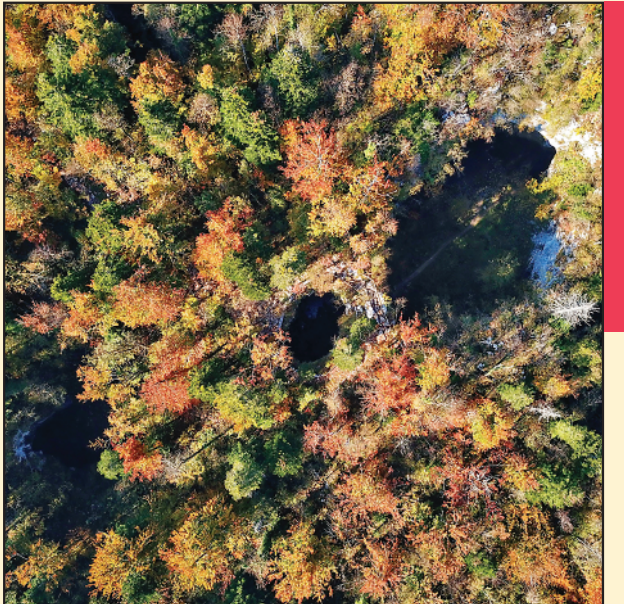


# ACTA GEOGRAPHICA SLOVENICA

GEOGRAFSKI  
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2019  
**59**  
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# ACTA GEOGRAPHICA SLOVENICA

## GEOGRAFSKI ZBORNIK

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*Fotografija na naslovnici:* Raziskave udornice, kot je ta pri Malem Naravnem mostu v Rakovem Škocjanu, so v zadnjih letih omogočile globlje razumevanje kraških procesov (fotografija: Matej Lipar).

# GENDER, AGE AND EDUCATION DIFFERENCES IN FOOD CONSUMPTION WITHIN A REGION: CASE STUDIES OF BELGRADE AND NOVI SAD (SERBIA)

Nikola Darko Vuksanović, Dragan Tešanović, Bojana Kalenjuk, Milijanko Portić



Food consumption contributes significantly to regional development.

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## **Gender, age and education differences in food consumption within a region: Case studies of Belgrade and Novi Sad (Serbia)**

**ABSTRACT:** Nowadays, each tourist visits a region for certain reasons, a different type of tourism, but besides the main motives, food and beverages are an inevitable attraction. Some tourists' characteristics, such as gender, age and education of tourists, contribute significantly to food and beverages consumption. The authors recognized the importance of gender, age, and education in analyzing food and beverage consumption as an important component of tourist products. The study makes a significant conceptual contribution towards the spatial/economic development for those who are seeking to integrate local food and beverage into the tourist product.

**KEY WORDS:** geography, gender, age, education, food consumption, economic development, Belgrade, Novi Sad

## **Razlike v porabi hrane v izbrani regiji na podlagi spola, starosti in izobrazbe: Primer Beograda in Novega Sada**

**POVZETEK:** Danes ima vsak turist svoje posebne razloge za obisk določene regije. Lahko si želi drugačne vrste turizma, poleg glavnih razlogov pa ga pritegneta zlasti lokalna hrana in pijača. Nekatere lastnosti turistov, kot so spol, starost in izobrazba, pomembno vplivajo na porabo hrane in pijače. Avtorji so pri analizi porabe hrane in pijače kot pomembne prvine turističnih proizvodov ugotovili, da imajo spol, starost in izobrazba pomembno vlogo. Raziskava ponuja pomemben konceptualni prispevek k prostorskemu/gospodarskemu razvoju tistih ponudnikov, ki poskušajo v svoje turistične proizvode vključiti lokalno hrano in pijačo.

**KLJUČNE BESEDE:** geografija, spol, starost, izobrazba, poraba hrane, gospodarski razvoj, Beograd, Novi Sad

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# 1 Introduction

Tourists with different cultural and religious backgrounds and socio-demographic characteristics, as well as with different personality traits related to food and past experience may have different motivations for the food consumption within a region. Accordingly, the destination management is now using local food and beverages through the food culture and as an aesthetic experience for tourists, which causes pleasant emotions, increases their understanding of local community and culture, satisfies their curiosity about local community and fulfils tourists' need to learn about the local culture (Chang, Kivela and Mak 2011).

The purpose of our previous research (Vuksanović et al. 2017) was to examine the differences between the demographic and socio-economic characteristics of foreign tourists, as determinants, in the perception of local gastronomy, while in this study authors analyzed gender, age, and education of foreign tourists in relation to food and beverage consumption as an important component of tourist product. The research was done in two cities, but authors recommend that for future research it would be very useful to replicate this research in other regions (mountain, spa and other forms of tourism) and cities (Subotica, Niš, Kragujevac) across the Republic of Serbia.

The scale used in previous research (Vuksanović et al. 2017) referred to local gastronomy and included three aspects (according to Jalis et al. 2009; Qing-Chi et al. 2013) of food distinctiveness and accessibility, food diversity and enjoyment, and food quality and presentation. The work of Vuksanović et al. (2017) leaves a room for new research, for example, examining whether gender, age and education of foreign tourists have an impact on food and beverages consumption within a region. The results of previous studies (Mak et al. 2012; Kim, Eves and Scarles 2009) highlighted that socio-demographic characteristics of tourists (gender, age and education) are important factor in measuring food consumption.

From the aspect of geography, food is the field of human geography. Geography deals with spatial processes in human and physical environments. Such processes have an impact on food, and they can be viewed through multiple geographical disciplines (physical, social, medical and economic geography) (Gillespie 2001). Geographers dealing with physical, economic, social, urban, rural, cultural, medical and agricultural geography have their own views on the analysis of the food system. They analyze the production, consumption, supply and distribution of food from the local to the global level (Atkins and Bowler 2001).



MIHAILO BERČEK, TOP SRBIJA

Figure 1: Serbian cuisine.

In previous studies (Buller 2014; McDonagh 2014; Tornaghi 2014; Woods 2012), many authors have dealt with research on food geographies, and other disciplinary discussions around food. Previous research (Brice 2014; Dudley 2011; Poe et al. 2014; Yeh and Lama 2013), pointed out that interconnection between space and identity is interrogated through the production and consumption of food, food places and through the broader political-economies of food ecologies and practices.

Mak et al. (2012) identified five main socio-cultural and psychological factors of tourist food consumption (motivational factors, religious and cultural influences, food-related personality traits, exposure and past experience, and socio-demographic factors). They claimed that these five factors are interconnected and that socio-demographic effects are just as important as other factors that affect the tourist's tendency toward food consumption.

A large number of studies show that food can be a major or one of the main motivators for traveling to a destination (Hall and Mitchell 2005; Long 2004; Mak et al. 2012; Hjalager and Richards 2002). In addition, Kivela and Crofts (2006) emphasized that food as a main motivation for travel is a valid construct and that food plays an important role that affects the overall tourism experience. Currently, the religion is considered to be a very important determinant affecting food selection and consumption (Sheldon and Fox 1988) while the culture is a major determinant that affects type of food that a person considers acceptable for consumption (Prescott et al. 2002). Kim, Eves and Scarles (2009) pointed out that food-related personality traits and past experience (the exposure effect) can be determinants which influence food consumption. At the same time, socio-demographic characteristics of an individual can be a determinant that affects food consumption.

In the field of tourism and hospitality research, several studies (Ignatov and Smith 2006; Kim, Eves and Scarles 2009; Khan 1981; Mitchell and Hall 2003) indicated that tourists' demographic and socio-economic characteristics influence their preferences towards local food. Some studies (Furst et al. 1996; Khan 1981; Randall and Sanjur 1981) related to food consumption recognized socio-demographic characteristics as significant variables in explaining variations in food consumption. Franklin and Cragg (2001) indicated that demographic variables significantly influence choices for a region. In other way, studies that used sociodemographic variables assume that these variables are oversized (Schofield and Thompson 2007; Huh, Uysal and McCleary 2006) – i.e. they pointed out that gender and age are the least significant differentiating variables for the motivation dimensions.

Previous studies showed that female respondents, as compared to male, are more interested in and more excited about degustation of local food when they are on vacation (Kim, Eves and Scarles 2009; Ignatov and Smith 2006) and that they are more price sensitive and ready to taste new or unusual fruit and vegetables (Mitchell and Hall 2003). Thus, the following hypothesis is proposed:

*H1* – There are statistically significant differences between male and female foreign tourists in relation to food and beverage consumption within a region.

In the field of tourism and hospitality research, the consumption of food is narrowed for elder respondents (Tse and Crofts 2005) and that they are more health concerned (Kim, Eves and Scarles 2009), while Olsen (2003) quotes that older tourists can be positively oriented towards consumption of sea food. Based on the above-mentioned findings, the following hypothesis is proposed:

*H2* – There are statistically significant differences among foreign tourists of different age groups in relation to food and beverage consumption within a region.

A common agreement among researchers is that the respondents with higher education level are more health concerned (Kim, Eves and Scarles 2009), that higher education level increases food related sensation (Glanz et al. 1998) and that the respondents with higher education level have more tendencies towards local food consumption (Zeppel and Hall 1991). Wadolowska, Babicz-Zielinska and Czarnocinska (2008) pointed out that the respondents with primary education have a negative or neutral perception of food. Considering the results of earlier research, this study has the following hypothesis:

*H3* – There are statistically significant differences among foreign tourists of different level of education in relation to food and beverage consumption within a region.

This study will focus on foreign tourists who visited Belgrade and Novi Sad (the Republic of Serbia). At the same time, the purpose of this paper was to examine the differences between the gender, age and education of foreign tourists and the cities in relation to food and beverages consumption within a region as an important component of tourist product.

## 2 Methods

Fieldwork for this study was carried out in Belgrade and Novi Sad in the Republic of Serbia. Both cities are the administrative, economic, political and cultural centres (Garača, Jovanović and Zakić 2011). Belgrade is located at the confluence of the Sava and Danube rivers, where the Pannonian Plain meets the Balkan Peninsula, while Novi Sad is located in the south of the Pannonian Plain. With their history, cultural assets and high quality accommodation facilities, Belgrade and Novi Sad host many domestic and international events (Internet 1; Internet 2). Thus, they are mostly considered cultural regions (Garača, Jovanović and Zakić 2011). Along with a cultural heritage deeply rooted in history, the cities offer opportunities for their visitors to taste the unique delicacies of local cuisine in the traditional restaurants scattered across the cities. Large number of restaurants allowed researchers to reach a great number of tourists and that was one of the main reasons for their selection.

The survey was conducted on-site at casual local eateries (e.g. *restoran domaće kuhinje*) and fine dining restaurants located in the streets Skadarlija (Belgrade) and Zmaj Jovina (Novi Sad). These two streets have nearly 50 restaurants with local cuisine and therefore they are mostly visited by foreign tourists (Internet 3; Internet 4). According to the data obtained from the Statistical Office of the Republic of Serbia (Internet 5), Belgrade and Novi Sad were visited mostly during these two months and in the last ten years. A team of ten researchers – previously trained graduated gastronomy and marketing students – undertook the survey during different days of the week (usually during afternoon and in the evening), over a period of two months (June–July, 2016). During the survey period, 1000 questionnaires were distributed, and 674 usable questionnaires were returned (usable response rate = 67.4%). In Table 1 presents design of the sample which includes information about sample and population, sampling error and confidence level.

Table 1: The sample design research data.

Collection method	Self-administrated questionnaire	
Sampling unit	Tourist over 18 years of age; tasted food and beverage during his/her stay in Belgrade and Novi Sad (the Republic of Serbia)	
Population size	455.957 per year	
Sample Type	Simple random sample	
	Belgrade	Novi Sad
Confidence level	95%	99%
Sampling error	3.8%	5%

The questionnaire was composed of three parts. The first part of the questionnaire was an agreement of respondents to fill in the questionnaire. The questionnaire was anonymous. The second part referred to demographic and socio-economic characteristics of respondents: gender, age, education, occupation, reason for visiting the region and country of tourist's origin. The last part contained a list of eight food and beverage attributes compiled based on previous studies (Qing-Chi et al. 2013; Verbeke and Lopez 2005). Earlier studies (Baloglu and McCleary 1999) have indicated that the term »local food« contributes to the popularity of region and tourist consumption of food. The answers were measured by using the Likert scale, as follows: 1 – Strongly disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly agree.

## 3 Results

### 3.1 Characteristics of the respondents

The demographic profile of the respondents is summarized in Table 2. The study included 674 respondents of which 332 were in Novi Sad and 342 in Belgrade. Out of the total number of respondents, 51.3% were male and 48.7% female. Almost half of the respondents are younger people, 18 to 30 years of age.



Table 2: Respondents' demographic data (n = 674).

Variables	Sample size	Share	Variables	Sample size	Share
<b>Gender</b>			<b>Occupation</b>		
Male	346	51.3%	Unemployed	43	6%
Female	328	48.7%	Retired	24	4%
			Employed	489	72.5%
			Student	118	17.5%
<b>Age</b>			<b>Reason for visit</b>		
18–30	316	47%	Vacation	175	26%
31–40	167	25%	Business purposes	140	21%
41–50	95	14.5%	Shopping	98	14.9%
51–60	72	10.5%	Visiting friends	100	15.1%
over 60	24	3%	Food and culture	37	5%
			Other	124	18%
<b>Education</b>			<b>Region</b>		
Primary Education	117	16.9%	Ex-Yugoslavian countries	306	46%
Secondary Education	232	34%	West Europe	272	40%
Higher education	120	18.1%	South Europe	47	6.9%
Master's degree	111	15.5%	East Europe	49	7.1%
Doctor's degree	94	12.5%			

In Table 3 is shown descriptive analysis of the scale items for food and beverages consumption. The scale is operationalized as the sum of responses to all items from the third part of the questionnaire. A higher score indicates better attitude towards of food and beverages consumption.

Based on the values presented in Table 4, it can be concluded that the answers of respondents at the *food and beverages consumption* scale do not deviate significantly as compared to a normal distribution. In this research, reliability coefficients expressed in Cronbach alpha are 0.82.

Table 3: Descriptive statistics of items used for research of food and beverages consumption.

Scale	Novi Sad		Belgrade	
	Mean	Standard Deviation	Mean	Standard Deviation
1. Most of local food and beverages stimulated my appetite.	4.49	0.752	4.41	0.878
2. I didn't mind eating local food and drinking beverages at any time.	4.34	1.02	4.16	1.05
3. I enjoyed most local food and beverages during my vacation.	4.56	0.70	4.55	0.78
4. I spent a lot on local food and beverages during my vacation.	4.06	1.04	4.03	1.11
5. I had local food and beverages just for the sake of tasting it.	3.74	1.27	3.61	1.29
6. I consumed just those local food and beverages that I was familiar with.	3.19	1.30	3.23	1.43
7. The taste and look of most local food and beverages are of the same taste wherever I consumed them.	3.44	1.15	3.39	1.18
8. I only consumed local food and beverages for a few days during my vacation.	3.41	1.31	3.20	1.41

Table 4: Descriptive scale indicators.

Scale	Min	Max	M	SD	Skew.	Kurt.	K-S	$\alpha$
Food and beverages consumption	19.00	50.00	39.99	5.09	0.625	1.066	0.292*	0.82

Note: \* $p < 0.1$ : Min. – minimal score; Max. – maximal score; M – arithmetic mean; SD – standard deviation; Skew. – Skewness; Kurt. – Kurtosis; K-S – Kolmogorov–Smirnov statistics;  $\alpha$  – scale reliability measured by internal consistency.

### 3.2 Differences between the cities

The results of T-test for independent samples indicate a significant difference between tourists who visited Novi Sad ( $M = 40.33$ ,  $SD = 4.88$ ) and those who visited Belgrade ( $M = 39.64$ ,  $SD = 5.28$ ). The value of T-test is 1.83, and it is statistically significant ( $p < 0.05$ ). The results show that foreign tourists who visited Novi Sad consumed a slightly more food and beverages in relation to tourists who visited Belgrade.

### 3.3 Differences between gender, age and education in food and beverages consumption

The results indicate that there are differences between the variables gender, age and education (Table 5). Differences between groups were analysed by ANOVA, with the independent variables: gender, age and education, and the dependent variables are food and beverages consumption.

Table 5: ANOVA analysis for gender, age and education in food and beverages consumption.

Variables	Interaction/city	Main effects of socio-demographic	Main effect of city
Gender	$F(3, 669) = 3.04$ , $p < 0.03$ , $\eta^2_p = 0.03$	$F(1, 669) = 3.04$ , $p < 0.01$ , $\eta^2_p = 0.02$	$F(1, 669) = 4.82$ , $p < 0.03$ , $\eta^2_p = 0.01$
Age	$F(4, 662) = 4.61$ , $p < 0.05$ , $\eta^2_p = 0.01$	$F(1, 662) = 1.93$ , $p < 0.02$ , $\eta^2_p = 0.02$	$F(4, 662) = 5.58$ , $p < 0.00$ , $\eta^2_p = 0.02$
Education	$F(4, 662) = 3.04$ , $p < 0.02$ , $\eta^2_p = 0.02$	$F(4, 662) = 1.97$ , $p < 0.09$	$F(1, 662) = 18.26$ , $p = 0.00$ , $\eta^2_p = 0.02$

Note: \* $p < 0.5$ ; post hoc tests (Tukey's HSD).

## 4 Discussion

The findings show that there are differences between men and women when it comes to food and beverages consumption. Male tourists from Novi Sad show a tendency towards a more positive attitude towards food and beverages consumption, compared to other groups of respondents from Belgrade. However, the differences can be explained by physiological characteristics between man and women where man are more likely attracted with large portions and selection of meat dishes in relation to women. Also, one of the explanations can be that food choices are based on an individual level and their association with the aspects socio-economic factors (Kim, Eves and Scarles 2009; Khan 1981; Ignatov and Smith 2006; Mitchell and Hall 2003). Therefore, the hypothesis 1 has been confirmed. At one side, these differences between genders, mentioned above, are good indicators that can be used as a benchmark with previous results and be of use to marketing professionals to further enhance the offer on the region. On the other side, restaurant managers need to reduce the gender gap by applying different strategies, that will be focused on promotion – for example: special menu (both for men and women), the size of portions and different type of meals (vegetarian, vegan).

The results indicate that there is difference between respondents depending to which age group they belong. There is a significant difference between respondents from the category of 18–30 years of age and the respondents who fall into the category 51–60 years of age. Further on, the same test shows that there is a difference between respondents who are 31–40 years of age and the respondents who are 41–50 years of age, as well as in relation to respondents who fall in the category between 51–60 years of age. More precisely, respondents who belong to elderly category (51–60 years of age), more positive attitude towards food and beverages, which is in accordance with previous research (Kim, Eves and Scarles 2009; Tse and Crotts 2005; Olsen 2003). Therefore, the hypothesis 2 has been confirmed. Professionals from marketing and hospitality industry need to be familiar with differences between age groups in order to be able to form different offers for different age groups. For example, for the age group from 51 to 60, a meal offered to them can be formed so to satisfy their dietary needs (for example, low salt, low calories, allergen info) while for the age group from 18 to 30, an affordable price can be used in promotion.

The results indicate that there are differences between people with different education level when it comes to food and beverages consumption. The results show that respondents who visited Novi Sad and

have master's degree differ from respondents who visited the same city but have higher education or primary education. Also, it is indicated that the same respondents differ from all other categories that visited Belgrade – from those who have completed secondary education, who have higher education, primary education, as well as from those respondents who have completed PhD. Possible differences between the groups of respondents for the variable education (respondents with university education gave more positive attitude towards of food and beverages consumption), can be explained with the fact that they were probably more informed about local food before they travelled to a region. To be more precise, the respondents who visited Novi Sad and have completed master's degree spend much more money on the food and beverage as compared to other respondents, irrespective of the city. Earlier studies (Zeppel and Hall 1991; Glanz et al. 1998) have confirmed that the respondents with higher level of education (university degree) have more tendencies towards consumption of local food, which is in accordance with the obtained results in this research. These differences can be explained by the fact that highly educated respondents do not see local cuisine just as a way of appeasing hunger, but also as a medium to experience the region (Kim, Eves and Scarles 2009; Wadolowska, Babicz-Zielinska and Czarnocinska 2008). Therefore, the hypothesis 3 has been confirmed. Based on the results, restaurant managers need to pay more attention when comes to reservations from special group (like professors from University), as it turned out that consumption differs in relation to education. For example, respondents with a higher level of education are more willing to try food and beverages, and it is necessary to provide a different supply of food and beverages for them. The offer can contain an equal choice of domestic and international dishes and different sizes of portions. In addition, the promotion of food and beverages can be directed to a specific educated group. For example, tourists with a higher level of education may be offered with certain type of meals (e.g. with specific dietary needs) because previous researches (Kim, Eves and Scarles 2009; Tse and Crotts 2005) have shown that they are more concerned about health.

From a practical point of view, this study provides valuable information for tourism and hospitality managers. Although tourists have expressed positive attitude on food and beverage, it is necessary to improve the efficiency of regulatory institutions, including the Food Safety Agency and the Nacional tourist organization of the Republic of Serbia. In accordance to that, the responsible government bodies should monitor the work of tourist companies at all levels. Monitoring is necessary in order to avoid and prevent inappropriate enterprise behaviour, to publish information related to local cuisine and to solve tourists' complaints. Also, monitoring reduces tourist dissatisfaction and improves positive evaluation of local cuisine perception. At the same time, this can increase the overall satisfaction of tourists with chosen destinations.

## 5 Conclusion

The study advances literature on the use of tourists' socio-demographic characteristics in region, by examining the attitude towards food and beverage consumption in the spatial geographical context. The results indicate that gender, age and education within a region are an important antecedent of tourist consumption and an important component of the tourist products.

This study provides valuable insight to practitioners who are seeking to integrate local food and beverage into the tourist product and how to improve acceptability to foreign tourists. In addition, this research makes it possible for the sectors of economy and government to understand better the significance of food and beverages consumption as part of the region, and towards the spatial/economic development.

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