Extended abstract:

Fertility of China and South Korea has declined very rapidly during last few decades. For example, TFR (Total Fertility Rate) in China and South Korea was around 6.0 in early 1960, then reduced to 2.0 around middle of 1980, After TFR fell to below 2.0, the imbalanced SRB (Sex Ratio at Birth) emerged for both countries. According to Chahnazarian, SRB does not vary much in the countries of the world. Countries with reasonable birth registration data report SRBs for around 104 to 107 male births for every 100 female births. When the SRBs are not normal, we may think about sociological factors such as sex preference influencing the SRBs, especially imbalanced SRBs are higher than the normal ones. A number of explanations have been offered to account for these imbalanced SRBs. First explanation is to the underreporting of female births. Second one is to female out-adoption or infanticide. Third explanation is gender selective abortion thorough ultrasound test. Among these three explanations gender-selective abortion is the main factor of the abnormal SRBs in South Korea.

Son preference exists not only in China and South Korea, but also in Taiwan and some other Asian countries such as India. Even though all these countries have a strong patriarchal tradition, social dynamics regarding to son preference on fertility is not the same. So it is worthwhile comparing these countries. This paper, however, will compare China and South Korea, because among imbalanced SRBs' countries China and South Korea is a neighborhood country and has a same cultural background, Confucianism.

The goal of this paper examines the impact of son preference on fertility in China and South Korea. Special attention is given to the impact that a female birth has on the likelihood of a woman having a higher order birth. The analysis should provide indirect information on one-way son preference leads to a higher than average sex ratio at birth. In other words, among Korean women with one birth, whether the presence of a daughter increases the likelihood of the women having a second birth and a third birth is tested statistically.

Data were used from South Korea's National Fertility Rate and Family Health Survey 2000, which were conducted by the KIHASA by every 3 years. In 2000, this survey collected data from July 19th, 2000 to August 31st, 2000. The KIHASA collected

a pregnancy and contraceptive history, abortion experiences, and family values, and family health from sampled 13,249 households. Sample was based on 200 census tracts from 1995 census tracts, and was for only married women between the ages 15 to 64. Total 5,822 women among 13,249 respondents (43.9%) had one live birth, total 4,269 married women among women who had one live birth (73.3%) had two live births, and total 751 married women among women who had two live births (18.9%) had three live births. As following Poston's work to compare South Korea with China, two analyses were undertaken. Also, the imposing various restrictions were the same as Poston's. A total 5,822 married women who had at least one child available for the first analysis. And a total 3,973 married women who had at least two children were used for the second analysis.

Hazard analysis of women with one child ever-born were undertaken to ascertain, first, whether or not the presence of a female first-born enhances the women's transition to a second birth; and second, whether among women with two children having two daughters further in increases the transition to a third birth.

The survival-time data for Korean women consists of two variables as Poston did: one is dummy variable indicating for each women whether or not the event (the second birth for the first group of Korean women, the third birth for the second group of Korean women) occurred during the observation period; the second is a variable measuring the number of months that have elapsed since the first birth and the conception leading to the next birth or the censoring event. The dummy variable (CHILD1-2 or CHILD2-3) is coded 1 if the woman has a second (or a third) birth, and 0 if otherwise. The second survival-time variable is an interval variable (MONTHS1-2 or MONTHS2-3) and reflects the number of months between the date of the last birth and the date of conception leading to the next birth, or between the date of the last birth and the date of censoring event. The censoring events include such events as the woman reaching the end of childbearing age (AGE45); the woman having a pregnancy after the last birth that ends in a miscarriage or in a stillbirth or in an abortion; the woman becoming sterilized sometime after the last birth; and the date of the survey, July to August 2000.

The first analysis examines the hazard of moving from a first to a second birth.

The main independent variable in this analysis is a dummy variable (GIRL1), scored 1 if the first child is a girl, and 0 if a boy. In the second analysis, the hazard of moving from the second birth to a third birth was examined. One dummy variable (GIRLS) is scored 1, if both of the first to children are girls, 0 if otherwise; a second dummy variable (DAUGHSON) is scored 1, if the first child is a girl and the second a boy, 0 if otherwise; a third dummy variable (SONDAUGH) is scored 1, if the first child is a boy and the second a girl, 0 if otherwise.

In both the first and the second analyses five covariates were used as control variables, as follows: the woman's age when she had a first child (AGE-BIRTH1), or her second child (AGE-BIRTH2) measured in years; whether she lives in urban areas (URBAN), scored 1 if yes, 0 if no; whether she got a junior school level education (7-9 years of school) (JUNIOR), scored 1 if yes, 0 if no; whether she got a high school level education (10-12 years of school) (HIGH), scored 1 if yes, 0 if no; whether she got a college level education (13+ years of school) (COLLEGE), scored 1 if yes, 0 if no. Women who have got less then elementary school comprise the reference group.

The results shows that both Korean and Chinese results showed strong relationships in both models, namely the hazard of having a second birth and of a third birth, and this relationship was stronger for the third birth. In particular, the hazard of having a third birth for Korean women was extremely high than that of Chinese. In the distribution of the data, Korean women showed that the average age at the first birth was older than that of Chinese women; educational attainment of Korean women was higher than that of Chinese women. This represents the advanced Korean economic development level compared to that of China, even the South Korean data were conducted in 2000; meanwhile, Chinese data were 1997.

The older women had less likely to have another baby for both model, for both countries. The average month between a first birth and a second birth, and a second birth and a third birth for Korean women was shorter than those of Chinese. This indicated that married Korean women wanted to complete their childbearing and childrearing period shortly, even though they married and had a birth relatively older compared to those of Chinese women. The likelihood for having a second birth is similar to both countries. The likelihood for having a third birth of Korea, however, is much higher than that of China.

This indicates that son preference in Korea may be stronger than that of Chinese. Also, we can think about the effect of policy enforcement. In China, the Han people have a limitation of the number of children they can have, only one. But since Koreans did not have that policy, they can have third child with their own free decision. .

As Poston's arguments, viewing the fertility transition in China and South Korea is not as a single dimension process focusing only on changes in fertility, rather needs to be regarded as an integral component of the overall transition of the society from a traditional form to a modern one. We need to take into account not only the level of fertility, but also the timing of childbearing and the sex composition of the children. When fertility declines rapidly with regard to the number of children a couple may have, the tradition of a strong preference for sons over daughters will become more salient; accordingly, sociocultural factors will probably be more influential than economic ones in the fertility decision process. This may be what pattern and trends of abnormally high SRBs observed in China and South Korea are also seen in some other Asian countries with similar cultural contexts and rapid fertility declines.

For further research, one needs to include actual sociocultural factors such as ancestor worship ritual and lineage in the analysis: how those factors impact on fertility. Also, it is necessary to look at the parents' influentials on having another birth when the first birth was a girl, or first two children were girls. Because when our grandparents tell that they want to have a grandson before they died, this statement surely is a pressure to have another birth if parents only have a daughter or daughters. Finally, it is worth to include Taiwan to the analysis. Because Taiwan is relatively more developed in economically and gender inequities among these three countries, it will give us more sound understanding about the relationship between son preference and fertility and economic development.