

# DEMOGRAPHIC TRANSITION AND EDUCATION IN DEVELOPING COUNTRIES

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## Summary

The demographic transition is a concept developed to indicate the demographic passage of populations from the status of traditional societies where both fertility and mortality rates are high to the status of modern societies where both fertility and mortality rates are low. Contrary to the European demographic transition that was long-lasting and accompanied by weak growth rates, the transition from high birth and mortality rates to low birth and mortality rates in developing countries started only in the second half of the twentieth century; it was more rapid but also accompanied by higher growth rates of the population, up to three to four percent per year... and it is still underway. In this framework, education received a lot of attention because it was proved to increase the likelihood and the pace of the transition due to its impact on fertility and mortality curves. This is especially true of female education: More educated women are healthier, bearing fewer and healthier children, than women with little or no education at all. Several models have been put forward to explain the factors through which education will affect the population in their choice of a certain pattern of fertility behavior. However, all theories agree on the point that education has a major role to play in the fertility decline. The education-fertility relationship is very relevant because the education level of a society can be directly influenced by government policy. This brings the State to be a key variable in the demographic transition that is clearly tied up with development prospects.

## 1. Introduction

The pompous term of demographic transition hides a very important phenomenon of the nineteenth and especially twentieth century. Before the transition started, mortality

levels were very high everywhere in the world; populations could only maintain or increase their size by following very high fertility patterns. The decline in mortality levels that occurred at the beginning of the transition caused a major disequilibrium that induced necessary adjustments downward of fertility levels.

However, the transition from high mortality and high fertility rates (traditional societies) to low mortality and low fertility levels (modern societies) did not take place at the same time everywhere, and more importantly, countries adopted very different paces for the transition. The European transition had started already in the nineteenth century. It was extended over a long period and population growth rates rarely exceeded two percent. On the other hand, the transition in developing countries started only in the second half of the twentieth century. The transition was more rapid but also accompanied by higher growth rates of the population, up to three to four percent per year.

The transition is still an on-going process in many developing countries. In fact, over the last decades, the fertility in a majority of countries has dropped considerably, but the speed of the fertility decline in those countries where population growth is still high will have many implications for sustainable development. Figure 1 represents the total fertility rate (TFR) in 1950 and 2005 on the x-axis, and the difference between those two TFRs on the y-axis. It shows that in 1950 women in a majority of countries, i.e. 132 countries, were bearing more than five children, whereas in 2005 the women of more than 110 countries had on average less than three children. The countries that are positioned along the red line, when the TFR is above three children, will be the ones for which the speed of the fertility decline between now and the next years will be of importance.

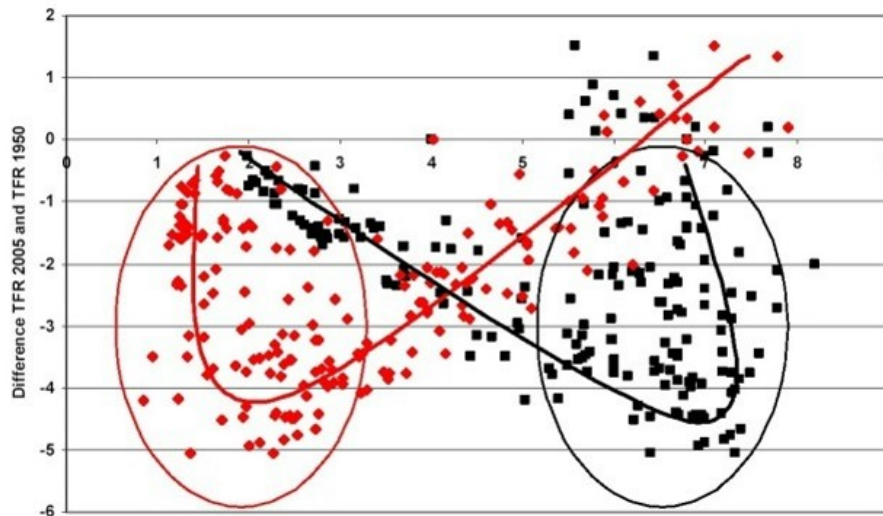
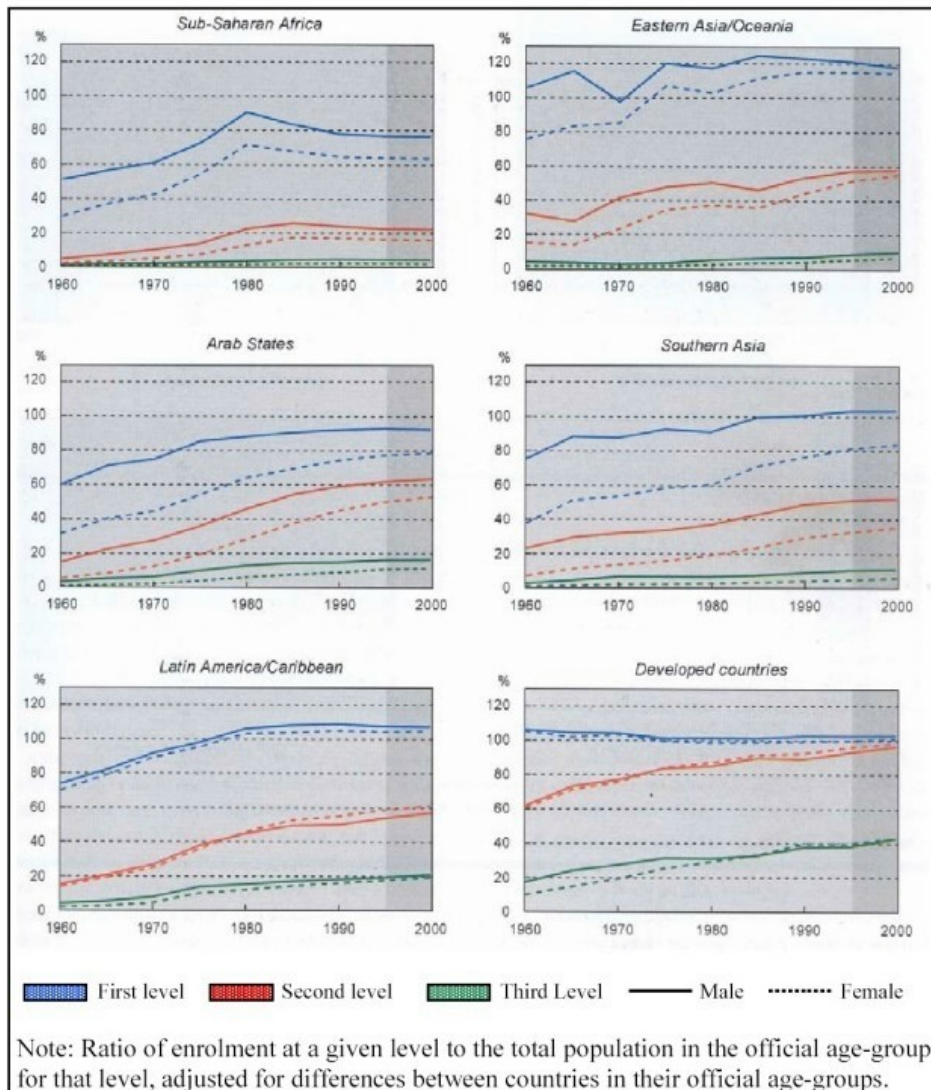


Figure 1: Total fertility rate in the years 1950 and 2005, by the difference between the TFR in 2005 and the TFR in 1950, by country

In this frame, education and the education of women in particular have been assessed to play a particular role in the demographic transition process in developing countries.

Education may increase the likelihood and the pace of the transition because of its impact on fertility and mortality curves. Better-educated women have fewer and healthier children, and better health themselves, than women with little or no education. Moreover, the education-fertility relationship is very relevant because the education level of a society can be directly influenced by government policy. This brings the State to be a key variable in the demographic transition. Parallel to the demographic transition, there has also been an education transition. Significant progress has been made over a large range of developing countries in both primary and secondary school enrollment (Figure 2).



Source: Extracted from UNESCO (1995). World Education Report. Paris, France: UNESCO, p. 33.

Figure 2: Trends in estimated male and female gross enrolment ratios, by level of education and region, 1960-2000

While industrialized countries and Latin America, together with the Caribbean region, have achieved universal literacy, 10-13 average school years among adults, and equal education for men and women at all levels of the schooling scale, some countries mostly in Africa (e.g. Benin, Burkina Faso, Mali, Niger, Senegal) and exceptionally in Asia i.e. Afghanistan, still had illiteracy rates above 60 percent in 2000-2004 among the adult population. The literacy rates of girls continue to lag behind those of boys in many regions, especially in Asia, the Arab States and Sub-Saharan Africa.

Figure 2 shows that in all regions of the developing world, with the exception of Latin America, and at all schooling levels, men had higher enrollment rates than women. The data also show, however, that the female to male ratios in enrollment rates decreased in all the world regions throughout the observation period without exception. In general, the female to male ratios in enrollment were higher in countries with a generally higher enrollment rate. There is a rough geographical distribution of the levels of development in education. Most of the countries in the low education/high gender gap area are in Africa; most of the countries in the medium education/medium gender gap are in Asia and Latin America; and most of the high education/no gender gap countries are in Europe and North America. This itself may be related to the level of development.

The demographic and education transitions are linked through the correlation between women's education and various aspects of their reproductive behavior. The findings from the many studies that have been pointing to education as an important factor of heterogeneity in fertility within populations are reviewed in the first section. Education has been very present in demographic research in addressing two separate sets of issues. The first one is that differentials by education characteristics may indicate the considerations that underlay fertility decisions and second, that the interpretation of differentials according to education characteristics over time is central to the study of fertility change. However, as will be shown in section two and three, education is more than a fertility deflator. It plays a crucial role in individuals' well-being and social progress. Moreover, measures of the educational attainment of populations have been important explanations of growth success. Recent studies indicate that education matters over and above its effect as an additional input to production; at the country and firm level, it is associated with higher total factor productivity, that is, with higher product with given inputs.

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