

Cohort Fertility Trends in Post-Yugoslav States¹

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Abstract

This study provides an in-depth analysis of cohort fertility, parity progression, and family size in the former Yugoslav countries, which include Bosnia-Herzegovina, Croatia, Kosovo, Montenegro, North Macedonia, Serbia, and Slovenia. Though politically united for much of the 20th century, these countries exhibit diverse fertility patterns due to their distinct socio-economic and cultural histories. The analysis utilizes census data to compute completed cohort fertility rates (CFR) and parity progression ratios (PPR), revealing the different paces of fertility decline. Slovenia, Croatia, and Serbia form a low-fertility cluster, with cohort fertility stabilizing at around two children per woman by the 1930 cohort. Bosnia-Herzegovina, North Macedonia, and Montenegro constitute a high-fertility cluster where the fertility transition occurred more gradually. Kosovo remains unique with persistently high fertility, though it has experienced substantial declines in recent cohorts. The findings highlight how socio-economic transformations, cultural norms, and historical legacies have shaped fertility behaviours in each country, providing insights into long-term fertility trends.

Keywords: Cohort fertility, parity progression, family size, former Yugoslavia

Introduction

The former Yugoslav countries are an interesting case study for demographic analysis due to their shared historical and political past, yet vastly different socio-cultural trajectories. The region has experienced a complex process of demographic transition, influenced by varying degrees of industrialization, urbanization, and shifts in family norms and gender roles. Yugoslavia's political dissolution in the 1990s further differentiated the trajectories of its successor states, as each country embarked on distinct political and economic paths. Fertility decline, an integral component of demographic transition, occurred at different pace across the region, influenced by both economic factors and deeply rooted cultural traditions (Breznik, 1991; Rašević, 1971).

The countries that made up Yugoslavia were heterogeneous in terms of religion, ethnic composition, and socio-economic development. For example, Slovenia, with its history of Austro-Hungarian influence, had long experienced lower fertility rates and higher economic development compared to Kosovo, which was marked by a deeply agrarian, patriarchal society (Erich, 1966). The question this study addresses is whether the fertility behaviour of the former Yugoslav countries has converged or if the region continues to exhibit significant diversity in cohort fertility trends. This analysis is important

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for understanding the demographic evolution of these countries in the context of their socio-economic and cultural histories.

Fertility in Context: Socioeconomic and Cultural Influences

The fertility transition in the former Yugoslav countries was influenced by economic, cultural, religious, and institutional factors, leading to regional differences in fertility patterns. Yugoslavia's complex historical and political background shaped the socio-economic trajectories of its republics, affecting their fertility behaviours. Yugoslavia was historically split between Western (Austro-Hungarian) and Eastern (Ottoman) cultural spheres, influencing marriage patterns and family structures. Slovenia and Croatia, with more Western European influences, transitioned to lower fertility rates earlier due to urbanization, industrialization, and expanded education for women. By contrast, Bosnia-Herzegovina and Kosovo, with strong Ottoman legacies, maintained traditional patriarchal family structures for longer, resulting in higher fertility (Erlich, 1966; Breznik, 1991). Religious diversity across the region also shaped fertility norms. Catholic regions like Croatia and Slovenia experienced earlier fertility decline, in part due to more progressive attitudes toward birth control, while predominantly Muslim Kosovo adhered to traditional norms, leading to higher fertility rates (Rašević, 1971; Breznik, 1991). Women's education and labour force participation were critical factors in fertility change. In Slovenia and Croatia, higher education led to delayed marriage and smaller family sizes, while in Bosnia-Herzegovina and Kosovo, lower educational attainment for women delayed fertility transition (Woodward, 1985; Rašević, 1971).

The socialist era brought further changes, promoting gender equality and female workforce participation, particularly in urban areas, which contributed to declining fertility. However, traditional values persisted in rural areas, slowing this transition. Institutional factors also played a role. Unlike many socialist states, Yugoslavia did not implement strong pronatalist policies and allowed for regional variation in family planning. Slovenia facilitated access to contraception and abortion, while Kosovo, influenced by its traditional values, maintained higher fertility levels. (Breznik, 1991; Drezgić, 2010). The economic instability of the 1990s further reduced fertility as large families became less viable (Calic, 2019; Kapor-Stanulović & David, 1999).

Overall, the fertility transition in former Yugoslav countries were shaped by a combination of socio-economic modernization, cultural norms, and institutional policies. While modernization spurred fertility decline in some regions, strong religious and cultural traditions delayed it in others, reflecting the complex socio-political dynamics of the region.

Data and Methods

The study analyses census data covering women born between 1868 and 1973, offering a comprehensive look at fertility trends over more than a century. Completed cohort fertility rates (CFR) and parity progression ratios (PPR) were calculated for the seven successor states of Yugoslavia. The census data used for this analysis span multiple decades, from the first post-war census in 1948 to the censuses conducted in the 2010s. The CFR measures the average number of children born to women by the end of their reproductive years, while the PPR shows proportion of women who progress from one parity to the next. These indicators provide a detailed understanding of how family size and fertility behaviour have evolved in the region.

To examine the similarities and differences between the countries, the study also analyses the parity composition of families, looking at the proportion of women with different numbers of children. The results are grouped into clusters based on similar fertility patterns. This methodological approach

allows for the identification of key trends in fertility decline and provides a basis for understanding the factors contributing to these patterns.

Results

The completed cohort fertility of women born between 1868 and 1973 in the former Yugoslav republics shows high fertility rates before the demographic transition. In the 1870 cohort, fertility ranged from 4.3 to 6.0 children per woman. Serbia, Slovenia, and Croatia experienced early fertility declines, while Bosnia-Herzegovina, North Macedonia, and Montenegro maintained higher fertility until around 1900 cohort. By the 1930 cohort, fertility in Serbia, Croatia, and Slovenia had dropped below 2 children per woman, while Bosnia-Herzegovina, North Macedonia, and Montenegro had declined to around 3.5 children per woman. Kosovo, however, retained high fertility levels at 5.7 children per woman.

The analysis reveals three distinct clusters of cohort fertility behaviour. Croatia, Slovenia, and Serbia represent a low-fertility cluster, where fertility declined rapidly during the first half of the 20th century and stabilized at around two children per woman by the 1930 cohort. This early fertility decline is attributed to factors such as industrialization, urbanization, rising female education, and changing family norms. For instance, Slovenia, the most economically advanced of the Yugoslav republics, exhibited fertility patterns similar to those seen in Western Europe, with high levels of childlessness and smaller family sizes becoming the norm by the mid-20th century.

The second cluster consists of Bosnia-Herzegovina, North Macedonia, and Montenegro, where fertility remained high until the mid-20th century but began to decline more gradually. These countries saw a slower fertility transition due to their more traditional social structures and slower socio-economic modernization. In these regions, large families remained more common, and the fertility decline was less pronounced until the 1960s and 1970s cohorts. The persistence of higher parity progression ratios to third and subsequent children in these countries illustrates the slower pace of change compared to the low-fertility cluster.

Kosovo, meanwhile, stands out as a unique case with persistently high cohort fertility throughout much of the 20th century. Fertility in Kosovo remained at around six children per woman until the 1940 cohort, only beginning to decline significantly in later cohorts. By the 1970 cohort, fertility had fallen to just under three children per woman, but this remains exceptionally high compared to other European countries. The high fertility in Kosovo is linked to its agrarian economy, patriarchal family structures, and lower levels of female education and labour force participation (Breznik, 1991). Traditional family norms and the strong influence of religion contributed to the slower adoption of birth control and smaller family sizes in Kosovo.

Conclusion

The findings of this study highlight the significant diversity in fertility patterns across the former Yugoslav countries, underscoring the importance of historical, socio-economic, and cultural contexts in shaping fertility behaviour. The clustering of countries into three distinct groups—low-fertility, high-fertility, and Kosovo as an outlier—demonstrates how varying levels of modernization, economic development, and cultural traditions have influenced cohort fertility trends over the past century. While some convergence in fertility behaviour is evident, particularly in the gradual decline of fertility in the high-fertility cluster, significant differences remain.

Slovenia, Croatia, and Serbia transitioned to below-replacement fertility levels earlier due to socio-economic modernization and changing family norms. In contrast, Bosnia-Herzegovina, North

Macedonia, and Montenegro experienced a more gradual decline, influenced by cultural factors that supported larger families for a longer period. Kosovo, with its persistently high fertility rates, represents a case where traditional family structures and slow socio-economic development delayed the fertility transition.

These results contribute to the broader understanding of fertility transition in the region and suggest that while economic and structural changes play a significant role in fertility decline, cultural and religious factors can slow or accelerate this process. The study provides a foundation for further research into the complex interplay of socio-economic and cultural factors that continue to shape fertility behaviour in the former Yugoslav countries.

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