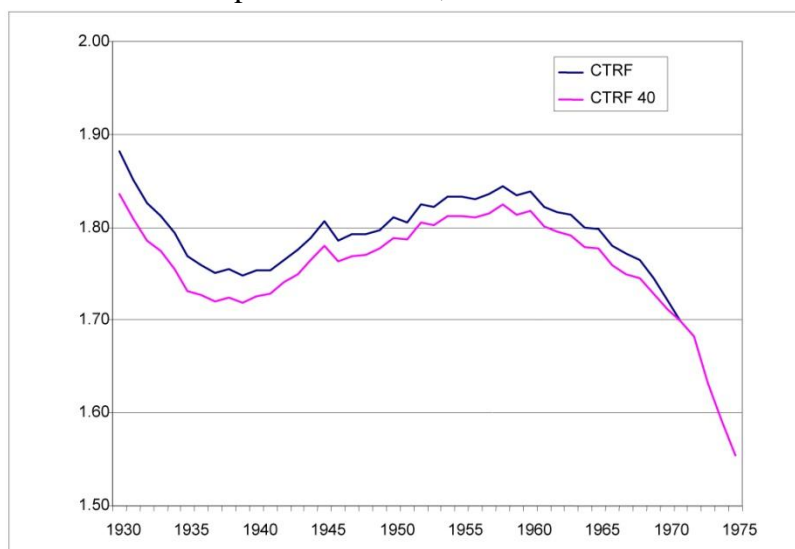


The consideration of the female population’s fertility based on the Census question about live-born children enables a more accurate insight into a population’s fertility compared to transversal analysis, which uses vital statistics as the source of data. The key objective of this paper is to analyse Serbia's 2011 Population Census results related to the fertility, in the interest of more efficient population policy model.<sup>1</sup>

None of the analysed 33 age cohorts of women who were past the reproductive age in 2011 had an average number of live births larger than two children (Figure 1). Even the registered women in the oldest analysed age cohort (generation born in 1930) had given birth to 1.88 children on average. This is clearly the largest registered average number of live births. The age cohorts that were past the reproductive age in 2011 had, on average, between 1.85 children (generation born in 1931) and 1.75 children (generations born in 1937, 1938, 1939, 1940 and 1941), while the most frequently recorded average number of live births was about 1.8. The youngest age cohort of women who were past the reproductive age in 2011 (the generation born in 1962) had 1.82 children on average.

Figure 1.  
Cohort total fertility rate, birth cohorts 1930-1975,  
Republic of Serbia, 2011 Census



Source: Statistical Office of the Republic of Serbia

The trend of the average number of live births to women who were past the reproductive age in 2011, considered by age cohorts, indicates an early appearance of the phenomenon of below-replacement fertility in Serbia and a long period in which the number of live births per woman was stable at the value of 1.8. The socialist type of accelerated modernisation process, abrupt transition from rural to urban areas, a significant share of women in the labour market with full-time jobs during their reproductive period, fast secularisation, as well as wide spread economic hindrances for meeting reproductive needs were certainly the most

<sup>1</sup> All data for the Republic of Serbia are presented without the data for the Autonomous Province of Kosovo and Metohija.

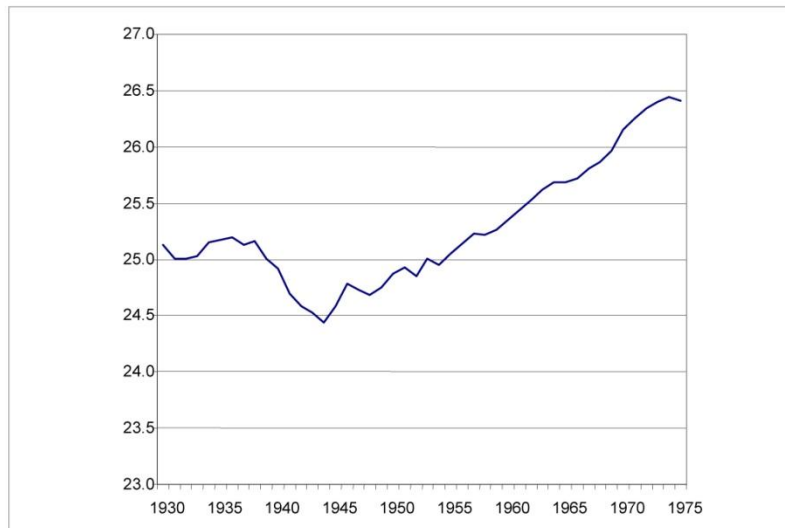
important factors contributing to early occurrence of the phenomenon of below-replacement fertility and its persistence in Serbia. Serbia's political and economic institutions and experience as a constituent republic of the Socialist Federal Republic of Yugoslavia differed from most of the other countries of the Soviet bloc since the late 1940s. In 1948 the Moscow dominated Cominform denounced the relatively independent socialist policies of President Tito and expelled Yugoslavia. Yugoslav socialism shifted from central decision making toward a policy of economic self-management organized around workers' councils and decentralized local governments. Moreover, unlike other socialist countries, the Yugoslav society was considerably more open to the Western system of values and to a greater extent facilitated the satisfaction of individual needs. This contributed to an increase in the economic and psychological cost of children (Rašević, 1995). The different societal conditions to some extent affected childbearing behaviour not only during the 1960s, 1970s and 1980s, but possibly even later (Basten, Frejka, 2015). One of the explanations for the childbearing stabilization is the preservation of the universality of marriage, which was contracted at a relatively early age, whereas alternative forms of cohabitation were practically non-existent (Rašević, 1995).

In 1945, federal government introduced child allowance, and one-time financial assistance for a newborn child (1945-1967), as right on basis of employment. After 1949 child allowance gained population character, by increasing its amounts with birth order of a child. In 1951 government introduced some new criteria for child allowance, such as significant increase of child allowance amounts, material census as a condition for gaining child allowance, criteria that parents can use this right to the 20 years of a child or to 26 years if the child is attending university, etc. Parental leave was introduced in 1946 (84 days), and was continuously raised, (90 days in 1949, 105 days in 1957, 133 days in 1965, 180 days in 1974, 210 days in 1977, 270 days in 1984) (Macura, Gavrilović, 2005).

The analysis of the average number of live births to women under 40 years of age, in age cohorts 1930–1962, shows that it is expectedly the largest in the oldest generation of women (1.84 children per woman). The same generation is also associated with the biggest difference (0.05 children per woman) between the cohort total fertility rate, which includes live births until age 45, and the rate that refers to live births until 40 years of age (Figure 1). Despite being the biggest, this difference is insignificant and, for younger considered age cohorts, it is minimal and shows unambiguously that Serbian women who were past the reproductive age in 2011 rarely gave birth to children after turning 40.

The 2011 Census results also facilitated ascertaining the mean age of women at birth, by age cohorts. The value of this family planning indicator did not vary substantially among the considered generations of women who were past the reproductive age at the time of the Census (Figure 2). Thus, in the generation born in 1930, the mean age of women at birth was slightly less than 3 months lower than that of the cohort born in 1962 (25.30 years and 25.53 years, respectively).

Figure 2.  
Cohort mean age of women at birth, birth cohorts 1930-1975,  
Republic of Serbia, 2011 Census



Source: Statistical Office of the Republic of Serbia

The average number of live births by women who were approaching the end of their reproductive age at the time of the 2011 Census (Figure 1) showed a continuous decrease from 1.81 (the generation of 1963) to 1.55 (the generation of 1975). The registered difference of 0.26 children per woman is substantial. The mean age of women at birth increases from older to younger generations (Figure 2). For the generation born in 1963, the value of this family planning indicator was 9.5 months lower than for the cohort born in 1975 (25.62 years and 26.41 years, respectively).

Although younger cohorts still have a chance of participating in reproduction, the identified markedly lower average number of live births by women aged between 36 and 40 compared to women aged 41 and over seems to imply that the completed fertility in Serbia can be forecast to diverge from the stabilised low value and decline below the 1.8 mark. Especially considering that the postponement of childbearing is widespread and has intensified among women between 20 and 34 years of age.

The generations of women who were aged between 36 and 41 at the time of the 2011 Census were in their optimum childbearing period in the 1990s and 2000s. In Serbia, those two decades were marked by crisis and turbulence. The 1990s represent an exceptionally complex period for the population of Serbia. In addition to the impact of long-term factors, various tumultuous events affected its demographic development, such as breaking apart of former Yugoslavia, armed conflicts in the neighbouring countries, sanctions imposed by the international community, deep economic crisis, the collapse of social stratification, political problems, institutional crisis, and NATO military intervention. Maladaptation to the changed system of values and norms, lower level of personal attainment, feeling of insecurity, and living under permanent stress are the main features of life at an individual, psychological level. Deprivation or living at the subsistence level are the main elements of the economic cost sustained by the majority of the population (Rašević, 2004).

It is difficult to explain the low birth level in the past 15 years without an in-depth investigation of this phenomenon. In contrast to a large number of European countries, no significant demographic surveys have been conducted in Serbia. Not only was the *Fertility and Family Survey* not conducted in the 1990s; the authorities also failed to carry out more recent surveys, such as the *Population Policy Acceptance Study* and the *Generations and Gender Survey*. Despite this lack of information, to identify the factors of low birth levels

after the year 2000, the logically most prominent seem to be the ones related to and/or resulting from the severe economic and social crisis which has been affecting Serbia for a prolonged period of time. In addition to these factors, the low birth levels can be explained by a deep transformation of the society, corresponding to the changes that began earlier in the developed European countries, which are a cause of low fertility (Sobotka, 2004). These include, on the one hand, the promotion of individualism, desire for self-actualisation, changed concept of family, different partner relationships, insisting on the quality of one's own life and the life of a child, while, on the other hand, there is strong inclination towards consumption and leisure (Government of the Republic of Serbia, 2008).

The reaction of the state to demographic challenges was neither comprehensive nor intensive. In the 1990s, the government attempted to mitigate the influence of irregular factors by imposing a pronatalist climate which entailed, above all, the introduction of working mothers' entitlement to paid maternity leave, where an allowance in the amount equal to mother's earnings is paid for 12 months after the birth of the first and second child, for 24 months after the third, and for 9 months after the fourth and any subsequent child (Macura, Gavrilović, 2005).

There are two direct population policy measures significant for birth promotion at the national level since 2002. These are birth grants and maternity/parental leave. The birth grant (parental allowance, birth bonus) is a cash benefit received by the family for their new born child, which covers the initial costs of supplies for the baby and encourages births. It is the main population policy programme in Serbia. The right to this allowance is exercised by mothers, citizens of Serbia for their first, second, third and fourth child. The amount of the birth grant depends on the birth order. These amounts are adjusted twice a year by the price index. The birth grant for the first child is paid one-off, and for the second, third and fourth child in 24 monthly instalments. The amount of birth grants for the second, third and fourth child is high, since it ranges from 3 to 7.5 average incomes (Matković, Mijatović, Stanić, 2013). The law also provides for a maternity pay equal to the employed mother's earnings, during maternity leave and childcare leave for a period of one year for the first and second child, or a period of two years for the third and any subsequent child.

The postponement of first birth until increasingly older age has been a significant factor in the low fertility rate (Schmidt, Sobotka, Bentzen, Andersen, 2012), which is nowadays a concern for many (or all) European countries. Its direct demographic consequence is also intergenerational irregularity in the age profile of the population. The medical consequence of postponement of childbearing result in an increase of the need for the use of assisted reproductive technologies. The problem is even greater when the population includes a relatively large share of women aged 30–34 who are still childless.

The majority of women who postpone childbearing will eventually have children. However, it is reasonable to expect that a number of them will not be able to achieve the desired number of children owing to various reasons, such as physiological decrease of fertility, secondary infertility, higher psychological cost of marriage and childbearing at an older age, or not entering into a marriage owing to illness. In addition, the postponement of childbearing until advanced reproductive age entails numerous risks of unfavourable course and outcome of pregnancy (Benzies, 2008).

A large number of women in the 20–24 age bracket (82%), more than a half (55%) of women aged 25–29 and about a third (31%) of those aged 30–34 were childless in Serbia at the time

of the 2011 Population Census. Between 1981 and 1991, a trend of a slight increase in the number of women who did not give birth to any children in their optimum childbearing period was recorded in Serbia (Rašević, 1995). This trend intensified in the period 1991–2002 and it is considered to be the heaviest toll of the 1990s in demographic terms (Rašević, 2006a). The share of childless women also continued to grow between the last two population censuses. This trend was perceived in all three age cohorts. In 2002, the respective shares of women who did not participate in reproduction for age cohorts 20–24, 25–29 and 30–34 were 75%, 43% and 21% (Rašević, 2006b). The 2011 Population Census results do not give insight into the age at which men engage in reproduction in Serbia, because the question regarding the number of live-born children was posed only to women.

It is difficult to explain the postponement of childbearing without an in-depth and representative research into this phenomenon. Unemployment, housing issues, low standard of living, young parents' childcare-related problems, as well as the sense of insecurity and social anomie undoubtedly play a major role in the decision to postpone parenthood in Serbia. In addition to factors arising from the long-term economic and social crisis in Serbia, this phenomenon can also be explained by a profound transformation of the society, which corresponds to the changes that emerged earlier in the developed European countries (Sobotka, 2004).

The factors relevant to the postponement of childbearing in contemporary societies include increased female education and female economic autonomy; rising and high consumption aspirations that created the need for a second income in households and equally fostered female labour force participation; increased investments in career developments by both sexes, in tandem with increased competition in the workplace; rising 'post-materialist' traits such as self-actualization, ethical autonomy, freedom of choice and tolerance for the non-conventional; a greater stress on the quality of life with a rising taste for leisure; a retreat from irreversible commitments and a desire for maintaining an 'open future'; rising probabilities of separation and divorce, and hence a more cautious 'investment in identity' (Lesthaeghe, 2001).

These factors support the findings of research studies that directly or indirectly addressed the issue of postponed childbearing in Serbia, as well as the socio-demographic profile of Serbian women without children aged 30–34. The first research was based on the discussion on this phenomenon in two heterogeneous focus groups organised in Belgrade in mid-2014, each consisting of seven childless women over 25 years of age. The discussion revealed several social and personal reasons related to the postponement of childbearing. The most commonly cited reason in both groups was the fact that respondents felt like members of the "lost generation", who had lived in chaos for a long time and had no motivation for parenthood. The personal reasons most frequently stated by focus group participants were that they did not feel ready for the challenges and expectations associated with motherhood and that they did not have a partner with whom they wanted to have a child (Veljović, 2015).

Another research in 2009 dealt with the attitudes towards parenthood taken by female students of medicine, pharmacy and political sciences at the University of Belgrade. The findings are based on the responses obtained in an anonymous survey conducted on a randomised sample of a total of 504 female students in the second and fourth year of studies. About four fifths (79%) of the respondents considered the period of life between age 25 and 29 to be the optimum period for having the first child, 11% of them thought the optimum period was 20–24 years, while 10% said it was 30–34 years of age. Almost all respondents

(99%) stated that they wanted to have children in the future. Among the factors considered as important preconditions for having the first child, out of thirteen proposed variables, the students identified “good health” and “desire to have children” as the most important, followed by “financial independence”, “employment” and “stable relationship”. “Marriage” and “career” were assessed as less important for engaging in reproduction, and “supportive environment” and “social support programme” ranked even lower (Sedlecky, Rašević, Topić, 2011).

The 2011 Census identified a total of 74,666 childless women between 30 and 34 years of age. Targeted processing of the socio-demographic census data yielded the information about their profile, which is defined as a set of characteristics most frequently found among the respondents (Table 1). An average respondent from this subpopulation declared to be of Serbian ethnicity (86%), lived in a city (78%), outside of a union (73%), was employed (64%) and had non-university or university-level higher education (48%).

Table 1.  
Socio-demographic characteristics of childless women aged 30–34,  
Republic of Serbia, 2011 Census

Characteristics of women aged 30–34	Share (%)
<b>Ethnicity</b>	
Serbian	86
Bosniak/Muslim	1
Hungarian	2
Roma	1
Slovakian	1
Croatian	1
Montenegrin	1
Undeclared	4
Declared regional affiliation	1
<b>De facto marital status</b>	
Living outside of a union or marriage	73
Living in a civil union	8
Married	19
<b>Education</b>	
Incomplete primary education	2
Primary education	5
Secondary Education	45
Tertiary education	48
<b>Economic activity</b>	
Active women	81

employed	64
unemployed	17
Inactive women	19
persons with property income	6
students	6
persons doing only housework	7
Place of abode	
urban settlements	78
non-urban settlements	22

Source: Statistical Office of the Republic of Serbia

The table includes only ethnic groups with a minimum (rounded) share of 1%.

Motherhood at an advanced childbearing age in Serbia is additionally put at risk by the fact that women's health and fertility are compromised by predominantly conservative birth control practices, which rely on traditional and insufficiently efficient methods and induced abortions. The most recent representative research showed that condoms, combined oral contraceptives or intrauterine devices were used by only 18.4% of women who are married or in a stable union and do not want children (Statistical Office of the Republic of Serbia, UNICEF, 2014). At the same time, according to the Westoff (2007) method, the estimated total induced abortion rate was 2.9 (Sedlecky, Rašević, 2015).

Reproductive health preservation is also threatened by the absence of screening for sexually transmitted infections causing pelvic inflammatory disease. The most common among these is genital chlamydia, which usually causes subclinical chronic infections resulting in damaged fallopian tubes. One research conducted among sexually active adolescents in Belgrade detected the presence of chlamydia in the uterine cervix in 30% of examinees (Sedlecki, Marković, Rajin, 2001).

The results of the 2011 Population Census suggest that the childbearing crisis in Serbia will not only continue, but will probably deepen, as well. The findings on the non-participation of younger age cohorts of women in reproduction indicate to decision-makers that it is vital to make efforts to mitigate the barriers to bearing and raising one's first child during the optimum period. To that end, it is essential to reduce not only the economic, but also the social and psychological cost of parenthood through support to modern forms of union between women and men and assistance in reconciling family and work, as well as childbearing and education. At the same time it is important to increase public awareness of the health concerns related to the postponement of childbearing. This includes the promotion of the modern family planning concept with a view to preserving reproductive health.

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