

Migration and Fertility: A Review of Theories and Evidences

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Abstract

Understanding migration and fertility issues would be very relevant in the context of changing demographic dimensions between developed and developing countries, in particular differing age structure of the populations between them. As the developing countries have opportunity for potential demographic dividend due to increase in the supply of labour force, the developed countries would be facing a shortage of labour force and health care burden for old age people. Further, this phenomenon will have repercussion with respect to movement of people from developing countries to developed countries and flow of economy at the global level. At the county level, interregional migrations seems to be increasing due to demographic diversity within the country. Rapid urbanization in the developing countries is another challenge due to rural-urban migration. Therefore, the migratory movement will have greater effect on the future population changes not only within the country level, but also in both developed and developing countries and more so depends on the fertility behavior of the migrants. All these phenomena will have implications on the social and economic dynamics both at the local and global level. The purpose of this note is to review main theories on the relationship between migration and fertility and their empirical evidence.

Keywords: Migration; Fertility; Evolution; Evidence

Theories of Migration and Fertility

There are four main theoretical perspectives or models that have been suggested for explaining differentials in fertility behaviors and attitudes between migrants and non-migrants. These theories of migration and fertility differ in several respects, the main difference being in the relationship between the timing of migration and changes in the reproductive attitudes and behaviors of migrants. The four theoretical perspectives can be termed Generational (socialization) perspective, adaptation perspective, selectivity perspective and disruptive perspective [1,2].

The generational theoretical perspective is based on the observation that rural fertility is generally higher than urban fertility. It starts from the premise that fertility goals are formed during childhood and they reflect family environment during childhood [3]. The model assumes that the adaptation of lower urban fertility norms and values by rural-urban migrants, not only takes a long time, but their acceptance will occur only after a generation has elapsed [2]. The socialization hypothesis predicts that no significant change in the fertility of migrants (rural-urban) compared to that of stayers at origin would take place, irrespective of their duration of stay in the urban area. It also implies that the first generation of migrants to be born in the urban areas will have lower fertility compared to rural-urban migrants. Further, generational hypothesis emphasize that culture, norms and values of place of origin continue to prevail even after migrating to a new low fertility setting [4].

The adaptation model on the other hand takes the premise that changes in tastes and adoption of urban fertility norms by migrants occur gradually by time at destination among the families of migrants themselves and do not require an entire generation to pass before they take place. The hypothesis does not specify how long it will take rural-urban migrants to adapt to small family norms in the urban areas. According to Ribe and Schultz [3] the adaptation hypothesis assumes that fertility differences are in part due to different relative wages received by men and women and different price and income constraints confronting different families. The constraints facing families in terms of relative income and price of children between urban and rural areas explain fertility differentials between them. After being exposed to

different relative wages and prices, the migrants' fertility will eventually converge to that of urban natives, after controlling for women's stage in the life cycle (age), education and family income (the resources of the couples). The adaptation hypothesis implies that recent migrants will have higher fertility compared to urban natives and long-term migrants, after controlling for age and other demographic and socio-economic characteristics. It also implies that post-migration fertility of long-term rural-urban migrants will be similar to that of urban natives. By inference the hypothesis also implies that long-term rural-urban migrants will have lower fertility compared to rural non-migrants, that rural-rural migrants will have similar fertility to rural non-migrants, and that fertility of rural and urban non-migrants will be further apart than fertility of rural-rural and rural-urban migrants.

The selection hypothesis suggests that the lower fertility among rural-urban migrants compared to that of native rural stayers can be accounted for primarily by selection of the migration process, i.e., migrants are self-selected and represent a non-random sample in respect to their life cycle and socio-economic characteristics such as age, education, income, occupation, marital status, aspirations etc. Ribe and Schultz [3] maintain that there is a tendency for those who favor small families to relocate in urban areas and for those who favor large families to relocate in rural areas. The model assumes that an unobserved preference of migrants is revealed by the place to which they move. They go to areas where local relative prices and labor market opportunities favor their pattern of behaviors and consumption. Goldstein and Goldstein [5] maintain that early in the modernization process migrants are likely to have lower fertility than natives in urban areas, but as rural-urban migration becomes massive, later migrants

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tend to have higher fertility compared to women in urban areas. If migration is selective of low fertility women, then it follows that before migration, migrants will have had fewer children compared to non-migrants of similar age, in similar places of residence and with similar background characteristics [6]. Ribe and Schultz [3] went further to say: If there were no adaptation costs or lags in curtailing reproductive performance, the migrants selectivity hypothesis would predict that in otherwise similar groups, rural born migrants in the city would have lower fertility than city born natives.

The implications of the selectivity hypothesis can be summarized as follows: rural-urban migrants will have lower fertility compared to rural stayers, irrespective of duration of stay in urban areas. Urban-rural migrants on the other hand, will have higher fertility compared to urban natives. The strong selectivity hypothesis proposed by Ribe and Schultz [3] will imply that rural-urban migrants will have smaller families compared to urban natives and that rural-rural migrants will have higher fertility compared to rural natives.

While the generational model, adaptation model and selectivity model point to pre-migration and post-migration conditions at place of destination and origin as key variables affecting fertility of migrants, the disruption hypothesis on the other hand stresses the fact that migration per se tends to reduce fertility. The hypothesis maintains that migration may disrupt fertility in several ways: it may lead to separation of spouses, the move may be stressful so as to actually interfere with physiological capacity to bear children, and these and other factors may lead to a reduction in fertility of recent migrants. The disruptive hypothesis suggests that fertility reduction attributable to disruption is expected to be only temporary, and a more normal or even somewhat accelerated pace of fertility is expected to be resumed gradually [7]. This hypothesis implies that recent rural-urban migrants will have lower fertility compared to long-term rural-urban migrants. It also implies that recent migrants will have lower fertility compared to natives at place of destination for the period immediately following and possibly preceding migration. Urban-rural migrants may also have lower fertility than urban stayers.

The above-discussed hypotheses may operate at the same time in any given setting. The challenge facing researchers is to disentangle and quantify their relative impacts on rural and urban fertility differentials.

Empirical Evidence

Several studies undertaken by both economists and demographers have attempted to examine the relevance of the various theories in explaining migrants and non-migrants fertility differentials. Ribe and Schultz [3] have observed that empirical findings on migrant and non-migrant fertility differ somewhat from study to study and region to region. Different studies undertaken from different regions around the world have led to a variety of conflicting evidence and conclusions. Different studies have concluded that migrant fertility is higher, lower, or the same as that of non-migrants [6]. These apparent disparities have been attributed to varied sample designs, analytical methods, different definitions of migration and control variables, different causes of migration in different regions, and the inability of cross-sectional data to discriminate among several competing and dynamic hypotheses that have been put forward to explain migrant-native fertility differentials [2,3,6,8-11].

Stolnitz [12] after observing that the ratios of mean urban completed fertility to mean rural completed fertility are on the average greater in Black Africa compared to Latin America, concluded that

rapid urbanization and rural-urban migration experienced by Black African countries will not lead to a decline in fertility. Lee [8] examining the data from the 1978 Cameroonian World Fertility Survey concluded that rural-urban migration fertility increment at urban areas after controlling for selectivity indicates adaptation to urban norms and constraints. Lee and Farber [9] examining the Korean data obtained from personal migration and birth histories of currently married women aged 20-49 also concluded that adaptation of rural-urban migrants is a significant phenomenon. Other earlier studies from several developing countries have taken the same position, e.g. [13-15].

Hervitz [7] using Brazilian data, concluded the following: (a) There is substantial evidence of partial but not complete adaptation for most migrant groups once the disruption effect disappears; (b) There is little support for the strong selectivity hypothesis; (c) the evidence quite strongly suggests the presence of a significant disruption effect. Many other writers on the contrary have upheld the selectivity hypothesis. One such study is that conducted by Ribe and Schultz [3] in 1980 using the Colombian 1973 census data. They concluded that the adaptation hypothesis is not much more successful than the selectivity hypothesis in accounting for migrant/non-migrant fertility differences, and that in Colombia the generational hypothesis was not supported by the data. The study concludes that migrants have distinctive unobserved preferences for family size, quite in addition to other differentiating characteristics, such that it is fertility propensities, which determine choice of destination areas, rather than the chosen area, which determines fertility behavior. However, the study by Kulu [2] strongly supports the adaptation hypothesis and no evidence on the selectivity hypothesis among the internal migrants' fertility of post war Estonian female cohorts. Another study in the context of African countries demonstrated that migrants' fertility in the urban areas is lower than native population [16]. The author attributed this as the unmarried status of migrants and spousal separation. Muhidin and Ledent [17-19] tested all the four hypothesis in Burkina Faso using the life course analysis. The results revealed that four tested hypotheses (selection, adaptation, disruption, and socialization) robustly emerge in the effect of migration on fertility after controlling for the effect of covariates.

Recently Milewski [11] compared fertility of immigrants in Germany with the citizens. The study concluded that fertility of immigrants was higher immediately after the migration supporting selection hypothesis. When controlled for socioeconomic factors, there is difference between the fertility of second generation migrants and the locals supporting the adaptation and socialization hypothesis. An extensive review on the study of Western, Northern and Southern Europe, Sobota [4] concluded that immigrants usually have higher levels of period fertility than the 'native' populations. Moreover, the differentials in fertility vary by country of origin indicating the heterogeneity in immigrants' fertility. Another study in the context of Italy Gabrielli et al. [10] tested the hypotheses of socialization, adaptation and selection controlling various compositional factors. The study found evidence for selection and socialization hypothesis and no evidence for adaptation. The evidence on the disruption hypothesis is only few in the European context.

Conclusion

Migration will play a significant role in the future not only in changing population size and structure and also impacting on the macro economy such as GDP growth, wages, employment and labour market at the destination countries. This impact would vary according to country of destination with respect to level of development. Therefore

understanding the patterns of relationship between migration and fertility will go a long way in formulating macroeconomic policy.

The review of literature on migration and fertility reveals that different definitions, methodologies, and data sources were used and led to different findings and conclusions. In all likelihood, not one but several of these models help to explain the relationship between migration and fertility since they are not mutually exclusive [5]. Selection may occur at origin, rural-urban migrants or migrants from one country to another and may adopt destination's fertility attitudes and behaviors; and migration may also disrupt fertility at the same time on the destination. Moreover, relationship between migration and fertility is complex as different factors operate at the destination due to change in environment from one country to another country or from one region to another region within a country. Further the relationship between migration and fertility is contextual. More studies needs to be conducted on how these hypotheses are significant over different generations and different origins of migrants in different context with respect to level of development and various stages of demographic transition.

References

1. Caldwell J (1982) Theory of Fertility Decline. London: Academic Press.
2. Kulu H (2005) Migration and fertility: competing hypothesis re-examined. *European Journal of Population* 21: 51-87.
3. Ribe H, Schultz TP (1980) Migrant and Native Fertility at Destination in Colombia: Are Migrants Selected According to Their Reproductive Preferences? Unpublished monograph.
4. Sabotka T (2008) The Rising Importance of Migrants for Childbearing in Europe. *Demographic Research* 19: 225-248.
5. Goldstein S, Goldstein A (1982) The Impact of Migration on Length Birth Intervals: An Analysis Using Life History Data for Malaysia. Annual Meeting of the Population Association of America, San Diego, California.
6. Goldstein S, Goldstein A (1982) Techniques for analyzing of the Interrelations between Migration and Fertility, in National Migration Surveys: X. Guidelines For Analyses, a Manual of Comparative Study on Migration and Fertility in the ESCAP region, United Nations, New York, 132-155.
7. Hervitz, Hugo M (1985) Selectivity, Adaptation or Disruptive? A comparison of Alternative Hypotheses of Migration on Fertility: The case of Brazil. *International Migration Review* 19: 293-317.
8. Lee BS (1985) Fertility Adaptation by Rural-Urban Migrants in Cameroon. University of Nebraska at Omaha, unpublished.
9. Lee BS, Farber SC (1985) The Influence of Rapid Rural-urban Migration on Korean National Fertility Levels. *Journal of Development Economics* 17: 47-71.
10. Gabrielli G, Paterno A, White M (2007) The impact of origin region and internal migration on Italian fertility. *Demographic Research* 24: 705-740.
11. Milewski N (2010) Fertility of Immigrants: A Two Generational Approaches in Germany. Springer Verlag London.
12. Stolnitz GJ (1983) Urbanization and Rural-to-Urban Migration in Relation to LDC Fertility, in George J Stolnitz and collaborators, Development Impacts on Third World Fertility: A Review of Quantitative Assessments. Washington DC: Future Group, Inc. /AID Project Report.
13. Hiday V (1978) Migration, Urbanization and Fertility in the Philippines. *International Migration Review* 12: 370-383.
14. Hendershot GE (1976) Social Class, Migration and Fertility in the Philippines. *The Dynamics of Migration: Internal Migration and Fertility* 1: 197-257.
15. Goldstein S (1973) Interrelations between Migration and Fertility in Thailand. *Demography* 10: 225-241.
16. Brokerhoff M (1995) Fertility and Family Planning in African Cities: the impact of Female Migration. *Journal of Biosocial Science* 27: 364-392.
17. Muhidin S, Ledent J (2005) Migration and Fertility in Burkina Faso: Evidence from the 2000 Survey on Migration/Urbanization and Environment. Migration and fertility changes in developing countries at the XXV IUSSP International Population Conference, Tours, France, 18-23 July.
18. Farber SC, Lee BS (1985) Fertility Adaptation of Rural-to-Urban Migrant Women: A Method of Estimation Applied to Korean Women. *Demography* 21: 339-345.
19. Goldstein S, Goldstein A (1983) Migration and Fertility in Peninsular Malaysia: An Analysis using life history data. Rand note N-1860-Aid 134.