EFFECTS OF DECLINING IN FERTILITY IN HARYANA

Poonam Kumari
Research Scholar, Dept of Mathematics, CMJ University

ABSTRACT

Women in Haryana tend to marry at an early age. Twenty-three percent of women age 15.19 are already married, including 1 percent who are married but gauna has yet to be performed. The proportion married at age 15.19 is much higher for women in rural areas (27 percent) than in urban areas (14 percent). Older women are more likely than younger women to have married at an early age: 27 percent of women who are now age 45.49 married before they were 15, compared with only 4 percent of women age 15.19. Although this indicates that the proportion of women who marry young is declining rapidly, a considerable proportion of women in Haryana still marry before reaching the legal minimum age of 18 years. On average, women are 4.8 years younger than the men they marry.

INTRODUCTION

Promotion of maternal and child health has been one of the most important components of the Reproductive and Child Health Programmed of the Government of India. One goal is for each pregnant woman to receive at least three antenatal check-ups plus two tetanus toxoid injections and a full course of iron and folic acid supplementation. In Haryana, mothers of 42 percent of the children born in the three years preceding NFHS-2 received no antenatal check-up, and mothers of only 37 percent of these children received three or more antenatal check-ups. For 80 percent of these children, however, mothers received the recommended number of tetanus toxoid vaccinations, and for 67 percent, mothers received iron and folic acid supplementation. Coverage by all three interventions is somewhat lower for women in disadvantaged socioeconomic group than for other women. Muslim mothers are the most disadvantaged group on all three antenatal interventions. Coverage is also low for women who already have four or more children. The Reproductive and Child Health Programmed encourages women to deliver in a medical facility or, if at home, with assistance from a trained health professional and to receive at least three check-ups after delivery. During the three years preceding NFHS-2, less than one in four (22 percent) births in Haryana were delivered in a medical facility. Forty-two percent of the births were assisted by a health professional and 58 percent by a *dai* (a traditional birth attendant). Only 16 percent of no institutional births were followed by a postpartum check-up within two months of delivery. Overall, these results show that health services in Haryana are reaching many more women during pregnancy than during delivery or after childbirth. They also point to the important role of traditional birth attendants for the substantial proportion of births that occur at home.

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As against a growth of 9.9% in the Gross State Domestic Product (GSDP) in real terms in 2009-10 of agrarian state Haryana, the share of agriculture in the GSDP is continuously declining. As per the economic survey of Haryana 2010 -11, the share of agriculture sector in the GSDP declined to 15.3% in 2009 -10 from 16.7% in 2008-09. Although about two third population of the state still depends upon agriculture fo r their livelihood.

The predominance of agriculture sector is also responsible for instability in the growth rate of economy due to fluctuations in agricultural production. The composition of GSDP at constant (2004-05) prices reveals that the share of primary sector which includes agriculture and allied sectors has declined from 22% during 2004 -05 to 16.1% during 2009-10.

The survey said the total area of the state under cultivation has already reached a saturation level and thus there is hardly any scope to bring more area under cultivation. The agriculture production can only be increased through enhanced cropping intensity, change in cropping pattern, improvement in seeds of high yielding varieties, better cultivation practices and development of post harvest technology etc. State is trying to reorient agriculture through various policy measures for increasing the production.

Moreover, rapidly increasing share of services sector is also responsible for decline in the share of agriculture sector. Its share in GSDP at constant (2004-05) prices has increased from 45.1% during 2004-05 to 53.4% during 2009-10. Though the primary sector recorded a low growth rate of 0.7%, the secondary sector grew at 10.3 % and tertiary sector at 12.9%during 2009-10. Low growth of primary sector is mainly attributed to the discouraging growth (0.6%) in agriculture sector.

The data reveals that agriculture sector which comprises agriculture proper and livestock, the production of some crops namely paddy, maize, sugarcane a nd cotton registered an increase of 9.9, 8.7, 2.5 and 3.4% respective during the year 2009 -10 over the previous year.

AIM OF STUDY

The study of human fertility occupies a central position in the study of population for several reasons. Any society replenishes itself through the process of human fertility. Within the biological limits of human fertility, several social, cultural, psych ological as well as economic and political factors are found to operate and these are responsible for determining the levels and differentials of fertility. A case of differential fertility is useful in identifying the factors, which determine the fertilit y level among various groups.

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RESULTS & DISCUSSION

Sometimes it is difficult to express the structural coefficients as explicit functions of reduced form coefficients. Thus, to determine whether there is one-to-one correspondence between the structural coefficients and the reduced form coefficients, identification is performed.

After the identification conditions are satisfied then the estimate of the parameters in the model under consideration are found by proper method. There are two criteria for the identification of each equation in the model.

Order condition for identification:

Considered model has

$K = 14$ (total number of variable in the model] $G =$

4 (total number of equations)

i)   Consider the Fertility Equation of the model

This equation has

$M = 8$ (total number of variables in the equation) $K -$

$M = 6$

$G - 1 = 3$

Therefore, $(K-M) > (G-1)$

ii)   Consider the Female Participation Equation

This   equation has

$M = 6$

$K - M = 8$

$G - 1 = 3$

Therefore, $(K - M) > (G - 1)$

i.e., Female Participation Equation is identified.

ii)   Consider the Income Equation

This equation has

$M = 6$

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K – M = 8

G -1 = 3

Therefore, $(K – M) > (G – 1)$

i.e., Income Equation is identified.

iv)   Consider the Education Equation

This equation has

M = 6

K – M = 8

G – 1 = 3

Therefore, $(K – M) > (G – 1)$

i.e., Education Equation is identified

Since order condition for identification is necessary, but not sufficient, thus rank condition for identification is checked.

CONCLUSION

There is a dual causality between infant mortality rates and fertility rates. Infant mortality is one of the important factors which have more influence on fertility. Thus to reduce infant mortality a number of measures should be vigorously implemented a comprehensive health and nutrition programmed, especially focusing on women and children.

Female education has both direct and indirect effect on fertility. Female education has affected income and female work participation rate which further effects ferti lity. Thus to improve the educational status of women, there is a need to open more schools and to change social attitudes about female education. Along with the expansion of girl's schools, provision should also be made to recruit more and more female tea chers in schools.

Female work participation and percentage of women in agricultural labor are main factors having negative impact on fertility because work outside the home competes with childcare for their time and attention. Thus more women should participate in labor force for improving in the number of female work outside the home which will result in the reduction of fertility.

Women's participation in labor force has also effected income. It may increase   the income and further likely to reduce her available time to bear and rear additional

children. Thus increase of women's participation will increase income and further result in decrease in fertility.

REFERENCES

Wilkinson, M. (1973). An Econometric analysis of fertility in Sweden, 1870 -1965. *Econometrica,* **41(4):** 633-714.

Yoshia, J. (2002). Effect of Uncertainty on the Investment Decision: An Examination of the Option-based Investment Model Using Japanese Real Estate Data. Report: Development Bank of Japan.

Zakir, M. and Wunnava, P.V. (1999). Factors Affecting Infant Mortality Rates: Evidence from Cross-Sectional Data. *Applied Economics Letters*, **6:** 271-273.

Zellner, A. (1962). An Efficient Method of Estimating Seemingly Unrelated Regressions and Tests for Aggregation Bias. *Journal of American Statistical Association,* **57(298):** 348-368

Zellner, A. (1971). An Introduction of Bayesian Inference in Econometrics. New York: John Wiley & Sons.

Government Reports

Annual Reports, Ministry of Labour, Government of India, Delhi.

Census of India 2001, Primary Census Abstract, Registrar General of Census.

Economic Survey (2003-04), Ministry of Finance, Government of India.

Operations, Ministry of Home Affairs, Government of India, Delhi.

Reports on Employment and Unemployment Situation in India , Ministry of Statistics and Planning, Government of India.

Websites

www.censusofindia.gov.in

www.mospi.nic.in

www.nfhsindia.org

www.haryanahealth.in

www.dacnet.org.in