

Stall in Fertility Decline in Zimbabwe

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7th African Population Conference. Extended Abstract.

Introduction

The fertility decline which occurred in Zimbabwe beginning about four decades ago is well documented (Muhwava and Timæus 1996; Cohen 1998; Kirk and Pillet 1998; Garenne and Joseph 2002; Tabutin and Schoumaker 2004; Central Statistical Office 2012). Fertility has declined from about 5.4 children per woman in 1984 to 4.1 by 2011. The transition began in urban areas in the 1970s, nearly a decade ahead of the rural transition, and fertility has been lower in urban than rural areas (Cohen 1998; Kirk and Pillet 1998; Garenne and Joseph 2002). In recent surveys, it has become apparent that fertility decline in Zimbabwe has halted or stalled (Bongaarts 2008; Garenne 2008). Yet Zimbabwe is not an isolated case of stall in fertility decline. Concerns about high fertility levels in sub-Saharan Africa have been compounded by stagnation of progress in fertility transition in a number of countries in the region (Bongaarts 2008; Shapiro and Gebreselassie 2008). The phenomenon of stall in fertility decline has presented a perplexing situation for demographers. This interruption of fertility transition presents a challenge because fertility changes influence population momentum and how much populations will grow in the future (Keyfitz 1971).

The puzzle that is explored in this paper is trying to understand why fertility decline has stalled in Zimbabwe. In particular, this paper examines changes in reproductive behavior in different intersurvey periods in which fertility declined, remained constant, and increased. Zimbabwe is an intriguing case as it was one of the frontrunners of fertility transition in sub-Saharan Africa (Garenne and Joseph 2002; Tabutin and Schoumaker 2004); understanding reversal in trends is therefore important. The analysis proceeds as follows: (1) describing intersurvey fertility changes at the national and rural and urban levels; (2) documenting changes in contraceptive use, fertility preferences, and marriage and sexual behaviors in the intersurvey period.

¹ “Support for this research was provided by the following grants from the Eunice Kennedy Shriver National Institute of Child Health and Human Development of the National Institutes of Health: P2CHD047879 and T32HD007163.”

Data

The analyses use data from women aged between 15 and 49 surveyed in five nationally representative Demographic and Health Surveys (DHS) conducted in Zimbabwe between 1988 and 2011. Table 1 shows the total numbers of women in each survey, as well as rural and urban respondents, respectively.

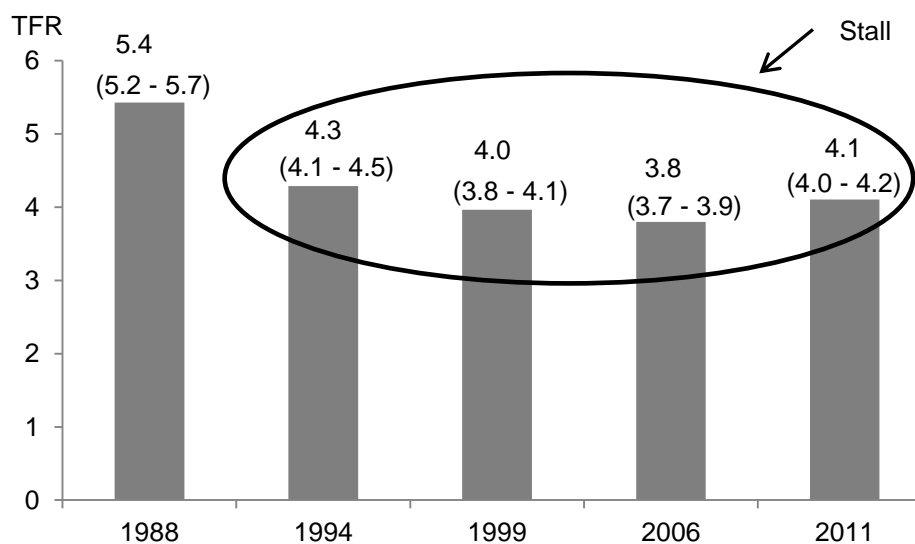
Table 1: Zimbabwe Demographic and Health Surveys, 1988-2011, women ages 15-49

Year of survey	Number of women		
	All	Rural	Urban
1988	4,201	2,794	1,407
1994	6,128	4,383	1,745
1998	5,907	4,098	1,809
2005/06	8,907	5,704	3,203
2010/11	9,171	5,734	3,437

Note: 2005/06 and 2010/11 hereafter referred to as 2006 and 2011, respectively.

These surveys reveal that fertility stopped declining in Zimbabwe beginning in the 1990s. Figure 1 shows total fertility rates from consecutive DHS data, and their lower and upper 95% confidence intervals. Fertility declined in the intersurvey period between 1988 and 1994. After the 1994 survey, there was no significant decline in fertility; and by the 2011 survey, fertility was, in fact, increasing.

Figure 1: Total fertility rates in Zimbabwe, 1988-2011, by survey, women ages 15-49



Source: Demographic and Health Surveys.
Confidence intervals calculated using Stata command TFR2 (Schoumaker 2013).

Methods

This study explores explanations for stall in fertility decline in Zimbabwe by comparing changes in components of fertility change in periods in which fertility 1) declined; 2) remained constant; and 3) increased. In this study, stall in fertility decline is defined to encompass both constant fertility and increase in fertility in consecutive surveys (situations 2 and 3 above). The first part of the analysis looks at overall fertility changes while the second part extends to changes for women living in rural and urban areas respectively. To assess the relevance of intersurvey behavioral changes, they are organized into three groups related to factors identified in the literature. The focus of each group is highlighted below

- 1) **Contraceptive use patterns:** prevalence rates;
- 2) **Fertility preferences:** ideal number of children, wanted and unwanted fertility, desire for more children, use of contraceptives for limiting versus spacing births, contraceptive discontinuation rates, unmet need for contraception, birth intervals;
- 3) **Marriage and sexual behavior patterns:** proportions in union, proportions having sex in the month before the survey, age at first marriage, age at first sex, age at first birth.

Preliminary Results

Preliminary results suggest the following:

- The two scenarios of stall in fertility decline explored in the study (i.e. failure to decline and increase in fertility) appear to have different determinants.
- Contraception was increasing when fertility was declining; still increasing when fertility failed to decline; and stalled when fertility increased. Contraceptive discontinuation rates were constant until fertility started to increase. Proportion of women using contraceptives for limiting increased when fertility was not declining and declined when fertility went up.
- Birth intervals began lengthening at a slower pace when fertility stopped declining and increased pace when fertility increased - presumably due to increase in spacing.
- Wanted and unwanted fertility both declined when fertility was falling, and stalled when fertility stopped declining. They both slightly increased with increase in fertility.
- The stall was not uniform for rural and urban dwellers.
- There were small noticeable changes in marriage patterns.

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