Abstract

This study explores the factors behind the improvements in Sex Ratio at Birth (SRB) in Georgia over the last 15 years. It combines quantitative and qualitative analysis. Focus groups, in-depth interviews, and econometric analysis have highlighted the following determinants of SRB improvements: improved economic conditions, reduced poverty, increasing the economic share of the service sector (creating new job opportunities for women in banking, retail trade and other office-related jobs), higher female employment (outside the agricultural sector), increased male educational attainment, and changes in socio-cultural and gender value systems. There is, however, insufficient evidence to suggest social policy measures have had a significant impact in reducing Gender Biased Sex Selection (GBSS).

Introduction

Georgia experienced a significant rise in SRB after its independence from the Soviet Union. It is among twelve countries worldwide, where strong statistical evidence of sex imbalances at birth is observed. The other countries being Albania, Armenia, Azerbaijan, China, Hong Kong (SAR of China), India, the Republic of Korea, Montenegro, Taiwan (Province of China), Tunisia, and Vietnam.

It is generally accepted that the biological norm for sex ratio is around 105 male births per 100 female births (UNFPA, 2015). Since 1992, deteriorating economic conditions, coupled with a strong son preference, low total fertility rates, and access to affordable reproductive technologies have contributed to the increasing trend, one that lasted for almost 15 years, of an
SRB imbalance in Georgia (via sex-selective abortions). Since 2004, SRB has been experiencing a reverse trend, reaching a normal level in 2016 (see Figure 1). The aim of this study is to investigate the various factors behind such a change.

Georgia is characterized by a high degree of regional diversity in terms of cultural values, religion, and ethnicity. Unsurprisingly, these differences are manifested in the different levels of GBSS. The capital and the largest city of the country, Tbilisi, has one of the lowest SRBs, reaching a normal level in 2010. The other regions that have lower than average SRBs (very close to the natural level), are Samegrelo-Zemo Svaneti, Imereti, Adjara, and Shida Kartli. In contrast, the three southeastern regions - namely Kakheti, Kvemo Kartli and Samtskhe-Javakheti - have significantly higher SRBs than the country average. These three regions share borders with either Azerbaijan or Armenia, or both, and have a large ethnic minority population. Although these regions did record a decreasing trend in male births over the last 15 years, their decline in SRB was less pronounced.

Methodology

The aim of the study is to investigate the various factors behind the changes in SRB and further explore to what extent social and economic policies and interventions have had an impact on decreasing GBSS through influencing family decisions regarding son preference and softening pressure on fertility choices. The study utilizes quantitative and qualitative analyses to explore the linkages between macroeconomic conditions and social protection schemes and variations in SRB:

- The qualitative analysis is based on focus group discussions (FGDs) with parents of school/preschool children and in-depth interviews (IDIs) with medical personnel and NGO representatives. These were conducted in four regions: Kakheti, Kvemo Kartli, Samtskhe-Javakheti and Samegrelo-Zemo Svaneti. Kakheti, Samtskhe-Javakheti and Kvemo Kartli were chosen because they have the highest SRB levels, while Samegrelo-Zemo Svaneti has shown the largest improvement across Georgia since 2005 (see Figure 2).
- The quantitative analysis is based on quarterly panel data covering the period of 2005-2018 across nine Georgian regions. In the first stage of the empirical analysis, we estimated fixed and random-effect models, using different specifications and combinations of explanatory variables. In the second stage of the empirical analysis, we employed a spatial autoregressive model (SAR) and a spatial Durbin model (SDM) with a random effect and a clustered sandwich estimator (with the region used as a clustered variable).

Findings and Conclusions

The FGDs and IDIs reveal that, regardless of the downward trend in SRB, son preference is still prevalent in Georgian society. Awareness of sex-selective abortions in each of the four surveyed regions is high. All participants, nevertheless, acknowledge that while selective abortions were common in the past, they have since declined. Perceptions about the phenomenon, as a problem, differ among the regions. In Kvemo Kartli and Samtskhe-Javakheti the respondents did not
The prevalence of gender bias requires addressing holistically, involving social, economic, and cultural domains.

The overall direction should be focused on promoting initiatives to further advance poverty reduction, strengthen gender equality and women’s empowerment, as well as overcome gender stereotypes, by encouraging the equal value of both daughters and sons. Thus, the recommendations are:

**Recommendations**

- **Promote gender equality and reduce existing son preference in society by**
  a) strengthening the awareness of policy-makers and planners, as well as in civil society, on gender equality and sustainable development;
  b) securing the availability and affordability of a good-quality early childhood care, as well as long-term care for other dependents, including children with disabilities or elderly family members in need of long-term care;

From an educational context, the FGD findings also suggest the future potential of the “1+4” state program by making SRB reduction more inclusive across Georgia: giving ethnic minorities an opportunity to obtain higher education in Georgian universities and, hence, facilitating the integration of ethnic minority populations into Georgian society.

The FGDs also highlight the possible contribution of transforming values toward gender equality (this process is much slower in the regions populated by ethnic minorities) and the increased religiosity of the population affecting the GBSS trend reversal. The FGDs and IDIs also show that sex selection is less likely to be observed in families with reproductive health problems, since they usually pay more attention to the health of the fetus rather than its sex.

In conclusion, improved macroeconomic conditions seem to have contributed to a reduction in the skewed SRB by reducing family reliance on male offspring and by relaxing the constraints of fertility choices. Nonetheless, there is little evidence to suggest that the existing social protection schemes have contributed to SRB normalization.

Economic conditions seem to have played an important role in normalizing SRB ratios in Georgia: via increased disposable income and hence the improved possibility to have more children. As GBSS is more common among poor families, regional poverty rates act as significant determinants of the high SRB levels in Georgia. The econometric analysis shows that the recent reduction in poverty also reflects a decrease in prenatal gender discrimination. Moreover, participants of the FGDs highlighted the importance of international migration and remittances as a strategy for coping with limited labor market opportunities in Georgia.

Labor market dynamics, particularly the structural transformation of the economy towards the service sector, have created new job opportunities for women in banking, retail trade, and other office-related jobs. Such female economic empowerment contributes to a reduction in SRB imbalances by supporting women’s financial independence. It also reduces familial pressure on women regarding their family-planning decisions, potentially leading to fewer incidences of sex selection. This finding is supported by all of the FGDs and IDIs and is also confirmed by the quantitative analysis: a 1% increase in female employment rate (outside agriculture) is associated with a reduction in SRB by 0.25 percentage points.

The regression models also show that male education (unlike female education) at the regional level - as measured by the proportion of males over 20 with at least a BA - has a significant negative correlation with SRB. This outcome is potentially explicable in families with educated men, as there may be less pressure on women to be more involved in the family decision making process (including reproductive decisions).

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c) introducing family support policies to overcome gender stereotypes by encouraging a more equal sharing of unpaid household work and care between men and women;

d) creating proper incentives for working fathers to take care leave by introducing legislative changes and conducting awareness raising campaigns to tackle social norms related to male parenting;

e) advancing women’s economic empowerment, including encouraging female employment and entrepreneurship by expanding access to finance and other resources.

Alleviate poverty and reduce households’ vulnerabilities by

a) increasing the awareness of state social programs and schemes, especially the targeted social assistance program (TSA), among the population, particularly in groups with a higher likelihood of practicing GBSS; identifying and removing possible barriers to ethnic minority access to information and state social assistance programs (e.g. increasing awareness and accessibility to the 1+4 state program for higher education);

b) reducing incidences of poverty by promoting inclusive economic growth, diversification of the economy; away from the poorly productive agricultural sector and towards higher productive industries and service sectors. Support awareness raising towards GBSS and Son Preference and promote behavioral changes by

a) addressing challenging cultural stereotypes that identify daughters as less valuable or less beneficial than sons, those often at the root of gender-based discriminatory attitudes and practices;

b) implementing communication campaigns to increase awareness of GBSS, thus society (notably in communities where progress has been slower) can fully comprehend the harmful consequences of the practice;

c) focusing efforts on changing traditional inheritance practices (in favor of sons), and perceptions of the value of girls and boys, including but not limited to showcasing successful female role models;

d) advocating for the more ethical use of sex detection technologies - through engaging relevant professional associations to ensure the proper understanding of the developed guidelines and recommendations among medical personnel.

Strengthen the understanding of the factors behind the reduction of sex selection practices by

a) further exploring the effect of male education on gender roles and decision-making processes in families;

b) monitoring changes in the value systems and son preferences through periodic quantitative research (e.g. time use surveys, questions about son preference);

c) studying the impact of different migration destinations and the exposure of migrants to various socio-economic environments on value transformation.

Disseminate findings and make comparative studies

a) disseminating the findings of this study to raise public and policy-makers’ awareness regarding the socio-economic factors contributing to Georgia’s downturn, as well as opening up discussions about the remaining challenges related to son preference, which are still prevalent in the country;

b) encouraging the exchange of knowledge among countries and sharing from Georgia’s experience under the Global Programme to Prevent Son Preference and GBSS;

c) supporting comparative research in the South Caucasus to understand how variations in social and economic developments in Azerbaijan and Armenia might explain their lower reduction in SRB in comparison to Georgia;

d) promoting international cooperation to facilitate research, evidence-based policy-making, and dialogues on eliminating the harmful practices of GBSS and ensuring the sustainability of normal levels of SRB.

Endnotes


4. The educational “1+4” program was introduced in 2010, offering ethnic minorities further opportunities to learn the Georgian language and better access to quality education.