# 'Wan, Xi, Shao' vs. Sent-Down: What Caused the Chinese Fertility Decline in the 1970s?

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#### Abstract

Using the 2010 wave of the China Family Panel Studies survey data, this paper examines two competing explanations of the rapid decline in fertility rate in China in the 1970s. One explanation suggests that the fertility decline is triggered by the official "wan, xi, shao" (i.e., later marriage, longer birth interval, and fewer birth) family planning policy. Another explanation states that the sent-down movement, initiated right after the Cultural Revolution started in the late 1960s, played an important role in shaping the observed fertility pattern by delaying marriage of millions urban youths who were sent down to remote rural areas.

## Introduction

Chinese total fertility rate (TFR) declined from 5.75 in 1970 to 2.77 in 1979 (Scharping 2003). With the "one-child-per-couple" family planning policy in place, it further declined from 2.77 in 1979 to 2.24 in 1990. Comparing these two sets of numbers, one would immediately jump to the conclusion that, if anything, the one-child policy actually *slowed down* the pace of fertility decline in China. One may ask the following questions: (1) Why did the Chinese leaders decide to initiate the one-child policy when the total fertility almost reached such a low level? (2) What did cause the rapid fertility decline in the 1970s? The answer to the first question can be found elsewhere. This study focuses on the second question.

Most scholars attributed the rapid fertility decline in the 1970s to the "wan, xi, shao" family planning policy at the time. However, few of them have considered the possibility that other social, political, and demographic processes may also have played an important role. For example, between 1968 and 1980, more than 17 million urban youths, mostly high school graduates, were sent to the remote countryside permanently for "re-education", many stayed there for more than 10 years (Bonnin 2009; Xie, Jiang, and Greenman 2008; Zhou and Hou 1999). According to Zhou and Hou (1999), sent-down youths, at least those who stayed in rural areas for over six years, experienced significant delay in both marriage and childbirth because very few urban youths were willing to get married and settled down in rural areas. For the large majority of sent-down urban youths, as long as they stayed in the rural areas, they were not at risk of getting married and having babies. In other words, under this circumstance, the "wan, xi, shao" policy is largely irrelevant to these sent-down urban youths because they were not getting married anyway.

## Study Design

The research hypothesis of interest states that sent-down urban youths married later than both the rural youths and urban youths who were not sent-down. Furthermore, these sent-down urban youths contributed significantly to the overall increase in the age at first marriage and the age at first childbirth in the 1970s. In other words, the first step of the analysis aims for causal analysis of the relationship between being sent-down and the timing of first marriage and childbirth; the second step aims to assess the population influence of such an effect.

The 2010 wave of the China Family Panel Studies (CFPS) data will be used to in the current study. The following three questions together provide the essential information regarding respondent's sent-down

<sup>&</sup>lt;sup>1</sup>For example, Greenhalgh (2003) provides a detailed anthropological account of the decision making process that eventually led to the one-child policy.

experience, including (1) have you ever been sent down? (2) when were you sent down? (3) when did you come back? The data also records respondent's time of first marriage and time of first childbirth, along with a comprehensive list family background information.

One of the important features of the sent-down movement is that the decision of who got to sent down to villages and who got to stay in cities is independent of one's family background (Bonnin 2009; Zhou and Hou 1999). In that sense, it provide an "experiment-like" condition, which makes it relative straightforward to estimate the causal effect of being sent-down (the treatment condition) as compared to staying in cities (the control condition) without worrying too much about selection bias (Dunning 2012).

Status	1960s	1970s
Urban, stay-home	1.a. Urban area	1.b. Urban area
Urban, sent-down	2.a. Urban area	2.b. Rural area
Rural	3.a. Rural area	3.b. Rural area

Table 1: Definition of the three comparison groups

Table 1 shows the definition of the three groups that can be used to separate the effect of sent-down and the effect of the "wan, xi, shao" policy. Let  $Y_{1.a.}$  denote the average age at first marriage for urban youths who got married in the 1960s,  $Y_{1.b.}$  denote the average age at first marriage for urban youths who got married in the 1970s, etc. The effect of the "wan, xi, shao" policy can be estimated as  $(Y_{1.b.} - Y_{1.a.})$  in urban areas and  $(Y_{3.b.} - Y_{3.a.})$  in the rural areas whereas the effect of the sent-down status can be estimated as the "difference-in-differences" of group means such as  $[(Y_{2.b.} - Y_{2.a.}) - (Y_{1.b.} - Y_{1.a.})]$  or  $[(Y_{2.b.} - Y_{2.a.}) - (Y_{3.b.} - Y_{3.a.})]$ 

The best way to test the second hypothesis is through simulation (King, Tomz, and Wittenberg 2000). To be more specific, I use the aforementioned estimates of the group difference in age at first marriage and combine it with different assumptions of the proportions of urban youths who were sent-down for each birth cohorts (e.g., no sent-down vs. 20% sent-down) to assess the effect of sent-down on the average age at first marriage at the population level.

### Discussion

Even at its very early stage, the many problems and difficulties caused by the one-child policy were well known. This led to the policy suggestions by some demographers of replacing the one-child policy with the old "wan, xi, shao" policy or some of its variants (Bongaarts and Greenhalgh 1985). The argument was that the latter could achieve more or less the same goal as the former in the long run but, based on the experience in 1970s, does not have the many difficulties and troubles. The underlying assumption is that what works in the 1970s will also work in the 1980s and 1990s. This is problematic because, among other things, the official termination of the sent-down policy at the end of the 1970s led millions of sent-down urban youths to flood back into cities, many of which have been delaying marriage simply because they had no choice.

One of the main reasons that demographers did not consider sent-down youths in their calculation is the lack of usable data. On one hand, none of the official population data sources that demographers are familiar with, including the census data, the fertility survey data, etc., include information about respondent's sent-down history. On the other hand, the social survey data that does record respondent's sent-down information are either not based on representative sample, or too small in size, or both.

With its relative large sample size and detailed migration history information, including information regarding the sent-down experience, the China Family Panel Studies project provides the first viable opportunity to examine the demographic consequences of the sent-down movement.

## Reference

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