The demographic approach to the quality of official ethnicity data in Serbia – a research proposal

Nevena Trnavčević[1]   **Aleksandar Knežević**[1]

ABSTRACT

Demographic studies of the population by ethnicity are gaining new significance. Emigration, intensive aging, and declining fertility have caused changes in demographic trends, particularly in communities of different ethnic backgrounds. Ethnodemographic trends are mostly observed through the lens of official ethnic statistics. The most important factor regarding data quality is the approach towards subjective criteria in the self-declaration of ethnic affiliation in censuses and vital statistical surveys. This paper presents examples of statistical deviations of demographic indicators based on official data on ethnicity and introduces a proposal for research into their quality and use value. Our research proposal is based on previous demographic analyses of ethnicity data and focuses on the demographic framework of statistics of ethnicity in Serbia through data quality analysis. We contend that the results presented in the paper constitute a sufficient argument for a broader methodological discussion regarding the necessity of demographic research into ethnicity data to create a "more objective" demographic picture of minorities. Examining the quality of ethnicity data is very important for analysing indicators of statistically variable minority ethnic groups. The results of the research can form the basis for reviewing the data sources on which policies towards ethnic minorities are formulated.

KEYWORDS

statistics of ethnicity, quality of data on ethnic characteristics, ethnodemographic trends, statistically variable ethnic groups, Serbia

[1] *University of Belgrade – Faculty of Geography, Belgrade, Serbia*

Correspondence:
Nevena Trnavčević,
University of Belgrade – Faculty of Geography,
Studentski Trg III/3,
Belgrade, Serbia

Email:
nevena.trnavcevic@gef.bg.ac.rs

1 INTRODUCTION

Along with the intensive modernisation of general social trends, some modernist theories of ethnicity predicted a decline in the importance of ethnic identification of the population (Eriksen 2010: 2), and that the processes of assimilation and ethnic unification would be deepened to the point of the complete disappearance of ethnicity. However, recent ethnode-mographic processes suggest something quite the opposite. Issues of ethnic identity have not only survived as an essential facet of modern life, but the importance of ethnic declaration in certain societies has risen sharply (Simon 2012; Goldstone, Kaufmann and Duffy Toft 2012; Frey 2015). In the 19th century, theorists of nationalism who followed the creation of modern nation-states gave way to newer theories that predicted the replacement of national identities with supranational ones (Kertzer and Arel 2001: 1). After pri-mordial understandings of ethnic identi-ty based on biological kinship (Shils 1957; Geertz 1963), constructivist schools implied the perspective of "emerging ethnicities" arising from certain socio-economic conditions in society (Yancey et al. 1976; Sarna 1978; Bauman 2011). The more recent period is reflected in the instrumentalist or situationalist ideas of the existence of ethnicity as a means of gaining an advantage or fulfilling personal interests (Glazer and Moynihan 1975; Gellner 1983; Banton 1983; Banks 1996). Thus, the end of the 20th century marked the revival of the question of ethnicity and nation in public debates and scientific works, both in developing and developed countries.

The concept of ethnic identity has been a controversial issue since the first ethnological studies. Some of today's understanding of ethnic identity dates back to the middle of the 19th century, especially through the conflict of two opposing concepts: the German ethno-graphic school and the French civil (state) approach to ethnic identity (Kertzer and Arel 2001). During the '60s and '70s, scientific discussions about the ethnic identity of the population reached such proportions that some authors spoke of the emergence of an "ethnicity industry" (Poutignat and Streiff-Fenart 1995). In the ethnodemographic statistics of Ser-bia, data on the ethnic characteristics of the population is obtained through the census and vital statistics by answering a set of ethnoidentity questions, which in this part of Europe are formulated through national (in the ethnic sense), linguistic (according to the concept of mother tongue), and confessional affil-iation. As ethnostatistics are used as a basis for ethnodemographic research in Serbia, as well as in other countries in Eastern and Southeastern Europe, these are closely related to the concept of ethnic identity in demography.

Nowadays, the collection of ethnicity data is a contentious issue in many coun-tries (Simon and Piché 2012), but the study of ethnicity and national minorities has gained new importance and is be-coming the backbone of the policies of many modern societies (Gabbert 2015). Mass migrations, intensive aging and the declining fertility of the population have caused changes in the demographic structures of many countries in Eastern and Southeastern Europe, including Ser-bia, which, among other things, initiated a re-examination of existing concepts of ethnic identity (Knežević 2011; Simon 2012; Simon, Piché and Gagnon 2015; Knežević and Radić 2016). Current eth-nodemographic trends are the result of a large number of different factors. Unequal demographic development

and divergent trends of natural and spatial movement of different national communities are just some of the most significant ethnodemographic processes occurring in Serbia (Radovanović 1995; Knežević 2005). As previously mentioned, issues of national, linguistic and religious[1] identity in Serbia are mostly observed through official censuses and vital statistics, which is often a limiting factor in the demographic research of ethnicity. This is especially important because these issues are woven into the social, legal and political order of most countries. Therefore, there is a need to reconsider both the methodological solutions of ethnic statistics and their application in public policies (Đurić et al. 2014; Bašić and Lutovac 2020). Research into the ethnographic and ethnodemographic characteristics of the population of former Yugoslavia have shown that the results of official statistics cannot be an indicator of real demographic processes in the population, given that there were large regional and ethnic differences, while ethnic factors played a significant role in overall population dynamics (Radovanović 1996). Statistical issues of ethnic identity in multiethnic societies that are reflected in the results of censuses and vital statistics are gaining special importance, especially statistics of ethnicity and ethnodemographic research, but also in issues of public politics. This is especially noticeable in the research of floating ethnic groups, which vary statistically from census to census due to frequent changes in attitudes when declaring ethnic identity in official statistics because of the influence of various socio-cultural, political or economic factors (Radovanović 1995; Knežević 2017). Therefore, the available official ethnic statistics must be used with caution in demographic research, especially because that data represents a quantitative basis for minority policies.

Within this context, the central part of the paper focuses on the proposal of researching the use value of official ethnicity data through the application of various scientifically based demographic methods and techniques. The examination of long-term demographic trends according to ethnic characteristics of the population in Serbia raises the question of whether census and vital statistics data can be accepted without limitation as a quantitative basis, not only for demographic research, but also for formulating and implementing public policies, especially those defining the legal and political position of minorities. In a broader sense, the subject of the paper revolves around censuses and vital statistics as the main sources of data on the ethnic characteristics of the population of Serbia, which include nationality (in the sense of ethnicity), language (according to the concept of mother tongue), and religion.

The main goal of this paper is to check the quality of ethnicity data[2] that derives from censuses and vital statistics using different demographic approaches. This is done in several segments:

[1] Although religion in certain ethnological and anthropological research (as well as in official ethnostatistics) is considered an important ethnic feature of the population of Serbia, this data will not be analysed in this paper due to its long absence in vital statistics.

[2] Measuring the changes in the growth index can be a good starting point for checking the quality of ethnicity data. The growth index between two consecutive censuses can vary between 90-110, based on both components of population dynamics and with long-term stable trends of migrations. In the statistics of the Republic of Serbia, however, the growth index for some ethnic groups ranges from 7-1007. Such results have to be additionally and thoroughly looked through and checked with different demographic methods.

- Evaluation of the methodological approach to definitions of ethnic characteristics, methods of collecting data, ethnic categorisation within official statistical nomenclatures, processing, as well as the distribution and publication of data;
- Proposal of research that would check the quality of existing ethnostatistics data in Serbia by analysing their use value in demographic research;
- A review of selected documents that define minority issues whose quantitative basis is based on census statistics.

The results of the research into demographic characteristics of the population of Serbia according to ethnic characteristics indicate the need to review the methods of data selection on the basis of which minority policies are formulated and implemented in the Republic of Serbia. This task is based on the idea of applying the demographic approach as an unavoidable methodological corrective in the process of selecting official ethnic statistics data that would be incorporated into official legislation on which many segments of everyday life of minority communities depend. This implies that the research process offers various scientifically based methodological approaches to the analysis of ethnodemographic trends, respecting general and specific theoretical concepts based on the assumption of the diversification of ethnodemographic systems according to the outcomes of reproductive norms and migration processes. As already defined in the objectives of the paper, these tasks cannot be achieved without analysing all methodological approaches to statistics of ethnicity and a critical attitude towards the final data.

The defined goals imply the exhaustive use of ethnicity data from censuses and vital statistics recorded between 1948 and 2021. The expected results of the analysis should indicate the need for demographic approaches, both in ethnodemographic research and the primary selection of basic data on ethnicity in the creation and implementation of public policies aimed at addressing the problems faced by minority communities.

2 SELECTED RESULTS FROM PREVIOUS RESEARCH

The selected results are based on previous ethnodemographic research of the population of Serbia, published from 2014 to 2019 (Đurić et al. 2014; Knežević and Radić 2016; Knežević 2017; Knežević 2019; Knežević, Radić and Bakić 2019). The results of demographic research by declared nationality in Serbia after the Second World War indicate pronounced differences in population growth and decline, which confirms the previously presented thesis on the necessity of using an analytical approach to census data (Table 1).

The quantitative part of the research is expressed in the results obtained by statistical analysis of census data on the ethnicity of the population of Serbia from 1948 to 2011. The growth index (Table 2) and the standard deviation of the growth index by nationality (Table 3) show that in the inter-census periods, two models of changes in population dynamics are clearly distinguished.

Tabular comparative representations of the dynamics of the population of Serbia according to declared nationality and mother tongue as seen using data from the census between 1953 and 2011 show different levels of deviation according to the stated characteristics (Table 4).

Table 1 Population of the Republic of Serbia according to declared nationality, 1948–2011[3]

	1948	1953	1961	1971	1981	1991[1]	2002[1]	2011[1]
TOTAL	**6,527,966**	**6,979,154**	**7,642,227**	**8,446,591**	**9,313,677**	**7,759,920**	**7,498,001**	**7,186,862**
Serbs	4,823,730	5,152,939	5,704,686	6,016,811	6,182,159	6,252,405	6,212,838	5,988,150
Albanians[3]	532,011	565,513	699,772	984,761	1,303,032	15,406	61,647	5,809
Ashkali	/	/	/	/	/	/	584	997
Bosniaks	/	/	/	/	/	/	136,087	145,278
Bulgarians	59,472	60,146	58,494	53,800	33,455	26,698	20,497	18,543
Bunjevci[4]	/	/	/	/	/	21,434	20,012	16,706
Vlachs	93,440	28,047	1,368	14,724	25,596	17,804	40,054	35,330
Gorani	/	/	/	/	/	/	4,581	7,767
Greeks[5]	/	1,279	1,178	840	757	916	572	725
Egyptians	/	/	/	/	/	433	814	1834
Jews[5]	/	1,054	1,250	1,128	683	1,107	1,158	787
Armenians	/	/	/	/	/	/	/	222
Yugoslavs[6]	/	/	20,079	123,824	441,941	320,168	80,721	23,303
Hungarians	433,701	441,907	449,587	430,314	390,468	343,800	293,299	253,899
Macedonians	17,917	27,277	36,288	42,675	48,986	45,068	25,047	22,755
Muslims	17,315	81,081	93,467	154,330	215,166	180,222	19,503	22,301
Germans	41,460	46,228	14,533	9,086	5,302	5,172	3,901	4,064
Roma	52,181	58,800	9,826	49,894	110,959	94,492	108,103	147,604
Romanians	63,160	59,705	59,505	57,419	53,693	42,316	34,576	29,332
Russians	13,329	7,829	6,984	4,746	2,761	2,473	2,588	3,247
Ruthenians[2]	22,667	23,720	25,658	20,608	19,757	18,052	15,905	14,246
Slovaks	73,140	75,027	77,837	76,733	73,207	66,772	59,021	52,750
Slovenians	20,998	20,717	19,957	15,957	12,006	8,001	5,104	4,033
Turks	1,914	54,526	44,434	18,220	13,890	765	522	647
Ukranians[2]	/	/	/	5,643	5,520	5,042	5,354	4,903
Croats[4]	169,864	173,246	196,409	184,913	149,368	97,344	70,602	57,900
Aromanians	/	/	/	/	/	/	293	243
Montenegrins	74,860	86,061	104,753	125,560	147,466	118,934	69,049	38,527
Czechs	6,760	5,948	5,133	4,149	3,225	2,675	2,211	1,824
Šokci[4]	/	/	/	/	/	1,738	717	607
Šopi	/	/	/	/	/	/	/	142
Other	9,214	7,807	7,267	6,989	17,289	7,166	7,051	9,530
Undeclared	/	/	/	4,486	7,834	10,718	107,732	160,346
Regional	/	/	/	10,409	6,848	4,841	11,485	30,771
Unknown	/	1,994	5,604	30,274	43,222	47,958	75,483	81,740

[3] Periods between censuses are marked with frequent changes in statistical classifications of ethnicity, introduction of new modalities, summarising data for several ethnic groups, changes in definitions of nationalities and ethnic minorities, etc. These were all influenced by ideological and political narratives, especially in cases of attempts to create new ethnic concepts (Janjić 1988; Hayden 1992; Bufon 1997; Josipovič 2014; Knežević 2017).

Notes:
1) No data for Kosovo and Metohija;
2) Until the 1971 census, Ukrainians and Ruthenians were represented collectively;
3) In 1991 and 2011 there was incomplete census coverage in the municipalities of Preševo, Bujanovac, and Medveđa due to the boycott of the Albanian population;
4) Until the 1991 census, Bunjevci and Šokci were shown collectively with Croats;
5) In the 1948 census in the Socialist Federal Republic of Yugoslavia, a total of 6,853 Jews and 1,830 Greeks were listed, who were not specifically represented by republics but were classified in the category of others;
6) In the 1961 census, the Yugoslav modality included citizens who did not declare themselves as one particular nationality or who declared regional affiliation.

Source: Authors' representation based on online data from the Statistical Office of the Republic of Serbia (RZS 1948–2012).

Table 2 Growth index of Serbian population according to declared nationality, 1948–2011

	1953/48	1961/53	1971/61	1981/71	1991/81	2002/91	2011/02
TOTAL	**106.9**	**109.5**	**110.5**	**110.3**	**83.3**	**96.6**	**95.9**
Serbs	106.8	110.7	105.5	102.7	101.1	99.4	96.4
Albanians	106.3	123.7	140.7	132.3	1.2	400.1	9.4
Ashkali	/	/	/	/	/	/	170.7
Bosniaks	/	/		/	/	/	106.8
Bulgarians	101.1	97.3	92.0	62.2	79.8	76.8	90.5
Bunjevci	/	/		/	/	93.4	83.5
Vlachs	30.01	4.9	1076.3	173.8	69.6	225.0	88.2
Gorani	/	/		/	/	/	169.5
Greeks	/	92.1	71.3	90.1	121.0	62.4	126.7
Egyptians	/	/	/		/	188.0	225.3
Jews	/	118.6	90.2	60.5	162.1	104.7	68.0
Yugoslavs	/	/	616.7	356.9	72.4	25.3	28.9
Hungarians	101.9	101.7	95.7	90.7	88.0	85.4	86.6
Macedonians	152.2	133.0	117.6	114.8	92.0	55.6	90.8
Muslims	468.3	115.3	165.1	139.4	83.8	10.8	114.3
Germans	111.5	31.4	62.5	58.35	97.5	75.4	104.2
Roma	112.7	16.7	507.8	222.4	85.2	114.4	136.5
Romanians	94.5	99.7	96.5	93.5	78.8	81.7	84.8
Russians	58.7	89.2	68.0	58.2	89.6	104.6	125.5
Ruthenians	104.6	108.2	80.3	95.9	91.4	88.1	89.6
Slovaks	102.6	103.7	98.6	95.4	91.2	88.4	89.4
Slovenians	98.7	96.3	80.0	75.2	66.6	63.8	79.0
Ukranians	/	/	/	97.8	91.3	106.2	91.6
Turks	2,848.8	81.5	41.0	76.2	5.5	68.2	123.9
Croats	102.0	113.4	94.1	80.8	65.2	72.5	82.0
Aromanians	/	/		/	/	/	82.9
Montenegrins	115.0	121.7	119.9	117.4	80.7	58.1	55.8
Šokci	/	/	/	/	/	41.3	84.7
Czechs	88.0	86.3	80.8	77.7	82.9	82.7	82.5
Muslims/Bosniaks	468.3	115.3	165.1	139.4	83.8	86.3	107.7
Ruthenians/Ukrainians	104.6	108.2	103.4	95.3	91.4	92.1	90.1
Croats/Bunjevci/Šokci	102.0	113.4	94.1	80.8	80.7	75.8	82.3

Source: Knežević (2017: 445).

Table 3 Standard deviation of the growth index by nationality, 1948–2011

	StDev		StDev
TOTAL	10.3	Greeks	25.8
Turks	**1,052.4**	Russians	25.0
Vlachs	**377.6**	Croats	16.9
Yugoslavs	**260.9**	Bulgarians	13.5
Roma	**160.7**	Slovenians	13.4
Muslims/Bosniaks	**145.8**	Ruthenians	9.7
Albanians	**132.2**	Romanians	8.1
Jews	37.1	Bunjevci	7.0
Macedonians	31.7	Ukranians	7.0
Šokci	30.7	Hungarians	7.0
Montenegrins	29.8	Slovaks	6.2
Germans	28.8	Serbs	4.8
Egyptians	26.4	Czechs	3.4

Source: Knežević (2017: 447).

Table 4 Population of Serbia by declared nationality and mother tongue, 1953–2011

	1953	1961	1971	1981	1991	2002	2011
Albanians	**565,513**	**699,772**	**984,761**	**1,303,032**	**15,406**	**61,647**	**5,809**
Albanian	*561,976*	*684,166*	*967,416*	*1,309,197*	*19,004*	*63,835*	*10,040*
Bosniaks	/	/	/	/	/	**136,087**	**145,278**
Bosnian	/	/	/	/	/	*134,749*	*138,871*
Bulgarians	**60,146**	**58,494**	**53,800**	**33,455**	**26,698**	**20,497**	**18,543**
Bulgarian	*59,166*	*56,325*	*49,942*	*35,269*	*25,408*	*16,459*	*13,337*
Bunjevci	/	/	/	/	**21,434**	**20,012**	**16,706**
Bunjevački	/	/	/	/	/	/	*6,835*
Aromanians	/	/	/	/	/	**293**	**243**
Aromanian	/	/	/	/	/	*114*	*91*
Montenegrins	/	/	/	/	/	/	**38,527**
Montenegrin	/	/	/	/	/	/	*2,519*
Czechs	**5,948**	**5,133**	**4,149**	**3,225**	**2,675**	**2,211**	**1,824**
Czech	*4,140*	*4,295*	*3,612*	*1,923*	*2,036*	*1,287*	*810*
Gorani	/	/	/	/	/	/	**7,767**
Goranski	/	/	/	/	/	/	*1,636*
Greeks	**1,279**	**1,178**	**840**	**757**	**916**	**572**	**725**
Greek	*1,268*	*1,158*	*906*	*798*	*1,307*	*421*	*470*
Jews	/	**1,250**	**1,128**	**683**	**1,107**	**1,158**	**787**
Hebrew	/	*115*	*161*	*39*	*520*	*18*	*28*
Armenians	/	/	/	/	/	/	**222**
Armenian	/	/	/	/	/	/	*156*
Hungarians	**441,907**	**449,587**	**430,314**	**390,468**	**343,800**	**293,299**	**253,899**
Hungarian	*442,423*	*449,432*	*430,621*	*374,639*	*348,320*	*286,508*	*243,146*
Macedonians	**27,277**	**36,288**	**42,675**	**48,986**	**45,068**	**25,047**	**22,755**
Macedonian	*26,937*	*33,329*	*36,213*	*29,421*	*27,171*	*14,355*	*12,706*
Germans	**46,228**	**14,533**	**9,086**	**5,302**	**5,172**	**3,901**	**4,064**
German	*46,001*	*14,474*	*8,935*	*3,717*	*4,246*	*2,279*	*2,190*
Roma	**58,800**	**9,826**	**49,894**	**110,959**	**94,492**	**108,103**	**147,604**
Romani	*55,324*	*19,071*	*50,916*	*91,443*	*78,406*	*82,242*	*100,668*

Romanians	**59,705**	**59,505**	**57,419**	**53,693**	**42,316**	**34,576**	**29,332**
Romanian	*66,594*	*60,372*	*64,832*	*56,393*	*45,565*	*34,515*	*29,075*
Russians	**7,829**	**6,984**	**4,746**	**2,761**	**2,473**	**2,588**	**3,247**
Russian	*6,471*	*6,308*	*4,266*	*1,851*	*2,072*	*2,199*	*3,179*
Ruthenians	/	/	**20,608**	**19,757**	**18,052**	**15,905**	**14,246**
Ruthenian	*22,111*	*23,944*	*19,209*	*16,215*	*16,095*	*13,458*	*11,340*
Slovaks	**75,027**	**77,837**	**76,733**	**73,207**	**66,772**	**59,021**	**52,750**
Slovak	*73,293*	*77,249*	*75,511*	*67,563*	*66,144*	*57,498*	*49,796*
Slovenians	**20,717**	**19,957**	**15,957**	**12,006**	**8,001**	**5,104**	**4,033**
Slovenian	*16,389*	*16,551*	*13,135*	*8,396*	*7,443*	*3,024*	*2,269*
Serbs	**5,152,939**	**5,704,686**	**6,016,811**	**6,182,159**	**6,252,405**	**6,212,838**	**5,988,150**
Serbian	/	/	*6,412,559*	/	/	*6,620,699*	*6,330,901*
Croats	**173,246**	**196,409**	**184,913**	**149,368**	**97,344**	**70,602**	**57,900**
Croatian	/	/	*91,500*	/	/	*27,588*	*19,223*
Serbian, Serbo-Croatian, Croato-Serbian, Croatian	*5,364,717*	*6,056,245*			*7,108,148*	*6,847,226*	/
Šokci	/	/	/	/	**1,738**	**717**	**607**
Šokački	/	/	/	/	/	/	*363*
Šopi	/	/	/	/	/	/	**142**
Šopski	/	/	/	/	/	/	*1,482*
Turks	**54,526**	**44,434**	**18,220**	**13,890**	**765**	**522**	**647**
Turkish	*27,984*	*23,796*	*15,606*	*16,351*	*904*	*432*	*420*
Ukranians	/	/	**5,643**	**5,520**	**5,042**	**5,354**	**4,903**
Ukranian	/	/	*4,415*	*2,019*	*3,256*	*2,668*	*1,909*
Vlachs	**28,047**	**1,368**	**14,724**	**25,596**	**17,804**	**40,054**	**35,330**
Vlach	*198,861*	*106,656*	*139,902*	*129,613*	*71,534*	*54,818*	*43,095*
Other	**7,807**	**7,267**	**6,989**	**17,289**	**7,166**	**7,051**	**9,530**
Other languages	*36,955*	*3,031*	*17,129*	*7,274*	*150,619*	*14,958*	*32,098*
Undeclared	/	/	**4,486**	**7,834**	**10,718**	**107,732**	**160,346**
Undeclared	/	/	/	/	/	/	*46,499*
Unknown	**1,994**	**5,604**	**30,274**	**43,222**	**47,958**	**75,483**	**81,740**
Unknown	*1,936*	*5,585*	*39,805*	*53,407*	*42,295*	*63,877*	*81,692*

Note: In the table, nationality is indicated first, then the corresponding language.

Source: Knežević (2019: 464).

It should be noted that the methodological problems of ethnodemographic studies of floating ethnic groups are especially evident in the harmonisation of census and vital statistics data, on the basis of which demographic indicators and trends are derived. Comparing data from vital statistics on natural increase and census statistics on the absolute increase in the number of members of selected variable ethnic groups in Serbia (Table 5) in the last inter-census period, we conclude that there is no correlation between these two indicators. That means that this data, although it is the only official source, cannot form the basis for establishing scientifically based demographic trends, on the basis of which it would be possible to draw conclusions, especially those that would directly affect various aspects of legal, political, cultural, and overall social positions of floating ethnic groups.

Table 5 Natural increase (J) and absolute growth (R) of selected varying ethnic groups in Serbia, 2002–2011

	J	R
Albanians	7,892	-55,838
Montenegrins	-2,139	-30,522
Yugoslavs	383	-57,418
Germans	-812	163
Roma	21,301	39,501
Vlachs	-525	-4,724

Source: Authors' representation based on census and demographic statistics from the Statistical Office of the Republic of Serbia (RZS 2002–2011).

Due to the evident statistical oscillations of data on ethnic characteristics in different inter-census periods and current vital statistics, the research proposal implies the use of specific methodological approaches to demographic analysis, as well as the use of standard demographic indicators of natural change and migrations.

Based on the presented results of the research on the variability of the population growth index of Serbia according to declared national affiliation from 1948 to 2011, two models of growth dynamics stand out. The first model is characterised by uniform or slightly variable changes in the growth index in both directions, the causality of which is based on interpretable demographic trends derived from census and vital statistics. The low variability of the growth index of Serbs, Bulgarians, Bunjevci, Hungarians, Macedonians, Romanians, Russians, Ruthenians, Slovaks, Slovenians, Ukrainians, Croats, and Czechs was influenced by relative stability in the expression of national identity in censuses[4] and relatively linear trends of natural increase and migrations. There is a continuous and steady decline in the observed period of the number of Slovenians, Romanians, Russians, and Czechs, while the population dynamics of Serbs, Macedonians, Hungarians, Bulgarians, Ruthenians, Slovaks, and Croats is characterised by an initial slight increase and then a decline until the end of the observed period (Table 1). On the other hand, based on the results of the analysis of the standard deviation of the growth index, ethnic communities that are characterised by variable models of population dynamics stand out. However, it would be unfounded to attribute any oscillation in population dynamics to floating behaviour in national declaration in censuses. Although the values of standard deviations clearly distinguish variable ethnic groups (Table 3), it should be considered that the range of deviations cannot serve as a complete basis for qualitative separation of floating ethnic groups because it meets only the numerical principle of grouping. Given that the variability of floating ethnic groups is primarily determined by changes in attitudes towards national declaration in censuses (which is caused by a wide range of socio-cultural, political, and economic factors), it is necessary to single out those whose variability could be affected by changes in methodological solutions in statistics of ethnicity, changes in the statistical nomenclature of nationalities, or interstate agreements on population relocation. The basic characteristics of this type of variability are predictability and the possibility of reconstruction of demographic trends (Knežević and Radić 2016; Knežević 2017).

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[4] The low variability and linear trends of the growth index of these ethnic groups expressed in the research results do not exclude ethnic mimicry and a certain number of their members in the circumstances under which censuses were conducted, although these groups cannot be characterised as floating.

Observing the numerical relations between the number of people declared per nationality and the number of inhabitants with the corresponding mother tongue in censuses from 1953 to 2011, it is possible to single out three models of congruence.

The first model is represented by population contingents where the national and linguistic declarations are harmonised with slight deviations. This group includes Albanians[5], Bulgarians, Slovaks, Hungarians, Germans[6], and Romanians (whose number in all censuses was slightly lower than the number of inhabitants who declared Romanian to be their mother tongue). In terms of assimilation, acculturation, and other socio-cultural processes, census data on these groups leads to a conclusion of preserved linguistic identities, regardless of the intensity, direction, and causes of demographic processes.

The second model of numerical relations between the national and linguistic affiliation of the population of Serbia is shown by a moderate correlation characterised by a smaller number of inhabitants of the belonging languages in relation to the number of people declared per nationality, in similar proportions, and in almost all censuses. Regardless of the intensity and direction of population dynamics, these trends are expressed among Slovenians, Czechs, Russians, and Macedonians in Serbia.

The third and most interesting model is presented by floating, statistically variable ethnic groups. The most significant discrepancies were evidenced between national and linguistic affiliation among the Vlachs and Roma. These were also evident among the Turks in the first post-war censuses, while the sharp increase in the number of Greek native speakers in the 1991 census cannot be explained by well-founded ethnodemographic approaches (Knežević 2019).

3 METHODOLOGICAL FRAMEWORK OF THE RESEARCH PROPOSAL

The methodology of this research proposal is based on the general assumption that the quality of official ethnic data could be verified by certain demographic approaches. In this sense, we provide several starting hypotheses:

- The use value of official statistical data of ethnicity in Serbia is limited;
- The quality of ethnicity data, calculated indicators, and derived trends can be checked within the demographic framework;
- The quality of census and vital statistics data is directly affected by non-demographic factors such as the officially accepted concept of ethnicity, unstable social and political circumstances that construct identity policy, and the adaptability of ethnic statistic methodology to political and social changes;
- Non-demographic factors affect quantitative demographic research that cannot be explained by demographic theory and practice;
- The official database from the census and vital statistics cannot fully

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[5] The significant decline in the number of Albanians since 1991 is due to the mass boycott of the census in Republic of Serbia by Kosovo and Metohija Albanians, who used the boycott of the census to meet political goals. The number of Albanians in the 2002 and 2011 censuses refers only to Albanians from Central Serbia, the censuses were not conducted in Kosovo and Metohija provinces.

[6] An important cause of the variability within this ethnic group is the protocol between the governments of former Yugoslavia and the Federal Republic of Germany on mutual information on the naturalisation of citizens of the two countries from 1954, which regulates emigration and loss of Yugoslav citizenship.

represent an objective basis for ethnodemographic studies, and thus it can't be an objective data source for minority policymaking;

- The results of demographic analysis could be an integral part of the methodology for selecting data for formulating minority policies in the Republic of Serbia.

Demography most often prioritises data collection, classification, and analysis, which is a procedure that is more appropriate for natural sciences than it is for social sciences and humanities. On the other hand, in most social sciences and humanities, in addition to the usual methodological preparations, priority is given to research planning through defining subjects and determining the two-dimensional time-space framework of research. Considering the position of demography in the system of sciences and the pronounced multidisciplinary character of ethnodemographic research, methodological solutions and experiences of other social sciences are included, with special emphasis on correctly defining all problems that arise in the adequate application of available data sources. The demographic method precisely directs the researcher to phase research, from collecting, processing, and arranging data through their demographic analysis to the phase of causal research, which synthesises all known logical thought processes, such as analysis and synthesis, abstraction and generalisation, induction, and deduction.

On the other hand, demographic statistics is a special branch of applied statistics that studies the specifics in terms of population data collection, demographic characteristics, and classifications, as well as issues related to the processing and presentation of population data. Although the demographic method grew out of demographic statistics, it is significantly specific, and in many forms characteristic of demographic science in general and its disciplines, such as ethnodemography (Serdar 1977; Breznik 1988; Pejčić 1995; Knežević 2013).

4 RESEARCH PROPOSAL FOR THE DEMOGRAPHIC ANALYSIS OF THE QUALITY OF ETHNICITY DATA

We contend that the presented results serve as a sufficient argument for a broader methodological discussion regarding the necessity of demographic research of ethnicity that would offer a "more objective" demographic perspective of minorities in Serbia. Our research proposal is based on previous experiences and results of demographic analyses of the population of Serbia according to ethnic characteristics and focuses on the demographic framework of ethnic statistics of the population of Serbia through data quality analysis.

After introductory and methodological discussions, the research proposal considers a theoretical review of ethnic identity issues, followed by research into the links between accepted interpretations of ethnic identity and statistical practice, with a focus on the methodological problems of official statistical data of ethnicity.

Therefore, the general structure of the research will primarily respect existing theoretical understandings of ethnic identity, from early debates and conceptualisation through primordial paradigms to the emergence of instrumentalism and ethnic mimicry in response to the common interest of individual ethnic groups in the theoretical framework of rational choice, as well as theoretical understandings of ethnic identity and the creation of the concept of the modern man in multiethnic

societies. The theoretical significance of ethnic identity in demography is reflected in the study of biosocial and ethnodemographic systems (Radovanović 1988) and their interrelationships, and how ethno-cultural determinants of society can affect demographic development and existing fertility and migration patterns in society.

A particularly important segment of the research proposal could be the analysis of the existing statistical practice of collecting data on ethnic characteristics of the population, with special emphasis on ethnic statistics experience during the XIX century, as well as methodological issues around ethnic categorisations of official statistics. In addition to the census, the research will include an overview of the records of ethnic characteristics of the population in vital and accessible migration statistics, while observing the existing methodological problems and limitations.

The central part of the study will be the demographic approach that will serve as a methodological corrective for checking the quality of official ethnic data. Using standard and specialised demographic methods and techniques, the paper will examine available data and whether it can form the basis for creating minority policies in Serbia. Using simple demographic indicators such as absolute increase or decrease, or the population growth index, we will notice that there are certain irregularities in the dynamics of the population of Serbia according to ethnic characteristics that cannot be explained by demographic factors. It is a similar situation with the indicators of natural movement, so the research will approach the process of standardisation of rates in order to identify irregularities that occur due to methodological problems in collecting vital statistics according to ethnicity. The paper will also assess the statistical significance of the components

of population dynamics of variable ethnic groups which, due to the oscillation of the total number of groups, are particularly difficult to monitor.

As a form of specific data processing, we propose the index of ethnic factionalisation (Fearon 2003), which measures the degree of ethnic diversity in a population, as well as statistical tools of standard deviation and cluster analysis (Murtagh and Legendre 2014) on sets of general demographic indicators of population by ethnicity, such as birth rates, mortality rates, and natural increase, as well as population growth indexes, aging, and population concentration, whose results will allow the presentation of variable models of population dynamics. In the absence of adequate data for longitudinal analysis, cohort influences by ethnicity will only be partially considered using the pseudo-cohort method (Radić and Bakić 2018).

After the expected result, which according to the hypotheses implies the relativisation of the quality of ethnic data in demographic terms, the research plan includes a comparative review of selected public policy documents in the field of minority rights in the Republic of Serbia, which rely on official statistics. Given the great importance of official data sources for formulating minority policies and exercising minority rights, it is especially important to investigate which data on ethnic characteristics of the population can form an integral part of minority policies and which statistical and methodological problems are faced by invisible or floating ethnic groups. From all the above, there is a need to create alternative data sources whose function would be to improve the existing statistics of ethnicity. The final part is dedicated to finding alternative solutions for creating the highest quality ethnicity database that could be applied in scientific and political practice.

5 CONCLUSION

Selected results of previous surveys based on official ethnostatistics data, primarily national and linguistic affiliation of the population of Serbia, show low use value in demographic research. If they are not adequate for deriving basic demographic indicators, our opinion is that they are not sufficiently usable for other purposes, especially for defining and implementing sensitive public policies concerning the legal, political, and general social position of certain ethnic groups. The expected scientific contribution of the research proposal presented in this paper can be multidimensional. The contribution is based on the improvement of theoretical and methodological thought on the problem of demographic approaches to the study of ethnicity, and also to find new methodological solutions for providing better ethnostatistics. Their complexity goes beyond demographics, and the solutions and applicability offered further enrich the multidisciplinary character of demography in theoretical and practical terms. The analysis of derived demographic indicators unequivocally shows the real possibilities of verifying the use value of official data of ethnicity, which would change the prevailing practices in demography, but also in the application of public data. Demographic analyses of the population according to ethnic characteristics are most often described simply in officially published data, behind which numerous factors of a non-demographic nature are hidden.

On the other hand, one of the results of this research will confirm the relevance of ethnic statistics for certain ethnic groups, while completely unusable statistical material is expected for certain statistical ethnicity modalities. This second result should initiate the improvement of existing statistics, as well as emphasising the use of alternative sources of sensitive data. This is especially important for those ethnic groups that show significant oscillations in population dynamics. In that way, unfounded interpretations and conclusions that form the basis of public or minority policies would be avoided. Those ethnic groups that are often outside the scope of public policies, such as statistically hidden minorities or floating ethnic groups, could become more visible, both to official statistics and to decision-makers.

The practical result of the work can initiate a set of proposals for the improvement of existing ethnic statistics, as well as solutions for the design of alternative sources of ethnic data that could be equally used as a basis for policymaking. Removing methodological obstacles in official ethnic statistics would enable a more objective view of the ethnic structure of the Republic of Serbia, as well as population dynamics of ethnic groups and their spatial dispersion. As demographic trends are one of the basic elements of strategic and planning reports, the results of the work could allow us to overcome the methodological problems of ethnostatistics, enable more objective demographic analysis and, ultimately, improve the coverage of national minorities under public policy measures.

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Demografski pristup kvalitetu podataka zvanične etnostatistike u Srbiji – predlog istraživanja

OPŠIRNIJI REZIME

Veliki broj država i danas razmatra da li da prikuplja podatke o etničkoj pripadnosti stanovništva. Međutim, u uslovima velikih socioekonomskih promena, upravo demografska proučavanja stanovništva prema etničkim obeležjima dobijaju novi značaj i postaju okosnica politika mnogih modernih društava. Brojni demografski procesi poput intenzivne emigracije, starenja i dugoročnog opadanje fertiliteta u Republici Srbiji inicirali su promene ukupnih demografskih trendova i struktura i kod mnogih etničkih zajednica. Etnodemografski trendovi, kao i pitanja nacionalnog, jezičkog i verskog identiteta, u multietničkoj sredini kao što je Srbija pretežno se posmatraju na osnovu podataka zvanične etnostatistike. Jedan od značajnijih faktora kvaliteta podataka je primena subjektivnog kriterijuma pri samodeklarisanju etničkih obeležja (nacionalne, verske i jezičke pripadnosti) u popisima i vitalnoj statistici. U širem smislu, predmet rada predstavljaju popisi i vitalna statistika kao glavni izvori podataka o etničkim obeležjima stanovništva Srbije u koja spadaju nacionalna (u etničkom smislu), jezička (prema konceptu maternjeg jezika) i verska pripadnost. Rezultati istraživanja demografskih karakteristika stanovništva Srbije prema etničkim obeležjima preferiraju preispitivanje dosadašnjih metoda odabira izvora podataka, na osnovu kojih se formulišu i implementiraju politike prema manjinskim etničkim zajednicama u Republici Srbiji. U radu je predstavljen jedan od predloga istraživanja kvaliteta etnostatstičkih podataka u Srbiji i njihove upotrebne vrednosti u demografskim istraživanjima. Usled evidentnih statističkih oscilacija podataka o etničkim obeležjima u različitim međupopisnim periodima i vitalnoj statistici, u radu će biti korišćeni i specifični metodološki pristupi demografske analize sa upotrebom standardnih demografskih pokazatelja prirodnog i prostornog kretanja stanovništva. Istraživanje uključuje procenu uticaja primenjenih metodoloških rešenja etnostatistike na kvalitet podataka, predlog pristupa demografske analize prema etničkim obeležjima stanovništva, kao i ograničenja pri analizi kauzalnosti dobijenih trendova. Ispitivanje kvaliteta etnostatističkih podataka je posebno važno za analizu pokazatelja statistički varijabilnih manjinskih etničkih grupa, koje su zbog slabog kvaliteta podataka u popisima i vitalnoj statistici često van obuhvata javnih politika. Rezultati istraživanja mogu predstavljati osnovu za preispitivanje odabira izvora podataka na osnovu kojih se formulišu i sprovode politike prema etničkim manjinama u Srbiji. Kako su demografska istraživanja jedan od osnovnih elemenata strateških i planskih izveštaja, rezultati rada bi mogli da omoguće prevazilaženje metodoloških problema etnostatistike, objektivniju demografsku analizu i poboljšanje obuhvata nacionalnih manjina merama javnih politika.

KLJUČNE REČI

etnostatistika, kvalitet podataka o etnicitetu, etnodemografski trendovi, statistički varijabilne etničke grupe, Srbija