

PARENTAL ALLOWANCE IN SERBIA – EXAMINING THE WORLD HEALTH ORGANIZATION RECOMMENDATIONS*

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Abstract

This paper is one of the results of the project *Research of Demographic Phenomena in the Function of Public Policies in Serbia*, and is treating fertility as one of the major concerns of the current population development in Serbia. The aim of the paper is to analyze fertility levels in Serbia beyond the four basic recommendations proposed by the World Health Organization (WHO) regarding childbearing, and to give suggestions on how parental allowance could be reformulated if the recommendations were adopted. Birth levels and demographic structures are analyzed using demographic methods. Many European countries, including Serbia, are implementing the population policy trying to increase fertility levels to the replacement level. The legislative framework within which the pronatalist measures are being implemented was defined 13 years ago, and did not include all four WHO recommendations. The first indications of the pronatalist measures failure have been visible during the past few years, consequently resulting in the need to evaluate their effects and redefine basic financial measures. Having compared two basic financial measures (parental leave and parental allowance), we believe that parental allowance is the key measure of the pronatalist policy, since it is realized on the basis of birth only (parental leave is realized on the basis of employment).

Keywords: parental allowance, fertility, population policy, Serbia.

1. Introduction

The last decade of the twentieth century in Serbia was marked by a large number of negative and turbulent events such as the war in the former Yugoslav republics, economic sanctions, hyperinflation, large inflow of refugees from the war affected areas, the NATO bombing, etc. Depopulation of the early 1990s accidentally coincided with the breakup of the SFR of Yugoslavia, but it certainly represents a natural continuation and effect of the long-term fertility decline. The Republic of Serbia (excluding autonomous region Kosovo and Metohia) has been facing below-replacement fertility since the mid-1950s, when the total fertility rate for the last time was above the replacement level. Therefore, the below-replacement phenomenon in Serbia is 60 years old, that is, the population has not replaced itself biologically for a long time, resulting in the intense demographic ageing and since the beginning of 1990s the population has declined. Consequently, 'the identification and implementation of ways to prevent the adverse future consequences of rapid population ageing represent the urgent new public policy challenges' (Bongaarts, 2008).

There is a large majority of European countries facing below-replacement fertility, and many of them have recognized the need to react and push population fertility towards sustainable population development. Some of the countries are implementing explicit pronatalist population policies, and some are dealing with below-replacement fertility implicitly, but all of them have recognized the significance of sustainable population development. Nevertheless, the issue of childbearing is very intimate for individuals, and thus the interference of the state into this sphere of human behavior has to be subtle and must not cause resistance, despite the benefits for future parents. In creating population policy measures, governments should take into consideration the recommendations dealing with childbearing, fully respecting all civil rights as achievements of modern civilization. Therefore, any pronatalist measure, which is restrictive, cannot be acceptable, such as abortion prohibition, or bachelor taxes, etc. Pronatalist measures should be stimulating, implemented according to the postulates of civil and reproductive rights. According to the Constitution of Republic of Serbia every citizen has the right to decide if, when, and how many children they want to have. In creating population policy measures and family planning, relevant institutions and lawmakers should take into consideration several basic recommendations related to population fertility, such as those of the World Health Organization (WHO), United States Agency for International Development (USAID), and numerous studies considering childbearing (WHO, 2006; Kozuki *et al.*, 2013; USAID, 2007; Khalil *et al.*, 2013). These recommendations actually consider when and how many children individuals should have, regarding optimal health outcomes. These recommendations are also known as the 'four noes' recommendations of the family planning. 'Births that occur at the extremes of maternal age and parity, as well as those following very short intervals, experience higher than average mortality risks' (Bongaarts, 1987, p. 323).

2. Aim of the paper, data and methodology

The main aim of this paper is to show the tendencies in population fertility regarding WHO recommendations in Serbia during the past few decades, with an intention to raise questions about redefining pronatalist population policy measures – particularly parental allowance. We analyzed population fertility with the main focus on the age pattern of childbearing, trying to identify and explain potential demographic consequences of childbearing postponement. The secondary aim of this paper is to show possible effects of pronatalist measures conducted in Serbia since 2002. Consequently, our final aim is to show that, in terms of serious childbirth postponement, population policy measures must be pushed towards the respect of the childbirth age. We assume that formulating and implementing age-specific pronatalist measures could stop, or at least slow down birth postponement in Serbia. The amount of state assets designed for parental allowance is not unlimited, but surely not negligible; the question is whether it could be distributed in a more effective way. Our intention is to show in what way parental allowance would be distributed if the mentioned recommendations were regarded and included in the system of pronatalist measures. Also, according to our deep conviction, with allocated funds similar to those already allocated to this measure, a greater pronatalist effect could be achieved.

Demographic analysis of fertility in Serbia is an integral part of this paper on the basis of which we will present trends in procreation in the context of the WHO recommendations. Transversal (period) and cohort (longitudinal) methods of data analysis will be used. Moreover, demographers actually disagree about the absolute supremacy of cohort data over period data. Period data reflect short-term effects, including policy effects of the kind the analyst is looking for, while cohort data are complementary and reflect longer-term developments. It is important to note that policy impacts on fertility extend beyond the impact on ultimate cohort fertility. 'Indeed, exclusive concentration on the cumulative fertility rate (CFR) may lead to a different fallacy, namely, to a fixation on the lifetime end product of childbearing (the 'quantum of fertility'), and to a lack of attention to important timing effects' (Hoem, 2008, p. 253). The main indicator in the transversal analysis is the total fertility rate (TFR). TFR refers to the average number of children per woman that a hypothetical cohort of women would bear over the course of their reproductive life if they were subject to the age-specific fertility rates estimated over a given period and were not subject to mortality. TFR is therefore a period measure constructed by summing the age-specific fertility rates (ASFR¹) per one woman, and multiplying by the length of the age groups used. In addition, the use of specialized computer software Geomedia and ArcView GIS for spatial analysis (cartographic representation) will be necessary.

1 ASFR means annual number of births per woman in a particular age group expressed per 1.000 women in that age group.

The census data with the question of the number of live births allow the use of cohort analysis of population fertility and calculation of the CFR. Unlike the transversal method, a hypothetical cohort analysis follows a woman through the entire reproductive period, and observes fertility of certain groups of women born in the same year. Naturally, there are disadvantages of longitudinal analysis of fertility. The total number of children born by a certain cohort of women, coming out of the fertile period, cannot be registered. Only live births by women encompassed by the population census can be registered. The reasons are migration of female population and their mortality.

Research on the territory of Serbia will be limited to the territory of central Serbia and Vojvodina. Data for Kosovo and Metohia will not be analyzed due to the uncertainty, and in the period after 1997, the insufficient level required for the analysis. The research will be conducted on the entire set of population in the Republic of Serbia (excluding Kosovo and Metohia), and depending on the level of analysis will be limited to the period around the census years, starting from 1991 to 2011. Data of live births from vital statistics and population data (total and by structures) from the census will be used. Data will also be retrieved from the websites: European Statistical Agency (Eurostat), the databases of vital events for selected countries developed by the UC Berkeley and the Max Planck Institute (Human Mortality Database) and national statistical services.

3. Population policy in Serbia and WHO recommendations

3.1. Brief description of population policy measures since 1945

As for the history of social policy measures that had influence on population development, there were numerous documents implicitly dealing with population policy shortly after World War II (Gavrilović, 2005). These earlier measures with the population character were conducted selectively and actually the government would classify the low-fertility and high-fertility regions. The main criterion for defining the low-fertility, and high-fertility areas was the level of natural growth rate. However, during the last decade of the twentieth century the number of municipalities with negative natural growth rate was rising, and as at the beginning of the 21st century the vast majority of municipalities in Serbia recorded a negative rate of natural increase, this classification and selective implementation of the measures have been abandoned. In that manner in 2002 the Law on Financial Support to Families with Children (LFSFC) was adopted, and it may be considered the first systematic political response of the state to the below-replacement fertility.

The mentioned law from 2002 is being implemented throughout the territory of Serbia without any limitations regarding demographic indicators in different municipalities, as well as without limitations considering financial status of families attaining rights provided by the Law. LFSFC stipulates two basic financial measures: full compensation of salary to the working parent (mother or father) during parental

leave, and the parental allowance for the first, second, third and fourth child of the mother (Ministry of Labor and Social Policy, 2009). The parental leave is limited to 12 months after the birth of the first and the second child, and to 24 months after the birth of the third and every following child. Parental allowance is granted for the first, second, third and fourth child of the mother, and the amount corresponds to and changes with the costs of living, increasing with birth order, and is paid in 24 monthly installments, except for the birth of the first child.

The key official documents related to the political response of Serbia after 2002 directly dealing with fertility are the Pronatalist Strategy and LFSFC. The Strategy contains eight directions and about 70 individual measures. The goals of the strategy are the following: (1) alleviation of economic costs of childrearing, (2) reconciliation of working life and parenting, (3) reduction in the psychological costs of parenting, (4) promotion of reproductive health of adolescents, (5) fight against infertility, (6) towards healthy motherhood, (7) population education, and (8) activation of local self-governments (Ministry of Labor and Social Policy, 2008).

3.2. WHO recommendations regarding childbearing

In the first place, there is a recommendation saying that women should not give birth under the age of 18. There are numerous reasons for that. The reproductive system of women under 18 is not fully developed, and pregnancy and childbearing could cause severe complications for the mother, as well as for the child. Women experiencing adolescence pregnancy often give birth to a child with a low body weight, which is a serious risk factor for the future development of the child. In addition, early sexual activity, and especially early pregnancy can cause future reproductive system complications (Azevedo *et al.*, 2012). Furthermore, young women in their adolescence period are in a higher risk to face premature labor before the 40th week gestation, which may cause health complications for the newborn. Some studies show that children whose mothers are teenagers are significantly more often hospitalized during childhood than other children (WHO, 2006; USAID, 2007). Giving birth in adolescence is often burdened with lower socioeconomic status, which entails a less optimistic picture for the future development of the child (Lee, 2010). Compared to older women, girls in their teens are twice as likely to die from pregnancy and child birth-related causes; also, their babies face a 50% higher risk of dying before age 1 than babies born to women in their twenties (USAID, 2007, p. 2). Pregnancy and child-birth complications are the second cause of death among 15 to 19 year olds globally (Cleland *et al.*, 2006). Vital statistics data and estimates of the prevalence of abortions among adolescents in Serbia show that half of adolescent pregnancies are realized by childbirth, and half are deliberately interrupted. Abortion significantly endangers the psychological and physical health of adolescent girls (Rašević, 2013). The UN study on population policies shows that out of the 195 countries with the available data for 2013, 90% of governments had adopted policies and programs to reduce adolescent fertility (United Nations, 2013).

The second recommendation provides that one should not give birth to more than four children. Every pregnancy and labor have their own risks for the mother and for the child but, in the case of the fifth and every following pregnancy, medical risks for both the mother and the child are rising rapidly. The risks to the health and life of a woman are cumulating with the increase in the number of pregnancies. Due to the cumulative effect of previous pregnancies and breastfeeding on the nutritive and energetic balance, the health of the mother is threatened, and in these pregnancies, labor injuries are much more common and the risk of slower intrauterine growth and low birth weight is increased (Rašević and Mijatović, 2002, p. 150) The mortality begins to increase with the fourth, and particularly the fifth and higher parity births; insisting on high reproductive norms, i.e. procreation of children of fifth and higher birth orders, often means that women are giving birth in intervals shorter than two years, or giving birth after 35 years of age, which are factors that clearly threaten the life and health of the mother and the child (Rašević and Mijatović, 2002, p. 151). The previous sentence gives us a suitable foreword for the next, third recommendation.

The third recommendation provides not to give birth in intervals shorter than two years. Birth spacing shorter than 24 months may be associated with a number of health complications for both the mother and the child (Getahun *et al.*, 2006). The woman's body and its nutritive capacity cannot recover completely in a short period of time, and rates of neonatal and infant mortality are significantly higher when the intergenerational interval is short (Rutstein, 2008). More recent research, professional debates, and technical consultations among relevant institutions emphasize that, although birth intervals should not be shorter than 24 months, they also should not be longer than 60 months (WHO, 2006). The risks of prematurity, fetal death, low birth weight and small size for gestational age are also associated with intervals of over 59 months. It is not clear why long pregnancy intervals are linked with health problems for mothers and babies. Some experts believe that pregnancy improves uterine capacity to promote fetal growth and support, but that over time these beneficial physiological changes disappear. The latest research on optimal birth spacing collected and commissioned by CATALYST² has confirmed the long-held notion that the highest risks for adverse health outcomes for children and mothers often occur with the shortest birth intervals. This research shows that there is an optimal interval for birth spacing – a period associated with the lowest risks of adverse health outcomes – and that optimal interval is three to five years. Although health risks of birth to pregnancy (BTP) intervals longer than 60 months are clear, WHO has not defined 60 months BTP interval as the upper limit. Even after recent consultations, the recommendation has remained that BTP intervals should not be shorter than 24 months. Yet, in discussing the birth interval recommendation, we should not ignore the medical risks of exces-

2 The CATALYST Consortium is a global reproductive health and family planning activity initiated in September 2000 by the Office of Population and Reproductive Health, Bureau for Global Health of the United States Agency for International Development (USAID).

sively long birth intervals, so the optimal birth spacing will be the interval from two to five years.

The fourth, and maybe the most important recommendation, is not to give birth after 35 years of age. Giving birth after 35 years of woman's age (advanced maternal age) is connected with a number of potentially negative biological and medical consequences. There are clear implications of birth delay, both for the mother and for the child (Bianco *et al.*, 1996; Vohr *et al.*, 2009). A higher incidence of spontaneous abortions, stillbirths, complications during pregnancy and preterm delivery, as well as an increased risk of fetal abnormality are just a few of them (Stein and Susser, 2000). Due to childbirth postponement, a large number of women under 35 have accepted low family size norms, but most of them will start reproduction. Nevertheless, we can expect that a certain share of these women in Serbia, out of different reasons will not be able to realize the wanted norms about the desired number of children (Rašević, 2006, p. 145).

The following analysis should give information about fertility trends in the past two decades and particularly in the last decade during which current population policy measures have been implemented. In addition, it should give us information as to how the respect of the recommendations related to childbearing could affect women in fertile age.

4. Analysis of fertility in Serbia in the context of the WHO recommendations

The problem of insufficient childbearing in Serbia is six decades old. The net reproduction rate has been below 1 since 1956 (Penev, 2001). The young age structure of the population during the 1960s, 1970s and part of the 1980s resulted in the number of births by 1992 to be greater than the number of deaths. Depopulation (based on components of the natural population movement) occurred with a lag of more than 3 decades, the period that was not used to encourage childbearing with the pronatalist policy measures. Analysis of cohort fertility shows that probably no generation of women born after the World War I bore a sufficient number of children for the generation replacement (Penev, 1995).

The current level of births is 35% lower than needed for simple reproduction. The entire 2002-2011 period is characterized by rates that are 30-35% lower than required for the replacement of generations. It should be noted that the delay of the first birth has significant negative influence on fertility trends, where the average age of mothers at birth of the first child shifted from 25.3 in 2002 to 27.5 in 2011. In the last inter-census period, the TFR was in the interval from 1.59 to 1.36, which is about average for Europe.

4.1. Giving birth in adolescence

Of 65,554 live births in Serbia in 2013, 3,389 babies were born in the category of adolescents (15-19), which is about 5% of the total births. While the total number of live births in the period (1991-2011) was reduced by 27%, the number of children

born, in a formal, demographic-statistical sense, during the youngest five-year group of the fertile contingent, in the period of two decades is even lower by 70%. There is a clear downward trend in the number of children born by such young mothers. Observed by individual age, the largest decrease was in the female population aged 18 to 19, while it is much lower in younger ages. 15 year olds today give birth to almost the same number of children as their peers 60 years ago (Stanković and Penev, 2010). Female minors in Serbia (up to 18 years of age) give birth to about 1,160 babies (average for 2011-2013), which is approximately 1.7% of live births per year. Compared to more developed countries (e.g. Slovenia) it can be expected that the rate level of about 0.025 falls to 0.005 per thousand (as it was in Slovenia in 2012). The number of live births by women under 18 is declining continuously throughout the whole time period. Yet, some studies are showing the existence of the reproductive model with early start of effective reproduction, characteristic for eastern parts of central Serbia (Marinković, 2007). This is particularly related to areas with significant shares of Vlach and Roma population (Figure 1).

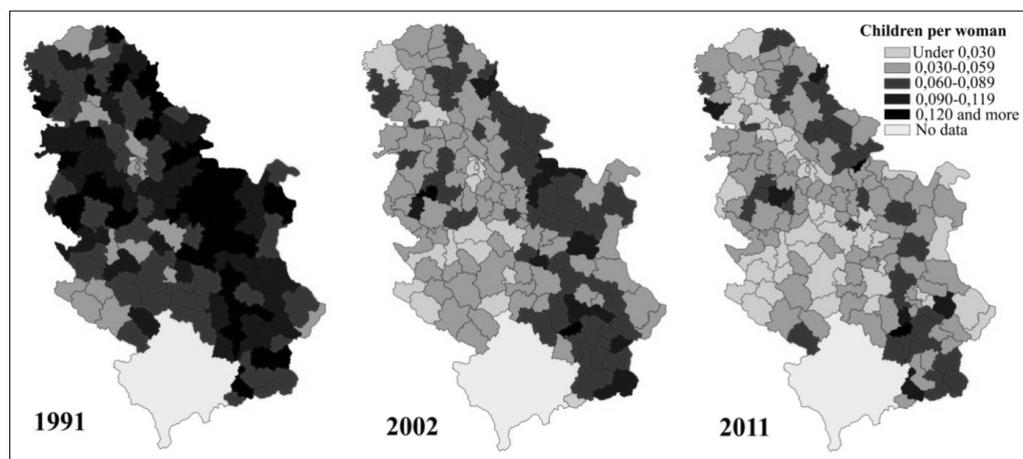


Figure 1: The fertility rate of women aged 15-19 in Serbia, according to 1991, 2002 and 2011 censuses

The level of adolescent fertility (by cohort method) divides the country regionally into the eastern part, with the relatively high rates, and the western part, with lower rates. The trend of lowering adolescent fertility can be clearly observed by comparing data from the last three censuses. Almost all the municipalities reduced the rates in the period 1991-2011. The number of municipalities with values of 0.10 per thousand or more declined from 68, as recorded in 1991, to 13 in 2002, and then to 5 in the last census. At the same time, the number of municipalities with extremely low fertility increased. The 1991 Census registered only 3 municipalities with a fertility rate of 0.02 per thousand or less, while in 2002 it registered 23, and in 2011 even 54 municipalities.

According to the 2011 Census data in Serbia, less than 3% of female population aged 15-19 gave birth. On the other hand, more than 24% of Roma girls aged 15-19

gave birth at the same time. Vlach girls are slightly above the average with 4.5%. Roma girls amounted only 3.5% of total female population aged 15-19, but they gave birth to the 32% of total live births by this age group in Serbia. One third of these births are the second or higher parity births. In that manner we can say that giving birth by minors could be even lower if Roma girls would not enter reproduction so early. The early start of childbearing is connected to the fact that members of the Roma community reach sexual maturity and start living with their partners at the same time. Life in partnership is a demonstration of social maturity of the couple before the local community (Potančokova *et al.*, 2008). As the frequency of early childbearing among the Roma girls is eight times higher than in total population of Serbia, that often means that these girls drop out of school which leads to the continuation of social exclusion and poverty of this ethnic group. These underage mothers are often without primary education, unprepared, and uninformed for parenting, resulting in the high rate of child morbidity and mortality. There are many medical, demographic, social, and economical reasons as to why the early childbearing must not be encouraged by pronatalist financial measures.

4.2. Fertility in advanced maternal age 35+

More concerning is the tendency of birth postponement, especially for the ages over 35. We have already explained the medical and demographic consequences of birth delay, thus this part of the fertility analysis will be given a special attention. The cumulative fertility rate of women in optimal reproductive age in Serbia (30-34) in 2011 was 1.26 children per woman. Compared with 1991 (1.67), there was a decline in the overall birth of 0.41 children per woman (Figure 2).

The number of live births by women aged 35 and over has been rising rapidly during the past decade, mostly due to delay of birth of the first child. One in four women aged 30-39 (2011) has not given birth (in 2002 one in six), and only two decades ago it was every ninth (1991). Based on the results of previous censuses, reproductive norms are mainly achieved to 35 years of age, but it is not the case according to the results of the last census. Based on the 2011 Census, almost a third of women aged 30-34 did not have a child (30.6%). Among those aged 35-39 years, 18% of women did not have a single birth. Physiological (natural) sterility is around 7 to 9%, so based on the 1991 and 2002 censuses, it can be claimed that there was no voluntary (social) sterility. Yet, the last census shows that 10.6% of the population of women aged 45-49 has not given birth.

During this period the number of live births by women aged 35+ increased by 53%, from 6,395 in 2002, to 9,782 in 2013. Corresponding shares in the total number of live births was 8.2%, and 14.9% respectively. Women choose to give birth even in their fifth decade of life. The trends are the same in other European countries, the number of women having babies in their 40's have nearly doubled in ten years (United Nations, 2013). Lutz and Skirbekk in their paper 'Policies Addressing the Tempo Effect in Low-Fertility Countries' emphasize 'that the current fertility-depressing effect of

an ongoing increase in the mean age at childbearing will have a significant and lasting effect on population dynamics in Europe, played out in population decline and accelerated population aging'; the so-called tempo effect (Lutz and Skirbekk, 2005).

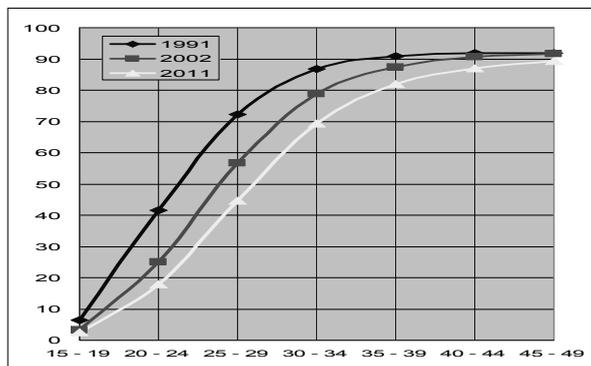


Figure 2: Share of women which gave birth across different age groups in Serbia, 1991, 2002, and 2011 censuses

4.3. Subsequent birth intervals

The 2011 Census data for the first time enabled the view of the length of intergenerational intervals for the total population. It can be concluded that the frequency of births depends on the number of live births. It is reducing with the increase of birth order, and vice versa. The Census data shows that the average intergenerational intervals even with higher birth orders (five or more live births) do not reduce below the recommendation of two years minimum (amounting to 2.5 years and more). The data suggest that the WHO recommendation on birth spacing of at least two years coincides with the current situation.

4.4. Fifth and higher birth parities

In Serbia, about 1,000 children per year are born as the fifth or a higher birth order children (in 2013, 1,019 were born). It is surprising how that indicator is stable, despite the fact that there is a trend to reduce the total number of live births. In this way, the share of children of higher birth parity slightly increased from 1.2% in 2000, to 1.5% in 2013. Only the Roma population in Serbia maintains and raises the established level of high parity births. Roma women presented less than 2% of total population in Serbia according to the 2011 Census data, but in 2013 they gave birth to more than 29% of children of the fifth and higher birth parity.

5. Discussion on the demographic justification of the WHO recommendations

Modern European societies have been already facing sub-replacement fertility for several decades, and that is why the economic consequences are becoming so severe, reaching the point of non-sustainability for the welfare states. Actually, there are two faces (effects) of low fertility in Europe: tempo effect – women are delaying births

to later ages, resulting in fewer births in the calendar years during which this delay happens, and quantum effect – women are not having enough births to achieve replacement level. 'In fact not all postponed births will be recuperated, and increases in the mean age at childbearing tend to reduce the quantum of the fertility of the cohorts experiencing such increases (tempo–quantum interactions)' (Lutz and Skirbekk, 2005, p. 708). Serbia has been facing sub-replacement fertility for six decades, and its fertility level is slightly below the European average, which urges for stronger and comprehensive political response to the phenomenon. Taking into account the deterministic basis of below-replacement fertility in Serbia, lawmakers claim that the scope of financial measures should be as wide as possible. In other words, the conclusion is that every child (to be born) matters, implying that (considering only the WHO recommendation about the number of children per woman) every child, regardless of the mother's age, is equally important for the state. In the situation of long-term below-replacement fertility and childbirth postponement, the state wants to send a message that as many children as possible are needed, thus ignoring other three WHO recommendations. Nevertheless, it raises the question of the effects of the measures drafted in such a way. In demography, the woman's fertile period is the period between 15 and 49 years of age³, however it is generally known that the optimal period for procreation is between 20 and 34 years of woman's age. In conditions of severe childbirth postponement, ignoring the recommendation about the upper age limit for procreation may additionally deepen the problem. If under the pretext that as many children as possible are needed, the state suggests to the individuals to procreate regardless of age, that could only induce childbirth postponement. It could be very important for the state to consider this recommendation, for at least two reasons. First, there are clear medical benefits for the mother and the child if the procreation is taken and completed within the optimal period between 20 and 34 years of woman's age. Second, there are also clear demographic benefits, as shortening distance between generations which directly affect population size and age structure, potentially easier achievement of desired number of children, reducing biological obstacles, reducing social dependency of elderly (parents); in the next generation, easier care of grandchildren by their relatively young grandparents which in terms of insufficient institutional preschool childcare may influence reduction of parenthood costs and further, the fertility incensement. Results of a study show that 'at the TFR level of 15 member states of the European Union in 2000, a hypothetical end to postponement would instantly raise the period of total fertility rate from 1.5 to 1.8, which, cumulated over several decades, would have very significant effects in moderating future population decline and aging' (Lutz and Skirbekk, 2005).

The only WHO recommendation which was considered about the number of children per woman has its clear medical and social benefits for the mother and the child.

3 During this period, more than 99% of overall fertility in most of populations is achieved.

On the other hand, demographic benefits for the state are unclear, but there was an intention to avoid multiplication of poverty in socially marginalized population groups by limiting subventions to the first four children in the family. In addition, the recommendation about lower age limit for procreation has its clear medical benefit, which can also be perceived as a demographic benefit through preservation of reproductive health of overall population for the optimal period of procreation. Given the undoubted demographic benefits, there are no reasons as to why this WHO recommendation should not be considered and incorporated into the parental allowance system.

5.1. Could parental allowance be distributed in a more effective way?

There are many medical, demographic, social, and economic reasons why *early childbearing* must not be encouraged by pronatalist financial measures. The number of live births by women younger than 18 years of age has been declining continuously throughout the entire period. Yet, some studies are showing the existence of the reproductive model with early start of effective reproduction, characteristic for eastern parts of central Serbia. This is particularly related to areas with significant shares of Vlach and Roma population. In that manner, results of a research among Roma mediators (which are helping Roma people to attain their rights in the social and health protection system), related to this issue, emphasize that parental allowance is one of three main reasons leading to the high parity births, and early childbearing (Sedlecky and Rašević, 2015, p. 104). There are no data of coverage with this measure within specific age groups of mothers, but as the coverage of firstborns was 89.1%, and higher birth parities 93.3%, we can indirectly assume that (according to average birth parity) mothers under 18 years of age gained 89.9% (1,026 births) coverage (total coverage was 92.2%), which is still a high share. In other words, they probably represented 1.7% of total number of mothers that benefited of the parental allowance during the year. Yet, according to the 2011 census, the average number of children by mothers aged 15 to 19 was 1.22 (in 2002 was 1.20), which points to the persistence of relatively high adolescent fertility in Serbia. The state designated about 563 thousand euro to pay as parental allowance to mothers under 18 years of age who gave birth during 2013. Considering birth parity, we can assume that 1,026 mothers under 18 years of age received around 500 euro per person on average. This amount is not large, but it was certainly sent to a wrong address. *We suggest that all live births by women under 18 years of age should be excluded from the coverage of parental allowance, and parental allowance amount potentially saved could be better used for the promotion of effective contraception among adolescents.*

The key reasons for *placing birth within 24 to 60 month interval* were widely discussed in the first part of this paper, so here we will discuss possible ways to support this recommendation. In some northern and western European countries a specific pronatalist measure named 'speed bonus' or 'speed premium' has existed for a few decades already. In 1980, Sweden formalized a regulation that allowed women to

retain the level of their parental-leave benefit if they got their second or subsequent child within 24 months after their previous birth, and the period was extended to 36 months in 1986 (Hoem, Neyer and Andersson, 2006, p. 384). Numerous studies confirmed that the 'speed premium' led to a shortening of birth spacing and an increase in second and subsequent birth risks which contributed to the overall increase in fertility during the 1980s in Sweden (Hoem, 1990; Andersson, 1999; Andersson, Hoem and Duvander, 2006). A large number of other European countries provide the parental leave (paid or unpaid), but few of them include the birth interval variable. Policies in Sweden and Austria favor a birth within two years after a previous birth (Andersson, 1999; Hoem, Prskawetz and Neyer, 2001). Besides Sweden and Austria, only Finland provide additional siblings supplements for parents with two or more children of preschool age, indirectly encouraging birth interval shortening (Neyer, 2003). Yet, our intention is not to encourage birth interval shortening outside recommendation, but to give suggestions on how administrative scope could affect birth spacing for the demographic benefit's sake. In this way, the recommendation providing that one should give subsequent birth within the interval from 24 to 60 months, should be considered and implemented. This recommendation can be implemented in several ways. It would be very beneficial for fertility levels in Serbia to introduce speed bonus as an additional measure not to parental leave, but to parental allowance. There are two basic reasons as to why it should be related to parental allowance and not to parental leave. First, in the situation of limited budgetary resources designated for parental leave, it is not advisable to further increase the burden on the budget. In 2013, in Serbia around 225 million euro was paid to 36.7 thousand beneficiaries of parental leave (Matković, Mijatović and Stanić, 2014, p. 121). This amount is about four times higher than the amount paid for parental allowance in the same year (57 million euro), and it could hardly be extended. The other reason is that there are slightly over 50% of live births covered by parental leave. In the situation of seriously high unemployment in Serbia, it is evident that there are a large number of mothers who are not covered by this measure. By attaching speed bonus to parental allowance this large number of unemployed mothers (and all employed mothers) could receive higher financial input. We have to emphasize that the speed bonus should not be a restrictive measure for those who do not fit the recommended birth interval, but it should only be the bonus for those who fit the recommended birth interval. Parental allowance speed bonus (PASB) could be defined as follows: a relative increase of parental allowance in a certain percentage that would be the highest for the 24-month gap between births, and without increase for all births beyond the recommended interval of 24 to 60 months. For example, increase of parental allowance in the case of 24-month spacing between births of 36%, 35% for the 25-month interval, 34% for the 26-month interval, and so on until a zero increase for the 60-month interval between births. For all birth intervals shorter than 24 months, and 60 months or longer, it should be 0%. As the average birth interval in Serbia according to the 2011 Census data is 30 months, possible maximum increase of total funds designated for parental

allowance would be 30%. It seems a lot, but it would present only 0.06% of additional share of GDP, or about 17 million euro. We believe that this amount could present quite a favorable investment for the state, which could attain notably higher levels of population fertility.

The only recommendation that is incorporated in pronatalist policy measures is the recommendation about the number of children per woman. In presenting current pronatalist population measures in Serbia we highlighted that parental allowance amounts increase with the number of children of the mother, up to the fourth child. In addition, many Western European countries, except Denmark, Norway, and Spain, endorse a system by which the level of benefit per child depends on the number of children in the family. In general, the benefit level increases with the number of children. 'Sweden pays the same amount of benefit for the first two children and a higher benefit for the third and subsequent children. Germany follows a similar principle by spending more on the fourth and subsequent children' (Neyer, 2003). It is very important for the stimulating effect of the measure that the amount of parental allowance is increasing with each subsequent child of the mother. In that way, the state is sending the message that higher parity births are needed, but parental allowance defined in this way is not sustainable for the unlimited birth parity. We would like to say that the first version of the LFSFC, regarding this recommendation, which was not covering the first child of the mother, but only the second, third, and fourth, possibly had better pronatalist effect than the newer version. Some recent studies targeting possible pronatalist effects show that fertility rates of women of different educational attainment and age were increasing during the period from 2002 to 2006, when parental allowance was paid all at once, immediately after birth of the child (Vasić, 2013; Vasić, Gligorijević and Devedžić, 2014). After 2006 the first child was covered by the measure, and parental allowance for the second, third, and fourth child was paid in 24 equal monthly installments, and so the increasing fertility trend reversed to fertility decline. In 2013 parental allowances paid for the first, second, third, and fourth child were about 300, 1,200, 2,200, and 3,000 euro respectively. In Serbia in 2013 there were 65,554 children born, of which 32,332 were firstborns. From 2002 to 2013 relative share of firstborns in Serbia was stable at the level of about 50% of total live births. As parental allowance for the first child is only about 300 euro, it is clear that it could not be stimulating for the future parents, and so the pronatalist effect is missing, but the total sum spent for parental allowance is not negligible (about 10 million euro in 2013). We suggest that firstborns should be excluded from parental allowance again, and that parental allowance should be paid at once. This potential saving of assets (10 million euro) could be transferred to the second births. In 2013 there were 23,428 second births in Serbia, so parental allowance for the second child could increase up to 1,600 euro, and if paid at once, it would present significant financial stimulus to the future parents.

As for the recommendation about *the upper age limit for procreation*, during the analysis we showed that absolute and relative number of births by women aged 35

and over are increasing constantly. In 2013 it rose up to almost 15% of total live births, i.e. 9,782. The total sum designated for parental allowance of this age group of live births in 2013 was approximately 11 million euro. If this recommendation was incorporated into parental allowance, the total of 11 million euro savings could be distributed to the remaining live births. Potential distribution by parity could now be: 2,000 euro for the second child, 3,000 euro for the third child, and 4,500 euro for the fourth child of the mother, or more than 5, 8, and 12 average monthly wages in Serbia respectively. Yet, it might not be advisable to exclude all birth parities of mothers of this age. Perhaps parental allowance should be kept for the third and fourth child, and cancelled for the first and second child (related to mothers over 35). There are many possible ways for the state to reconcile the need for as many children as possible, and the need to stop or even slow childbirth postponement. Such attempts to slow down childbirth postponement are called *tempo policies*. 'Hence, policies aimed at creating the conditions that allow women to have their children at an earlier age, or that at least do not encourage further delay, could turn out to be win-win strategies, responding to individual health concerns as well as public demographic and economic concerns' (Lutz and Skirbekk, 2005, p. 709). Tempo policies are attractive because no major changes in behavior are needed. Simply stopping the ongoing rise in the age at childbearing should result in an immediate rise of the TFR. Some respectable studies for EU 26 countries show that just stopping of childbirth postponement would result with an increase of 0.28 births per woman on average (Bongaarts, 2008). 'An even larger impact on the TFR could be achieved by reversing the long-term rise in the mean age at childbearing. For example, if a country could manage to turn around an upward trend of 0.1 years per year in the mean age at childbearing and initiate a slow decline of just 0.1 year per year, the period TFR would increase by 20%. This effect will last as long as the mean age keeps declining. Furthermore, a reduction in the mean age at childbearing would have an indirect effect on raising the quantum of fertility because at younger ages the biological obstacles become smaller' (Bongaarts, 2008, p. 49).

Among demographers and decision makers, especially politicians, there is exclusive reliance on standard measures of modern welfare states intended to raise fertility. Nevertheless, there is increasing number of authors, among dare demographers, who urge for exploration of radically new approaches (Demeny, 2015). All the mentioned recommendations could be further improved to meet the needs of the State for additional babies and younger age structure of the population. In previous paragraphs we spoke about recommendations related to childbearing, but better demographic goal could be achieved if the suggested measures were age-specific. This means that the state needs first four children as early as possible. For example, the second child from the mother aged 24 could not have the same significance for fertility as the second child of the mother aged 34. The difference must be made. We suggest age-specific parental allowance, which changes according to the age of the mother, relative to the average birth years of individual birth parity. This could be implemented as a

relative ratio of maternal age under the national average for each birth order, but only for women younger than the national average (year of birth of the first, second, third and fourth child). It would not be advisable to 'punish' all the women who for various reasons have not managed to catch up with the national average. By dividing the amount of parental allowance with this coefficient it would be possible to encourage women to give birth earlier than they intended to, or better still, to allow women to give birth as early as they would like (within 18 to 34 year interval). Mean ages at birth in 2013 in Serbia were 29.9 for the second, 31.3 for the third, and 31.6 for the fourth child of the mother. We will give example using the suggested parental allowance amount for the second birth parity. If a mother aged 26 gives birth to the second child, the parental allowance (which could be 2,000 euro) should be divided with the coefficient (relative share) of maternal age and average years of birth of the second child ($26/29.9 = 0.86957$). Thus, the amount of 2,000 euro divided by 0.86957 (coefficient) increased to 2,300 euro. We would like to reiterate that this suggestion should apply only to women who gave birth at the age below the national average for a single birth order. As an example, according to the methodology suggested by Bongaarts and Feeney (1998) just to stop childbirth postponement in Serbia at the current level of TFR could increase fertility by 0.36 births per woman, or by 25% in relative numbers!

6. Conclusion and general recommendations

Population policy consists of measures constructed to affect reproductive behavior, and is defined according to the deterministic basis of the process that should be influenced. It is advisable to periodically evaluate the effects of the population policy measures in order to bring about the effects, if necessary. As the deterministic basis is susceptible to changes, and the positive effect on fertility in Serbia is missing, we should consider redefining the pronatalist measures. Consequently, we suggest five changes of the current population measure – parental allowance:

1. Childbearing before the age of 18 should not be supported by this measure;
2. Parental allowance for those who fit the recommended 24 to 60 month birth interval should be increased with the shortening of intervals, naturally within the recommendations;
3. First order births should be excluded from parental allowance coverage and at the expense of them increase the amount of parental allowance for the second child;
4. Childbearing after the age of 34 should not be supported by this measure, and the saved amount should be transferred to increase parental allowance for women between 18 to 34 years of age; and
5. Parental allowance should be age-specific, and enlarged for those who give birth at the age under the national average for a single birth order.

In our deep conviction, the suggested changes of parental allowance could result in a better fertility outcome. The total increase of the amount designated for this mea-

sure would be about 19 million euro, or 0.07% of GDP at the current fertility level and GDP level in Serbia. The expected effects on fertility would be increased shares of the second and higher parity births, and stopping or slowing down childbirth postponement. The main characteristic of low fertility in Serbia is childbirth postponement, so it must not be overlooked and neglected by pronatalist measures.

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