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## **A comparative statistical analysis on the educational system in European countries : An economic perspective**

**Ramona Birău, Ph.D.**

Regional Public Finances General Directorate of Craiova, Romania

[birauramona@yahoo.com](mailto:birauramona@yahoo.com)

**Gabriel Birău, M.Ed.**

National College "Tudor Arghezi", Tg-Cărbunești, Romania

[gabirau@yahoo.com](mailto:gabirau@yahoo.com)

### **ABSTRACT**

The main aim of this research article is to provide a comparative statistical analysis on the educational system in European countries in order to emphasize an economic perspective. In recent past, the rather regressive behavior of educational systems represents one of the social issues of great interest. The decline in educational systems is the fundamental root of unemployment and therefore of poverty. The negative impact of structural deficiencies in the educational system spread especially in the medium and long-term horizons. Nevertheless, a viable educational system significantly contributes in achieving sustainable economic growth, stability, gender equality and poverty reduction. Moreover, as a large-scale approach, the absence of a proper education in combination with other dynamic social mechanisms lead to forming an uncertain macroeconomic climate.

**Key Words:** educational system, European countries, social issue, statistical analysis

## **Introduction**

The concept of educational system comprises a wide range of definitions, reaching various meanings in the heterogeneous context of globalization. Moreover, education is a complex phenomenon consisting of a series of measures, applied systematically to the formation and development of the intellectual, moral and physical abilities of students. Education involves values that are related to human needs. Qualitative changes in educational system are obtained by pedagogical innovation, as higher form of education research. On the other hand, the economic implications of educational system constitute a social issue of great current interest. However, a viable educational system significantly contributes in providing effective solutions on certain issues such as : sustainable economic growth, stability, gender equality and poverty reduction. In addition, the beneficial impact of education has a very high resonance regarding several negative aspects such as : social inequality, corruption, lack of transparency, bureaucracy, degrading (poor) living conditions which have a long-term influence on health, and so on.

As a pioneering approach, Müller, Ringer and Simon (1989) provided a socio-historical analysis of change and development in secondary education in particular developed European countries, ie England, France and Germany during the sample period 1870-1920. According to an exhaustive analysis, the authors suggested that there were significant interactions between the educational system and the occupational system, and also between established educational traditions along with institutions on one side and new social pressures on the other side.

Nelson Mandela (1918-2013) suggested that : “Education is the most powerful weapon which we can use to change the world.” According to Dib (1987) : “The rigid structure of formal schools, mainly based on laws and regulations than on the real needs of students, offering a curriculum that leans away from individuals and from society, far more concerned with performing programmes than with reaching useful objectives, obeying a rigid set of clerical-administrative procedures, has long since fallen short of meeting individual and social needs.”

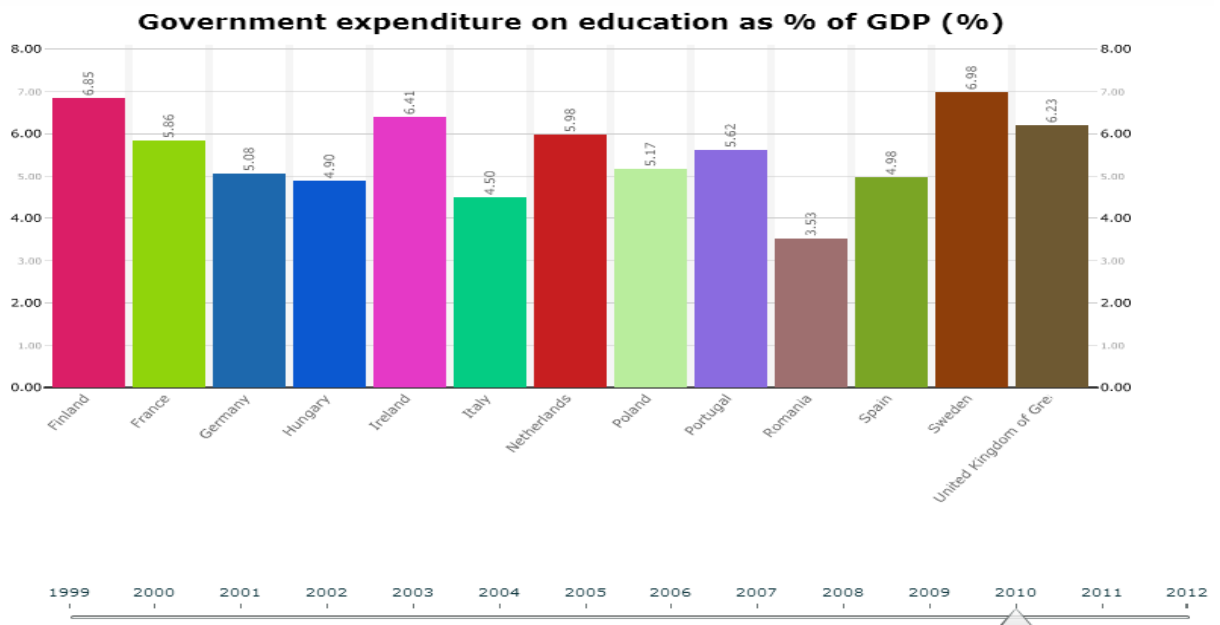
According to Eurypedia – the European Encyclopedia on National Education Systems, one of the most important features of the education and training system depends on certain factors such as centralisation, decentralisation, deconcentration or deregulation in

the governance and administration at various levels and/or types of education. Moreover, the leading decision-making bodies exercise significant influence at different levels of implication, ie central, regional or local authorities, education institutions and likely to be more and more so. However, considering fundamental educational approaches, Dib (1987) suggested the fact that “no competition should exist between formal and non-formal systems, nor should they be considered conflicting systems.”

Consistently, education and training have represented some very important objectives which provided considerable support in the long term development of the European states. Furthermore, the official website of Eurostat - statistical office of the European Union stated that : “Education, vocational training and lifelong learning play important economic and social roles. In the EU, the opportunities for living, studying and working in other countries make a major contribution to cross-cultural understanding, personal development and the realisation of the EU’s full economic potential.”

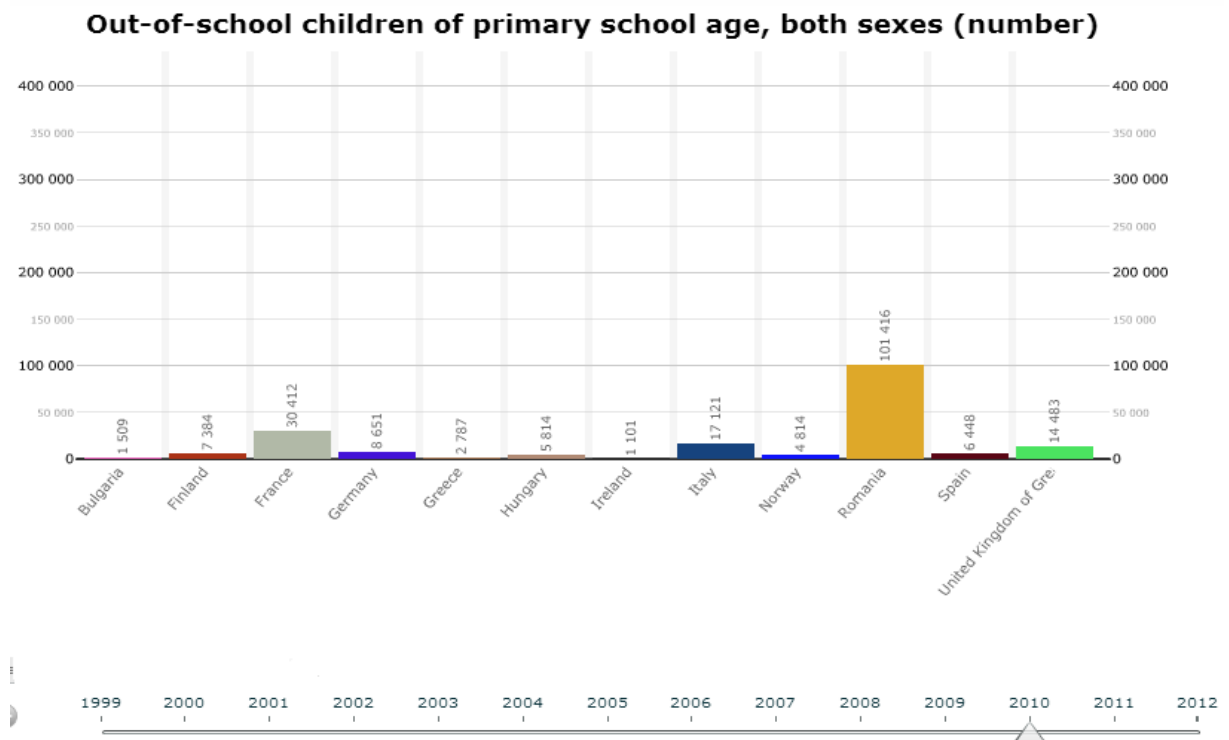
### **Statistical analysis – a comparative framework for European countries**

The empirical framework is based on very recent time periods and includes the most representative European countries. The data sets used in the quantitative analysis revealed the main evolution of macroeconomic indicators regarding education. A comparative statistical analysis on the educational system in European countries is provided in the following highly suggestive graphs and figures :

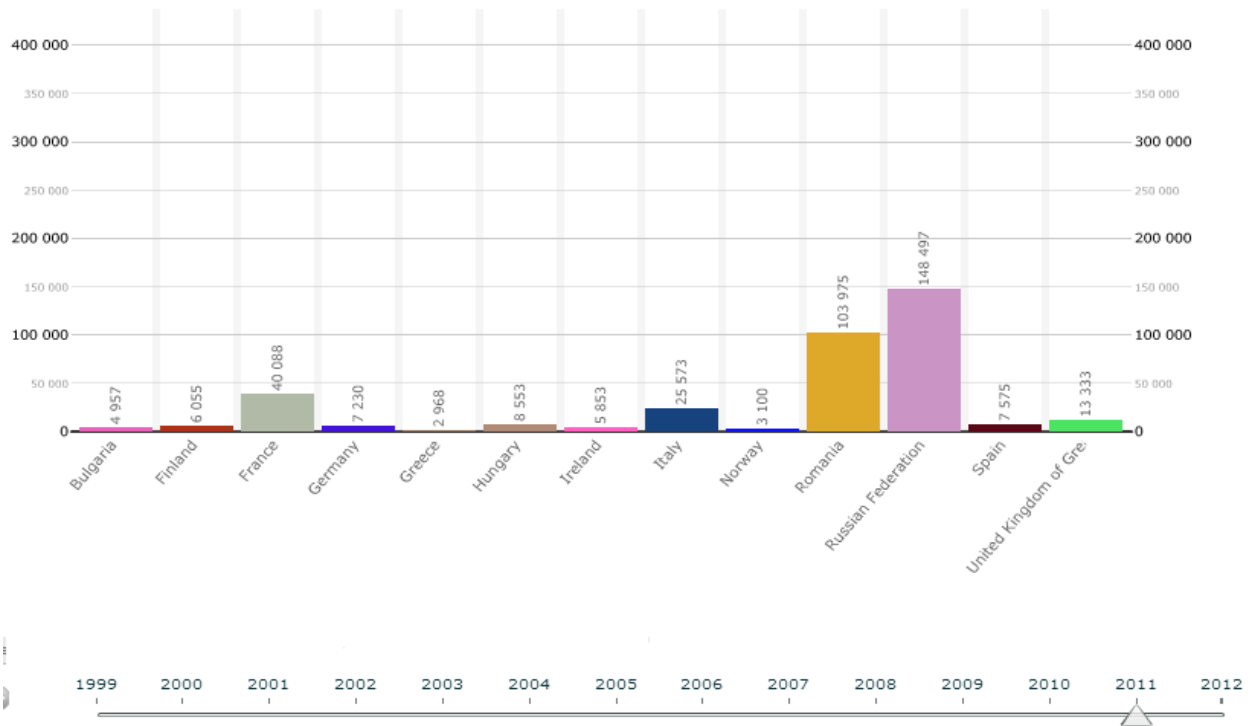


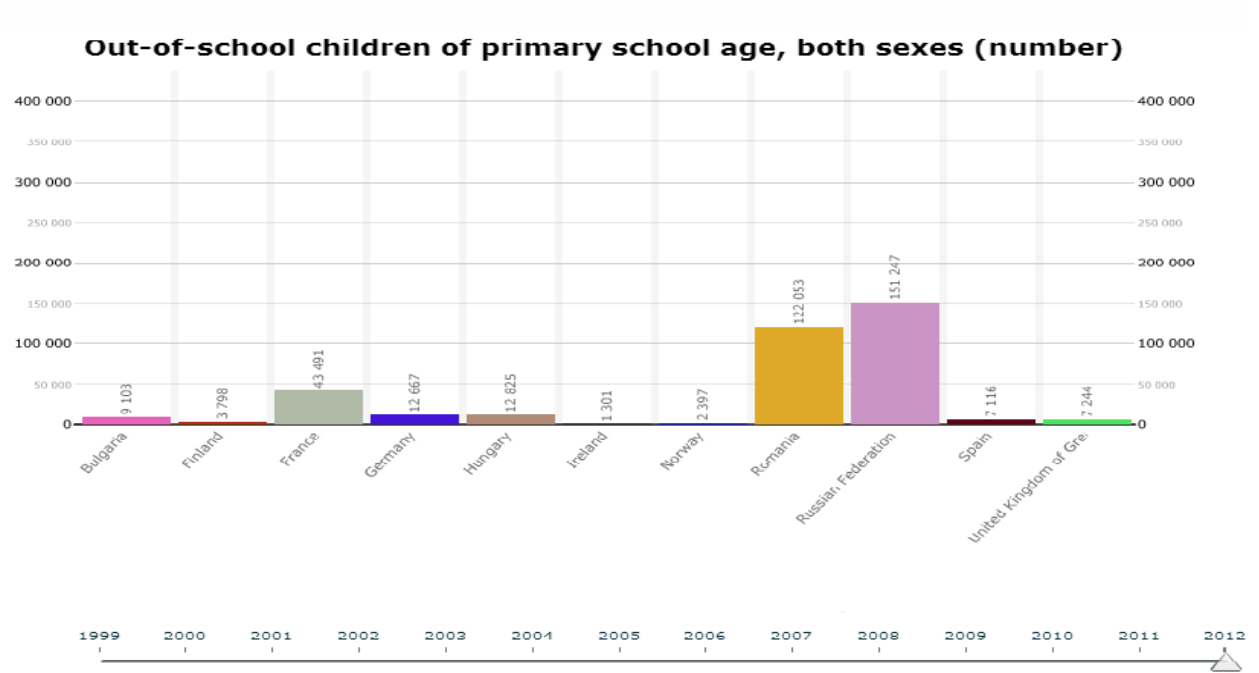
**Fig. 1 Government expenditure on education as % of GDP (%) – for the sample year 2010**

**Source : UNESCO’s Institute for Statistics (UIS) – own computation based on official data**



**Out-of-school children of primary school age, both sexes (number)**

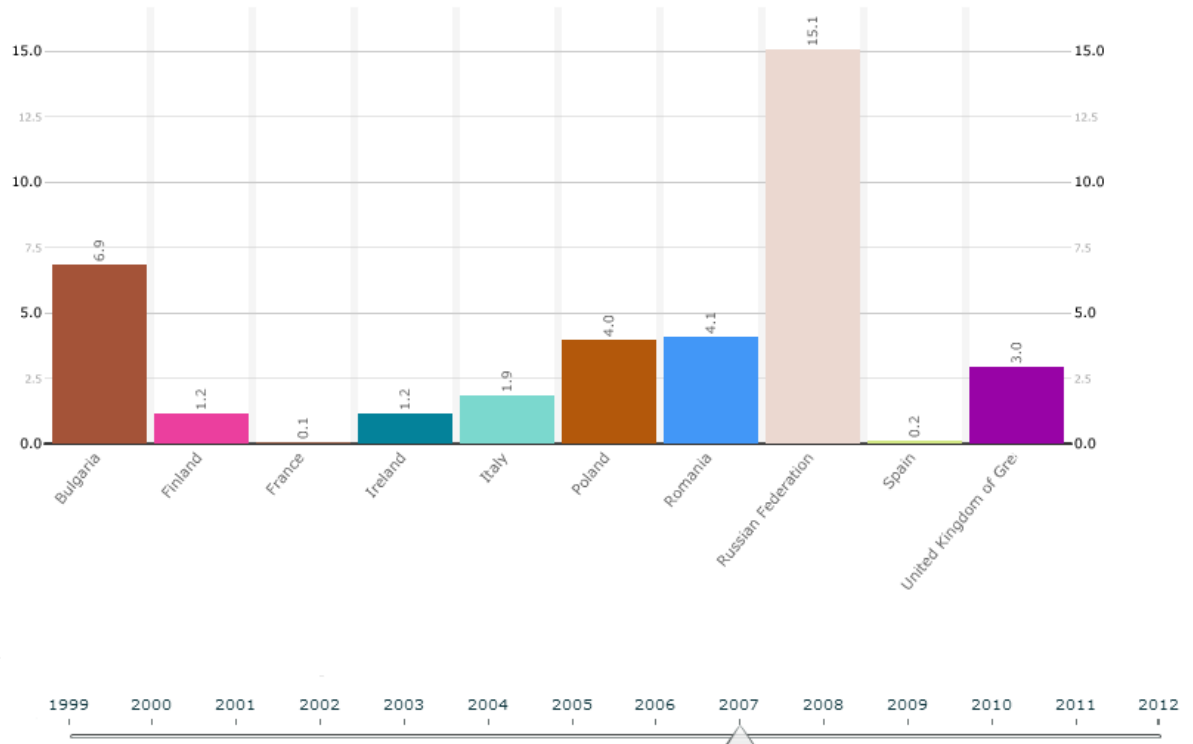




**Fig.2 Number of out-of-school children of primary school age - 2010, 2011 and 2012**

Source : UNESCO's Institute for Statistics (UIS) – own computation based on official data

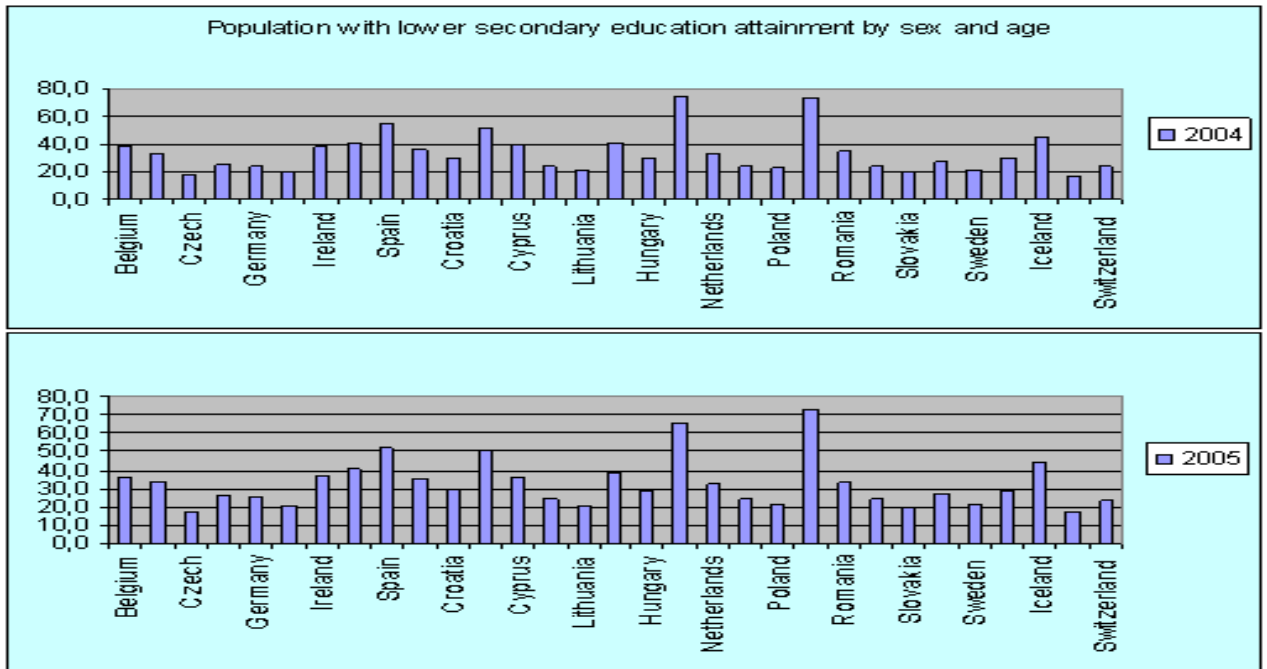
**Rate of out-of-school adolescents of lower secondary school age, both sexes (%)**

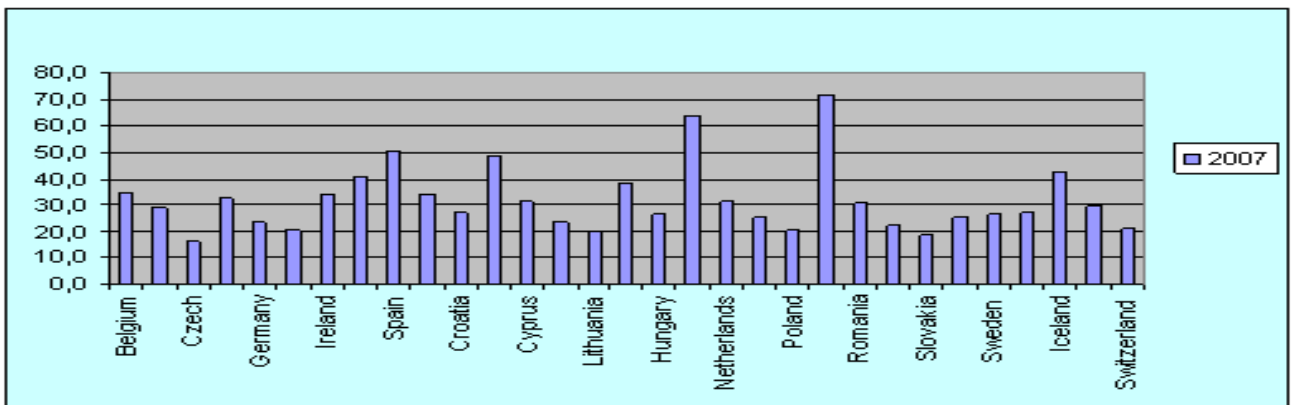
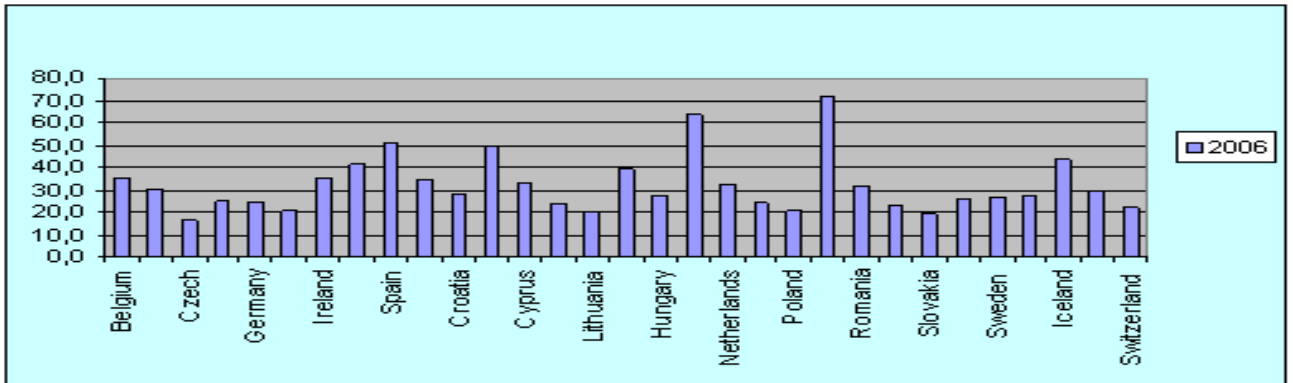


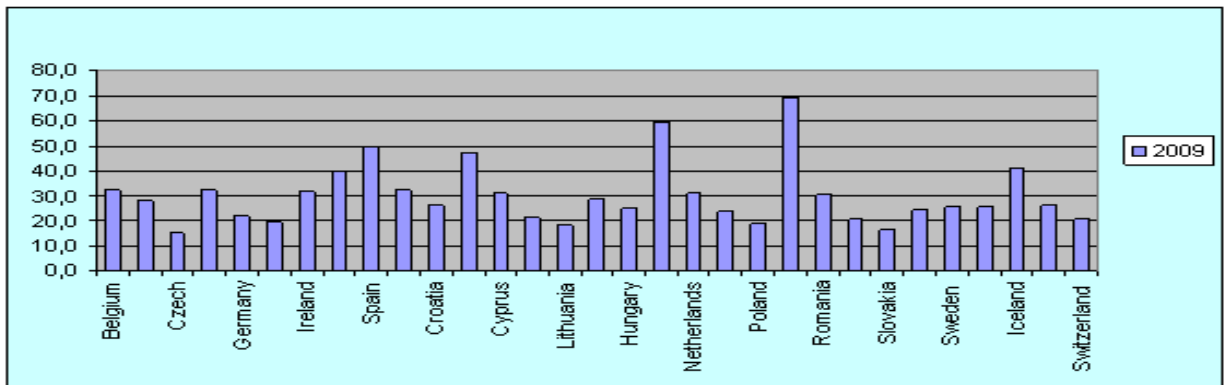
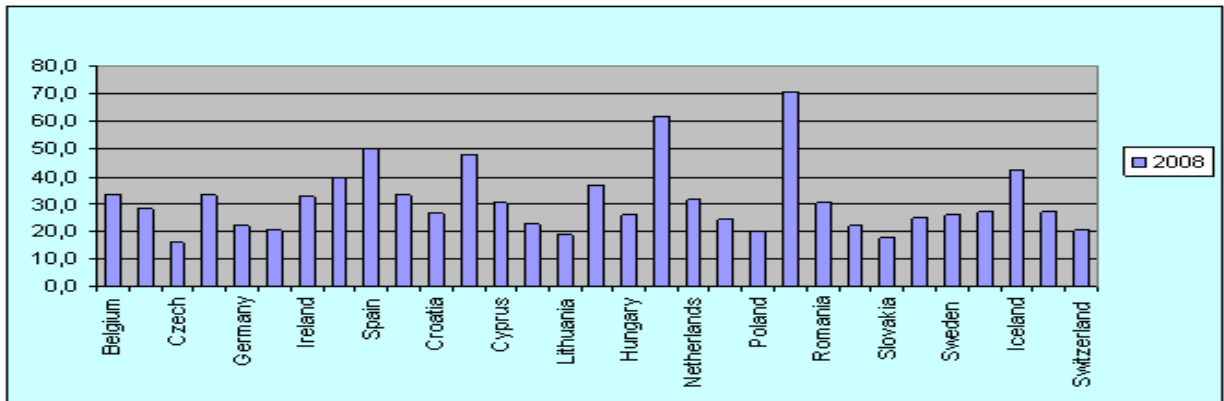
**Fig.3 Out-of-school rate for adolescents of lower secondary school age**

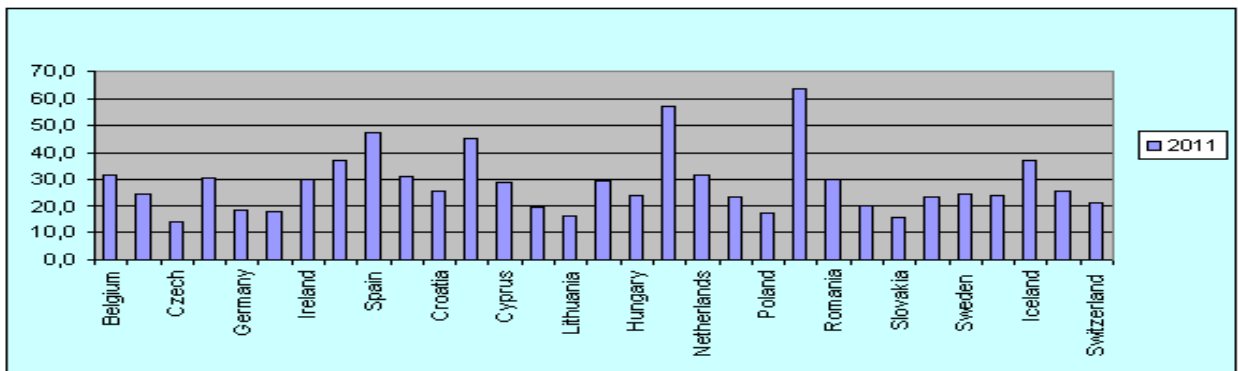
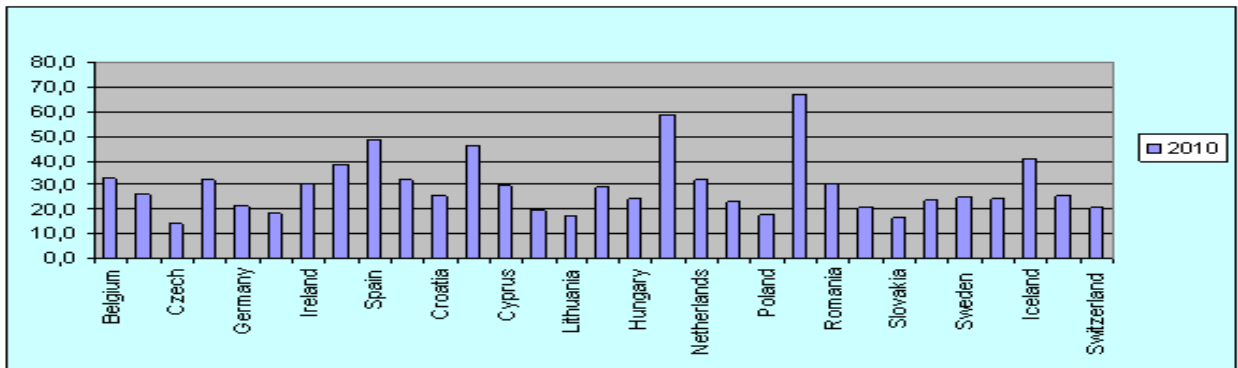
Source : UNESCO's Institute for Statistics (UIS) – own computation based on official data

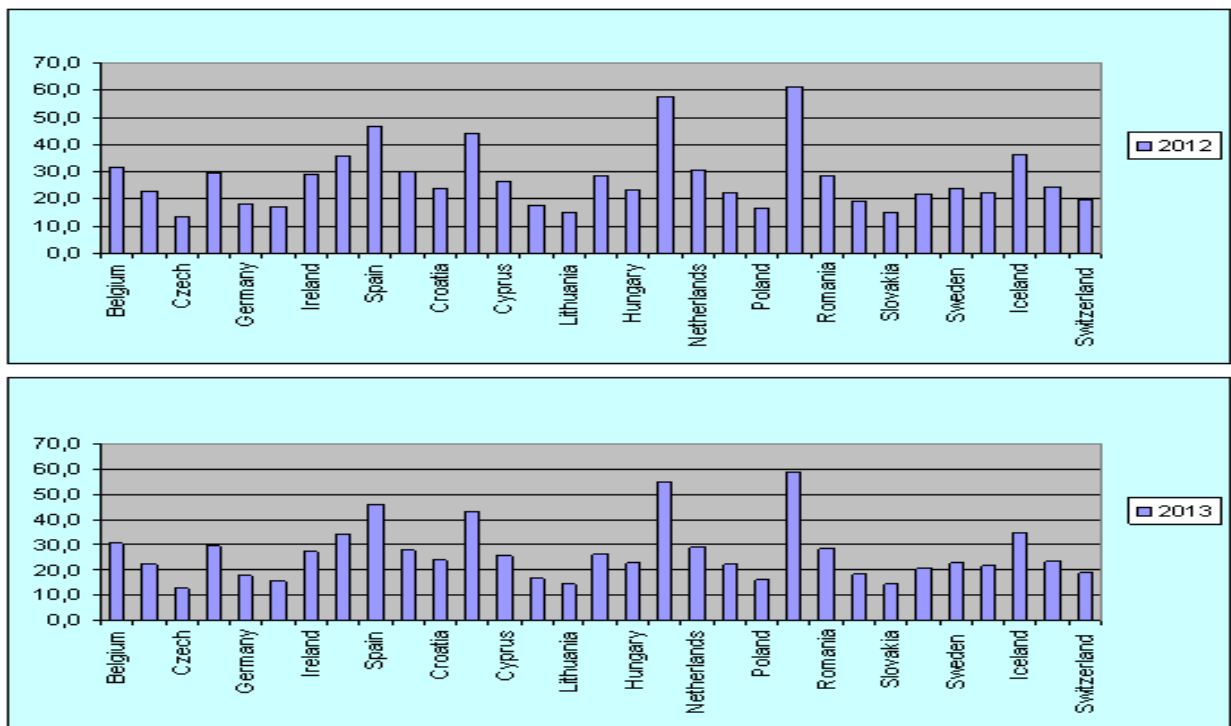












**Fig. 4 Population with lower secondary education attainment by sex and age**

**Source : own computation based on data from Eurostat - Educational attainment level**

## Conclusions

The quantitative research is conclusive in its purpose as to provide a comparative statistical analysis on the educational system in European countries in order to emphasize an economic perspective. Developed European countries include highly industrialized economies which are characterized by economic growth, high income and macroeconomic stability. Moreover, developed countries are characterized by high standards of living based on particular criteria such as : gross domestic product (GDP), social security system, gender equality, poverty reduction, productive employment, effective governance structures, sustainable policies and educational performance

management system. On the other hand, emerging european countries are still in transition and continue to face significant development challenges in order to achieve sustainable economic growth. However, according to the the official website of World Bank : “the term developing used to denote low- and middle-income countries does not imply that all economies in the group are experiencing similar levels of development or that other economies have reached a preferred or final stage of development.”

## **References**

1. Dib, C.Z, (1987) Formal, non-formal and informal education: Concepts/applicability, Presented at the “Interamerican Conference on Physics Education”, Oaxtepec, Mexico, 1987, Published in “Cooperative Networks in Physics Education - Conference Proceedings 173”, American Institute of Physics, New York, 1988, pgs. 300-315
2. Drucker, F. P (1986) Management : Tasks, Responsibilities, Practices, Truman Talley Books / E.P. Dutton / New York, 553 pp., ISBN 0-525-24463-8
3. Müller, D., Ringer, F., Simon, B., (1989) The Rise of the Modern Educational System: Structural Change and Social Reproduction 1870-1920, Cambridge University Press, Nov 30, 264 pages
4. \*\*\* - <http://epp.eurostat.ec.europa.eu/portal/page/portal/education/data/database> - Eurostat - statistical office of the European Union
5. \*\*\* - <http://data.uis.unesco.org/> UNESCO’s Institute for Statistics (UIS)
6. \*\*\* - <http://data.worldbank.org/about/country-and-lending-groups> - World Bank