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Front cover photography: A picturesque terraced landscape with fruit trees in Brezovica in the immediate vicinity of the Šmarješke Toplice thermal spa in spring 2019 (photograph: Jure Tičar).
Fotografija na naslovnici: Terasirana pokrajina s sadnim drevjem v Brezovici v neposredni bližini term Šmarješke Toplice spomladi 2019 (fotografija: Jure Tičar).

THE CHANGE IN EDUCATIONAL ASSORTATIVE MATING IN SERBIA AND SLOVENIA, 1970–2020

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The change in educational assortative mating in Serbia and Slovenia, 1970–2020

ABSTRACT: This paper explores marital matching patterns from the perspective of the partners' educational attainment, focusing on the link between gender asymmetry in education and educational hypergamy. In order to assess to what extent the tendency for women to marry men of higher educational status is related to the educational gender gap in Serbia and Slovenia, we calculate an index for women's educational advantage, and an index for the prevalence of educational hypergamy. Our results confirm the following: the growth of education is associated with an increase in female educational advantage; the relationship between female educational advantage and educational hypergamy is strongly negative; and there are no significant differences in assortative mating patterns between Serbia and Slovenia.

KEYWORDS: educational assortative mating, education, marriage, Serbia, Slovenia

Sprememba v sklepanju partnerskih zvez z vidika izobrazbe v Srbiji in Sloveniji med leti 1970 in 2020

Ta članek raziskuje vzorce sklepanja partnerskih zvez vidika izobrazbe partnerjev. Osredotoča se na povezavo med spolno asimetrijo v izobraževanju in izobraževalno hipergamijo. Da bi ocenili, v kolikšni meri je težnja žensk po poroki z moškimi z višjo izobrazbo povezana z izobrazbeno razliko med spoloma v Srbiji in Sloveniji, smo izračunali indeks izobrazbene prednosti žensk in indeks razširjenosti izobraževalne hipergamije. Naši rezultati potrjujejo, da je rast izobrazbe povezana s povečanjem izobrazbene prednosti žensk, da je razmerje med izobrazbeno prednostjo žensk in izobrazbeno hipergamijo močno negativno in da med Srbijo in Slovenijo ni bistvenih razlik v selektivnih vzorcih sklepanja partnerskih zvez.

KLJUČNE BESEDE: izobrazbeno pogojeno sklepanje partnerskih zvez, izobrazba, poroka, Srbija, Slovenija

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1 Introduction

Even though Serbia and Slovenia differ in socio-economic aspects, both countries are facing similar demographical issues, and just like many other Eastern European countries they are experiencing a postponement of marriage and childbearing to higher ages and decline of fertility towards very low levels (Josipovič 2003; Penev 2010; Nikitović 2015; Josipovič 2016; Graovac Matassi and Talan 2021). Marriage rates, which are still considered to be an important demographical reproduction factors (Devedžić 2004; Lerch 2017; Rašević and Vasić 2017), are greatly influenced by the composition of the marriage market. This composition is heavily misbalanced in both countries due to the insufficient supply of the partners with desired socio-economic characteristics. One of the mostly desired characteristics is partner's education, which determines social status. An »ideal« partner should be equally well or better educated, which is a requirement that cannot be fulfilled that easily today, due to the unequal educational coverage between men and women. Partner's education is a key both for individual economic behaviour and for the behaviour of the unions, because the marriage stability depends on the suitable partner combination. The marriage stability further influences marriage outcomes, such as parenthood or divorce (Esping-Andersen and Billari 2015; Goldscheider, Bernhardt and Lappegård 2015). The stability is more pronounced if the partners share common values which are today formed mostly through education, given that the influence of other institutions (e.g. family or religion) has declined over the time. This is the reason why the research of »educational assortative mating« can contribute to a better understanding of the effect the social changes have on the marital level. Moreover, understanding marital level leads to a better understanding of the changes in the fertility level.

Since the emergence of surpluses of educated women (Vincent-Lancrin 2008; KC et al. 2010), more marriages where the woman is more educated than the man have been observed (Esteve, García-Román and Permanyer 2012; Van Bavel 2012). Therefore, this work focuses firstly on the educational misbalance between the genders, and afterwards tries to answer the question if this misbalance can be connected to the pattern changes in educational assortative meeting. In the end, the question whether differences in educational assortative mating between Serbia and Slovenia exist is tackled, and to what extent those differences can be explained by (post) Yugoslavian socio-economic context.

2 Theoretical frameworks

Assortative mating is based on the partner search theory which assumes that individuals have preferences for partners with certain socio-economic characteristics and that there exists a market where those preferences can be realized (Lewis and Oppenheimer 2000). Socio-economic attributes such as income, wealth, occupation, and education are the most cited ones, because they influence the status of an individual and of the couple (Kalmijn 1994), also from of all socio-economic features, education is an attribute being explored pretty often, because it represents one of the main components of the social stratification (Petrović 2011; Bobić 2017) and it is an important part of an individual's lifecycle (Mare 1991).

Partner search theory accounts for differences in the preferences of men and women, and those differences were addressed for the first time in the model of household specialization and division of labour introduced by Becker (1973). According to this model, when forming households, couples will exploit the gains from trade by having one spouse specialized in market work while the other specialized in household work. Household specialisation enhanced the emergence of educational hypergamy, i.e. marriages where a husband would be more educated than a wife (Blossfeld 2009; Schwartz and Han 2014). Women's ability to earn caused a change in men's preferences, who now began favouring the economic characteristics of their partners (Oppenheimer 1994; Lichter et al. 1995; Torr 2011). This resulted in an ever-increasing number of marriages with equally educated partners (Sweeney 2002; Schwartz and Mare 2005). Once education became gender-neutral, and once educated women outnumbered educated men, a new pattern was born – husbands marrying up. This pattern emerged as an answer to, i.e. acknowledgment of, the new demographic reality among younger cohorts, especially of the highly educated populations of both genders (Grow and Van Bavel 2015).

This composition of marriage market is influenced by social macrostructures (Blau 1977), i.e. by the relative group size entering the marriage market (De Hauw, Grow and Van Bavel 2017; Chiappori 2020).

It also explains the process of so-called »squeezing out« of less competitive individuals from the marriage market (marriage squeeze), which occurs in case of a significant misbalance towards a certain gender or socio-economic attribute (Schoen 1983; Van Bavel 2012). Individuals experiencing difficulties in finding a suitable partner (equally or better educated) due to a lack of candidates with their preferred attributes generally resort to one of two strategies. The first is the strategy of extended search, where individuals continue searching for a partner with their preferred attributes for longer than they normally would, at the risk of weakening their own attributes and increased costs that can arise over time. In the second case, they resort to the criterion of selection. Falling back on the first strategy leads to an increased number of single people among the young population, whereas adopting the second strategy increases the number of marriages which are not aligned in terms of individual preferences (Schoen 1983; Oppenheimer 1988).

Two groups are specifically prone to the education-specific mating squeeze: highly educated women and non-educated men. From the perspective of highly educated women, the supply of suitable, highly educated men are limited by the bounded number of university graduates. From the perspective of uneducated men, the fact that there are more female graduates at every level of education implies that they are facing a decreasing number of potential partners, as women tend to choose a partner that is at least as educated as they are.

However, a more educated wife is not an obstacle to marriage, as demonstrated by Esteve et al.'s (2016) results from 120 countries with differing socio-economic contexts – the marriage market accepts an increasing number of highly educated women thanks to suitably flexible gender norms, though the second phase is taking place very slowly (England 2010; Esping-Andersen and Billari 2015). While Second demographic transition has a negative narrative regarding the changes within the families, gender revolution foresees positive changes in the families (greater number of marriages, greater marriage stability, smaller number of divorces and higher fertility). Those positive changes shall happen due to the changes in the currently existing structures and the prevalence of the structural factors over the ideological ones (Goldscheider, Bernhardt, and Lappegård 2015). Other authors agree that the dominance of the gender roles reflects the chances from the social environment and that they change under the influences of structural misbalances (West and Zimmerman 1987; Blossfeld 2009; Šobot 2012; Bobić 2017). Speaking of the big structural changes, such as globalization or very strong increase of education level, gender attitudes formed under the old structures can survive »if people are not well prepared by education or experience to function comfortably and successfully in the new gender structure« (Goldscheider, Bernhardt and Lappegård 2015, 218). Taking educational assortative mating as an example, studies have shown that in a western-oriented context, non-traditional educational hypogamy couple have a lower divorce risk compared to educational homogamy ones, given that they are represented with an abundancy greater than 50%, i.e. given that the norms are accepted within a broader local community (Theunis et al. 2018).

Starting with theoretical background and previous results, we postulate the following hypotheses:
1. Development of the education leads to the creation of a gender-based misbalance in favour of educated women.
1a. This misbalance is mostly pronounced when talking about highly educated people.
2. The prevalence of women within the population with tertiary and secondary education leads to a decline in educational hypergamy and a rise in educational hypogamy.
2a. Highly educated women are the ones that are mostly susceptible to hypogamous marriages.
3. Patterns in educational assortative mating are different in Serbia and Slovenia.
3a. Educational hypergamy declines more rapidly in Slovenia.

Even though the education is highly relevant to fertility and mortality (Rašević and Vasić 2017; Marinković 2018; Mirić 2019), not many papers investigating the consequences on partner selection patterns have been published. To our best knowledge, this is the first paper of that kind concerning Serbia and Slovenia and it will make its contribution to the knowledge fond in the area of educational assortative mating, whereas the results specific to Serbia and Slovenia will be joined to the ones (De Hauw, Grow and Van Bavel 2017) referring to the other European countries.

2.1 Former Yugoslavia context

Even though a very intense rise in education could be noticed throughout the whole Yugoslavia after WW2 (Breznik 1991), this process commenced a little bit earlier in Slovenia, it was faster compared to central

Serbia, but also mainly focused on mid-school education. This can be corroborated by the fact that the differences regarding the mid-school education levels between those two countries in the second half of 20th century were very much noticeable (in 1981. 34.5% of the Slovenian population had finished mid-school, whereas this number was only 25% in central Serbia), in contrast to the dynamics of higher education (higher education percentages from 1981: Serbia 6.5%, Slovenia 6.2%). However, Slovenia has gained a significant advantage over the last decades: in 2020, Slovenia had 47% of population with higher education, compared to Serbia which had 33%. During the last three decades, the variations in the population growth rates and therewith connected structures showed an uneven speed of modernization between those two countries, as well as cultural differences and particulars of the socio-economic development and political system (Sardon 2001; Kuhar and Reiter 2010; Penev and Predojević-Despić 2019; Istenič, Ograjenšek and Sambt 2017). Those particulars are reflected today through differences in the gender structure of the educated people. Expansion of the higher education, and the ever-increasing number of women attending universities (a trend that started at the beginning of the 1980's in Slovenia and in the 1990's in Serbia) (Šircelj 2007; Jovanović-Gavrilovic and Radivojević 2017), lead to an increase in percentage of women within highly educated population. This misbalanced was observed earlier in Slovenia, probably due to the Second Demographic Transition (Sobotka 2008; Bobić and Vukelić 2011) and the proximity of the European labour market (Kuhar and Reiter 2010; Josipovič 2018; Dobrotić and Stropnik 2020).

A comparative analysis of the changes in educational assortative mating in Serbia and Slovenia is justified by several arguments: looking at the similarities in partner selection patterns in two countries that used to be on opposing sides throughout the history when it came to the socioeconomic and demographical development is rather interesting. Furthermore, would be intriguing to see if Serbian society changes as a consequence of a dynamic development of the education, regardless of the of the slow economic development and low life standard (this change can be measured through the acceptance level of atypical marriage forms, where women are more educated than men). Lastly, it is compelling to understand the extent to which Serbia is lagging behind Slovenia, where economic prerequisites for social changes are fulfilled to a greater degree.

3 Data and methods

The main source of data regarding the gender-educational structure on the marriage market were censuses of the Socialist Federal Republic of Yugoslavia, censuses of the Republic of Serbia and censuses of the Republic of Slovenia, as well as the Labour Force Survey data that are available on the website of Eurostat. They were used to show the change in gender and educational structure of the marriage market.

Educational attainment is divided into three categories: primary (low) education (ISCED 1-2), secondary (medium) education (ISCED 3), and tertiary (highly) education (ISCED 5-8).

Our main data source for investigation educational assortative mating is the »Demographic Statistics« publication which was published on a yearly basis by the Federal Office for Statistics until 1990, and since 1990 by the Office for Statistics of Republic of Serbia. The publication provides data about gender distributions and educational attainments of a bride and a groom, which we used to classify all marriages from a given year into three groups: a) marriages where partners possess the same level of education (educational homogamy); b) marriages where the husband is more educated than the wife (educational hypergamy); c) marriages where the wife is more educated than the husband (educational hypogamy). This data is used to create the 50-year time series for Serbia, together with the data from the European Social Survey for the years 2010 and 2018 (only for Slovenia).

Further on, based on those data we were able to collect information about which marriage types are the most common ones for women, for men, for mid-school educated population, for highly educated people and for population without education.

The data of educational assortative mating are limited only to legally registered marriages, as there is no data regarding the educational structure of the people living in cohabitations. It is known that the cohabitations make up to 5.5% of the total number of families in Serbia, and that approximately 6% of the population older than 15 live in cohabitations. The frequency of cohabitations is the same for all types of educational profiles (5.5% when it comes to the highly educated population and 7.5% among the people with primary school only).

According to the results of the previous papers, there are no clear evidences which could prove that the patterns of the marriage section differ than the cohabitation patterns. Only in couple of cases, a slightly lower level of educational homogamy within the cohabitations has been recorded (Blackwel and Lichter 2000; Hamplova 2008; Schwartz 2010; Esteve, McCaa and 2013).

Analytical strategy was as follows: comparing two countries, we have shown the dynamics of the education development of the population by showing the increase in the share of highly educated people, and we have shown the differences in number of women and men studing at the universities. The prevalence of women at all educational levels in Serbia and Slovenia was analysed using the Index of female educational advantage (F-index), which is defined by Esteve, García-Román and Permanyer (2012) as follows:

$$F = \frac{pf3*(pm1+pm2)+(pf2*pm1)}{1-((pf1*pm1)+(pf2*pm2)+(pf3*pm3))} \tag{1}$$

where pf and pm stand for the share of women and men within a certain educational category, and the indices 1,2 and 3 denote different educational categories. F-index shows the probability that when randomly choosing a woman and a man (with different degrees of education), the woman would be the more educated one. This index takes all education levels into consideration, from the primary to the tertiary education, and lies between 0 and 1. If $F = 0$, there is no woman whose educational attainment is higher than or equal to that of any man, and if $F = 1$, the reverse is true. If the gender distribution is symmetric, the F-index equals 0.5. If F-index is between 0.5 and 1, it follows that the women are more educated within the considered group (Esteve, Garcia-Roman and Permanyer 2012).

Based on the same source, we were able to calculate the prevalence index of the educational hypergamy (H-index), in order to understand, which type of heterogamous marriages is more common. The equation is as follows:

$$H = lnA/B \tag{2}$$

where A and B are the numbers of educational hypergamic and educational hypogamic couples, respectively, and the operator is the natural logarithm. If the H-index equals 0, it follows that the number of educational hypergamy and educational hypogamy couples is the same ($A = B$). If the H-index is higher than 0, the number of hypergamous marriages prevails ($A > B$). In the case of educational hypogamy prevalence, the H-index is negative. In the end, the Pearsons's correlation coefficient between the F- and H- indices has been calculated, in order to show the nature of the dependency between the prevalence of women in education and prevalence of the educational hypergamy.

4 Results

The results are presented in three sections. The first one shows the development of the education and the greater reach of education within the female population, compared to the male population. In the second part we examine which patterns of educational assortative mating are prevalent in Serbia and Slovenia, and we track its change over time. The third part describes the correlation between the female majority in education and changes in the educational assortative mating.

4.1 The development of the education and female education advantage

Over the last 20 years, education in Serbia and Slovenia expanded significantly. The extent of this expansion can be seen from Table 1. The dynamics of this process was largely similar in Serbia and Slovenia, even though Serbia shows a slower trend, which is a direct consequence of Slovenia's faster economic growth shortly after joining the EU.

The expansion of higher education as measured by the share of highly educated individuals within the age group 25–34, occurred in the 2000s, as this parameter increased by 14 percentage points in Slovenia between 2002 and 2011. In Serbia, this phenomenon was much slower and is visibly lagging behind Slovenia, but the share of highly educated individuals within the age group 25–34 showed a reasonable increase during the last decade.

The increase in share of the highly educated among the 25–34 population was accompanied by an ever-increasing number of female students. Female majority in higher education occurred in 1980 in Slovenia, and in 1990 in Serbia. The biggest surplus of women within the student population was recorded in 2010 in Slovenia (63% of students were women), whereas the peak in Serbia occurred in 2005 (Figure 1). In the last decade, the share of women in higher education has been nearly constant around 60%. This implies that, in recent years, there are more highly educated women reaching the optimal reproductive age than there are men.

Apart from the share of women in the higher education, there are some indicators of the changes in the educational composition, which could provide a more complete picture of a given country. One such indicator is the measure of female educational advantage (F-index). Figure 2 shows the F-index trend, i.e. the increase of F-index during the time period 1970–2019. The increasing tendency of the F-index corresponds to the increase in the level of higher education, especially in Slovenia. In that context, one can claim

Table 1: Share of individuals with primary, secondary and tertiary education in 25–34 population.

Country	Year	Education		
		Primary	Secondary	Tertiary
Serbia	2002	22.8	63.3	13.9
	2011	14.1	62.7	23.2
	2019	10.5	56.4	33.1
Slovenia	2002	15.1	65.5	19.4
	2011	5.4	61.2	33.4
	2019	4.1	48.9	47.0

Source: Statistical office of the republic of Serbia – The population and households of Serbia according to the 2002 census; Eurostat databases – Population by sex, age and educational attainment level
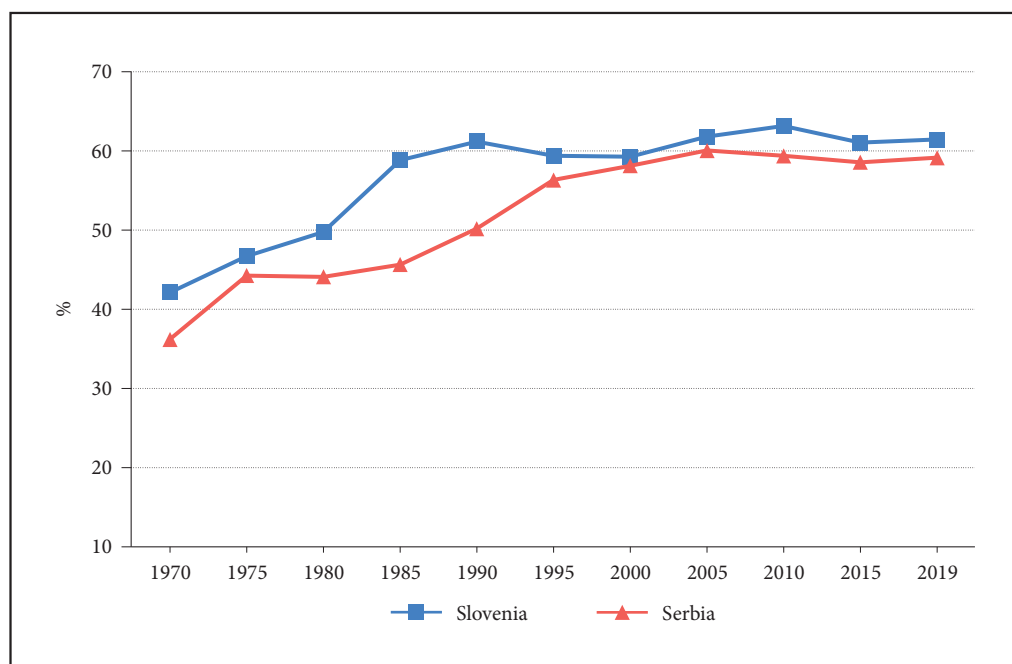

Figure 1: Female students enrolled in tertiary education as the share of all those in tertiary education, 1970–2019.
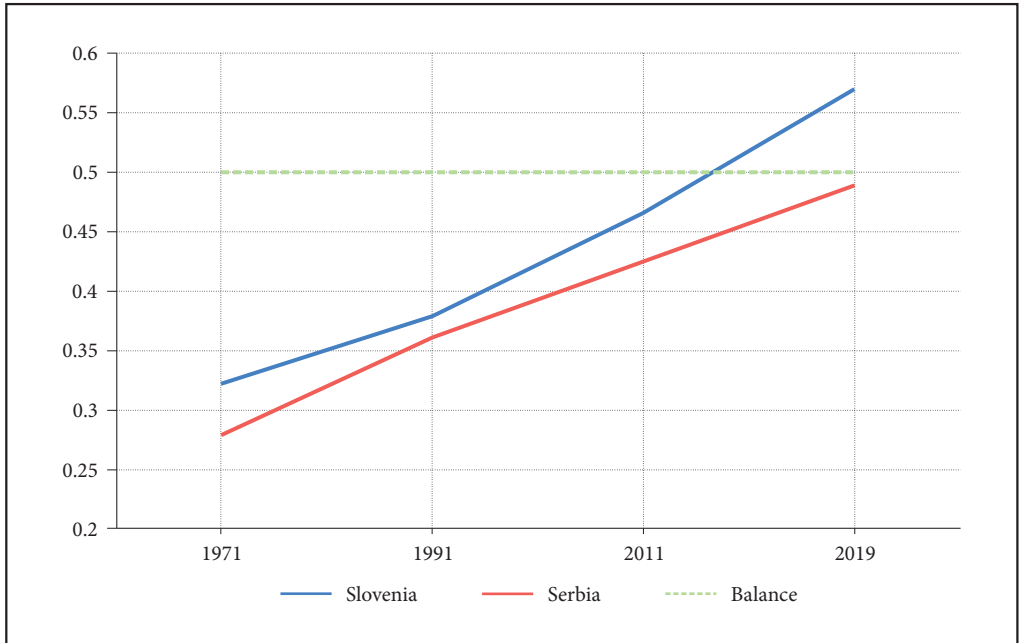
Figure 2: Index of female educational advantage (F index).

that the changes in the higher education are the main factor that influenced the educational structure of the population (and not changes in other levels of education). Even though the higher education was rising rapidly in Serbia as well, its effect was not completely the same in Serbia and Slovenia.

Figure 2 clearly shows that the probability of female advantage in education is lower in Serbia, as the overall educational structure is still under the influence of middle-school education, where female domination is lacking. In the recent times, the probability that a randomly chose woman compared is more educated to that of a randomly chosen man, is approximately the same in Serbia (0.5:0.5), whereas this number is around 0.57 in Slovenia. This implies that women gained an educational advantage over men even when taking all educational levels into consideration.

4.2 The surplus of highly educated women and educational assortative mating

The female majority in education influenced the gender distribution of the educated population within the optimal marital age (25–34 years of age). Figure 3 illustrates this phenomenon. This is especially noticeable when it comes to the highly educated population, where the share of highly educated women tops the share of highly educated men by approximately 7–14 percentage points within this age group.

Female majority in education induced changes in educational assortative mating patterns, as well. Those changes are reflected through an educational hypergamy decrease and an educational hypogamy increase, and a constant share of homogamous marriages compared to 1970 (Table 2). Educational homogamous marriages have always been dominant compared to all other types of marriages, both in Serbia and in Slovenia. In 1970, their share in Serbia was 72% and in Slovenia it was 66%. In Serbia, this value has not changed in 2019, but in Slovenia it increased slightly, to 73%, in 2018. With respect to educational heterogamy, the share of marriages where men are more highly educated than women have significantly declined (i.e. educational hypergamy decreased), from 24% to 10% in Serbia, and from 26% to 8% in Slovenia. At the same time, the number of marriages where women are better educated than men went up (educational hypogamy) – from 3% to 16% in Serbia, and from 7% to 18% in Slovenia. The time frame when those changes took place differs though – the intense decrease in educational hypergamy in Slovenia was recorded during the 1990s,

whereas in Serbia it happened with a delay of one decade, which corresponds to the delay in the higher education gender gap reversal relative to Slovenia.

A powerful indicator of the changes in educational assortative mating is the prevalence of educational hypergamy, which can be seen based on the behaviour of the H-index. Figure 4 shows a decline in H-index values in Serbia and Slovenia from 1970 to 2018/19. Declining values of educational hypergamy overlap (temporally) with the increasing trend of female majority in education. It follows that the tendency of women to marry an equally well or better educated partner is temporarily stalling. That tendency has been replaced by educational hypogamy. In Slovenia, educational hypogamy exceeded educational hypergamy more quickly than in Serbia, which is in line with the faster dynamics of female majority in education.
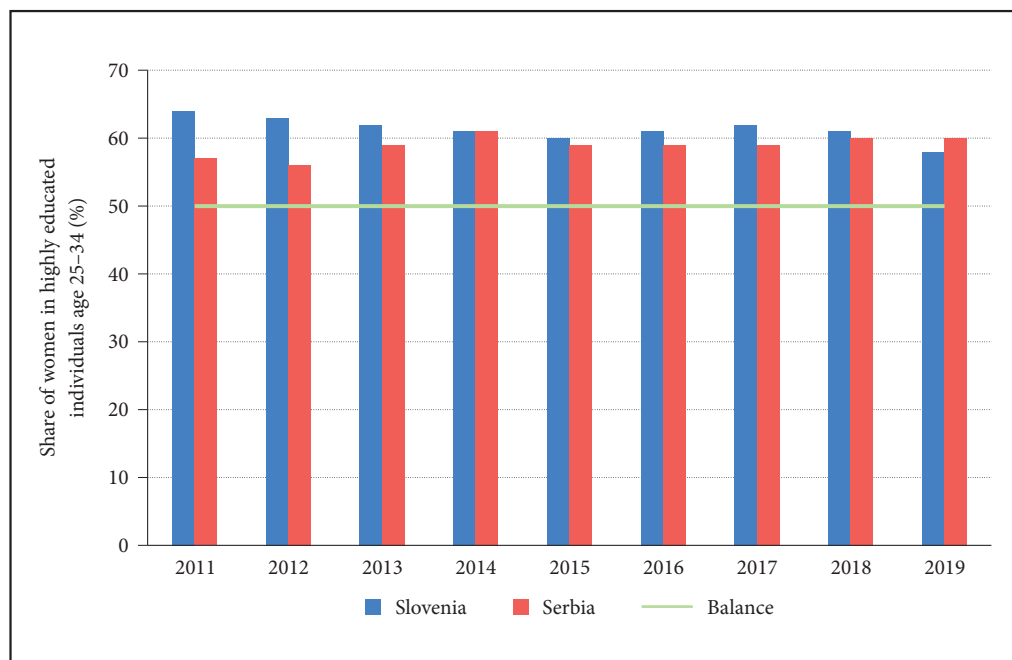
Figure 3: Surplus female in optimal marriage age (25−34).

Table 2: Share of educational homogamous, hypergamous, and hypogamous marriages, 1970−2018/19.

Year	Serbia			Slovenia		
	Educational homogamy	Educational hypergamy	Educational hypogamy	Educational homogamy	Educational hypergamy	Educational hypogamy
1970	72.5	24.1	3.4	66.6	26.2	7.2
1980	68	25	7	64.4	21.8	13.8
1990	65.8	24.7	9.5	65.9	18.5	15.6
2000	69	19.2	11.8	−*	−	−
2010	71.6	12.9	15.5	71.8	11.2	17.0
2018/19**	72.7	10.6	16.7	73.3	8.6	18.1

*missing data ** due to the limitations of different types of sources, data for Serbia from 2019, and for Slovenia from 2018
Sources: Federal Statistical Office of Yugoslavia– Yearbook of Demographic Statistics (1970, 1980 and 1990; Statistical office of the Republic of Serbia − Yearbook of Demographic Statistics (2000, 2010 and 2019); European Social Survey − databases for a Round 5 (2010) and 9 (2018)

Figure 4: The prevalence of hypergamy (H index), by countries.

Figure 5: The prevalence of hypergamy (H index), by education level and country.

Figures 6a and 6b: Education assortative meting for tertiary educated women and low educated men.

Figure 7: Correlation between female educational advantage (F-index) and prevalence of hypergamy (H-index).

Figure 5 shows the prevalence of educational hypergamy for different categories of people (low, medium and high educated population). The H-index of t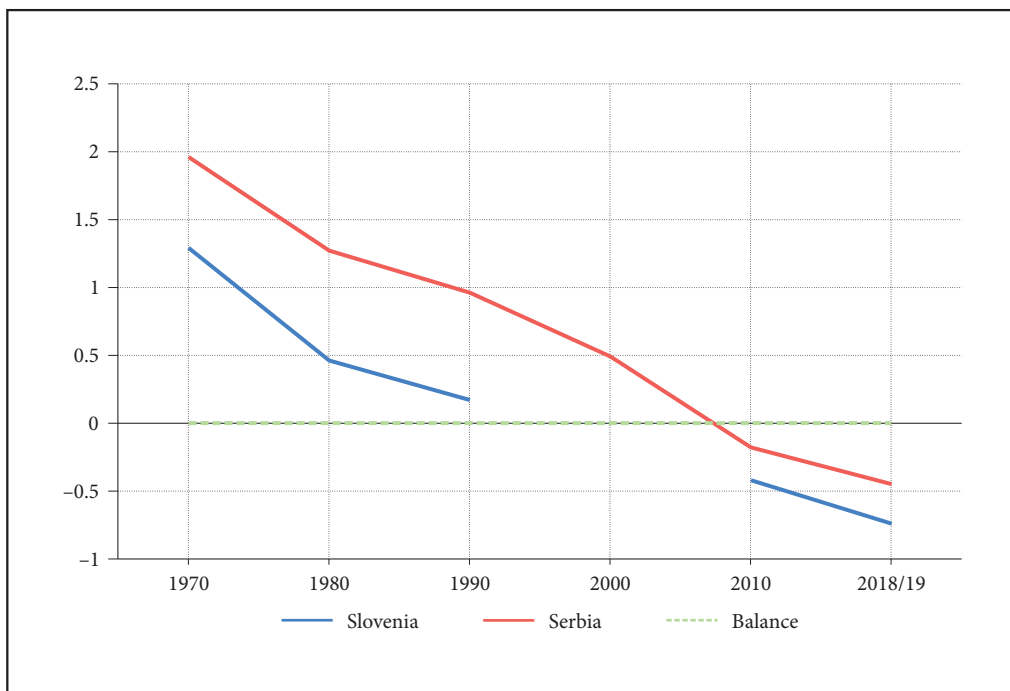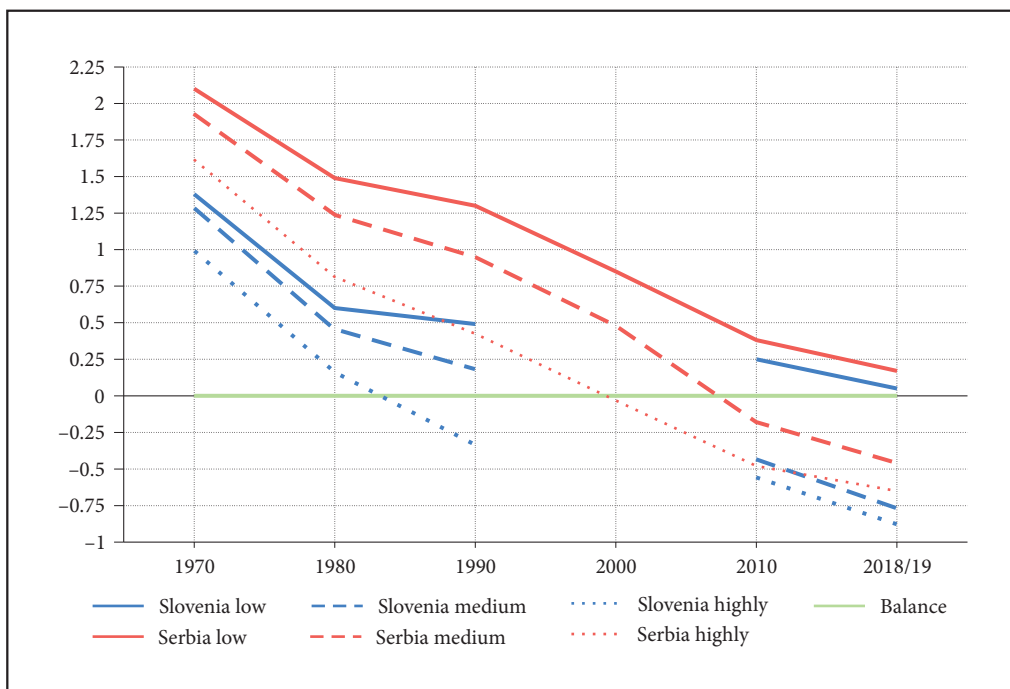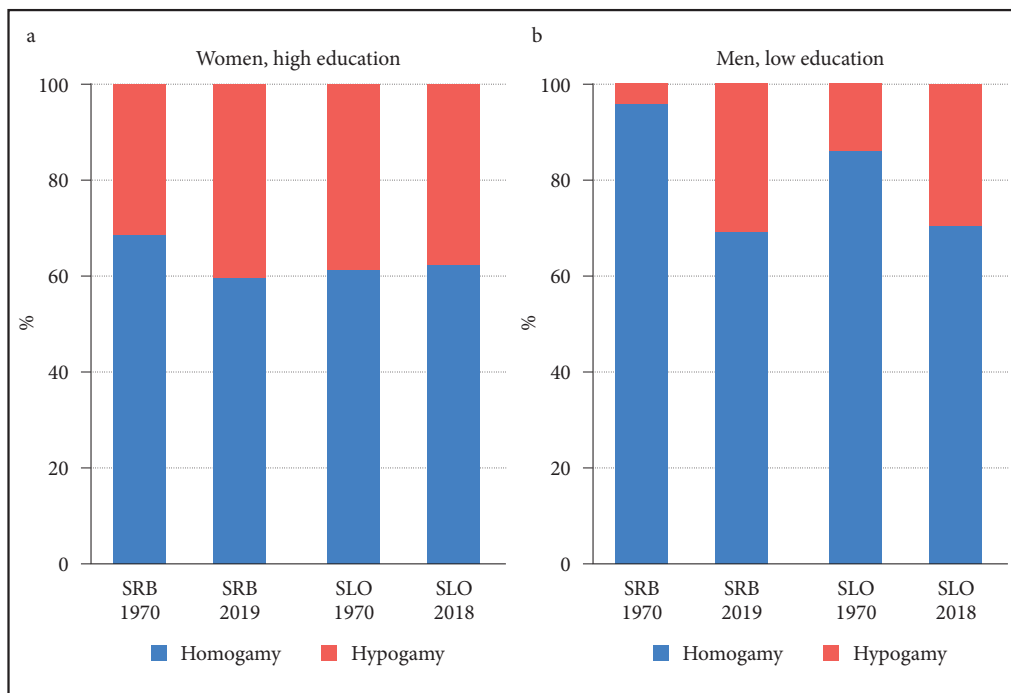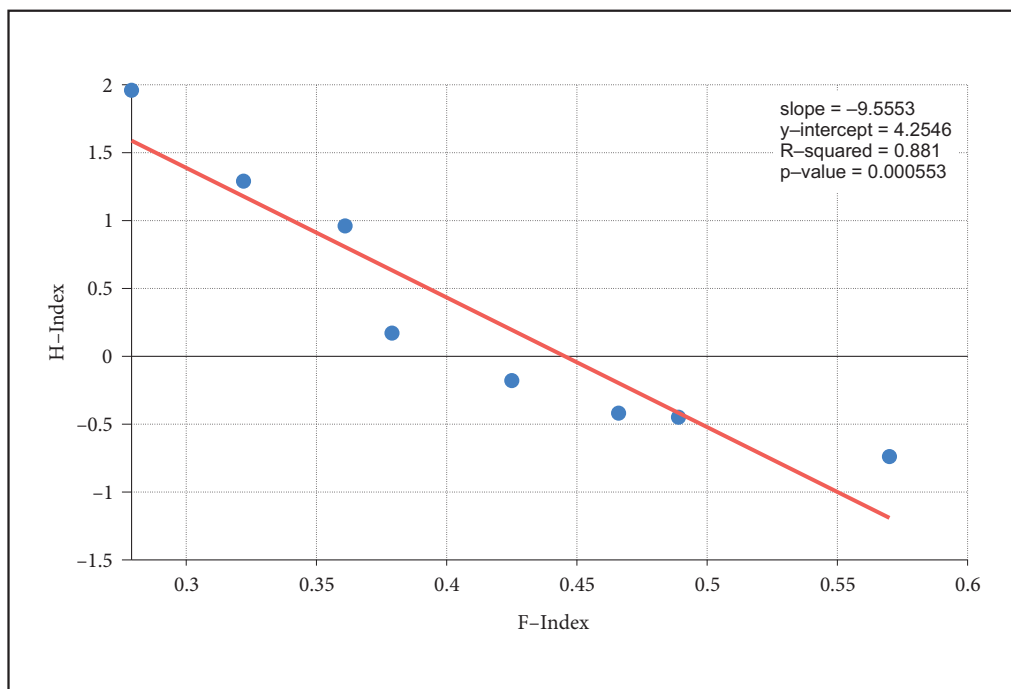hose individual groups follows the trend seen with the total population: it declines. Educational hypogamy exceeded education hypergamy when we speak about highly and medium educated people. In the case of low educated population, this event has not occurred yet, i.e. the number of hypergamous marriages prevails. In Slovenia, the H-index became negative almost 20 years earlier that in Serbia, even in the category of highly educated people, which is plausible given the dynamics of female majority in education.

Figure 6a and 6b reports change of the patterns of educational assortative mating for the high educated women and for the low-educated men. Both groups show similar trends: educational homogamy decreases in both countries, while educational hypogamy increases, which corresponds to the surplus of women. Highly educated women and low educated men are the ones who are mostly affected by the new gender composition of the educated population. Highly educated men benefit from an abundance of women with tertiary educational attainment. For them, an excess of highly educated women is associated with stronger educational homogamy in Serbia and Slovenia (in 80% of cases). Educational hypergamy maintained its status as an educational assortative mating pattern only when it comes to women with primary education only. Today, approximately 30–35% of women with primary education marry more highly educated men.

In Figure 7 the negative linear relationship between female educational advantage and the prevalence of educational hypergamy is clearly visible, as higher values of the F-index are associated with lower values of the H-index. The correlation measure also confirms this (R-squared = 0.881, p = 0.0005), even with the 95% confidence intervals considered. This suggests that the two index are indeed negatively connected.

5 Discussion

In looking for an answer to the question »who marries whom« in Serbia and Slovenia, the main focus shifted to education, as increased participation in education, for both men and women, was the most important social trend of the 20th century. The dramatic expansion in educational opportunities in Serbia and Slovenia was accompanied by a significant gender gap in higher education, while in the last decade, the share of women in higher education has been nearly constant around 60%. Greater numbers of highly educated women have led to changes in the conditions governing the marriage market (Hypothesis 1). This implies that, in recent years, there are more highly educated women reaching the optimal reproductive age than there are men. Today, the ratio of highly educated women to highly educated men in the 25–34 age group, is 57:43 in Slovenia, and 59:41 in Serbia (Hypothesis 1a).

Our analysis suggests that increases in women's education are closely followed by increasing numbers of couples in which the woman's educational attainment exceeds man's (the increase of the F-index above 0.5 led to a decrease in H-index below 0) (Hypothesis 2) and this finding also corroborates the results of De Hauw, Grow and Van Bavel's (2017) and (Erat 2021). Consequences of the gender gap in education differ between women and men with different educational attainment (Hypothesis 2a). In Serbia and Slovenia, highly educated women face a shrinking number of equally educated men, so a high female advantage in tertiary education is associated with lower educational homogamy among highly educated women. Across different contexts (e.g. Serbia and Slovenia), the norms governing marriage markets have proven flexible enough to accommodate the increasing numbers of highly educated women and, as consequence, the numbers of women marrying down has grown steadily. This is demonstrated by the fact that, on average, up to 40% of highly educated women in Serbia and Slovenia accept to »marry down«, which is in accordance with the trends observed in other countries (Esteve et al. 2016; De Hauw, Grow and Van Bavel 2017; Erat 2021).

The higher education also affected the educational assortative mating in the case of less educated women, because it is more difficult for a less educated woman to »marry up« given that she has to »compete« with highly educated women. While highly educated women are indeed ready to »marry down«, moderately educated women are not. Moderately educated women rarely decide to marry a less educated partner: this has happened in only 2.5% of cases in Slovenia and 5% of cases in Serbia. Such results corroborate the theory of preferences where a desirable partner is one with a higher or equal socio-economic status, as »marrying down« is not a viable option for moderately educated women in lower-paying jobs. On the other hand, we have uneducated men, whose position is the most complicated. For less educated men, the fact that women now often have more advanced degrees than men imply that they may face a shrinking number of potential mates, given

that women tend to prefer a partner with at least the same educational attainment. In Serbia and Slovenia, there is a general tendency among uneducated men to partner less often with uneducated women (the share of homogamous marriages declines and the share of hypogamous marriages increases, up to ten times in Serbia). This might be the result of a general decline in the number of uneducated women in the marriage market, but it might also be caused by an increase in men's preferences for more highly educated women.

Comparative analysis between Serbia and Slovenia has not shown any significant changes in the educational assortative mating patterns. Even though both countries were developing within the same economic and political area, and belonged to the same country, certain differences in demographic, economic and social changes have started forming pretty early on. Upon the breakup of Yugoslavia, their development paths started completely diverging, with Slovenia joining the EU rather quickly, while Serbia has not finished the process of economic and social transition even after two decades. Social differences between Serbia and Slovenia, whose root cause is different historical and cultural influence of Austro-Hungarian and Ottoman Empire, persisted in the times of SFR Yugoslavia, even though the ideas about equality, equity and uniform development were present. Socioeconomic differences became more noticeable upon the breakup of Yugoslavia and after Slovenia experienced faster Second Demographic Transition. Consequently, it was expected to see a great difference in assortative mating patterns in the two countries (Hypothesis 3). However, the comparative analysis has shown that the differences in the magnitudes of those changes are very low. The main cause – higher education – and the corresponding trends are nevertheless the same. It should be noted though, that the start of the changes in educational assortative mating differs in Serbia and in Slovenia, with Serbia lagging behind Slovenia by almost two decades (Hypothesis 3a).

6 Conclusion

This paper analyses the changes in educational assortative mating patterns in Slovenia and Serbia. The changes in educational assortative mating patterns have been analysed in the context of the female advantages in higher education, which affected the marriage market in those two countries in a very similar manner. The results of our research on the changes in educational assortative mating patterns in Serbia and Slovenia show that young people have adapted to new demographic realities by increasingly forming unions in which women have the educational advantage, leading to substantial declines in historical hypergamic patterns.

For demographers, the fact that educational hypergamy is declining has a twofold importance. Firstly, it can be linked with greater gender equality (McDonald 2000; Dorius and Firebaugh 2010; Low 2019), because greater gender equality has in some cases been linked to a recovery in the fertility rate in low fertility countries (Esping-Andersen and Billari 2015), and Serbia and Slovenia are indeed both low fertility countries. Secondly, declining traditional patterns of hypergamy suggest an increased prevalence of educational hypogamy (assuming constant prevalence of homogamy), which may affect the survival of marital unions where the wife is more educated than the husband (Theunis et al. 2016; Međumurec and Čipin 2019), especially in environments where educational hypogamy is the second most prevalent type of partnership, as it is the case in Serbia and Slovenia. The observed trends and the extent of the changes in assortative mating patterns, which emerged due to female dominance in the highly educated population, were nearly identical in Serbia and in Slovenia – the only difference was the timeframe when those changes occurred. The general impression is that these changes occurred with a certain delay in Serbia compared to Slovenia, but there seems to be convergence between the two countries in recent years.

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