

## **The impact of family planning and delaying childbearing on women empowerment in Iran**

Amir Erfani, *Nipissing University, Canada* ([amire@nipissingu.ca](mailto:amire@nipissingu.ca)) September 23, 2011

### **Abstract**

The literature documenting fertility transition in developing countries, including Iran, have largely focused on the determinants of fertility decline and less attention was given to the impact of the decline on women's lives. Using longitudinal retrospective data from 2009 Tehran Fertility Survey, this study examined the impact of contraceptive use and delaying childbearing on women's educational and employment trajectories, as indicators of women's empowerment. Multinomial logistic analyses indicated that compared with contraceptive nonusers, women using modern contraceptives before first birth and delaying childbearing by three years, were more likely to experience 1-2 years of increase in education level and to stay employed after successive births, controlling for other factors. Further cohort analyses revealed that more recent marriage cohorts of women were more likely to experience educational improvement and to remain stably employed over time, compared to older cohorts who did not have access to freely available family planning services.

### **Background**

The Islamic Republic of Iran has experienced perhaps the most rapid and far-reaching fertility decline demographers have ever witnessed. After the 1979 Islamic Revolution, the total fertility rate which rose slightly to 7.0 children during 1980–84, dropped by more than 5 children to below-replacement-level fertility (1.9 children) in 2006 (Statistical Centre of Iran, 2000, 2008; Ministry of Health and Medical Education, 2000), along with a rise in contraceptive use from 37% in 1972 to 65% in 1992 and 74% in 2000 (Aghajanian and Mehryar, 1999; Ministry of Health and Medical Education, 2000). This is a remarkable fertility transition, as the government policy in Iran never resorted to the types of coercive measures that have been employed elsewhere. Although the rapid decline in fertility had started in the mid 1980s, the widespread use of contraceptive methods provided by the first post-revolutionary nation-wide family planning program, implemented in 1989, contributed to 63 percent of the reduction in the observed fertility (Erfani and McQuillan, 2008). The literature documenting fertility transition in developing countries, including Iran, have largely focused on the determinants of the decline, and have given less attention to the impact of the decline on women's lives.

Thus far, past studies have examined the impact of women's educational attainment and economic activity on their fertility level and contraceptive behaviors. However, little attention, has been given to an inverse casual link, examining the impact of family planning program and low fertility on women's empowerment. In this proposed study, the author proposes studying the impact of contraceptive use and delaying childbearing on women's educational and employment improvement, as indicators of women's empowerment, in Tehran, the capital city of Iran, in which the total fertility rate is estimated at 1.56 children per woman (Erfani, 2010).

In Iran, where employment opportunities for women are limited—only 13% of women in the country and 15% in Tehran are employed- women usually seek an upward social mobility within

the family and the society largely through attaining their desired level of education. This has become particularly a major goal for the young generation of women even after marriage. When there is no way to get into labor market, a university degree for a woman boosts her position in getting married with a man from a higher socioeconomic status, brings more prestige for her within the family and the society and increases her chance for finding a possible job opportunity before or after marriage. Even many employed Iranian women, especially those working in public sectors, tend to continue their education while working largely for the purpose of income and job promotions. Thus, family planning serves women to meet these goals.

Over the past years, the proportion of girls entering into a pos-secondary institution in Iran has been increasing. The gender inequality among university students has been widening in the benefit of girls making up two-third of university students. Even, many young brides continue their education after entering into a marital relationship.

The improvement in women's educational attainment among married women seems to be a new phenomenon that was emerged largely over the last decade following the rapid decline in fertility through the wide use of contraception. Contrary to the western style of family formation, where girls often create a family after completing education and securing a job, in Iran, many girls continue their education after marriage by delaying childbearing, using contraception (Abbasi-Shavazi et al., 2009). However, no systematic study so far has examined the impact of family planning program and the delay in childbearing on women's educational and employment improvement after marriage. As an indicator of women's empowerment, educational improvement can be achieved easier when women are free from childbearing by using contraception to prevent unplanned pregnancies. The use of effective contraceptive methods would also empower women to obtain or maintain a work position by preventing unplanned pregnancy and having more control on their desired tempo and quantum of childbearing. Using longitudinal retrospective data, this study aims to examine the impact of family planning and delaying childbearing on women empowerment, measured by educational and employment improvement over the life-course.

### **Hypotheses:**

This study is motivated by the hypothesis that a smaller family size and increasing contraceptive use enable women to spend a significant portion of their lifetime involving in non-reproductive activities, including education and employment.

The purpose of this study is to examine the above hypothesis taken from one of the four mechanisms identified by Malhotra (2009) by which declines in fertility can change women's lives. Specifically, this study aims to examine the following hypotheses.

- 1) Women who had used contraception and hence had delayed the onset of childbearing within marriage for a longer period were more likely to pursue completing their education and obtaining or preserving a work position, compared with those who had not used effective contraceptive methods and hence had become pregnant shortly after marriage.
- 2) Given the dynamic of family planning after the revolution in Iran, the proposed study also assumes that the positive impact of contraceptive use on women's empowerment has been

increasing across cohorts of women over time, with increasing access to and use of effective modern contraception.

### **Analytical Strategy**

Testing the proposed hypotheses requires longitudinal data in order to meet the temporal order between explanatory and outcome variables. The standard Demographic and Health Surveys do not collect retrospective data on women's educational levels and employment status at different time points. Nonetheless, the 2009 Tehran Survey of Fertility (TSF), conducted by the author in the capital city of Tehran, is a unique survey that has collected rich retrospective data on both birth and contraceptive histories and trajectories of educational levels of husbands and wives and wives' employment status. The survey was administered to a representative sample of 2934 women, drawn from population of currently married women aged 15-49 residing in 22 residential districts of the city of Tehran, through face-to-face interviews, employing a two-stage stratified cluster random sampling design.

While education levels of husbands and wives were measured at the times of marriage and interview, data for women's employment status were collected for the periods before the pregnancy of each woman's live birth and for the time of the interview. This allows the author to construct two outcome variables, measuring "educational improvement" and "trajectories of employment status" from marriage to the time of the interview (August 2009). The dependent variable, Educational Improvement, includes three categories: 1) 1-2 years of educational improvement; 2) 3 and more years of improvement; and 3) no educational improvement. The first group includes women who married largely at age 25 and above over the recent decade (2000-2009) with a complete secondary education, or some post-secondary education. In contrast, the second group includes those who mostly married with an incomplete primary or secondary education before age 16, prior to the implementation of the family planning program in 1989. Finally, the third group encompasses women whose education levels at marriage and at the interview were the same, so they were labeled as women with "no educational improvement". Women in the first and second categories constitute 15% of the sample in TSF.

Similarly, the trajectory of women's employment status was measured for two time points, before the pregnancy of the first birth and at the time of the interview, as well as before the pregnancy of the second birth and at the time of the interview. Change in women's employment status at the two time points will be measured by three categories: 1) stably employed (at two time points); 2) Mix statuses; 3) stably unemployed (at two time points). Women in the first and second categories make up 26% of the total number of women in the analysis.

Two key explanatory variables in this proposed study include 'contraceptive use before the pregnancy of the first birth' and 'the length of the first birth interval'. The impact of the key covariates on the outcome variables will be controlled for confounding factors such as women's age at marriage, spousal age difference, and residential districts. To examine the second hypothesis, however, all bivariate and multivariate analysis will be conducted separately for three marriage cohorts of women: 1) those who married before 1990, when no official family planning program was in place; 1990-99; and 2000-2009. Such an analytical strategy allows us to examine the extent of the impact of contraceptive use on women's empowerment over time. To avoid any bias associated with the small sample size in the cohort analysis, the dependent

variables will be turned into dummy variables, and categories of some explanatory variables will be collapsed in a meaningful way.

In addition to the individual-level bivariate and multivariate analyses, this proposed study also uses aggregate-level data to contextualize women's empowerment in Iran over time. Specifically, data from 1996 and 2006 Iran census and other national-level secondary sources, including the 2000 Iran DHS, will be utilized to contextualize the changes in women's educational and employment over the past decades by illustrating changes in the trends of mean age at marriage, gender differentials in literacy rates, spousal age differences, contraceptive use, and shifts from female to male contraceptives, across different marriage cohorts.

## Bibliography

- Abbasi-Shavazi<sup>1</sup>, Mohammad Jalal, S. Philip Morgan, Meimanat Hossein-Chavoshi, and Peter McDonald. 2009. "Family Change and Continuity in Iran: Birth Control Use Before First Pregnancy," *Journal of Marriage and Family* 71(5): 1329-1324.
- Aghajanian, Akbar and Amir H. Mehryar. 1999. "Fertility, contraceptive use and family planning program activity in the Islamic Republic of Iran," *International Family Planning Perspectives* 25(2):98-102.
- Erfani, Amir. 2010. *Tehran Survey of Fertility, 2009: Final report*, Tehran: Population Studies and Research Center in Asia and Pacific (PSRC).
- Erfani Amir and Kevin McQuillan. 2008. "Rapid fertility decline in Iran: Analysis of intermediate variables," *Journal of Biosocial Science* 40(3): 459-478.
- Malhotra, Anju. 2009. "Remobilizing the gender and fertility connection: The case for examining the impact of fertility control and fertility declines on gender equality," paper presented at the IUSSP Meetings, Marrakech, Morocco: September 28, 2009.
- Ministry of Health and Medical Education (MOHME). 2000. *Iran Demographic and Health Survey (IDHS)*. Ministry of Health and Medical Education, Tehran.
- Statistical Center of Iran. 2008. *The 2006 National Census*. Tehran: Statistical Center of Iran [in Persian].
- Statistical Centre of Iran. 2000. *Estimation of fertility level and pattern in Iran: using the own-children method, 1972-1996*. Tehran: Statistical Centre of Iran [in Persian].