

The impact of foreign workforces on selected aspects of economic development of society

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Abstract.

Research background: The process of globalization brought changes in society that are manifesting themselves in many areas. One of the areas in which the greatest changes occurs is the socio-economic area. The development of society, which is associated with increasing competitiveness, the creation of new job positions, rising wages, and thus the quality of citizens' life, can be examined through various indicators. The creation of new job positions brings with it changes in the labor market, especially in its opening for the arrival of foreign employees.

Purpose of the article: The purpose of the article is to point out the relationship between the development of society and the migration of the population for work. To this purpose, it is necessary to examine the development of foreigners' employment in selected regions and the impact of this employment on the development of regional gross domestic product, wages of employees, household expenditure and other indicators.

Methods: The development of regional disparities in the context of regional development will be examined through descriptive statistics and other coefficients measuring social disparities, such as the Gini coefficient. Subsequently the dependence between the employment of foreigners and individual indicators can be examined.

Findings & Value added: Research findings can be used to support the development of the least developed regions and to increase their competitiveness. The findings can thus be used not only by public authorities (in the case of state support), but also by employers from the private sector (employment policy).

Keywords: *globalization; employment of foreigners; socio-economic indicator; regional development.*

JEL Classification: *A13; F22; F63.*

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1 Introduction

Socio-economic aspects of regional development are reflected in all areas of human life, and thus in society as a whole. Due to globalization, these socio-economic impacts are becoming increasingly apparent. The process of globalization has caused the interconnection of national economies, which has resulted in the gradual opening of the labour market to the arrival of employees from abroad. The consequences of this situation include the creation of new jobs, increasing the competitiveness of individual states, increasing the average wage in the national economy, GDP growth, and thus the growth of the economy as a whole. For this reason, it is necessary to examine the effects of population migration, which is linked to the process of globalization, on the socio-economic development of society in the particular regions.

At present, it is possible to examine and measure regional development through various socio-economic, but also other indicators, which can be integrated into two basic groups:

- summary indicators characterizing socio-economic development,
- indicators characterizing individual subsystems of spatial structure [1, 2].

From the point of regional development view, it is possible to consider summary indicators as the most important indicators, which testify to the development of the state economy or the economy of the selected territory. These summary indicators characterizing socio-economic development include regional GDP, unemployment rate, average wage, etc. As these indicators testify to the economic situation, they also testify to the quality of human life, which is influenced primarily by economic development [3, 4].

A number of domestic as well as foreign authors deal with the issue of regions and regional development. The term region can be understood as a delimited area, the definition of which depends on established criteria, which are determined on the basis of the purpose for which the region is defined [5].

The region in the conditions of the Slovak Republic is defined in Act no. 539/2008 Coll. on the support of regional development. It follows from this law that region is a territorial unit defined according to the classification of statistical territorial units - NUTS (fr. *La Nomenclature des unités territoriales statistiques*, en. *Nomenclature of Units for Territorial Statistics*) [6]. This means a hierarchical division of the country into territorial units in five levels, which was created in 1988 by Eurostat for the member states of the European Union. The reason for its creation was statistical monitoring and processing of analyses of the economic and social situation in individual regions and, of course, for the needs of regional policy.

At present, this classification is regulated by Regulation of the European Parliament and of the Council no. 1059/2003. The NUTS classification consists of three levels, NUTS 1, NUTS 2 and NUTS 3. Their aim is to provide comparable data for regional statistics within the European Statistical System. However, member states of EU may use other NUTS levels - LAU 1 and LAU 2 if they deem it necessary [7].

Figure 1 shows the NUTS classification in the conditions of the Slovak Republic.

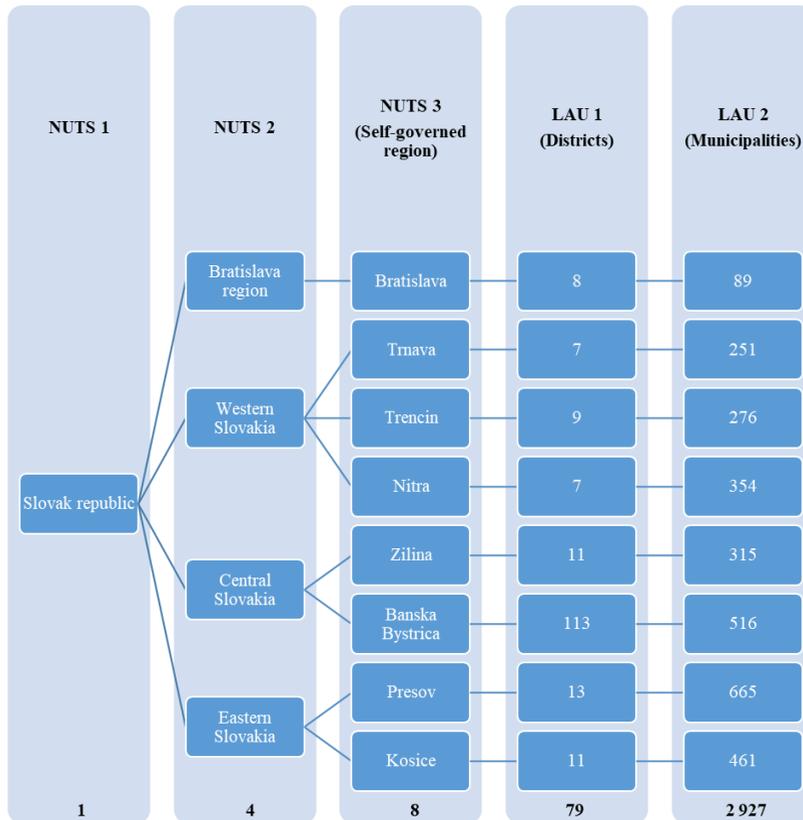


Fig. 1. NUTS classification of Slovakia [8].

According to Act no. 539/2008 Coll. on the support of regional development, regional development is defined as a set of social, economic, cultural and environmental processes and relations that take place in a region and that contribute to increasing its competitiveness, sustainable economic development, social development and territorial development, and balancing economic and social disparities between regions [6].

The issue of regional development in Slovakia is dealt with by several central state administration bodies:

- Ministry of Investments, Regional Development and Informatization of the Slovak Republic,
- Ministry of Transport and Construction of the Slovak republic,
- Ministry of Agriculture and Rural Development of the Slovak republic [9].

These ministries, in terms of their competence, deal with regional development, urban development, rural development etc. In the context of regional development, the Ministry of Investments, Regional Development and Informatization of the Slovak Republic maintains a list of the least developed districts, which are defined in accordance with Act no. 336/2015 Coll. on support of lagging districts. Pursuant to the said Act, the list of least developed districts includes the district in which the registered unemployment rate calculated from the available number of jobseekers reported by the Central Office of Labour, Social Affairs and Family was in the period for at least nine calendar quarters during the previous twelve consecutive in the following calendar quarters higher than 1.5 times the average registered unemployment rate in the Slovak Republic for the same period and at the same time reached at least 8 percent [10]. Figure 2 shows the location of the least developed districts on the map of Slovakia.

to point out inequality in the total share of accumulated wealth. The starting point for determining the Gini coefficient is the Lorenz curve [21].

The Gini coefficient can also be calculated according to the following relationship [21]:

$$Gini = |1 - \sum_{k=1}^n (X_k - X_{k-1})(Y_k + Y_{k-1})| \quad (1)$$

where: X_k – cumulated part of the population (the population is organized according to increasing incomes)

Y_k – part of the income that X_k collectively receives

n – number of households

To the development of regional disparities research, it is possible to use the Gini coefficient, which takes values in the interval $<0,1>$. The closer the value of the Gini coefficient is to 1, the greater the differentiation. On the contrary, the low values of the Gini coefficient suggest that balancing tendencies prevail in the statistical set.

3 Results

Statistical data in terms of regional GDP are kept by the Statistical Office of the Slovak Republic for NUTS 1, NUTS 2 and NUTS 3 regions. Given that NUTS 3 level regions are typical for Slovakia in terms of regional self-government, the examination of regional GDP will be carried out at this level. Figure 3 shows the development of regional GDP in particular NUTS 3 level regions in Slovakia.

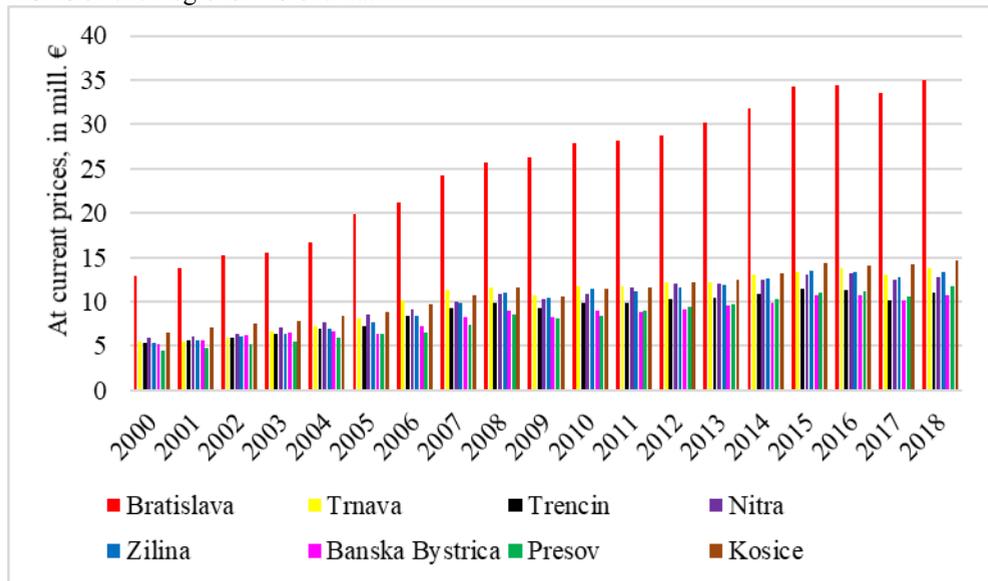


Fig. 3. Development of GDP in NUTS 3 regions in Slovakia.

The development of regional GDP has been growing since 2000. The Bratislava region has long and clearly maintained its leading position in terms of GDP. This region is followed by the Kosice region, which is the seat of the second largest city in Slovakia, and thus has a larger number of companies that generate GDP. Despite its position, there are several districts in the Kosice region, which are included in the list of least developed districts. On the opposite side in terms of regional GDP, there are the Banská Bystrica region and the Presov region. In both of these NUTS 3 level regions, there are a larger number of least developed districts.

The second indicator, which is related to regional development and on the basis of which the least developed districts in Slovakia are indicated, is the unemployment rate. Figure 4 shows the development of the unemployment rate in NUTS 3 level regions.

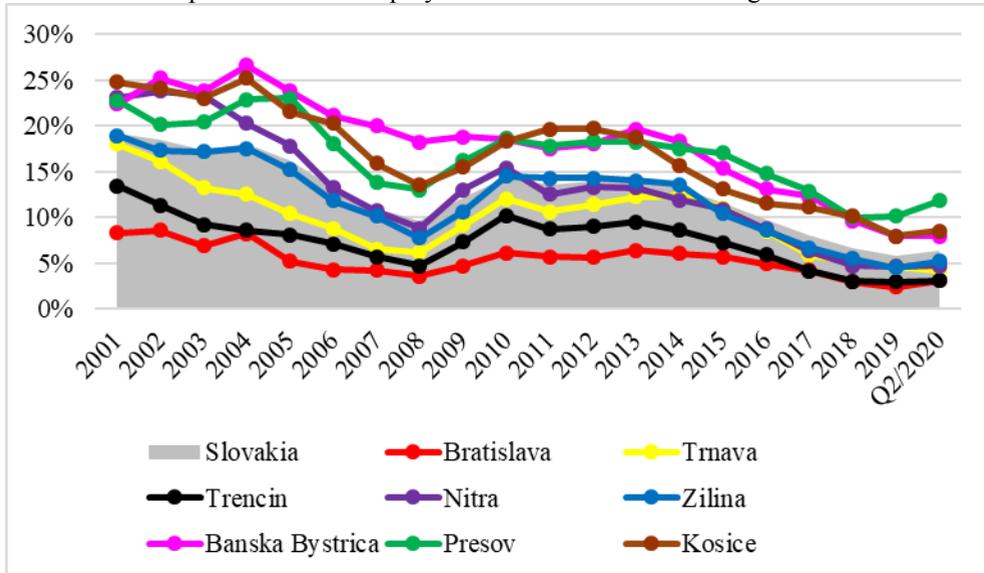


Fig. 4. Development of unemployment rate in NUTS 3 regions in Slovakia.

In terms of the unemployment rate, it can be stated that it has been continuously decreasing in the last 4 years. In 2019, the unemployment rate in Slovakia reached only 5.8 percent, which is the lowest in the history of Slovakia. In terms of regions, the lowest long-term unemployment rate is in the Bratislava region, where in 2019 it was less than 2.5 percent, similar to the Trencin region. On the contrary, the highest unemployment rate has long been achieved by the Banska Bystrica Region, the Presov Region and the Kosice Region. In these three NUTS level 3 regions, all the least developed districts of Slovakia are also located.

The latest data on the unemployment rate are available for Q2 / 2020. Given that the year 2020 was largely influenced by the occurrence of a global pandemic related to COVID-19 disease, the consequences of this pandemic also manifested themselves in the socio-economic field. In Slovakia, it is possible to observe a slight increase in the unemployment rate in particular regions. The most visible increase in the unemployment rate can be noticed in the Presov Region.

As the unemployment rate has been steadily declining recently, employers have a growing difficulty finding new employees in the labour market. For this reason, too, Slovakia has opened the labour market to employees from other countries. The employment statistics of foreigners in Slovakia, as well as other statistics related to employment and unemployment in Slovakia, are kept by the Ministry of Labour, Social Affairs and Family of the Slovak Republic on a monthly basis. This central state administration body has been keeping statistics on the employment of foreigners since 2004, but in 2012, in accordance with the European Union regulation, the methodology for processing and recording the employment of third-country nationals and EU or EEA citizens was changed. Based on this, it is possible to examine relevant data on the employment of such citizens only from 2012. Figure 5 shows the development of employment of foreigners in Slovakia at the end of the calendar year 2012 - 2019 and at the end of 31 August 2020.

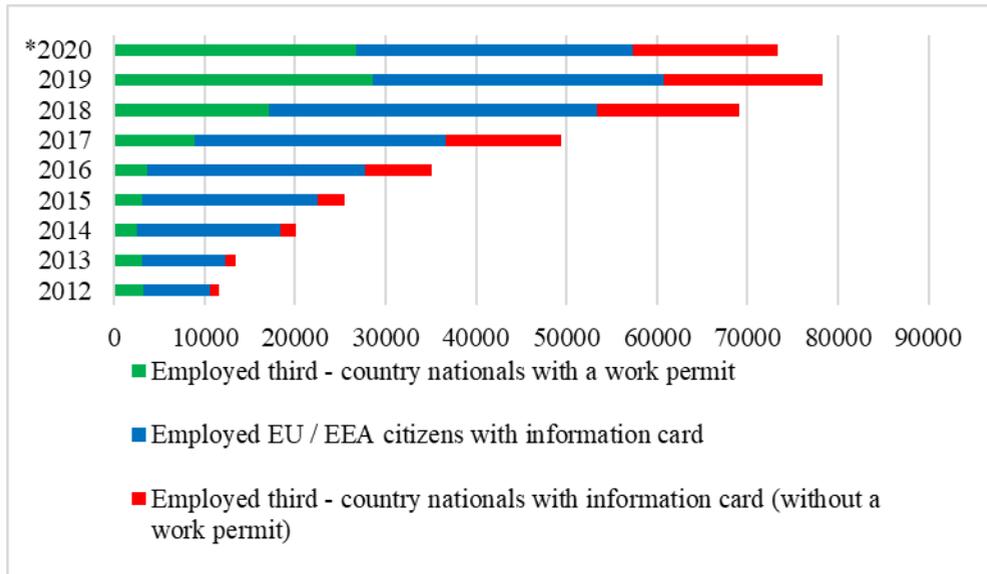


Fig. 5. Development of the number of employed foreigners in Slovakia.

In 2019, almost 80,000 foreigners worked in Slovakia. This is the highest number of foreigners employed in Slovakia in history. The majority of foreigners employed in Slovakia are EU or EEA citizens. In 2020, it is possible to notice a slight decrease in the employment of foreigners. There are 2 possible causes for this situation - an open calendar year (data on employment of foreigners in 2012 - 2019 are obtained as of the end of the calendar year while data from 2020 are obtained as of 31 August 2020) or the spread of a pandemic related to COVID-19 disease. Figure 6 shows the development of the number of employed foreigners (third-country nationals and EU or EEA nationals) in NUTS level 3 regions in Slovakia.

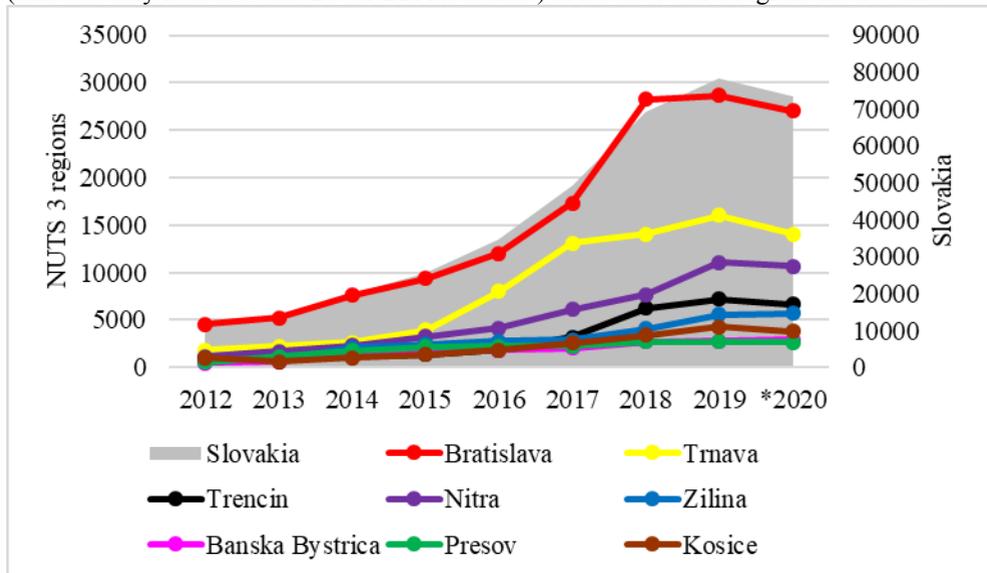


Fig. 6. Development of the number of employed foreigners in NUTS 3 regions of Slovakia.

From figure 6 it is clear, that foreigners are employed mainly in the Bratislava region, followed by the Tnava region and the Nitra region. On the contrary, the fewest foreigners

are employed in the Banska Bystrica region and in the Presov region, followed by the Kosice region. The employment of foreigners is related to regional GDP. The foreign workforce goes to regions with higher regional GDP. At the same time, there is a lower unemployment rate in such regions. In such areas, employers have a problem filling vacancies, and for this reason they do not hesitate to use employees from abroad.

For the purpose of examining the development of regional disparities in terms of individual indicators, it is possible to use the Gini coefficient, which can be used to measure inequalities. Figure 7 shows the development of the Gini coefficient for GDP, the unemployment rate, but also for the employment of foreigners in NUTS 3 level regions of Slovakia.

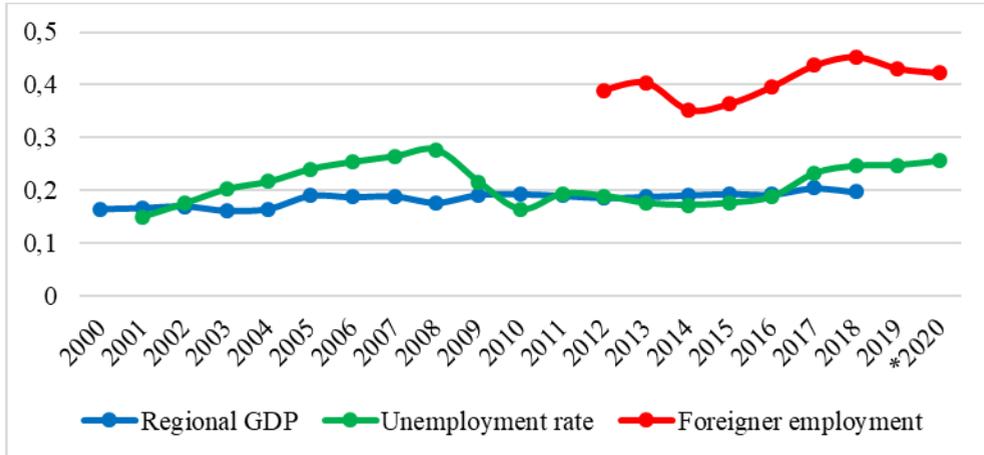


Fig. 7. Development of regional disparities according to Gini coefficient.

From the point of regional GDP view, the values of the Gini coefficient do not change significantly in the long run and have a stagnant character. They are around 0.2, indicating small regional disparities. When examining the development of regional disparities in the unemployment rate according to the Gini coefficient, it can be noted that the values of the Gini coefficient have been increasing slightly since 2015, and thus regional disparities are also growing in this point of view. In 2018, the Gini coefficient reached 0.25, which still indicates small regional disparities. Regional disparities in terms of employment of foreigners in Slovakia reach medium values, which means that foreigners going to work in Slovakia are employed more in some regions and less in others. From the previous figures it is clear that the employment of foreigners in the region depends on the regional GDP and the unemployment rate in the region. In the regions where the unemployment rate is the highest (Presov, Banska Bystrica and Kosice) and the lowest GDP (Banska Bystrica and Presov), the employment of foreigners is the lowest. On the contrary, in the Bratislava region, which has the lowest unemployment rate and the highest GDP, there are also the most foreign employees.

4 Discussions

The issue of regional development is closely linked to the issue of quality of human life. Regional development, but also the quality of human life can be measured through specific indicators. These are mainly socio-economic indicators that tell about the objective side of human life in a particular time and space. The current process of globalization, in which the world finds itself, has brought with it a number of aspects, which are also reflected in the socio-economic indicators. In the economy, globalization has manifested itself, for example,

in the opening up of national labour markets to foreign workers. Slovakia, as an EU member state, is also influenced by the world economy (and thus also by the process of globalization) and is gradually opening its labour market to foreign employees. Such employees go mainly to regions that can be ranked among the most developed regions with low unemployment rate. On the contrary, less developed regions, in which the least developed districts are laid down by law, are characterized by a high unemployment rate. Such regions include the Kosice Region, the Presov Region and the Banska Bystrica Region. It is for the last two mentioned regions that, in addition to the high unemployment rate, they also suffer from the lowest regional GDP in Slovakia. Through action plans prepared by the Ministry of Investments, Regional Development and Informatization of the Slovak Republic, the state seeks to bring investments to the least developed regions, which should bring the creation of new jobs. If the state is successful with the support of the least developed regions, it is possible to assume an increase in the employment of foreigners in these regions of Slovakia in the long run.

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