# Parents' preferences for the sex of their children in Sweden: attitudes and behavior 

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## 1. Introduction

The issue of parents' preferences for sex of children has gained increased attention in demographic research. It is sometimes argued that sex preferences would be small or non-existing in relatively gender equal societies (Pollard and Morgan 2002). However, Anderson et al. (2006) have demonstrated that this assumption does not hold for Scandinavian countries, which are often seen as frontrunners in terms of gender equality (Plantenga et al. 2009). Their results show that the desire to have at least one daughter tends to be higher than the desire to have at least one son: two-boy mothers are more likely to have a third child than two-girl mothers in Sweden, Denmark and Norway. These patterns were already noticeable in the 1980s, but they seemed to become more pronounced in the 1990s.

In this context, the purpose of this study is twofold. First, we use newly available Swedish register data to examine whether the clear pattern of sex preferences for daughters observed in the 1990s has persisted or intensified during the 2000s. Second, we use data from the recently released 2012 Swedish Generations and Gender Survey (GGS) to investigate the relationship between parents' attitudes regarding the sex of a possible additional offspring ${ }^{2}$. These data allows us to check whether parent's stated preferences match to the implicit preference for daughters that we observe in the Swedish register data.

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## 2. Births rates of one- and two-child mothers

Following Anderson et al. (2006), we present standardized relative risks of second and third births of women by the sex composition of their previous child or children. Using event history analysis techniques, we estimate a piecewise constant exponential model (Hoem 1993, Blossfeld et al. 2007) using the sex of the previous children, calendar year, age of the mother and time since the previous birth as control variables. An interaction between calendar year and the indicator of sex of the previous child or children reveals the trend in parents' implicit preferences for sex of children over time. We focus our analysis on births by native-born women born in 1925 and onward and we cover the period between 1970 and 2012.

Figure 1 shows the relative risk of having a second child among one-child mothers by the sex of their first child. These birth risks are expressed in relation to the birth rate of one-daughter mothers in 1977. The data indicate that between the 1960s and the 1990s there was no substantial difference in the birth rates of one-daughter and one-son mothers. This matches the pattern that would be expected in a society in which parents have no strong preference for the sex composition of their offspring. However, a new pattern emerged in the first decade of the 2000s, when one-boy mothers started to show higher birth rates than one-girl mothers. This suggests that not having a daughter created a greater incentive to try to have a second child, presumably with the expectation that it could be a girl.

Regarding two-child women, having two sons or two daughters did not seem to play a significant role in the couples' decision to have a third child until the mid-1980s (Figure 2). Nonetheless, this pattern began to change in the later 1980s, when two-son mothers started to show higher birth rates than two-daughter mothers. The new data for the period between 2000 and 2012 show that this general pattern has persisted or even intensified in more recent years. This suggests that, among the younger generations of Swedish women and their partners, the desire to have at least one daughter was clearly stronger than the desire to have at least one boy.

Figure 1 - Birth risks of one-child Swedish mothers, by the sex of the first child, 1970-2012 (risks relative one-daughter mothers in 1977)


Source: Swedish population register, authors' calculations. The rates are standardized for age of the woman and time since previous birth.

Figure 2 - Birth risks of two-child Swedish mothers, by the sex of the first two children, 1970-2012 (risks relative mothers of mixed-sex offspring in 1977)


Source: Swedish population register, authors' calculations. The rates are standardized for age of the woman and time since previous birth.

## 3. Self-reported preferences

Our preliminary analyses of the GGS data shows that, regarding self-reported sexpreferences, the most common answer to the question "Would you prefer your next child to be a boy or a girl?" was "It does not matter" (Figure 3). This was the most common answer across all different types of families (son-son, daughter-daughter, or
mixed sex composition). However, those parents who had two boys were noticeably more likely to openly say that they had a preference for the sex of their next child, with 41 percent saying that they would like that child to be a girl. In contrast, only 26 percent of the parents of two girls said that they wished their next child to be a boy. In fact, 10 percent of the parents of two girls openly stated that they would prefer their third child to also be a girl.

Figure 3 - Two-child parents' reported preferences for the sex of their next child, by gender composition of existing children, 2012.


Source: 2012 Swedish Generations and Gender Survey, authors' calculations. Note: Whiskers represent $95 \%$ confidence intervals.

## 4. Conclusion

Overall, our findings show that the pattern of stronger preference for daughters over sons that was observed in Sweden in the 1980s and 1990s has intensified during the first decade of the 2000s. In addition to the stronger preference for daughters among two-child women documented by previous studies, our findings show that during the previous decade this preference was noticeable even among one-child parents.

Adding information from the recent 2012 GGS survey, we showed that parents' stated preferences for the sex of their third child in fact matches the pattern of differential birth rates found in the register data. Although the Swedish society is known for holding gender equal social norms and for being one of the most gender equal societies in the world, the interviewed parents still openly expressed some degree of preference for daughters over sons.

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    ${ }^{2}$ The Generations and Gender Survey interviews 18-79 year olds in 19 European countries. For more information see Vikat et al. (2007) and the survey's website http://www.ggp-i.org/.

