

## Skills Mismatch in the Labor Market a Precondition of Brain - Drain Phenomenon in Developing Countries with Special Emphasis in Kosovo

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**Abstract:** The main aim of this study is to analyze the skills mismatch in labor market as a precondition of brain - drain phenomenon in Kosovo as a developing country. Due to the lack of secondary data related skills mach vs.mismatch in labor market, profiles created by education and skilled migration in Kosovo, this study indirectly tries to shed light on the possibility that the mismatch of skills requirements in the job market is a precondition for brain - drain phenomenon in the future. The data used in this paper is secondary data gathered form Kosovo Agency of Statistics on the main variables in the analysis included: (i) employment rate vs. Unemployment, (ii)average wages in the public and private sector and (iii) number of students in education. This study, through descriptive and comparative analysis, concludes that although the unemployment rate in total shows a decreasing trend, within it's structure, the unemployment rate with university degrees shows an increasing trend. Seen by the growing number of university graduates, this refers to a skills mismatch in the labor market thus may be considered also as a precondition for brain –drain phenomom in near future in case of Kosovo. The paper comes with some additional conclusions and recommendations.

**Key Words:** University graduates, Job market, Skills mismatch, brain -drain

### 1. INTRODUCTION

The education of a people is a key factor of growth and a country's economic development. Quality education is a topic of recent debate. Perhaps a quality education is seen as the key to a country's success, all forces must be oriented towards the connection between 'input' - spending dedicated to education and 'output' - profiles created by education always taking into account labor market demands. Quality education is expected to have a positive impact on increasing the employment rate, thus reducing social needs for assistance and social assistance and various programs which are the burden of passive labor market policies. The main strength and challenge at the same time, of the policy makers of educational policies is precisely the path of transmission between education, the labor market and economic growth. As countries pursue educational policies aimed at integrating their economies, political systems, and social structures into a broader and more powerful union, it is clear that higher education, research, and innovation are critical components of to fully understand the potential benefits of these changes (Harry et.al 2008).

As countries pursue educational policies aimed at integrating their economies, political systems, and social structures into a broader and more powerful union, it is clear that higher education, research, and innovation are critical components of to fully understand the potential benefits of these changes Since expectations from graduates, at any level of education, are a priori - to end with the appropriate knowledge and skills corresponding to the study

cycle, this does not happen in most cases. Such a phenomenon is more prominent in developing countries. As is usually the case in developing countries, where university graduates are growing (according to the principle of quantity) but are not in the labor market. This is how the need to study the quality of education arises.

It is worth noting that on the road to the development of the education sector, the amount of education, expressed in terms of the number of students enrolled and their graduation, is a necessary condition that must be met. While quality is a condition of sufficient education as a public good. Although in terms of both quantity and quality, they can be followed and in the same step, rationality dictates that first of all the first condition is met - that of quantity and then that of quality. Investing in education primarily means investing in human resources which means creating a skilled workforce that will influence the creation of innovations, increase productivity and wages, reduce the demand from the state for financing various social programs will increase the state budget from tax accumulation and all this is expected to have a positive impact on the country's economic growth. The benefits of investing in education do not end here, there is a long list not to say endless of the benefit of the state and society as a whole from the proper education of the population starting from: increasing the number of skilled labor, creating profiles adequate based on the demands of the labor market while meeting the needs of the market, increasing productivity, increasing wages and improving standards of living

thus increasing the country's economy accompanied by increased social welfare. Viewed from this prism, the expression arises as to what happens if university graduates are out of the job market as a result of incompatibility of the skills required by the job market and offered. This mismatch of skills is a prerequisite for creating the brain-drain phenomenon in developing countries. Brain drain is an expression of British origin commonly used to describe one of the most sensitive areas in technology transfer specifically refers to skilled professionals who leave their native lands in order to seek more promising opportunities elsewhere. It is precisely the university graduates who cannot find a job within their profile tend to be those who will be looking for a job abroad, precisely to practice their profession, career advancement, better standard of living, social welfare and political and economical security.

## 2. REVIEW OF RELATED LITERATURE

Investing in education is beneficial to society as a whole, both micro and macro, and has a direct and indirect impact on the system, this is especially true in countries with weak labor market regulations and weak social security systems. (Gangl, 2004). All developing countries in the broadest sense of the word are faced with the "quality" of the workforce, which means that young people generally graduates of university (diploma holders) are faced with irregular employment and this really causes a inconsistency of profiles created by education with the profiles required by the labor market. An inconsistency of this nature lies in the skills possessed by the university-graduate workforce and the skills required by the real sector, which at the same time poses a very significant obstacle to the country's economic development.

Other forms of incompatibility of qualifications and skills are likely to have deteriorated, such as in some cases employees may be employed in occupations which are below the qualifications they possess (over-skilled employees for the country of work based on the level of education) or engaged in professions that normally require skills that the workforce does not have (employees skilled against job requirements), in both cases the incompatibility of skills affects satisfaction and wages. individual employees as well as firm productivity, it can also lead to increased staff turnover (Quintini, 2011). In cases of non-compliance on the basis of qualifications and skills when we have under assessment, specifically when university graduates are employed in professions below their qualifications, it is a cause for brain - drain.

In developing countries, the case of incompatibility of workforce skills extends to the framework of both cases, both in terms of quantity and quality. This refers to the fact that the number of skilled workers measured in this way by their education level does not correspond to the size of the quantity required for these types of skills / profiles / professions.

The incompatibility of skills depends on many aspects, first of all it depends on the qualification of the workforce in certain jobs, this means that if there is no opportunity to create new jobs at the state level, Qualified employees, measured by their level of education, will agree to work in those jobs that are required, this in the long run will negatively affect by reducing productivity. Also in the opposite case of non-compliance as a result of inadequate qualification, in both cases non-compliance leads to reduced productivity negatively affecting the development of sectors at the micro level and beyond at the level of growth and economic development of the country while it also caused the brain drain phenomenon.

The mismatch of educational policies with the needs of the labor market creates "inadequate profiles" dominated by profiles of socio-economic and human sciences, which are not in line with the demands of the labor market, so it is important that public funding policies education should be oriented towards the creation of skilled labor, which is also the basis for the economic development of a country. Thus, human resources: "constitute the fundamental basis for the creation of the wealth of nations.. Capital and natural resources are passive factors of production; Human beings are active agents who accumulate capital, exploit natural resources, build social, economic and political organizations, and take care of the country's economic development.

It is clear that a country that is unable to develop the skills and knowledge of its people and use them effectively in the national economy will not be able to develop anything else. (Harbison, 1973). One reason is that the Western Balkan countries are new to the transition process, and so Foreign Direct Investment, diversification from traditional sectors, and job creation in the private sector are still stagnant compared to EU member states. At the same time, these countries are facing the phenomenon of very large emigration and brain drain, thus resulting in high remittance flows that likely contribute to wage reservation, hinder external competition, and thus contribute as well. in the long duration of unemployment (Kovtun, et al., 2014). In the economic literature dedicated to education, employment and economic growth,

there are a number of studies that come to different conclusions..

According to Bakare, (2006) the impact of increased investment in human capital in Nigeria using the 'vector autoregressive error corrections' mechanism concludes that there is a significant functional and institutional link between investment in human capital and economic growth in Nigeria's case because of a 1% reduction. Investment in human capital negatively affects economic growth, thus reducing Gross Domestic Product by 48.1% in the period 1970 - 2000. Odeleye, (2012) studies the relationship between investment in education and economic growth using primary data and secondary data. The first model used is to test the performance of teachers in primary schools and the second model is the OLS method to test the link between real gross domestic product and current government spending dedicated to education, government capital expenditure and gross capital formation. The model shows that in the Nigerian case an increase of 1% in capital expenditures dedicated to education leads to a decrease of 0.17% in Gross Domestic Product. However, capital expenditures on education, which is expected to stimulate economic growth, have been found to be insignificant and against economic theory.

Biagi & Lucifora, (2008) have studied the impact of education on the unemployment rate using data from labor surveys for ten European countries and conclude that higher education (measured from the perspective of the labor force with secondary education and above) reduces the unemployment rate, together for the less educated and for the more educated measured by years of schooling) but keeping the other variables unchanged, both demographic variables and those of business cycles.

Expenditures on education and training as a proportional number of GDP are a good indicator if we want to know how much states pay for public education.

The situation of "on the part of the educated, but in the quantitative aspect" came into play, as a result of the education policy in the countries of the Western Balkans as countries thus developing which does not meet the needs of the labor market.

At the same time the creation of new jobs will be able to be exploited if the lack of skills is addressed in advance. Education reforms in developing countries are generally designed for political reasons or guided by the principle, "more is better in the state of better is more", mass education, populist versus the principle of quality and thus not

related to the needs of labor market, educational policy design is inherently based on analysis and research, yes reforms but not pro forms! (Bexheti & Mustafi, 2015).

### 3. RESEARCH METHODOLOGY AND DATA

This scientific paper is based on the review of international literature on the importance of education, educated people and non-harmonization of skills requirements in the labor market as a precondition for the creation of the brain drain phenomenon.

In the reviewed literature we do not have a lot of research addressed on the disharmony of profiles in the labor market as a precondition for the brain – drain phenomenon specifically university graduates who for various reasons are likely to leave the homeland seeking work in their profession abroad. This paper concretely tends to clarify a factor not very much discussed specifically the skills mismatch in the labor market as a precondition for the creation of the brain - drain phenomenon. The research in question is descriptive, analytical and comparative. This study is mainly based on secondary data provided by the World Bank, the Statistics Agency of Kosovo, the Ministry of Finance and others. The secondary data are processed and presented graphically by the author himself which are presented in the next section. The secondary data are processed by the author himself and presented in the form of tables and graphs in the next section.

### 4. RESULTS AND DISCUSSION

In section four we interpret the results using tables and graphs.

Table 1. Employment rate by the level of education in Kosovo (2013-2019)

	2013	2014	2015	2016	2017	2018	2019
<b>No school</b>	0.5	0.3	0.1	2.2	2.1	4.2	3.6
<b>I-IX classes</b>	19.0	17.9	15.0	11.3	13.5	13.8	9.8
<b>Secondary vocational</b>	42.5	40.0	36.2	33.1	36.1	84.9	34.5
<b>Secondary gymnasium</b>	13.3	15.7	21.2	27.0	31.7	37.4	28.5
<b>Tertiary</b>	24.7	26.1	27.5	53.2	60.2	68.9	62.8

Source: Kosovo Agency of Statistics, author's calculations, <https://ask.rks-gov.net/>

In the above table - the employment rate according to the educational level, we can see an increasing trend of the no school category, where in 2013 the employment rate was 0.5 and in 2019 the

employment rate reached 3.6. Regarding the level of employment of category I - IX classes, the trend of employment is decreasing from 19% to 9.8%. The secondary vocational category marks a downward trend from 42.5 in 2013 to 34.5 in 2019, the secondary gymnasium category marks an increasing

trend from 13.3 to 28.5 in 2019. The Tertiary category concretely with a university level from 2013 specifically from 24.7 to 60.2 in 2017 to continue the trend further to 68.9 in 2018 and then is shown a decrease trend in 2019 to 62.8 percent.

**Table 2.** Unemployment rate by the level of education in Kosovo (2013-2019)

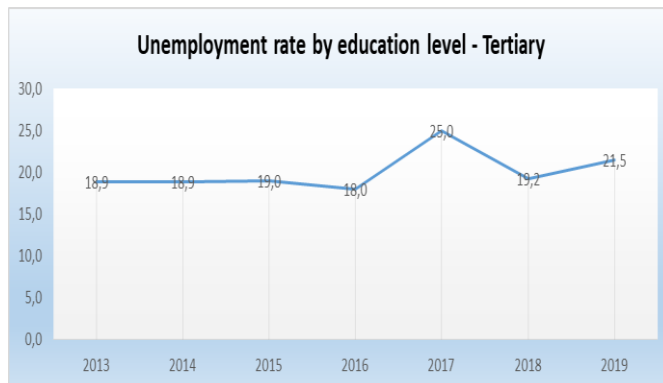
Unemployment rate (%)	2013	2014	2015	2016	2017	2018	2019
No school	64,6	64,6	73,9	47,2	44,6	57,8	49,4
I -IX classes	46,0	46,0	46,7	32,6	35,0	39,8	32,0
Secondary vocational	35,3	35,3	35,9	32,5	33,8	32,5	25,2
Secondary gymnasium	41,2	41,2	29,6	24,3	27,2	28,9	27,0
Tertiary	18,9	18,9	19,0	18,0	25,0	19,2	21,5
Total	35,3	35,3	32,9	27,5	30,5	29,6	25,7

Source: Kosovo Agency of Statistics, author’s calculations, <https://ask.rks-gov.net/>

In the above table related total unemployment rate we can see an decrease trend in the total unemployment rate in Kosovo over the years from 2013 to 2019, respectively by 35.3 percent in 2013, the total unemployment rate decreases to 25.7 in 2019. However, if we analyze in structure the rate of unemployment rate with tertiary education

(university) we can see that in 2013 the unemployment rate with the highest level of education (Tertiary/University) was 18.9 and in 2019 the unemployment rate reaches 21.5. This increase trend in the unemployment rate of university graduates corresponds to a mismatch of job skills requirements.

Graph.1 Unemployment rate by education level – Tertiary in Kosovo



Source: Kosovo Agency of Statistics, author’s calculations, <https://ask.rks-gov.net/>

The graph on the unemployment rate with university education has been selected to be presented in particular for the fact of importance in this study. As can be seen in the graph, the unemployment rate with the highest level of education marks an increasing trend.

professions required in the labor market, which may also be the cause in the future of the phenomenon of brain - drain, specifically the migration of the educated population to a country with the perspective to find a job in their profile, career advancement, well-being and standard of living.

This addresses the fact that the profiles created by education system do not correspond to the

**Table 3.** Gross and net salary in public and private sector

		2012	2013	2014	2015	2016	2017	2018
The average salary	Gross	431	444	482	510	519	528	558
	Net	384	393	430	451	457	471	498
Public Sector	Gross	407	415	465	511	525	532	573
	Net	353	356	408	441	449	474	509
Private Sector	Gross	367	367	358	367	371	384	401
	Net	333	333	326	333	337	348	364

Public enterprises	Gross	518	549	624	651	660	667	699
	Net	465	491	556	578	586	592	620
Public Sector (KCB) and Public Enterprises	Gross	424	446	511	542	549	551	560
	Net	384	403	459	486	492	493	501

Source: Kosovo Agency of Statistics, author’s calculations, <https://ask.rks-gov.net/>

A very important indicator of the expectations of young people when choosing professions is the salary. In this direction is seen that the salaries offered by the public sector mark an increasing and positive trend and in comparison with the average salary in the private sector is much higher, namely the gross salary in the public sector in 2012 was 407 euros and the net 353 euros and in 2018 the gross salary reaches 573 euros and the net salary 509 euros which compared to the gross salary in the private sector in 2012 was 367 euros while the net salary 333 and in 2019 is gross salary is 401 euros respectively the net salary reaches 364 euros.

Considering 2018, although in both public and private sector the trends are increasing, we still conclude that the gross and net salary in the public sector is much higher than the gross and net salary in the private sector. Specifically, the net salary in 2018 in the public sector is 509 euros, while the net salary in the private sector is 364 euros. Also, salaries in Public enterprises reach 620 euros and in the public sector and public enterprises 501 euros. In principle, the public sector as an employer is more attractive in terms of wages and better working conditions. If young people are oriented to the profile to meet the needs of the public employer, the unemployment rate will again increase in the coming years as a result of overcrowding in the public sector.

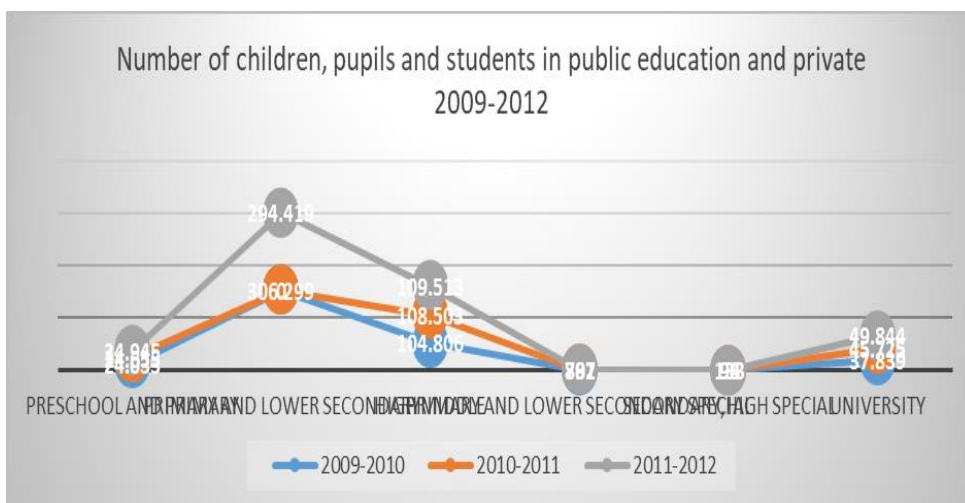
Table 4. Gross and net salary in public and private sector

	2009-2010	2010-2011	2011-2012
Preschool and Primary	24.033	24.655	24.945
Primary and lower secondary	306.299	.	294.419
High middle	104.806	108.503	109.513
Primary and lower secondary special	791	807	782
Secondary, high special	94	98	133
University	37.839	45.725	49.844

Source: Kosovo Agency of Statistics, author’s calculations, <https://ask.rks-gov.net/>

In the table above we have presented number of children, pupils and students in public and private education for time period 2009-2012, As we can see from the table the number of students in higher education secondary, high special, marks an increasing trend from 94 to 133 and the number of students in the university shows an increasing and positive trend from 37,839 thousand to 49,844, although in the absence of data it is assumed that the number of students in private and public universities will double by 2019.

Graph.2 Number of children,pupils and students in public and private education



Source: Kosovo Agency of Statistics, author’s calculations, <https://ask.rks-gov.net/>

In the above graph we can also see an increasing trend of number of students in Universities from 37.839 in 2009-2010 the number reached 49.844 by 2011-2012.

## 5. Conclusions and recommendations

The main purpose of this study was to analyze skills mismatch in labor market as a precondition of the brain drain phenomenon. The two main conceptual variables of this study are precisely the mismatch of skills in the labor market and the brain drain phenomenon historically viewed, are very little treated as influential variables in each other. This study on the framework of its originality claims to highlight a slightly different spirit of analysis, specifically to analyze whether the skills mismatch may cause the of brain – drain phenomenon in developing countries, specifically in the case of Kosovo.

In the absence of secondary data over the years on the emigration rate of the skilled workforce; the demand for skills in the labour market and the profiles created by education, we have tried to indirectly present these effects by using the secondary data from the Kosovo Agency of Statistics on the main variables in the study including: the number of employments according to the educational level vs. unemployment rate by the level of education, average salary of the private and public sector (gross and net) and the number of students in the school.

Utilizing descriptive and comparative analysis through tabular and graphical presentations, the paper concludes that the unemployment rate according to the highest level of education (university) marks an increasing trend in that structure where the total unemployment rate marks a downward trend also in this view is seen. a mismatch between what profile education creates and what exactly the labor market needs,

Among other things, the paper points out that based on the average salary between the private and public sectors, the average salary is much higher in the public sector compared to the private sector, which alludes to the attraction of young people to these professions for the sake of salary and standard of living. Considering that the state capacity for employment from year to year is significantly met, again from this point of view, there will still be a mismatch between supply and demand for occupations in the labor market.

The paper comes with some suggestions that in the future education policies should be oriented

towards skills in the job market and triangle public institutions, higher education and business institutions in order to take preventive measures against the phenomenon of brain drain in the future.

Some concrete suggestions:

- The government should increase the productive expenditures dedicated to education, in order to meet the demands of the labor market and act as a catalyst from the degree holders and the labor market. Educational policy design should be based on the principle of concrete analysis and research.
- The government should be very careful in managing public spending dedicated to education in order to increase the skills of the workforce.
- The government should direct public spending on education towards productive sectors that will contribute to improving the standard of living, thus contributing to economic growth in general.
- The government should create training programs for young people to get involved in the work based on the learning experience, thus improving the quality of labor supply in the local labor market.
- A network should be created and operated that will match the skills required in the labor market with those developed in the education system.
- Higher education institutions need to create integrated academic programs with companies.

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