

Wanted Fertility, Unwanted Fertility, and Fertility Decline: A Fresh Assessment

John B. Casterline, Jennifer Mendoza, and Laila O. el-Zeini

Fertility decline can occur as a result of decline in desired fertility and/or reduction in unwanted births. The relative contributions of these two sources of fertility decline has been the subject of some dispute over the decades (e.g. Pritchard 1994, Bongaarts 1997), among other reasons because of the direct implications for population policy. In particular, if the contribution of declines in unwanted fertility has been relatively large, this gives more scope for a relatively large contribution of investments in family planning services that led to reductions in unwanted pregnancies. Reductions in wanted fertility, in contrast, are typically attributed mainly to other factors.

In this paper, we take a fresh look at this issue. Our contributions are both substantive and methodological:

- The analysis encompasses three decades, from roughly 1975 to 2005. This is a longer historical span than in previous multi-country analyses, and the observation period is extended to the present, including experience during the past decade. The significant existing contributions to this literature (Pritchett, Bongaarts) are now 10-15 years old.
- The analysis makes use of a new methodology for the estimation of unwanted fertility that, provided a few relatively simple and defensible assumptions hold, yields more valid estimates (Casterline and el-Zeini 2007). The estimates used in past analyses in all likelihood were downwardly-biased, and to a substantial extent in some countries.
- We propose new formulations of wanted and unwanted fertility rates. In the rates routinely calculated with DHS data, all women can contribute to the denominator, whereas in our new formulation the denominator is confined to those women at risk of either type of birth. Such rates can be linked more directly to theories of fertility decline and to reproductive behavioral models.

The questions addressed in the paper are as follows:

1. What are the cross-national patterns of unwanted fertility in the recent period (e.g. 1995-2005)?
2. What is the trajectory of unwanted fertility over the course of fertility decline?

3. What has been the contribution of declines in wanted and unwanted fertility to fertility decline in the period from 1975 to the present?
 - 3a. Has this varied according to stage of fertility transition?
 - 3b. Has this varied according to region (Latin America vs. Asia vs. Africa)?
4. Does the picture vary by major population sub-group: type of place of residence (urban vs. rural); women's schooling?

As already noted, previous efforts to address questions #1 - #3 are now dated, and they have relied on estimates of unwanted fertility that, we believe, are downwardly biased. Some previous efforts (e.g. Bongaarts 1997) to address question #2 have made inference about change over the course of fertility transition from cross-sectional comparisons of societies at different stages of transition. This confounds historical and regional differences – during the past decade or so, most late transition societies are Latin American and Asian, whereas early transition societies are predominantly African. In effect analyses #2 and #3b have been mixed together. In contrast, this paper will explicitly examine fertility change when addressing questions #2 - #4.

In our interpretation of the empirical results, we will devote some attention to the intersection of questions #1 and #3. In addressing question #1, we will offer a portrait of current levels of unwanted fertility in developing countries, and this is of concern in its own right -- reducing the incidence of unwanted births stands as an important public policy goal. But conclusions from addressing questions #2 - #3 – trends in unwanted fertility and their contribution to fertility decline – enrich our understanding of the significance of current levels of unwanted fertility, especially in those countries where reducing population growth rates remains an explicit national objective.

Methodology

The sample will consist of developing countries with at least two surveys spaced ten or more years apart. We will analyze surveys conducted under three multi-country survey programs: World Fertility Survey [WFS]; Demographic and Health Surveys [DHS]; Reproductive Health Surveys [RHS]. We are assured of having a sample in excess of forty-five countries, with the sample size possibly increasing as further DHS and RHS surveys are released.

The percentage of births unwanted will be estimated using the methodology developed by Casterline and el-Zeini (2007). This methodology can be applied to all WFS, DHS, and RHS surveys; it requires only the prospective preferences item ("do you want another child?") and dates of recent births.

Wanted and unwanted total fertility rates [TFR] will then be calculated on the basis of the estimated percentage of births unwanted. Two types of fertility rates will be calculated: (i) with all women contributing to the denominator, as is the usual practice with DHS data; (ii) with the denominator restricted to women at risk of wanted or unwanted births, respectively. Note that both sets of rates will be original to this analysis.

This will be a country-level analysis (and country x sub-group, when examining patterns by type of place and schooling), although the aggregate-level estimates will be calculated on the basis of individual-level survey data.

References

Bongaarts, John. 1997. "Trends in unwanted childbearing in the developing world." *Studies in Family Planning* 28(4): 267-277.

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Short Abstract

Fertility decline occurs as a result of decline in desired fertility and/or reduction in unwanted births. The relative contribution of these two sources of decline is subject to dispute, with direct implications for public policy. This paper takes a fresh look at this issue. The contribution is substantive and methodological: (i) The analysis encompasses three decades (roughly 1975-2005), a longer time-span than previous analyses; (ii) The analysis uses new methodology for estimating the percentage of births unwanted (Casterline and el-Zeini 2007) and for calculating wanted/unwanted fertility rates. We will generate estimates at the country-level and for major sub-groups (urban-rural, schooling). The analysis will first consider current levels of unwanted fertility, and then proceed to examine trends in wanted and unwanted fertility. Trends in overall fertility will be decomposed into wanted and unwanted components. We will also consider how the results of this decomposition differ by region and stage of transition.