

Schooling and Attitudes on Reproductive-Related Behavior in Ghana

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We use focus groups of adolescents and young adults in urban Ghana to explore both fertility preferences and expectations about the ability to implement these preferences. The attitudes expressed in groups from a range of educational institutions do not support some common assumptions regarding pathways through which women's schooling affects fertility. Our results suggest that 1) the inverse relationship between schooling and fertility may not be as strong under conditions of crisis-led fertility transition as in the more common historical experience, and 2) women's schooling, on its own, is insufficient to change the balance of power in reproductive decision-making in this society.

Women's schooling is widely acknowledged to be the most promising means of reducing fertility in the developing world. Schooling is expected to lower the number of children by imparting knowledge about successful contraceptive use, conferring attitudes favoring small families, and increasing women's ability to implement fertility goals. While all of these pathways are plausible, their relevance likely varies between social settings.

Unfortunately, there is a mismatch between theory and research regarding the effects of schooling. Although it is recognized that schooling has a relatively small effect on fertility through factors influencing the supply of

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children (e.g., decreased sterility, later marriage), the relative importance of supply-side factors has been carefully specified (e.g., Jejeebhoy, 1995; Lesthaeghe, 1986). In contrast, despite the substantial impact on *desired* family size, the relative importance of various demand-side factors remains speculative. The little available research on how schooling influences the demand for children (e.g., Cleland and Jejeebhoy, 1996; Cleland et al., 1996; Lam and Duryea, 1999; LeVine et al., 1991; Martin and Juarez, 1995) tends to confirm or discount the relevance of single pathways (e.g., effects through market wages or women's autonomy).

We consider multiple demand-side pathways using focus groups from various educational institutions in Accra, Ghana. Our instrument tapped attitudes on desired family size, reasons for those desires, and other factors related to child rearing, household roles, and reproductive decision-making. These data offer some insight into how different levels and types of schooling affect fertility demand. We evaluate the effect of schooling on knowledge, attitudes, and practice of fertility regulation, focusing primarily on 1) multiple determinants of fertility desires and 2) gender norms governing resolution of conflicting fertility desires. Our data indicate that the effect of schooling on family size desires may be less consistent than commonly assumed. They also provide substantial reason to doubt that women's schooling confers the ability to successfully implement fertility desires not shared with husbands.

THEORETICAL FRAMEWORK

Individual involvement with modern institutions in developing countries, especially schools and factories, has been shown to change orientations toward childbearing (Inkeles and Smith 1974). Modernization theory predicts that exposure to schooling reduces fertility primarily through changing attitudes, while demographic literature identifies a need for change in knowledge, attitude, and practice before fertility change occurs. Both of these perspectives view schooling as a force conducive to fertility decline, and fertility differentials by education within countries strongly support this view. However, progress toward universal education has been reversed in many countries in sub-Saharan Africa as a result of economic crises (see, e. g., Lloyd et al. 2000). If schooling reorients people for participation in a new, more modern economy where large families are a hindrance to progress, then it might not produce the same effects in societies where economic progress is slow or has been reversed. If attitudinal change is less economically prescribed and instead is dominated by factors such as different values in child rearing, an awareness of ecological problems, or concerns for women's health, then

schooling would likely continue to be associated with lower fertility even under conditions of economic hardship.

Therefore, attitudinal data are necessary for understanding potential future fertility trends (see Westoff 1991). One of the key variables that will determine whether, or at what pace, sub-Saharan Africa (or any country therein) proceeds with the fertility transition is whether education will have the effects anticipated from the experience of more developed countries. Understanding when in the educational process important attitudinal and power changes take place should help in the formation of educational policy and goals.

Furthermore, determining how schooling influences the demand for children is key to understanding why the effect of schooling on fertility varies across societies. Despite the nearly universal inverse relationship, there is substantial variation in the amount of schooling required for meaningful fertility change to occur. In Africa, fertility differentials emerge later in the educational process than in Asia and Latin America (Kritz and Makinwa, 1995). Cross-national studies have shown that gender inequality mediates the effect of schooling on fertility. Schooling has a stronger effect on fertility in weaker patriarchal regimes (Cain, 1984), and matters most where it gives women a voice in family decision-making and resource allocation (Jejeebhoy, 1995). A focus on attitudes that does not consider gender power structures may miss an important aspect of why schooling does or does not matter for fertility outcomes.

This study proceeds from the assumption that not only does the degree of gender inequality vary between societies, but that the effect of schooling on autonomy also varies. More specifically, we recognize 1) that the level of schooling required to enhance women's autonomy depends on social context, and 2) that increases in autonomy measured by general decision-making or family resource allocation may or may not enhance *reproductive* autonomy. Therefore, we address the question of which pathways matter most at the various levels of education with particular attention to whether women's voice in economic and household decision-making increases. We then examine whether autonomy in these realms is related to autonomy in reproductive decisions in a society where reproductive decisions have been traditionally male-dominated (see, e.g., Ezeh 1993).

DATA AND METHODS

Sample Selection

Our data come from 16 focus group discussions with young women and two with young men in selected educational institutions in November 1993. Each

group had 6-8 respondents. The sampling frame comprised a list of available institutions in Accra, the capital of Ghana. The focus groups cover a range of educational levels and types: junior secondary school year 2 (roughly ages 14-15), senior secondary school year 2 (approximately ages 17-18), post-secondary schools (vocational/technical/commercial), professional schools, and assorted tertiary institutions. Undergraduate and graduate students at the university were interviewed. Two focus group discussions were also held with men at the University of Ghana (undergraduates and graduates), the argument being that men with the highest levels of schooling should forward the most modern or liberal views on gender relations and, therefore, present an upper bound on receptivity to women's autonomy.

Four junior secondary schools were randomly selected for visits. After introducing the study to leading administrators at the schools, a group of second year girls was selected (by the school) for our study. This mode of selection probably led to the brightest students and/or the best English speakers being presented for the discussion groups; we consider this seriously in interpreting our results. Four Senior secondary schools were also selected for the study, representing both all-girls and coeducational schools. We chose both female-only and mixed-sex schools because the differences in socialization and experiences may impact the formation of attitudes related to fertility (Lee and Lockheed, 1998). Four commercial/vocational schools were selected, again purposively to include two women's-only and two co-educational schools. Finally, for tertiary institutions, a journalism institute and a polytechnic were selected in addition to the University of Ghana. At the university, because there was no designated office from which we had to seek permission to talk to the students, notices soliciting respondents (both men and women) were put up. Snowball sampling was then used to identify other informants from among the peers and friends of the available subjects.

Our sample selection procedures disproportionately include girls more likely to continue their education up to the university level. Our comparisons of attitudes between those at lower levels and those at the university are therefore less confounded by issues of selectivity for continued schooling than would be the case with random samples at each level. We are therefore better able to examine the effect of schooling *per se* rather than the combination of schooling and selection into schooling. This is especially important given that the causal effects of education on fertility often cannot be separated from those explained by selection into schooling, assortative mating, and reverse causation (Eloundou-Enyegue, 1999). We also avoid the confounding caused by assortative mating in interviewing girls before they marry (see Basu, 1999).

Techniques of Analysis

Groups were asked a total of fifteen questions, some of which had several parts. The discussions were tape recorded and then transcribed. We adopted procedures to mitigate the disadvantages inherent in complex responses to open-ended questions. For each question, all of the distinct responses were recorded and assigned codes. Thus, the set of possible response codes was generated directly from the data. Number of responses varies with the question primarily because more complex questions sometimes received multiple contributions by various group members while more straightforward questions were simply answered once per individual. Objectivity and reliability were enhanced by using two coders who worked independently and then reviewed the codes together to resolve the small number of discrepancies.

Because the data were obtained from a non-random sample, analysis requires a non-probability statistic to somewhat correct for this problem. Therefore, most of our analyses use the chi-square test (see Gauthier and Forsyth, 1999). We support our findings with representative quotes from the group discussions.

We also tested for associations between various aspects of women's autonomy at the group level. We used the correlation coefficient to test whether groups giving a higher percentage of egalitarian responses in one domain were likely to give egalitarian responses in other domains. We distinguished between household autonomy, economic autonomy, resource control autonomy, and reproductive autonomy. We measured household autonomy by responses to the questions "What do you think about this statement that 'a woman's place is in the kitchen?'" and "How much influence do you think a woman should have about who does household chores?" We coded responses that conveyed any expected influence over husband's participation in chores and disagreement (or even qualified agreement) with the statement "a woman's place is in the kitchen" as egalitarian. For economic autonomy, if women were accorded any expected influence over whether the wife worked outside the home or whether the couple should move if she had a job offer elsewhere, the response was considered egalitarian. For resource control autonomy, egalitarian answers were those which expected women to have at least primary influence in disposing of their own incomes (women's control over own income is normative in Ghana (Clark, 1994; Ghana Statistical Service and Macro International, 1994)) or having any say regarding major purchases or how their husbands' incomes would be spent. Reproductive autonomy was measured by how conflict about whether to have a/another child was likely to be resolved, and any answer other than that the man would decide unilaterally was considered egalitarian.

Our data on women's decision-making power actually reflect *perceived* power. All of our respondents (except a few at the university level) were unmarried and were therefore answering questions about how they *expected* decision-making to occur in their future unions. Asking young women to speculate in this manner provides the ideal type of data for analyzing the effect of schooling on attitudes, separately from whether schooling actually confers the power necessary to implement those attitudes. Although such answers reflect some elements of expected constraints in implementing preferences, the extent to which this occurs is a function of perceived autonomy, which is precisely what we seek to measure. As well, the outcomes are not confounded by attitudes that derive from childbearing experiences.

RESULTS

Attitudes Regarding Number of Children

The fertility desires of the respondents were far lower than the prevailing total fertility rate in Ghana in 1993 (5.5 children per woman, (Ghana Statistical Service and Macro International, 1994)). There are several reasons why this is expected. First, our sample includes only those with at least a Junior secondary school education. Furthermore, those interviewed may be high achievers (a likely bias emanating from the school administrators' selections). Second, the interviewees were still in school and therefore any dropouts for pregnancy or other reasons are excluded. Finally, the respondents were too young to have their fertility desires rationalized upwards by the experience of high fertility. Few respondents at any level of schooling wanted more than four children. The data on desired fertility in Table 1 are grouped into broad educational categories because preliminary chi-square tests revealed no significant differences between single-sex and coeducational schools or between the various types of post-secondary institutions.

Table 1. Schooling and Fertility Preferences

Education type	Desires 0-2 children	Desires 3-4 children	Desires 5 or more children	Number of Responses
Junior Secondary School	19 (66%)	8 (28%)	2 (7%)	29
Senior Secondary School	16 (50%)	14 (44%)	2 (6%)	32
Post-Secondary Education	20 (38%)	28 (54%)	4 (8%)	52

N= 113 women's responses; DF=4, Chi-Square Value=14.135, $p < .01$

The expected inverse relationship between schooling and fertility does not emerge from our data on fertility *desires*. Somewhat strikingly, the most common response at the Junior secondary school level was a preference for few children (two or fewer). Among those with the most education, the most commonly articulated desire was for 3-4 children. A higher percentage of

women at the university wanted *many* children (five or more) than in any of the other groups (not shown). Educational level and fertility preference are significantly related, but not in the expected direction.

We investigated the causes of this pattern by looking at the reasons given for the stated desires. We grouped answers into six types, presented by educational level in Table 2. This level of detail is not well supported by our small sample size, but the patterns are nonetheless suggestive. The most notable feature of the table is that utilitarian and traditional reasons for wanting more children (reasons 5 and 6) were no more common among the less educated than among the more educated. Junior secondary school girls were a little more likely to mention economic reasons for wanting more children (reason 5), but the idea that fertility should be limited to the number of children the parents can provide for (reason 1) was dominant at all education levels.

Table 2: Schooling and Reasons for Fertility Preferences

Education level	# can care for	Population problems	Women's health	Few is good	Utility of children	Many is good	Number of Responses
Junior Secondary School	18 (72%)	2 (8%)	1 (4%)	0 (0%)	4 (16%)	0 (0%)	25
Senior Secondary School	16 (57%)	3 (11%)	2 (7%)	2 (7%)	2 (7%)	3 (11%)	28
Post-secondary education	23 (74%)	1 (3%)	2 (6%)	0 (0%)	3 (10%)	2 (6%)	31

N=84 women's responses; DF= 10, Chi-Square Value=9.736, $p < .50$

These results need to be interpreted in conjunction with expressed fertility desires. Regardless of level of schooling, respondents overwhelmingly advocate having the number of children they can cater for. But interestingly, at lower levels of schooling the desired fertility is lower than at higher levels. It seems likely that the girls with less educational achievement do not believe that they can cater for a large number of children. Respondents often mentioned how difficult it currently was to provide for children.

“I think that you should have two children because if you have many children you won't be able to pay school fees, buy their clothes, etc.” [a junior secondary school respondent]

“Because right now the nation is growing, prices are going up, and education too cost a lot. So right now if you give birth to four children and you don't have a good job, you can't cater for all the four children. In modern Ghana things are difficult and

you can't take care of the children." [a commercial school respondent]

Those with more schooling were also significantly more likely to give relative or individual responses to the question of whether Ghanaians should have more than four children (not shown). Only 10 percent of responses at the Junior secondary school level indicated that it was ever alright to have more than four children, while 40 percent at the Senior secondary school level and 47 percent at higher levels expressed more than four being sometimes or always acceptable. Although most of the respondents at all levels of schooling were considering the costs of childrearing in their fertility desires, the more educated seem more likely to believe that they could provide for a larger number given their skills.

"Well in isolated cases, for instance in my case where I want six and know I can take care of them." [a female university respondent]

The focus groups were also asked whether they thought that schooling influenced the desired number of children. The responses to this question tell us not only what the perceived relationship between schooling and fertility is, but also which pathways are *thought* to be operating. Some respondents felt there was no relationship between schooling and fertility while others believed that schooling lowered fertility either by increasing women's knowledge of contraceptives, changing the way women perceive childbearing and rearing, or limiting the number of childbearing years (Table 3).

Table 3. Opinions on Whether Schooling Influences Fertility Preferences

Education level	Education does not affect fertility	Education increases contraceptive knowledge	Education changes attitudes toward fertility	Education limits childbearing years (practice)	Number of Responses
Junior Secondary School	15 (43%)	3 (9%)	17 (49%)	0 (0%)	35
Senior Secondary School	6 (17%)	13 (37%)	14 (40%)	2 (6%)	35
Post-secondary Education	7 (11%)	17 (27%)	29 (46%)	10 (16%)	63

N= 133 female responses; DF=6, Chi-Square Value=24.268, $p < .001$

The pattern of their responses varied significantly by level of schooling (chi-square significant at $p = .001$). Girls in junior secondary school were the least likely to believe that schooling affected fertility. Among those Junior secondary school respondents who did agree that schooling affected fertility,

students spoke primarily of changes in attitudes: women would want to limit fertility in order to afford schooling for all their children, educated women would be more likely to be living in urban areas where child labor was less necessary, and educated women were more likely to have jobs which took time away from child rearing.

“It changes because if you don’t go to school and you marry someone like a farmer, you will like to have many children to help you farm.” [a junior secondary school respondent]

“If a person didn’t go to school, they will not know what school is and they won’t want their children to go to school because they will think it is useless.” [a junior secondary school respondent]

As the level of schooling increased, respondents were even more likely to believe that schooling affects fertility. At the higher levels of schooling, respondents volunteered that time in school could delay the start of childbearing; they may have begun to feel that they were making a trade-off between continuing in school and initiating childbearing. It is noteworthy that women with senior secondary school or higher education were more likely to offer knowledge of contraceptive means as a reason why educated women desired fewer children than less educated women. Their perception of the necessity of schooling for obtaining contraceptive knowledge seems to be inflated given that 85 percent of all 15-19 year-olds in a nationally representative sample (not selected on the basis of educational attainment like ours) in the same year knew at least one modern contraceptive method (Ghana Statistical Service and Macro International, 1994).

Although respondents believe that schooling affects fertility through transforming attitudes toward childbearing, it is remarkable that this perception regarding attitudinal change is fairly stable across levels of schooling. Thus, it seems that the importance of attitudinal change relative to other pathways through which schooling affects fertility does not vary by educational level. This is consistent with the desired fertility data presented above and argues for the credibility of these data despite the known selection biases.

Women’s Autonomy

Schooling is also expected to reduce fertility by augmenting women’s economic autonomy that, in turn, could increase their bargaining power in reproductive decisions. Schooling can also enhance reproductive autonomy

directly by improving couple communication and negotiation. The answers to two questions: 1) “If in the future you get married, and had the number of children you require, but your partner wants another child, but you do not, how would you resolve this? Why?”, and 2) “What about if you want another, but your partner doesn’t? Why?” were used to construct a measure of reproductive autonomy. We recognize this measures perceived rather than actual autonomy, but we argue that girls/women who expect to control their reproduction are qualitatively different than others, even if their expectations are not always actualized.

First, we confirmed that there was little association between expected autonomy in various domains at the group level. Recognizing that women’s autonomy is multi-dimensional, we tested whether groups giving a higher percentage of egalitarian answers to questions about household autonomy, economic autonomy, or resource control autonomy were also more likely to give egalitarian answers regarding reproductive autonomy. Egalitarian answers in these four domains did not significantly correlate with each other (the correlation matrix is available from the authors). This is not unexpected in a society where women’s paid labor force participation represents a traditional means of fulfilling maternal roles. West African women have been active, particularly in trade, for centuries and paid work is not a status innovation (House-Midamba and Ekechi, 1995). Seidu (1986, cited in Ardayfio-Schandorf and Kwafo-Akoto, 1990) also confirmed that occupation had no effect on Ghanaian women’s views on traditional sex roles.

Moreover, respondents at different levels of schooling did not differ significantly with respect to the autonomy that they expected in their married lives. Schooling level did not predict autonomy expectations for any of the four dimensions we measured. Schooling does not seem to be sufficient to alter well-defined gender roles regarding decision-making in many spheres of Ghanaian life. Other studies that have tested the effect of schooling on autonomy rather than simply assuming that enhanced autonomy is one of the operative pathways through which education reduces fertility also conclude that schooling alone has little impact on autonomy (Chowdhury, 1992; Dharmalingam and Morgan, 1996; Jeffery and Basu, 1996).

We also compared men and women at the university level to assess whether their expectations regarding reproductive decision-making were similar. They were not. Table 4 shows responses to both questions regarding conflict in reproductive decision-making (what would you do if you want another child and your spouse does not, and vice versa). While most women from our university focus groups felt that conflicts of these sorts could be negotiated between the partners, a substantial minority felt that the decision belonged to them alone, and none felt that their husbands would decide

unilaterally. In contrast, although university educated men also saw room for negotiation with their spouses, very few held that the decision belonged exclusively to their wives, and one in three thought it was theirs to make alone. Apparently education increases women's perceived power in reproductive decision-making more than it increases men's willingness to yield control in this realm.

Table 4: Reproductive Conflict Resolution: What to do if One Partner Wants another child

	Woman Decides	Man Decides	Original Plan	Negotiate	Negotiate with Help	Number of Responses
University Women	4 (19%)	0 (0%)	1 (5%)	15 (71%)	1 (5%)	21
University Men	2 (5%)	11 (30%)	3 (8%)	18 (49%)	3 (8%)	37
Junior Secondary School Girls	12 (18%)	20 (30%)	5 (8%)	19 (29%)	10 (15%)	66

N= 124 responses; DF=8, Chi-Square Value=19.044, $p < .05$

Test for difference between University Women and University Men:

DF=4, Chi-Square Value= 14.089, $p < .01$

Test for difference between University Men and Junior secondary school Girls:

DF=4, Chi-Square Value=8.168, $p < .10$

Men with university education are more similar to Junior secondary school girls in their attitudes regarding how conflict in reproductive preferences should be resolved than they are to their female peers at the university. However, even Junior secondary school girls expect to control reproductive decisions alone to a greater extent than men at the university expected to allow their wives to do so (Table 4). Because men's education influences gender norms in decision-making more than women's (Adomako Ampofo, 2000; Gauthier and Forsyth, 1999), the attitudes of men are likely to have more influence on actual fertility behavior.

DISCUSSION AND CONCLUSION

In both the historical record and in many contemporary societies, higher education is associated with lower lifetime fertility. Although a few years of schooling sometimes increases fertility, the negative relationship emerges beyond the primary level. Our data on fertility preferences of girls at the junior secondary school level and higher do not reflect this inverse pattern. Junior secondary school girls are somewhat more likely to want small families, while large family size desires were more common at higher levels of schooling. This finding is particularly striking given that schooling is expected to change fertility behavior primarily through conferring attitudes that favor small families. We offer three non-competing hypotheses to explain our results: sample selection, economic crisis, and conjugal power.

First, the girls who participated in the focus groups at the lower schooling levels were selected by school administrators. If these girls were chosen to favorably reflect the school, it is likely that they may be the kind of students who will continue in the educational process and therefore not represent the attitudes of girls whose education ended when (or before) secondary school was completed. Therefore, their fertility preferences may better reflect the attitudes of the university women they will become than attitudes of women who attained up to the Junior secondary school (or senior secondary school) level. If this is the case, it argues that schooling per se has little effect on fertility preferences and that preference differentials by education observed in national-level data may be heavily determined by selection factors determining school continuation (see also Jeffery and Basu, 1996). While this could explain the lack of inverse relationship between level of schooling and desired fertility in our sample, it does not explain why we found *higher* desired fertility at higher schooling levels.

The girls who were in Junior secondary school 2 in 1993 were born around 1979 and hardly grew up under prosperous economic conditions. A severe drought in 1981-82 was followed by the forced repatriation of over a million Ghanaians from Nigeria (caused by the decline in world oil prices) in 1983. Ghana's Economic Recovery Programme was also implemented in 1983, and it has been described as "one of the severest stabilization programmes that the IMF and the World Bank have ever managed to get a developing country to accept" (Tabatabai, 1988). The Economic Recovery Programme included the introduction of nationwide school fees (Lloyd and Gage-Brandon, 1994) which dramatically increased the costs of education to parents and, therefore, undoubtedly affected the messages schoolgirls were receiving from their parents about the costs of child rearing. Parents whose daughters were still in school in 1993 had to make sacrifices to finance their educations that were not anticipated at the time their daughters were born.

Although these disadvantaged economic conditions affected the lives of all of the respondents in our sample, the younger girls were socialized under conditions of extreme hardship and do not have memories of more prosperous times. They desire small families and when asked to explain their fertility preferences, they generally argued that people should only have the number of children they can take care of. They have a strong sense of the cost of living and do not estimate their earning potential very highly.

In contrast, the respondents with higher levels of schooling also felt that fertility should be limited in order to adequately provide for children, but they reported higher fertility preferences and were also much more accepting of the idea that it was alright for Ghanaians to have more than four children under some circumstances. Those whose childhoods were less dominated by

economic recession and had higher levels of schooling seemed to feel that they could support more children than the girls behind them in school did (see Easterlin, 1978).

But it is also possible that differences that we see in fertility preferences between the lowest and highest levels reflect changes that go on during adolescence. Between junior secondary school and the university girls become more educated, but they also grow older. Attitudes regarding reproduction at the Junior secondary school level — particularly if voiced by girls whose education will not be completed for another decade — may reflect ideals that start to erode as girls enter into sexual relationships and consider future marriages less abstractly. These girls have fertility norms that may be difficult to implement in a strongly patriarchal culture where even the most highly educated men do not expect to include their wives in decision-making as much as women expect to be included. The contrast between the expectation of Junior secondary school girls and university men is particularly striking when we consider that the Junior secondary school respondents may actually marry men with less than university education and less egalitarian attitudes. This argument about difficulty of implementing fertility preferences indicates that the effect of schooling on fertility in urban Ghana may be limited by women's restricted voice in reproductive decision-making.

Fertility differentials by level of schooling may also be smaller in societies where fertility reduction is motivated by economic difficulties. Dodo (1993) has shown that Ghanaian women initiating childbearing during a period of economic hardship delayed first births longer than previous cohorts did, regardless of education level. Abu (1994) described how Ghanaian women assess their economic strength when deciding whether to delay or speed the next birth, but noted that educated women have more confidence in their longer-term economic prospects and plan accordingly. The attitudes of our respondents support the possibility that the relationship between fertility and schooling may be quite different where fertility decline is crisis-led than when family limitation follows economic development. The more common historical experience of prosperity-led fertility transition produced an inverse relationship between schooling and fertility as the most educated were the first to invest a great deal in a smaller number of children. The better-educated women in our sample expected to get better jobs and to care for more children than those who had not yet achieved the same degree of success. If economic hardship limits the ability of less educated women to provide for their children more than it limits women with higher levels of schooling, the expected inverse relationship between schooling and fertility may not emerge. Further, limiting childbearing because of economic constraints also raises the

possibility that fertility limitation may be reversed if economic conditions improve.

The results of our analysis of women's autonomy indicate that in Ghana it is inadvisable to assume that women's autonomy in productive work or in household decision-making indicates women's autonomy in reproductive decision-making. Elsewhere, women who contribute cash to household expenses have been shown to have more voice in family-size decision in other contexts (see Riley, 1997), but in Ghana independent women's economic activity is part of fulfilling traditional female obligations to family and does not necessarily confer reproductive control. In our sample, those with more education did not expect greater reproductive autonomy for themselves than did those at lower levels. It appears that it will take more than schooling to change the balance of power in reproductive decision-making in this society.

We therefore suggest that future studies with more representative samples specifically test whether (and how) schooling affects knowledge, attitude, and/or practice of fertility regulation. The assumption that schooling produces attitudinal change and that such change favors fertility limitation among the more educated may miss contextual factors important for both national education policy and family planning programs.

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