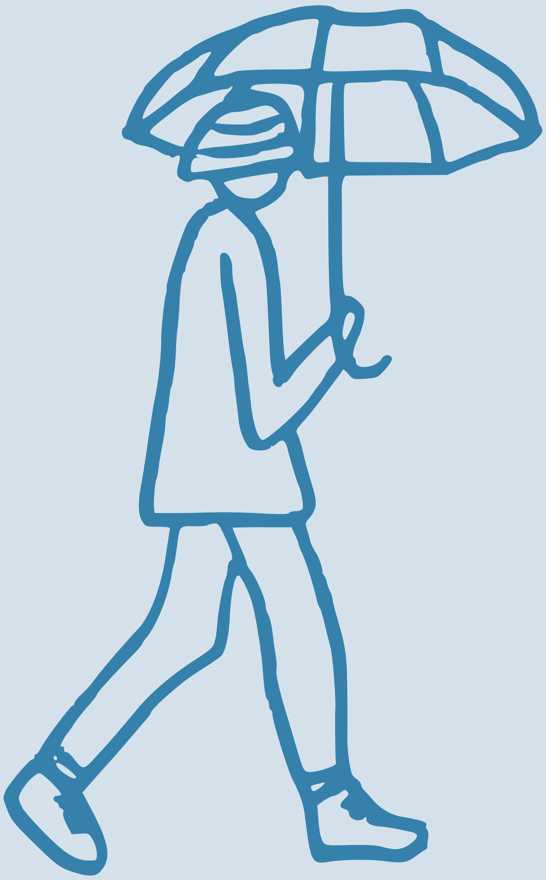

CHAPTER 2

Multifaceted Nature of Depopulation in Serbia - Recent Trends and Prospects

Vladimir Nikitović

1 Demographic Challenges

Very low or negative rates of population change are an issue of great concern in all countries of the developed world. Population growth in Europe is the lowest of all the major world regions, and Europe's population is expected to gradually decline by the end of this century, in contrast to the global population (Van Nimwegen, 2013; United Nations, 2019b). Although the population of the EU-27 is still growing, albeit at a rather slow rate which is predicted to turn negative beyond 2050 (Eatock, 2019), 13 EU member states have nonetheless experienced declines in their total populations. Four of them neighbour Serbia: Croatia, Bulgaria, Hungary and Romania, all of which have been affected by a negative rate of population change. In Croatia, Bulgaria and Romania, the population decline was induced mostly by negative natural change amplified by net emigration, while in Hungary it was due solely to negative natural change. In all these states, with the exception of Hungary, declines of over 15 per cent are expected by 2050, which is the world highest according to the UN Population Division (UN, 2019b).

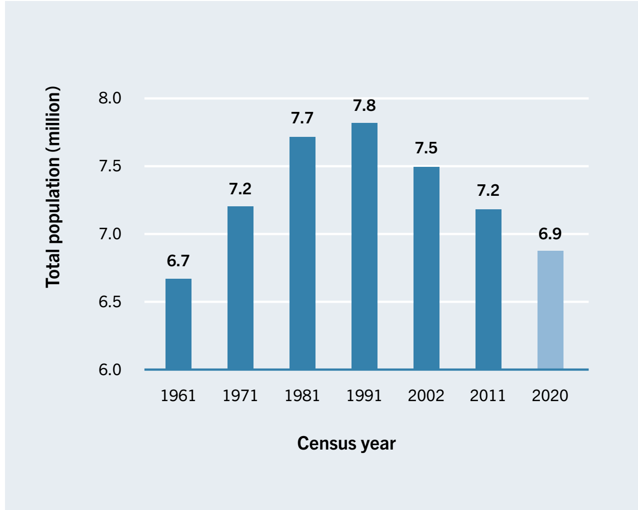

Figure 1. Population change in Serbia according to the 1961-2011 censuses and the 2020 estimate

Source: SORS (2021a)

1.1 Population change in Serbia

1.1.1 General trends

The population in the current territory of the Republic of Serbia[9] increased continuously during the period of the former Yugoslavia (1945-1991). However, after the dissolution of that country, the population of Serbia started to decline as indicated by the 2002 and 2011 censuses. As a result, the population size of Serbia was almost the same in 1971 and 2011 amounting to about 7.2 million inhabitants (Fig. 1). However, the much older total population in 2011 when compared to 1971, and its decreasing trend, have kept the depopulation issue very high on the agenda of Serbian policy makers in this century.

Nonetheless, the tempo of the decreasing trend (1991-2020) seems to be slower compared to the increasing trend (1961-1981). The latest official estimate suggests that the total resident population of Serbia has been uniformly decreasing during the last three decades, at a rate of about three hundred thousand people per decade. However, if the undoubtedly negative net international migration in the 2011-2020 period, the extent of which is officially unknown, could be factored into the account, the population estimate of 6,871,547 residents at the end of 2020 (SORS, 2021a) would certainly be lower.

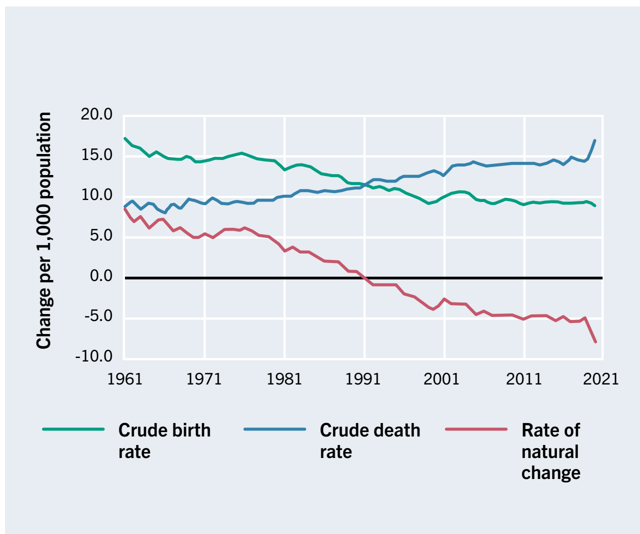

Figure 2. The rate of natural change in Serbia, 1961-2020

Source: SORS (2021a)

Both components of population change – natural change and migration – have contributed to the declining trend in Serbia's population, and of the two the former has become increasingly important as time goes by. The rate of natural change turned negative for the first

[9] In this chapter, the population of Serbia does not include the population residing in the Autonomous Province of Kosovo and Metohija (References to Kosovo shall be understood to be in the context of Security Council Resolution 1244 (1999)) due to the data availability issues for this territory. The Statistical Office of the Republic of Serbia has not been producing demographic statistics for this region since 1998, while the quality of the 1990-1997 data series is regarded as not fully reliable (Penev, 2002).

time in 1992, since when it started to continuously decline, reaching the annual average of –5.4 per thousand population in the 2017–2019 period, with a peak of -8.0 in 2020 – the first COVID-19 year (Fig. 2).

The rising negative impact of natural change on the total population size of Serbia from 1992 was only partially mitigated by the mod- est positive migration balance up to 2000. The net immigration during the wars of the 1990s in the former Yugoslavia had a complex effect on the total population of Serbia. This was the result of a considerable influx of refugees from other Yugoslav republics on the one hand, and a somewhat reduced migration outflow on the other. Since these two flows differed substantially in age structure due to the different migration drivers that caused them, the resulting net migration age structure increased the median age of the total population of the Serbian state (Penev, 2006; Nikitović & Lukić, 2010). Since the beginning of the 21st century, net emigration has added to the negative natural change in reducing the total population size of the country. Migration contributed to this drop by at least 15% or at most 26% between the census years of 2002 and 2011 (Nikitović et. al, 2015: 101), and the trend of net emigration has certainly continued since 2011, according to recent estimates (UNFPA Serbia, 2019; Nikitović, 2019).

1.1.2 Regional differences in population distribution

The average population density in Serbia (about 93 inh./km^2 according to the 2011 census) is almost double the world average at about 50 inh./km^2, but is typical for the countries of South and East Europe. It is similar to those in neighbouring countries – somewhat higher than in Croatia, Bulgaria and Romania, and a little lower than in Hungary and Slovenia. However, the distribution of its inhabitants is markedly uneven across the country. The population density in the regions of Vojvodina (89), Šumadija and West Serbia (77), and South and East Serbia (60) is below the national average, while in the region of the capital city (Belgrade) it is several times higher, with an average of 514 inh./km^2 and a peak of 18.8 thousand inhabitants per km^2 in the urban core of the city. Furthermore, at the time of the 2011 census, around 43% of the total population of Serbia lived in the high-density zone covering 20% of the country (Figure 3a).

Regional variations in the rate of population change in Serbia have been pronounced since the breakdown of the former Yugoslavia. The

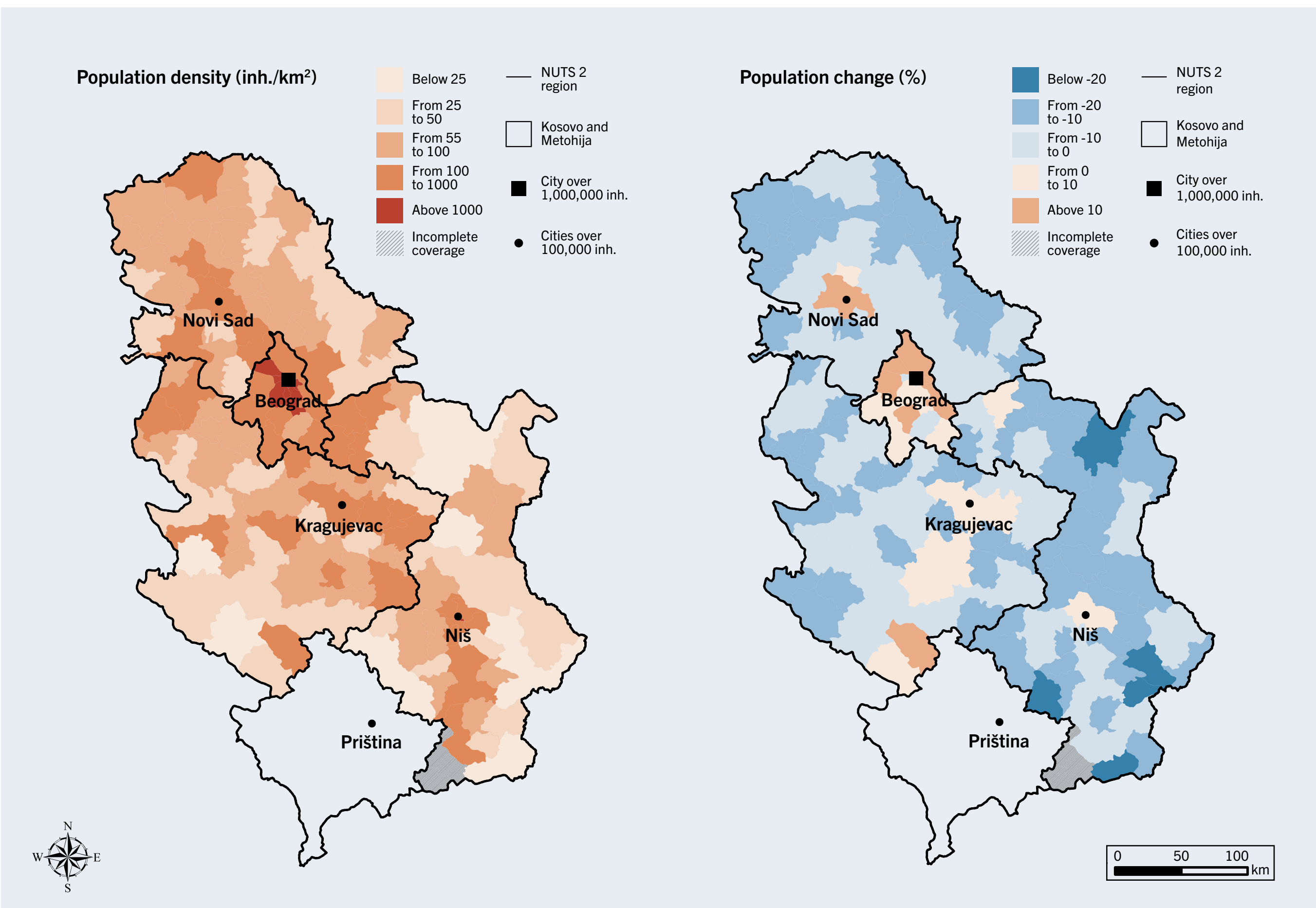

Figure 3. Population density in 2011 (a), and population change 2002–2011 (b) across local administrative units of Serbia.

Source: Arsenović and Nikitović (2022).

two northern regions – Belgrade (coinciding with the capital city) and Vojvodina – had a positive rate of population change in the 1991-2002 period, while the two southern regions – Šumadija and West Serbia (ŠWS) and South and East Serbia (SES) – had a negative rate. The majority of the growth in the north was the result of migration inflow, particularly in the region of Vojvodina where about 48 per cent of the refugees from the former Yugoslav republics had settled by the end of the 1990s (Lukić & Nikitović, 2004; Nikitović & Lukić, 2010).

The Belgrade region was the only one that registered a positive rate of population change between the last two census years of 2002 and 2011. This was exclusively a result of the positive balance of internal migration induced by the attractiveness of the Belgrade metropolitan area (Nikitović et al., 2015). However, intra-regional divergences across municipalities in this region, particularly between the central and peripheral ones, are also evident (Fig. 3b). Indeed, a closer inspection at the subregional level of the country points to only a few "islands" that experienced an increase in total population between the census years of 2002 and 2011. These are the largest cities in the country, which are the centres of the NUTS 2 regions,[10] the municipalities in the southwest, predominantly populated by Bosniaks – one of the few ethnic groups in the country whose total fertility rate (TFR)[11] is still well above the replacement level (Rašević 2015), and the municipality with the largest share of internally displaced persons from the region of Kosovo[12] and Metohija (Nikitović et al., 2015). The highest growth (above 10 per cent) was seen in the municipalities of the Belgrade region, the centre of the Vojvodina region (Novi Sad), and Novi Pazar, the largest municipality of the Bosniaks' ethnic community (Fig. 3b). The cities of Belgrade and Novi Sad are home to the country's major universities. Moreover, the two cities are also financial, administrative, economic and cultural centres, which have been growing together into the country's unique fast-growing metropolitan area (see Antonić, 2021)

The continuous internal migration from the highlands to the lowlands, or from the south to the north, during the last seven decades has also produced a sex imbalance in the population at prime reproductive ages at the settlement level of the country. Generally, the regions that have more men than women aged 20-39 are poor, agrarian, mountainous and mainly on the borders, while the areas populated by more women than men in the same age group are predominantly urban and lowland (Nikitović, 2016a).

1.2 Population ageing

Like almost all European countries, Serbia is experiencing population ageing as a result of below-replacement fertility and increasing life expectancy (Kupiszewski et al., 2012). This process has recently been intensified, however, by increasing emigration, coupled with the return of retired baby boomers from abroad (Nikitović, 2019). The rise in the median age of the population is a long-term trend that began several decades ago and is manifested in an expansion of the older cohorts, aged 65 and above, and a contraction of the working-age population. According to the common indicators of population ageing, Serbia was near or slightly above the EU-27 average in 2019, with a median age of 43.4 years, an ageing index[13] of 1.11 and a share of people aged 65+ of 21.4 per cent of the total population. However, it is not among the demographically oldest countries in Europe because the percentage of the population aged 65+ and particularly of those aged over 80 is lower than in countries with a similarly low share of people younger than 19, such as Germany or the Mediterranean states of Italy, Greece, Portugal and Spain. In this respect, it is most like its neighbours – Croatia and Bulgaria.

	1991			2019		
	Total	Men	Women	Total	Men	Women
Age group – share of total population (%)						
0-19	25.4	26.5	24.3	19.4	20.5	18.3
20-64	62.6	63.3	62.0	59.2	60.7	57.8
65 and over	12.0	10.1	13.7	21.4	18.9	23.9
80 and over	2.1	1.7	2.4	4.7	3.7	5.7
Indicators of population ageing						
Median age	37.7	36.6	38.8	43.4	42.0	44.8
Ageing index	0.47	0.38	0.56	1.11	0.92	1.30
Old-age dependency ratio[14]	0.19	0.16	0.22	0.36	0.31	0.41

Table 1. Major age groups and indicators of population ageing in Serbia in 1991 and 2019

Source: SORS (2021a); own calculation for 2019 (the official estimate adjusted for the 2011-2019 net emigration)

[10] NUTS – Nomenclature of territorial units for statistics.

[11] The total fertility rate in a specific year is defined as the total number of children that would be born to each woman if she were to live to the end of her child-bearing years and give birth to children in alignment with the prevailing age-specific fertility rates.

[12] References to Kosovo shall be understood to be in the context of Security Council Resolution 1244 (1999).

[13] Ageing index – population 65 and over to population aged 0-19 years.

[14] Old age-dependency ratio – population aged 65 and over to population aged 20-64.

Table 1 illustrates the continuous population ageing of Serbia between the census year of 1991 (coinciding with the dissolution of the former Yugoslavia) and 2019, showing the share of the older population that surpassed the share of the young in 2019. Unsurprisingly, the female population is older than the male, due to the higher life expectancy particularly at older ages, which is typical for developed world regions (Devedžić & Stojilković, 2012).

Of the four regions in Serbia, the region of South and East Serbia has the highest median age of 44.1 years, while the oldest district within it (Zaječar) reached 47.8 years in 2019 (SORS, 2021a). This is the result of two factors; the region experienced the country's largest collapse in total fertility rate, some of its districts being particularly hard hit by the first post-war wave of emigration of 'guest workers' to Western Europe between the late 1960s and 1980s. This early emigration wave, consisting of baby-boomers, is impacting the current age structure of the population in traditional emigration areas once again, as these individuals retire and return to their place of birth. These areas are typically rural and less developed compared to other parts of the country (Penev & Predojević-Despić, 2012; Nikitović et al., 2015).

1.3 Birth crisis

The birth crisis in Serbia is reflected in decades-long sub-replacement fertility which is induced by the postponement of the first birth until an increasingly older age, the low share of higher birth orders, the increasing share of childless women across all reproductive ages including permanent childlessness, and the very high total induced abortion rate.

The period of below-replacement fertility in Serbia began in the late 1950s after a much shorter post-war baby boom than experienced by most European countries, and even though the most important drivers of the decline were the same – the adoption of new norms and values and the growth in the female labour force (Kupiszewski et al., 2012). As early as 1971 the TFR was lower by 15 per cent than the replacement level. The interaction of several groups of factors produced such a distinctive fertility pattern during the Yugoslavia era. These include the early liberalisation of women's right to abortion, the rapid secularisation and industrialisation of Serbia's predominantly rural society and, compared to the countries of the Eastern Bloc, the early diffusion of individualism as a western way of life in fast-growing towns and cities (Nikitović et al., 2019).

The subsequent sharp decline in the period TFR in Serbia began in the late 1980s (Nikitović, 2016b). Although a steeper fall might have been expected due to the wars and the institutional crises of the 1990s, the total fertility rate in Serbia did not reach the lowest levels seen in most former socialist states in Europe after 1990. It is possible that the context of war may have contributed to a prolongation of traditional values around family and childbearing (Sardon, 2001; Rašević, 2004; Petrović, 2011).

Since 2005 the total fertility rate in Serbia has oscillated between 1.4 and 1.5. By contrast, most states that once belonged to the lowest low-fertility group have recently experienced a rebound in TFR Slovenia, Latvia, and Hungary have exceeded 1.5, and Czechia even reached 1.7, which may be due to the expected slow- down in the pace of the 'postponement transition', i.e. the transition from early to late childbearing ages as suggested by Goldstein et al. (2009). Although this transition in Serbia started at almost the same time as in the lowest low-fertility countries, its current pace is lagging behind theirs, according to the mean age at first birth, thus suggesting the period TFR may start to increase once the postponement slows. Nevertheless, the completed cohort fertility rate is likely to decline as a result of later childbearing (Kohler et al., 2002). The 2011 census indicated that the long period in which this indicator was stable in Serbia had come to an end, as the average number of live births in the cohorts of women who were approaching the end of their reproductive age in 2011 fell substantially– from 1.80 to 1.55 (Rašević & Galjak, 2022).

As of the late 1980s, the fertility rates of women younger than 25 began to decline sharply, while those of women older than 30 started to increase, though at a slower pace (Nikitović et al., 2019). Consequently, the average age of childbearing increased from 25.9 to 30.1 years, and age at first birth from 23.9 to 28.8 between 1991 and 2020. Currently the 30-34 age group is exhibiting the highest fertility rate for the first time in the last 60 years, though this is due solely to the contribution of the largest districts centring on the biggest cities in the country (Belgrade and Novi Sad).

Postponement of the first birth has been a significant contributory factor to the low fertility rates which are nowadays a concern for many European countries (Schmidt et al., 2012). The change in cumulative fertility by age in Serbia, however, was affected considerably more by the increasing share of women who did not give birth at all, than by the reproductive patterns of those who did (Penev & Stanković, 2021). The increase in childlessness is mostly caused by delay in the birth of the first child, but also by the increase in the permanent childlessness of women in their later pro-creative years (Rašević, 2015). The general childlessness rate[15] was relatively stable in Serbia until 1991 (30.1%), when it began to increase dramatically, reaching 41.6% in 2011 and 43.4% in 2020. The already high share of childless women aged 30–34 reported in the 2011 census (30.6%) had increased by 20% by 2020 (36.5%) and for the group aged 45-49 this indicator had risen by as much as 30%, showing that currently 13.8% of women have remained permanently childless (Penev & Stanković, 2021).

Unemployment, prolonged education, housing issues, low standards of living, childcare-related problems, and a sense of insecurity and social anomie undoubtedly play a major role in the decision to postpone parenthood in Serbia (Rašević & Galjak, 2022, see Antonić, 2021).

The decades-long phenomenon of sub-replacement fertility is the major cause of the shrinking and ageing of the Serbian population. It also affects these processes indirectly by decreasing the female population in fertile ages, especially in the ages of optimum fertility. Thus, the number of women aged 20–44 in Serbia decreased from 1,185,982 to 1,057,035 (by 11%), and those aged 20–34 from 702,107 to 578,863 (by 17.5%) in the nine-year period - between 2011 and 2020 alone (SORS, 2021a).

[15] The share of women without live births in the total female population aged 15-49.

1.4 Low survival rates

Its comparatively low life expectancy puts Serbia just below the very top of the demographically oldest countries in Europe. Low life expectancy at older ages, but also the high mortality rates of relatively young people, modest improvements in the life expectancy of women compared to men, and high amenable and preventable mortality, viewed from the European context, are distinct features of the demographic challenge Serbia faces.

The population of Serbia has experienced a marked increase in life expectancy at birth (e0)–[16] since 1961 due to improvements in the public healthcare system that helped limit mortality at younger ages, particularly that of infants and the under-fives. Yet, e0 in Serbia was characterised by periods of stagnation or small improvements after 1970. If we exclude the pandemic year of 2020, the most recent e0 of 75.7 years (2019) for both sexes in Serbia places the country among those with the lowest e0 in Europe, including its neighbours Hungary, Romania and Bulgaria, while globally it puts it in the group of middle-income countries (SORS, 2021a; Eurostat, 2021a; UN, 2019b).

The difference in e0 between Serbia and the EU-27 average amounted to 5.7 years for women and 5.4 for men in 2019. However, the differences are considerably greater if one makes a comparison with the countries that have achieved the best results in reducing mortality. The e0 for men was over 82 years in Switzerland, and over 81 in Iceland, Sweden, Italy and Norway, and for women exceeded 86 years in Spain, and 85 in France, Switzerland and Italy in 2019 (Eurostat, 2021a). Nevertheless, the life expectancy of men in Serbia is higher than in most countries of Eastern Europe and close to that recorded by Slovakia and Poland. As for the life expectancy for women, only a few countries (Russia, Ukraine, Belarus, and Moldova) come in behind Serbia (United Nations, 2019b).

The infant mortality rate (IMR)[17] in Serbia was double the average rate for Europe in the period 1960-1965 (SORS, 2021a; United Nations, 2019b). Despite the outstanding results achieved in the last sixty years, the current IMR of 4.8 deaths per 1,000 live births in Serbia implies slower socio-economic development than in many European countries and is far from the EU-27 average of 3.4 in 2019 (Eurostat, 2021a).

Serbia's crude death rate of 14.7 is among the top three highest in Europe according to the 2017-2019 average (Eurostat, 2021a). It is only partially the result of the high proportion of older people, while the other cause is closely associated with the quality and availability of timely and effective health care, which especially affects those relatively young (Galjak, 2018). It is not surprising that life expectancy at 65 stagnated for three decades (Devedžić & Stojilković, 2012), reaching only 16.2 years in 2019. This indicator of the population's longevity places the country at the very bottom of the European ranking, and far from the EU-27 average of 20.2 years (Eurostat, 2021a).

Given the known correlation between mortality levels and GDP/c, Rašević and Galjak (2022) suggest that today's mortality patterns in Serbia reflect a unique combination of factors from the three different periods – the period of Communism, the 1990s period of wars and the dissolution of the former Yugoslavia, and the recent period in which the healthcare system has not been adjusted to serve a much larger population of older people compared to the time of its establishment. Serbia has yet to fully transition from high to low cardiovascular mortality, which is currently very high even among the middle-aged (Marinković, 2012). This makes cardiovascular disease the main contributor to avoidable mortality, while lung cancer is the single greatest cause of death among all avoidable causes of death in Serbia (Galjak, 2018). Areas of the country with high amenable and prevent- able mortality, most pronounced in Eastern Serbia, coincide with the areas also distinguished by a higher share of the older population. They are typically rural, remote, and mountainous, with poor infrastructure, which affects greatly the timeliness of effective health care. Future gains in tackling premature mortality will be achieved with further economic development. However, recent economic stagnation will make it hard for Serbia to catch up with the most developed European countries. Improvements in the quality of the healthcare system and the reduction of unhealthy habits in the general population certainly follow on from economic growth, but nonetheless, much can be achieved with well-tailored policies and special programmes, especially in tackling the long-term problem of preventable death (Rašević & Galjak, 2022; see Stamenković, 2021).

1.5 Steady out-migration abroad and internal imbalance in migration flows

1.5.1 International migration

Serbia is a typical emigration country[18] with a negligible inflow of foreign nationals. The international migration balance essentially boils down to the difference between emigrants and returnees, in both cases Serbian nationals. A certain share of current returnees includes retired 'guest workers' from the first big wave of emigration that began in the mid-1960s (Lukić, et al., 2013).

Even if the emigration stock of Serbian citizens or, in a broader sense, the Serbian diaspora, is spread all over the whole world (Stanković, 2014; Bauranov & Lin, 2021), the EU is by far the most important destination for our nationals, particularly in recent times. However, estimates of the emigration stock size vary greatly depending on definitions, research methods and the quality of the data sources used. The last available census of population (2011) captured only 313 thousand Serbian citizens who were absent from the country for more than a

[16] Life expectancy at birth reflects the overall mortality level of a population. It summarises the mortality pattern that prevails across all age groups - children and adolescents, adults and the older people. Average number of years that a new-born is expected to live if current mortality rates continue to apply.

[17] Infant mortality rate is the probability of a child born in a specific year or period dying before reaching the age of one, if subject to age-specific mortality rates of that period. Infant mortality rate is a probability of death derived from a life table and expressed as rate per 1,000 live births.

[18] The only recent period of intense immigration refers to the forced migration in the 1990s, when about 618 thousand people from the former Yugoslav republics, mostly ethnic Serbs from Bosnia and Herzegovina and Croatia, found refuge in Serbia by 1996, of whom about 380 thousand settled down in the country by 2002 (Nikitović & Lukić, 2010).

year (Stanković, 2014). On the other hand, the most recent alternative-type estimate, based on advanced analysis of social networks usage, revealed that there were more than 850 thousand Serbian expats spread over 82 world countries in 2020 (Bauranov &Lin, 2021). This value is much closer to the estimate by the United Nations, that points to about one million Serbian citizens residing abroad in mid-2020 (United Nations, 2020). We believe the real size of the emigrant stock originating from Serbia is closer to this upper bound given the known limitations of census methodology[19] in this respect (Reynaud, Nikitović & Tucci, 2017).

There are only a few studies that have offered an estimate of the annual migration inflows and outflows to/from Serbia according to the definitions of the United Nations (UN) and EC Regulation No 862-2007 (Kupiszewski et al., 2012; Lukić, et al., 2013; UNFPA Serbia, 2019; Nikitović, 2019). These are based on the migration statistics of the countries that are the main destinations of Serbian citizens. The basic limitation of such estimates is methodological in nature. In practice, it is not possible to collect statistically relevant data from all destination countries, either because they are not available, or because their quality is debatable. The latter is common in the case of countries where Serbian citizens make up a very small share of immigrants. Furthermore, longer time series of data on migration flows related to the citizens of Serbia are not available due to the frequent changes of its borders between 1991 and 2008.

The result is a data series of less than a decade, which strongly affects the quality of the conclusions we can reach on the trends in international migration flows from/to the present-day territory of Serbia. Finally, it is a well-known fact that the numbers on deregistered immigrants are often highly underestimated across the reports of statistical offices, particularly those in the most popular destination countries. This factor is becoming increasingly important as the share of short-term migration flows in the total migration rises.

Given these limitations to the migration flow statistics, we have relied on a single source as the best possible approximation of the net migration flows between Serbia and the most important destination countries – the annual 'snapshot' (on 31 December of each year) of administratively based statistics of valid residence permits with duration of at least 12 months issued to Serbian citizens in the EU and EFTA countries (Eurostat, 2021a). The recent report on the estimate of net international migration for Serbia, produced by the Statistical Office of the Republic of Serbia and UNFPA Serbia (2019), served to adjust and correct figures on foreigners from diverse data sets available from different national sources including migration of our citizens to large countries outside the EU. The total net emigration in the period between 30 Sep 2011 (the Census Day) and 31 Dec 2020, in accordance with the concept of usually resident population applied in the 2011 Census, was estimated at −46,612 people. This suggests that net emigration from Serbia is somewhat lower than is typically reported in the media, particularly due to the rising share of short-term temporary and circular migration in recent times, even in the traditional emigration countries, such as Germany (for more details on the methodology used to estimate the balance of international migration for Serbia in this report, see Arandarenko, 2021).

1.5.2 Internal migration

Frequent changes to the political borders in the region of the former Yugoslavia since 1991 have affected the availability and quality, not only of the statistics on international but also on internal migration in Serbia. Furthermore, about 200 thousand internally displaced persons who fled from the region of Kosovo and Metohija during and after the NATO military campaign in 1999 (Commissariat for Refugees and Migration, 2021) were inconsistently categorised between the 2002 and the 2011 censuses, from a methodological viewpoint (Nikitović et al., 2015). This was one of the factors that limited our analysis of previous trends on internal migration to the period after the census of 2011. However, those trends from the past decades have induced strong sub(regional) differences in the sex and age composition of the current population, which will also have notable implications for future demographic trends. The directions and intensity of internal migration are determined by regional and sub-regional differences, and especially the growing gap between major urban centres and the rest of the country in terms of economic development, diversification and supply of jobs, housing, health care and overall quality of life, but also subjective perceptions of the opportunities to achieve personal life goals. The fast-growing metropolitan area of Belgrade and Novi Sad, the two largest cities in Serbia, represents the central focal point of the country for internal migration inflows. Most other districts in the country have been characterised by migration outflows for years, especially those in the border and mountain areas of the South and East Serbia region and the region of Šumadija and West Serbia. This pattern of internal migration is deeply rooted in previous periods, but has also been intensified by the process of population shrinking and ageing since the 1990s (Nikitović et al., 2015).

The average age of internal migrants in Serbia is almost 10 years lower than the average age of the country's total population (Lukić, 2022), with the group of the 20-34-year-olds traditionally being the most mobile (Nikitović et al. 2015). For decades, in general, women have tended to change their residency more often than men, and when it comes to longer distances, they are more prone to settling in the regional and district centres (Nikitović et al. 2015). The main direction of internal migration flows in the country – from the mountainous and hilly districts to those in the lowlands, could also be labelled a south to north migration. This pattern was already established at the time of the foundation of the modern Serbian state two centuries ago, but intensified during the period of socialist Yugoslavia (1945–1991). In the beginning of this process, the strongest migration outflows were from villages, particularly from those in the mountains, to nearby towns while in more recent times, after the demographic capacities of the hinterland subsided, the biggest out- flows are from small- and middle-sized towns to the largest centres in the country. Given the selectivity of migrants by sex and age, internal migration in Serbia contributed to further depopulation, gender composition imbalance, the declining and

[19] Recent censuses in Serbia have significantly underestimated the number of Serbian emigrants as their focus were not on those residing abroad for more than a year but on the population usually residing in the country. Emigrants were not interviewed directly, thus a lot of them could not be covered only by interviewing their relatives or neighbours residing in the country.

ageing of the workforce and human capital loss in the mountainous and border districts, and particularly in their rural districts. The gender imbalance is specifically relevant for the population of prime reproductive ages (20-39). The process of masculinisation of this age group has progressed across the country in this century, especially in the formerly fast-growing towns, and it is now only in the most densely populated areas, i.e. the centres of the largest cities that there are more women than men in this age bracket (Nikitović 2016a). Such a spatial distribution could be a severe challenge to policies stimulating higher birth numbers and in general to the sustainable development of most districts, especially the borders in the two southern regions in Serbia. The long-term implications of the subregional differences in the sex distribution of the population in their vital reproductive ages can be fully perceived in the third section of this chapter presenting population projections at district level up to 2100.

The most recent three-year average of the net migration rate, (2018–2020) according to official statistics, was positive in only 4 out of 25 districts in Serbia. The centres of those districts are the largest cities in the country, where the most prestigious Serbian universities are located. However, with the exception of the districts of Belgrade and South Bačka (Novi Sad), their net migration rate was below 1 per 1,000 population. On the other hand, the highest out-migration rates were recorded in the three border districts of which one is in the East, one in the west, and one in the south along the administrative border with the region of Kosovo and Metohija.

1.6 COVID-19 crisis – first insights

The population of Serbia has been experiencing a very severe *impact from the COVID-19 pandemic in terms of mortality*. As in other European countries, four waves of the pandemic's impact on mortality can be identified down to the end of 2021. However, in Serbia the first wave lagged behind by approximately three months when compared to the countries most exposed at the onset of the pandemic (Figure 4), probably arriving as the result of the sudden termination of all measures of the two-month lockdown – one of the strictest in Europe at the time. In relation to the 2016-2019 average, total excess deaths[20]

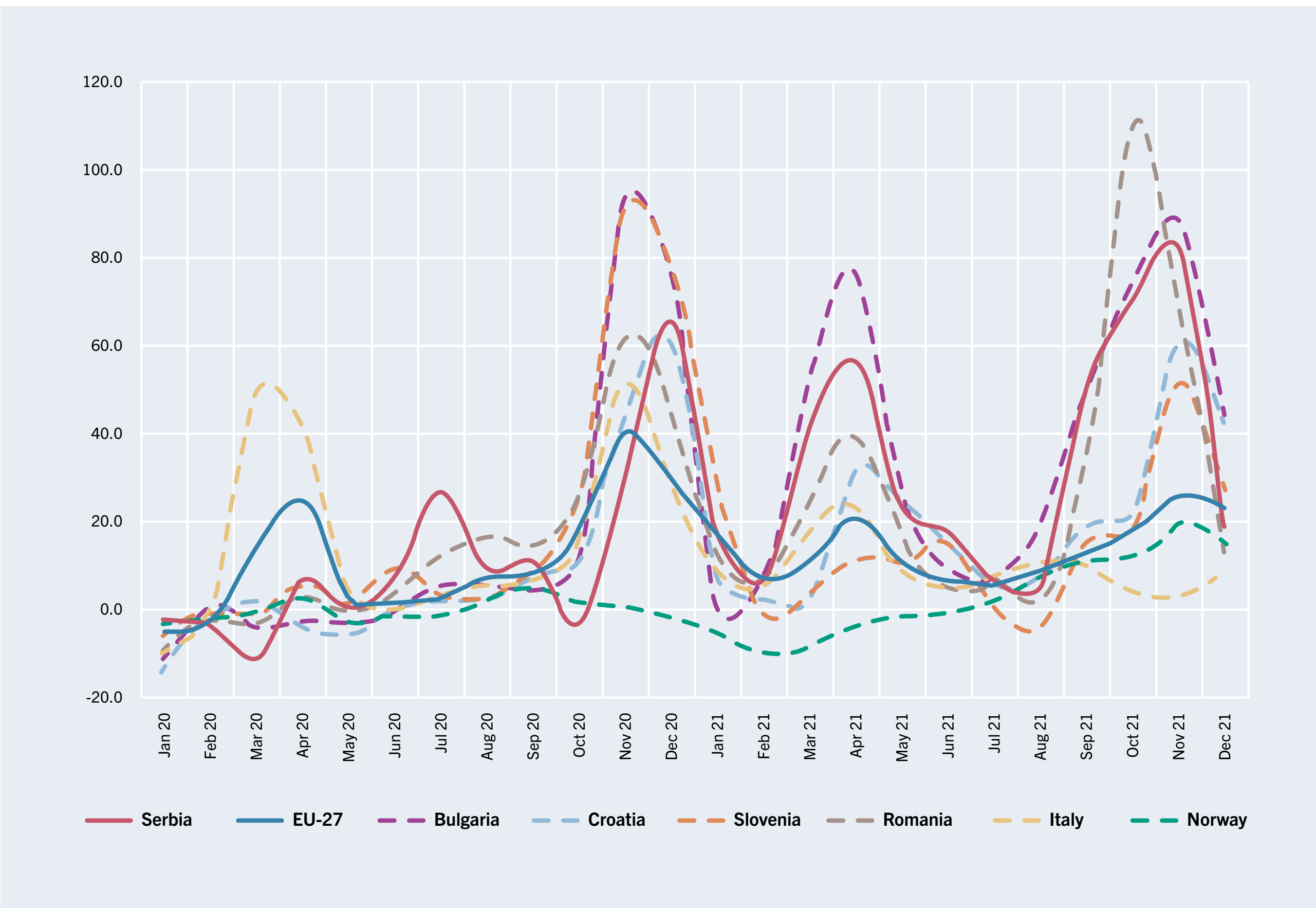

Figure 4. Excess deaths (%) during the COVID-19 pandemic in relation to the 2016-2019 average in Serbia and selected countries

Source: Eurostat (2022), SORS (2022).

[20] Excess deaths are typically defined as the number of deaths from all causes during a crisis compared with the expected number of deaths during a certain period in the past.

in Serbia reached 12,521(12.2%) and 33,468 (32.7%) in 2020 and 2021, respectively, according to the preliminary data from SORS (2022). The highest peaks of excess deaths were in December 2020 (65.6%) and November 2021 (82.1%). Except for the first wave, it is noticeable that the discrepancy in excess mortality between Serbia and the average for the EU-27 has been rising, pacing Serbia among the countries with the highest excess mortality on the continent, most of which are also its neighbors. It is no- table that the rise in this discrepancy coincides with the period when vaccination became widely available (after the second wave). Unfortunately, the very low vaccination rate in Serbia during that period compared to most of the EU might be one of the reasons for this.

As expected, the age and sex pattern of excess mortality in Serbia in 2020-2021 resembles that of other European countries where men and the older population were more affected by the pandemic (Marinković & Galjak, 2021). Nonetheless, the much higher intensity of this indicator in Serbia suggests that, apart from the low vaccination rate, such an outcome is most probably closely associated with the poor health status of the population and the outdated public healthcare system when compared to most of the EU, as discussed previously in the sub-section on the low survival rates of the Serbian population. Though intense, the impact of the COVID-19 pandemic on mortality trends should only be short-term in effect as it is not an endogenous, structural factor. Survival rates should recover relatively rapidly with the end of the pandemic, a fact that is taken into account in the next section presenting long-term projections for the Serbian population.

It is less straightforward to assess *the impact of the pandemic on births* than it is in the case of deaths. However, the crisis has certainly not induced either a baby-boom, as some speculated might occur, given the long and strict lockdown imposed in the early days, nor a decline in total birth numbers that could be designated a pandemic-specific baby-bust. In this regard, Serbia is much closer to the countries of Southern Europe which were among those that experienced the greatest negative effects of the pandemic. According to Sobotka et al. (2021) the birth trends seem to be moving in cycles of busts and recoveries in most of Europe, similar to the cycles of the COVID-19 pandemic, suggesting this may be the pattern of births for as long as the crisis lasts, albeit with lower amplitudes as the pandemic gets closer to its end. In Serbia, however, the busts so far appear to be greater than the recoveries (Figure 5). This is not surprising as the factors researchers usually associate with lower birth numbers during the pandemic generally relate to higher uncertainty about the future, which is one of the well-known determinants of low fertility in Serbia, now amplified by the current conditions.

The mobility of the population across Europe was severely affected *in the first months of the pandemic*. It particularly *impacted migrants*

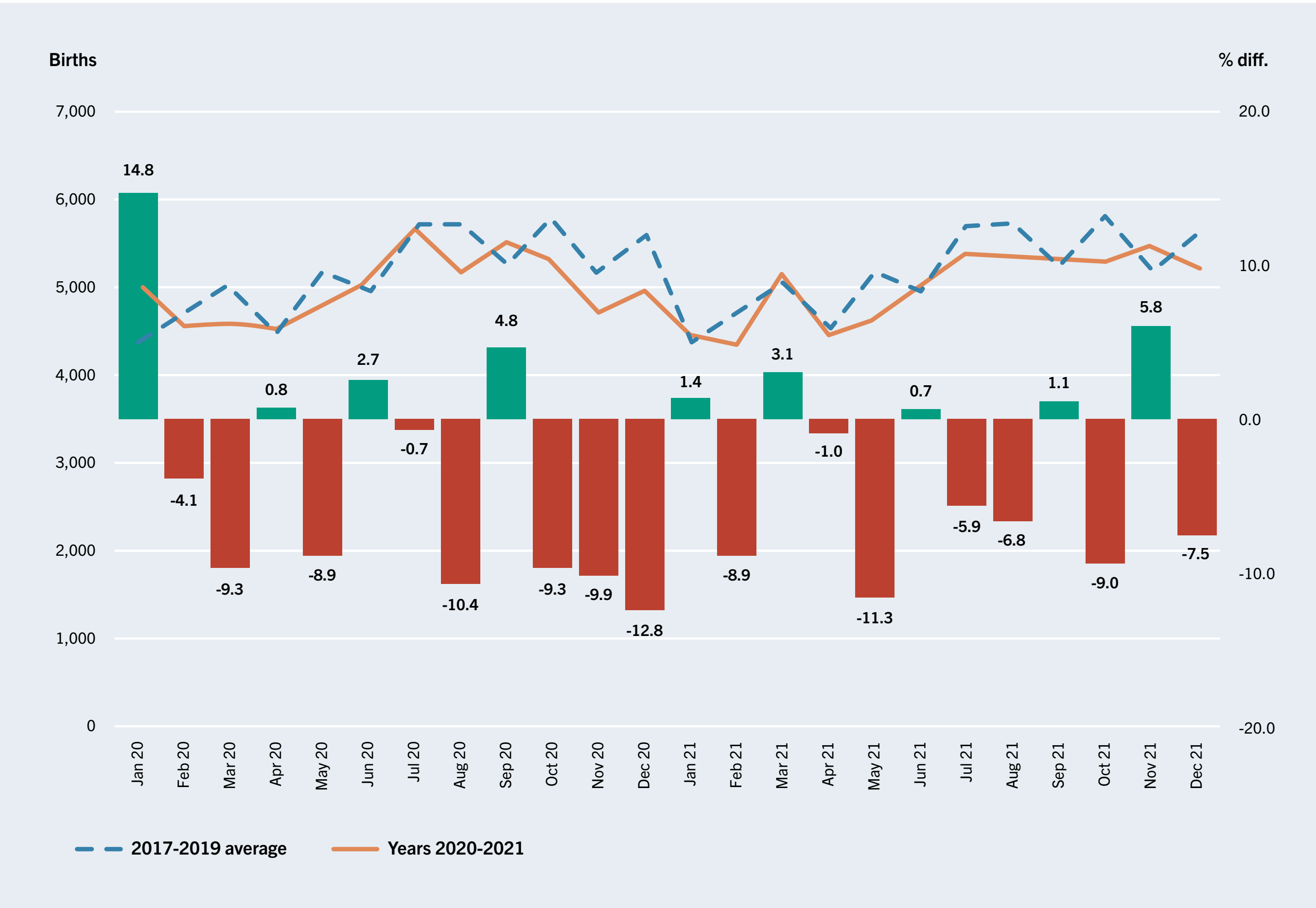

Figure 5. Livebirths in 2020-2021 versus the 3-year average (2017-19) in Serbia

Source: SORS (2022).

from Serbia and other typical emigration countries in the region, mainly those emigrants who have short-term or no regular contracts of employment in the most popular destination countries. Due to the lockdown rules and a downturn in economic activity, it is probable that a significant number of emigrants from Serbia returned home at the beginning of the pandemic, although there is no reliable estimate on this. Generally, migration flows between Serbia and the EU were reduced by at least a quarter according to the statistics of the first-time residence permits issued to Serbian citizens in 2020 (Eurostat 2022). However, the flows obviously recovered after a year of decline that ended in around mid-2021 as suggested by the analysis of the change in the number of Serbian emigrants based on alternative data sources (Bauranov & Lin, 2021). A recent slight increase of the population of our citizens residing abroad according to this source indicates that the pre-pandemic trends in migration flows are likely to continue after the initial shock caused by the abrupt border closures at the end of the first quarter of 2020.

1.7 Human capital – strong subnational differences

Demographic profiles of modern societies have long since gone beyond the simple narrative of a population's size and its sex and age structure. Nonetheless, policy makers and the general public in countries facing depopulation and long periods of sub-replacement fertility, as is the case with Serbia, are still more focused on raw population numbers and crude demographic rates, despite increasing research evidence suggesting that the specific characteristics of a population, such as educational attainment, skills, good health, and financial wellbeing, may play a decisive role in shaping demographic patterns in the longer term. This is where the concept of human capital could help in better understanding the complex nature of the current demographic challenges in Serbia, especially when it comes to subnational differentials.

1.7.1 Education structure of the population

Educational attainment is a simple but informative proxy for the level of human capital, indicating the skills and adaptability of a population. If three broad groups of educational attainment – low, medium, and high[21] – are considered, Serbia is among the European countries with the lowest share of the population aged 15-64 that have attained a higher education (20.6%), with only a few others ranking lower. The situation with the other two categories is much more favourable however, with 57.3% having attained the medium level and 22.1% at the low level. These results compare very favourably with the rest of Europe, putting Serbia in the middle of the range for the low category and in the upper half for the medium (Eurostat, 2021a). Despite notable improvements in the education structure of Serbia's population in this century, as suggested in Table 2, it seems that the biggest challenge in the coming period remains the underwhelming portion of highly educated people and still relatively high share of the low-educated population.[22]

Most of the working age population had a medium level of education regardless of the region they lived in, according to the last available data at subnational level. The advances achieved in the educational attainment of the population between 2002 and 2011 have not alleviated regional differences. The region of the capital (Belgrade) is still distinguished by the best education structure, with almost 30% of working age people having tertiary education (Table 2). This was close to the national average of the top-ranked countries at the time of the 2011 census.

1.7.2 Subnational Human Development Index

The Human Development Index (HDI) is a commonly accepted proxy for the overall improvement in education, health and living standards of a population. Although Serbia's current HDI (0.806) places it in the group of countries with very high human development according

Country/Region Education level	2002 Census			2011 Census			2019 estimate		
	Low	Medium	High	Low	Medium	High	Low	Medium	High
Republic of Serbia	38.1	47.6	11.8	26.8	55.1	17.8	22.1	57.3	20.6
Belgrade r.	23.0	54.6	20.4	14.5	55.5	29.6			
Vojvodina r.	38.6	50.2	10.2	27.8	56.6	15.4			
Šumadija & West Serbia r.	43.4	45.8	8.9	31.9	54.8	12.9			
South & East Serbia r.	45.3	40.2	9.0	32.5	53.0	14.1			

Table 2. Population of Serbia aged 15 to 64 by highest level of education attained (%) in Serbia, 2002 2011, 2019

Source: SORS (2013, 2021a) za popisne godine; Eurostat (2021a) za procenu za 2019. godinu.

[21] *Low education* includes less than primary, primary and lower secondary education (levels 0-2), *medium* includes upper secondary and post-secondary non-tertiary education (levels 3 and 4), and *high* refers to tertiary education (levels 5-8 according to the ISCED 2011 classification or 5-6 according to the ISCED 1997).

[22] More detailed interpretations of education issues are contained in the chapter devoted to education.

to the UNDP's HDI world ranking, its position is only slightly above the threshold (0.800) delimiting the two groups –high and very high human development. Serbia lags behind most European countries, including its neighbours, only ranking higher than Bosnia and Herzegovina, Albania, and North Macedonia (UNDP, 2021).

This subsection presents the subnational human development index (SHDI) for Serbia. It was calculated following the methodology underpinning the Subnational Human Development Database for 1625 regions within 161 countries in the 1990–2017 period (for details see: Smits & Permanyer, 2019). The central part of Table 3 shows the HDI in 2019 across regions and districts of Serbia including the three indices that proportionally contribute to the overall HDI level.

Apart from the outstanding position of the Belgrade region, regardless of what index is observed, it is clear that the higher HDI of the Vojvodina region compared to the two southern regions has not resulted from higher values of all the three indices it consists of. This is particularly obvious when the indices are examined at district level. This distribution suggests that rather than depopulation or ageing itself being the main demographic challenge in any particular district, it may in fact lie in improving other dimensions of human development. Despite their low rank according to the depopulation indicators, some districts are ranked high in human development terms because of a higher life expectancy (like Zlatibor district) or GNI index (like the Bor district). On the other hand, the district of Braničevo is ranked low by HDI despite a relatively high GNI index, because of its education index which is by far the lowest in the country. In other words, the new demographic reality of shrinking and ageing populations implies that public policies aimed at improving the demographic profile of Serbia should allow each district to enhance the human development dimensions which are the most relevant in its particular case. That would be a big step forward from the current one-dimensional, (sub)regionally insensitive policy approach, with no clear demographic effects in sight for most districts in the country.[23]

If we exclude the region of the capital (Belgrade), the country's HDI (0.767) would match that of Latin America and the Caribbean (0.766). Moreover, the HDI of most districts lies between the average HDI for East Asia and the Pacific (0.747) and the average HDI for Latin America and the Caribbean (0.766). Of 25 districts in the country, 8 would fit the bottom half of the group of high human development. Belgrade district is the only one close to an EU member country (Poland), while other districts are similar in their level of development to the neighbouring West Balkan EU candidate countries – Albania, Bosnia & Herzegovina and Montenegro, or to the countries of Central and South America, the Near East and North Africa.

These pronounced (sub)regional differences in terms of human capital in Serbia, above all between the capital and the rest of the country, have to be taken into due consideration when formulating any policy aimed at addressing the depopulation challenge. The improvements to be gained by reducing the subnational HDI differentials represent the core of our hypothesis on migration (especially concerning internal flows) presented in the next section on the future population dynamics of Serbia. The starting point for that calculation, but also for the subnational analysis in other chapters of this report was the following classification of districts according to their current HDI.

We distributed 25 districts of Serbia into 4 clusters pursuing the same system of fixed cut-off points for the four categories of human development achievements as in the HDR 2020 report (UNDP, 2021), albeit with the cut-off points and names of the clusters adjusted to the range that HDI covers across districts in Serbia. The cluster of *very high human development* (above 0.800) includes the two most populated districts representing the country's unique fast-growing metropolitan area. The cluster of *upper-high human development* (0.780- 0.799) includes districts whose centres are the cities of the next lower size, most of which are located in the region of Vojvodina, and only one in the region of South and East Serbia. The cluster of *mid- high human development* (0.750-0.779) includes most districts whose centres are middle-sized towns across the country. The cluster of *lower-high human development* (below 0.750) mainly consists of districts of traditional emigration, all but one located in the region of South and East Serbia.

Territory	Life expectancy index	Education index	GNI index	HDI	World rank	Country peer
Republic of Serbia	0.855	0.782	0.777	0.806	64	
Belgrade region*	0.872	0.902	0.858	0.877	35	Poland
Vojvodina region	0.843	0.779	0.777	0.799	67	Seychelles
Šumad. & West Serbia r.	0.859	0.730	0.714	0.765	84	Brazil
South & East Serbia r.	0.847	0.723	0.709	0.757	88	Azerbaijan
Very high human development						
Belgrade district	0.872	0.902	0.858	0.877	35	Poland
South Bačka district	0.858	0.829	0.807	0.831	48	Montenegro

[24] It would also be consistent with the logic of the EU regional and cohesion funds intended to "address the problems of disadvantaged areas, in particular rural areas and areas which suffer from severe and permanent natural or demographic handicaps, including demographic decline, ... and to pay particular attention to the specific difficulties of areas at NUTS level 3 and local administrative unit level" (Regulation EU, 2021, p. 45).

Upper-high human development						
Nišava district	0.864	0.795	0.725	0.793	69	Albania
Srem district	0.845	0.756	0.774	0.791	69	Albania
Šumadija district	0.863	0.778	0.734	0.790	69	Albania
Moravica district	0.866	0.752	0.755	0.790	69	Albania
North Bačka district	0.838	0.771	0.761	0.789	70	Cuba
South Banat district	0.843	0.755	0.764	0.786	70	Cuba
Central Banat district	0.832	0.758	0.757	0.781	73	Bosnia & Herz.
Mid-high human development						
Zlatibor district	0.867	0.730	0.729	0.773	82	N. Macedonia
West Bačka district	0.832	0.759	0.731	0.773	82	N. Macedonia
Bor district	0.833	0.687	0.803	0.772	82	N. Macedonia
Pirot district	0.850	0.724	0.746	0.771	82	N. Macedonia
North Banat district	0.817	0.734	0.743	0.764	84	Brazil
Kolubara district	0.859	0.697	0.728	0.758	86	Ecuador
Rasina district	0.862	0.716	0.701	0.756	88	Azerbaijan
Raška district	0.858	0.742	0.671	0.753	88	Azerbaijan
Lower-high human development						
Mačva district	0.844	0.709	0.700	0.748	91	Algeria
Pomoravlje district	0.854	0.696	0.696	0.745	92	Lebanon
Podunavlje district	0.835	0.732	0.674	0.744	92	Lebanon
Braničevo district	0.843	0.647	0.739	0.739	95	Tunisia
Pčinja district	0.845	0.718	0.658	0.737	99	Mongolia
Toplica district	0.841	0.699	0.679	0.736	99	Mongolia
Zaječar district	0.844	0.690	0.673	0.732	101	Jamaica
Jablanica district	0.843	0.704	0.656	0.730	102	Jordan

Table 3. Regions and districts of Serbia ranked by the Human Development Index in the context of the UNDP's HDI world ranking (2019)

Source: Own calculations based on SORS (2013, 2021a, 2021b); UNDP (2021). The values for the subnational levels are normalised to match the UNDP's HDI indices for Serbia in 2019.
** The region of Belgrade coincides with the district of Belgrade according to the administrative organisation of spatial units in Serbia.*

2 Scenarios of Population Dynamics – Future Fertility, Mortality, and Migration

Depopulation in terms of the shrinking and ageing population of Serbia is commonly interpreted at the national level with little or no effort at an appropriate consideration from the sub-national perspective. However, *depopulation is much more a regional and sub-regional demographic challenge than a national-level issue*, and this is often overlooked or incorrectly addressed in the relevant strategic and policy papers. The aim of this part of the chapter is to underline the importance of tailoring policies to tackle the depopulation challenge to subnational demo- graphic specificities by interpreting population projections at the district level of Serbia.

This section presents *long-term population projections* in the form of three scenarios, in disaggregation by sex and age at the level of the district, addressing various demographic perspectives depending on the potentially different trajectories of the main components of population dynamics (fertility, mortality and migration). The level of districts in Serbia corresponds to NUTS 3, denoted as the level of "small regions for specific diagnoses" according to the NUTS classification (Eurostat, 2021c). This proved to be Serbia's most stable spatial unit in historical terms, which also makes it the lowest spatial level for producing reliable population forecasts. Like the current country-level projections of global and EU population (UN, 2019a; Eurostat, 2021b), the projection time horizon covers the long-term period – 2020-2100. This time horizon approximately matches the average lifespan of people in Southern Europe, which allows a comparison of two almost completely different populations –one that constitutes the ancestors of the projected cohorts, reflecting past trends in population dynamics, and the other consisting al- most completely of their descendants resulting from the projection assumptions applied to the current population pyramid. In this way, it is possible to fully perceive the effects of fertility changes, which are the crucial long-term factor of population change.

Official estimates of the Serbia's population by sex and single age groups at the district level as of 31 December 2020 were taken as the basis for calculating the initial age and sex population structure in the projection (SORS, 2021a). These estimates are based on the 2011 census and the subsequent changes in the population structure that have been induced by births, deaths and internal migration between the census day and the end of 2020. Given that the estimates thus obtained did not include the impact of international migration, which is particularly important for high emigration areas, it was necessary to correct them by including the previously stated assessment of the balance of international migration between 30 September 2011 (the Census Day) and 31 December 2020.

The three scenarios of future population dynamics in Serbia are as follows: a) the *baseline scenario* – the most probable future excluding any consideration of specific policy impacts; b) the *high fertility scenario* – reflecting fully successful implementation of policies aimed at increasing birth numbers; c) the *zero migration scenario* – an imaginary future of zero net migration as a reference case for assessing the impact of migration (Table 4). All three scenarios share the same assumption on future mortality because of the relatively stable change in this component,[24] and because of the focus of this chapter on depopulation in Serbia – largely caused by a long period of low fertility and net emigration. This allows us to assess the effects of fertility and migration independently of each other by comparing scenarios b) and c) with the *baseline scenario*.

Scenario	Fertility	Mortality	Migration
Baseline	Baseline	Baseline	Baseline
High fertility	*High fertility*	Baseline	Baseline
Zero migration	Baseline	Baseline	*Zero migration*

Table 4. Assumptions in the population dynamic scenarios in Serbia, 2020-2100

2.1 Baseline scenario

The *baseline scenario* assumes a relatively small increase in future fertility and slowly improving survival rates. When formulating assumptions on the natural components of population change, we relied on the probabilistic models used to produce the current *World Population Prospects* by the United Nations' Population Division (hereinafter: the UN model)[25] (United Nations, 2019a), thus avoiding the subjective judgments typical for the scenario approach. The future paths of total fertility rate in the *baseline scenario* and life expectancy at birth in all the scenarios represent the most likely trajectories from their prediction intervals derived by running the UN model. Given the limited quality and availability of the time series on migration and the far greater uncertainty about their future trends, especially at the

[24] The short-term effect of the COVID-19 pandemic has been considered (see 2.1.2).

[25] Non-commercial software was used for all projection-related calculations. Probabilistic simulations of trajectories of TFR and *e0*, as a tool for formulating the baseline fertility and mortality scenarios, were performed using *R* and its packages *bayesTFR* (Ševčíková et al. 2015) and *bayesLife* (Ševčíková and Raftery 2015). Projections of the population by age and sex at the district level in Serbia were calculated using Spectrum.

sub-national level and in the longer term, compared to the natural components of population change (births and deaths), only one pathway of future migration is formulated. A theoretical concept called the "migration cycle model", as a specific interpretation of the "push and pull" migration theory (Fassmann & Reeger, 2012), was used to develop the long-term hypothesis of international migration, while the assumption of internal migration was grounded in the analysis of the urbanisation process in Serbia (see Antonić, 2021).

2.1.1 Baseline fertility assumption

The fertility assumption in the *baseline scenario* was derived from the application of the UN model. Recent research based on the Human Development Index suggests that the well-known negative correlation between economic development and fertility, typical of the entire twentieth century, may be reversing. This means that economic progress can lead to higher birth rates in the richest societies and thus become a development guideline for all other low fertility populations and societies (Myrskylä, Kohler & Billari, 2009; Luci-Greulich & Thévenon, 2014). It seems that the mechanism of the UN model can be interpreted in this way, as it allows each country to reach a target total fertility rate that is based on both its own experience, and that of other low-fertility countries that have experienced fertility recovery. Consequently, the model would result in a target TFR of 1.53 by 2050 and 1.67 by 2100 in the Southern Europe region (United Nations, 2019b).

As the current UN model recognises only the territory of Serbia including the region of Kosovo and Metohija, it was necessary to model TFR for the territory of Serbia without data from this region. The model was adjusted to lower territorial levels (regions and districts) in accordance with the available historic data sets. For each district, a median of the prediction interval resulting from the UN model was taken as the forecast TFR over the projection horizon. In general, the target TFR in 2100 for districts with a current TFR below 1.50 would be between 1.55 and 1.60, and for those with current TFR above 1.50, it would be between 1.70 and 1.80. The UN model has shown that districts in eastern Serbia represent the nucleus of low TFR in the country, i.e. that the potential for a positive change in this indicator is the weakest in this area. A slightly higher forecast of TFR would characterise the surrounding districts in the region of Southern and Eastern Serbia and certain districts of Vojvodina. According to the UN model, the maximum target TFR was projected for western and southwestern districts in the region of Šumadija and West Serbia. These findings were supported by the results of the spatial autocorrelation analysis with respect to change in TFR between 2002 and 2011 at the municipal level, which suggested that differences in economic, historical, and cultural development between sub-regions of the country have strongly affected the spatial patterns of fertility change (Nikitović et al., 2019).

2.1.2 Baseline mortality assumption

The mortality assumption in the *baseline scenario* also resulted from application of the UN model. The same procedure was applied as in the case of the hypothesis on fertility. Adjustments were made to the input data regarding the coverage of the territory and the chosen level of its administrative division (districts), while for each district a median of the prediction interval that resulted from the UN model was taken as the *baseline scenario* of life expectancy at birth (e0) over the projection horizon. In the initial projection period, the short-term effect of the COVID-19 pandemic was taken into account. If expressed through e0, first, there was a decrease in this indicator compared to the previous period, followed by a relatively rapid recovery, immediately after the pandemic ends in accordance with the nature of the influence of exogenous factors. The observed decrease in e0 was an average of 1.55 years during 2020, with an assumed maximum decline of 2.5 years during the expected time-span of the pandemic (about 3 years).

Depending on the current e0, an increase in this indicator for women from the end of the pandemic to 2100 would be between 0.99 years per decade in the northern districts of the Vojvodina region and eastern parts of the region of East and Southeast Serbia, up to 1.06 years per decade in the region of Belgrade, in most districts in the region of Šumadija and West Serbia, and in the central district in the region of East and Southeast Serbia (Niš).

In the case of men, the increase in e0 by the end of the projection period would be between 1.22 years per decade in most districts of the region of Vojvodina (excluding the district whose centre is Novi Sad) and eastern parts of the region of East and Southeast Serbia, up to 1.37 years per decade in most of the region of Šumadija and West Serbia, in the region of Belgrade, and in the central district of the region of South and East Serbia (Niš).

2.1.3 Baseline migration assumption

The *assumption on international migration* covers two different patterns during the projection horizon. The first one assumes the continuation of the trend in net out-migration from Serbia in the next 15 years (2020- 2035) due to the rising high demand on the EU labour market for labour from this region and the slow advance in the living standards of Serbian citizens. After this date the gradual transformation of the country's net emigration profile to one of net immigration is assumed, in accordance with expected changes based on recent empirical evidence and the migration cycle concept as suggested by Fassmann and Reeger (2012).

Despite the known issue of the underestimation of the number of Serbian citizens abroad in the population census, it is the only source of data that allows analysis of previous trends in international migration at the district level in Serbia. We used the distribution of emigrants by district of origin according to the 1991-2011 census results as a starting point for the estimate of the current unknown distribution of emigrants. We assumed that the share of the oldest emigration zone in Eastern Serbia in the current total negative migration balance of the country has decreased by 25-30% depending on the district. This took place not only due to the increasing share of other non-traditional areas of emigration in the southwest and the southeast of the country (Penev & Predojević-Despić, 2012) and new emigration waves from major city centres across the country, but also because of the reduced demographic potential of this zone (Nikitović et al., 2015).

From the perspective of the projection horizon in this chapter (2020-2100), the stages of migration transition, according to the migration cycle model by Fassmann and Reeger (2012), have been interpreted in relation to the symbolic turning point in the transition process in Serbia (2030-35). After this period, a transition phase should follow during which immigration will gradually begin to outweigh emigration, which coincides with the migration assumption in the current EUROPOP 2019 projections (2019-2100) for EU Member States (Eurostat, 2021b). However, in the period up to 2030-35, the hypothesis was formulated by analogy with recent evidence on emigration from most states of the Eastern enlargement and Croatia immediately after their joining the EU (Draženović et al. 2018). In addition, the current relaxation of immigration policies towards Serbia by the major destination countries, such as Germany, indicates that increased emigration is also possible in the immediate pre-accession period. In other words, the hypothesis of net emigration in the next 10-15 years can hardly be avoided, even in a scenario where Serbia's future does not lead to EU membership. This will remain valid as long as there is a marked gap in living standards between Serbia and the most popular European destinations, and a growing demand for labour in those countries due to the intensification of population ageing.

Given the above reasoning, as well as the expected decrease in Serbia's migration potential due to population ageing, we assumed that the increase in the average annual net emigration would be at maximum 10%. This means that the current net emigration of −0.7 per 1,000 population or −5,029 people annually would reach −0.8 in 2030 or −5,535. Such a forecast is the result of a previously formulated assumption about the regional distribution of the country's total migration balance. Numerically, the negative net migration rate will increase by 15% compared to the average for 2018-2020 in all districts not recognised as traditional emigration zones, while the migration balance of 'hot zones of emigration' as labelled by Penev and Predojević-Despić (2012) will remain unchanged until 2030.

In line with the gradual transformation of the country's international migration profile after 2030-35, we assumed that the net international migration of the country would turn positive by 2050 and amount to 0.5 per 1,000 population or 3,745 people annually, and to 1.4 per 1,000 population or 9,364 people in 2100. The benchmarks for defining the target values were EUROPOP 2019 projections (Eurostat, 2021b), which implicitly see the EU as an immigration zone including countries such as Croatia and Bulgaria that are currently experiencing an emigration pattern similar to that of Serbia. The projected rates resulted from the hypothesis at the subregional level, which implies that all districts should reach at least zero migration balance by 2050, i.e. enter the transition phase according to the migration cycle model. The highest rate of positive migration balance, 1.1-1.2 per 1,000 population in 2050, and 2-2.5 in 2100, would be in districts with the largest university centres, in line with the strategic national goals for sustainable population development and the guidelines for the balanced spatial development of Serbia (Antonić, 2021).

The rate of net internal migration is projected to gradually decrease throughout the projection horizon in all districts where a negative internal migration balance can currently be observed according to the only *migration scenario* (baseline).

At the same time the prominence of the Belgrade-Novi Sad metropolitan area in the country's positive balance of internal migration flows would slowly wane as a result of the increase in attractive power of other districts, in line with the recommendations for development of urban centres in Serbia presented in the chapter on urbanisation. This hypothesis is the result of two factors. The first relates to the successful implementation of policies aiming at more regionally balanced development, which is one of the strategic goals of Serbia's plans for sustainable development (GoS, 2008). The second factor is an estimate of the expected decline in the share of the most active age groups in migration flows, in line with the trend observed at the beginning of this century, caused by the shrinking and ageing of the population (Nikitović et al., 2015).

In order to meet the assumed dynamics of the migration hypothesis, three reference points were set in the projection period – 2030, 2050 and 2100. For each point, the net migration rate for each district was expressed as the net migration per 1,000 population in 2020 and was calculated on the basis of previously projected rates of internal and international migration. The rate changes linearly between the reference points, resulting in 8 districts with a positive net migration rate in 2050 and 13 in 2100 compared to only 3 in 2020, whereas no district is expected to exceed the net emigration rate of −3 in 2050 and −1.9 in 2100.

2.2 High fertility scenario

The *high fertility scenario* reflects an ideal future in which the goals presented in the current *Birth Promoting Strategy*, are fully realised. This implies a relatively fast increase in the total fertility rate by 2050, in the light of the empirical evidence and expectations of future fertility changes in the European context (Eurostat, 2021b). The highest increase in TFR was predicted for the first 15 years of the projection. Although the scenario implies that policy measures will last even beyond the horizon of the current strategic document, experiences from countries with a long tradition of population policy implementation indicate that the effects on birth rates are generally strongest in the initial period of the implementation (Frejka & Gitel-Basten, 2016).

The *Birth Promoting Strategy* disregarded the subnational diversities described in the previous section by assuming that the same policy measures can successfully be applied to different spatial levels and settlement types in the country. We tried to overcome this shortcoming by accounting for the subregional differences. The forecast increase in TFR across districts would be 20-40% by 2035, and 10-15% in each of the two following periods – 2035 to 2050 and 2050 to 2100, depending on the pre-projection TFR of each district. Consequently, the range of the target TFR across districts would be 1.70–1.85 in 2035, 1.9–2.1 in 2050, and 2.1–2.2 in 2100. This is adjusted to the national target TFR of 1.85 after 15 years of implementation of the *Birth Promotion Strategy*, and with the potential level of 2.1 in the long run (GoS, 2018: 16). However, there is no evidence to support a TFR of 2.1 by mid-century in all districts. This is a conclusion based on the recognised spatial patterns of demographic trends in Serbia over the past half-century, in accordance with the theory of diffusion of social innovations (Nikitović, Bajat & Blagojević, 2016), as well as on recent findings on the link between fertility and economic development at sub-national level in the European context (Fox et al., 2019). Therefore, as in the baseline scenario, the lowest target value (TFR= 1.9) in 2050 is set for districts of traditionally lower fertility in the region of South and East Serbia, whilst that level would be reached as soon as 2035 in the higher fertility areas of the west and southwest.

The probability of materialisation of the high fertility hypothesis was assessed by the UN probabilistic model used to formulate the fertility assumption in the *baseline scenario*. The resultant probabilities of materialisation of the high fertility hypothesis are: 3–5% in 2050 and 2.5% in 2100 in the case of the districts with a lower current TFR, and up to 2.5% in 2050 and below 1% in 2100 in the districts with a higher current TFR.

3 Long-Term Overview of the Key Demographic Indicators - the Framework for Policy Actions

3.1 Baseline scenario — the most probable future

According to the *baseline scenario*, the current population size of Serbia (6.82 million) would shrink by 1.4 million, or 21% by 2050. This puts Serbia in the top ten world countries (including its neighbours Croatia, Bulgaria and Romania) expecting to see their populations decline by more than 15 per cent by 2050 according to the most recent *UN World Population Prospects* (United Nations, 2019b). The decrease would continue after that date, though, at a slightly slower pace – the total population size would fall to 4.14 million in 2100, due to the transition in the country's migration profile from net emigration to net immigration, and a slight increase in fertility rates.

While the decrease of the total population in the region of Belgrade would only be 3.8% by 2050, and in the region of Vojvodina slightly less than the national average (19.4%), the region of South and East Serbia would lose the third of their population (33.4%), and the region of Šumadija and Western Serbia somewhat less than that (28.5%). The most dramatic loss of population – above 40% compared to their present population size – is projected for districts characterised either by traditional emigration or the highest share of older citizens, or both, all of them located in Southeast Serbia (Table 5). Apart from the district of Belgrade, reductions below the national average were forecast only in four districts. Three of them would benefit from the assumed positive balance of internal migration during the projection horizon due to the attractive power of their large city centres – Novi Sad (reduced by 7%), Niš (18%), and Subotica (19.4%), while the district of Raška (15.5%) is distinguished by its much younger age structure and higher fertility rates compared to all other districts.

When it comes to population ageing, which is usually perceived as one side of the depopulation coin with the shrinking of population size as the other, the projected trends do not unfold throughout the projection horizon as straightforwardly as those of total population. Age dependency ratios are commonly used indicators of population ageing that present changes in relations between broad age groups of the total population clearly and simply – the young (0-19 years), working-age (20-64) and the older (65 and above). Dependency ratios provide information on the demographic dimension of the ratio between inactive (young and old) and active (working-age) population. We examined the three ratios – the ageing index (the ratio between the old and the young), the old-age dependency ratio (the ratio between the old and the working-age), and the total dependency ratio (the ratio between the two inactive groups and the working-age population).

Regardless which dependency ratio is considered, after the increase fore- cast by 2050, its value at the national level is expected to decrease by 2100. There are two reasons for this – the current age structure and the forecast smooth transition of the country's migration profile from net emigration to net immigration after 2030-2035. The current age structure is a reflection of the impact of the large baby-boom generations on the number of people aged 65 and above, which will gradually disappear once this group reaches its century's maximum in 2025. However, another rise in the number of the older people between 2045 and 2055 is predicted, albeit temporary in character as, in effect, the echo of the baby-boom generations. This will swell the size of the over-65 age group bringing it close to current levels. It is worth noting that even these two increases in the number of the older people are exclusively driven by the rise in the two biggest cities in the country (Belgrade and Novi Sad) that are expected to continue attracting migrants, and by the two areas in the southwest and southeast that are characterised by a currently much younger population compared to other parts of the country. The continuous in-migration would also influence the growth in the size of the young population in the two biggest cities in the second half of the century, despite the fact that the total fertility rate will reach only 1.7 by 2100. This is the best proof that the so-called replacement fertility level is not essential for rejuvenating the population if there is a continuous inflow of migrants. At the same time, it is expected that the district of Bor – one of the forerunners of the first demographic transition in the country (Nikitović et al., 2016) and the core of the traditional emigration zone (Penev & Predojević Despić, 2012), would lose its entire young population by 2100.

Territory	2020	2035	2050	2075	2100
Republic of Serbia	6,824,935	6,038,158	5,389,485	4,570,716	4,139,863
Vojvodina region	1,826,225	1,633,211	1,471,822	1,274,904	1,158,835
Šumadija & West Serbia region	1,867,543	1,583,343	1,334,408	1,013,196	816,646
South & East Serbia region	1,450,033	1,184,769	966,233	687,741	505,500
Belgrade region/district	1,681,134	1,636,835	1,617,022	1,594,875	1,658,882
West Bačka district	167,279	135,385	108,065	74,316	51,309
South Banat district	272,975	239,511	211,965	175,836	148,954
South Bačka district	614,460	590,240	571,238	545,449	543,175
North Banat district	132,740	110,783	92,485	71,806	58,472
North Bačka district	175,424	156,687	141,428	124,684	114,848
Central Banat district	170,551	142,059	117,091	86,718	65,048
Srem district	292,796	258,546	229,550	196,095	177,029
Zlatibor district	259,215	209,971	162,252	98,317	55,385
Kolubara district	159,266	135,861	114,384	88,440	76,832
Mačva district	271,059	224,192	180,720	126,273	88,751
Moravica district	194,978	166,123	140,344	109,056	95,611
Pomoravlje district	190,944	156,248	131,740	102,813	84,053
Rasina district	216,195	174,620	137,122	85,845	52,257
Raška district	299,696	276,000	253,321	217,575	192,245
Šumadija district	276,190	240,328	214,525	184,877	171,512
Bor district	106,339	75,854	51,759	23,317	5,966
Braničevo district	158,834	122,306	94,084	59,091	35,431
Zaječar district	102,725	77,107	59,294	39,416	29,158
Jablanica district	193,830	156,741	122,994	76,334	41,747
Nišava district	354,436	315,723	290,731	265,009	260,779
Pirot district	81,513	62,681	48,004	29,548	17,458
Podunavlje district	179,891	143,919	112,104	70,094	39,433
Pčinja district	191,397	165,781	136,301	91,646	55,740
Toplica district	81,068	64,657	50,962	33,286	19,788

Table 5. Total population of regions and districts in Serbia according to the *baseline scenario*[26]

Source: own calculations

[26] All projected numbers presented in this section refer to the population at the end of the year.

On the other hand, the forecast decreasing pattern in the dependency ratios at the national level after 2050 does not apply to all the lower tier spatial levels. Out of 25 districts in Serbia, 9 would experience an in- crease in the ageing index, 12 in the share of the older population, 13 in the old age dependency ratio and 14 in the total dependency ratio through- out the whole century. The majority of districts with increasing ageing indicators are those currently with an older population than in other districts and with pronounced out-migration. When the whole projection period is considered, by the end of this century, there would only be 7 districts with an ageing index lower than that of today and just one in the case of the old age dependency ratio. Nevertheless, the increase of the index would be lower than 15% in 7 districts, and higher than one third in 14 districts, of which 4 districts would experience double the cur- rent index value by 2100. Finally, 2 of 25 districts would already have a greater number of older people than working age by 2050, and 8 districts by 2100, all of which are located in the two southern regions (Table 6). This suggests that the sustainability of that area would be seriously endangered, which would also contribute to afurther widening of the already serious gap in terms of the development level between districts.

Territory	Share of people aged 65+				Ageing index (65+/0-19)				OADR (65+/20-64)				TDR (0-19&65+/20-64)			
	2020	2035	2050	2100	2020	2035	2050	2100	2020	2035	2050	2100	2020	2035	2050	2100
Republic of Serbia	21.4	23.7	27.1	24.0	1.11	1.25	1.45	1.15	0.36	0.41	0.50	0.43	0.69	0.74	0.84	0.81
Serbia North	20.3	21.8	25.4	22.4	1.03	1.10	1.30	1.03	0.34	0.37	0.46	0.40	0.67	0.71	0.81	0.79
Serbia South	22.6	25.9	29.3	27.4	1.19	1.44	1.67	1.43	0.39	0.46	0.55	0.51	0.71	0.78	0.88	0.87
Vojvodina region	20.4	22.9	25.9	24.1	1.04	1.20	1.37	1.18	0.34	0.39	0.47	0.43	0.66	0.72	0.81	0.80
Šumadija & West Serbia r.	22.3	26.0	29.0	26.3	1.15	1.42	1.59	1.33	0.38	0.47	0.55	0.49	0.72	0.80	0.90	0.86
South & East Serbia region	23.0	25.7	29.7	29.2	1.24	1.47	1.78	1.62	0.39	0.45	0.55	0.56	0.71	0.76	0.86	0.90
Belgrade region/district	20.2	20.7	24.8	21.2	1.02	1.00	1.24	0.94	0.34	0.35	0.45	0.38	0.67	0.71	0.82	0.78
West Bačka district	22.7	26.5	30.2	30.9	1.27	1.59	1.84	1.83	0.38	0.47	0.57	0.59	0.68	0.76	0.87	0.91
South Banat district	21.2	23.5	26.4	25.6	1.09	1.27	1.41	1.32	0.36	0.41	0.48	0.47	0.68	0.72	0.82	0.82
South Bačka district	18.7	20.5	24.3	22.2	0.90	1.01	1.23	1.03	0.31	0.35	0.43	0.39	0.65	0.69	0.79	0.78
North Banat district	21.4	24.1	26.8	26.8	1.16	1.35	1.53	1.44	0.36	0.42	0.48	0.49	0.66	0.72	0.80	0.83
North Bačka district	20.4	22.7	25.6	24.0	1.07	1.19	1.36	1.18	0.34	0.39	0.46	0.43	0.65	0.72	0.80	0.79
Central Banat district	21.4	25.0	27.8	28.3	1.11	1.35	1.53	1.50	0.36	0.44	0.52	0.53	0.69	0.77	0.85	0.89
Srem district	20.9	24.4	26.5	24.0	1.09	1.31	1.40	1.17	0.35	0.43	0.49	0.43	0.67	0.76	0.83	0.80
Zlatibor district	22.8	29.4	33.2	36.2	1.19	1.64	1.91	2.29	0.39	0.56	0.67	0.75	0.72	0.90	1.02	1.08
Kolubara district	22.9	27.3	29.5	24.6	1.26	1.54	1.65	1.20	0.39	0.50	0.56	0.45	0.70	0.82	0.90	0.82
Mačva district	21.5	26.8	30.1	29.5	1.11	1.47	1.65	1.58	0.36	0.49	0.58	0.57	0.69	0.82	0.94	0.93
Moravica district	23.7	27.1	29.6	24.1	1.27	1.46	1.59	1.12	0.41	0.50	0.57	0.44	0.74	0.84	0.93	0.83
Pomoravlje district	24.9	26.6	29.0	26.5	1.41	1.61	1.72	1.40	0.43	0.47	0.53	0.49	0.74	0.76	0.85	0.83
Rasina district	24.9	28.6	33.6	34.5	1.41	1.76	2.13	2.18	0.44	0.52	0.66	0.69	0.74	0.82	0.97	1.01
Raška district	17.7	20.6	24.1	23.8	0.73	0.94	1.13	1.09	0.31	0.36	0.44	0.44	0.73	0.74	0.83	0.84
Šumadija district	22.5	24.7	27.4	23.8	1.21	1.42	1.55	1.20	0.38	0.43	0.50	0.42	0.70	0.73	0.82	0.77
Bor district	25.9	30.9	37.6	75.8	1.56	2.18	2.91	-	0.45	0.56	0.76	3.13	0.74	0.82	1.02	3.13
Braničevo district	25.3	27.3	32.3	35.0	1.44	1.71	2.14	2.28	0.44	0.48	0.61	0.71	0.75	0.76	0.90	1.02
Zaječar district	29.3	29.6	32.9	28.0	1.88	2.06	2.18	1.54	0.53	0.53	0.63	0.52	0.81	0.79	0.93	0.86
Jablanica district	22.1	26.0	30.8	38.9	1.17	1.50	1.95	2.85	0.37	0.46	0.58	0.82	0.69	0.76	0.87	1.11
Nišava district	22.8	23.5	26.4	22.6	1.24	1.25	1.43	1.08	0.39	0.41	0.48	0.40	0.70	0.73	0.81	0.77
Pirot district	26.6	29.4	33.1	35.8	1.64	1.85	2.17	2.43	0.47	0.54	0.64	0.72	0.75	0.83	0.93	1.02
Podunavlje district	22.3	25.9	31.0	37.0	1.18	1.52	1.90	2.57	0.38	0.46	0.59	0.76	0.70	0.75	0.90	1.06
Pčinja district	16.4	22.4	27.5	35.3	0.74	1.14	1.62	2.17	0.27	0.39	0.50	0.73	0.62	0.72	0.80	1.06
Toplica district	23.4	25.9	28.9	35.0	1.21	1.34	1.60	2.10	0.41	0.47	0.55	0.73	0.75	0.83	0.89	1.07

Table 6. Indicators of population ageing across regions and districts of Serbia, 2020-2100, baseline scenario

Source: own calculations

3.2 Between desirable and fictional future – *high fertility* and *zero-migration* scenarios

The distinction in the forecast demographic indicators already noticed in the *baseline scenario* between the North and South of Serbia, is clearly pronounced in the projection results of the *high fertility scenario*. This is the only one of the three scenarios presented in this chapter that forecasts an increase in total population (Figure 6), though only after 2080 as a result of a decades-long period of increase in the total fertility rate that in most districts would reach around 2 by 2050 and replacement level by 2100.

Up to 2050 the slowing of the decreasing trend in total population is clearly pronounced in comparison to the *baseline scenario* only in the districts with the largest city centres. Even though the decrease would slow down in most districts after 2050 due to the decades-long period of forecast high total fertility rate (close to or achieving replacement level), the only two districts that would have a larger population than today are those whose centres are Belgrade (by 19.2%) and Novi Sad (11.3%). This suggests a very clear conclusion: *the unlikely future from the current demographic viewpoint, which assumes a fairly fast increase in total fertility rate in the next 30 years followed by a half-century period of stable high fertility (which allows one generation of women to be fully replaced by another) would not stop the decrease in total population at the country level but only in the areas able to attract migrants.*

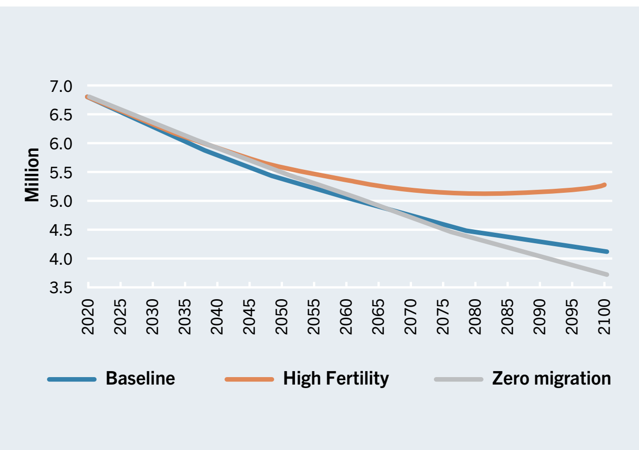

Figure 6. Total population of Serbia, 2020-2100, according to three scenarios

Source: own calculations

Moreover, the high fertility future would not make much difference compared to the *baseline scenario* in districts with a higher share of old- er population and/or a disturbed sex structure in the prime reproductive ages due to steady out-migration. Figure 7 simply summarises these two types of districts, presented by two extreme cases – Belgrade and Bor. On the other hand, a zero migration scenario would have a much stronger effect on both types of districts, only opposite in direction. When Fig. 6 and Fig. 7 are compared, a clear conclusion emerges: *The effect of migration is much more relevant for the subnational spatial units than for the national level. In other words, policies stimulating higher birth numbers will eventually, though after quite a long period, have effects at the national level, but at the expense of most districts which are affected by out-migration and a rapidly ageing population. This also means that birth stimulating policies will have almost no effect in most areas of the country unless coupled with policies aimed at more balanced spatial development that would reduce the prominent gaps in net migration between districts.*

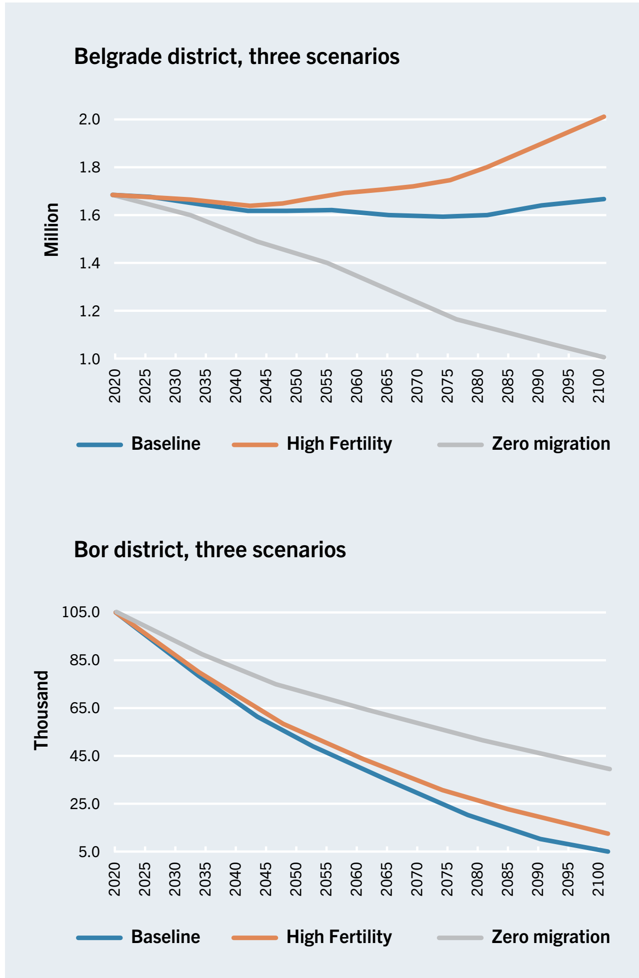

Figure 7. Total population of the districts of Belgrade and Bor, 2020-2100, according to three scenarios

Source: own calculations

When it comes to population ageing, the forecast ageing ratios indicate a mixed bag of effects. *The high fertility future* could bring some benefits in comparison to the *baseline scenario*, but they would only become visible by 2100 and that only in a small number of districts due to the very nature of the impact of the fertility increase on the age structure. It takes at least 20 years for the first projected newborns to enter the working-age group and start reducing the economic pressure. Until then, they themselves also contribute to the 'burden' on the economically active population. Moreover, as total fertility rates are forecast to quickly grow by mid-century, and remain high until the end of the projection, the projected cohorts of new-borns would contribute more, depending on the district, to a steady expansion or slower decrease of the young, than to an increase in the working-age group. As a result, the total dependency ratio would only be lower than in the *baseline scenario* in a third of the districts, and that only by 2100. This would be driven almost exclusively by the decline in the number of older people, as confirmed by the forecasts for the old-age dependency ratio and the ageing index. In all districts the old-age dependency ratio in 2100 would be significantly lower in the *high fertility* than in the *baseline scenario*. As for the ageing index, according to the *high fertility scenario*, in 2050 9 districts would record a lower value than today and in 2100 as many as 21 out of 25 areas.

The zero-migration scenario would clearly result in a lower old-age dependency ratio than the *high fertility* or the *baseline scenario* by 2050 in all districts except for several that would maintain a steady positive migration balance. However, the long-term impact of high fertility rates would reverse this pattern, so that, in case of the *high-fertility future*, 20 of 25 districts would have a lower old- age dependency ratio in 2100 (excluding those hit by strong out-migration) than in the *zero-migration scenario*. The same comparison for the total dependency ratio shows, though, that just 12 of 25 districts would have lower values in 2100 in case of the *high-fertility future* due to the steady increase of the young population. The lowest increase above the current ageing index throughout the projection would be in the districts strongly affected by out-migration according to the *zero-migration scenario*. In contrast to the *high fertility scenario*, only five districts would experience a lower index than today in 2100.

3.3 Guidelines for policy makers

It is a well-known fact that the population in Serbia is declining and that the country is demographically old. It should come as no surprise therefore, that this chapter predicts a probable decline in the country's population of about a fifth by 2050 and two fifths by the end of the century, if no public policy measures in the field of demographic development are implemented.

More specifically we wish to draw the reader's attention to the multi-layered nature of depopulation in our country: it is not only marked by a low level of demographic development, but also by pronounced spatial unevenness. This is confirmed by the human development index, according to which, Serbia is at the level of Latin America and the Caribbean, when the capital is excluded, which is the only district similar to an EU member state (Poland).

Here we come to the essential message of the chapter, which is that depopulation in Serbia is, above all, a regional and subregional issue. It is this aspect in dealing with demographic challenges that is conspicuously neglected in the existing strategies and legal solutions. In some regions and areas, the main demographic challenge is not depopulation or ageing in itself, but the advancement of other dimensions of human development, and in other regions it is the opposite. If this statement is taken into account, policy makers could respond to the problem of depopulation far more effectively than by simply applying the usual approach based on national averages. Even an unlikely future from today's demographic point of view, which assumes a fairly rapid birth rate close to simple reproduction and its maintenance till the end of the century, would not restore the current population at the national level, but only in areas capable of attracting migrants.

Moreover, the gap in demographic and human development indicators between the north and the south of the country is expected to widen. The group of districts in the region of South and East Serbia would most probably lose between 40% and 50% of their population by 2050. If current trends in birth and survival rates continue (implying slight improvements), 18 of the 25 districts in Serbia would lose more than a half of their population by 2100 despite the expected transformation of the country's migration profile from net emigration to a net immigration after 2030-35. The district of Bor would even face the end of this century with no young people at all – a fate that is already manifesting in some settlements in the area. Even if the *high-fertility scenario* resulting from ideally implemented policies aimed at increasing birth numbers were to come true, 12 of 25 districts would be more than halved in population by 2100.

The hot topic of net emigration is much more relevant for specific areas than it is at the national level. In that sense, internal migration proved to be a greater challenge for a large majority of districts. More precisely, the *high-fertility scenario* could, after a very long period, yield positive results at the national level, but at a high cost for most districts with low human capital hit by steady out-migration. That being said, the districts that centre on the largest cities in Serbia could maintain their population size, and even increase significantly, even though they would not reach the birth rates needed for generation replacement. This also means that policies stimulating higher birth numbers need to be coupled with policies aimed at reducing the prominent disparities in net migration between districts if any improvement in demographic indicators is to be expected in most areas of the country. Finally, this chapter suggests that a holistic strategy of addressing the implications of demographic change in Serbia needs to include not only drivers of low fertility and unfavourable migration patterns, but also all three dimensions of the human capital index. From that point of view, depopulation or ageing itself may no longer be considered the most pressing demographic challenge in most districts of the country.