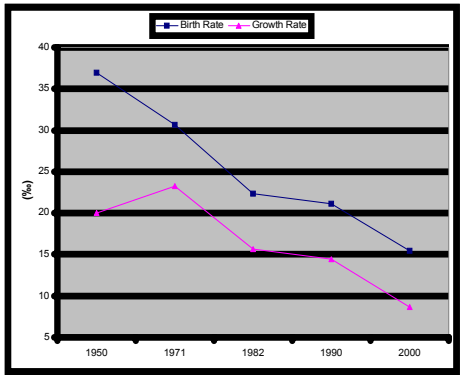
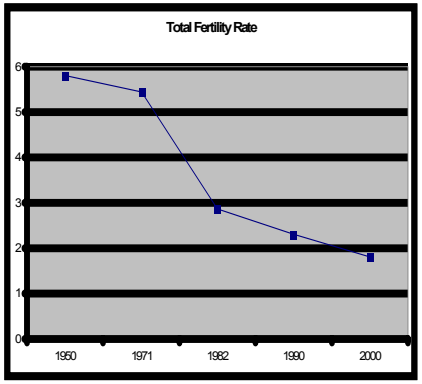
Disentangling Fertility Demand from the Constraint in Urban China:
Implications for China's Population Control Policy
An Honors Paper for the Department of Economics By Siopo Pat

Abstract:

Regarding population issues, no other country has received as much attention as China's One-Child Policy. Many empirical studies have shown that a number of social and economic factors, such as education, income, besides the policy were among the driving forces that caused the dramatic decline in fertility in China since the 1980's.

The socioeconomic settings for China's population control have changed, and the government should gear its population control policy towards the market economy. The question we want are trying to answer is: if the constraint were removed tomorrow, would the fertility rate in urban China rise or would it stay near its current level. To answer that question, we analyzed large-scale income and fertility data on China's population. Although the empirical results are mixed, there is evidence showing that the impact of the local family planning program has been weakened in urban areas. There is a gap between actual fertility and idea fertility, but it can't be fully explained by the One-Child Policy alone. Family characteristics like earnings, wealth and employment are playing an important role on deciding future fertility in China.





First introduced by the Chinese government in 1979 in an attempt to control China's booming population, the One-Child policy is a classic example of an immense social engineering movement. Under the policy, each couple is allowed to have only one child, unless one or both partners are from any of the 55 ethnic minority groups or they are both the only child in their own family. The law has been particularly strict in cities, where forced sterilizations, late term abortions and punishment of couples that break the rules have often triggered international criticism. While most of the intellectual community has praised China's efforts to reduce population pressure allowing the Chinese to concentrate more efforts on education and development, some social scientists have warned that the shrinking workforce produced by the One-Child policy will soon have to struggle to support an increasing number of retirees born in the 1950's under the 'baby-boom' policy of the early Mao period. In fact, China's One-Child policy has possibly led the country to the same, if not worse, fate as the United States in terms of the changing shape of the age pyramid. Demographers forecast that in 2050, the percentage of the population over 65 years old would have increased to an astonishing 20% compared to the current level of 7%. Unless further action is taken, the burden of caring for a graying population could begin to have a major impact on the speed of China's economic development. At the same time, the easing of the communist welfare system, which has accompanied the socioeconomic reform, has come with a cost: the state has lost its previous leverage over the population. Hence, more than at any other time in the past, there is a need for education, training, clinics, and counseling of people in China instead of strict quotas.

In recent years, many policy analysts have started to rethink the policy and gather evidence to measure the consequences of the policy. China is facing economic and social changes at a faster rate than ever before. As such it may be difficult and even unwise to continue to use rules that have been hardly changed for 20 years. Reforms and modifications to the policy with the aim of having a more appropriate and flexible population control system are in high demand.

My study begins with a review of the history of China's population control policies and the potential for future reforms. The second part is a review of the theoretical work of the economics of fertility, with a focus on the demand for children and the interaction between quality and quantity of the children. Part three proceeds with data analysis using data from the China Household Income Project of 1988 and 1995, and the survey data I collected in Kunming, China. The analysis shows some positive evidence to support the hypothesis that increasing education and real income levels, and especially that of women, have created a high demand for quality children. The increased demand for quality increases the price of each child in the family, and demand for births has been reduced.

The population history of Europe and the experience of other contemporary developing nations have shown that rising levels of health, education, and urbanization might have initiated a fertility transition in urban areas, with little or no help from the government. A changing social and economic context has thus produced a rapid adaptation to changes in childbearing in the China. Fertility began to decline spontaneously, even before the initiation of government birth control programs. Our results show that family size preferences have indeed declined across cohorts.

However, the empirical results from this study are mixed, especially because of the mixed outcomes of minority status and income factors. Although a number of individual characteristics showed significant effects on fertility, almost none of them keep the significance and a consistent sign across sample and age groups. Changes of the impacts from positive to negative and loss of significance for variables that proxy the relative strength of government control, such as urban status, party member, government agent and self-employed suggest that the effect of government intervention as well as conventional family planning efforts seems to be weakened.

While income definitely has a positive effect in rural China, the direction of the effect in urban samples is uncertain. The increasing level of incomes not only allows families to expand their constraint (including children consumption), it also causes the demand for quality children to rise. Thus the price for each child increases, especially when they can have only one child. These two effects move in the opposite directions. Thus, it is hard to separate the theoretical income effects. This study would be improved if we had more information on another key factor, the cost of children. Ideally, the long-term cost for having and raising a child should be captured. Analysis also shows that the differences between minorities and majority are considerably smaller in urban areas than rural areas. This suggests that the difference between ideal fertility and actual fertility is a lot smaller in urban areas. However, the gap still exists as the demand for children remains greater than constrained actual fertility.

Lifting the constraint for the urban population might cause an increase in fertility since the coefficients on minority status, which has no constraint on fertility, are positive and significant for CHIP data, while insignificant for Kunming data. Ideal family size was shown to be higher than actual family size, but the increase will not be substantial because of the small minority effects and the relatively small gap between ideal and actual family size. If paired with spacing, the results in terms of population growth in urban areas will be even smaller. In cities like Shanghai and Beijing, where growth rates are reaching zero or negative, a two-child policy with a reasonable number of years of spacing could be worth testing.