

# Electoral Success of ESNS: The Role of Education in the Spatial Context

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**Abstract.** In this article, we examine the relationship between educational attainment and electoral success of populist radical right party in Slovakia – Ľudová Strana Naše Slovensko. We extend our estimation by taking into account the spatial context of the empirical data, suggesting that political and educational choices are formed early in life in families and communities. Therefore, to estimate how neighborhood influences its residents we are adding in our model spatially lagged explanatory variable referring to higher educational attainment, which represents the weighted average of the neighboring values for this variable. For the purpose of this estimation on the link between educational attainment and voting support for ESNS, we use the results of parliamentary elections held in 2020 on the level of LAU 2. Along with our main explanatory variable relating to university educational attainment, we also include socio-economic and demographic factors as control variables, which were previously empirically proven as statistically significant for the electoral performance of populist radical right parties. Our findings imply that a higher share of residents with university education attainment in neighboring municipalities has an influence on the election results for ESNS in the observed municipality. Residents with university educational attainment are less likely to vote for ESNS.

**Keywords:** university educational attainment, ESNS, populist radical right parties

**JEL classification:** D72, R11, R58

## 1 Introduction

Populist radical right parties (PRRP), favoring populism, anti-immigrant rhetoric, xenophobic views, and Euroscepticism, have recently enjoyed different levels of voting support across the countries of the European Union (Hainsworth, 2008). According to Muller (2016), the rise of PRRP establishes the potential threat, not only to liberal democracy but even to democracy itself. As a reaction to such phenomena and its

further impact, many scholars have tried to estimate potential effects on the electoral success of these parties. According to authors Ivarsflaten & Stubager (2013) there is a certain contradiction in previous studies examining social hierarchy as a variable relevant for the electoral success of PRRP. These authors argue that electorates follow a specific pattern however the major pattern is based on the voter's educational attainment levels rather than their vocational status. Thus, the idea of educational attainment as a determinant influencing PRRP election outcomes is widely held among academics and voting behavior itself.

The link between education and electoral success of PRRP has a long history, dating back to Lipset's usage of it in 1960. Since then, a multitude of possible effects and casual paths has been proposed by scholars in this specific relationship. Most of these studies have empirically proved the plausible hypothesis that lower educated people tend to vote for PRRP. The research of this link has moved further, and scholars have also tried to explain the potential mechanism that could underlay this relationship e.g., why lower educated people tend to vote populist radical right parties. Some of them advocate that higher educated people contrary to lower educated people hold certain social and political values, which leads to their tolerant and libertarian stances. The second one advocates, that people with lower educational attainment are more vulnerable to unpredictably changes in the labor market. Both, we will further discuss in the following section of the literature review.

As was already proved by the empirical findings of a recent analyzes, which concluded the share of votes for LSNS from parliamentary elections, which were held in 2020 of Kuběnková (2021), that lower educated people tended to vote for LSNS in municipalities of Slovakia, we find it necessary to move forward and include in this article also neighborhood effect of university educational attainment. Therefore, the aim of this article is to analyze the influence of university educational attainment of residents living in neighboring municipalities on election outcome for LSNS in the observed municipality. We decided for this approach as consideration of previous findings of Inglehart (1971) who argues that political preferences along with education preferences are shaped early in life in families and local communities. We strongly believe that implementing spatial context will help us to be more precise in our estimation. Moreover, to substantiate this argument, we refer to previous findings of Becker et al. (2017), who identifies that voting patterns resembled geographical patterns of education, along with other socio-economic factors as well as on theoretical and empirical background for education's spillovers. We focus primarily on university educational attainment as it was recognized as a sufficient competitor in the new global economy, and it is crucial for regional development rather than primary or secondary education (Faggian & McCann, 2013). Similarly, we believe that this approach could reflect on the current gap in the literature of spatial distribution of educational attainment and its further effects. Moreover, we are certain that Slovakia can create a compelling picture, as it is one of the few places where the PRRP's glory has been shattered and resurrected several times (Mudde, 2007). Nonetheless, voter support for PRRP appears to have been constant since 2016, with the unexpectedly successful

election of LSNS to the national parliament. The LSNS, a neo-Nazi-affiliated party, was re-elected in 2020, ending fourth with 17 seats in parliament. Another factor for Slovakia's selection is the lack of literature on PRRP in the CEE area. This research gap is remarkable, given the emergence of PRRP and democratic backsliding in CEE countries.

For this purpose, in this article, we use regression models including a spatially lagged explanatory variable for the testing neighbouring influence of higher educational attainment level, along with control variables, on LSNS's electoral success in the LAU 2 regions of Slovakia. The spatially lagged explanatory variables allow us to consider the values observed at neighbouring locations, more precisely, the spatial lag is a weighted sum of the values observed at neighbouring locations, since the non-neighbours are not included (Anselin, L., Rey, S. J. 2014).

### 1.1 Literature review

In this article, we define populist radical right parties in with accordance Mudde's definition (2007), who interpret PRRP as political parties with a core ideology that is a combination of nativism, authoritarianism, and populism. While nativism is an ideology, which holds that states should be inhabited exclusively by members of the native group and that nonnative elements are fundamentally threatening to the homogenous group. Authoritarianism refers to the belief in a strictly ordered society. Populism is understood as a thin-centered ideology that considers society to be ultimately divided into two homogenous and antagonistic groups – the pure people versus, the corrupted elite”, arguing that politics should be the *volonté generale* of the people.

Education is one of the factors concerned, and it is also one of the most common components in models aimed at eliciting support for populist radical right parties (PRRP). Based on the previous research, conceivable hypothesis is that people with lower educational attainment are overrepresented within the voter base of populist radical right parties (Ivarstoft and Stubager, 2013). In the literature are presented more than two plausible processes that might explain the link between educational attainment and PRRP's electoral performance. According to first group of scholars Education aids in cognitive development that allow individuals to be more attentive and respectful to different cultures (Lipset, 1960). Others have suggested the possibility of students being socialized into specific libertarian political beliefs and norms at a higher education institution. Education, according to the latter set of experts, has an influence on political choices since it is linked to an individual's material circumstances. Based on this presumption it is believed that education is one of many possible factors, that preserve and regrow socio-economic disparities within society. These authors also emphasize the indirect impact of education – highly educated people might have a higher social standing inside the social structure. Hence, persons with a lower level of education may be more sensitive to risks posed by globalization and the economic crisis (Inglehart & Norris, 2016). These possible impacts of educational attainment on PRRP

were separated into two linkages by the authors Ivarslafte and Stubager (2013). The first argument implies that there is a link between education and material status, implying that PRRP would perform better in tough economic times and in geographically disadvantaged areas. The latter one is referring to link between education and values, as well as how individuals with and without higher education respond differently to immigration, immigrant-origin minorities, and ethnic diversity.

Human capital externalities are considered, based on the theoretical and empirical literature, as the main engine of economic growth while including different potential mechanisms (Hanushek & Woessmann, 2020). One of the possible views suggests that education not only enhances productivity of the educated person, but also the productivity of his co-workers (Hanushek, 2002). On the other hand, some of the authors argue for another category of education spillovers where education can increase civic engagement, which results in the creation of a stable and democratic society. Moretti (2003) more precisely argues that better-educated citizens create an externality, that may benefit all citizens. Better educated citizens can be more informed voters and they can also process a given amount of information more reasonably due to cognitive skills improvement provided by education.

Following the surprising victory of the LSNS to the National Slovak parliament in 2016 and re-election in 2020, PRRP's electoral success in Slovakia has remained constant. Unpredictable fluctuations in voter support for PRRP in Slovakia have piqued the interest of a few academics, who analyse the possible repercussions of this support. For example, Reháč et al. (2021) concluded while comparing electoral success of traditional extreme right party (SNS) and the new radical right party in Slovakia (LSNS) that support for SNS is based on nationalistic and cultural factors while LSNS has achieved their success due to regional economic factors such as wages and unemployment rates. In the context of education, their empirical findings imply that LSNS had worse electoral performance in the municipalities with a higher proportion of citizens with a university degree. Likewise, Voda et al., (2021) discussed in their study unexpected electoral success of LSNS in 2016 while adding that LSNS was successful in economically disadvantaged areas with lower purchasing power. According to their findings, the effect of vocational education played a significant role in the election year 2016, compared to 2010 and 2012. Both studies analyzed the electoral performance of LSNS in the national parliamentary elections that took place in 2016 and years before. Regarding the educational attainment Kuběnková (2021) has observed that lower educated people were likely to vote for LSNS in the national parliamentary elections of 2020.

Following the above, we developed our hypothesis based on the presented theories and the current gap in the literature neighbourhood effects. We assume that the influence of educational attainment on voting for LSNS is not a spatially isolated

process but is also determined by the level of educational attainment in neighbouring municipalities.

*H1: Higher share of residents with university educational attainment in neighbouring municipalities has an influence on the election results for LSNS in the observed municipality.*

## 2 Material and Methods

In this article, we identify LSNS as a Populist Radical Right Party. We classified this party as a PRRP based on the results of the Chapel Hill 2020 Expert Survey, where all the above characteristics indicate that SNS is not just a radical right party, but also a populist one (high ranks in anti-establishment salience, position on people vs elected representatives). Second, we needed to collect data for our dependent and independent variables from multiple sources. For our independent variable – education, we considered the highest educational attainment – university education. The independent variable– level of educational attainment was used for calculation with a neighbor structure defined by the non-zero elements of the spatial weight matrix W (in our case we used distance weight using K-Nearest neighbors K=6). Lastly, we decided to run regression models (1-2) with including spatially lagged variable and socio-economic and demographic variables, which we consider as the most suitable for our empirical analyses.

To test our hypothesis, we collected data aggregate on the level LAU 2 for our dependent variable – share of votes for LSNS obtained in the parliamentary election in 2020. Data were gathered from Statistical Office of the Slovak republic (ŠÚSR). Independent variables – *shighedu*, *srelig*, *sminor* were aggregated on the level LAU 2. We collected them from Population and Housing Census in 2011. Other independent variables – *unemployr*, *density*, *distreg\_km*, *sop2029*, *vt2020* were gathered from ŠÚSR. Variable referring to the share of people with higher educational attainment is *shighedu* (higher education). Contrary to it we created spatial lagged explanatory variable (*slv\_highedu*), which represent the weighted average of the neighboring values for the variable *highedu*. *sMinor* represents the share of population belonging to the national minority, *srelig* represents the share of the religious population, *unemployr* represents average unemployment rates calculated between 2016 and 2020, *density* represents the density of municipality, *distreg\_km* represents the municipality distance from the capital city of the region, *sop2029* is the share of the population with an age 20-29, *vt2020* refers to turnout in the parliamentary elections in 2020. Descriptive statistics for used variables in our model can be seen in Table 1.

**Table 1.** Descriptive statistics

VARIABLE	LEVEL	OBS	MIN	MAX	MEDIAN	MEAN	STD. DEV.
LSNS	LAU 2	2926	0	52.632	9.176	9.718	5.581

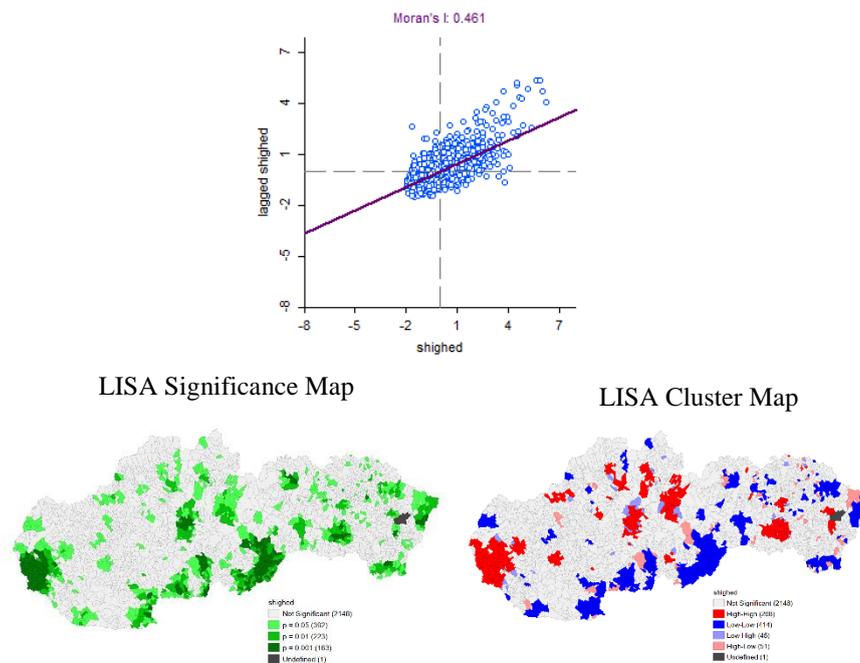
<b>shighedu</b>	LAU 2	2926	0	35.937	7.825	8.466	4.377
<b>slv_highedu</b>	LAU 2	2926	1.923	32.131	8.070	8.422	3.167
<b>srelig</b>	LAU 2	2926	26.829	100	88,615	86,006	10.650
<b>sminor</b>	LAU 2	2926	0	99.052	1.887	16.461	27.168
<b>unemployr</b>	LAU 1	2926	2.63	18,92	6.66	8.315	4.459
<b>density</b>	LAU 2	2926	-0.347	4.132	1.770	1.762	0.443
<b>distreg_km</b>	LAU 2	2926	0	93.986	35.792	38.704	20.927
<b>spop2029</b>	LAU 2	2926	0	44.444	13.667	13.852	2.748
<b>vt2020</b>	LAU 2	2926	8.977	98.544	67.038	65.310	10.086

Source: author, based on data from ŠÚSR and Population and Housing Census in 2011

### 3 Results and Discussion

Spatially lagged variables are variables that consider the values observed at neighboring locations, in our case municipalities. They are created on the basis of spatial weights, which are used for the construction of tests for spatial autocorrelation (Anselin, L., Rey, S. J. 2014). As we assume, based on the theories presented in the Literature review, that we might deal with spatial autocorrelation we can firstly use Moran's I and visualize our data for higher education and test for the presence of differences across regions. For this purpose, we will use the local variant of Moran's I, which is also known as the Local Indicator of Spatial Association (LISA). It denotes the geographic clustering of comparable values in the vicinity of the observations (Anselin, L., Rey, S. J. 2014). Scatter plot of Moran's I in Figure 1 indicates that its number is approaching 1, which means that within municipalities is positive spatial autocorrelation. This can be interpreted as follows - if the resident of the municipality achieved higher educational attainment, then the resident from the neighboring municipality achieved higher educational attainment as well. According to LISA Cluster Map, we can see that municipalities with the similar values of share of residents with higher educational attainment (red, high-high; blue, low-low) are distributed across the country, but mostly in the municipalities located in the south of Central Slovakia and West Slovakia, where this relationship can be approved with LISA Significance Map on the level of  $p=0.01$ .

**Figure 1:** Univariate local Moran's I for higher educational attainment in Slovak municipalities



Source: author, based on data from ŠÚSR

The results of our estimations including spatially lagged variable are presented in Table 2. Results of our first model (Model 1) show a negative relationship between higher education and vote for ESNS. A higher share of people with university educational attainment leads to lower voting support for ESNS in the municipality. The effect of education is the strongest in the municipalities where is a higher share of individuals with a university degree, which results in the decline of voter's support for ESNS about 0,335 percentage point. To decide whether we can accept or reject our alternative hypothesis implying that educational attainment in neighboring municipalities influences the election results for ESNS in observed municipalities we have to interpret the results from Model 2. Based on Model 2, where we included spatially lagged variable (slv\_highedu) in order to control neighborhood effect, we can accept our alternative hypothesis as the statistical significance of variable (highedu) corresponds with spatially lagged variable (slv\_highedu). These results prove that the influence of educational attainment on voting for ESNS is not a spatially isolated process but is also determined by the level of educational attainment in neighboring municipalities. While including spatially lagged variable as a control for neighborhood effect, we can observe in Model 2 decline in the effect of higher education ( $\beta = -0,287$ )

on voting support for LSNS, but on the other hand, there is a slight increase in adjusted R-squared implies that including spatially lagged variable added a value to our model.

**Table 2.** – Regression models with spatially lagged variable (1) - (2)

	Model 1	Model 2
<b>highedu</b>	-0,335*** (0,025)	-0,287*** (0,028)
<b>slv_highedu</b>		-0,159*** (0,038)
<b>relig</b>	-0.066*** (0.009)	-0.071*** (0.009)
<b>minor</b>	-0.124*** (0.003)	-0.125*** (0.004)
<b>unemployr</b>	0.064* (0.024)	0.058* (0.023)
<b>density</b>	-1,620*** (0.219)	-1.487*** (0.220)
<b>distreg_km</b>	0.026*** (0.005)	0.021*** (0.005)
<b>pop2029</b>	0.101** (0,033)	0.096** (0.032)
<b>vt2020</b>	-0.003 (0.011)	-0.002 (0.011)
<b>cons</b>	20.395	21.49
<b>N</b>	2926	2926
<b>adj. R-sq</b>	0.368	0.372

Source: author, based on data from ŠÚSR and Population and Housing Census in 2011

The results of socio-economic and demographic factors are in accordance with empirical findings of Reháč et. al (2021). As a result, a greater religious population, as well as a bigger percentage of minorities residing in rural areas and a higher population density, leads in lower voter support for LSNS. On the other side, more voter support for SNS is attributed to a larger population between the ages of 20 and 29, higher average unemployment rates, and a greater distance from the capital city of certain municipalities. The turnout in parliamentary elections in 2020 came out as non-significant.

We tried to test one of the possible mechanisms, that underlies the effect of education on political preferences suggesting that it is connected to material position. We referred to Inglehart (1971), who argues that political preferences along with education preferences are formed in early life in families and local communities and to Becker et al. (2017) who identifies that voting patterns resembled with geographical patterns of education. Moreover, from the theories on spillovers from education we referred to

some of the authors suggesting that educated voters engage more in civic engagement and can make more informed choices, which both lead to benefit for whole society. By including spatial context more precisely spatially lagged variable, we were able to prove our alternative hypothesis in Model 2 where figured the variable referring to higher (university) educational attainment. Therefore, it seems that there is an educational interaction within some municipalities based on the results from LISA analysis, but also based on the results from the regression. Higher share of residents with university educational attainment in neighbouring municipalities has influence on the election result for LSNS in observed municipality, as was proved by the corresponding significance of explanatory variable with its given spatially lagged explanatory variable. Overall, LSNS did better in municipalities with a higher average unemployment rate and would be in the accordance of argument suggesting that PRRP will gain higher popularity in the regions that are economically deprived.

#### **4 Conclusion**

The rising popularity of PRRP is now a widespread phenomenon in European democracies, and Slovakia is no exception (Hainsworth, 2008). Ivarsflaten & Stubager (2013) point out that their findings contradict prior research that looked at social structure as a factor in populist extreme right party electoral success. According to these scholars, electorates follow a particular pattern, however, the main pattern is not observed in the voter's occupational position but rather in their educational attainment levels. One of the possible mechanisms was introduced by Inglehart (1971) suggesting that political preferences along with education preferences are formed in early life in families and local communities and by Becker et al. (2017) who identifies that voting patterns resembled geographical patterns of education. Theories on human capital spillovers suggest, that educated individuals could create benefits for the whole society by increased civic engagement and reasonable choice of political candidates, which leads to a stable and democratic society (Moretti, 2003). Based on these arguments, we tried to move our analysis further and estimate the influence of educational attainment on the electoral success of LSNS including the spatial context and for this purpose, we used spatially lagged variable. The results of Model 1 showed that higher educated people are less likely to support LSNS. The neighborhood effect seems to be important in Model 2, where the significance level of the variable corresponds with the significance level of the spatially lagged variable. This implies that the influence of educational attainment on voting for LSNS is not a spatially isolated process but is also determined by the level of educational attainment in neighboring municipalities in the case of higher education. Our empirical findings prove that a higher share of residents with university educational attainment in neighboring municipalities has an influence on the election results for LSNS in the observed municipality. This might be an important implication for public politics, as it seems that higher education does not only lead to lower support for populist radical right parties in specific municipality but might has influence on the other municipalities as well and vice versa. However, our approach is limited, as it is necessary to empirically test other factors that may influence LSNS

electoral success, such as interethnic contact, associational involvement, social trust, Euroscepticism, perception of ethnic threat, nationalism, and authoritarianism, as proposed by Ivarsflaten & Stubager (2013). This leaves a room for further research.

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