

Fertility and Mortality: Theory, Methodology and Empirical Issues

Edited by K. Mahadevan, with P.J. Reddy and D.A. Naidu.

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This book, containing eighteen papers divided into four parts, is a celebration of the work and influence of C. Chandrasekaran who has done more than most to introduce methods into demographic data collection and analysis in developing nations. The range of themes covered in the volume – fertility theory, cultural aspects of fertility, social change and fertility and some analytical framework of mortality study – is a reminder of the breadth of Chandrasekaran's interests in this field. Only three chapters in this book deal with mortality issues, but very few touch issues related to the relationship between infant mortality and fertility. Furthermore, none of the chapters addresses methodological issues in any depth.

Part 1, "Theory of Fertility," contains five chapters. The first chapter, by Davis and van den Oever, addresses the effects of increased longevity, widening sex differences in mortality, aging population and low fertility on sex roles in advanced industrial societies. Their argument is that these important demographic changes force alternations in the sex roles. This is the only chapter that addresses issues in developed nations. Freedman overviews theories of fertility decline. He suggests that demographers need to emphasize their future research on the "the prior determinants of both proximate variables and of desired family size." Namboodiri critically reviews some of the major theories of societal development and population change. He concludes that little progress has been made. Hermalin, based on the work by Bongaarts and others on the proximate determinants of fertility, addresses three issues concerning fertility regulation: the levels and trends in developing nations, the issues in modeling fertility regulation, and new approaches to measuring the cost of fertility regulation. The last chapter of this section by Fawcett describes

various micro-level approaches dealing with the value and cost of children.

Part 2 examines cultural aspect of fertility, mainly in India. The approaches and theoretical emphases vary from one chapter to another. Chandrasekaran's paper discusses cultural factors affecting the length of married life and the interval between births in the Mysore Population Study. The study shows that the motivation to limiting the number of children ever born is weak. Abstinence, a cultural sanction, is practically the only birth control method used. Mahadevan studies the determinants of religious and caste differentials in a village of Andhra Pradesh State. The village includes several cultural groups, namely, the Caste Hindus, the Harijans, the tribals and Muslims. The author indicates that "changes in the attitude of leaders toward family planning, child labor, concept of belief, norms and values related to family formation, female education and an increase in the age at marriage," are important factors in explaining the cultural variations of fertility behavior. Krishnan examines the interrelation between fertility and religious affiliation, age at marriage, present age, level of schooling and residence in Gujarat. However, the findings are in the expected direction except that the education variable is not statistically significant. Rani examines the direct and indirect costs of rearing children and their relations to fertility in South Central India. The findings support the hypothesis that the costs of rearing children is the most important economic factor in explaining the fertility behavior and explains significantly more variance in the fertility behavior of the poorer sections of society as compared to the higher socio-economic status group. Naidu indicates in his paper that the demand for child labor depends on the type of occupation. The labor value of children is higher in the household industrial sector as compared to the agricultural sector. Nayar examines the role of culture as a facilitator in fertility decline in Kerala State during the second half of the Twentieth century. Massive programs of educational and health care promotion have directly contributed to the fertility decline.

Part 3 turns to the issues of social change and fertility. There were four papers in this section. Srinivasan reviews the theoretical frameworks that have been developed during the past thirty years for studying the relationship between modernization and fertility change, with special reference to the case of India.

Kurup examines the population growth, birth and death rates in Kerala. He further discusses factors contributing to mortality and fertility declines. Finally the author reviews threshold hypothesis, Easterlin's theory, new economic approach and linked them to the interpretation of demographic transition in Kerala. Hull explores the institutional changes underlying the fertility decline in an attempt to specify those elements which are unique to Indonesia. He specifies certain aspects of social change that affect fertility, discusses how the effect has worked through the intermediate variables and decision-making processes, and finally specifies whether the decline is likely to continue. Hull indicates that the reorganization of the government in the late 1960s is a key factor in the promotion of fertility control. Indonesian family planning program is based on an autonomous board responsible directly to the President. The logistics of contraceptive supplies and the system of rapid feedback monthly service statistics are organized very efficiently and effectively. Reddy's article investigates the different and common social and psychological determinants of fertility behavior of the non-slum and slum population of Hyderabad City in South Central India. The study reveals that social and psychological factors are as important as demographic factors in non-slum dwellers. In contrast, the demographic factors are found to be the prime determinants of fertility among slum dwellers.

Parts 4 include three articles to address issues related to mortality, infant and child mortality. Mahadevan presents an analytical framework and a conceptual model on infant and child mortality. His discussion includes a variety of determinants on mortality, such as ecological, cultural, institutional, socio-economic, biological, genetic, policy and program aspects. Life-affecting variables are developed for the entire category of all the determinants of mortality. Then, a set of imminent variables is selected to categorize certain life-affecting variables in order to highlight their prominence for urgent research and prompt attention in program interventions. The first level of life-affecting variables in the author's conceptual model constitute the structural and macro variables. The next level constitutes program interventions. Another set of variables include natural calamity, accidents, and war. Overall, this paper provides us with a systematic classification of the direct and

indirect determinants of infant and child mortality and can be served as a very useful framework and guidance for mortality study. Nam and Harrington propose a micro-level of analysis of morbidity-mortality expectations of youth. A socialization model is used for understanding the elements of the morbidity-mortality process in the early life-cycle. Finally, Mahadevan and his colleagues study the cultural, nutritional and certain health aspects related to mortality among three major cultural groups: the Muslims, the Harijans and the Caste Hindus in South Central region of India. The authors conclude that bio-familial factors, such as breast-feeding and nutritional factor, affect infant mortality and familial-environment factors, such as diarrhoea, dysentery and communicable diseases, affect early childhood mortality.

Although the chapters in this book vary in breadth and depth of coverage. I found the volume well worth the effort. It would provide useful supplementary readings for courses in population, economic development, social change. More importantly, it provides some much-needed insights that are useful in the study of fertility and mortality in developing nations. I just wish that this book could provide more theoretical linkages between child survival and fertility.

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