FERTILITY PATTERNS IN LOW FERTILITY COUNTRIES: A CROSS-CONTINENTAL COMPARISON

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Abstract

As a result of substantial fertility decline in the past century, almost half of the world's population now lives in countries with fertility rate at or below replacement level (UNPD, 2002). However, there are distinct variations in the age pattern of fertility at such a low level. The two-parameter Coale and Trussell Model was useful in describing the age pattern of fertility in the past (Coale and Trussell, 1974). But that may not be suited to model the fertility pattern at low level.

This paper examines age patterns of fertility among countries, across the continents, with a Total Fertility Rate (TFR) close to 2.1. Around the year 2002, the TFR for 35 countries (excluding very small countries) fell in the range of 1.8 to 2.4. These countries are from various parts of the world, Europe, North America, South America, Asia, and Oceania; only two African countries have such low fertility. Besides, patterns from states of India are also examined since there are large regional variations within India and eight large states had reached at or near to replacement level fertility by 2002. The data on the Age Specific Fertility Rates (ASFRs) are from the United States Census Bureau (USCB, 2004) that provides fertility schedules for a large number of countries. For the states in India, the data from the Sample Registration System (SRS) have been used (India, Registrar General, 2004).

A cluster analysis of the fertility schedules reveals some identifiable age patterns at low level of fertility. The first pattern has low fertility in the 15-19 age group, high in the age group 20-24, moderately high in the next group and sharp decline in later ages. Over 75 percent of the total fertility occurs in the age range 20-29 with nearly 40 percent in the group 20-24 thus showing a prominent peak in the early 20s. A number of countries, prominently China and some other countries represent this pattern. The second pattern has moderate adolescent fertility, moderately high fertility in the 20-24 age group, rising further in the group 25-29 years and falling gradually hereafter. Many Latin American countries, as well as the U.S., South Africa, and a few Asian

countries follow this pattern. The third pattern is characterized by very low fertility in the 15-19 age group, moderate level in the 20-24 age group, reaching a peak in the late twenties, falling only modestly in the early 30s and rapidly thereafter. Many European countries, as well as Australia, Sri Lanka and Tunisia are examples of the third group.

In India, states with low fertility levels generally follow the first pattern as China. However, a variation is seen in the state of Andhra Pradesh; the 15-19 age group shows high fertility with the peak in 20-24 age group and sharp decline in later ages. On the other hand, in Kerala there is no distinct peak in the 20-24 age group, and a sharp decline in 30s.

The first pattern suggests strong fertility limiting tendencies, with most of the fertility taking place in the 20s. Childbearing occurs soon after marriage and is stopped after one or two births as is the case in China and many Indian states; apparently limitation is more common than spacing in fertility regulation. Many of the countries which follow the second pattern are in Latin America and are mostly characterized with early entry in the sexual union (this may not necessarily be formal marriage). But prevalence of contraceptive practice may keep fertility low in early childbearing period in these countries. Very late initiation of child bearing is observed in the many European countries, Oceania, and a few other countries which follow the third pattern. The overall picture is that there is a good amount of continental clustering of the patterns though certain counties also fall in a pattern dominant in another continent.

References:

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