

The Impact of Economic Variables on Fertility Rate in Iran's Provinces

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Extended Abstract

Introduction

In recent years, reducing the fertility rate has been one of the most important social policy concern in Iran. In this regard, one of the main reasons originates from the country's economic structure. Iran's population increased dramatically during the latter half of the 20th century, reaching about 80 million by 2016. In recent years, however, Iran's birth rate has dropped significantly. Studies project that Iran's rate of population growth will continue to slow until it stabilizes above 100 million by 2050. More than half of Iran's population is under 35 years old.

Islamic Republic of Iran has performed well on social indicators, especially in providing basic services such as health care and education. This country with 70 million people has undergone a substantial fertility decline in recent decades. In 1980, Iran's total fertility rate was 6.58; however, it declined to 1.9 by 2006 with the most rapid decline during the 1990s. Iran's fertility decline may have proceeded in the two stages of which the first one began in the late 1960s. The Iranian government introduced a family planning program during the 1960s with explicit health and demographic objectives. Between 1967 and 1977, fertility declined (mainly in urban areas) to an average of 4 children per woman. Although the family planning program continued after the 1979 Islamic revolution, it was suspended after the war broke out with Iraq in 1980 (World Bank, 2010).

Theoretical Framework

Economic recession has a multifaceted influence on fertility decisions. There is a substantial literature presenting the economic models of fertility, starting from a seminal work by Becker in the 1970s. Before Gary Becker, fertility choice was widely considered to be outside the realm of economic analysis. Apart from the intellectual tradition, one reason for this was that the data on fertility did not immediately suggest an economic mechanism. Becker (1960) argue that an economic model treating children as analogous to consumer durable materials such as cars or houses can explain the data. His paper departed from earlier theorizing on

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fertility by demographers and sociologists in two different and equally important ways. First, his analysis assumes that preferences are given. The assumption of given preferences is what puts the “economics” into Becker’s analysis. By ruling out shifts in tastes, Becker’s theory of fertility choice places the spotlight on changes in income and relative prices for explaining trends in fertility. The second departure from earlier theories is the focus of this essay, namely the concept of a quantity-versus-quality tradeoff in fertility choice. Its effects are often differentiated by gender, age (or a position in the life cycle), ethnic, migrant and social groups, and the number of children. Also the ‘opportunity costs’ of childbearing (time, skills and income for childcare and child-rearing) are differently affected by the recession among various social groups. Typically, fertility has a procyclical relationship with economic growth. The expanding literature on the effects of unemployment on childbearing suggests that experiencing unemployment leads to different childbearing propensity for men and women. For childless men, being unemployed or being out of the labor force negatively affects the propensity to become a father. This finding is also consistently reported in many studies of individual countries. Thus, if the main effect of unemployment is on income loss, the generous unemployment benefits or relatively high parental leave allowance reduce the costs of childbearing for the unemployed couples. This hypothesis is also supported by the findings linking the generous parental leave allowances with higher fertility.

Methodology

This study investigates the effect of economic variables (with emphasis on labor market variables, income distribution and housing service) on the fertility rate in the provinces of Iran during 1392-1384. In this study, panel data method was used. In statistics and econometrics, panel data are multi-dimensional data involving measurements over time. Panel data contain observations of multiple phenomena obtained over multiple time periods (2005-2013) for the same individuals (i.e. Iran’s provinces).

Results & Discussion

The results show that the labor market indicators change people’s opportunity cost. So have an effect on the income expectations, and will have an important role on fertility rate in the Iran’s provinces. An increase in the expected income of men in the form of reducing the risk of job loss (i.e. reducing volatility in the unemployment rate, the rate of male underemployment, and the share of male employment in the private sector) or the expected future revenue (i.e. increasing the male employment rate) has improved the fertility rate in Iranian provinces. On the other hand, the labor market variables for women of reduced risk (reducing volatility in the unemployment rate, the rate of female underemployment, and the share of female employment in the private sector) has increased fertility rates. This has also reduced the opportunity cost of fertility for women and has promoted the income distribution to improve fertility in the provinces of Iran.

Conclusions & Suggestions

The results of this study indicate that economic variables have a significant effect on fertility rates. Therefore, policymakers can provide ways to increase fertility rates by changing economic variables. This experience has also been used in many countries. For example, reduced risk in the labor market; increased job stability; Job support for childbirth (women’s Maternity leave, Child allowance; Powerful Social Security

et al.), Improved income distribution policies.

Key Words: Fertility, Panel data, Income distribution, Labor market, Unemployment

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