

Magdalena VELCIU
National Scientific Research Institute for Labour and Social Protection,
Bucharest, Romania

HUMAN CAPITAL FLIGHT - Empirical studies ROMANIA'S CASE

Keywords

*Human capital flight,
Brain drain,
Labour migration*

JEL Classification

J61, J24

Abstract

Knowledge, qualifications of workforce and human capital became key factors for progress. Human capital flight transfers not only people but work, knowledge, tangible and intangible capital and development potential. In this article, trying to answer whether Romania is a source country for emigration of highly skilled or well-educated individuals (ie human capital flight) I flew over those two dimensions that have traditionally characterized human capital flight namely: shrinking work resource and losing high educated peoples. Therefore, Romania was faced with decreasing the number of resident population due to the evolution of demographic phenomena with negative projections and declining number of working age population and young educated and highly skilled workers and professionals. This will generate complex problems for economy, labour market, difficulty in finding highly skilled workers, talent shortages etc so it's critical to monitor the labour migration or brain drain phenomenon.

HUMAN CAPITAL BRIGHT...

As a measure for creative potential, human capital is an integrating concept that includes knowledge, creative skills, abilities and competencies, which lead to create economic added-value for individuals, companies, national economy or a larger community. It implies a multiple meaning, including results of educational and learning processes, the health of human resources, work experiences as well as the population's migration on the labour market. Education is an investment in human capital that pays off in terms of higher productivity. So, there are two types of human capital meaning: workforce generating economic added-value as other production factors and results of investment in people through education and training. It is a dynamic connection between human and environment.

Human capital is more than an individual capacity to work. Furthermore, it is acceptable that the conceptual foundation of one's human capital is based on "something like knowledge and skills" acquired by an individual's learning activities (Kwon D.B., 2009).

The importance of human capital is spread in all the socio-economic themes like: labour market and workers wage, firm's productivity and competitive advantage, national economic growth etc.

Recent researches focus on human capital development and its positive relations with creativity and innovation. In the context of knowledge-based economy, the investment in human capital development looks like a main competitive advantage due to the highly demand for a skilled workforce, combined with a growing trend of people to move global.

In future, human capital became a key factor for business success. The right mix of people, skills, and culture can create competitive advantage for companies, developed industries and countries.

Big changes are coming to the workplace. Oxford Economics and SAP, fielded two major surveys in the second quarter of 2014, named "Workforce 2020: The Looming Talent Crisis" reaching out to more than 2,700 executives and more than 2,700 employees at companies in the following 27 countries. The nature of employment itself is undergoing a transformation. So is the composition of the work resource, as the entrance of the Millennial generation (born between 1980's-2000), along with globalization and social change, and their competences and new capabilities. These changes are critical to managing the 2020 workforce capital (Oxford Economics, 2015).

...AND HUMAN CAPITAL FLIGHT

Human capital flight refers to the emigration of highly skilled or well-educated workers and specialists from one country to a more developed one. The focus is on the movement, or losing, of the capital which is not invested in the country where it was created.

Even if we resemble the term human capital flight with "brain drain", it is proposed that human capital flight could be the better metaphor respecting divergent factors (push for human capital flight and pulled by brain drain). In Economics, the phenomenon is known as human capital flight, referring to the movement of the capital which is lost by the country that spends resources for creating them. Brain drain is usually associated with social loss, and refers to the exodus of highly specialized professionals, scientists, researchers, academics and students.

There are two sides of the coin: the benefits as a human capital gain for guest countries or/ and the costs as a capital loss for sending countries. But, there are many reasons for population movement. In guest countries, labour market is dealing with a lack of opportunities for jobs, earning, security, economic depression, health risks and more contribute to human capital flight. On the other side, host countries usually offer great opportunities, political stability and freedom, a developed economy and better living conditions that attract talent. At the individual level, family influences (relatives living overseas, for example), as well as personal preferences, career ambitions and other motivating factors, can be considered.

A recent study shows that migrants contribute to the integration of their country into the world market, which can be particularly important for the economic growth in developing countries (Rapoport H., 2016). More, emigration might cause an increase in the wages of those who remain in the country of origin. Particular attention is paid to the role of skilled migrants.

Examining the impact of brain drain migration on human capital formation in developing countries, authors (Beine M., Docquier F., 2008) found evidences of a positive effect of skilled migration prospects on gross human capital formation in a cross-section of 127 countries. Countries combining relatively low levels of human capital and low emigration rates are shown to experience a 'beneficial brain drain', and conversely, there are more losers than winners, and the former tend to lose relatively more than what the latter gain.

The measurement of human capital covers two horizontal dimensions like learning and employment. The conventional standard to measure human capital stock has been largely categorized into three parts: output, cost, and income-based approach. School enrollment rates, scholastic

attainments, adult literacy, and average years of schooling are the examples of output-based approach; cost-based approach is based on calculating costs paid for obtaining knowledge; and income-based approach is closely linked to each individual's benefits obtained by education and training investment (Kwon D.B., 2009).

However, what are the demographic and economic impacts on the sending countries? A large number of immigrants completed their education in sending country. The sending country has financed young's education, but has no returns in value and finally give up its investments and other human capital of migrants. So, the direct impact of flight of human capital, just like any capital flight, will likely adversely affect economic growth. Moreover, when a highly educated young person moves to another country, the country of origin loses both the money spent on his education, but also the future income that he could have generated if he had remained in his country.

THE EUROPEAN CHALLENGING CONTEXT

In Europe, in the last decades, increasingly more educated people and professionals have been leaving the origin country and going to other member countries where they consider gaining better possibilities and opportunities for professional career, better incomes or welfare systems. The human capital flight phenomenon became more visible in last ten years, when the global crisis affected national economies.

Movement of workforce especially highly skilled or well-educated persons is seen as a net benefits, a "brain gain" for destination countries that receive a work resource, or as a net costs, a "brain drain" to human capital flight for the origin country. At the individual level, there are motivational factors, career development or income needs or multicultural ambitions as well as personal preferences.

In the European Union, the right to live, to work, to study in another European country is insured and young people have the freedom of choice. Furthermore, following the integration of Romania into the EU, many people, skilled workers or highly educated specialists has decided to work and move for an undeclared period of time, to other European countries. More, migrant people strategically mobilize attributes of identity in order to justify the dynamics of belonging to home or host countries (Ciocca, 2016).

Two conditions are necessary for the term "brain drain" to apply to a given country. First, there must be a significant loss of the highly educated population. Second, adverse economic consequences must follow. A detailed examination

of these conditions reveals that while the direct impact of significant outflows of human capital will likely have a negative effect on economic growth, feedback effects may actually stimulate economic growth [7].

IS ROMANIA A SENDING COUNTRY FOR WELL-EDUCATED WORKFORCE?

In recent years, Romania was faced with diminishing the number of resident population due to the evolution of demographic phenomena with negative growth, temporary migration. Losing number of persons of working age and educated human capital will generate serious problems for economy, pension system and social security in general economic growth.

There are two dimensions that confirm the human capital flight: shrinking work resource and losing high educated peoples, in sending country. Migration of young people with high level of education and professionals as well as migration for study and remaining are characteristics for brain drain. Human capital flight transfers not only people but work, knowledge, tangible and intangible capital and development potential.

a) **Shrinking work resource**

During the period 1990-2012 Romania's resident population was reduced by more than 3.1 million caused by low birth rate, high death rate, high rate of abortion and emigration. Furthermore, Romania was faced with a continuum aging population phenomenon. But, more than 77% of the decline of population was due by emigration. A cause of this phenomenon is migration for work, which led to an average annual reduction of Romania's population by almost 104 200 persons. The most important part of emigration is represented by people in the age group 25-64 years, representing working active population. In 2012 this age group represents 74% of total emigration, while the value of the indicator in 2002 was 65% (N.I.S, 2014). Migration of high educated population or young students signifies waste of human capital with long-term negative consequences.

b) **Working age population and employment rate**

The declining trend of working-age population is obvious. The figure 1 presents the evolution of working-age population, defined as persons aged 15 years and older, in Romania (data from Labour Force Survey) in 1998-2015. The number of persons of working age decreased from 18061 thousands in 1998 to 16792 thousands in 2015. According to this declining rhythm and others demographic figures, we suppose that the volume of labor resource will reduce.

And the Eurostat's demographic projections aren't optimistically. Europe's working age population (aged between 20 and 64 years) will be declining by 0.4% every year between now and 2040, a decline that has already started in 2010. This will have major implications for the EU's growth potential in the long run (E.C., 2015).

In 2015, the employment rate for population aged 20-64 years was 66.0% at a distance of 4.0 percentage points below the national target of 70% established in the context of the Strategy Europe 2020, according to National Institute of Statistics. In 2015, the employment rate for youth (15-24 years) was 24.5% with 3,1 percentage points less than value in 2007, while for mature working persons (25-54 years) the employment rate was 77,4% in 2015 with 1,1 percentage points less than value in 2007 (Figure 2).

In 2015, the employment rate was 64.9% for persons with medium levels of education in this case pointing the differences by gender (the rate is 16.5 percentage points in favor of males). Among people with low education, only 42.6% were employed. For people with higher education level, the employment rate was 85.3, with 5.1 percentage points in favor of males.

c) **Losing high educated peoples**

The participation of individuals to education is an important determinant for their access to labour market opportunities. Analyzing factors that explain differences in participation to education in Romania, authors give attention to urban-rural gaps, gender and age influences, in educational attainment (Zamfir A.M., Mocanu C., 2016).

In all European countries, the educational attainment levels of the population have improved significantly over the last thirty years. In the EU-28 countries, a procent of 32.6% of people aged 25-54 years had at least attained a tertiary level of education (ISCED 5-8) and 20 % of those aged 55-74 years, in 2015. In Romania, the share of the population having completed tertiary education was only 19,6% of persons 25-54 years and 8,1% of those aged 55-74 years, in 2015.

In all European countries, the share of the population having completed tertiary education in total employed population increased, between 2006-2015. In EU-28, the growth was 7,7 percentage points, from 26,3% in 2006 to 34,0 in 2015. In Romania, the growth was smaller, ie 6,8 percentage points from 14,3% in 2006 to 21,1% in 2015.

CONCLUSIONS

Human capital is critical not only for the development of the country but also for the

functioning of its actual economic activities, labour market, civic society, and becoming aware of its potential and importance is valuable to national identity.

Trying to answer whether Romania is a source country for emigration of highly skilled or well-educated individuals (ie human capital flight) I flew over those two dimensions that have traditionally characterized human capital flight namely: shrinking work resource and losing high educated peoples, combined with general economic problems like lack of employment opportunities, negative growth in sending country, instability. It's obvious, work resource declined caused by natural demographic decrease and increasing migration for work. Evolution of working-age population is negative, so the evolution of employment rate. The labour pool is exhausted and more Romanian workers, with any levels of qualification choose to work abroad. But, figures regarding educational attainment level don't reflect the supposed significant loss of the high educated population in Romania. In fact, the share of the population having completed tertiary education was below the European media.

Regarding the solutions to limit the human capital flight is a complex and very difficult problem for reasons related to human rights and the freedom of movement. But, we have to raise awareness on this issue and claim that in the long term, governments need to adopt some effective measures for preventing the labour or brain migration phenomenon.

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ANNEXES

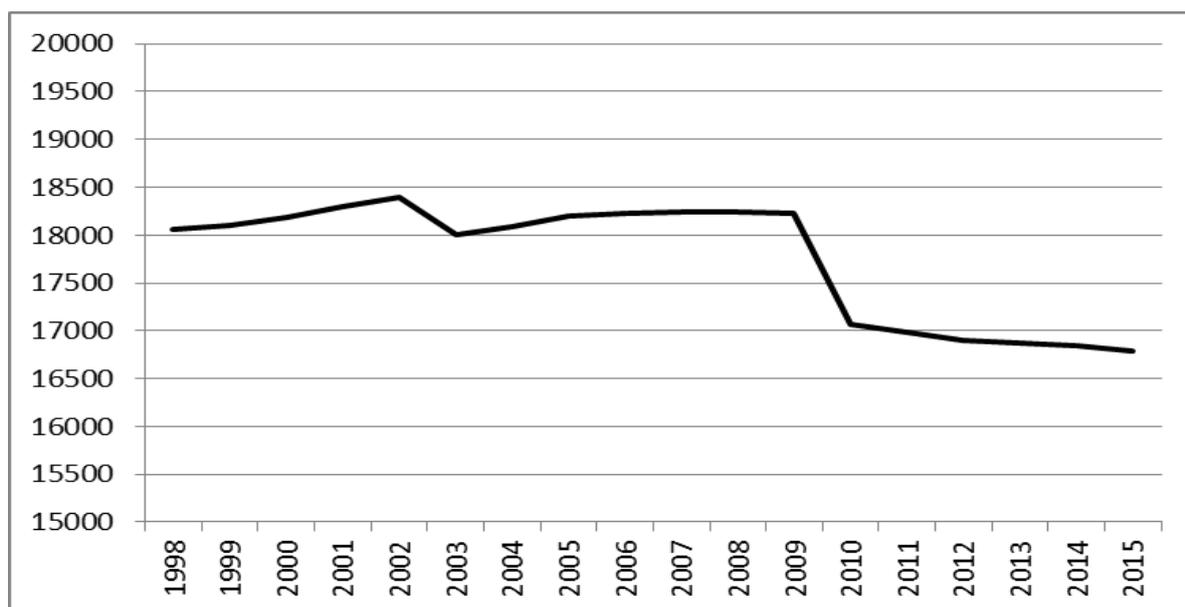


Figure 1. Working age population, Romania, 1998-2015
Source: EU-Labour Force Survey

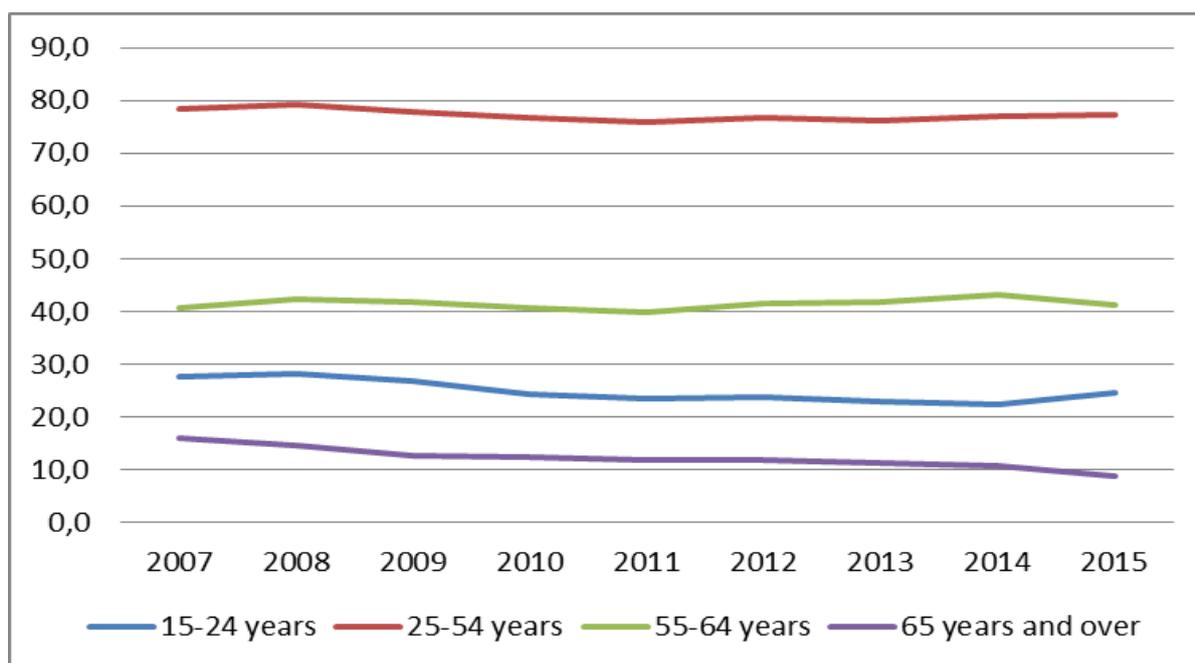


Figure 2: Evolution of employment rate for working age population, by age groups (%), Romania, 2007-2015
Source: National Institute for Statistic

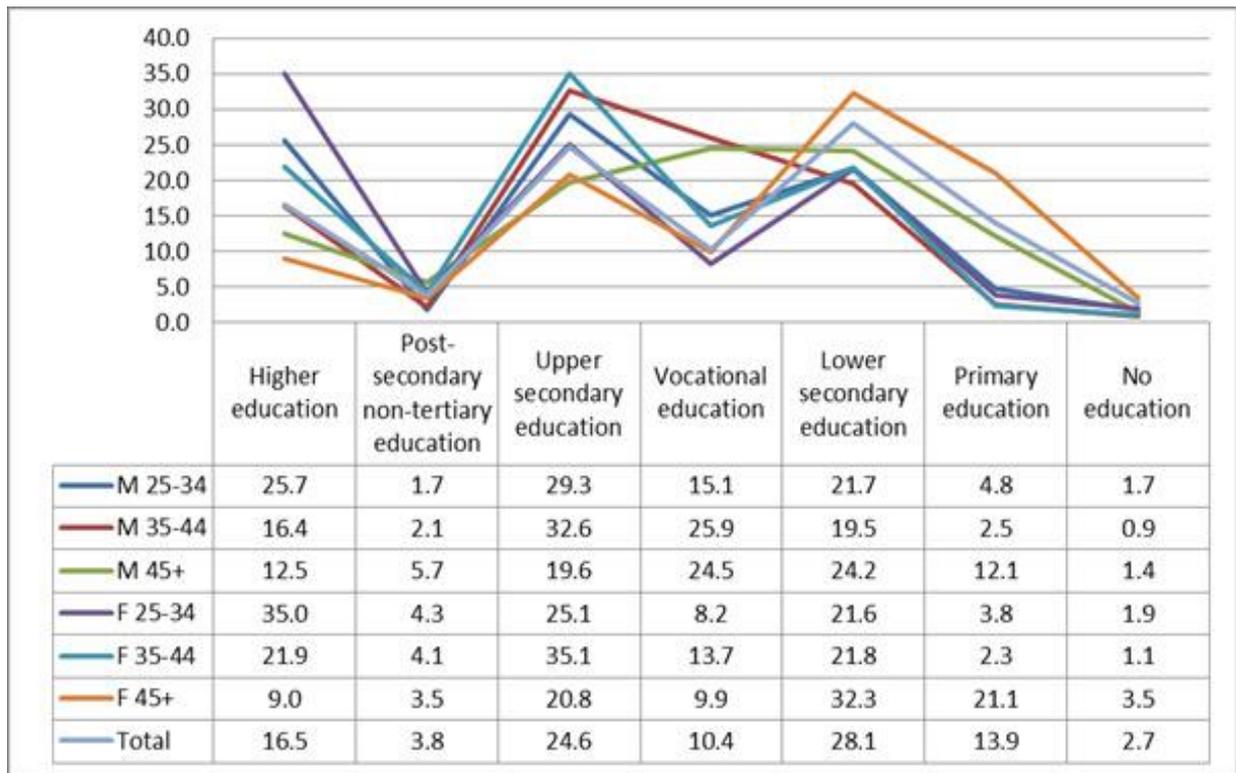


Figure 3. Educational attainment for individuals of 25+years old by gender, age and education (%) Source: authors' calculation on data from National Institute for Statistics 2011 Census