Son Preference, Sex-Selective Abortions, and Parental Investment in Girls in South Korea: Evidence from the Year of the White Horse

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We investigate how selections of offspring gender in the presence of son preference affect parental investments in girls versus boys in South Korea. For identifying the magnitude of parental son preference, we exploit a semi-experimental episode of dramatic temporary rise in the sex ratio at birth in 1990 (the year of the White Horse) driven by the zodiacal preference. Like many other Asian countries, Koreans have a long tradition of following the oriental calendar system, under which each year is typified by a zodiacal sign according to a rotating cycle of 12 animals. It had been believed by many that a person's personality and characteristics are destined according to the zodiacal sign under which he or she is born. People traditionally thought that girls who are born in the year of the Horse have undesirable characteristics as wives, which is regarded a misfortunate destiny for women in a traditional society. In particular, those born in the year of the White Horse (that comes every 60 years) are believed to be most inauspicious. The mythical faith combined with the coming of sex selection technologies during the 1980s led to an abrupt rise in the sex ratio at birth in 1990 to the highest point ever. Along with the effect of the year of the White Horse, we also utilize the regional variations in the sex ratio at birth that result from regional differences in cultural norms and religious belief.

We conduct triple difference estimations to examine how gender differences in parental investments in children change across regions and birth cohorts. As measures of parental investments, breast-feeding and spending on private tutoring in secondary schools are employed. Since the majority of mothers in Korea perceived the advantages of breast milk over substitutes by the late 1980s, and feeding breast milk incurs substantial time and psychic costs to mothers, breast-feeding can be considered a form of parental investment. Likewise, the expenditure on private education is a primary form of parental investment in child's human capital in Korea where the competition for entering good colleges is intense, and the formal secondary education system is highly equalized.

We find that relative parental investments in girls in the forms of breast-feeding and private education are significantly larger for the cohort born in 1990 than those for adjacent cohorts and that the effect of the year of the White Horse is more strongly observed in the regions where the sex ratios at birth were initially high. These results show that a higher prevalence of sex-selective abortions led to a greater parental investments in girls as compared to boys. A possible mechanism behind the results is selections in parents who carry the female fetus to the term under the circumstance that sex-selective abortions are available. Girls who were born when sex-selective abortions are widely conducted should be selectively born to parents with less prejudice against girls, and thus receive relatively greater parental investments. In this sense, the results of this paper suggest that the rise of sex-selective abortions in Korea from the early 1980s to early 2000s brought an unintended consequence of relative improvement of human capital development of females selectively born to parents with weaker bias against daughters.