Family Formation Among Serbian Millennials

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Family Formation Among Serbian Millennials. The starting point of the paper is that the Millennials highly rank professional achievement in their lives; therefore, education and career are crucial for family formation decision-making. The author started from the fact that the specific socioeconomic context of living in Serbia can create an obstacle to parenthood. The paper aims to examine the multilevel predictors of entry into parenthood among Millennials. A multilevel analysis based on the EU-SILC survey data served to study family formation as a function of individual, partner's and household socioeconomic characteristics. The results suggest that a large part of the variations in the age of entering into parenthood can be explained by individual and partner's socioeconomic characteristics, while household characteristics are not significant. The findings confirm the importance of professional achievement as a "precondition" for family formation, which is reflected through education among women and economic stability among men.
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Introduction

The socialism-embracing social environment collapsed during the 1990s and the early 21st century in Central and Eastern Europe, bringing about rapid changes in family formation and childbearing trends, and Serbia was no exception. Two theories provide an understanding of the determinants of the rapid changes in family formation in these countries during this period. The first saw the economic transformation and social crisis as the principal cause of the respective childbearing and family formation trends. The other regarded the diffusion of cultural and ideational developments - namely, the adoption of new, Western norms, values, and attitudes - as the main drivers of demographic changes. The former state socialist regimes created relatively favourable conditions for childbearing, such as job security, low-cost housing, free education, free healthcare, and a variety of entitlements associated with childbirth and childrearing, as well as shortages of career opportunities, leisure activities, and consumer goods. These were replaced by market economies and by fledgling democratic governance institutions which are characterized by more restraining conditions for childbearing, such as job insecurity, increasing

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pressure to acquire more education, expensive housing, lesser and declining birth and childrearing entitlements, as well as the availability of a variety of career opportunities, leisure activities and consumer goods. The populace of these countries, including Serbia, had grown accustomed to the socialist paternalistic welfare state circumstances over several decades, and, all of a sudden, young people were confronted with the need to deal with a whole new Western type of family formation and childbearing environment. Moving from the parental home, union formation and childbearing were postponed, various forms of partnership arrangements became acceptable, and cohabitation became more popular (Frejka 2008).

Rašević (2018) states that the phenomenon of low fertility in Serbia, including childbearing postponement, stems from long-term economic and social crises in Serbia, a deep transformation of society following the previously initiated changes in developed European countries, which are the cause of low fertility. Early confrontation of Serbia with the problem of below replacement fertility is indicated by the fact that no generation of women born after 1930 recorded an average number of children greater than two. At the same time, the average age at entry into parenthood has grown, reaching 30 years in the most recent period. In addition to long-term factors, the beginning of the new millennium as well as numerous turbulent events during the 1990s such as the disintegration of the former Yugoslavia, the war in the region, international sanctions, social change (transition, transformation, or regression), deep economic crisis, social stratification disorders, political problems, institution crisis, NATO military intervention affected the demographic development of Serbia. The reduced degree of self-realization, a sense of insecurity, and living in permanent stress have led to a multiplier increase in the importance of opportunistic and structural barriers on family formation in Serbia. It was expected that the majority would accept the strategy of inaction and/or postponement of long-term decisions, including, in particular, family formation. Research shows that postponing parenthood in the optimal life age is the highest demographic consequence of the 1990s in Serbia, which has since become more widespread and intense (Rašević – Penev 1995; Rašević 2004, 2006).

Therefore, it is interesting to examine the determinants of family formation in the generation of Millennials who were born, raised, or reproduced during these economic and social changes in the country. The assumption is that the generation of young parents is facing new challenges and conditions of family formation and raising children.

The Millennial generation consists of people born between 1980, as the first generation to come of age in the new millennium, and 2000. As a group, Millennials have unique characteristics that distinguish them from older generations, affecting all segments of life, including family formation. Millennials are the first technology natives, characterized as achievers, social media users, global citizens, and conscious, confident, sheltered, pragmatic idealists (Howe – Strauss 2000). Social and economic characteristics, such as the level of education or careers, seem likely to be among the chief determinants of the broader impact of the Millennials generation. The Millennials have higher levels of education than any former generation, and also, for the first time in history, women are outpacing men in education globally (Klesment – Van Bavel 2017). In 2020, a quarter of the Serbian Millennials had acquired tertiary education (26.8%), while among female Millennials, this percentage was almost 35 (Wittgenstein Centre Human Capital Data Explorer). From the point of view of Becker's economic theory of fertility, the increase in education entails their greater activation on the labor market and higher income, but also rising time costs that parents spend on "non-market" activities and children's expenses, which implies the growth of opportunity costs, delays parenthood, and generally reduces the need for children (Becker 1993). The Millennials have higher levels of education than any former generation and are postponing family formation to invest in other aspects of life, including education and careers. Later family formation can give individuals more opportunities and time to invest more broadly in education and human capital accumulation before later building a career in a more flexible way (Ní Bhrolcháin – Beaujouan 2012). From the point of view of the theory of second demographic transition, the increase in the education rate is linked to the expansion of post-materialist value orientations. Van de Kaa (2001) indicates that the spread of postmaterialist value orientations leads to "higher order" needs, which is reflected in later family formation and lower fertility. In other words, Liefbroer (1999) points to the "reorientation" of life priorities which implies less acceptance of traditional gender roles of women and giving priority to career and other needs. The following section of the paper discusses the theoretical socioeconomic background of family formation in more detail.

On the other hand, research shows that although demographic processes (such as delayed parenthood, low fertility) in Serbia are reminiscent of the changes that occurred in the second demographic transition countries, these processes are not fully expressed and are not fully accompanied by a developed

post-materialist value framework. In Serbia, as well as in other post-socialist countries, later family formation is more of a consequence of structural factors, i.e., extended education, relatively slow transition to the labor market, housing shortages, underdeveloped systemic support to parenthood, than cultural models of postponing parenthood due to post-materialist values which characterize Western Europen countries. Instead, it is about the impossibility of achieving cultural norms, which leads to a certain need to postpone and even give up childbearing rather than choosing such arrangements and timing (Tomanović et al. 2016; Bobić – Vukelić 2011). Sociological research shows that Millennials want to realize themselves as parents, which confirms the importance of this role in a culture with a pronounced familial value system.[2] However, as pointed out, the transition to parenthood was accompanied by the post-socialist transformation of Serbia, which is similar to that of other post-socialist countries in the region, but the Serbian context stands out for the extreme depth of the crisis (measured by high unemployment, declining production, informal economy growth, delayed integration into the European economic and political system) (Babović 2009). According to the 2011 Census, the proportion of childlessness among the oldest generation of Millennials aged 25-29 (cohort born 1980/85) was 55%[3], suggesting potentially low completed fertility as well as intensive postponement of childbearing among Millennials.

Having in mind the presented, the paper investigates the determinants of family formation in the Millennials generation, which reflect the mentioned socioeconomic characteristics of Millennials as well as the specific social context of living in Serbia.

Socioeconomic theoretical approaches to family formation

From a theoretical point of view, two prevailing theoretical approaches can explain the determinant of family formation.

First, an important societal change has been the growing social acceptance of the postponement of family formation. Lesthaeghe and Van de Kaa (1986) claim that many countries have gone through the so-called Second Demographic Transition (SDT), a marked shift in values related to family life and children, a dramatic change from altruistic to individualistic marriage patterns, norms, and attitudes and a weakening of the "traditional" family as an

[2] The research which was conducted during 2011, included 1627 young people aged 19 to 35, so it included the oldest generation of Millennials born in the 1980s and early 1990s (Tomanović 2016).

[3] For comparison, according previous Census 2002, the proportion of childlessness among twenty-year-old women (cohort born in the late 70s) was 43%.

institution. According to the SDT theory, the changes in demographic behaviors occurred because increasing welfare allowed individuals to live more individualistically and be less reliant on their social surroundings, as the state would provide its citizens with basic needs (Mooyaart 2021). The altruistic element focusing on offspring has not disappeared, but the adult dyadic relationship has gained greater prominence. The major stepping stone of the SDT theory is Abraham Maslow's theory of changing needs (Maslow 1954). As populations become wealthier and more educated, the attention shifts away from needs associated with survival, security, and solidarity. Instead, greater weight is attached to individual self-realization, recognition, grassroots democracy, expressive work, and educational values, which predict demographic outcomes (such as postponement of childbearing, sustained subreplacement fertility). As Lesthaeghe (2010, 2014) emphasizes, SDT includes a series of multi-faceted revolutions. First, there was the contraceptive revolution, with the introduction of hormonal contraception and far more efficient IUDs; second, there was the sexual revolution, with declining ages at first sexual intercourse; and third, there was the gender revolution, questioning the sole breadwinner household model and the gendered division of labor that accompanied it. These three revolutions fit within the framework of an overall rejection of authority, assertion of individual freedom of choice (autonomy), and overhaul of the normative structure. The overall outcome of these shifts with respect to fertility was the postponement of childbearing: mean ages at first parenthood rise, opportunities for childbearing are lower due to higher divorce rates, the share of childless ever-partnered women increases, and higher parity births (four or more) become rare. The net result is structural and long-term below replacement fertility.[4]

The second approach is a theoretical economic approach to family formation. The economic theory developed by Gary Becker (1974) specifies the three foundational assumptions of the economic approach as maximizing behavior, market equilibrium, and stable preferences. His economic approach assumes that individuals maximize their utility from basic preferences that do not change rapidly over time and that the behavior of different individuals is coordinated by explicit and implicit markets. He successfully propagated the consideration of family formation and childbearing as economic decisions. He argued that people make such choices to improve their own well-being. When family incomes increase, the opportunity cost of raising children also increases, lessening the desire for larger families. He further argued that parents invest

[4] The total fertility rate in Serbia has been permanently below replacement (2.1 children per woman) since the mid-1950s.

more in children's education when economic success is achievable. Parents may view family formation and childrearing as a form of saving – for ensuring resources for their own care during old age. Becker's model offers an explanation of childbearing decisions that relies on the "rational choice" approach. This model of fertility regards individual decisions on having a child as the result of a utility maximization process influenced by the economic cost and benefits of children and subject to income constraints and individual preferences. Within this framework, the decline in fertility that characterises developed countries may be the consequence of the higher price of children relative to other goods, lower family incomes, or a change in preferences for having children relative to other consumption goods. This model, which has been very influential in the literature, also lies at the core of most policies aimed at influencing childbearing decisions. For example, reductions in the cost of children (e.g., as a result of public subsidies) or increases in the income of women of reproductive age (e.g., due to higher transfer payments) would be considered to increase demand for children (Becker 1991). In Easterlin's economic theory of cyclical fertility, small cohorts would have better employment opportunities and thus earlier childbearing and higher fertility, whereas large cohorts would have worse economic life chances and display opposite demographic responses. The cyclical reinforcement then stems from large cohorts of parents giving birth to small cohorts of children and vice versa (Easterlin 1980).

An important determinant of family formation in both theoretical approaches is education, especially women's education. On the one hand, the increase in women's education entails their greater activation on the labor market and higher income, but also rising time costs that women spend on "non-market" activities and children's expenses. This "price effect" implies that the growth of opportunity costs delays parenthood and generally reduces the need for children (Becker 1993). On the other hand, the increase in education is linked to the expansion of post-materialist value orientations, so the highly educated are considered pioneers of the second demographic transition. Van de Kaa (2001) indicates that the spread of postmaterialist value orientations leads to the needs for a "higher order" among women, which is reflected in later family formation and lower fertility. Liefbroer (1999) points to the "reorientation" of life priorities among women, especially highly educated, which implies less acceptance of traditional gender roles of women and giving priority to careers and other needs.

Claiming that such theoretical explanations are focused on women, Valerie Oppenheimer emphasized the role of men's socioeconomic position in demographic change, underlying the tendency to increasingly postpone family formation and marriage. She did this through her uncertainty hypothesis. The argument is that unstable careers, as indicated by low-status jobs, unemployment, and irregular and temporary employment, signal uncertainty. This uncertainty applies not only to whether the husband will be able to provide in the future but also to the type of life he will lead. Work structures the lifestyle a person will develop, and when men have not yet settled in their careers, it is difficult to predict what their married life will be like. In this way, employment uncertainty impedes assortative mating and may therefore postpone family formation and marriage. As setting up and running a household costs money, men who are unable to fulfill the role of breadwinner will not be attractive marriage partners and fathers. Although Oppenheimer recognized that this traditional male breadwinner hypothesis may have lost some of its force when gender roles become more symmetrical, she argued that it would also be naive to expect men's economic resources to become unimportant in influencing family and marriage prospects (Oppenheimer 1988, 2000, 2003; Oppenheimer et al. 1997). In Oppenheimer's theory, the economic position of young men largely depends on macroeconomic conditions. Since unemployment rates tend to have cyclical rather than linear trend patterns, young men's economic position could improve, which would have positive repercussions for family and marriage (Kalmijn 2011).

Socioeconomic background of family formation among Serbian Millennials

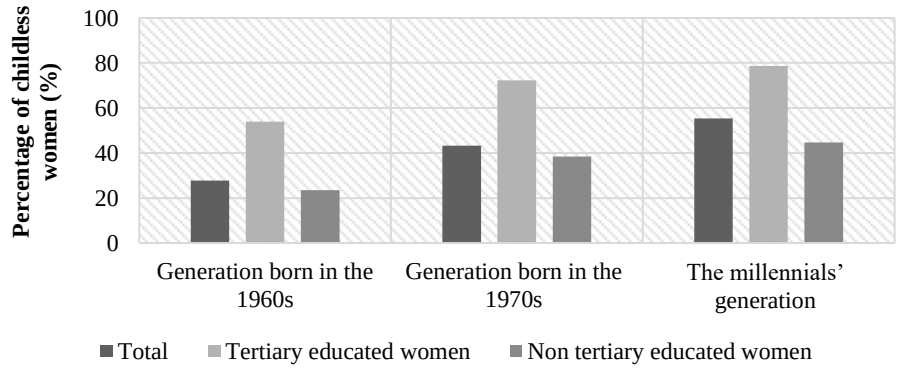
Approximately 1.7 million people in Serbia, or 23% of the total Serbian population, can be considered as belonging to the Millennials - a cohort born in the span from the early 1980s to 2000 (https://data.stat.gov.rs/).

This section aims to present the characteristics of this generation: demographic characteristics - later family formation (compared to older generations), which is the immediate reason for this research; then, the socioeconomic specifics of Millennials which are presumed to be the background of postponement of childbearing; and finally, the specific context of living in transitional Serbia that (in) directly influences of a family formation among the Millennials.

Postponement of family formation among the Millennials is more intense than in previous generations. The last 2011 census data show that the share of

mothers in the population of young Millennial women is very low. The share of childless women was as high as almost 70% in the cohort born between 1980 and 1990. Bearing in mind that they were between 20 and 30 years old at the time of the census, as well as the fact that some of them became mothers after the census, the intensive postponement of parenthood is evident. Figure 1 presents the percentage of childless women in their late twenties by different generations in Serbia (the generation born in the 1960s, the generation born in the 1970s, and the Millennials born in the late 1980s). More than half of Millennial women (55.3%) were childless in their late twenties, which is twice as much as the same group of women born in the 1960s (27.7%) and almost 15 percentage points more compared to women born in the 1970s (43.3%).[5] The childlessness rate definitely indicates that the postponement of parenthood among Millennials is more intense than in previous generations.

Figure 1: **Percentage of childless women in their late twenties by different generation and education (born in 1960s, 1970s and the Millennials), Serbia**



Source: https://www.stat.gov.rs/sr-cyrl/publikacije/?d=4&r= (Census data 1991-2011); Mirić (2018).

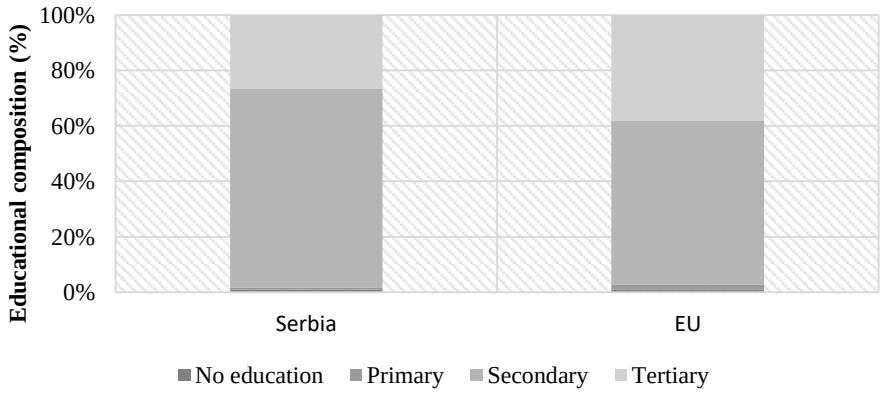
Just as globally, the Millennials in Serbia are characterized by a higher education level compared to other adult generations. In 2020, more than two-thirds of the Serbian Millennials had secondary education (71.7%), and a quarter had acquired tertiary education (26.7%) (Figure 2).[6] Female Millennials

[5] The data of the census does not provide information on the age at which men become parents in Serbia, because only women were asked the question of the number of children.

[6] Previous generations as well as whole Serbian population fall far behind these educational levels. For example, the average percentage of tertiary educated among the entire population is about 15%.

reach higher educational levels than male in Serbia. In the Millennials generation, more women than men have tertiary education (33.5% vs. 21%). Also, the data show that the Millennials spend more time in the educational process compared to the older generations. Actually, the mean years of schooling for the Millennials generation are 12.4, which is, on average, about 3.5 years more than for older generations (Wittgenstein Centre Human Capital Data Explorer). The fact is that the education system reform in Serbia after 2000 also contributed to the increase in the Millennials' education, leading to the opening of tertiary education and greater coverage (about 40% of the generation) (Tomanović et al. 2016). In line with theoretical foundations (previous section), it is assumed that the increase in education and the longer schooling process leads to delayed parenting among Millennials (Mirić 2019). As can be seen in Figure 1, almost 80% of the tertiary-educated female Millennials were childless in their late twenties, which is almost twice as high as the share of female Millennials without tertiary education (44%).

Figure 2: **Educational composition of the Millennials, Serbia and European Union (2020)**



Source: Wittgenstein Centre Human Capital Data Explorer

On the other hand, the education system in Serbia is based on the model of standardized transition through education to the labor market, and it is also insufficiently connected to the sphere of work. There are no developed programs that connect education with the labor market, implying that young people start acquiring the competencies they need to work only after completing their education. Also, education is constructed so as not to allow

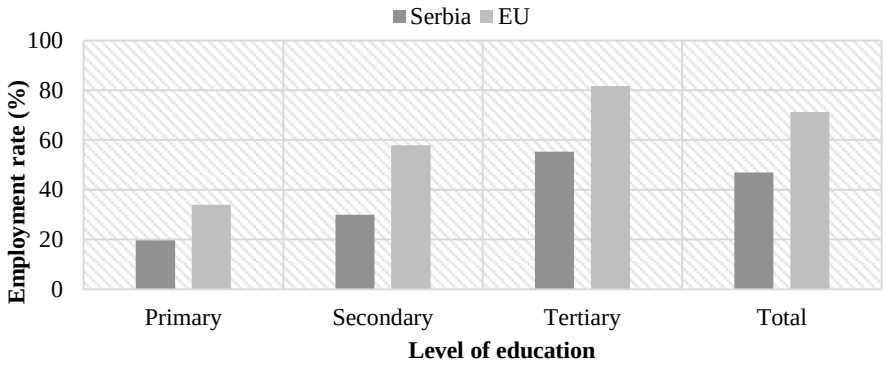
work in parallel with studies. Research from 2015 showed that only 7.4% of young Millennials who were between 15 and 25 years old managed to work in parallel with schooling (Tomanović – Stanojević 2015). This way of transition through the education system makes young people completely financially dependent on their family of origin. This is evidenced by the fact that most of them are almost completely financially and housing dependent during the schooling process (Stanojević 2012).

Moreover, the unfavorable situation in the labor market for the entire population is even more unfavorable for young people. Young people are just getting involved in this sphere, and they are also facing specific problems. In the economic crisis period, they are characterized by a very uncertain transition from education to the labor market and an even more uncertain position on the labor market itself. The causes of this situation can be recognized in a poorly developed economy,[7] economic recession, but also new austerity measures, underdeveloped legislation, and inefficient control of the work of employers (Tomanović et al. 2016). Young people are considered a vulnerable group in the labor market, bearing in mind that they are characterized by significantly lower economic activity compared to the whole population. On the one hand, high unemployment and, on the other, the poor quality of employment (part-time jobs, temporary and seasonal jobs) indicate a difficult transition from education into the labor market in Serbia (Krstić et al. 2010). The unfavorable economic situation is particularly reflected in the young population's difficulty finding adequate employment, including the Millennials generation, who are today at the optimal working age or are just beginning their working life. For example, data from the Labor Force Survey in 2020 show that the rate of unemployment for 20-year-old Millennials was twice as high as that of the total population (Republic Statistical Office of Serbia 2020). Additionally, the data presented in Figure 3 also point to the slow and difficult transition from education into the labor market of Serbian Millennials. The information presented in Figure 3 focuses on the Serbian and EU Millennials who completed education in the three years prior to the survey from which the data are derived. The employment rate for the Serbian Millennials who had completed education during the previous three years was 47% which is almost 25 percentage points lower than for the same group in the EU (71.3%). Education generally improves employment opportunities, but the employment

[7] GDP per capita, the most commonly used economic indicator, is almost four times lower in Serbia than in the European Union (https://ec.europa.eu/eurostat/databrowser/view/sdg_08_10/default/table?lang=en).

rate of tertiary-educated Millennials in Serbia (55.3 %) is also lower than in the EU (81.7%).

Figure 3: **Employment rate for the Millennials who completed education during the previous three years, by highest education level, Serbia and European Union (2015)**



Source: Eurostat database

As mentioned in previous sections, the growing up of the Millennials generation was also marked by a specific social context related to the breakup of the former Yugoslavia, the war in the region, the international community sanctions, social change (transition, transformation, or regression), social stratification disorders, political problems, institutional crisis, NATO military intervention during and in the late 1990s in Serbia. The Millennials generation born in the early 1980s was in the educational process and completing their secondary education during the period of unstable social and political situation in Serbia. It can be assumed that unstable circumstances in Serbia during the 1990s delayed or even stopped the acquisition of a high level of education among this oldest generation of Millennials. This is confirmed by the data that this generation of Millennials, who are now in their thirties, is characterized by a lower share of tertiary educated compared to the younger generations (Wittgenstein Centre Human Capital Data Explorer). The postponement of education affected the postponement of the transition from education into the labor market and employment and consequently delayed entry into parenthood. This is confirmed by previous studies, which have stated that postponing parenthood at the optimal life age is the highest demographic consequence of the 1990s in Serbia (Rašević 2006).

Bearing in mind that professional achievement is highly ranked in the lives of Millennials (Introduction section), it can be assumed that education and career are crucial for decision-making on the timing of starting a family. The desire to acquire a high educational level implies a longer schooling process and, thus, the postponement of parenthood (Cohen – Kravdal – Keilman 2011; Bhrolcháin – Beaujouan 2012). Although it is logical to expect that high education offers qualifications that make it easier to find adequate employment, it can still be assumed that the presented context of living makes the transition from education into the labor market in Serbia difficult. The author assumes that these difficulties are manifested through a longer finding of adequate employment as an important precondition for entering into parenthood. Thus, the importance of education completion timing and employment as two critical steps for a family formation stems from, on the one hand, the highly ranked professional aspirations of Millennials (compared to older generations) and, on the other hand, the economic and social context of living that makes it challenging to achieve these professional aspirations, creating an obstacle to parenting among the Millennials' generation in Serbia.

In addition to the above, Serbia is characterized by the traditional understanding of family as a consequence of the decades of socialism that existed in this area (Tomanović – Ignjatović 2004; Tomanović – Stanojević 2015; Tomanović et al. 2016). Sociological studies point to the importance of intergenerational family transfers in all post-socialist countries due to the collapse of the social protection system during the transition. The content of intergenerational relationships is part of a broader family value model, within which family life and solidarity are the primary focuses. Familism is manifested through the high positioning of the family as a value and the status of the family as a significant and almost irreplaceable group for the individual (Milić 2004). Walther et al. (2009) discuss the post-socialist variant of the subprotective transitional regime to adulthood characterized by the growing importance of the family (i.e., its resources and support). For example, Tomanović et al. (2016) discussed that, due to limited structural (e.g., high unemployment) and institutional capacities, parental family resources have largely determined the transition to adulthood in Serbia. Serbia is a country with a slow transition to adulthood and often unfinished independence from the family of origin in financial, housing, and emotional terms, while the family transition is a key marker of adulthood (Ignjatović 2009; Mirić 2021). It is to be assumed that such a sociological background, in addition to the presented

context of living in Serbia, influences delays in family formation among the Millennials generation.

Objectives

Given the presented characteristics of the Millennials and the specific socioeconomic context of living in Serbia, the paper examines the predictors of entry into parenthood among this generation. Bearing in mind that professional achievement is highly ranked in the lives of the Millennials generation, the author points out the timing of education and employment as the primary factors influencing the decision-making about entering into parenthood. Are acquiring a high level of education and finding a job prerequisites for family formation among the Millennials? More specifically, the main objective of this paper is to answer the question of to which extent variations in age at entering into parenthood among the Millennials can be explained by predictors - their age when attaining the highest level of education and their age when beginning their first regular job. The goal of the used multilevel analysis, described in the Data and Method section, is to observe the prediction of family formation from several levels - individual level and partner's level, and in addition, household level.

Also, the paper aims to investigate whether there are differences in terms of predicting family formation between male and female Millennials (motherhood/fatherhood). This aspect of the analysis is important given that previous studies have indicated the transition of fatherhood that includes the relationship with the partner/wife, the relationship with the child, as well as the way in which fathers perceive themselves and the role of the father in general, and in the context of family and social dynamics in Serbia today. "New fatherhood", implying a high level of involvement of fathers in the care of children, gender equality, and a developed parental identity of men, is in sight in Serbia (Stanojević 2018).

Data and method

Data

The author uses data from the Statistics on Income and Living Conditions (EU-SILC Survey) conducted in 2013 – 2019 in Serbia. Microdata was obtained by special data processing by the Republic Statistical Office of Serbia. This survey aims to collect comparable data on income, poverty, social exclusion, and living conditions. In Serbia, the EU-SILC Survey was first conducted in 2013

on a sample of 8008 households. Data from this survey are used to obtain structural social indicators at the level of the Republic of Serbia and are internationally comparable (Republic Statistical Office of Serbia 2013).

The author uses microdata from the first (2013), second (2014), third (2015), fourth (2016), fifth (2017), sixth (2018), and seventh round (2019) of the EU-SILC Survey. A stratified two-stage random sampling approach was used for the selection of the 6501 households in 2013, 6055 households in 2014, 5680 households in 2015, 6366 households in 2016, 6037 households in 2017, 6032 households in 2018, and 6013 households in 2019.[8]

This analysis included 5540 Millennials, or 2770 households consisting of married Millennial couples who had a child/children at the time of the survey from which the data are derived.[9] Given the research question, the analysis included Millennials who were at least 20 years old at the time of the survey (for example, in the 2013 wave, the youngest generation covered was 1993, in the 2014 wave, it was the 1994 generation, etc.), while the oldest included cohort was Millennials born in 1980. EU-SILC is a longitudinal study, but Millennial couples were included in the analysis only once. For example, if the same couple was surveyed in 2017, 2018, and 2019, then the 2019 data were included in the analysis. Millennial married couples were merged based on the spouse ID of each respondent. Then, from the total number of Millennial couples, couples with a child/children were selected. This selection was made on the basis of a mother ID and father ID that connected the surveyed parents with their children. In this way, a total of 2770 Millennial couples with child/children involved in this analysis were extracted.[10] [11]

Variables

The author used the age at entry into parenthood as the dependent variable. The age at entry into parenthood was obtained by subtracting the years of birth of the mother and father (the surveyed couple) from the year of birth of the first child. The age at entry into motherhood was obtained by subtracting the mother's birth year and the first child's birth year. The age at entry into

8 Source: https: //www.stat.gov.rs/sr-latn/oblasti/potrosnja-prihodi-i-uslovi-zivota/prihodi-i-uslovi -zivota/

9 In the Serbian context, marriage is a legally regulated union of the lives of women and men. Two adults (18 and older) enter into marriage by giving declarations of will before the registrar. Marriage before the age of 18 is possible with the permission of the court (Family Act of the Republic of Serbia).

10 Out of a total of 2770 couples, 312 were surveyed in 2013, 351 in 2014, 360 in 2015, 389 in 2016, 432 in 2017, 475 in 2018, and 487 in 2019.

11 The author wanted to create as homogeneous a sample as possible in order to answer the research question, so only complete families were included. The author assumed that this would eliminate the influences of different backgrounds of family formation (such as cohabitants, single-parent families, etc.). Certainly, given their relevance, they will be the subject of future research.

fatherhood was obtained by subtracting the father's birth year and the first child's birth year. In a sample of 5540 Millennials, the average age at entry into motherhood was 23.7, and the average age at entry into fatherhood was 26.3. In the sample, 75% of female Millennials had their first child in their twenties, while 20% of male Millennials became fathers in their thirties. The average number of children of these couples was 1.67. It should be noted that this analysis included couples of Millennials who had a child/children and that a large part of this generation did not enter into parenthood at the time of the survey. This is especially true for younger Millennials who are in their twenties today and have not yet started a family (Figure 1).

As for the independent variables, the microeconomic theory of fertility developed by Becker (1960) and Becker and Lewis (1973) was used to identify variables influencing parenthood decisions. According to Becker, where children can be viewed as durable goods, fertility is determined by income, knowledge, child costs, uncertainty, and tastes. In light of this theory, the author postulates that the age at entry into parenthood is a function of individual demographic and socioeconomic variables. In addition, the author added partner- and household-level factors as a new set of independent variables that can explain the timing of entry into parenthood. The model posits the age at entry into parenthood to be a function of the interrelated effects of individual-level, partner-level, and household-level characteristics.

Level 1 Individual demographic and socioeconomic characteristics include age, education, age when the highest level of education was attained, and age when one began their first regular job.[12] [13] The author assumes that the Millennials, who have higher levels of education than any former generation, are postponing family formation to invest in other aspects of life, including education, leisure, and careers. In other words, Millennials prioritize professional achievement over family formation.

Level 2 Partner's demographic and socioeconomic characteristics include the same individual characteristics: partner's age, partner's education, partner's age when the highest level of education was attained, and partner's age when

[12] Under EU-SILC, the attainment levels of individuals are classified according to the International Standard Classification of Education version of 2011. In the analysis, the author approached the grouping of ISCED educational groups into 3 categories: primary education, secondary education (lower secondary education, upper secondary education, post-secondary non-tertiary education), and tertiary education (short cycle tertiary, bachelor or equivalent, master or equivalent, doctorate or equivalent).

[13] The analysis monitors the highest completed education, but does not deal with whether the individual or partner continues to educate. The reason for that is the fact that support for schooling parenthood is underdeveloped in Serbia. This is evidenced by the fact that only 1.9% of parents are among those who study (Tomanović 2012). Also, the share of those who continued their education in the sample of Millennial parents included in the analysis (2019 wave) is below 1 (0.7%).

they began their first regular job. The author assumes that ensuring socioeconomic stability in terms of "pooled economic resources" is a prerequisite for a family formation.

Level 3 Household socioeconomic characteristics include income and degree of urbanization of the area in which the household is located.[14] [15] According to Becker's microeconomic theory, income should have a positive effect on fertility. Becker et al. (1990) have provided theoretical justifications for an inverted U relationship between income and fertility. Therefore, the author assumes that household income has an impact on family formation among Millennials. The author also supposes that the degree of urbanization has an impact on the timing of parenthood and that people residing in urban areas later become parents than those in rural areas.

Table 1 gives the descriptive statistics of individual, partner and household variables used in the analysis.

[14] According to SILC methodology, the total disposable income of a household is calculated by adding up the personal income received by all of household members plus income received at household level. The author grouped household income into 3 groups (low, medium, high) based on the median household income in Serbia for the years 2013-2019. Low-income households are the ones that have annual income 50% or less than median income; Middle-income households are the ones that have annual income between 51% and 80% of the median income; High-income households are the ones that have annual income 81% or more than median income. Information about income in Serbia: www.stat.gov.rs.

[15] The degree of urbanisation is a classification that indicates the character of an area in which household is located. Based on the share of local population living in urban clusters and in urban centres, it classifies Local Administrative Units (LAU or communes) into three types of area: cities (densely populated areas: at least 50% of the population lives in urban centres), towns and suburbs (intermediate density areas: less than 50% of the population lives in rural grid cells and the less than 50% lives in urban centres), and rural areas (thinly populated areas: more than 50% of the population lives in rural grid cells) (https://ec.europa.eu/eurostat/web/degree-of-urbanisation/background).

Table 1: **Description of individual characteristics (level 1 variables), partner's characteristics (level 2 variables) and household's characteristics (level 3 variables) in the sample.**

		Mother	Father
Age	20-24	14,8	4,5
	25-29	36,3	23,2
	30-34	36,7	46,8
	35-39	12,2	25,5
	Mean	29,2	31,7
Education	Primary	2,9	2,5
	Secondary	76,5	82,5
	Tertiary	20,6	15,0
Age when highest level of education attained	<20	74,3	79,3
	20-24	16,2	12,4
	25-29	8,6	6,3
	>30	0,9	1,9
	Mean	19,1	18.9
Age when began first regular job	<20	30,5	41,8
	20-24	46,2	43,2
	25-29	21,0	13,4
	>30	2,3	1,6
	Mean	21,9	20,9
Age at entry into parenthood	<20	16,4	3,9
	20-24	43,5	30,0
	25-29	31,3	44,7
	30-34	8,4	19,7
	35-39	0,5	1,7
	Mean	23,7	26,3
Income of household	Low	23.4	
	Medium	61.3	
	High	15.3	
Degree of urbanization	Densely populated area	22.7	
	Intermediate area	27.9	
	Thinly populated area	49.4	
N		2770	2770
		5540	

Statistical model

The basic formula of a general multilevel model, consisting of a fixed and a random part, from which the author started, is:

$$Y_{ij} = Y_{00} + Y_{10} * X_{ij} + Y_{01} * Z_j + Y_{11} * Z_j * X_{ij} + uljX_{ij} + \mu_{0j} + r_{ij}$$

wherein ***i*** is the individual level (level 1) and ***j*** is level 2 (partner) and level 3 (household).

The dependent variable in the analysis is the age at entry into parenthood (Y_{ij} in the formula) which is the function of the individual demographic and socioeconomic characteristics (*i* in the formula) and partner' and household socioeconomic characteristics (*j* in the formula).

In the model, the first part of the right-hand side, $Y00 + Y10 * Xij + Y01 * Zj + Y11 * Zj * Xij$, is called the fixed part of the model (the coefficients are fixed for all households). The remaining part, $uljXij + \mu 0j + rij$, is called the random part (the relationship between an explanatory variable and the response is not the same across all households). The random coefficients model allows both the intercept and the slope parameters to vary across households.

In the formula, $Y00$ is the overall intercept - mean age at entry into parenthood of all Millennial couples (households); $\mu 0j$ stands for non-explained differences in age between the households; rij stands for non-explained differences in mean age between the individuals; $Y10 * Xij$ is the general slope of independent variable *X* (individual/partner characteristics: age, education, age when the highest level of education was attained or age when one began their first regular job); $uljXij$ stands for differences in slopes (effect) of variable *X* between the households; $Y01 * Zj$ is the direct effect of households characteristics on age at entry into parenthood (income or degree of urbanization); $Y11 * Zj * Xij$ is the interaction of households variables and individual, partner, and households characteristics on age at entry into parenthood.

The result of the multilevel analysis is four models that describe the prediction of the age at entry into parenthood. Null random intercept model (Model 1) serves as a basic model to compare other models with. Random intercept with level-1 variables (Model 2) explains how much variance in age at entry into parenthood can be explained with level-1 predictors (individual demographic and socioeconomic characteristics). Random intercept with level 1 and level 2 variables (Model 3) explains how much (additional) variance can be explained with level-2 predictors (partner's demographic and socioeconomic

characteristics). Finally, random intercept with level 1, level 2, and level 3 variables (Model 4) explains how much (additional) variance can be explained with level-3 predictors (household socioeconomic characteristics).
Multilevel analysis was performed in a STATA package.

Results

Descriptive findings

At the beginning of the results, it should be emphasized that many young Millennials are just entering the reproductive age and have yet to realize themselves as parents. However, only Millennials who had child/children at the time of the survey were included in analysis, since the aim of the paper is to investigate the predictors of realized parenthood.

Table 2 presents the average age at entry into parenthood by demographic and socioeconomic characteristics (individual-level, partner-level, household-level). As can be seen in the table, the age at entry into parenthood varies greatly by these characteristics, which justifies the use of multilevel analysis.

In accordance with Becker's economic theory, investing in human capital, i.e. education and career will affect the prolongation of parenthood. Thus, the results indicate a positive relationship between the average age at entry into parenthood and level as well as the length of education among the Millennials. Tertiary-educated Millennials become parents at seven years older (female-26.4; male-28.2) than lower-educated Millenials. The same pattern applies to the partner's education which suggests that acquiring a high level of education is universal for Millennials and prioritized over establishing a family. Investing in the human capital of both partners results in "pooled resources" that, on the one hand, improve fertility prospects but, on the other, delay family formation. Thus, the average age at entry into parenthood varies from 20-21 years for those whose partner is primary-educated to 27-28 years for those whose partner is tertiary-educated.

Acquiring high levels of education is expected to lead to a longer schooling process. Furthermore, late completion of education, both individual and partner's, entails late entry into parenthood. Thus, Millennials who completed their education after the age of 25 entered into parenthood in their late twenties or thirties.

In addition to education, finding an adequate job requires some time and usually involves postponing parenthood. On the one hand, the desire for professional development, and on the other hand, the provision of resources to support the family contribute to delaying the entry into parenthood for the Millennials. For example, the average age at entry into fatherhood ranges from 26-27 years for those who started an adequate job before twenty or in the early twenties to 29-30 years for those who started working in their late twenties or thirties. Also, the average age at entry into motherhood ranges from 24-25 years for those who started an adequate job before twenty or in the early twenties to 26 years for those who started working in their late twenties or thirties. It is noticed that the family formation timing by the timing of employment varies more among male than female Millennials. Based on that, it can be assumed the economic stability of men is a precondition for family formation in the Millennials generation, which is typical for Serbian male breadwinner families. This is also confirmed by the heterogeneous timing of entry into motherhood according to their partners' employment timing. Data show that the average age at entry into motherhood increases (23-26 years) with increasing partner's age when they began their first adequate job. On the other hand, the timing of entry into fatherhood does not vary significantly according to the timing of employment of their partners.

The data in Table 2 show that the timing of family formation varies slightly according to the socioeconomic characteristics of the household (income and degree of urbanization). Thus, the difference in the average age at entry into parenthood between densely and thinly populated areas is only 0.5 years. Also, low-income Millennials enter into parenthood as 0.5-0.7 years younger than middle- and high-income Millennials.

Table 2: **Age at entry into parenthood in the sample of the millennials couples by individual-level, partner-level, and household-level characteristics**

Variables		Age at entry into motherhood	Age at entry into fatherhood
Individual-level characteristics			
Age	20-24	19,9	20,9
	25-29	23,0	24,0
	30-34	25,0	26,9
	35-39	26,9	28,1
Education	Primary	19,5	21,5
	Secondary	23,0	26,0
	Tertiary	26,4	28,2
Age when highest level of education attained	<20	25,8	22,8
	20-24	27,5	25,5
	25-29	29,0	27,9
	>30	29,9	30,5
Age when began first regular job	<20	23,6	25,7
	20-24	24,8	26,7
	25-29	26,0	28,4
	>30	25,9	29,8
Partner-level characteristics			
Partner's age	<20	18,5	23,3
	20-24	20,2	24,9
	25-29	22,5	26,4
	30-34	24,2	26,6
	35-39	24,5	26,7
Partner's education	Primary	19,0	21,8
	Secondary	23,4	25,9
	Tertiary	25,9	28,1
Partner's age when highest level of education attained	<20	23,2	25,6
	20-24	25,3	28,0
	25-29	26,9	29,0
	>30	27,4	30,2
Partner's age when began first regular job	<20	23,1	26,1
	20-24	24,4	27,0
	25-29	25,4	27,6
	>30	26,0	26,4
Household-level characteristics			
Income of household	Low	22,9	25,8
	Medium	23,6	26,2
	High	23,7	26,3
Degree of urbanization	Densely populated area	24,4	26,5
	Intermediate area	24,2	26,5
	Thinly populated area	23,9	26,0
Mean		23,7	26,3

Multilevel analysis

The author starts multilevel analysis by fitting a three-level empty model, also named null random intercept (Model 1) of Millennials (level 1) nested within their partners (level 2), nested within households (level 3). It is a reduced form of the Equation presented in the Data and Method section with no predictors, presented as follows:

$$Y_{ij} = Y_{00} + \mu 0_j + r_{ij}$$

Coefficient $Y00$ is the overall intercept (fixed component), $\mu 0j$ is the random effect of partner/households, and rij is the random effect of Millennial individuals. The household, partner effects, and the individual level are assumed independent with zero means and constant variances $rij \sim N(0, \sigma^2 r)$, $\mu 0j \sim N(0, \Omega\mu)$: $\Omega\mu = [\sigma^2 \mu 0]$. $\sigma^2 \mu 0 =$ var $(\mu 0j)$ give the dispersion related to the model intercept between level 3 units (households). In other words, $\sigma^2 \mu 0$ presents unexplained heterogeneity of mean age between households at entry into parenthood. $\sigma^2 r$ presents unexplained heterogeneity of mean age between individuals at entry into parenthood.

The overall mean age at entry into parenthood is about 23.7 = exp (0.016) for women and 26.3 = exp (0.047) for men in the Model 1. The results show that individual and partner's demographic and socioeconomic characteristics explain a significant portion of variations in age at entry into parenthood, while socioeconomic characteristics of the households are not significant in explaining these variations among the Millennials' generation. Individual and partner characteristics affect entry into parenthood among male and female Millennials differently. Model 1 shows that 70% of variations in age at entry into parenthood among women are explained by their own individual characteristics, while the same variation among men is largely explained by the characteristics of their partners. This is confirmed by an intra-class correlation coefficient,[16] which shows that 77% (for men) and 29% (for women) of variations in age at entry into parenthood are explained by partner's characteristics (by level 2 variables) (Table 3). Given these results of the null model, the author concludes that the multilevel structure should not be ignored, and there are enough differences between Millennial couples to justify a multilevel analysis.

[16] An intra-class correlation coefficient ($\sigma^2\mu0/(\sigma^2\mu0+\sigma^2r)$) amounts 0.77 for men (18.831/ (18.831+5.977)), and 0.29 for women (4.294/ (4.294+10.221)).

Table 3: **Random intercept models**

	Model 1 null random intercept		Model 2 random intercept level 1		Model 3 random intercept level 1+2		Model 4 random intercept level 1+2+3	
	Female	Male	Female	Male	Female	Male	Female	Male
Intercept	.016	.047	-.0368	-.049	.122	-.007	.032	-.097
$\sigma^2 r$	10.221	5.977	4.776	5.495	6.432	4.987	7.851	7.851
$\sigma^2 \mu 0$	4.294	18.831	4.627	4.867	1.510	2.956	1.792	6.643

In Model 2, the author includes all individual demographic and socioeconomic characteristics (level 1 predictors) defined in Table 1 (age, education, age when the highest level of education was attained, and age when one began their first regular job). Model 2 consists of estimated fixed effects of only individual covariates (only individual-level variables).

Individual differences in mean age at entry into parenthood ($\sigma^2 r$) are reduced from 10.221 to 4.776 for female Millennials and from 5.977 to 5.495 for male Millennials. Regression-like R^2- measure on level 1 reveals that 53% of the data fit the regression model (Model 2) for female Millennials and 8% for male Millennials.[17] This result suggests that a large proportion of variance of age at entry into parenthood among Millennial women can be explained by their individual demographic and socioeconomic characteristics (53%), while level 1 predictors are less significant in Millennial men (8%). Random intercept Model 2 shows that all level 1 predictors of entry into motherhood are statistically significant (sig. < 0.050), or in other words, all demographic and socio-demographic characteristics of women included in the model (age, education, age when the highest level of education was attained and age when one began their first regular job) are relevant for explaining variations in age at entry into motherhood (Table 4). On the other hand, random intercept Model 2 shows that only the age and education of men are statistically significant level 1 predictors of entry into fatherhood (Table 5).

[17] Regression-like R^2-measure on level 1: (10.221-4.776/10.221)=0.53 (women); (5.977-5.495/5.977)=0.08 (men).

In Model 3, the author includes individual and partner's demographic and socioeconomic characteristics (level 1 predictors + level 2 predictors) defined in Table 1. The model 3 consists of estimated fixed effects of only individual and partner's covariates (individual-level variables + partner-level variables).

Households heterogeneity of mean age at entry into parenthood ($\sigma^2\mu 0$) is reduced from 4.627 to 1.510 for female Millennials and from 4.867 to 2.956 for men. R^2 measure on level 2 reveals that 67% of the data fit the regression model (Model 3) for female Millennials and 39% for male Millenials.[18] In other words, a big proportion of variance of age at entry into parenthood among Millennial couples can be explained by the partner's demographic and socioeconomic characteristics. Random intercept model 3 shows that economic stability in terms of stable partner employment is a significant predictor of entering into motherhood. A statistically significant level 2 predictor of entry into motherhood is partner's age when they began their first regular job (sig. 0.001), which definitely suggests the importance of the partner's financial stability as a "precondition" for family formation among Millennials (Table 3). However, female economic stability is not an important predictor of entry into fatherhood. In contrast, random intercept model 3 shows that partners' education and length of schooling are statistically significant level 2 predictors of entry into fatherhood (Table 4).

The household characteristics (income and degree of urbanization) included in model 4 are not proven to be significant predictors in explaining age at entry into parenthood among Millennials. This is confirmed by no reduction of individual and household heterogeneity of mean age at entry into parenthood ($\sigma^2\mu 0$, $\sigma^2 r$).

[18] Regression-like R^2-measure on level 2: (4.627-1.510/4.627)=0.67 (women); (4.867-2.956 /4.867)=0.39 (men).

Table 4: **Random intercept models with level 1, 2, 3 predictors of entry into motherhood**

	Model 2		Model 3		Model 4	
	Random intercept with level 1 predictor		Random intercept with level 1 and 2 predictors		Random intercept with level 1, 2 and 3 predictors	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
Individual-level characteristics						
Age	.320	.000	.484	.000	.489	.000
Education	.007	.000	.004	.029	.004	.030
Age when highest level of education attained	.201	.014	.189	.024	.165	.050
Age when began first regular job	-.090	.046	-.094	.051	-.099	.040
Partner-level characteristics						
Partner's age			-.230	.000	-.222	.000
Partner's education			.001	.569	.001	.639
Partner's age when highest level of education attained			.035	.608	.019	.782
Partner's age when began first regular job			.144	.001	.140	.002
Household-level characteristics						
Income of household					3.623	.055
Degree of urbanization					-.244	.209

P < 0.05

Table 5: **Random intercept models with level 1, 2, 3 predictors of entry into fatherhood**

	Model 2		Model 3		Model 4	
	Random intercept with level 1 predictor		Random intercept with level 1 and 2 predictors		Random intercept with level 1, 2 and 3 predictors	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
Individual-level characteristics						
Age	.602	.000	.769	.000	.777	.000
Education	.007	.003	.001	.596	.001	.639
Age when highest level of education attained	-.003	.959	.035	.608	.019	.782
Age when began first regular job	.082	.054	.144	.001	.140	.002
Partner-level characteristics						
Partner's age			-.515	.000	-.510	.000
Partner's education			.004	.029	.004	.030
Partner's age when highest level of education attained			.189	.024	.165	.050
Partner's age when began first regular job			-.094	.055	-.099	.040
Household-level characteristics						
Income of household					3.628	.054
Degree of urbanization					-.244	.209

$P < 0.05$

Conclusion

This paper has presented empirical evidence for the existence of the potential individual as well as partner/household effects on family formation decisions among the Millennials generation in Serbia.

The Millennials, currently aged between their 20s and late 30s, have higher levels of education than any former generation. Therefore it was assumed that postponing family formation can give them more opportunities and time to invest in education and human capital accumulation (Ní Bhrolcháin – Beaujouan 2012). Hence, the starting point is that the Millennials generation highly ranks professional achievement in their lives, and therefore education and career are crucial for decision-making on family formation.

In addition, the author started from the fact that the specific (unfavorable) socioeconomic context of living in Serbia can make it difficult to achieve professional aspirations and create an obstacle to parenthood among the Millennials. The assumption was that Serbian specific socioeconomic

circumstances would manifest in the following way. Firstly, low economic development can make the transition from education into the labor market in Serbia difficult (Krstić et al. 2010), and consequently affect the postponement of parenthood. Secondly, delayed or even stopped acquisition of a high level of education during the 1990s as a period of disintegration of the former Yugoslavia and the war in the region could be reflected in the postponement of the transition from education into employment and consequently delay entry into parenthood.

Multilevel analysis based on the EU-SILC survey data was used to examine family formation as a function of multilevel - individual-level and partner-level (education, age when the highest level of education was attained, age when one began their first regular job), as well as household-level socioeconomic characteristics (income, degree of urbanization).

The conclusion is that acquiring a high level of education and finding a job are prerequisites for family formation among the Millennials. A longer schooling process as well as longer finding of adequate employment inevitably lead to later entry into parenthood among Millennials. The fact is that a large part of the variations in age at entering into parenthood among the Millennials can be explained by individual socioeconomic characteristics, such as level of education, age when the highest level of education was attained, and age when one began their first regular job.

On the other hand, it has been shown that the delay in starting a family is not only the result of individual professional achievement but also partner's timing of completing education and finding a regular job. This conclusion suggests the importance of "pooled" economic resources before starting a family (Becker 1960; Becker – Lewis 1973). It can be assumed that the specific (unfavorable) socioeconomic context in Serbia confirms this conclusion because they impose ensuring parents' economic security before having a child.

Although individual and partner's professional achievement is a "precondition" for family formation among all Millennials, there are still some differences in terms of predicting family formation between male and female Millennials (motherhood/fatherhood). On the one hand, it turned out that economic security in terms of stable employment of men is a significant predictor of entering into motherhood. This conclusion fits into the male breadwinner family model, which is typical for Serbia and implies that male economic stability is a precondition for family formation. On the other hand, it turned out that female education is a significant predictor of entering into fatherhood. This finding was expected, bearing in mind that female Millennials

strive more than the other generations to acquire a high level of education and, therefore, the willingness of their partners to delay family formation because of graduation.

Finally, household characteristics (income and degree of urbanization) are not proven to be significant predictors in explaining age at entry into parenthood among the Millennials. The first explanation is that the analysis included the current (at the time of data collection) household income/degree of urbanization and not the income/degree of urbanization at the time and before family formation. Another explanation may be the homogenization of Millennials' reproductive behavior in terms of household socioeconomic characteristics, which suggests the importance of individual professional achievement and pooled economic resources as dominant in decision-making on a family formation.

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