso, Chad, Ethiopia, Ghana, Mali, Mozambique, Rwanda, Uganda, Zambia, and Zimbabwe. Furthermore, at least a quarter of couples in Ghana, Kenya, Malawi, and Namibia indicated that both partners want no more children. Overall, a higher percentage of couples in Western and central Africa want another child than those in eastern and southern Africa.

On the other hand, disagreement between husband and wife on fertility preferences ranges from 9 percent in Chad to 31 percent in Namibia. When spouses disagree over fertility preferences, the proportion of husbands wanting another child is almost always greater than the proportion of wives wanting another child.

Table 4.2 Percent distribution of couples by spousal agreement on fertility preference, DHS surveys in sub-Saharan Africa 1999-2004

	Agree		Disagree			
Country	Both want another child	Neither wants another child	Only wife wants another child	Only husband wants another child	Total	Number of couples
Western and Central Africa						
Benin	69.4	13.5	4.6	12.5	100.0	1,445
Burkina Faso	73.2	6.2	5.9	14.7	100.0	2,146
Chad	89.9	0.9	2.8	6.4	100.0	750
Ghana	56.5	25.6	7.8	10.1	100.0	1,862
Mali	77.5	4.9	3.4	14.3	100.0	1,984
Eastern and Southern Africa						
Ethiopia	59.4	17.2	7.4	16.0	100.0	1,178
Kenya	47.4	29.6	8.6	14.5	100.0	1,227
Malawi	49.5	25.7	12.6	12.1	100.0	1,480
Mozambique	70.9	9.2	5.6	14.4	100.0	1,282
Namibia	35.9	32.7	8.2	23.2	100.0	619
Rwanda	60.2	22.6	7.8	9.4	100.0	1,078
Uganda	57.5	19.5	7.3	15.8	100.0	898
Zambia	58.9	19.2	8.0	14.0	100.0	1,030
Zimbabwe	52.3	22.7	8.9	16.1	100.0	764

4.3 Ideal Number of Children

Table 4.3 shows the percent distribution of couples by spousal agreement on ideal number of children. Ideal number of children reflects the existence of a societal norm regarding family size. In 9 of the 14 countries—Benin, Burkina Faso, Chad, Ethiopia, Mali, Mozambique, Namibia, Uganda, and Zambia—less than one-fourth of the couples agree on the ideal number of children. The proportion of couples in which both spouses agree on the ideal number of children is lowest in Chad (14 percent) and highest in Kenya (32 percent).

The marked differences in husbands' and wives' agreement on the ideal number of children can be seen in Table 4.3. A greater proportion of husbands than wives consider more children to be the ideal. The greatest difference is in Chad, where 67 percent of husbands compared with 20 percent of wives consider more children to be the ideal. The smallest difference is in Malawi, where 36 percent of husbands compared with 34 percent of wives consider more children to be the ideal. Rwanda is the only country where a larger proportion of wives than their husbands consider more children to be the ideal (39 percent and 30 percent, respectively).

Table 4.3 Percent distribution of couples by spousal agreement on ideal number of children, DHS surveys in sub-Saharan Africa 1999-2004

Country	Agree	Disagree		Total	Number of couples
	Both report the same number	Husband reports higher number	Wife reports higher number		
Western and Central Africa					
Benin	20.3	59.3	20.5	100.0	1,271
Burkina Faso	17.8	49.4	32.7	100.0	1,877
Chad	13.5	66.5	20.0	100.0	751
Ghana	25.9	42.9	31.2	100.0	1,989
Mali	14.9	60.0	25.1	100.0	1,274
Eastern and Southern Africa					
Ethiopia	24.4	47.1	28.4	100.0	912
Kenya	31.8	40.8	27.4	100.0	1,284
Malawi	30.2	36.2	33.6	100.0	1,561
Mozambique	17.7	52.0	30.3	100.0	1,385
Namibia	20.8	48.1	31.2	100.0	691
Rwanda	31.3	29.8	38.9	100.0	1,105
Uganda	21.9	51.8	26.3	100.0	880
Zambia	24.1	47.6	28.3	100.0	1,009
Zimbabwe	26.8	43.4	29.7	100.0	872

Table 4.4 presents the mean ideal number of children by spousal agreement. The results show that, in all countries, the mean ideal number of children is higher for husbands than for wives. Moreover, when spouses agree on the mean ideal number of children, that number is always smaller than the number considered ideal by the husband and wife separately.

Table 4.4 Mean ideal number of children by spousal agreement, and mean number of living children for couples, DHS surveys in sub-Saharan Africa 1999-2004

Country	Mean ideal number of children			Mean number of living children	
	Both report the same number	Husband reports higher number	Wife reports higher number	Wife	Husband
Western and Central Africa					
Benin	4.7	11.1	6.6	3.2	5.5
Burkina Faso	5.6	10.7	7.0	3.2	5.5
Chad	9.4	18.5	11.4	3.6	5.0
Ghana	4.4	8.2	6.0	3.3	4.2
Mali	7.2	11.2	8.4	3.3	4.8
Eastern and Southern Africa					
Ethiopia	5.5	9.5	7.7	3.4	4.0
Kenya	3.8	6.4	5.3	3.2	3.9
Malawi	4.1	5.8	5.5	2.9	3.6
Mozambique	5.9	9.2	7.1	2.9	4.1
Namibia	3.2	7.0	5.6	3.1	3.8
Rwanda	4.5	6.3	6.2	3.2	3.6
Uganda	4.9	8.1	6.7	3.4	4.7
Zambia	4.8	7.5	6.4	3.3	4.2
Zimbabwe	3.9	6.6	5.2	2.7	3.3

5

Differentials in Spousal Agreement on Reproductive Preferences

5.1 Fertility Preferences

This section examines the demographic, social, and economic characteristics of couples in which both spouses are in agreement on wanting another child.

Typically, urban residence is accompanied by greater access to resources such as the media and education, which expose people to new ideas. Thus, couples living in urban areas would be expected to show more agreement on limiting family size than their rural counterparts. Tables 5.1.1 and 5.1.2, however, show that spousal agreement on fertility preferences does not vary substantially by residence in most of the countries. Only in Kenya and Malawi are a higher proportion of urban couples in agreement with the intention to have another child compared with their rural counterparts.

Couples in which the wife has little or no formal education are more likely to agree on having another child. Tables 5.1.1 and 5.1.2 show that in Benin, Chad, Ghana, Kenya, Mozambique, and Zambia, a higher proportion of couples agree to have another child when the wife has no formal education compared with couples in which the wife has formal education. For example, in Benin, 71 percent of the couples want another child when the wife has no education compared with 59 percent when the wife has at least secondary education. In contrast, in Burkina Faso, Malawi, and Zimbabwe, a larger proportion of couples are in agreement on wanting another child when the wife has at least secondary education.

Table 5.1.1 Percentage of couples in which both partners want another child, by selected characteristics: Western and Central Africa

Characteristic	Western and Central Africa				
	Benin	Burkina Faso	Chad	Ghana	Mali
Residence					
Urban	65.8	67.6	83.3	55.3	68.0
Rural	71.2	74.0	91.1	57.1	80.3
Wife's education					
No education	71.1	73.6	91.2	66.3	78.0
Primary	66.1	66.9	85.0	51.2	79.3
Secondary+	58.8	77.8	83.9	47.9	64.0
Husband's education					
No education	72.0	73.7	92.9	73.9	77.8
Primary	70.0	69.5	84.1	55.5	80.3
Secondary+	61.0	73.3	88.7	47.4	71.8
Spousal education difference					
Same education	71.5	73.8	92.5	65.2	77.4
Wife more educated	69.6	71.6	93.7	58.4	74.4
Husband more educated	67.0	71.0	85.2	49.9	79.5
Wife's age					
15-34	83.9	87.5	94.0	73.8	88.1
35-49	32.8	37.8	73.4	27.1	48.5
Husband's age					
15-34	89.3	94.3	95.3	76.9	93.7
35-44	65.1	78.5	90.2	55.2	82.9
45+	41.0	46.8	79.0	31.7	55.5
Spousal age difference (husband older)					
< 5 years	71.1	76.6	87.0	56.1	74.8
5 years and over	68.1	71.9	91.5	56.8	78.2
Wife's employment					
Not working	86.8	78.7	92.9	70.2	77.9
Working for cash	67.2	72.6	89.0	54.7	77.2
Husband's employment					
Not working	39.3	70.7	99.2	52.2	81.1
Working for cash	70.1	73.8	89.8	56.6	76.8
Type of marriage					
Monogamous	73.8	79.3	89.5	54.9	80.5
Polygynous	63.2	66.4	90.8	63.1	73.1
Number of living children					
0	97.4	99.1	98.8	95.7	96.3
1-2	89.8	91.1	96.1	81.2	94.7
3-4	66.9	72.6	91.4	50.1	82.6
5+	31.4	36.7	78.1	19.0	42.5
Infecundity					
Fecund	72.2	76.0	90.3	57.4	79.4
Infecund	40.8	45.8	84.2	49.4	61.1
Wealth status					
Poor	73.1	77.6	90.1	63.5	79.4
Middle	74.5	72.1	89.7	45.9	76.9
Rich	61.8	68.5	89.9	52.9	75.4
Number of couples	1,445	2,146	750	1,862	1,984

Table 5.1.2 Percentage of couples in which both partners want another child, by selected characteristics: Eastern and Southern Africa

Characteristic	Eastern and Southern Africa								
	Ethiopia	Kenya	Malawi	Mozambique	Namibia	Rwanda	Uganda	Zambia	Zimbabwe
Residence									
Urban	56.0	53.3	53.5	64.5	31.3	56.8	53.3	47.7	43.9
Rural	59.9	45.8	48.8	73.0	40.6	60.8	57.9	64.6	57.7
Wife's education									
No education	59.4	65.5	40.9	74.8	47.3	52.1	54.3	65.9	33.9
Primary	63.1	45.6	52.4	67.0	33.0	64.3	59.5	60.4	47.3
Secondary+	52.4	42.4	61.5	65.5	33.9	64.0	53.8	50.6	59.4
Husband's education									
No education	53.7	66.2	49.1	75.2	44.2	59.0	59.8	77.9	45.8
Primary	73.7	46.1	48.7	69.6	35.0	59.6	59.1	64.2	45.7
Secondary+	50.7	44.9	53.1	69.9	33.4	65.1	52.3	49.8	56.9
Spousal education difference									
Same education	54.9	54.3	50.8	75.0	40.9	50.8	57.7	63.9	56.7
Wife more educated	66.1	44.3	58.1	60.8	36.2	66.7	61.4	58.6	53.2
Husband more educated	66.6	46.2	46.5	70.3	33.2	60.2	56.3	57.4	49.4
Wife's age									
15-34	72.3	58.1	60.3	81.4	43.0	79.7	67.5	70.7	65.4
35-49	30.2	16.2	15.1	42.1	23.7	21.5	19.8	22.9	14.3
Husband's age									
15-34	82.4	67.2	67.4	87.3	46.1	86.3	75.7	78.8	70.9
35-44	55.7	36.5	33.8	64.2	33.1	48.7	40.0	44.3	38.8
45+	34.2	18.0	14.7	43.5	18.4	17.1	17.9	19.7	18.3
Spousal age difference (husband older)									
< 5 years	61.6	45.3	50.2	73.1	36.7	59.6	59.3	63.1	53.4
5 years and over	58.3	49.5	48.7	68.4	34.9	61.1	55.0	54.6	51.0
Wife's employment									
Not working	63.0	58.0	52.0	71.6	38.8	56.5	62.7	56.9	56.5
Working for cash	56.8	41.5	47.8	70.7	32.1	60.6	56.2	60.3	48.9
Husband's employment									
Not working	72.1	59.9	47.9	65.5	45.7	56.4	59.3	52.4	53.0
Working for cash	59.0	46.5	50.3	72.2	31.7	62.6	56.9	59.8	51.9
Type of marriage									
Monogamous	58.7	47.7	50.7	70.7	35.2	61.9	60.5	59.3	52.6
Polygynous	66.8	45.2	38.7	71.5	48.5	32.0	45.8	55.6	48.2
Number of living children									
0	89.6	95.2	84.7	95.1	78.9	98.5	96.4	94.7	88.8
1-2	81.5	69.5	68.8	88.3	43.0	88.3	81.6	84.2	69.8
3-4	55.5	30.4	32.9	67.5	27.8	54.4	56.6	51.8	31.3
5+	29.3	13.1	9.6	33.7	17.9	10.5	21.6	18.7	5.8
Infecundity									
Fecund	60.2	48.5	51.5	71.8	36.2	62.3	58.8	59.7	53.7
Infecund	42.4	37.0	20.6	63.1	34.0	35.2	36.4	46.0	40.7
Wealth status									
Poor	59.2	52.2	45.0	74.6	46.8	59.6	64.3	70.3	55.9
Middle	71.5	41.5	50.2	74.6	30.1	64.0	56.1	65.6	57.0
Rich	52.7	46.0	54.6	60.3	32.3	58.6	48.3	43.5	48.5
Number of couples	1,178	1,227	1,480	1,282	619	1,078	898	1,030	764

When the wife has less education than her husband, her ability to influence decisions on fertility preferences and family planning may be reduced. However, Tables 5.1.1 and 5.1.2 show that in 7 of the 14 countries (Benin, Chad, Ghana, Malawi, Namibia, Zambia, and Zimbabwe) the proportion of couples in agreement on wanting another child is lower when the husband is more educated than his wife. In Chad, Malawi, Rwanda, and Uganda, a larger proportion of couples agree on having another child when the wife's education exceeds that of her husband.

The results by age in Tables 5.1.1 and 5.1.2 indicate that in all countries except Namibia, a majority of couples want another child when the wife is age 15-34. Furthermore, these couples are two to four times more likely to want another child than couples in which the wife is age 35-49. The proportion of couples in which both spouses want another child, for women age 35-49, ranges from 14 percent in Zimbabwe to 73 percent in Chad.

Differences by type of marriage (monogamous marriage versus polygynous marriage) in Tables 5.1.1 and 5.1.2 indicate that in Benin, Burkina Faso, Kenya, Malawi, Mali, Rwanda, Uganda, Zambia, and Zimbabwe, the proportion of couples that want another child is higher when both spouses are in a monogamous union than when both spouses are in a polygynous union. In contrast, in Chad, Ethiopia, Ghana, Mozambique, and Namibia, a higher proportion of couples in a polygynous union want another child than those in a monogamous union. Overall, there is no clear pattern in couples' desire for another child by type of marriage.

In sub-Saharan Africa, having a large number of children is associated with prestige and better bargaining power for married women. Tables 5.1.1 and 5.1.2 show that in all countries, the proportion of couples who want another child declines with increasing number of living children. For example, in Benin, the proportion of couples who intend to have another child decreases from 97 percent among partners with no children to 31 percent among partners with at least five children. However, in Chad, among couples with at least five living children, 78 percent still want to have another child.

In all countries, the proportion of couples in which both spouses want another child is higher for partners who were fecund in the past five years.

The results by household economic status (wealth status) in Tables 5.1.1 and 5.1.2 indicate that in all countries except Malawi, a higher proportion of couples living in poor households want another child compared with couples living in rich households. For example, in Benin 73 percent of the couples in poor households want another child compared with 62 percent of the couples in rich households.

5.2 Ideal Number of Children

Tables 5.2.1 and 5.2.2 show the percent distribution of couples in which both partners consider the same number of children to be the ideal. In all countries except Chad, the proportion of couples in which both spouses share the same ideal number of children is higher in urban areas than in rural areas. For example, in Benin and Burkina Faso, nearly twice as many couples in urban areas as in rural areas consider the same number of children to be the ideal.

In 12 of the 14 countries (Chad and Ethiopia are the exceptions), the proportion of couples in which both spouses consider the same number of children to be the ideal is higher when the wife has at least secondary education. Tables 5.2.1 and 5.2.2 also show that in three countries, namely Burkina Faso, Ghana, and Rwanda, the proportion of couples who consider the same number of children to be the ideal is higher when the wife's level of education exceeds that of her husband. In contrast, in Benin, Chad, Ethiopia, Kenya, Malawi, Mali, Mozambique, Uganda, Zambia, and Zimbabwe, a higher proportion of couples consider the same number of children to be the ideal when the husband's level of education exceeds that of his wife.

It is likely that older women and high-parity women tend to adjust their ideal number of children upward as the number of living children increases. Tables 5.2.1 and 5.2.2 show that in all countries except Namibia, the proportion of couples in which both spouses desire the same ideal number of children is higher when the wife is age 15-34.

Looking at spousal age difference in 11 countries (Benin, Burkina Faso, Chad, Ethiopia, Ghana, Kenya, Mali, Mozambique, Namibia, Zambia, and Zimbabwe), the proportion of couples in which both spouses consider the same number of children to be ideal is higher when the husband is older than his wife by less than five years.

Table 5.2.1 Percentage of couples in which both spouses report the same ideal number of children, by selected characteristics: Western and Central Africa

	Western and Central Africa				
Characteristic	Benin	Burkina Faso	Chad	Ghana	Mali
Residence					
Urban	31.4	31.0	11.9	28.5	20.9
Rural	14.2	15.8	13.7	24.5	12.8
Wife's education					
No education	17.1	15.4	11.7	18.0	14.4
Primary	27.7	32.3	22.1	30.3	10.8
Secondary+	32.1	34.3	13.1	31.8	27.5
Husband's education					
No education	12.0	15.9	9.7	16.7	13.0
Primary	25.5	22.9	17.3	25.0	12.4
Secondary+	30.8	28.8	22.3	30.2	26.4
Spousal education difference					
Same education	12.8	15.0	10.2	19.6	13.4
Wife more educated	23.3	28.3	13.9	34.9	8.4
Husband more educated	26.7	24.8	18.3	27.7	21.9
Wife's age					
15-34	22.3	18.8	13.6	27.7	15.8
35-49	15.3	15.6	12.9	23.0	12.2
Husband's age					
15-34	23.8	23.2	17.3	31.0	19.3
35-44	20.5	18.6	6.5	25.4	14.8
45+	14.4	11.2	14.6	20.4	10.1
Spousal age difference (husband older)					
< 5 years/wife older	22.3	18.6	16.7	29.2	15.4
5 years and over	18.6	17.6	11.5	22.9	14.7
Wife's employment					
Not working	23.1	26.7	11.5	24.2	13.1
Working for cash	20.0	16.9	14.0	26.1	15.8
Husband's employment					
Not working	29.1	15.3	22.7	37.6	7.3
Working for cash	20.1	18.6	13.2	25.6	16.5
Type of marriage					
Monogamous	26.4	22.7	15.6	28.5	18.4
Polygynous	11.1	11.7	8.7	13.1	8.4
Number of living children					
0	23.0	18.7	29.7	33.2	14.2
1-2	23.0	21.4	14.9	30.3	16.0
3-4	20.8	19.7	12.6	25.1	17.7
5+	14.6	10.2	9.0	19.1	10.1
Infecundity					
Fecund	20.5	18.4	14.1	25.0	14.3
Infecund	17.9	13.0	8.1	32.5	20.3
Wealth status					
Poor	11.9	15.0	11.2	22.4	12.5
Middle	19.9	18.6	14.3	28.0	13.7
Rich	31.1	21.0	15.2	28.8	18.1
Number of couples	1,271	1,877	751	1,989	1,274

Table 5.2.2 Percentage of couples in which both spouses report the same ideal number of children, by selected characteristics: Eastern and Southern Africa

	Eastern and Southern Africa								
Characteristic	Ethiopia	Kenya	Malawi	Mozambique	Namibia	Rwanda	Uganda	Zambia	Zimbabwe
Residence									
Urban	34.0	33.8	30.7	23.1	26.3	34.8	26.1	26.0	29.0
Rural	23.2	31.6	30.2	15.9	16.0	30.8	21.5	23.2	26.1
Wife's education									
No education	21.1	22.7	29.0	16.5	9.1	25.7	16.7	20.9	17.0
Primary	39.6	31.5	30.0	17.7	12.6	33.1	22.1	24.5	25.6
Secondary+	31.6	37.4	38.3	37.6	30.6	41.7	33.5	24.7	30.4
Husband's education									
No education	21.5	12.8	23.0	13.9	7.8	31.1	18.6	26.2	24.4
Primary	24.6	32.6	30.6	17.4	13.6	29.9	19.4	23.5	21.4
Secondary+	37.6	34.9	34.4	27.9	31.9	38.6	29.3	24.7	31.1
Spousal education difference									
Same education	21.6	27.7	27.2	15.8	27.7	30.3	16.8	24.0	26.6
Wife more educated	27.1	30.8	29.6	15.7	13.9	33.9	22.4	23.2	25.5
Husband more educated	29.1	34.7	31.5	18.8	25.9	30.3	22.8	24.4	28.4
Wife's age									
15-34	27.7	33.0	32.9	18.2	19.8	34.7	23.5	025.2	29.7
35-49	17.2	29.7	22.5	16.6	24.3	25.1	16.4	21.2	21.0
Husband's age									
15-34	32.0	36.4	34.2	18.7	23.9	35.6	24.8	27.7	33.0
35-44	23.1	30.5	28.5	21.5	20.8	30.9	17.4	20.9	22.9
45+	15.0	25.2	20.4	12.4	18.8	22.7	19.3	18.9	18.4
Spousal age difference (husband older)									
< 5 years/wife older	26.1	34.1	30.0	18.3	26.8	31.4	21.7	27.1	28.8
5 years and over	23.9	30.1	30.7	17.1	13.5	31.4	22.1	21.1	25.4
Wife's employment									
Not working	22.5	32.9	30.0	17.1	18.1	30.2	23.1	25.8	27.3
Working for cash	26.3	31.6	30.5	17.9	25.8	31.5	21.6	23.1	27.2
Husband's employment									
Not working	27.8	21.7	30.2	18.2	12.9	30.1	22.6	21.7	27.9
Working for cash	24.6	32.7	30.3	17.6	25.0	32.3	21.6	24.5	26.9
Type of marriage									
Monogamous	26.8	34.8	31.6	19.4	22.3	32.3	23.1	25.2	28.0
Polygynous	5.6	8.6	18.4	10.2	8.5	18.4	17.3	15.0	19.2
Number of living children									
0	37.6	42.6	33.5	21.5	18.4	44.0	21.4	35.4	27.2
1-2	29.4	34.7	32.9	18.1	27.1	36.4	25.1	26.1	34.0
3-4	19.9	31.1	31.4	20.6	22.0	27.9	19.4	23.2	26.4
5+	17.8	25.4	21.7	11.8	10.9	24.3	20.3	18.6	12.3
Infecundity									
Fecund	25.1	32.4	30.3	17.6	22.5	32.1	21.9	24.2	28.0
Infecund	18.3	28.7	29.9	18.8	15.0	23.4	21.1	24.1	21.0
Wealth status									
Poor	21.2	26.9	31.3	16.8	12.0	31.6	21.4	22.4	23.1
Middle	26.7	37.6	30.4	16.7	13.9	30.5	16.8	24.3	33.2
Rich	27.3	33.8	29.1	20.4	26.8	31.7	25.1	25.8	28.2
Number of couples	912	1,284	1,561	1,385	691	1,105	880	1,009	872

Tables 5.2.1 and 5.2.2 show that a higher proportion of couples in which both spouses agree on the ideal number of children are in a monogamous union than in a polygynous union. In most countries, twice as many couples in a monogamous union are in agreement on the ideal number of children compared with those in a polygynous union.

In Chad, Ethiopia, Ghana, Kenya, Malawi, Rwanda, and Zambia, a higher proportion of couples at parity zero agree on the ideal number of children compared with couples with at least one birth. Tables 5.2.1 and 5.2.2 show that in these countries, spousal agreement on the ideal number of children declines with increasing number of living children.

Differentials in ideal number of children related to infecundity—i.e., the woman has no childbearing experience—in Benin, Burkina Faso, Chad, Ethiopia, Kenya, Namibia, Rwanda, and Zimbabwe indicate that the proportion of couples in which both partners agree on the ideal number of children is higher among fecund couples.

In 12 of the 14 countries (Benin, Burkina Faso, Chad, Ethiopia, Ghana, Kenya, Mali, Mozambique, Namibia, Uganda, Zambia, and Zimbabwe), a higher proportion of couples who live in rich households consider the same number of children to be ideal than couples who live in poor households. For example, in Benin, 12, 20, and 31 percent of the couples in poor, middle, and rich households, respectively, consider the same number of children to be the ideal.

6

Multivariate Analyses

6.1 Fertility Preferences: Spousal Agreement to Have Another Child

Tables 6.1.1 and 6.1.2 present relative risk ratios (RRR) from multinomial logistic regression showing factors associated with spousal agreement on wanting another child. The results for spousal agreement on wanting no more children are presented in Appendix Tables A.6.1 and A.6.2.

Only three countries (Ghana, Zambia, and Zimbabwe) show an association between residence and spousal agreement to have another child. In Ghana, urban residence increases the likelihood that both spouses want another child. In contrast, urban residence in Zambia and Zimbabwe decreases the likelihood of spousal agreement to have another child.

Wife's education has a negative effect on the likelihood of spousal agreement to have another child in Burkina Faso, Chad, Ethiopia, Ghana, and Kenya. Overall, when the wife has formal education, the relative risk of the couple being in agreement on wanting another child declines. Furthermore, difference in spousal education is associated with agreement to have another child in Chad and Rwanda only. The results indicate that in Chad, for couples in which a husband is more educated than his wife, the relative risk of the couple agreeing on wanting another child is lower than for couples in which both spouses have the same educational attainment. In Rwanda, difference in education—whether the husband is more educated than his wife or the wife is more educated than her husband—elevates the relative risk of both spouses wanting another child.

Wife's age is a consistent predictor of spousal agreement to have another child in all countries except Namibia and Zimbabwe. Tables 6.1.1 and 6.1.2 show that partners are less likely to agree on wanting another child if the wife is age 35-49 than if the wife is 15-34. Difference in spousal age is associated with spousal agreement to want another child only in Burkina Faso and Uganda. In these countries, the likelihood of both partners wanting another child declines if the husband is older than his wife by five or more years. In Benin, Burkina Faso, Mali, Rwanda, and Uganda, couples in a polygynous marriage are less likely to be in agreement on wanting another child compared with those in monogamous marriage.

In all 14 countries, spousal agreement to have another child is significantly associated with the number of living children. The results in Tables 6.1.1 and 6.1.2 show that in all countries, the likelihood of both spouses agreeing to have another child declines with increasing number of living children. For example, in Benin, the relative risk of spousal agreement to have another child is 0.28 for couples with 3-4 living children, and 0.09 for couples with five or more living children. This result is the most consistent finding across all the countries analyzed.

Infecundity is associated with spousal agreement to have another child in Benin, Burkina Faso, Malawi, Mali, and Mozambique. In these countries, fecund couples are more likely to agree to have another child. Household wealth is a significant predictor of spousal agreement to have another child in Burkina Faso, Ethiopia, Ghana, Kenya, Mozambique, Uganda, and Zambia. The findings indicate that couples in households that are better-off are less likely to agree on wanting another child compared with couples living in poor households.

Table 6.1.1 Relative risk ratios from multinomial logistic regressions predicting spousal agreement to have another child, according to selected characteristics: Western and Central Africa

	Western and Central Africa				
Characteristic	Benin	Burkina Faso	Chad [1]	Ghana	Mali
Residence (vs. rural)					
Urban	0.89	0.78	0.56	1.64*	0.73
Wife's education (vs. no education)					
Primary	0.89	0.45	0.63	0.56*	1.91
Secondary+	0.47	0.26**	0.31*	0.35**	0.80
Spousal education difference (vs. both same education)					
Wife more educated	0.79	1.32	0.91	1.35	0.57
Husband more educated	0.79	0.80	0.37*	0.74	1.09
Wife's age (vs. 15-34 years old)					
35-49	0.37**	0.29**	0.21**	0.46**	0.41**
Spousal age difference (vs. husband older by < 5 years)					
Over 5 years	0.72	0.71*	1.18	0.92	1.05
Wife's employment (vs. not working)					
Working for cash	0.56	0.76	1.14	0.99	1.16
Husband's employment (vs. not working)					
Working for cash	3.67*	1.02	0.36	0.93	0.70
Type of marriage (vs. monogamous)					
Polygynous	0.66*	0.69*	0.85	0.92	0.74*
Number of living children (vs. ≤ 2)					
3-4	0.28**	0.24**	0.34*	0.24**	0.28**
5+	0.09**	0.10*	0.20**	0.08**	0.08**
Infecundity (vs. fecund)					
Infecund	0.47**	0.52**	0.55	1.08	0.55**
Wealth status (vs. poor)					
Middle	0.98	0.58**	1.21	0.51**	1.05
Rich	0.70	0.69	1.26	0.45*	0.63
Number of couples	1,435	2,144	747	1,862	1,958
Loglikelihood	-840.4	-1146.3	-199.7	-1258.3	-919.4

[1] Odds ratios are from binary logistic regression because too few cases in the "both want no more children category (< 1%)" in multinomial logit regression
Significance level: * $p < 0.05$; ** $p < .01$

Table 6.1.2 Relative risk ratios from multinomial logistic regressions predicting spousal agreement to have another child, according to selected characteristics: Eastern and Southern Africa

	Eastern and Southern Africa								
Characteristic	Ethiopia	Kenya	Malawi	Mozambique	Namibia	Rwanda	Uganda	Zambia	Zimbabwe
Residence (vs. rural)									
Urban	1.18	1.54	1.18	0.99	0.83	0.55	1.04	0.42**	0.45*
Wife's education (vs. no education)									
Primary	0.58*	0.15**	0.92	0.76	0.75	0.59	0.95	0.93	0.81
Secondary+	0.53	0.14**	0.71	1.89	0.57	0.90	0.59	0.76	0.89
Spousal education difference (vs. both same education)									
Wife more educated	1.44	0.87	0.93	0.89	1.20	2.41**	1.03	0.61	1.09
Husband more educated	1.03	1.04	0.97	0.98	1.26	1.75*	0.84	0.71	1.01
Wife's age (vs. 15-34 years old)									
35-49	0.43**	0.40**	0.46**	0.47**	0.60	0.35**	0.46*	0.51**	0.58
Spousal age difference (vs. husband older by < 5 years)									
Over 5 years	0.93	0.98	0.81	1.01	0.82	0.76	0.68**	0.79	0.77
Wife's employment (vs. not working)									
Working for cash	0.78	0.74	1.27	0.69	1.02	1.61	1.03	1.32	0.81
Husband's employment (vs. not working)									
Working for cash	0.56	0.60	1.10	1.27	0.73	1.31	0.86	1.02	0.63
Type of marriage (vs. monogamous)									
Polygynous	1.46	0.77	0.81	1.22	1.86	0.18**	0.51**	0.88	0.58
Number of living children (vs. ≤ 2)									
3-4	0.31**	0.21**	0.30*	0.28**	0.42**	0.20**	0.25**	0.16**	0.23**
5+	0.22**	0.09**	0.18*	0.12**	0.22**	0.07**	0.08**	0.08**	0.04**
Infecundity (vs. fecund)									
Infecund	0.96	1.33	0.49*	0.53*	1.09	0.74	0.61	1.43	1.46
Wealth status (vs. poor)									
Middle	0.92	0.61*	0.92	0.82	0.76	1.23	0.87	0.64*	1.02
Rich	0.41**	0.40**	0.88	0.29**	1.04	1.49	0.41*	0.43*	0.74
Number of couples	1,176	1,224	1,478	1,280	608	1,070	897	1,026	761
Loglikelihood	-874.1	-926.0	-1,205.4	-778.9	-588.0	-648.9	-647.2	-676.8	-572.7

Significance level: * $p < 0.05$; ** $p < .01$

6.2 Spousal Agreement on Ideal Number of Children

Tables 6.2.1 and 6.2.2 present odds ratios (OR) from binary logistic regressions predicting the determinants of spousal agreement on ideal number of children.

Wife's education is a significant predictor of spousal agreement on ideal number of children in 8 of the 14 countries (Chad, Ethiopia, Ghana, Malawi, Mozambique, Namibia, Rwanda, and Uganda). The results show that in these countries, the odds of spousal agreement on the ideal number of children increases with increasing level of wife's education. Wife's age is a less consistent predictor of spousal agreement on ideal number of children in most countries, except for Burkina Faso and Malawi. In Burkina Faso, couples are more likely to agree on the ideal number of children when the wife is age 35-49 than when the wife is age 15-34. Difference in spousal age is a significant predictor of spousal agreement in Ghana and Namibia. In these countries, couples are less likely to agree on the ideal number of children when the

husband is five or more years older than his wife, compared with when the husband is less than five years older than his wife.

Type of marriage is significantly associated with spousal agreement on the ideal number of children in 11 of the 14 countries (the exceptions are Namibia, Uganda, and Zimbabwe). The odds ratios show that couples in a polygynous marriage are less likely to agree on the ideal number of children than those in a monogamous marriage. In Burkina Faso, Chad, Ghana, Kenya, Rwanda, Zambia, and Zimbabwe, the findings show that high-parity couples are less likely to agree on the same ideal number of children.

Household wealth is not associated with the likelihood of spousal agreement on ideal number of children. Tables 6.2.1 and 6.2.2 show that only in Benin are the chances of spousal agreement increased when couples live in a household that is better-off.

Table 6.2.1 Odds ratios from binary logistic regression predicting spousal agreement on ideal number of children, according to selected characteristics: Western and Central Africa

	Western and Central Africa				
Characteristic	Benin	Burkina Faso	Chad	Ghana	Mali
Residence (vs. rural)					
Urban	1.47*	1.33	0.60	0.98	1.22
Wife's education (vs. no education)					
Primary	0.96	1.64	2.17*	1.44*	0.93
Secondary+	0.74	1.45	1.74	1.54**	1.54
Spousal education difference (vs. both same education)					
Wife more educated	1.25	0.66	0.84	1.38	0.77
Husband more educated	1.49*	1.03	1.19	1.17	1.47
Wife's age (vs. 15-34 years old)					
35-49	0.68	1.51*	1.13	0.92	1.17
Spousal age difference (vs. husband older by < 5 years)					
Over 5 years	0.96	1.26	0.65	0.79*	0.77
Wife's employment (vs. not working)					
Working for cash	1.17	0.99	1.25	1.17	1.31
Husband's employment (vs. not working)					
Working for cash	1.02	1.20	0.86	0.80	1.60*
Type of marriage (vs. monogamous)					
Polygynous	0.41**	0.53**	0.52*	0.50**	0.49**
Number of living children (vs. ≤ 2)					
3-4	1.11	1.04	0.69	0.87	1.04
5+	1.01	0.47**	0.47*	0.63**	0.63
Infecundity (vs. fecund)					
Infecund	1.10	0.63	0.72	1.22	1.27
Wealth status (vs. poor)					
Middle	1.76**	1.38	1.62	1.02	1.13
Rich	3.25**	1.16	1.86	1.03	0.84
Number of couples	1,261	1,870	745	1,952	1,257
Loglikelihood	-569.2	-855.4	-265.5	-1042.2	-501.1

Significance level: * $p < 0.05$; ** $p < .01$

Table 6.2.2 Odds ratios from binary logistic regression predicting spousal agreement on ideal number of children, according to selected characteristics: Eastern and Southern Africa

	Eastern and Southern Africa								
Characteristic	Ethiopia	Kenya	Malawi	Mozambique	Namibia	Rwanda	Uganda	Zambia	Zimbabwe
Residence (vs. rural)									
Urban	1.23	1.10	1.09	1.31	0.72	1.14	0.82	1.03	1.01
Wife's education (vs. no education)									
Primary	1.84*	1.04	1.05	0.95	1.71	1.53*	1.40	1.13	1.18
Secondary+	2.92**	1.26	1.96**	2.01*	3.21**	2.67**	2.37*	1.25	1.07
Spousal education difference (vs. both same education)									
Wife more educated	0.83	0.94	1.11	0.90	0.63	0.84	0.99	0.88	0.91
Husband more educated	1.04	1.22	1.32	1.09	1.09	1.00	1.37	1.06	1.05
Wife's age (vs. 15-34 years old)									
35-49	0.93	1.19	0.51**	0.89	1.20	0.94	0.72	1.00	1.08
Spousal age difference (vs. husband older by < 5 years)									
Over 5 years	0.82	0.95	1.01	0.99	0.53**	0.95	0.90	0.81	0.77
Wife's employment (vs. not working)									
Working for cash	1.30	1.02	1.03	1.17	0.90	1.13	1.12	0.87	0.98
Husband's employment (vs. not working)									
Working for cash	1.34	1.42	0.97	1.00	1.13	1.03	0.89	1.15	0.72
Type of marriage (vs. monogamous)									
Polygynous	0.33**	0.24**	0.59*	0.45**	0.70	0.48*	0.83	0.53*	0.69
Number of living children (vs. ≤ 2)									
3-4	0.79	0.71*	0.91	1.18	1.01	0.74	0.79	0.81	0.64*
5+	0.78	0.56**	0.68	0.72	0.78	0.63*	0.93	0.56**	0.23**
Infecundity (vs. fecund)									
Infecund	0.70	0.88	1.44	1.08	0.84	0.82	1.07	1.02	0.85
Wealth status (vs. poor)									
Middle	1.09	1.25	0.84	1.00	1.23	0.96	0.97	1.16	1.37
Rich	0.70	0.80	0.82	1.27	1.89	0.74	1.35	1.05	1.34
Number of couples	907	1,225	1,483	1,371	602	1,088	863	988	844
Loglikelihood	-466.2	-722.8	-878.8	-635.5	-305.2	-658.9	-456.8	-534.9	-467.8

Significance level: * $p < 0.05$; ** $p < .01$

7

Polygyny and Reproductive Preferences

7.1 Levels of Polygyny

Table 7.1 shows the distribution of couples by agreement on reproductive preferences and the association between level of polygyny and reproductive preferences.

The results indicate that spousal agreement on fertility preferences is significantly associated with level of polygyny, presented here as two groups of pooled data—the low polygyny group and the high polygyny group.[3] In both groups, a majority of couples are in agreement on wanting to have another child; however, the proportion of spouses in agreement is higher in the high polygyny group (67 percent) compared with the low polygyny group (57 percent). In contrast, the proportion of couples in agreement on having no more children is higher in the low polygyny group (20 percent) than in the high polygyny group (14 percent). The Chi-square test of association indicates that couples' agreement on fertility preferences is associated with level of polygyny.

Spousal agreement on ideal number of children is also significantly associated with level of polygyny. A majority of husbands (52 percent) in the high polygyny group report a higher ideal number of children than their wives; in the low polygyny group, the proportion of husbands with a higher ideal number of children than their wives is 44 percent. In the low polygyny group, 26 percent of the couples have the same ideal number of children, whereas in the high polygyny group, only 21 percent are in agreement on the ideal number of children.

Table 7.1 Percent distribution of couples by agreement on fertility preference; percentage of couples in which both spouses agree on the ideal number of children and percentage in which the wife reports a higher number, according to level of polygyny; and the difference between the low and high polygyny groups (pooled data from 14 sub-Saharan countries)

	Level of polygyny		
Reproductive preferences	Low polygyny	High polygyny	Difference (Low-High)
Fertility preference (p = .00)			
Both want another	57.3	66.8	-9.5
Both want no more	20.0	14.3	5.7
Wife wants another	7.9	6.0	1.9
Husband wants another	14.8	13.0	1.8
Ideal number of children (p = .00)			
Both report the same number	26.2	20.5	5.7
Wife reports higher number	29.5	27.2	2.3
Husband reports higher number	44.3	52.3	-8.0

Note: p-values from Chi-square test are based on unweighted pooled data

[3] Chi-square test of association between level of polygyny and spousal agreement on fertility preference = 468.6 (p=.000); ideal number of children = 188.7 (p=.000).

7.2 Multivariate Analyses: Polygyny and Reproductive Preferences

Spousal Agreement to Have Another Child

Relative risk ratios (RRR) showing predictors of spousal agreement to have another child for the two groups of pooled data (low polygyny group and high polygyny group) are presented in Table 7.2. The results for spousal agreement to not have any more children are presented in Appendix Table A.7.1.

Wife's education has a significant negative effect on spousal agreement to have another child in both the low polygyny group and the high polygyny group. The relative risk of agreement to have another child is lower when the wife has formal education than when the wife has no formal education. Interestingly, in the high polygyny group, the likelihood that both spouses want another child declines when the husband is more educated than his wife. In both groups, couples in which the wife is age 35-49 are less likely to want another child compared with those in which the wife is age 15-34.

In the low polygyny group, agreement to have another child is not affected by type of marital union; however, type of union is significantly associated with spousal agreement to have another child in the high polygyny group. The results indicate that in the high polygyny group, couples in which spouses are in a polygynous union are less likely to agree on having another child compared with couples in a monogamous union. The number of living children is a significant factor affecting spousal agreement to have another child in both the low polygyny group and the high polygyny group. The relative risk ratios indicate that couples at higher parity are less likely to agree on having another child.

Table 7.2 shows that infecundity in the past five years is significantly associated with spousal agreement to have another child in the high polygyny group only. Results show that infecund couples are less likely to want another child than fecund couples. Wealth status of the household significantly influences spousal agreement to have another child. The results show that, in both polygyny groups, couples in households that are better-off are less likely to want another child than couples in poor households.

Table 7.2 Relative risk ratios from multinomial logit predicting spousal agreement to have another child, by level of polygyny (pooled data from 14 sub-Saharan countries)

Characteristic	Level of polygyny	
	Low polygyny	High polygyny
Residence (vs. rural)		
Urban	1.36	1.23
Wife's education (vs. no education)		
Primary	0.55**	0.51**
Secondary+	0.42**	0.29**
Spousal education difference (vs. both same education)		
Wife more educated	1.13	1.06
Husband more educated	1.18	0.61**
Wife's age (vs. 15-34 years old)		
35-49	0.48**	0.39**
Spousal age difference (vs. husband older by < 5 years)		
Over 5 years	0.90	0.95
Wife's employment (vs. not working)		
Working for cash	0.92	0.96
Husband's employment (vs. not working)		
Working for cash	0.95	0.96
Type of marriage (vs. monogamous)		
Polygynous	1.13	0.64**
Number of living children (vs. ≤ 2)		
3-4	0.26**	0.29**
5+	0.14**	0.12**
Infecundity (vs. fecund)		
Infecund	0.81	0.66**
Wealth status (vs. poor)		
Middle	0.80	0.82
Rich	0.42**	0.64**
Number of couples	12,158	6,431
Loglikelihood	-9467.1	-4122.7

Significance level: * $p < 0.05$; ** $p < .01$

Spousal Agreement on Ideal Number of Children

Table 7.3 shows the results of a binary logistic regression predicting spousal agreement on the ideal number of children. In both the low polygyny group and the high polygyny group, wife's education, type of union, and number of living children are significant predictors of spousal agreement on ideal number of children. However, difference in spousal education (for both partners) significantly influences agreement on the ideal number of children in the high polygyny group only.

Table 7.3 also shows that wife's education increases the likelihood of spousal agreement on the ideal number of children. For example, couples in which the wife has at least secondary education have higher odds of agreement (odds ratio: 1.6 for the low polygyny group and 1.9 for the high polygyny group) on the ideal number of children than couples in which the wife has no education. In contrast, type of marriage and number of living children reduce the likelihood of spousal agreement on the ideal number of children. Couples in which the partners are in a polygynous union are less likely to agree on the ideal number of children than those in a monogamous union.

In the high polygyny group, couples in which the husband is more educated than his wife are more likely to consider the same number of children to be the ideal than couples in which both partners have the same level of education.

Table 7.3 Odds ratios from binary logistic regression predicting spousal agreement on the ideal number of children, by level of polygyny

Characteristic	Level of polygyny	
	Low polygyny	High polygyny
Residence (vs. rural)		
Urban	0.92	1.08
Wife's education (vs. no education)		
Primary	1.44**	1.37**
Secondary+	1.61**	1.91**
Spousal education difference (vs. both same education)		
Wife more educated	0.94	1.16
Husband more educated	1.13	1.39**
Wife's age (vs. 15-34 years old)		
35-49	0.96	0.94
Spousal age difference (vs. husband older by < 5 years)		
Over 5 years	0.97	0.94
Wife's employment (vs. not working)		
Working for cash	1.06	1.15
Husband's employment (vs. not working)		
Working for cash	1.02	0.98
Type of marriage (vs. monogamous)		
Polygynous	0.33**	0.58**
Number of living children (vs. ≤ 2)		
3-4	0.77**	0.88
5+	0.60**	0.70**
Infecundity (vs. fecund)		
Infecund	0.92	1.15
Wealth status (vs. poor)		
Middle	1.16	1.04
Rich	1.11	1.11
Number of couples	8,508	7,948
Loglikelihood	-4702.7	-3871.2

Significance level: * $p < 0.05$; ** $p < .01$

8

Summary and Conclusions

This study analyzes DHS data from 14 sub-Saharan countries to identify the factors influencing spousal agreement on reproductive preferences. In particular, it looks at the determinants of spousal agreement on having another child and ideal number of children.

The results from the multivariate analyses indicate that urban-rural residence is not a consistent predictor of spousal agreement on having another child and does not affect spousal agreement on ideal number of children. Likewise, wife's education does not have the expected strong influence on spousal agreement on having another child. However, the effect of wife's education is consistent for agreement on ideal number of children (in most countries). The multivariate analyses indicate that the likelihood of agreement on ideal number of children is higher when the wife has formal education.

The results show that, in most countries, wife's age and the number of living children are consistent predictors of spousal agreement to have another child. Increasing age has a negative effect on the wife's fertility intentions (having another child), as does increasing number of living children. The desire for more children generally decreases as the number of living children increases and the wife's age increases.

Type of marriage (polygyny or monogamy) and infecundity (lack of childbearing experience) are significant predictors of spousal agreement to have another child in 5 of the 14 countries. The bivariate analysis shows that in 9 of the 14 countries the proportion of couples in which both partners want another child is slightly higher among couples in a monogamous marriage than those in a polygynous marriage. The multivariate analysis found that in five countries, couples in which the spouses are in polygynous marriage are less likely to agree to have another child. Similar results were reported by Bankole and Singh (1998). Household wealth status is associated with spousal agreement on having another child in 7 of the 14 countries.

Spouses in a monogamous marriage are consistently more likely to agree on the ideal number of children than those in a polygynous marriage, according to the multivariate analysis. Residence (urban-rural), employment status of wife/husband, and infecundity are not associated with spousal agreement on the ideal number of children in most countries in this study. Because ideal number of children is an indicator of long-term fertility desires, it is not surprising to see a lack of association between agreement to have another child and short-term infertility. Overall, in most countries there is substantial agreement between spouses on ideal number of children when the spouses are in a monogamous marriage and when the wife has formal education.

Results from the pooled data indicate that spouses in the two polygyny groups (low polygyny and high polygyny) show differences with respect to fertility preferences (fertility intentions) and ideal number of children. Findings from the multivariate analysis indicate that wife's education and age, number of living children, and household wealth status are associated with spousal agreement to have another child in both low polygyny and high polygyny groups. However, type of marriage, difference in spousal education (particularly when the husband's education exceeds that of his wife), and infecundity are significantly associated with both spouses wanting another child only in the high polygyny group.

Wife's education has a significant positive effect on the likelihood of spousal agreement on ideal number of children in both polygyny groups. In contrast, type of marriage and number of living children have a significant negative effect on spousal agreement on ideal number of children in both polygyny groups.

The study shows that the number of living children adversely affects spousal agreement on fertility preferences and ideal number of children in both polygyny groups. At the same time, type of marriage has a negative effect on spousal agreement only in the high polygyny group.

9

Policy Implications

Since the 1994 International Conference on Population and Development (ICPD) in Cairo, the inclusion of men has become a major focus of reproductive health programs (United Nations, 1995; United Nations, 1997). To promote male involvement in shaping reproductive preferences, it is important to take into consideration the norms of society including social norms on reproductive preferences, gender inequality, and the role of men in the society. The reproductive behavior of couples is particularly useful in developing a critical understanding of these factors.

The findings of this study indicate that when there is no agreement on reproductive preferences between partners, men's reproductive goals are generally higher than those of their wives. When both spouses agree on the same ideal number of children, the mean ideal number of children desired is smaller than the ideal number of children desired by either spouse separately. In other words, the individual reproductive goals of the husband or the wife are not always synchronized with joint goals (cf. Table 4.4). Joint goals can be achieved when both partners are able to discuss their reproductive desires and goals and how to achieve them. Toward this end, efforts are needed to expand family planning outreach education that focuses on men and their role in fertility decisions.

In communities where polygyny is widely practiced, men's roles present a challenge for family planning and reproductive health programs. In such societies, the man is often involved in decisionmaking, with different, often conflicting, implications for each of his wives/partners. Programs that aim to encourage interspousal communication may want to consider alternative approaches to the standard family planning program, so that programs adapted to the needs of polygynous households can be implemented.

References

Bankole, A. 1995. Desired fertility and fertility behaviour among the Yoruba of Nigeria: A study of couple preferences and subsequent fertility. *Population Studies* 49(2): 317-28.

Bankole, A., and A.C. Ezeh. 1999. Unmet need for couples: An analytical framework and evaluation with DHS data. *Population Research and Policy Review* 18(6): 579-605.

Bankole, A., and C.F. Westoff. 1995. *Childbearing attitudes and intentions*. DHS Comparative Studies, No. 17. Calverton, Maryland, USA: ORC Macro.

Bankole, A., and S. Singh. 1998. Couples' fertility and contraceptive decision-making in developing countries: Hearing the man's voice. *International Family Planning Perspectives* 24(1): 15-24.

Bankole, A., and C.F. Westoff. 1998. The consistency and validity of reproductive attitudes: evidence from Morocco. *Journal of Biosocial Science* 30(4): 439-455.

Barbieri, M., and V. Hertrich. 2005. Age difference between spouses and contraceptive practice in sub-Saharan Africa. *Population* (English edition) 60(5/6): 617-654.

Becker, S. 1996. Couples and reproductive health: a review of couple studies. *Studies in Family Planning* 27(6): 291-306.

Becker, S., and E. Costenbader. 2001. Husbands' and wives' reports of contraceptive use. *Studies in Family Planning* 32(2): 111-129.

Beegle, K., E. Frankenberg, and D. Thomas. 2001. *Bargaining power within couples and use of prenatal and delivery care in Indonesia*. California Center for Population Research, On-Line Working Paper Series (CCPR-002-01), University of California, Los Angeles.
Available at http://repositories.cdlib.org/ccpr/olwp/CCPR-002-01.

Blanc, A.K., B. Wolff, A.J. Gage, A.C. Ezeh, S. Neema, and J. Ssekamatte-Ssebuliba. 1996. *Negotiating reproductive outcomes in Uganda*. Calverton, Maryland, USA: Macro International Inc. and Institute of Statistics and Applied Economics [Uganda].

Bloom, D., and D. Canning. 2004. Population, poverty reduction and the ICPD Programme of Action. In *Proceedings of the Seminar on the Relevance of Population Aspects for the Achievement of the Millennium Development Goals* (pp. XXI-1-XXI-11). November 17-19, 2004. New York.

Bongaarts, J. 1992. Do reproductive intentions matter? *International Family Planning Perspectives* 18(3): 102-08.

Caldwell, J.C. 1976. Toward a restatement of demographic transition theory. *Population and Development Review* 2(3/4): 321-366.

Casterline, J.B., A.E. Perez, and A.E. Biddlecom. 1997. Factors underlying unmet need in the Philippines. *Studies in Family Planning* 28(3): 173-191.

Cohen, S.I., and M. Burger. 2000. *Partnering: A new approach to sexual and reproductive health*. Technical Paper No. 3. New York: United Nations Population Fund (UNFPA).

Dasgupta, P. 1993. *An inquiry into well-being and destitution*. Oxford, United Kingdom: Oxford University Press.

DaVanzo, J., C.E. Peterson, and N.R. Jones. 2003. *How well do desired fertility measures for wives and husbands predict subsequent fertility? Evidence from Malaysia*. Labor and Population Program, Working Paper Series 03-16. Santa Monica, CA: RAND.

DeRose, L., and A.C. Ezeh. 2005. Men's influence on the onset and progress of fertility decline in Ghana, 1988-98. *Population Studies* 59(2):197-210.

Dodoo, F.N. 1993. A couple analysis of micro level supply/demand factors in fertility regulation. *Population Research and Policy Review* 12(2): 93-101.

Dodoo, F.N. 1998a. Men matter: Additive and interactive gendered preferences and reproductive behavior in Kenya. *Demography* 35(2): 229-242.

Dodoo, F.N. 1998b. Marriage type and reproductive decisions: A comparative study in sub-Saharan Africa. *Journal of Marriage and the Family* 60(1): 232-242.

Drennan, M. 1998. *Reproductive health: New perspectives on men's participation*. Population Reports, Series J, No. 46. Baltimore, Maryland, USA: Johns Hopkins School of Public Health, Population Information Program.

Effah, K.B. 1999. A reformulation of the polygyny-fertility hypothesis. *Journal of Comparative Family Studies* 30(3): 381-408.

Ezeh, A.C. 1996. Reproductive preferences and behavior: How men and women compare. *Planned Parenthood Challenges* (2): 15-19.

Ezeh, A.C. 1997. Polygyny and reproductive behavior in sub-Saharan Africa: A contextual analysis. *Demography* 34(3): 355-368.

Ezeh, A.C., and G. Mboup. 1997. Estimates and explanations of gender differentials in contraceptive prevalence rates. *Studies in Family Planning* 28(2): 104-121.

Ezeh, A.C., M. Seroussi, and H. Raggers. 1996. *Men's fertility, contraceptive use, and reproductive preferences*. DHS Comparative Studies No. 18. Calverton, Maryland, USA: Macro International Inc.

Fapohunda, B.M., and P.V. Poukouta. 1997. Trends and differentials in desired family size in Kenya. *African Population Studies* 12(1): 1-21.

Gage, A.J. 1995. Women's socioeconomic position and contraceptive behavior in Togo. *Studies in Family Planning* 26(5): 264-277.

Greene, M.E., and A.E. Biddlecom. 2000. Absent and problematic men: Demographic accounts of male reproductive roles. *Population and Development Review* 26(1): 81-115.

Hardon, A. 1995. A critical review of sexual and reproductive health. In: *Gender, Society and Development, Advancing Women's Status: Women and Men Together?* Amsterdam, The Netherlands: Royal Tropical Institute. p. 120-156.

Hennink, M., E. Zulu, and F. Dodoo. 2001. *Effective delivery of reproductive health services to men: A review study in Kenya and Malawi*. Opportunities and Choices Working Paper No. 4. Southhampton, United Kingdom: University of Southampton. Available at http://www.socstats.soton.ac.uk/choices/Men%20Africa%20WP4.PDF

Hogan, D., B. Berhanu, and A. Hailemariam. 1999. Household organization, women's autonomy, and contraceptive behavior in southern Ethiopia. *Studies in Family Planning* 30(4): 302-314.

Hollander, D. 2000. Couples' reports of their contraceptive use: Do husbands in Africa overstate the case? *International Family Planning Perspectives* 26(4): 203-204.

Hulton, L., and J. Falkingham. 1996. Male contraceptive knowledge and practice: What do we know? *Reproductive Health Matters* 4(7): 90-100.

Isiugo-Abanihe, U.C. 1994. Reproductive motivation and family-size preferences among Nigerian men. *Studies in Family Planning* 25(3): 149-161.

Kamal, N. 1999. Inter-spousal communication on family planning as a determinant of the use of modern contraception in Bangladesh. *Journal of Family Welfare* 45(1): 31-43.

Kimuna, S.R., and D.J. Adamchak. 2001. Gender relations: Husband-wife fertility and family planning decisions in Kenya. *Journal of Biosocial Science* 33(1): 13-23.

Kritz, M.M. 1999. Husband and wife agreement, contraceptive use, and ethnicity in Nigeria. In *Proceeding from the African Population in the 21st Century*, 15-38, Vol. 2. Third African Population Conference, cosponsored by the Union for African Population Studies and the Department of Welfare, Republic of South Africa, Durban, South Africa, December 6-10.

Lesthaeghe, R., and J. Surkyn. 1988. Cultural dynamics and economic theories of fertility change. *Population and Development Review* 14(1): 1-45.

Mason, K.O., and H.L. Smith. 2000. Husbands' versus wives' fertility goals and use of contraception: The influence of gender context in five Asian countries. *Demography* 37(3): 299-311.

Meekers, D., and M. Oladosu. 1996. *Spousal communication and family planning decision-making in Nigeria*. Population Research Institute Working Papers in African Demography, No. AD96-03. University Park, Pennsylvania, USA: Population Research Institute, Pennsylvania State University.

Miller, K., E.M. Zulu, and S.C. Watkins. 2001. Husband-wife survey responses in Malawi. *Studies in Family Planning* 32(2): 161-174.

Miller, W.B., and D.J. Pasta. 1995. How does childbearing affect fertility motivations and desires? *Social Biology* 42(3/4): 185-198.

Odhiambo, O. 1997. Men's participation in family planning decision in Kenya. *Population Studies* 51(1): 29-40.

Pebley, A.R., and W. Mbugua. 1989. Polygyny and fertility in sub-Saharan Africa. In *Reproduction and social organization in sub-Saharan Africa*, ed. R. Lesthaeghe. Berkeley, California, USA: University of California Press. Available at http://ark.cdlib.org/ark:/13030/ft2m3nb1cw/

Peterson, S.A. 1999. Marriage structure and contraception in Niger. *Journal of Biosocial Science* 31(1): 93-104.

Phillips, J.F., F. Binka, M. Adjuik, A. Nazzar, and F. Adazu. 1997. *The determinants of contraceptive innovation: A case-control study of family planning acceptance in a traditional African society*. Policy Research Division Working Paper No. 93. New York: Population Council.

Pollak, R.A., and S.C. Watkins. 1993. Cultural and economic approaches to fertility: Proper marriage or mésalliance? *Population and Development Review* 19(3): 467-496.

Pritchett, L. 1994. Desired fertility and the impact of population policies. *Population and Development Review* 20(1): 1-55.

Schoen, R., N.M. Astone, Y.J. Kim, C.A. Nathanson, and J.M. Fields. 1999. Do fertility intentions affect fertility behavior? *Journal of Marriage and the Family* 61(3): 790-799.

Short, S.E., and G-E. Kiros. 2002. Husbands, wives, sons, and daughters: Fertility preferences and the demand for contraception in Ethiopia. *Population Research and Policy Review* 21(5): 377-402.

Sichona, F.J. 1993. The polygyny-fertility hypothesis revisited: The situation in Ghana. *Journal of Biosocial Science* 25(4): 473-82.

Spezier, I.S., and A.J. Yates. 1998. Polygyny and African couple research. *Population Research and Policy Review* 17(6): 551-570.

Stycos, J.M. 1996. *Men, couples, and family planning: A retrospective look*. Population and Development Program Working Paper Series, 93.18. Ithaca, New York, USA: Cornell University, Department of Rural Sociology.

Tertilt, M. 2005. *Polygyny, fertility, and savings*. Available at http://www.stanford.edu/~tertilt/research/polygyny05.pdf#search='polygyny%20and%20fertility%20Africa'

Thomson, E. 1997. *Her, his and their children: Influences on couple childbearing decisions*. National Survey of Families and Households Working Paper No. 76. Madison, Wisconsin, USA: Center for Demography and Ecology, University of Wisconsin-Madison.

Thomson, E., E. McDonald, and L.L. Bumpass. 1990. Fertility desires and fertility: Hers, his and theirs. *Demography* 27(4): 579-588.

Toure, L. 1996. *Male involvement in family planning: A review of the literature and selected program initiatives in Africa*. Washington, D.C.: Academy for Educational Development. Available at http://sara.aed.org/publications/reproductive_health/family_planning/html/male.htm

United Nations. 1995. *Population and Development: Programme of Action of the International Conference on Population and Development, Cairo, 5-13 September 1994.* New York: Department of Economic and Social Information and Policy Analysis, United Nations.

United Nations. 1997. *Report of the Fourth World Conference on Women, Beijing, 4-15 September 1995*. Beijing, China: United Nations.

Westoff, C.F. 1990. Reproductive intentions and fertility rates. *International Family Planning Perspectives* 16(3): 84-89, 96.

Westoff, C.F., and A. Bankole. 1995. *Unmet need 1990-1994*. DHS Comparative Studies No. 16. Calverton, Maryland, USA: Macro International Inc.

Westoff, C.F., and A. Bankole. 1997. *Mass media and reproductive behavior in Africa*. DHS Analytical Reports No. 2. Calverton, Maryland, USA: Macro International Inc.

Westoff, C.F., and A. Bankole. 2002. *Reproductive preferences in developing countries at the turn of the century*. DHS Comparative Reports No. 2. Calverton, Maryland, USA: ORC Macro.

Westoff, C.F., and L.H. Ochoa. 1991. *Unmet need and the demand for family planning*. DHS Comparative Studies No.5. Columbia, Maryland, USA: Institute for Resource Development/ Macro International.

Westoff, C.F., and G. Rodriguez. 1995. The mass media and family planning in Kenya. *International Family Planning Perspectives* 21(1): 26-31, 36.

Westoff, C.F., and N.B. Ryder. 1977. The predictive validity of reproductive intentions. *Demography* 14(4): 431-453.

Wolff, B., A.K. Blanc, and A.J. Gage. 2000. Who decides? Women's status and negotiation of sex in Uganda. *Culture, Health and Sexuality* 2(3): 303-322.

World Health Organization. 1975. *The epidemiology of infertility*: *Report of a WHO Scientific Group*. WHO Scientific Group on the Epidemiology of Infertility, Technical Report Series No. 582. Geneva: World Health Organization.

World Health Organization. 2001. *Reproductive health indicators for global monitoring: Report of the second interagency meeting, WHO Geneva, 17-19 July 2000*. Geneva: World Health Organization. WHO/RHR/01.19.

Appendix

Table A.3.1 Percent distribution of couples by spousal agreement on fertility preferences with a randomly selected wife, DHS surveys in sub-Saharan Africa 1999-2004

	Agreement on fertility preference				
Country	Both want another child	Neither wants another child	Only wife wants another child	Only husband wants another child	Total
Western and Central Africa					
Benin	69.4	14.2	4.2	12.1	100.0
Burkina Faso	74.9	6.4	5.9	12.8	100.0
Chad	90.0	1.0	2.9	6.2	100.0
Ghana	55.5	26.6	8.1		100.0
Mali	78.6	5.3	3.1	13.1	100.0
Eastern and Southern Africa					
Ethiopia	59.6	17.2	7.5	15.7	100.0
Kenya	47.3	29.7	8.5	14.5	100.0
Malawi	50.0	25.6	12.6	11.8	100.0
Mozambique	70.4	9.4	5.4	14.7	100.0
Namibia	35.7	32.7	8.3	23.3	100.0
Rwanda	60.2	22.7	7.6	9.5	100.0
Uganda	57.9	19.5	7.1	15.5	100.0
Zambia	58.8	19.3	8.1	13.8	100.0
Zimbabwe	52.1	23.0	8.9	16.1	100.0

Table A.3.2 Percent distribution of couples by spousal agreement on ideal number of children with a randomly selected wife, DHS surveys in sub-Saharan Africa 1999-2004

	Agreement on ideal number of children			
Country	Both report the same number	Husband reports higher number	Wife reports higher number	Total
Western and Central Africa				
Benin	22.4	55.7	21.9	100.0
Burkina Faso	19.9	46.1	34.0	100.0
Chad	13.9	64.9	21.2	100.0
Ghana	26.6	41.8	31.6	100.0
Mali	15.7	57.2	27.1	100.0
Eastern and Southern Africa				
Ethiopia	25.0	46.9	28.1	100.0
Kenya	32.1	40.5	27.4	100.0
Malawi	30.4	36.0	33.7	100.0
Mozambique	18.1	51.0	31.0	100.0
Namibia	21.5	46.8	31.7	100.0
Rwanda	31.3	29.8	38.9	100.0
Uganda	22.6	50.5	26.9	100.0
Zambia	24.1	47.1	28.7	100.0
Zimbabwe	27.3	42.3	30.5	100.0

Table A.6.1 Relative risk ratios from multinomial logistic regressions predicting spousal agreement to have no more children, according to selected characteristics: Western and Central Africa

Characteristic	Western and Central Africa			
	Benin	Burkina Faso	Ghana	Mali
Residence (vs. rural)				
Urban	1.13	2.34*	1.02	2.35*
Wife's education (vs. no education)				
Primary	2.35*	2.28	1.41	3.25
Secondary+	2.43	1.14	2.32**	3.75*
Spousal education difference (vs. both same education)				
Wife more educated	0.84	0.69	1.13	0.14**
Husband more educated	1.61	1.33	2.21**	0.99
Wife's age (vs. 15-34 years old)				
35-49	1.80*	1.52	1.64*	2.25*
Spousal age difference (vs. husband older by < 5 years)				
Over 5 years	0.91	1.20	1.08	1.91
Wife's employment (vs. not working)				
Working for cash	1.29	0.55	0.85	1.04
Husband's employment (vs. not working)				
Working for cash	1.10	1.38	1.06	0.45
Type of marriage (vs. monogamous)				
Polygynous	0.66	0.46**	0.46**	0.29**
Number of living children (vs. ≤ 2)				
3-4	4.10**	2.53*	4.43**	3.03
5+	6.58**	9.05**	10.84**	4.67
Infecundity (vs. fecund)				
Infecund	1.38	1.61	1.34	2.46**
Wealth status (vs. poor)				
Middle	1.45	0.95	1.27	0.86
Rich	2.31*	1.04	2.00*	1.01
Number	1,435	2,144	1,862	1,958
Loglikelihood	-840.4	-1146.3	-1258.3	-919.4

Significance level: * $p < 0.05$; ** $p < .01$

Table A.6.2 Relative risk ratios from multinomial logistic regressions predicting spousal agreement to have no more children, according to selected characteristics: Eastern and Southern Africa

	Eastern and Southern Africa								
Characteristic	Ethiopia	Kenya	Malawi	Mozambique	Namibia	Rwanda	Uganda	Zambia	Zimbabwe
Residence (vs. rural)									
Urban	1.31	0.97	1.22	0.99	0.65	2.32*	1.37	1.33	1.17
Wife's education (vs. no education)									
Primary	1.82	1.21	1.17	1.20	0.71	0.89	1.83	1.39	1.57
Secondary+	1.71	2.00	1.78	3.66*	0.95	1.43	1.86	2.60	1.57
Spousal education difference (vs. both same education)									
Wife more educated	0.90	1.30	0.89	1.14	0.79	1.10	0.71	0.64	1.15
Husband more educated	1.06	2.07**	1.22	1.05	1.31	1.54	0.77	0.76	1.12
Wife's age (vs. 15-34 years old)									
35-49	2.62**	2.03**	2.04**	2.70**	1.93**	1.54	2.66**	2.00*	3.45**
Spousal age difference (vs. husband older by < 5 years)									
Over 5 years	1.41	1.15	0.90	1.16	0.84	1.69*	1.06	1.22	0.89
Wife's employment (vs. not working)									
Working for cash	1.28	0.96	1.10	0.44**	1.06	1.01	0.89	0.88	0.78
Husband's employment (vs. not working)									
Working for cash	1.53	1.67	1.21	1.01	0.91	0.71	1.35	0.73	0.67
Type of marriage (vs. monogamous)									
Polygynous	0.63	0.44**	0.64	0.75	1.10	0.54	0.53*	0.57	0.53
Number of living children (vs. ≤ 2)									
3-4	1.43	3.60**	2.87**	3.88**	1.67*	7.18**	2.80*	2.42*	2.91**
5+	3.25**	8.20**	8.02**	8.54**	2.36*	28.83**	8.01**	12.33**	3.37**
Infecundity (vs. fecund)									
Infecund	0.95	0.95	1.32	1.92*	1.72	1.84	2.47	2.69*	1.43
Wealth status (vs. poor)									
Middle	1.03	1.86**	1.23	1.93*	2.27*	0.99	1.02	1.35	1.51
Rich	1.05	2.34**	1.33	3.95**	3.16*	0.77	2.14	2.51*	1.55
Number	1,176	1,224	1,478	1,280	608	1,070	897	1,026	761
Loglikelihood	-874.1	-926.0	-1205.4	-778.9	-588.0	-648.9	-647.2	-676.8	-572.7

Significance level: * $p < 0.05$; ** $p < .01$

Table A.7.1 Odds ratios from binary logistic regressions predicting spousal agreement to have no more children, by prevalence of polygyny

Characteristic	Polygyny	
	Low (<20 %)	High (20% or more)
Residence (vs. rural)		
Urban	1.09	1.51**
Wife's education (vs. no education)		
Primary	1.49**	1.97**
Secondary+	2.11**	3.42**
Spousal education difference (vs. both same education)		
Wife more educated	1.07	1.08
Husband more educated	1.36*	1.68**
Wife's age (vs. 15-34 years old)		
35-49	2.47**	1.82**
Spousal age difference (vs. husband older by < 5 years)		
Over 5 years	1.14	0.97
Wife's employment (vs. not working)		
Working for cash	0.52**	0.43**
Husband's employment (vs. not working)		
Working for cash	1.16	1.08
Type of union (vs. monogamous)		
Polygynous	1.16	1.16
Number of living children (vs. ≤ 2)		
3-4	2.26**	3.64**
5+	3.99**	8.45**
Infecundity (vs. fecund)		
Infecund	0.98	1.39
Wealth status (vs. poor)		
Middle	1.24	1.05
Rich	1.08	1.09
Number	12,158	6,431
Loglikelihood	-9467.1	-4122.7

Significance level: * $p < 0.05$; ** $p < .01$

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