

Conference Paper

Motives and Characteristics of Highly Qualified Labor Force Migration: Case Study of Serbia

Miloš Todorović¹ and Aleksandar Đorđević²¹Economic Faculty, University of Niš, Trg kralja Aleksandra 11, 18000, Niš²Innovation Center University of Niš, Univerzitetski trg 2, 18000, Niš

Abstract

The emigration of highly qualified labour from the countries of Eastern Europe is one of the worst effects of transitional and post-transitional period. It discredits the educational system of Eastern European countries, but also creates long-term problems in the development of the economy and all other sectors of society. The difference in earnings between immigrant countries of Western Europe and North America and the countries of emigration is the dominant motive for migration. But other motives are also not irrelevant. This paper is an initial part of a wider research of the international movement of labour which should provide guidance to the countries of emigration to mitigate the consequences of this process. Student surveys in Eastern European countries, their thoughts and plans, will provide information on the motives of emigration. On the other hand, by surveying the experiences of young highly educated workforce who has already emigrated, a true picture of experiences and the expected and achieved intentions will be obtained. Finally, certain questions in the questionnaire will also give an answer to the question, which would be new moments that would encourage young experts not to leave the country, or to return those who emigrated.

Keywords: International migration, brain drain, state measures, retaining talent.

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Corresponding Author:
Aleksandar Đorđević
djaleksandar91@gmail.com

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1. Introduction

Migration of the population is a constant history follower. Changes occurring on this plan at the end of the 20th and the beginning of the 21st Century reach unforeseen proportions. The process of globalization has created the necessary conditions for easier and more comprehensive resettlement of the population. But things that represent sufficient condition for these processes are the motives that move individuals to action. On one hand for the countries of emigration, the departures of young faculty educated people are particularly painful. On the other hand, highly skilled are more desirable immigrants and easily accepted in new environments. Tectonic disorders in the labour



market are deeply embedded in all segments of social movements. In the countries of emigration there is a lack of professional workforce, the education system is made purposeless, not only the economy, but also health, culture and even sport are being devastated. In the countries of immigration, the price of labour is reduced, the ethnic and religious structure of the population changes, there appears what John Esposito calls the conflict of civilizations.

This paper should identify the motives of the emigration, quantify them in a way, and explain why young people plan to carry out the eviction. The wider research involves the migration of highly qualified labour from the countries of Eastern Europe, and in this paper only the results of the survey for Serbia will be presented. In the end, recommendations for measures and actions that would slow down these processes and mitigate their consequences will be given.

2. Literature Review

Most economists conclude that large skill losses are detrimental to developing countries [1]. But, ultimately, some degree of emigration may in the end bring benefits to developing countries, inducing greater enrolment in domestic education, and triggering feedback ranging from wage remittances to technology transfers [2, 3]. Before considering skilled migration from a globalisation perspective, it is useful to reflect on the traditional concern that has been expressed about skilled emigration from developing countries. There was a lively debate in the early literature [4, 5] over the welfare effects of a brain drain, with some consensus that global welfare is raised by the rational choice of highly skilled emigrants to seek improved incomes abroad.

However, subsequent work recast the assumptions of the first analysts and agreed that neoclassical models of economic development generated an expectation that brain drain has adverse effects on emigration country development [6]. In particular, high levels of skilled emigration slow economic (GDP) growth and, adversely affect those who remain [7]. As a consequence, poverty and inequality are likely to increase. More recent economic theory, called new or endogenous growth theory, also typically predicts that high skilled emigration reduces economic growth rates. Indeed, research finds that the average level of human capital in a society has positive effects on productivity and growth [8].

Models of high skilled emigration support the expectation that reductions in the average level of human capital slow economic development; and the first order effect of emigration is unambiguously to reduce human capital. Empirical research finds

that Eastern Europe economic growth was slowed by skilled emigration during the 1990s. The loss of human capital holds back potential economic growth. Further fallout would be upward wage pressures for remaining skilled workers and hence increased inequality.

Another theoretical variant finds that at some optimal level of emigration (greater than none but not too much), emigration countries can have some benefits. The possibility of emigrating to higher wage countries may stimulate individuals to pursue higher education in anticipation of finding better-paid work abroad [9]. One economic model suggests that, at a sufficiently high volume of skilled emigration, the share of skilled workers in the emigration country could grow. As enrolments increase spurred by the chance of emigration, average human capital increases and, therefore, overall source country growth can be stimulated. This suggests that there may be an optimal level of emigration or a beneficial brain drain [8]. If emigration is blocked there is less incentive to pursue education, but an excessive level of skilled emigration will deplete the stock of skilled workers faster than it can be regenerated. In these economic models there is a right level of highly skilled emigration. Empirical analysis offers some support for these theoretical expectations. There may be an optimal level of emigration that stimulates the pursuit of higher education in developing countries and spurs economic growth. The current global estimate is that there were around 244 million international migrants in the world in 2015, which equates to 3.3 per cent of the global population. A first important point to note is that this is a very small minority of the global population, meaning that remaining within one's country of birth overwhelmingly remains the norm [10].

3. Methodology

A survey was specially designed for the purpose of this paper. It consists of 3 general and 7 specific questions. It was conducted through Google forms, sent mostly to students and some older individuals, in order to ensure the anonymity of the respondents, quick collection of data and easier processing. The responses were then coded in the SPSS statistical program. All the analysis had been done in this program following the adequate statistical procedures. Due to the length limitations of this paper not all the results will be presented, only the selected ones found the most interesting and intriguing.

Some of the questions in the survey include general data considering the age, sex, and the Faculty of the respondents. Specific questions were asked to discover the

attitudes and opinions of the respondents for the motives of emigration. Most of the questions were designed with Likert's scale so it would gather the intensity of the anticipated motives. The creation of the model for satisfaction with the conditions of living in Serbia, and the conditions that cause dissatisfaction would be attempted. The limitation of the model are the assumed motives, being aware that encompassing all the motives and creating a perfect model is close to impossible. Some of the data would be cross-referenced to get the picture about for example the difference between minimal wage that women and men expect abroad. Also is there a significant difference among the attitudes of sexes for the conditions and motives mentioned in the survey. The very heart of the paper is a new index, coefficient of satisfaction with the non-material factors proposed by the authors. The index would be calculated by dividing the total satisfaction with the conditions in the country with the dissatisfaction with conditions in Serbia. This would be then compared with the economical motives of emigration to see which of them are dominant. Used techniques will be descriptive statistics, factor analysis, variance analysis etc. After the analysis some measures for retaining talents and educated young people would be proposed.

4. Analysis

In the survey participated a total of 117 people from Serbia. Most of them were young people between 20 and 30 years of age. The mean age of all respondents is 26.01, the youngest respondent had 19, while the oldest had 57 years. Regarding the sex, there have been more women than men, 68 percent women and 32 percent men who filled the survey. Economic faculty was dominant answer on the third general question with 65 percent coming from this faculty, 8,5 percent from Law, 6 percent from Medical faculty, while others represent not such a big proportion.

The most important questions targeting economic motives of the emigration were about the minimal expected monthly wage abroad and monthly wage respondents would be satisfied to receive in Serbia. Answers should have been given in euros. Average answer for the wage abroad is 2304.27 € while the wage people would be satisfied with in Serbia is 1053.93€. Surprisingly there is not a big difference between the desired wages of man and woman.

The mean of male desired wage abroad is 2383.78€, and in Serbia 1120.81€. Females wanted to have 2267.50€ abroad and 1023€ in Serbia. Difference between sexes is around 116€ for the expectations abroad and 97€ for the expected minimal monthly wage in Serbia.

TABLE 1: Descriptive Measures of the Variables.

Statistics		Age	Sex	Faculty	Minimal_ monthly_ wage_ abroad	Monthly_ wage_ you_ would_ be_ satisfied_ with_ in_ Serbia	Difference_ in_ wage
N	Valid	117	117	117	117	117	116
	Missing	0	0	0	0	0	1
Mean		26.01	.68	5.03	2304.27	1053.93	1230.96
Std. Deviation		6.904	.467	1.367	1269.020	596.443	1331.208
Variance		47.664	.218	1.870	1610412.614	355744.754	1772114.216
Range		38	1	6	9500	4600	11400
Minimum		19	0	1	500	400	-2000
Maximum		57	1	7	10000	5000	9400

Source: Calculation of the authors in the SPSS program

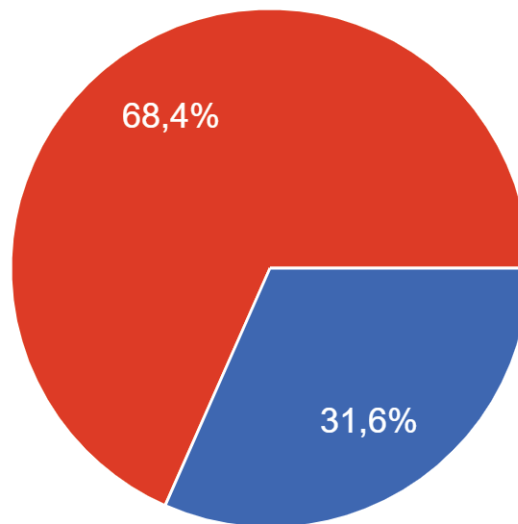


Figure 1: Percentage of Female and Male Respondents. (Source: Author's presentation of data)

This test is showing that there is a statistically important difference between male and female desired wage in Serbia as Significance is less than 0.05

For the calculation of the strength of economic motive we divided the expected wage abroad with the wage expected inside the country. Expected wage abroad is more than double the wage that respondents would be satisfied with in Serbia. Ratio between the

TABLE 2: Comparing the Means of Male and Female Respondents Expected Wage.

Sex		Minimal_ monthly_ wage_ abroad	Monthly_ wage_ you_ would_ be_ satisfied_ with_ in_ Serbia	Difference_ in_ wage
male	Mean	2383.78	1120.81	1262.97
	N	37	37	37
	Std. Deviation	1189.658	743.282	1313.289
female	Mean	2267.50	1023.00	1215.96
	N	80	80	79
	Std. Deviation	1309.727	517.240	1347.587
Total	Mean	2304.27	1053.93	1230.96
	N	117	117	116
	Std. Deviation	1269.020	596.443	1331.208

Source: Calculation of the authors in the SPSS program

TABLE 3: Tests of Normality.

	Sex	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Minimal monthly wage abroad	male	.167	37	.011	.916	37	.008
	female	.200	80	.000	.788	80	.000
Monthly wage you would be satisfied with in Serbia	male	.348	37	.000	.546	37	.000
	female	.280	80	.000	.788	80	.000

Source: Calculation of the authors in the SPSS program

two is 2.19, showing that people desire more than twofold wage abroad compared to the one in their country.

In order to calculate non-economic motives and characteristics of labour migration different groups of motives have been explored. Four groups of factors have been given to respondents, they needed to evaluate them with marks from 1 to 5, 1 being the least important and 5 being the most important factor/motive in the specified group. Averages of these answers were calculated for each motive and then for the whole group of motives. Creation of a specified coefficient was calculated as a ratio between positive and negative group of factors.

Inside the first group of motives the most important one that leads people to emigrate from Serbia is the inability to find employment, followed by the possibility of progress in profession. Interesting fact is that higher wages abroad finished on the fourth out of six motives that were listed in the group. General opinion of the peers that only abroad man can succeed and earn money finished last just after the adventurous spirit

TABLE 4: First Group of Motives That Would Lead People to Emigrate from Serbia.

Motives that would lead you to emigrate from Serbia (importance 1 to 5)	N	Range	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
1.Inability_ to_ find_ employment	117	4	4.43	.086	.931	.868
2.Possibility_ of_ progress_ in_ profession	117	3	4.20	.083	.893	.797
3.Political_ instability_ in_ the_ country	117	4	3.94	.110	1.191	1.419
4.Higher_ wages_ abroad	117	3	3.93	.092	.998	.995
5.Adventuristic_ spirit	117	4	3.09	.123	1.326	1.758
6.General_ peers_ opinion	117	4	2.15	.115	1.248	1.556
Valid N (listwise)	117					

Source: Calculation of authors in the SPSS program

of the respondents. If we sum all of the motives in this group, we would get a total average grade of 3.62 out of 5 that represents the desire of people to emigrate from their countries.

In order to make a comparison next group of motives explore the intensity of factors that would keep the population inside the country's borders. As the most important motive to keep young experts appears high wage in the country in front of permanent job and formed family. Not accepting the risk of immigration is not evaluated as very important factor and has the least average grade of all. If we sum all of the motives in this group, we would get a total average grade of 3.82 out of 5 that represents the desire of people not to leave from their countries.

TABLE 5: Second Group of Motives That Would Lead People to Stay in Serbia.

Motives that would lead you to stay in Serbia (importance 1 to 5)	N	Range	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
1.High_ wage_ in_ the_ country	117	4	4.38	.087	.944	.892
2.Permanent_ job_ in_ the_ country	117	4	4.27	.093	1.005	1.011
3.Formed_ family	117	4	4.13	.111	1.200	1.440
4.Resolved_ housing_ issue_ satisfaction	117	4	4.03	.114	1.228	1.508
5.Parents_ and_ friends	117	4	3.67	.116	1.259	1.586
6.Country_ support_ for_ business	117	4	3.56	.129	1.392	1.938
7.Not_ accepting_ the_ risk_ of_ emigration	117	4	2.70	.118	1.275	1.625
Valid N (listwise)	117					

Source: Calculation of authors in the SPSS program

Specific factors and motives from the first and the second group could be compared so the broader view could be acquired. As calculated higher wages abroad are evaluated with average mark 3.93 out of 5 and are not a dominant motive to leave the country. But, from the point of view of the second group higher wages in the country represent the main reason, with the highest mean mark of 4.38, not to leave the country. This leads to a rather paradoxical situation. So higher wages abroad are not the ones that would be the strongest reason for a man to leave his country, but on the other hand higher wages in the country would be the best way to keep people from emigrating. Emotional and social reasons for not leaving the country do not play such a big role and are found at the bottom of the list.

Third group of factors was used to evaluate the satisfaction within the country. Family connections got the highest grade of all factors, followed by tradition, food and customs. Sense of security and free education finished on the bottom of the list. The total average satisfaction with the country, measured with the factors given in the survey was 3.93 out of 5. Factors were chosen with the assumption of what people value more in the country.

TABLE 6: Satisfaction with the Country.

	N	Range	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Family_ connections	117	4	4.54	.074	.804	.647
Tradition_ food_ customs	117	4	4.27	.086	.934	.873
Social_ life_ friends_ going out_ fun	117	4	3.96	.104	1.125	1.265
Free_ education	117	4	3.50	.114	1.229	1.511
Sense_ of_ security	117	4	3.40	.122	1.320	1.742
Valid N (listwise)	117					

Source: Calculation of authors in the SPSS program

Fourth group of factors measured the intensity of dissatisfaction with the country. The highest dissatisfaction was shown towards the degree of state system regulation, followed by the possibility of employment. Respondents were least dissatisfied with resolving their housing issue as well as with the mentality of the people. Standard of living was somewhere in the middle. Total average from this group of factors amounts 3.77. Note that this is negative because here the intensity of dissatisfaction was evaluated and not the satisfaction.

TABLE 7: Dissatisfaction with the Country.

	N	Range	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
The_ degree_ of_ state_ system_ regulation	117	4	4.14	.120	1.293	1.671
Possibility_ for_ employment	117	4	4.01	.092	.996	.991
Standard_ of_ living	117	4	3.90	.105	1.132	1.282
Mentality_ of_ people	117	4	3.44	.107	1.156	1.335
Resolved_ housing_ issue_ dissatisfaction	117	4	3.38	.115	1.244	1.547
Valid N (listwise)	117					

Source: Calculation of authors in the SPSS program

If we divide these two numbers, the total average satisfaction and the total average dissatisfaction we would create a new coefficient of satisfaction with the conditions in the country.

$$\text{Coefficient of satisfaction with the conditions in the country} = \frac{\text{Total average satisfaction with the conditions in the country}}{\text{Total average dissatisfaction with the conditions in the country}}$$

If we calculate this coefficient of satisfaction, 3.93 divided by 3.77 we would receive the number 1.042. This number suggests that people are more satisfied with the factors that we assumed in this model than they are dissatisfied with another set of factors from the fourth group. It should be noted that in the third group of factors almost all of them were social and emotional, maybe only the one evaluating free education could be said to have some economic implications. The fourth group of factors alongside the emotional and social had one motive that is more economically related and that is possibility of employment. Nevertheless, this once again confirms that the predominant reason for emigrating are economic reasons, as we saw that people are more satisfied than dissatisfied with the socially and emotionally oriented motives and factors.

With these two tables it can be noticed that there is minimal difference between the sexes considering the attitudes and evaluation of the motives from the third and the fourth group of factors. Even for one factor, evaluating the resolving of housing issue the average mark of male and female is the same.

After reviewing the surveys and answers state measures that should be introduced are multiple. Before all the most important thing is to provide employment for its residents and the possibility for them to progress in their profession. Right after comes

TABLE 8: Third and Fourth Group of Factors Differences between Sexes.

Sex		Tradition_ food_ customs	Free_ education	Social_ life_ friends_ going_ out_ fun	Family_ connection	Sense_ of_ security
male	Mean	4.38	3.62	4.03	4.57	3.30
	N	37	37	37	37	37
	Std. Deviation	.758	1.187	1.067	.765	1.309
female	Mean	4.23	3.45	3.93	4.53	3.45
	N	80	80	80	80	80
	Std. Deviation	1.006	1.252	1.156	.826	1.330
Total	Mean	4.27	3.50	3.96	4.54	3.40
	N	117	117	117	117	117
	Std. Deviation	.934	1.229	1.125	.804	1.320
Sex		Possibility_ for_ employment	The_ degree_ of_ state_ system_ regulation	Standard_ of_ living	Resolved_ housing_ issue_ dissatisfaction	Mentality_ of_ people
male	Mean	4.14	4.16	3.97	3.38	3.51
	N	37	37	37	37	37
	Std. Deviation	1.058	1.365	1.166	1.361	1.146
female	Mean	3.95	4.13	3.86	3.38	3.41
	N	80	80	80	80	80
	Std. Deviation	.967	1.267	1.122	1.195	1.166
Total	Mean	4.01	4.14	3.90	3.38	3.44
	N	117	117	117	117	117
	Std. Deviation	.996	1.293	1.132	1.244	1.156

Source: Calculation of authors in the SPSS program

the political stability or if we would use the last group of factors, where we measured dissatisfaction with the motives, the most important thing would be to improve the degree of state system regulations as these was evaluated with the highest mark. Improving the macroeconomic stability, ruling of institutions and applying the laws is the key to improve or reduce the dissatisfaction with the country. Providing not just permanent but well-paid jobs with high incomes is essential to retain talented people and highly educated individuals inside the country's borders. State measures are limited to economic and in certain part of the social factors while emotional factors are left over to each individual person to improve them and the Government cannot do a lot on this field.

5. Conclusion

Not everything could be calculated with numbers, especially when it comes to people's motives and attitudes to leave their country of birth. It is a well-known fact that emigration is in most cases induced predominantly by economic reasons. However, there are a lot more motives and characteristic that should be considered when moving abroad following only money.

Predominant motives for emigration have always been the same, possibility to earn higher wages. Other motives have rarely been mentioned, and they have not been investigated. We tried to encompass as many motives and characteristics of highly qualified labour migration as we could think about. Surely not all of them have been included in the survey and there is a space for improvement in the future research. With these motives, comprising of four sets two pairs of coefficients have been created and calculated. What can be concluded from the analysis is that as emigration is effectively happening it is dominantly motivated by economic reasons. Other motives, mainly social and emotional showed that people were not that strong dissatisfied with some aspects of their country or to be more precise, they expressed stronger satisfaction with one set of motives compared to the dissatisfaction with other motives.

The idea is to spread this survey to whole Eastern Europe and compare the countries by using it. As brain drain or the emigration of highly skilled workforce is a common painful topic for this area of the world it would be utterly important to discover the dominant reasons of emigration and then apply adequate state measures to mitigate them.

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