

WOULD YOU MAKE MONEY GIVING BIRTH? TAX ALLOWANCES AND ECONOMIC ASSISTANCE AS MEASURES OF POPULATION POLICY IN SERBIA

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ABSTRACT

This article addresses the issue of childbirth postponement in Serbia. The paper examines the interaction of demographic and socioeconomic factors as relevant indicators of demographic development. In the case of seven municipalities in the Srem region, the authors sought to determine the causes of putting off childbirth and examine the attitudes of the female population, considering their decision not to give birth. The paper pursues to provide answers to the problems of the postponement of childbirth phenomenon, the economic resources needed for birth, the importance of the institutional framework and the changing role of women in society, which directly affect women's reproductive behavior. Research findings can be integrated into development strategies, which include both population policy and family planning measures, from the level of an individual to the extent of the community.

Keywords: *childbirth postponement, population policy, fertility, Srem region, Serbia.*

INTRODUCTION

Serbia is one of the countries with the oldest population in Europe (Nikitović, 2015; Stojilković-Gnjatović and Devedžić, 2020; Sekulić, 2022). Since 1971, there has been a steady decline in the birth rate in Serbia. According to demographic estimates, based on current birth rates, by 2050, Serbia's population will fall to 5.1 million (Penev, 2013). Serbia's population drops by about 40,000 every year. Due to the constant migration from villages to cities and the fall in the birth rate, in 2000 Serbian villages there are no more residents and in 200 villages there is no one younger than 20 (Nikitović, 2015).

Serbia has long been facing the problem of a low birth rate. A more recent analysis of cohort fertility (excluding Kosovo and Metohija), shows that none of the 33 generations of women born between 1930 and 1962 who came out of the reproductive period gave birth to more than two children, on average. Thus, the low fertility rate has long been stabilized at 1.8 children per woman. According to data from the Statistical Office of the Republic of Serbia (2016), the total fertility rate is 1.46 children per woman, and is below the European av-

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erage of 1.58 (Rašević, 2015). Between the last two censuses (from 2002 to 2011), the number of women, aged 30–34, who have not given birth, increased significantly from 21.2% to 30.3%. Their sociodemographic profile indicates that they are mostly unmarried and out of union (73%), highly educated (48%), working (81%), employed (64%), Serbian nationality (86%), and most often live in urban areas (78%) (Rašević, 2015).

Serbia belongs to a corpus of industrialized populations with low birth rates, accounting for more than half of the world (World Population Prospects, 2022). The dominant theoretical paradigm in the 21st century is still the Second Demographic Transition that explains the decline of the nuclear family due to: 1) the rise of individualism; 2) increase in female employment; 3) low level of birth desired and achieved due to delay; 4) decline in live births due to the absence of birth of more than one or two children (Rašević, 2015; Nikitović et al., 2019; Arsenović et al., 2018). Insufficient fertility is also caused by: a decline in fecundity due to delayed pregnancies and secondary sterility growth; the high economic and opportunity costs of raising children; the rise of divorce and dissolution of unions; pluralization of lifestyles, growth of personal freedoms, etc. (Bobić and Vesković-Andelković, 2018).

The situation in Serbia is additionally demographically challenging due to the negative migration balance after the 2002 census. Over the last three decades, the young, highly educated population has been increasingly leaving the country, resulting in both direct and indirect demographic losses (Bubalo-Živković et al., 2014).

The main driver of depopulation and profound changes in the Serbian age structure is precisely the level of childbearing that is below the needs of simple population renewal and has been going on for decades. Already in 1971, the total fertility rate was about 15% lower than the need for simple generation replacement in Central Serbia, or nearly 20% in Vojvodina province, until 1989, when the population stopped being regenerated naturally (Nikitović, 2015).

Identifying these trends imposes the increasingly important role of local self-government, i.e. defining population policy measures at the local level. The population should be the central focus of local self-government institutions that can constitute their population policy that will complement state policy measures while respecting local specificities (Živković et al., 2017).

In response to the low birthrate problem, the Government of Serbia adopted a revised Birth Incentive Strategy at the end of 2017. Extensive material benefits are forecasted, and the foundation of a national pension for mothers with more children. But is the low standard of living the only cause of low birthrates in Serbia?

The task of this paper is to attempt to answer this question, i.e. whether the economic aspect is crucial for putting off childbirth. In addition, the article aims to identify the main factors that lead to this phenomenon. The subject of this paper is the analysis of the impact of socioeconomic indicators on demographic components, primarily indicators of birth rates, mortality, and population growth in the Srem district, as well as research of women's views on this issue, all with the aim of family planning and shaping population policies at local and state level.

THEORETICAL BACKGROUND

The impact of economic development on population change is the subject of current debate among demographers and economists. In the scientific community, the idea that the birthrate is negatively correlated with the level of economic development has been widely accepted. Although there is a connection between hard times and starting a family, the nature of this phenomenon is much more complex. Some authors find that economic uncertainty reflects poorly on fertility rates (Devedžić, 2006; Dzhumashev and Tursunaliyeva, 2023). Others have argued that the birthrate is increasing precisely in times of recession: by reducing the opportunity cost of having children and by encouraging women to have them if they wish, precisely during the period when they are unemployed.

A decrease in the number of marriages together with new socio-economic conditions influence of reduction in birth rate (Ljakoska, 2021). The recession also affects the marriage rate, as well as birth rates. If young

people are waiting for the moment when they will finally obtain a secure income to build a home and start a family - then there is a link between starting a family and the rate of unemployment, especially male unemployment. Sobotka presents the relationship between unemployment and fertility through the link between the fall in the birth rate and the fall in the employment rate, and vice versa: the fertility rate increases along with the employment rate (Sobotka et al., 2011).

However, there is doubt as to whether the decline in fertility is permanent or temporary. The decline in natural growth occurs in different ways. Couples may decide to have fewer children or may delay having them. In both cases, the population growth decreases, although in the latter case it may increase later. This is called the “tempo effect.”

In most European countries, population growth rates have fallen because couples want fewer children. The average age of having a first child has increased in most Western European countries since 1970. In 1970, the age at which most women gave birth to their first child was 22-25. In 2008, the age increased to 27-29. However, between 2000 and 2008, the age increase slowed down considerably: women no longer delayed childbirth, while some gave birth much later, delaying pregnancy and childbirth. Currently, in some European countries, the rate of first-born children is falling faster than the rate of their siblings, suggesting that people are delaying family formation (Bongaarts and Sobotka, 2012).

The social framework of childbirth postponement: demographic renewal warning

After the fall of communism, the countries of Central and Eastern Europe (CEE) have encountered many changes in the sphere of social, economic, and political relations and faced many demographic challenges, where delaying birth is one of them. The decline in fertility in post-communist countries is seen as a juxtaposition of old conditions to the new ones at the demographic level, especially in the field of reproductive behavior (Stankuniene and Jasilioniene, 2008; Hoem et al., 2009).

To contextualize fertility changes, Kohler (2010) emphasizes that birth rates in developed, as well as less developed countries, represent a social change of primary importance, encompassing human relationships and their interdependence at all social levels. Petrović (2011) emphasizes the importance of the character of social relations and the prevailing value system and states that the position of the individual and family, as the carrier of reproduction in the social system, is of primary importance in determining the causes of insufficient birth rate within its framework.

The determinants that control the flows of First and Second Demographic Transition are the structural, cultural, and technological changes that take place within society (van de Kaa, 2008). Given that changes in fertility represent the core of these two transitions, in the essence of changes in the field of fertility, are major social changes, which are transposed through the variety of changes in the structure, technology, and innovations of a particular society, which are characteristic of its cultural determination.

Changes in reproductive preferences occur in specific conditions dictated by a particular society, which indicates the interdependence of fertility and the society which by its mechanisms affects reproduction. This emphasizes the fact that giving birth is conditioned by societies. Lesthaeghe (1980) emphasizes this aspect of the impact which society has on birth rates and points out that many societies have produced a system of control through which they regulate reproductive behavior.

Many demographers and sociologists have observed changes in fertility in the wake of major social changes. In this context, they consider the role of modernization, expanding education, adoption of technological innovations, the role of contraception, and changes in fertility are abstracted as part of a larger social context (Bernardi and Klärner, 2014). The characteristics of modern society, consisting of urbanization, industrialization, rising levels of education, women’s emancipation, and a higher standard of living, represent the contextual framework of the low or reduced birth rate. Authors from non-European countries also indicate that the reduction of fertility and changes in the family structure is influenced by the modern western lifestyle, through the effects of the second demographic transition (Al-Khraif et al., 2020).

In a study of the occurrence of childbirth postponement in Europe, Sobotka states that childbirth has become a matter of choice for many people (Sobotka, 2004). In the multitude of roles that women choose, in one highly dynamic society, motherhood becomes an important role, although not the only one. The initial driver of change in reproductive behavior is the education of population groups. During the general modernization of society, low reproductive norms became a universal reproductive model. A lengthy educational process leads to a delay in life events and involves a series of atypical transitions.

Economic variable of giving birth

During the evaluation of the economic factors and the magnitude of their influence on women's reproductive behavior, it is necessary to start from the place and role that children occupy in specific social circumstances.

Changes in fertility depend on the level of the society's socio-economic development. The process of industrialization and socio-economic development, as the modernization achievements, form the structural framework of changes that take place in the sphere of family and fertility and affect the decline in fertility rates (van de Kaa, 2001). Inglehart and Baker (2000) also point out that economic development drives the transformation of a society in a particular direction, which is directly dependent on its cultural and historical context.

Easterlin (1976) points out that people's behavior is determined by the relationship between aspirations and resources. If the resources are scarce, and reproduction is one of the essential aspirations, people will hesitate to have children. In contrast, the availability of resources brings a higher degree of couples' freedom when it comes to reproductive intentions. Hence, material aspirations can be directly linked to the level of socio-economic development.

The child's economic cost is one of the most dynamic and evident structural variables of childbirth. Along with the modernization of society, economic and social changes such as industrialization and urbanization, followed by the spread of education, have led to a fall in mortality and then a decline in fertility. Rising costs and declining child costs have been the main drivers of fertility decline, leading to a decline in motivation for parenting (Veljović, 2015).

According to microeconomic fertility theory, children are considered in the context of possible benefits and costs. Parents decide on their future offspring based on the flow of benefits they will have from the child and the flow of inevitable costs, with constraints of their income and the cost. Children are a source of pleasure, but also consumers of various resources. According to this understanding, parents choose between having more children and having lower living quality and fewer children and higher living quality at the same income (Becker and Lewis, 1973). The qualitative aspect of raising children is given importance, and emotional and financial resources are invested in their development to increase their chances of success in life. A child is seen as an investment that should provide utility. Thus, there is a tendency toward the nuclearization of the family, i.e. families with one child or fewer children.

Importance is given to the increase in opportunity costs relating to the time that a mother would spend caring for a child (Zhang, 2020). This time is of economic value because she would spend the same amount of time performing other activities. An opportunity cost is a missed opportunity for a mother to create value in an alternative activity. The importance of microeconomic fertility theory lies in its appreciation of the economic dimension of giving birth, i.e. the potential costs and benefits that children may present, which, within the Serbian socioeconomic continuum, is emerging as a determinant in the evolution of reproductive intentions. The context of the prolonged economic crisis has added particular emphasis to the economic cost of giving birth, has acted as a disincentive to demographic trends, and is a distinguishing factor in delaying giving birth for better, more stable times.

Family planning policy in European and Serbian Perspective

CEE governments and politicians' post-1990 fears of significant fertility decline, linked to fears of losing human resources, and lack of financial and human capital for social reform, including rising medical, care, and social security costs for an aging population, demanded a search for a political answer. Child-centered social and family policies were formulated, expanded, and implemented (Frejka and Gietel-Basten, 2016). The transition to neoliberal capitalism created a very unfavorable environment for childbirth, unlike previous socialist regimes, in which, in most of the previously mentioned countries, birth was early, universally, supported by ideologies of pronatalism.

A qualitative, comparative analysis of family policies in 15 CEE countries identified four types:

1. A comprehensive model of family policy (most present in Estonia and Slovenia), so far, is the most progressive in creating the conditions for men and women to shuffle family and paid work, not only because of financial incentives, but also due to developed, institutional solutions, expanding institutions for babysitting the children of working parents, introducing “fathers’ quotas”, strengthening gender equality, etc.;
2. Pronatalist model (Russian Federation, Belarus, Ukraine, partly Bulgaria and Latvia), predominantly financial incentives to increase birth rates;
3. Temporary male breadwinner model (the Czech Republic and Slovakia); the desire to continue with well-paid, long maternity leave for women of socialism; employers discriminate against women/mothers and young women, so it is challenging for them to reconcile work and family;
4. The conventional model of family policies (combination of maternity leave, child support, and child-care facilities for working parents), allows only partial support for parents. However, comprehensive social support is insufficient to resolve the conflict between family and work (Serbia, Croatia, Lithuania, Poland, Romania, and partly Hungary) (Frejka and Gietel-Basten, 2016).

A whole decade earlier than European countries, Serbia has faced fertility below replacement, even before the evident impact of the Second Demographic Transition (Vasić, 2021b). Since 2002, there have been two direct population control measures in Serbia: full salary for one year of maternity leave and parental allowance. The parental allowance is paid for the first, second, third, and fourth child in the family. Its amount increases with the birth order. It is adjusted to the increase in the cost of living, and it is paid, except for the birth of the first child, in 24 monthly installments (Vasić and Marinković, 2016).

At the end of 2017, the Government of Serbia adopted the Birth Incentive Program (Government of the Republic of Serbia, 2018). This document seeks to create a more comprehensive model of family planning and, among other things, emphasizes the reduction of the economic cost of giving birth, especially by supporting young couples in solving housing issues, facilitating employment, especially for women, empowering employees in the labor market, reconciliation of work and parenting, etc. Attention was also paid to the so-called reduction of the socio-psychological cost of parenting, which should create the conditions for gender-equal partnership and parenting. Having in mind other elaborate goals (eight in total), preserving, and improving reproductive health, infertility treatments, healthy motherhood, activating the local community, and population education, it can be said that a solid basis for a very complex and contemporary political response to the problems which Serbia is facing, not only in the field of childbirth but also in emigration, aging, etc. was created. In addition to the Program, the most recent Law on Financial Support for Families with Children provides for very generous pro-natal measures intended for parents, from the first to the fourth order of birth (Ministry of Labor and Social Policy, 2018). The implementation of the strategy is predominant in achieving a higher number of childbirths in Serbia (Sekulić and Solarević, 2021) because delaying fertility has led to a birth crisis in Serbia in the 21st century (Vasić, 2021a). Vasić (2021c) gives recommendations for encouraging earlier parenthood through support for a family policy with the help of the goals of the National Program for the Promotion and Preservation of Public Health, the Strategy for Encouraging Childbirth, and the Public Health Strategy.

RESEARCH METHODOLOGY: INSTRUMENT, DATA COLLECTION AND SAMPLE

The research area covered the Srem region, one of the administrative parts of the Autonomous Province of Vojvodina in northern Serbia. This region covers an area of 3,485 km², with 300,988 inhabitants distributed in 109 settlements within seven municipalities: Indjija, Irig, Pećinci, Ruma, Sremska Mitrovica, Stara Pazova, and Šid (SORS 1991-2018).

The research consisted of two parts. The first part of the research concerned the quantitative analysis of data obtained from the Statistical Office of the Republic of Serbia. The second part of the research is qualitative, and the data were obtained through interviews.

The first part of the research used data from the statistical publication Municipalities and Regions in Serbia from 1991 to 2021 (SORS, 1991-2021) and data from the three consecutive Population Censuses (1991, 2002 and 2011). The data on the total active population is taken from the 2011 Census of population. Data on employees were obtained based on the regular semi-annual reporting service, used to regularly collect data for the months of March and September as an annual average.

The influence of socioeconomic factors (unemployment rate, national income, active population, dependency index) and demographic factors (population, population density, average age of population, aging index, and participation of the elderly in the total population) on significant indicators of natural population movement (birth rate, mortality rate, natural growth rate) are investigated.

To determine the territorial difference between the observed variables, indicators of descriptive statistics for some municipalities of Srem were calculated. The characteristics of the distribution of birth rate, mortality rate, and population growth rate were examined in detail using the Box-Whisker diagram, while the non-parametric Kruskal-Wallis one-way analysis of variance was used to compare the medians of these variables. Choosing a linear regression model to determine the dependence of birth rate, mortality rate, and population growth rate on other considered variables was made using Stepwise regression. All statistical procedures were performed in STATISTICA 13.0 statistical software.

The second part of the research required conducting interviews. The semi-structured interview was used for the research as the most reliable manner of obtaining this type of data. The empirical basis of the research was an interview with 16 women from Srem, who were over 30 and have not given birth. The snowball sampling technique was used in the interview, which implies that existing respondents are recruiting future participants from among their acquaintances. Most of the respondents have a university degree and incomes above 500 Euros and currently have no partners. A more detailed description of the socio-demographic characteristics of the respondents is presented in Table 1.

Table 1. Sociodemographic characteristics of interviewed women

Education	Highschool	2
	College	3
	University	11
Permanent employment	Yes	13
	No	4
Income	Up to 500 €	5
	Over 500 €	11
Partner	Yes	4
	No	12

The interview was conducted from April 25 to May 10, 2022. Most interviews (11) were conducted face-to-face, the rest via Skype. The interviews took about 30 minutes. Interviewed participants are listed alphabetically.

RESULTS AND DISCUSSION

Results of statistical analysis

Table 2 gives an overview of the values of the arithmetic mean, the interval of variation, and the coefficients of variation of the variables under consideration. Although there are some differences in the average values of birth rates by municipalities in Srem, they do not show statistical significance. The results of the Kruskal Wallis test ($H = 2.2909$; $p = 0.8911$) confirm that the observed differences are not significant.

Table 2. Arithmetic means, intervals of variation and coefficients of variation of observed variables

Municipalities	Birth rate (‰)			Mortality rate (‰)			Natural growth rate (‰)		
	X	I	CV (%)	X	I	CV (%)	X	I	CV (%)
Indija	9.0	2.7	15.0	13.3	1.3	5.7	-4.3	-1.5	19.7
Irig	8.9	4.9	29.2	17.4	1.5	4.4	-8.5	-3.9	23.1
Pećinci	9.7	3.5	18.4	13.7	1.5	5.5	-4.0	-2.0	25.4
Ruma	8.7	3.3	21.5	14.6	1.0	3.4	-5.9	-3.7	32.9
Sr.Mitrovica	9.3	2.1	11.3	13.5	1.4	5.8	-4.2	-3.5	42.9
St.Pazova	9.0	2.1	13.5	11.3	1.4	6.4	-2.3	-1.1	24.2
Šid	9.3	2.6	15.8	15.0	1.1	3.8	-5.7	-3.6	35.3
Municipalities	Aging index			Unemployment rate (%)			Active population		
	X	I	CV (%)	X	I	CV (%)	X	I	CV (%)
Indija	0.8	0.4	25.0	11.1	4.3	19.8	23,264	8,311	18.3
Irig	1.2	0.5	22.1	13.4	3.3	12.6	5,656	2,672	24.0
Pećinci	0.8	0.3	19.9	6.7	5.5	44.0	10,226	4,992	25.5
Ruma	0.9	0.4	22.3	10.9	2.6	12.0	27,418	13,866	25.6
Sr.Mitrovica	0.9	0.5	29.4	10.7	8.4	42.8	42,677	23,028	27.7
St.Pazova	0.7	0.4	28.4	7.2	3.6	26.4	31,402	8,989	14.5
Šid	1.0	0.4	20.2	10.5	4.2	20.1	17,759	9,811	27.8

Source: Authors' calculations with Statistica 13.0

The lowest average birth rate was recorded in the municipality of Ruma and the highest in the municipality of Pećinci. These two municipalities also recorded the lowest, and the highest median birth rates (Chart 1).

Unlike the birth rates, the mortality rates significantly differed across municipalities, as shown by the results of the Kruskal Wallis test ($H=18.3273$; $p=0.0055$). Irig Municipality recorded the highest average mortality rate, besides the highest median value of this characteristic (Chart 2). The municipality of Stara Pazova had the lowest average and median mortality rates.

Population growth in all Srem municipalities is negative and differences in average values of population growth rates are not statistically significant. This conclusion is drawn upon the results of the performed Kruskal Wallis test ($H = 7.3889$; $p = 0.2864$). The highest average and median values of the natural increase rate were in the municipality of Stara Pazova, while the minimum values were recorded in the municipality of Irig (Chart 3).

A regression analysis was applied to examine and quantify the impact of economic and socio-demographic factors on birth rates, mortality, and population growth. The impact of economic factors was examined based on the impact of national income per capita. Socio-demographic factors include the number of inhabitants, the average age of the population, the aging index, the unemployment rate, the number of employed, the share of the elderly in the total population, and the dependency.

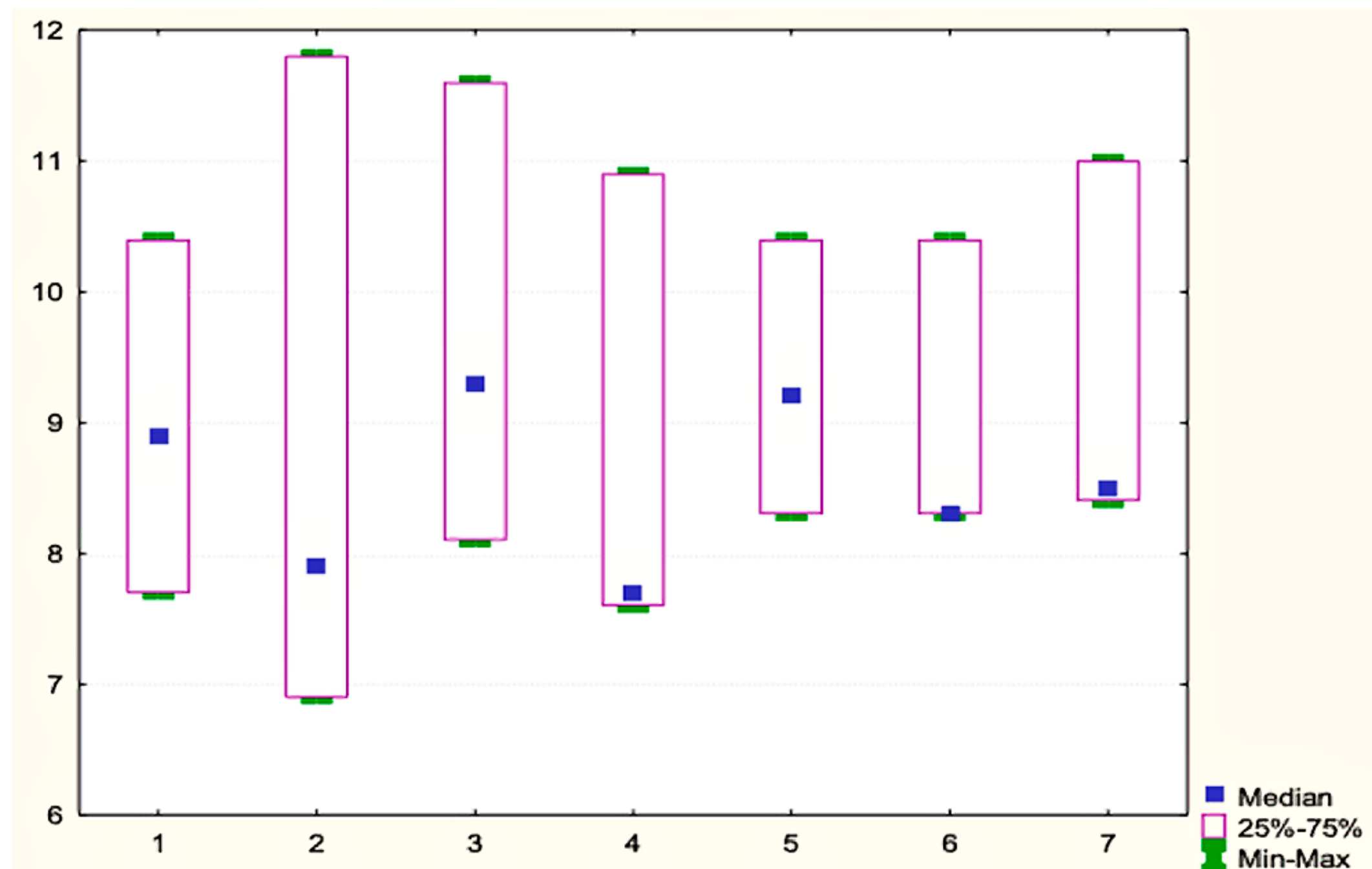


Chart 1. Box and Whisker chart of birth rates in the municipalities of Srem region

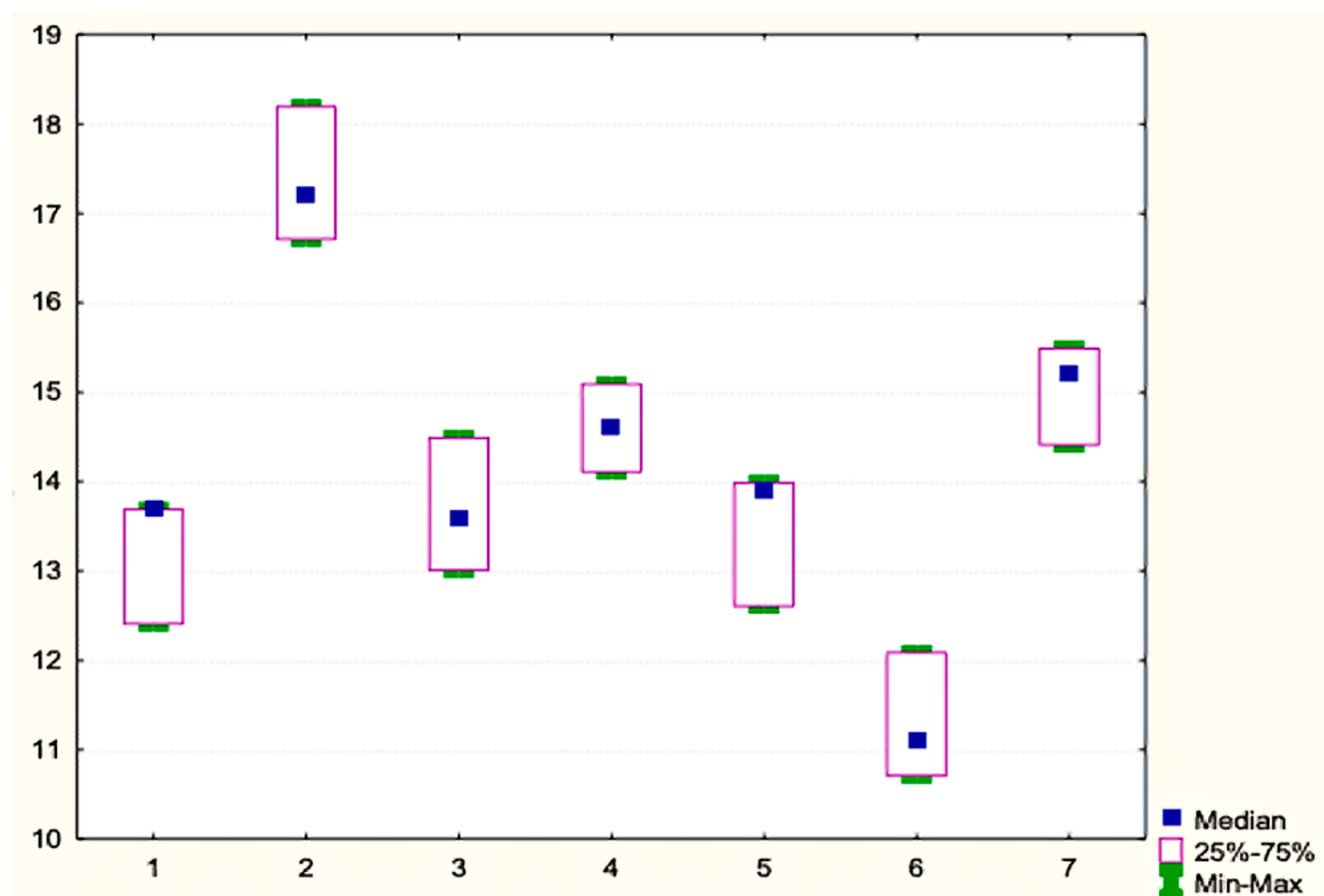


Chart 2. Box and Whisker chart of mortality rates in the municipalities of Srem region

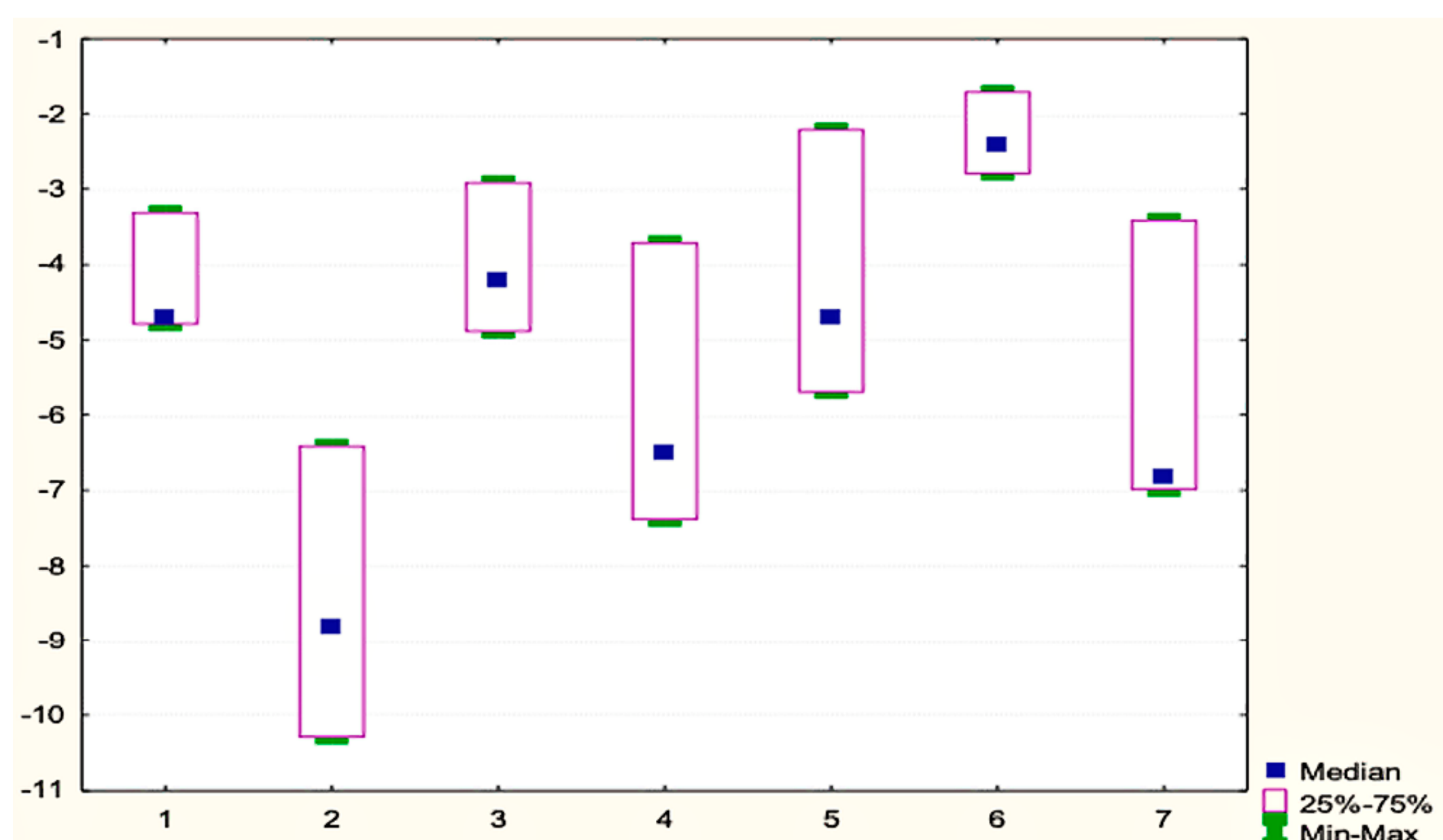


Chart3. Box and Whisker chart of the population growth rates in the municipalities of Srem region

Stepwise regression was used to estimate the corresponding regression models. The estimated model for quantifying the impact of these factors on the birth rate shows that population density (X_1) and average population age (X_2) have a statistically significant impact on this rate.

$$Y_{br} = 30.4002 - 0.0101X_1 - 0.5083X_2$$

$$(-3.242^{**}) (-8.866^{**}) F=39.795^{**} R^2=0.795$$

The estimated model is statistically highly significant, which is confirmed by the F test. Along with the increase in population density, as well as the increase in median age, birth rates decrease. The change in the birth rate, 79.5%, was explained by the influence of these two factors.

The aging index (X_1) and the unemployment rate (X_2) have the greatest impact on changing mortality rates. The aforementioned shows the estimated model obtained by applying Stepwise regression.

$$Y_{mr} = 7.7519 + 3.8407X_1 + 0.0283X_2$$

$$(2.946^{**}) (2.829^{**}) F= 8.882^{**} R^2=0.658$$

The estimated model, which is statistically highly significant, shows that an increase in the aging index and the unemployment rate have an impact on the increase in the mortality rate. The impact of these two factors on the change in the mortality rate is 65.8%.

The aging index (X_1), the number of employed (X_2), and the unemployment rate (X_3) have a statistically significant effect on the population growth rate.

$$Y_{ngr} = 7.7519 - 7.2095X_1 + 0.05X_2 - 0.0178X_3$$

$$(-8.833^{**}) (2.913^{**}) (-3.310^{**}) F= 57.241^{**} R^2=0.909$$

The estimated model is statistically highly significant, and the selected variables determine the population growth rate at 90.9%. An increase in the aging index and the unemployment rate leads to a decrease in the population growth rate, while the impact of the employed population is positive, i.e. an increase in the employed population leads to an increase in the population growth rate.

None of the models evaluated include national per capita income as a variable that reflects the impact on economic factors. This suggests the conclusion that the socio-demographic factors have a more significant influence on the observed rates compared to the economic factors.

Results of qualitative research

The results of the statistical analysis required verification through empirical research and conducting interviews. Based on the information gathered during the interview, the obtained data were interpreted and discussed. The answers to the groups of questions are presented below. Certain answers are fully listed, while responses of a similar structure are grouped and summarized. The interview provided information on the importance of marriage, maternity, financial and housing security, career, and self-fulfillment as reasons for delaying birth.

Respondents were first asked if they had heard of a new birth encouragement strategy, and if so, to express their opinion. Most respondents (ten out of sixteen) had heard of the strategy but did not know exactly what specific measures it involved. However, the opinion of respondent E (35), can be distinguished:

'Unfortunately, the measure is passed without much thought. Most responsible parents are unlikely to see the motivation and some security in these hundreds of Euros. There are other ways to help parents - completely free education, kindergartens, vacations, subsidies when buying clothes and shoes for children, etc. That way, the children would go to school, get an education and be useful to society.'

Respondent B (38), has a similar opinion:

'This will not change anything. This is just social welfare for the poorest families, who have numerous children regardless. In larger cities, growth will remain low. Money is not a problem, it's just an excuse, the problem is much deeper and the West, which is far richer than we are, shares the same problem.'

Although the Birth Incentive Strategy is not just about obtaining cash, it can be observed that the respondents highlighted this aspect in the foreground. As can be seen, economic assistance is not considered to be crucial for making a birth decision. The importance of material aspirations grows along with economic development. The higher the economic development degree of a particular society is, the higher the expectations and standards for achieving the qualitative aspect of life. In this regard, standards are rising in terms of the qualitative characteristics of children at the expense of their quantity. By investing in their education, by involving children in various sports and other activities, people invest in their future and seek quality education. The amount of investment given to a child is determined by the amount of funding available to prospective parents. In this way, the availability of material resources is an important, but not decisive, factor in the evolution of affirmative attitudes towards parenting.

Interestingly, most respondents (nine out of sixteen) think that motherhood is a very important life goal, and they favor it over marriage (seven out of sixteen).

These attitudes differ significantly from a period of thirty years ago. Communist discourse has put family values and child-centered values in a high position in the value system, and therefore the concept of early marriage and early parenthood was prevalent in Serbia as well as in other communist countries, until their collapse. On the other hand, the basis of modern reproductive behavior is comprised of the important factors that are part of our civilization, whether they represent its positive achievements or weaknesses. On the one hand, there are emancipation and individualism, the nuclear family and the changed position of women and children in it, insistence on the quality of their own lives and the quality of a child's life, liberal law on abortion, and the availability of effective contraception, and on the other, materialistic consciousness with a consumer mentality and personal life. The contemporary model of two persons coexisting implies that marriage is less universal, people are getting married later than before, divorce more frequently remarrying less frequently and for a shorter period, and alternative forms of a community becoming more numerous.

Respondent L (37), who has a partner, states:

'Children are one of my priorities, but I have a conception problem. The employer will not tolerate me leaving work for 2 hours for a check-up. In some health care institutions, I can schedule a doctor's appointment every other month due to the insufficient available terms. It takes a lot of time and money. More couples cannot become parents than those who do not want to give birth.'

These findings reveal another problem, the issues of employer responsibility and the functioning of the health system.

Financial and housing security are very important prerequisites for achieving reproduction. Ten out of sixteen women consider this a very important life goal. Respondent F (32) states:

'My life goal is to have children and I hope to fulfill it soon. All my friends want marriage and at least two children, but no one dares to embark on this adventure until they have a permanent job and a place to live.'

In the absence of the necessary material framework in the form of housing security and employment, the transition to adulthood is difficult for young people. This phenomenon is present in Serbia, as well as in other post-socialist countries (Lung, 2019), and some parts of Southern Europe.

Career and self-improvement are also high-ranking life goals. Twelve of the sixteen women interviewed consider this a very important life goal. All of them agree that motherhood and career are not always easy to reconcile. Respondents fear that pregnancy may endanger their current position at work. Half of them are afraid of the opportunism of their colleagues, and they say they would be prepared to hide from their boss that they are pregnant to ensure promotion. Half of the women interviewed fear pregnancy could put their job

in jeopardy, and seven in sixteen women believe they would become redundant at work if they opted for maternity leave. Thus, respondent A (35) states:

‘The real help would be to guarantee that mothers will not lose their jobs when they become pregnant. The figures promised by the state are far from some serious help, except for those who neither have a job nor plan to get one.’

The women’s emancipation movement, promoted for reasons of taxing women who would be employed as emancipated, and because an emancipated woman has a lower birth rate than a woman in a patriarchal family, has directly led to low fertility rates and delayed births. Thus, it can be concluded that economic incentives themselves are not sufficient to increase the birth rate.

Twelve out of sixteen respondents do not think that it would be practical for them to bring their child to work. Although this would benefit them in some situations, they still think that in that case, their productivity would be lower. Respondent N (36), confirms this with the words:

‘A job is a place of work and I do not see how such an experiment would be fun and effective, neither for the child nor for me. Sometimes the problem is finding a person who would take care of the child if they cannot attend kindergarten or school. It would be nice if I could bring a child to the work with me, but I don’t know how productive I would be in that case.’

To obtain information on the conditions under which they would choose to give birth, the respondents were asked to indicate the circumstances that would encourage them to have children. To facilitate their daily lives, most respondents (ten out of sixteen) stated that they could use higher salaries to pay for services such as a nanny or home help. Six respondents said that they could use more vacation days and eight of them would like flexible working hours. To devote themselves to a family, seven respondents would like to work part-time, and five would like to work from home. Of the other benefits, the respondents indicated a 6-hour workday, non-working weekends, and morning shift jobs.

CONCLUSION AND GENERAL RECOMMENDATIONS

Old-fashioned demographic policies usually rewarded those women who had many children. However, it has been proven that such measures rarely work. It is, therefore, necessary to modernize population policy by providing high education, social security, social benefits, and adequate health care. Couples can respond positively to incentives such as cheaper daycare or longer parental leave.

Some of the possible suggestions are more active involvement of men in parenting and household chores, i.e. promotion of “new paternity” as a practice, education about changing gender roles and their flexibility (starting from family, through kindergarten, throughout the education of children), more equal division of household chores. The devaluation of the socio-psychological cost of parenting is closely related to the reconciliation of work and parenting. Therefore, it is necessary to allow childcare leave for both parents, solid wage compensation, flexible working hours, stable employment contracts, expansion of childcare facilities, and support for young people in transition to adulthood, especially in employment, housing, etc. However, for these population measures to make sense, it is necessary to raise the standard of living, create new jobs, increase wages, etc.

Low reproductive norms are deeply conditioned and belong to the category of long-term phenomena, and therefore the need for their continuous monitoring, in different conditions and environments, is imposed, which will allow for more complex conclusions and definitions of general and specific goals and measures of population policy in the future. Thus, the following social support measures may be recommended when formulating future policies on the local news, considering their specificities:

1. Monthly financial compensation for children under 18;

2. Reduction of the utility costs (heating, water, garbage);
3. Reduction of property tax liabilities;
4. Free kindergarten and one free winter/summer vacation (during the year);
5. Free school books;
6. Free school snacks;
7. Free extended and full-day school stay;
8. Free transportation for school children;
9. Free parking for families with three or more children;
10. Free coaching at sports clubs, funded by local governments;
11. Preference for employment for parents of three or more children; and
12. Reduction in retirement age for mothers with three or more children to 55 years.

The results of this research could allow the formulation of fertility policy as one of the initial demographic determinants of population development in the area, as it will complement the broader issue through appropriate parameters. The analyses obtained in the paper can be incorporated into development strategies, which receive both population policy and family planning measures, from the individual to the community level. Such steps should be the starting point for defining a spatially differentiated population policy at the municipal level, resulting from the general goals and measures of the national population policy.

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REFERENCES

- Al-Khreif, R., Abdul Salam, A., Abdul Rashid, M. F. (2020). Family Demographic Transition in Saudi Arabia: Emerging Issues and Concerns. *SAGE Open*, 10, 1. <https://doi.org/10.1177/2158244020914556>
- Arsenović, D., Nikitović, V., Magdalenić, I. (2018). Prostorna dimenzija druge demografske tranzicije u Srbiji. *Zbornik Matice srpske za društvenne nauke*, 167, 3, 499-513.
- Becker S. G., Lewis H. G. (1973). On the Interaction Between Quantity and Quality of Children. *Journal of Political Economy*, 2, Part II, p. 280.
- Bernardi, L., Klärner, A. (2014). Social Networks and Theory Fertility. *Demographic Research*, 30, 22, 641-670. DOI: 10.4054/DemRes.2014.30.22
- Bobić, M., Vesković-Andelković, M. (2018). Socio-Psychological Cost of Childbearing in Serbia and Political Response. *Zbornik Matice srpske za društvene nauke*, 167, 345-355.
- Bongaarts, J., Sobotka, T. (2012). A Demographic Explanation for the Recent Rise in European Fertility. *Population and Development Review*, 38, 1, 83-120. <https://doi.org/10.1111/j.1728-4457.2012.00473.x>
- Bubalo-Živković, M., Đerčan, B., Lukić, T., Jovanović, G. (2014). Moving to the Welfare Countries: Emigrants from Serbia 1961-2002". *European Researcher*, 71, 3-2, 581-594.
- Devedžić, M. (2006). *O prirodnom kretanju stanovništva*. Biblioteka Stanovništvo, Knjiga 1, Beograd: Zavod za udžbenike.

- Dzhumashev, R., Tursunaliyeva, A. (2023). Social externalities, endogenous childcare costs, and fertility choice. *Journal of Population Economics*, 36, 397–429 <https://doi.org/10.1007/s00148-021-00885-8>
- Easterlin, R. A. (1976). The Conflict Between Aspirations and Resources. *Population and Development Review*, 2, 2-3, 417-425.
- Frejka, T., Gietel-Basten, S. (2016). Fertility and Family Policies in Central and Eastern Europe after 1990. *Comparative Population Studies*, 41, 1, 3–56.
- Government of the Republic of Serbia (2018), Strategija podsticanja radjanja, Službeni glasnik RS, br. 25/2018. available online at http://aler.rs/files/STRATEGIJA_PODSTICANJA_RADJANJA.pdf, accessed on 22.07.2022.
- Hoem, J. M., Kostova, D., Jasilioniene, A., Mureşan, C. (2009). Traces of the Second Demographic Transition in Four Selected Countries in Central and Eastern Europe: Union Formation as a Demographic Manifestation. *European Journal of Population / Revue Européenne de Démographie*, 25, 3, 239–255. doi:10.1007/s10680-009-9177-y
- Inglehart, R., Baker, W. E. (2000). Modernization, Cultural Change and the Persistence of the Traditional Values. *American Sociological Review*, 65, 1, 19-51.
- Kohler, H. P. (2010). *Fertility Trends and Implications*. Philadelphia: University of Pennsylvania.
- Lesthaeghe, R. (1980). On the Social Control of Human Reproduction. *Population and Development Review*, 6, 4, 527-548.
- Lung, M. S. (2019). Demographic Changes in Carpathian Mountain Space. Case Study: Cities from Southern Carpathians (Romania). *Zbornik radova Departmana za geografiju, turizam i hotelijerstvo*, 48, 1, 1-15. DOI: 10.5937/ZbDght1901001L
- Ljakoska, M. (2021). *Attitudes toward marriages and the desired number of children in North Macedonia*. 7th International Scientific Conference GEOBALCANICA, Ohrid, North Macedonia.
- Ministry of Labor and Social Policy (2018). *Zakon o finansijskoj podršci porodici sa decom*, Službeni glasnik RS, br. 113/2017 i 50/2018”. Available online at <https://www.paragraf.rs/propisi/zakon-o-finansijskoj-podrsci-porodici-sa-decom.html>, accessed on 10.07.2022.
- Nikitović, V. (2015). *Populacija Srbije početkom 21. veka*. Beograd: Republički zavod za statistiku.
- Nikitović, V., Arsenović, D., Sekulić, A., Bajat, B. (2019). Is the Second Demographic Transition a useful framework for understanding the spatial patterns of fertility change in Serbia at the beginning of the 21st century? *AUC Geographica*, 54, 2, 152-167.
- Penev, G. (2013). Projekcije stanovništva Srbije od 2010. do 2060. godine. Available online at <http://www.fiskalnisanet.rs/doc/istrazivacki-radovi/studija-projekcije-stanovnistva-srbije-od-2010-2060-penev.pdf>, accessed on 15.07.2022.
- Petrović, M. (2011). Promene bračnosti i porodičnih modela u postsocijalističkim zemljama: zakasnela, nepotpuna ili specifična druga demografska tranzicija? *Stanovništvo*. 49, 1, 53-78.
- Rašević, M. (2015). Fertilitet ženskog stanovništva, in Nikitović, V. (ed.), *Populacija Srbije početkom 21. veka*, Beograd: Republički zavod za statistiku, 74–98.
- Sekulić, M. (2022). Population ageing in selected ex-Yugoslav states, *Zbornik radova Departmana za geografiju, turizam i hotelijerstvo*, 51, 1, 1-10. DOI: 10.5937/ZbDght2201001S
- Sekulić, M., Solarević, M. (2021). The impact of population policies on family size in Serbia in 21st century. 5. PhD Student Symposium 2021, Zagreb, Croatia. ISBN: 978-953-6076-90-1.
- Sobotka, T. (2004). *Postponement of Childbearing and Low Fertility in Europe*. Amsterdam: Dutch University Press.
- Sobotka, T., Skirbekk, V., Philipov, D. (2011). Economic Recession and Fertility in the Developed World. *Population and Development Review*. 37, 2, 267–306.
- Stankuniene, V., Jasilioniene, A. (2008). Lithuania: Fertility Decline and its Determinants. *Demographic Research*, 19, 20, 705-742.
- Statistical Office of the Republic of Serbia (SORS), *Opštine i regioni u Republici Srbiji*. Belgrade: Republički zavod za statistiku, 1991-2018.

- Stojilković-Gnjatović, J., Devedžić, M. (2020). Kohortno “talasanje“ kompenzacionih i krnjih generacija kroz pokazatelje oštine i dubine starenja stanovništva u Srbiji. *Demografija*, 17, 1, 9-28.
- Van de Kaa, D. J. (2001). Postmodern Fertility Preferences: From Changing Value Orientation to New Behavior. *Population and Development Review*, 27, 290-331.
- Van de Kaa, D. J. (2008). *Demographic Transitions, Working Paper no.: 2008/1*, The Hague: NIDI.
- Vasić, P. (2021a). Fertility Postponement between Social Context and Biological Reality: The Case of Serbia. *Sociológia*, 53, 3, 309-336.
- Vasić, P. (2021b). Childbirth Postponement and Age-Related Infertility in Serbia. *Facta Universitatis, Series: Philosophy, Sociology, Psychology and History*, 20, 2, 97-111.
- Vasić, P. (2021c). *New Challenges for Serbian Fertility Policy*. The 5th Serbian Congress of Geographers: Innovative Approach and Perspectives of the Applied Geography, Novi Sad. ISBN 978-86-7031-589 147-153.
- Vasić, P., Marinković, I. (2016). Parental Allowance in Serbia – Examining the World Health Recommendations. *Transylvanian Review of Administrative Sciences*, 49E, 150-168.
- Veljović, R. (2015). *Društveni okvir odlaganja rađanja u Srbiji*. Beograd: Zadužbina Andrejević.
- World Population Prospects (2022). Summary of Results, New York: United Nations – Department of Economic and Social Affairs, Population Division. Available online at https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/wpp2022_summary_of_results.pdf, accessed on 11.07.2022.
- Zhang, J. (2020). Influence of Parenting Costs on Second-Child Fertility Anxiety Among Adults of Childbearing Age in China: The Moderating Role of Gender. *SAGE Open*, 10, 2, 1-8.
- Živković, J., Lukić, T., Ivkov-Džigurski, A., Đekić, T. (2017). Policy Responses to Low Fertility in Serbia. The Case of the Municipality of Bela Palanka. *Transylvanian Review of Administrative Sciences*, 51E, 155-170.

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