

## Screening the distribution of EU Support for Primary Education in Slovakia

### Is the principle of concentration applied at all levels?<sup>1</sup>

Valéria Sztásiová

Department of Public Administration and Regional Development  
Faculty of National Economy  
University of Economics in Bratislava

*Dolnozemska cesta 1*

*85235 Bratislava*

*Slovak Republic*

e-mail: [valeria.szitasiova@euba.sk](mailto:valeria.szitasiova@euba.sk)

#### Abstract

*The aim of the research paper was to analyse the distribution of education support financed by the European Union. We focused on the evaluation of the regional distribution of the primary education support within the less developed NUTS 2 regions in Slovakia which were eligible to receive a support through two selected political measures. Particularly, we analysed the Regional Operational Programme, particularly the Measure 1.1 Education Infrastructure that was aimed at modernizing the primary school buildings and equipment. On the other hand we examined also the Operational Programme Education, particularly its measure 1.1 Transformation of traditional to modern school that was focused on the modernization of content of education process. The analysis pointed out the main differences between the mentioned two support measures. It was also showed the territorial distribution of these EU funds at the NUTS 2 level, regional level and at the levels of particular districts and supported municipalities. These results were confronted with a selected indicator of development, through which the fulfilment of the principle of territorial concentration was examined.*

---

<sup>1</sup> This research was supported by VEGA under the contract No. 1/0093/12.

**JEL classification: R10, R58**

**Key words:** *regional development, European Union regional policy, structural funds, concentration, education support*

## **Introduction**

Each region or economy is characterized by unique features and prerequisites for development that eventually result in regional disparities in the context of the investigated area. However, development assumptions as well as the dimension of policies change over time. Based on these facts, the question is the extent and appropriateness of policies. Different theories of development are constantly discovered that are in some cases complement but often compete. Thoroughly discussed is the correct settlement of a policy, hence its focus on a specific territory or a certain type of economy. As McCann (2013) stated, it is important to define exactly where policy measures are directed, since it will „determine the nature of the policy, its implementation and its evaluation.“

The objective of the European Union regional policy is to promote the development its regions, while the support is distributed according to the classification of NUTS 2 areas within the nation states of the transnational grouping. The territory of the European Union represents a huge area with a variety of regions. However, the question is whether the system of the support distribution based on NUTS 2 level is really appropriate. In this regard we find differences in the perception of development at transnational and national level. Region, which is considered to be developed in European Union, does not necessarily mean developed within a particular country, and vice versa. Therefore, the motivation of the paper is to look at the distribution of support and application of the principle of concentration at lower than NUTS 2 level, such as in regional and local units.

In this context, the current article presents an evaluation of the European Union regional policy implementation. We focus on the regional distribution of the European resources and approach this from

the view of the principle of concentration. In the first part of the article we provide a brief theoretical literature review on different aspects of the distribution of support resources. The following chapters are devoted to the methodology and results of the research, hence an assessment of the territorial distribution of primary education support in Slovakia.

## **Theoretical framework of the research**

The first section deals with the theoretical framework of the research carried out, concerning regional development in the European Union and the distribution of its support. Special attention is paid to the principles of the provided funds, particular chapter is to the principle of concentration and its application devoted.

## **Regional Development in the European Union**

The basic task of promoting the development is the problem solving and meeting the needs of people living in a given area. This can explain the vague issue of the development support and its importance for the whole society. Therefore, the task of policy is to solve problems and eliminate obstacles to development. In this context, plays an important role the spatial respectively geographical aspect. This may be the development support in towns or cities, counties, regions, states as well as in transnational groupings. Accordingly, the support measures are made at different political levels - then called policy implemented at the local, regional, national and transnational. In addition to the territorial aspect, equally important role is played by a content site what is nature of the support measures. It depends on the type of problem to be solved or on the supported socio-economic area.

The territory of the European Union (EU) brings together diverse regions of 28 member countries. The main objectives of the functioning of the EU include the promotion of economic, social and territorial cohesion. This cohesion is an expression of solidarity between the member states and EU regions provided through the so-called cohesion

policy, which includes the EU regional policy. Various authors highlight different policy objectives, such as reducing disparities between poorer and richer regions in the context of their income and wealth (Lima and Carnedete, 2008), in terms of creating harmonious development of the whole of the area (Mohl and Hagen, 2010), which is realized through mainly the instruments of the EU - the Cohesion Fund and the Structural Funds. These objectives are pursued both at national and regional level (Bachtler and Wren, 2006), with constant emphasis on increasing the competitiveness of these areas (Mairate, 2006). The uniqueness of regional policy is growing with the increasing number of member countries, growing impact of interventions as well as their weight in the budget of the EU. The European Union integrates both developed and underdeveloped regions, which vary in different levels of development accompanied by several problems. This extent and impact of EU regional policy necessitates the evaluation of the implemented support measures in this diverse area (Folmer and Nijkamp, 1986).

## **Distribution of the EU Resources**

Huge variety of studies in the academic and scientific literature as well as in political practice is dealing with the development, implementation and evaluation of EU regional policy. It is connected with a wide-ranging debate on the shortcomings of the mechanism of this policy. A major problem is the lack of interest of political authorities on the results and impact of support measures, particularly in the long-term aspect i.e. the sustainability effects of the aid. Significant part of these studies have a critical nature regarding to the low disbursement of available resources, condemning corruption and cronyism in decisions on the distribution of funds as well as a criticism of the enormous waste of resources.

In order to improve the implementation of assistance came a requirement from the European Union, as the Barca report from 2009, „An Agenda for a Reformed Cohesion Policy. A place-based approach to meeting European Union challenges and expectations“. This report

provides problem solving from the specific aspect of the local oriented development policy, the „new paradigm of regional policy“. For the purpose of implementing the reforms and the possibility of recovery is necessary to distinguish regional policy interventions that are designed to meet the objectives related to income growth and economic growth and regional policy interventions designed to reduce disparities within the EU, its member states and their regions. In connection with the issue of evaluation of EU regional policy in these areas it is necessary to highlight the new approach of monitoring the results of interventions, promoting flexible and innovative utilization of EU funds in terms of strengthening the policy principles and improving methods of evaluation of the EU assistance implementation (Barca, 2009).

Distribution of support from the EU works on the basis of different principles and rules. Based on the fulfillment of these principles and rules can be the EU regional policy evaluated. According to this aspect is analyzed, for example, filling the principle of concentration, specifically the territorial concentration in providing the support (Crescenzi, 2009), the principle of programming (Mairate, 2006), as well as the principle of partnership in the implementation of EU regional policy (Dabrowski, 2011). There is also included the principle of additionality, according to that EU funds may not replace member states expenditures (BIS, 2009, Gillespie et al. 2001; Šipikal, Pisár and Labudová, 2013).

## **The Principle of Concentration**

With regard to the geographic distribution of the EU resources often raises the question of correct adjustment of support measures. Individual approaches emphasize that the majority of funds should go to the less developed areas (Crescenzi, 2009), however, it is also necessary to carry out the distribution of funds under the so-called growth poles, which are the engines of growth in a particular regional economy (NSRF SR, 2011).

The principle of concentration is about concentrating the resources 'for efficient and effective projects, themes and territories' in order to

achieve established objectives. (NSRF SR, 2011). According to the regulations of the European Commission, the principle of concentration involves three aspects (Inforegio 2014):

- concentration of resources,
- concentration of effort,
- concentration of spending.

Concentration of resources means that the greatest possible assistance (usually 70%) should be directed to the poorest areas, the concentration of effort explains the focus on certain topics. Concentration of spending is talking about the so-called n+2 rule, which means the resources must be used up within two years after their allocation (Inforegio 2014). In the current paper we focus on the territorial aspect i.e. the principle of concentration of resources within the Slovak Republic.

Regional policy of the EU is implemented on the basis of geographical division according to the given NUTS 2 regions. Regarding specifically Slovakia, we are talking about four NUTS 2 territorial units. These regions are too large to evaluate the fulfillment of the principle of territorial concentration could objectively. The particular NUTS 2 regions are internally homogeneous, the different parts have different problems and development conditions. Certain parts of the National Strategic Reference Framework for the Slovak Republic (NSRF SR, 2011) refers also to the NUTS 3 level, but it is still too high geographical level for the evaluation of the distribution of funds, therefore, in the present article we will discuss regional distribution of the implementation of EU resources and its concentration in various territorial levels for the case of primary education support in Slovakia.

## **Research methodology**

Education support and creation of appropriate conditions for education are among others the fundamental pillars of regional development. This facts underline the strategic documents of the EU

as well as the programming documents of the Slovak Republic (Europe 2020). The assessment of education in Slovakia is carried out in the form of statistical reporting and forecasting by several official institutions. There are also studies analysing the support of education even in the scientific and academic literature that highlight the importance of education evaluation (TIG, 2003) and its impact on developing countries (De La Fuente and Jimeno, 2005; Schlicht, Stadelmann-Steffen and Freitag, 2010).

The main objective of this article is to conduct an evaluation of the distribution of aid financed by the EU regional policy on the case study of primary education support on the basis of various criteria. Therefore, the first research question is whether the principle of concentration is also applied at lower territorial levels than required by the EU. Continuously, the second research question is if there are any differences in the fulfillment of this principle between the selected support measures at several territorial levels. For this reason, the first step is the characterization of selected primary education support measures in Slovakia:

- Regional Operational Programme (ROP) – Measure 1.1  
Education Infrastructure
- Operational Programme Education (OPE) – Measure 1.1  
Transformation of traditional to modern school.

The measure Education infrastructure was intended to modernize the technical side of education in various educational institutions in Slovakia. Among all types of beneficiaries our analysis focuses on the support of primary schools approved until 2010, which means 636 projects implemented in 487 villages in Slovakia.

The measure called Transforming traditional to modern school is aimed at increasing the quality of the content of education. Even when considering this measure, we will focus on the support which has been approved for primary schools until 2010, representing 191 projects in 151 municipalities of the Slovak Republic.

Analysis of individual operational programs, particularly their measures have been carried out on the basis of selected aspects of the distribution of support in Slovakia. The main question is where funds for primary education are concentrated in the Slovak Republic. Based on the data we analysed the number of approved resources in terms of population and number of students. Greater attention is paid to the regional aspects of these characteristics. The analysis includes computations at different territorial levels, i.e. at the level of NUTS 2 and NUTS 3 regions, as well as at LAU 1 (districts) and LAU 2 level (municipalities). The analysis lies on the comparison of the mentioned support measures for primary education.

As an indicator of the development level we have chosen the unemployment rate in 2009 for the purpose of confronting the regional distribution of aid to the level of development of particular territorial units. According to the unemployment level are the geographical units divided to 8 categories Table 1.

Table 1: Categories according to the unemployment level (2009)

| Unemployment categories |           |          |           |
|-------------------------|-----------|----------|-----------|
| <b>1</b>                | 5 - 8 %   | <b>5</b> | 17 - 20 % |
| <b>2</b>                | 8 - 11%   | <b>6</b> | 20 - 23%  |
| <b>3</b>                | 11 - 14 % | <b>7</b> | 23 - 26 % |
| <b>4</b>                | 14 - 17 % | <b>8</b> | over 26 % |

Source: Own elaboration.

## Research results

In the following chapter we are presenting the analysis of the distribution of resources for primary education financed through the measure of Education Infrastructure (ROP) and on the other hand through the measure Transformation of traditional to modern school (OPE). Of all four NUTS 2 regions of the Slovak Republic these funds

---

<sup>2</sup> The NUTS 2 Bratislava region is not eligible for this type of support financed by the mentioned measures.



are eligible for three NUTS 2 regions, which are considered in the context of EU regional policy as less developed regions, namely West Slovakia, Middle Slovakia and East Slovakia.<sup>2</sup>

Regarding the regional distribution of the support among the NUTS 2 regions (Table 2), we can conclude that for the technical modernization of primary school (ROP) were much greater resources spent (480 mil. Euros) than for the innovation of the education process through the measure of OPE of total about 23 mil. Euros. The funds of the ROP are among the less developed parts of Slovakia fairly equally divided. With regard to the OPE measure relatively same amount of EU funds were approved for Western and Central Slovakia, but about more of the half of funds were allocated for Eastern Slovakia, that is considered as the least developed part of the country.

Table 2: Distribution of support resources of ROP and OPE by NUTS 2 level

| Support Measure/<br>NUTS 2 region | ROP                               |   | OPE                               |   |
|-----------------------------------|-----------------------------------|---|-----------------------------------|---|
| NUTS 2                            | Approved<br>EU resources<br>(EUR) | Average EU<br>resources per<br>capita (EUR) | Approved<br>EU resources<br>(EUR) | Average EU<br>resources per<br>capita (EUR) |
| West Slovakia                     | 162 196 371                       | <b>139,45</b>                               | 6 202 356                         | <b>13,08</b>                                |
| Middle Slovakia                   | 156 021 835                       | <b>178,34</b>                               | 6 866 054                         | <b>12,58</b>                                |
| East Slovakia                     | 162 055 117                       | <b>159,99</b>                               | 9 720 407                         | <b>11,10</b>                                |
| Total                             | 480 273 323                       | x   | 22 788 817                        | x   |

Source: Own calculations on the basis of ROP and OPE.

If is dealing with a much more objective indicator, what this means resources per capita, while the average ROP falls on one inhabitant approx. 160 EUR, in the case of OPE it is just a little more than 12 euros. These differences in the amount of support occur because of the financial intensity of technical modernization of buildings of primary schools and provision of information and communication technologies (ROP) compared with less intensive financing of the reform of learning

opportunities (OPE) by procuring didactical tools, textbooks and training. Regarding the differences between regions, the highest amount of funds of ROP falls on 1 inhabitant in the Middle of Slovakia, most funds of OPE in Western Slovakia. The analysis of the distribution also includes calculation at lower territorial levels, particularly in the next case at the level of the seven eligible NUTS 3 regions of the Slovak Republic (Table 3).

When looking at the regional distribution on the basis of NUTS 3 areas, we can also observe some regional disparities between the various regions of Slovakia. Regarding to the ROP, the lowest resources per inhabitant are allocated in the Nitra and Košice region (127 Euros) and the most on one inhabitant fall in Prešov region. When talking about the OPE, the highest aid heads residents of Trnava region. Nearly half of that amount falls per capita in Banská Bystrica region of 10 Euros.

Table 3: Distribution of support resources of ROP and OPE by NUTS 3 level

| Support Measure/<br>NUTS 3 region | ROP                         |                                       | OPE                         |                                       |
|-----------------------------------|-----------------------------|---------------------------------------|-----------------------------|---------------------------------------|
| NUTS 3                            | Approved EU resources (EUR) | Average EU resources per capita (EUR) | Approved EU resources (EUR) | Average EU resources per capita (EUR) |
| Nitra Region                      | 55 283 944                  | <b>126,59</b>                         | 2 284 158                   | <b>13,55</b>                          |
| Trenčín Region                    | 56 721 882                  | <b>154,20</b>                         | 3 134 872                   | <b>11,80</b>                          |
| Trnava Region                     | 50 190 545                  | <b>139,98</b>                         | 783 326                     | <b>19,47</b>                          |
| Banská Bystrica Region            | 58 312 305                  | <b>166,24</b>                         | 2 073 917                   | <b>9,74</b>                           |
| Žilina Region                     | 97 709 530                  | <b>186,44</b>                         | 4 792 137                   | <b>14,39</b>                          |
| Prešov Region                     | 99 812 312                  | <b>191,52</b>                         | 5 362 096                   | <b>11,45</b>                          |
| Košice Region                     | 62 242 804                  | <b>126,57</b>                         | 4 358 310                   | <b>10,69</b>                          |
| Total                             | 480 273 323                 | x                                     | 22 788 817                  | x                                     |

Source: Own calculations on the basis of ROP and OPE.

Based on these experiences is adequate to look at the distribution of funds at a lower level of statistical districts (level LAU1). For more detailed examination of support for education, it is appropriate to analyze the distribution of funds accruing to the pupil. Figure 1 serves an illustration of the distribution of technical support for the modernization of education through ROP Measure 1.1 Infrastructure of education in Slovakia.

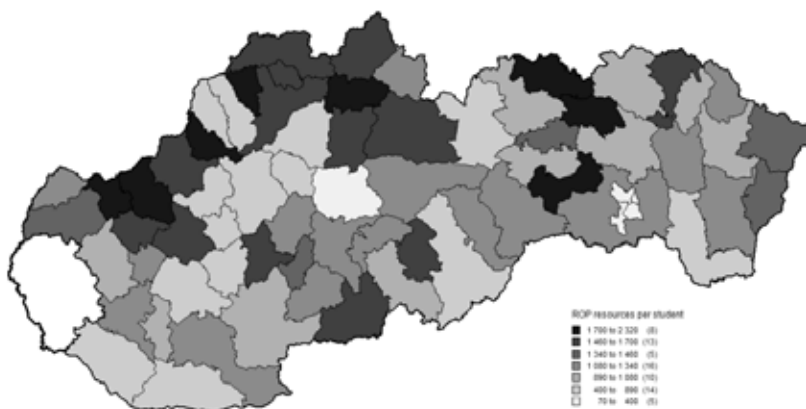


Figure 1: Distribution of support resources of ROP per student by districts in EUR (2009)

Source: Own calculations on the basis of ROP and IIPE.

The highest rate for pupil is in the district Nové Mesto nad Váhom, where we are talking about more than 2,318 Euros. Similarly, high resources per pupil could be found in districts Ilava, Sabinov, Stará Ľubovňa, Myjava, Bytča and Dolný Kubín and in the center of Eastern Slovakia in the district Gelnica. Conversely the least resources are observed in the districts of Košice and Banská Bystrica, in which, despite the large number of approved projects is the value of ROP support per pupil between 70 to 270 euros, which can be explained by the high population density and a high number of primary schools in these towns.

Among the districts with relatively similarly low value per pupil belongs to districts of north of the country - Púchov, Považská Bystrica, Partizánske, Martin a Turčianske Teplice and Bánovce nad Bebravou. But according to the territorial division at the level of (statistical) districts, therefore we cannot see a clear pattern of geographic distribution, thus it is not possible to say with certainty that it would be the greatest resp. smallest amount of support directed to a particular part of the country.

Even in the case of the measure 1.1 Transformation of traditional to modern school (OPE) were the amounts of grant per pupil at LAU 1 level analysed (Figure 2). The highest resources of OPE per pupil were observed in districts Medzilaborce, Bytča, Ilava, similarly as in the case of ROP measure. We can speak about similarly high levels of resources per pupil in districts Poprad, Turčianske Teplice, Gelnica and Prievidza, where the amounts of support per student were more than 100 Euros.

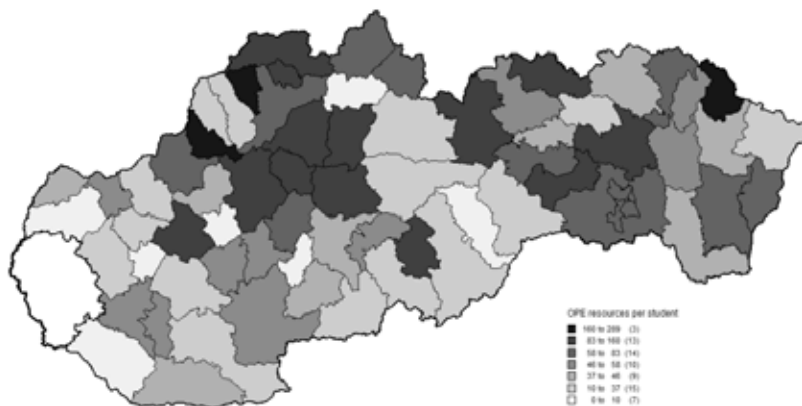


Figure 2: Distribution of support resources of OPE per student by districts in EUR (2009)

Source: Own calculations on the basis of OPE and IIPE.

No OPE funds were directed to districts of Partizánske, Dunajská Streda, Hlohovec, Revúca, Senica, Banská Štiavnica a Dolný Kubín. With regard to the lowest values we find them mostly in the districts of the central and western parts of the country. Among the districts with the lowest amount per pupil belong Rimavská Sobota, Sabinov, Piešťany a Veľký Krtíš. Similarly to the first analyzed measure, nor here we cannot see a clear pattern of geographical distribution of support within the Slovak republic.

The following Table No.4 provides a comparison of both analysed measures of ROP and OPE per student. For both measures we present ten districts with the highest and lowest amounts of support per pupil. For each district is assigned a variable degree of development, for which we chose the unemployment rate. The table contains the number of the category of unemployment (U\_C), the number 1 is a group of districts with the lowest unemployment level and the number 8 with the highest unemployment level.

Table 4: Distribution of support resources of ROP and OPE at LAU 1 level

| ROP     |     |                                  | OPE     |     |                                  |
|---------|-----|----------------------------------|---------|-----|----------------------------------|
| LAU 1   | U_C | Largest EU resources per student | LAU 1   | U_C | Largest EU resources per student |
| NM      | 2   | 2 318,19                         | ML      | 6   | 288,75                           |
| IL      | 2   | 2 038,55                         | BY      | 4   | 203,03                           |
| GL      | 6   | 2 009,45                         | IL      | 2   | 160,06                           |
| SL      | 3   | 1 900,30                         | PP      | 2   | 131,24                           |
| MY      | 3   | 1 846,17                         | TR      | 3   | 124,66                           |
| BY      | 4   | 1 817,50                         | GL      | 6   | 123,62                           |
| SB      | 7   | 1 748,54                         | PD      | 3   | 112,93                           |
| DK      | 4   | 1 709,37                         | RK      | 3   | 98,79                            |
| TO      | 3   | 1 600,90                         | PT      | 7   | 96,63                            |
| CA      | 3   | 1 584,61                         | SL      | 3   | 96,04                            |
| Average |     | 1 129,71                         | Average |     | 1 129,71                         |

| ROP     |     |                                   | OPE     |     |                                   |
|---------|-----|-----------------------------------|---------|-----|-----------------------------------|
| LAU 1   | U_C | Smallest EU resources per student | LAU 1   | U_C | Smallest EU resources per student |
| KE      | 2   | 70,16                             | PE      | 3   | 0,00                              |
| BB      | 2   | 268,16                            | DS      | 2   | 0,00                              |
| PU      | 2   | 401,52                            | HC      | 1   | 0,00                              |
| PB      | 3   | 521,19                            | RA      | 8   | 0,00                              |
| PE      | 3   | 542,21                            | SE      | 3   | 0,00                              |
| MT      | 2   | 568,51                            | BS      | 4   | 0,00                              |
| TR      | 3   | 571,71                            | DK      | 4   | 0,00                              |
| BN      | 2   | 634,78                            | RS      | 8   | 10,52                             |
| DS      | 2   | 666,80                            | SB      | 7   | 18,13                             |
| KN      | 3   | 682,91                            | PN      | 1   | 18,91                             |
| Average |     | 58,27                             | Average |     | 58,27                             |

Source: Own calculations on the basis of ROP, OPE and IIPE.

With regard to the ROP Measure 1.1 Education Infrastructure, the smallest amounts per pupil are found on the territory of most developed districts, which may indicate the fulfilment of the principle of concentration, i.e. focus on the least developed area. If is dealing with a top funds, there is a preponderance of the most developed districts, thus indicating the possible distortion of the principle of territorial concentration.

Regarding the second measure of OPE 1.1 Transformation of traditional to modern school, the smallest but also the highest amounts can also be found in the least but also in the most developed areas, which in turn means non-compliance of the principle of territorial concentration. This result may be explained by application of another principles of the distribution in the certain circumstances, what means that the system of the EU support is probably working on the basis of other requirements as the principle of concentration within NUTS II regions. On the other

hand it may also indicate allocation of support resources for primary education is not primary driven by supporting the most lagging parts of supported regions.

In this respect it is important to note that resources per student are much higher in the case of the ROP measure, where the highest values oscillate between 2,500 to 1,500 euros. Regarding OPE measure, we are talking about much lower values ranging from 300 to 100 euros. Similar behavior was also observed by expenditures at the lowest values of analyzed measures. As mentioned above, this is probably due to the fact that capital spending on reconstruction of buildings in case of ROP are much higher than spending on textbooks and other equipment in the case of the OPE measure.

Next, we look at an even lower geographical level, at the level of individual municipalities, which have been from the analyzed sources supported (Table 5). The table provides a division of supported municipalities and project according to the size categories of the supported municipalities.

Table 5: Structure of analyzed municipalities and projects of ROP and OPE by size category

| Size category<br>(Inhabitants) | ROP                         |                       | OPE                         |                       |
|--------------------------------|-----------------------------|-----------------------|-----------------------------|-----------------------|
|                                | Number of<br>municipalities | Number of<br>Projects | Number of<br>municipalities | Number of<br>Projects |
| 0 - 1000                       | 43                          | 43                    | 16                          | 16                    |
| 1000 - 2000                    | 153                         | 158                   | 30                          | 30                    |
| 2000 - 3000                    | 114                         | 125                   | 22                          | 22                    |
| 3000 - 5000                    | 66                          | 76                    | 23                          | 23                    |
| 5000 - 10 000                  | 48                          | 77                    | 17                          | 18                    |
| 10 000 - 20 000                | 27                          | 56                    | 14                          | 17                    |
| 20 000 - 50 000                | 28                          | 78                    | 20                          | 31                    |
| over 50 000                    | 8                           | 23                    | 9                           | 34                    |
| Total                          | 487                         | 636                   | 151                         | 191                   |

Source: ROP and OPE.

Based on this division can be said that relatively more ROP projects were implemented in smaller municipalities, and relatively more large municipalities were supported through OPE measure, which means that technical reconstruction was primarily implemented in villages, while the innovation of the educational process was carried out in major cities within the sample of supported governments.

Further we selected the first 10 municipalities that received the highest amount of support per inhabitant within a given measure for primary education and we compared it with the overall average EU resources in the supported municipalities.

Table 6: Distribution of support resources (per inhabitant) of ROP and OPE at LAU 2 level

| ROP                 |                                 |     |                | OPE                 |                                 |     |                |
|---------------------|---------------------------------|-----|----------------|---------------------|---------------------------------|-----|----------------|
| Municipality        | Largest EU resources (per inh.) | U_C | Number of inh. | Municipality        | Largest EU resources (per inh.) | U_C | Number of inh. |
| Selce               | 4 360,39                        | 7   | 96             | Tušická Nová Ves    | 253,83                          | 5   | 574            |
| Mikušovce           | 1 570,11                        | 7   | 278            | Haligovce           | 245,52                          | 3   | 676            |
| Hôrky               | 1 562,64                        | 1   | 620            | Hrušov              | 202,54                          | 8   | 342            |
| Lietavská Lúčka     | 1 352,66                        | 1   | 1 780          | Koškovce            | 167,89                          | 4   | 620            |
| Gabolto             | 1 257,00                        | 6   | 506            | Šarišská Poruba     | 166,64                          | 4   | 520            |
| Krajné              | 1 118,96                        | 3   | 1 680          | Župkov              | 158,47                          | 6   | 737            |
| Koškovce            | 1 055,59                        | 4   | 620            | Mlynky              | 156,95                          | 4   | 600            |
| Šarišské Bohdanovce | 1 030,35                        | 4   | 674            | Súľov - Hradná      | 147,35                          | 4   | 947            |
| Havaj               | 970,63                          | 5   | 420            | Lenartovce          | 136,73                          | 8   | 540            |
| Lubotin             | 969,17                          | 3   | 1 340          | Šarišské Bohdanovce | 134,47                          | 4   | 674            |
| Average             | 327,65                          |     | Average        | 47,30               |                                 |     |                |

Source: Own calculations on the basis of ROP and OPE.



Firstly, we again observed multiple differences in the amount of funds per capita in comparison of ROP and OPE measures. Secondly, we can see that for both measures received the largest amount per capita small municipalities or villages up to 2000 inhabitants. This may mean that the smallest municipalities are most in need of funds. However, if these amounts are compared to the average, these are excessively large projects compared to the size of the village for both the measures examined. Regarding the category of development in ROP measure we can see that the highest per capita resources are located in the villages of the less developed and also in most developed parts of Slovakia. Regards to the OPE measure rather the middle category of unemployment can be seen. Hence, two villages received the highest per capita resources from the most problematic areas in Slovakia with more than 33% unemployment rate. Also interesting finding is that two municipalities in Slovakia are in the top ten in the OPE and also ROP measures. The villages Koškovce and Šarišské Bohdanovce received one of the highest resources per capita as well in technological modernization (ROP) as regarding to the support for innovation of the educational process. Concluding it can be stated that even at the lowest level we cannot see a clear pattern of support for the least developed regions, therefore it is unable to talk about the application of the principle of concentration in the distribution of EU resources.

The summarizing table No. 7 demonstrates the distribution of total funding based on the selected indicator of development (unemployment rate). Based on the results of these calculations, we can conclude that in most cases the share of the distributed resources corresponds to the percentage of the population in the unemployment category. It means, for example, that in the most disadvantaged areas of category No. 8 lives 4% of the population and also 4% of all sources of ROP was to this category allocated.

**Table 7:** Distribution of support resources of ROP and OPE by unemployment category

| <b>ROP</b> |                           |                    |                  |
|------------|---------------------------|--------------------|------------------|
| U_C        | % of supported population | Approved Resources | Ratio of support |
|            |                           |                    |                  |
| 1          | 17%                       | 64 055 891,01      | 13%              |
| 2          | 23%                       | 70 350 048,00      | 15%              |
| 3          | 22%                       | 131 763 207,71     | 27%              |
| 4          | 13%                       | 58 543 923,60      | 12%              |
| 5          | 4%                        | 20 683 918,07      | 4%               |
| 6          | 10%                       | 73 767 477,95      | 15%              |
| 7          | 6%                        | 43 531 241,47      | 9%               |
| 8          | 4%                        | 17 577 615,13      | 4%               |
| Total      | x                         | 480 273 322,94     | x                |
| Average    | x                         | 60 034 165,37      | x                |

| <b>OPE</b> |                           |                    |                  |
|------------|---------------------------|--------------------|------------------|
| U_C        | % of supported population | Approved Resources | Ratio of support |
| 1          | 11%                       | 2 353 526,35       | 10%              |
| 2          | 35%                       | 5 472 956,88       | 24%              |
| 3          | 17%                       | 5 819 561,13       | 26%              |
| 4          | 17%                       | 3 909 746,14       | 17%              |
| 5          | 4%                        | 865 930,13         | 4%               |
| 6          | 10%                       | 2 803 177,46       | 12%              |
| 7          | 5%                        | 1 305 488,20       | 6%               |
| 8          | 1%                        | 258 430,61         | 1%               |
| Total      | x                         | 22 788 816,90      | x                |
| Average    | x                         | 2 848 602,11       | x                |

Source: Own calculations on the basis of ROP and OPE.

On the other hand, we can observe that the majority of resources was implemented into the most developed parts of the monitored area. This fact is true for ROP funds as well as for OPE measure, which ultimately means that we cannot talk about a distribution of resources to the least developed areas, thus not clearly filling principle of territorial concentration, rather more about a concentration of resources on the basis of the location of population in the country.

## **Conclusions**

In the presented paper we examined the regional distribution of primary education support financed by the European Union in Slovakia. The territorial distribution of support is primarily monitored at the level of NUTS 2 regions, based on which the whole EU regional policy is carried out. In the current article we tried to explore the distribution of the EU funds at the lower territorial levels.

The first important finding is that there are huge differences in the amount of support. While for the technical modernization of primary schools has been allocated 480 million euros, for the innovation of the content of educational process only 23 million euros. This is also reflected in the amount of support per capita and per pupil. On the one hand, this is understandable as technical upgrading certainly requires higher investments such as textbooks. As to the amount, however, is related to another conclusion to the analysis. We found that resources per student are much higher in small towns than in large cities. It is also important to note that most of the technical modernization took place in smaller municipalities, but the modernization of the content of educational is rather typical for large cities.

Regarding the territorial distribution of support, fulfilment of the principle of concentration was observed mainly on NUTS 2 level that is controlled and required by the regulations of the European Union. On the territory of eligible three NUTS 2 regions of Slovakia, called by the European Union as less developed areas, are the resources equally distributed, so the less developed parts are not prioritized.

When examining the NUTS 3 level, we found differences in the distribution of support among the various territories. However, it is possible to say that we see a certain level of application of the principle of concentration, the highest total funds were reallocated in the least developed region of Prešov, but similar amounts were implemented in more developed regions, too. This is why we have to draw attention to the comparison of the support distribution at the local, regional, national and international level. The lower the level, the higher regional differences and the less perfect system of support provided.

Regarding the lower level of districts, we have not identified a clear pattern of concentration of resources neither in terms of territorial levels nor in terms of development level. It is therefore not possible to talk about the application of the principle of concentration. An analysis at the lowest possible level of supported municipalities was undertaken. We analyzed the top ten municipalities where the most resources per capita were allocated. Highest resources (within the analyzed sample) are receiving the smallest municipalities. In these villages was an excessive amount per capita found, which may imply an inefficient use of the funds of the European Union. Regarding the application of the principle of concentration are the funds unequally flowing into the more advanced and less developed municipalities in Slovakia, what is true for both examined measures of education support.

Definitely, it is important to remember that not every priority axis is geographically or territorially based. Sometimes aid distribution rather depends on other factors of development. The support can be set based on the number of schools, number of pupils or on the basis of the so-called growth poles in the Slovak Republic. For this reason is important to further examine the distribution of funds since education is one of the basic pillars of the development.

## References

- [1] BACHTLER, J. – WREN, C. (2006) Evaluation of European Union Cohesion policy: Research questions and policy challenges. In *Regional Studies*. ISSN 1360-0591, 2006, Vol. 40, No.2, p. 143-153.
- [2] BARCA, F. (2009) An Agenda for a Reformed Cohesion Policy. A place-based approach to meeting European Union challenges and expectations. Independent Report. 2009. 244 p.
- [3] BIS (Department of Business, Innovation and Skills), (2009) Research to improve the assessment of additionality, 2009, BIS Occasional Paper No. 1, [Online] available at <http://web.bis.gov.uk/assets/biscore/economics-and-statistics/docs/09-1302-bis-occasional-paper-01.pdf> accessed May 21st, 2014.
- [4] BUČEK, M. - REHÁK, Š. - TVRDOŇ, J. (2010) *Regionálna ekonomia a politika*. Bratislava: Iura Edition, 2010. 264 s. ISBN 978-80-8078-362-4.
- [5] CRESCENZI, R. (2009) Undermining the Principle of Concentration? European Union Regional Policy and the Socio-economic Disadvantage of European Regions, In *Regional Studies*, 2009, Vol. 43, No. 1. ISSN 1360-0591. p. 111-133.
- [6] DABROWSKI, M. (2011) Policy Debates. Europeanizing Sub-national Governance: Partnership in the Implementation of European Union Structural Funds in Poland. In *Regional Studies*. iFirst article. ISSN 1360-0591. pp. 1–12.
- [7] DE LA FUENTE, A. and JIMENO, J.F. (2005) The Private and Fiscal Returns to Schooling and the Effect of Public Policies on Private Incentives to Invest in Education: A General Framework and Some Results For the EU. *Cesifo Working Paper No. 1392*. 2005. 81 p.
- [8] EECL, European Coalition for Community Living. 2010. Wasted Time, Wasted Money, Wasted Lives ... A Wasted Opportunity? – A Focus Report on how the current use of Structural Funds perpetuates

the social exclusion of disabled people in Central and Eastern Europe by failing to support the transition from institutional care to community-based services. 2010. 84 p. [Online] available at <<http://www.ipp.ro/eng/pagini/wasted-time-wasted-money-wasted-lives-.php>> accessed April 1st, 2014.

[9] FAROLE, T., RODRÍGUEZ-POSÉ, A. and STORPER, M. (2011) Cohesion Policy in the European Union: Growth, Geography, Institutions In *Journal of Common Market Studies*, ISSN 1468 5965. 2011, Vol. 49, No. 5, p. 1089–1111.

[10] FOLMER, H. – NIJKAMP, P. (1986) *Methodological Aspects of Impact Analysis of Regional Economic Policy*. Research memorandum. 1986. 44 p.

[11] LIMA, M. C. and CARDENETE M. A. (2008) The Impact of European Structural Funds in the South of Spain. In *European Planning Studies*. ISSN 1469-5944. 2008, Vol. 16, No. 10, 14.p.

[12] MAIRATE, A. (2006) The ‘Added Value’ of European Union Cohesion policy. In *Regional Studies*. ISSN 1360-0591. 2006. Vol. 40, No. 2, p. 167-177.

[13] MCCANN, P. (2013) *Modern Urban and Regional Economics*. Oxford University Press. 2001. 408 p. ISBN 978-0-19958200-6.

[14] MOHL, P. – HAGEN, T. (2010) Do EU structural funds promote regional growth? New evidence from various panel data approaches. In *Regional Science and Urban Economics*. ISSN 0166-0462. 2010, Vol. 40. p. 353–365.

[15] ŠIPIKAL, M. - PISÁR, P. - LABUDOVÁ, V. Are subsidies really needed? The case of EU regional policy in the Czech and Slovak Republics. In *E + M. Ekonomie a management*. ISSN 1212-3609, 2013. Vol. 16, No. 4, s. 30-41.

[16] SCHLICHT, R. - STADELMANN-STEFFEN, I. – FREITAG, M. 2010. Educational Inequality in the EU The Effectiveness of the National Education Policy In *European Union Politics*. ISSN 1465-1165. 2010,

Vol. 11 No. 1, p. 29-59.

Other sources:

Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic for the Structural Funds of EU - <http://www.asfeu.sk/agentura/>

Czech Evaluation Society - <http://www.czecheval.cz/>

DataCentrum - <http://www.datacentrum.sk/>

Datatrade s.r.o. - <http://www.obce.info/>

European Evaluation Society - <http://europeanevaluation.org/>

Europe 2020 - <http://www.eu2020.gov.sk/europa-2020/>

Institute of Information and Prognoses of Education (IIPE) - <http://www.uips.sk/>

Ministry of Transport, Construction and Regional Development of the Slovak Republic - <http://www.telecom.gov.sk/index/index.php>

Ministry of Education, Science, Research and Sport of the Slovak Republic <https://www.minedu.sk/>

National Strategic Reference Framework for the Slovak Republic for the period 2007 – 2013 (NSRF SR) , <http://www.nsrr.sk/>

Operational Program Education <http://www.asfeu.sk/operacny-program-vzdelavanie>

Program for International Student Assessment (PISA) <http://www.oecd.org/pisa/>

Regional Policy – Inforegio [http://ec.europa.eu/regional\\_policy/indexes/who\\_we\\_are\\_en.cfm](http://ec.europa.eu/regional_policy/indexes/who_we_are_en.cfm)

Regional Operational Program - <http://www.ropka.sk/>

Slovak Centre of Scientific and Technical Information (SCSTI) - <http://www.cvtisr.sk/>

Slovak Evaluation Society - <http://www.evaluacia.sk/>

Statistical Office of the Slovak Republic - <http://slovak.statistics.sk>

