ECONOMIC COSTS OF ROMA EXCLUSION

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Key messages[1]

- **The vast majority of working-age Roma lack sufficient education to participate successfully in the labor market**.

- **As a result, European countries are losing hundreds of millions of Euros annually in productivity and in fiscal contributions to the governments.**

  - **Lower bound estimates of annual productivity losses** range from 231 million Euro in Serbia, 367 million Euro in the Czech Republic, 526 million Euro in Bulgaria, to 887 million Euro in Romania.
  - **Lower bound annual fiscal losses** range from 58 million Euro in Serbia, 202 million Euro in Romania, 233 million Euro in the Czech Republic, and 370 million Euros in Bulgaria.
  - Using other Roma population estimates (UNDP, 2006), the economic losses for the four countries combined are as much as 5.7 billion Euros annually, and the fiscal losses 2 billion Euros annually.

- **Toward inclusive growth: bridging the education gap is also the economically smart choice to make**

  - Better educated Roma can expect much higher earnings. Compared to Roma with primary education, Roma who complete secondary education can expect to earn 83% more in Bulgaria, 110% more in the Czech Republic, 144% more in Romania, and 52% more in Serbia.
  - The annual fiscal gains from bridging the employment gap are much higher than the total cost of investing in public education for all Roma children; by a factor of 7.7 for Bulgaria, 7.4 times for the Czech Republic, 2.4 times in Romania, and 3.3 times in Serbia.
  - The share of Roma among the working-age populations will rise as majority populations in Eastern and Central Europe are aging rapidly. Equal labor participation among the Roma is essential to shoulder the nationally rising costs of pensions, health and other costs of aging.

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Introduction

This note summarizes the initial findings of an ongoing study and dialogue by the World Bank on the economic costs of Roma exclusion[2].

The Roma are perhaps the largest trans-national minority in Europe. They are also one of the poorest communities in Europe, being frequently excluded from the formal labor market. This note focuses on the economic and fiscal costs of exclusion of Roma in four Central and Eastern European countries: Bulgaria, the Czech Republic, Romania, and Serbia. Economic costs arise because of low levels of Roma employment and low earnings among those working. Fiscal costs arise because low employment and low earnings translate into substantially lower tax receipts and higher net social security expenditures. To estimate the extent of the economic and fiscal costs, detailed nationally representative survey data are used and official Roma population estimates from national censuses.[3]

According to national census data, there are 370,000 Roma living in Bulgaria, 535,000 in Romania, and 108,000 in Serbia[4]. In the Czech Republic, a sample of Roma in identified marginal communities put the population of Roma at 70,000. Other estimates place the number of Roma living in these countries from two to four times higher[5]. By relying on the much smaller official population estimates, the economic and fiscal losses reported in this note are lower bounds of the overall losses.

The challenges posed by the economic and fiscal cost of Roma exclusion are particularly acute in light of the declining and quickly aging populations. Between 2000 and 2025, the national populations of the four countries in this study are expected to decline by as much as 18% in Bulgaria, 5% in the Czech Republic, 10% in Romania, and 3% in Serbia[6]. The countries will also experience substantial increases in the proportion of elderly people (65+ years).

[2] Czech Republic analysis by Christian Bodewig (World Bank) and Eva Hromádková (CERGE-EI); Bulgaria, Romania, and Serbia analysis by Joost de Laat (World Bank) and Federico Torrachi (University College Utrecht).
[3] The survey data and precise calculations are described in the detailed country reports available at www.worldbank.org/roma
[4] OSI (2006), Monitoring Education for Roma
[5] UNDP (2006), At Risk: Roma and the Displaced in Southeast Europe
[6] World Bank (2007), From Red to Gray; The "Third Transition" of Aging Populations in Eastern Europe and the Former Soviet Union

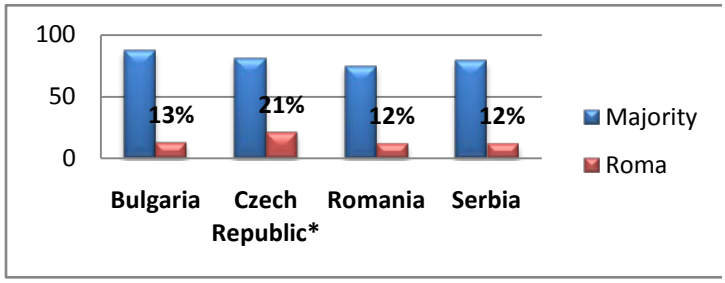
These factors put extra demands on the declining working age population (15-64 years) which must shoulder the greater fiscal burden as expenditures on, for example, pensions and health care rise. This can only be achieved with a working age population in which all communities are full participants in the labor market. The Roma population represents already a sizeable share of the working age population in many European countries, including the four countries in this study. This share will continue to increase given the relatively younger age profile of the Roma community. As such, substantially increasing the participation and productivity of Roma is an economic necessity for everyone.

Labor Market Exclusion of Roma

Working age Roma lack sufficient human capital

Full economic participation will not be achieved if the current status quo is maintained. Apart from barriers such as labor market discrimination, the vast majority of working age Roma in each of the four countries lacks the human capital necessary to participate effectively in the labor market.

Figure 1: Proportion (%) of Working-age Population with at Least Some Secondary Education or More.

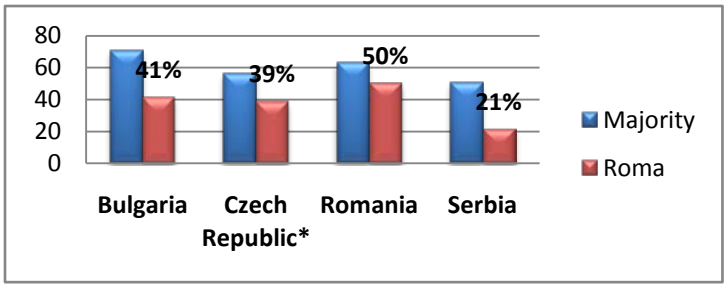


This is seen dramatically in Figure 1, which shows the proportion of working-age Roma that have completed at least some secondary education or more. Only 1 in 5 Roma of working age in the Czech Republic and as few as 1 in 8 in Bulgaria, Romania and Serbia are equipped with these necessary education skill levels. Working age members of the majority populations in these countries are 4 to 6 times more likely to have these educational qualifications.

The Roma employment gap

Unsurprisingly, these low educational attainments are reflected in low employment rates; only 1 in 2 Roma of working age actually are working in Romania, and even fewer are working in Bulgaria and the Czech Republic, with as few as 1 in 5 working in Serbia. Relative to the majority population – with employment rates of approximately 60% on average - the employment gap is smallest in Romania (13 percentage points), followed by the Czech Republic (17 percentage points), with employment gaps in Bulgaria and Serbia being the largest (29 percentage points).

Figure 2: Employment Rate (%): Proportion of Working-age Individuals with a Job



* Employment rates calculated for individuals of age 15 and above.

The Roma earnings gap

The low education levels are also reflected in much lower earnings.

Figure 3: Relative Net Monthly Income if Working

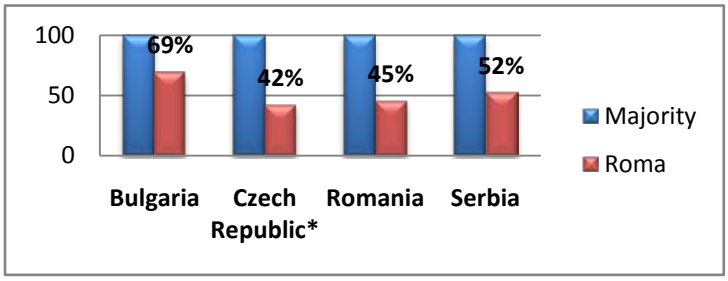


Figure 3 shows the average monthly net income that employed Roma earn compared to that of the majority population. Employed Roma earn 31% less in Bulgaria, 48% less in Serbia, 55% less in Romania, and 58% less in the Czech Republic.

Economic Cost of Roma Exclusion

Calculating economic costs of Roma exclusion

The combination of low levels of employment and low wages among those who are employed translate into economy wide productivity losses of hundreds of millions of Euros annually.

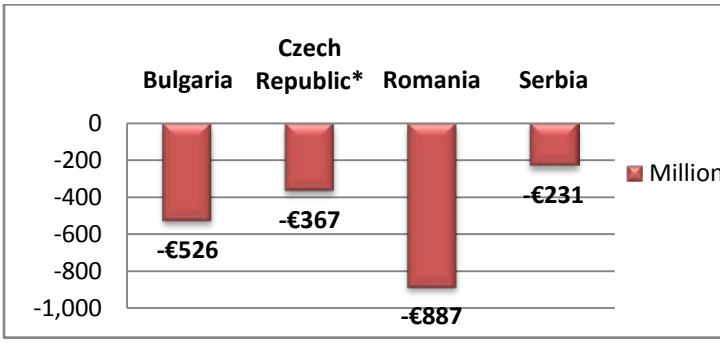
To estimate these economic costs of exclusion from the labor market, we must identify what the average working-age Roma and the average working age non-Roma can expect to earn in gross terms given (1) the probability of employment, and (2) the average wage conditional on employment. The difference between the average expected earnings for Roma and non-Roma is the average earnings gap per working age individual. To

calculate the overall loss in economic output, we must also include an estimate of the loss in profit per working age individual that capital owners experience as a result of the reduction in labor output.[i]. Using data on labor income ratios (OECD, 2008), we can calculate the total productivity loss per working-age Roma. To estimate the aggregate productivity loss for the economy as a whole, it is sufficient to consider the number of Roma working-age individuals in each country. Finally, low levels of employment and low productivity among those who are employed also translate into fiscal losses in terms of lower tax receipts and higher net government expenditures on social security. Using the household survey data, we can calculate these fiscal losses.

Productivity losses of Roma exclusion

Figure 4 shows estimates on annual productivity costs in the four countries.

Figure 4. Economic Cost of Roma Exclusion: Annual Productivity Costs



[a] These costs are lower bounds based on official population estimates. If the higher estimates are used by others, the costs are two to four times larger.

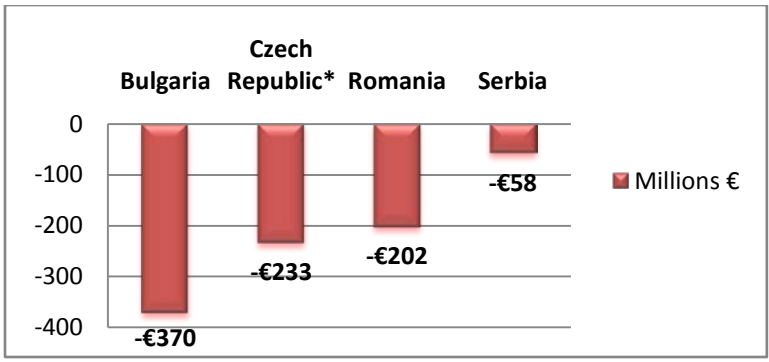
The annual economic costs range from 231 million Euro in Serbia, 367 million Euro in the Czech Republic, 526 million Euro in Bulgaria, to 887 million Euro in Romania.

These costs are *lower* bounds based on official population estimates. If the higher population size estimates by others are used, the combined economic losses are as much as 5.7 billion Euros. Also, these costs will rise over time, as the Roma population is younger with larger family sizes than majority populations. Unsurprisingly, Romania suffers the highest productivity loss due to both its large Roma population and large productivity gap between Roma and majority Romanians. As a proportion of GDP (and depending on the size of the population estimates), these economic losses correspond to: between 1.8-3.7% for Bulgaria, 0.29-0.58% for the Czech Republic, 0.63-2.13% for Romania, and 0.78-3.25% for Serbia.

Fiscal costs of Roma exclusion

Given their low employment and wage levels, working age Roma pay less taxes and social security contributions and are more likely to be recipients of, for example, minimum guaranteed income type programs that are designed to support the poorest citizens to meet basic needs.

Figure 5. Economic Cost of Roma Exclusion: Annual Fiscal Costs[a]



[a] These costs are lower bounds based on official population estimates. If the higher estimates are used by others, the costs are two to four times larger.

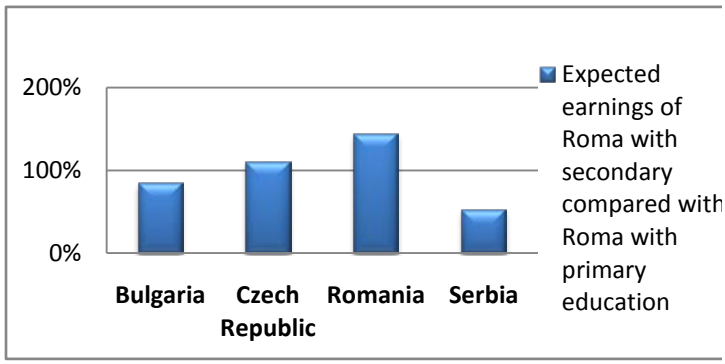
Figure 5 shows that national governments in the four countries incur fiscal losses of hundreds of millions of Euros annually as a result of lower tax receipts and higher welfare expenditures. Annual fiscal losses are 58 million Euros in Serbia, 202 million Euros in Romania, 233 million Euros in the Czech Republic, and 370 million Euros in Bulgaria. Again, these are lower bound estimates using the official population estimates. Using the higher estimates of Roma population sizes, the combined fiscal losses are 2 billion Euros annually. The difference between Romania and Bulgaria reflects in part the fact that the difference in net social security receipts between working age Roma and working age majority population is smaller in Romania.

Toward Inclusive Growth: Making the Economically Smart Choice

To turn these economic and fiscal losses into gains that will take Roma families out of poverty and can support the social security systems of the aging populations in these countries, investing into inclusive and quality education is not only the best social choice but also the economically smart choice to make.

First, there are substantial returns to education among the Roma.

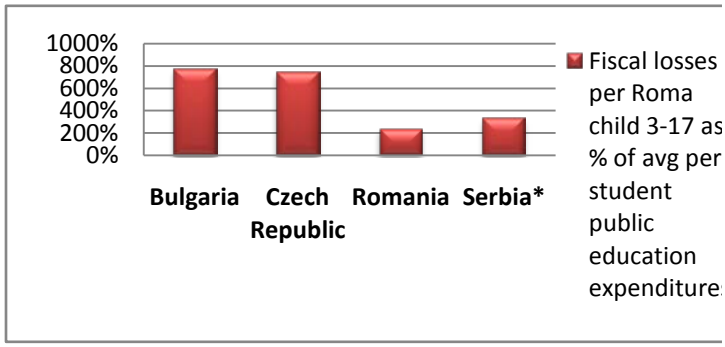
Figure 6: Expected Earnings among Working Age Roma with a Secondary Education Relative to Roma with Primary Education



Indeed, Figure 6 shows that among Roma who completed secondary education the average earnings are much higher than the average earnings among Roma who completed primary education: 83% higher in Bulgaria, 110% higher in the Czech Republic, 144% higher in Romania, and 52% higher in Serbia. [7]

Further, the annual fiscal gains from bridging the employment gap are much higher than the total cost of investing in public education for all Roma children.

Figure 7: Comparing Fiscal Losses with Public Education Expenditures



* An estimate for the "Public education expenditure per student (% of p.c. GDP), all levels" was not available for Serbia. Instead, the table assumes the average from the other 3 countries, or 21% of per capita GDP.

Figure 7 shows that if the governments would invest all the fiscal gains from equal labor market opportunities into public education for each Roma child aged 3-17, it would be able to spend on each of these Roma children between two-and-a-half and eight times the amount it currently spends on public education per average pupil in the country. In other words, the potential gains of inclusion far exceed the necessary investment costs, even if these are higher than current per pupil spending.[ii]

Conclusion

This note demonstrates that very low levels of education among the working-age Roma translate into exclusion from the labor market and subsequent economic and fiscal losses; for the four countries combined, these economic losses amount to more than 2 billion Euros using official Roma population estimates – and as much as 5.7 billion Euros using the higher Roma population estimates used by others. The fiscal losses that these four governments incur as a result of Roma exclusion from the labor market amount to nearly 900 million Euros - to as much as 2 billion Euros - every year. These losses could be avoided if working age Roma had enjoyed better and longer education; even today when many Roma still face discrimination in the labor market, those Roma with secondary education can expect to earn between 52% and 144% more in these four countries than Roma who completed primary education.

To achieve the necessary higher levels of human capital, substantially larger investments in inclusive and quality education for Roma children, including early childhood education as well as lifelong learning opportunities for Roma adults are needed. Fortunately, the cost of this investment is much smaller than the government revenues it generates. Add to this the fact that the demographically younger Roma population will take on an increasingly large share of the working age population, who in turn will need to shoulder the economic challenges of rapidly aging populations, and it quickly becomes clear that the social and economic argument against inaction is too strong to be overlooked.

[7] Taking into account both differences in employment probability and differences in earnings conditional on being employed.

[i] The labor share of income is calculated as the ratio c between total labor cost and real output, whereas the former is the sum of all gross wages in the economy. Thus, total output is calculated as $\frac{\text{gross wage}}{c}$

[ii] For example, across all ethnicities, Bulgaria spends an amount per pupil across all education levels equivalent to 23% of Bulgarian per capita GDP (World Bank, 2006), or approximately 861 Euros per pupil. An estimate of the number of 3-17 year old Roma children - using the total Roma population estimate of 370,000 people - is 55,500 children. Then, given the annual fiscal losses of 370 million Euros, the fiscal loss per Roma child in this age category is equivalent to 6,667 Euros, or 7.74 times the 861 Euro per pupil public education expenditure.