

THE INVESTMENT IN EDUCATION AND IN CONTINUOUS TRAINING, AT EU-27 LEVEL

Stelian STANCU

Phd Professor, Department of Economic Cybernetics Academy of Economic Studies, Bucharest, ROMANIA

Oana Madalina PREDESCU

PhD Candidate
Academy of Economic Studies, Bucharest, Romania

George Viorel VOINESCU

PhD Candidate
Academy of Economic Studies, Bucharest, Romania

Anca Domnica LUPU

PhD Candidate
Academy of Economic Studies, Bucharest, Romania

Abstract:

The fundamental role that education has in the development of human fundamental values is to form, nurture and develop spirit. The aim of this paper is to highlight the role of the investment in education and continuous training at EU level. The results presented in the article, are in most part obtained on the basis of specific data series sat EU level, data that have been considered significant. The techniques used, besides those of elementary statistic, are a series of econometric techniques base don autoregressive models, systems with simultaneous equations, time series etc. The major findings drawn refer to the following aspects: the early XX-th century European Union was clearly surpassed by the North American States regarding the development dynamic, productivity and economic competitiveness, the discrepancies being continuously amplified; the reasons for the low European performances in comparison to the North American States are found in obvious inconsistencies between the qualifications offered by the actual education systems and the labor market needs; the low level of participation to education of the working population; in the European countries with less rigid waging systems, an extra education year increases the level of the individual wage with approximately 6,5% to 9%; tertiary education is recognized as being a crucial strategy for stimulating innovation, productivity and growth in a knowledge-based society etc. The basic conclusions drawn, are strongly related with the following aspects: the employment rate grows according to the education level attained, even when it comes to elderly persons; the Europeans with ages between 55 and 64 have big gaps regarding qualification and training, although everyone agrees that the persons with higher education are easier to be absorbed by the labor market, earn more money and benefit from a better social status; even though there are less and less children, the enrollments in education have not generally decreased; the widening of the European Union has not eased, but rather aggravated all these problems because even the recently integrated countries have a negative natural population growth; preschool education helps the children that come from disadvantaged families at socioeconomic level to continue their studies and not least the fact that the immigrants are not well represented in education and additional training, presenting an increased rate of withdrawal from studies.

Key words: investment; education; professional training; EU-27; labor market; work places; carrier development; communication techniques; human capital development; medium and long term

1. Introduction

The fundamental role that education has in the development of human fundamental values is to form, nurture and develop spirit. Both meanings highlight the capacity of education to transform continuously, an attribute highly important if we analyze the significations, functions and the investment in education along the whole evolution of human society.

Platon, for example, considered that a good education consists in offering the body and soul all the beauty and perfection the human needs.

2. The objectives of the education and continuous training systems, at EU-27 level

The development of an union of the European states, as an objective necessity in front of the dynamism and competitiveness of the United States of America, but also of the entrance of the Asiatic states in the arena of economic games, has obliged the governments of the countries members of the European Union to reconsider the political and social systems, systems where education has been identified as being the instrument whereby there can accomplished in the long term the proposed changes.

At the 4th Conference¹ of the education ministers from the European countries that was held in 1988, the participants have highlighted the necessity to develop the human capacity to adapt to changes – especially those of the labor market, with its unemployment problems – and also of the capacity to foresee the changes and to prepare in this new perspective.

The conclusions of this important meeting emphasized the multiplication of education roles and the diversification of its functions in contemporary society. The subsequent meetings of Heads of State and Government, during the European Councils of Lisbon (2000), Stockholm (2001), Barcelona (2002), Berlin (2003), Maastricht (2004), Brussels (2005), came to strengthen the role and importance to be given to education and training in the context of making the EU a competitive and dynamic system of organization and development.



3. The investment in education and in continuous training, in the context of the European Union extension

The contribution of education and training to achieve the 2010 strategic objective set by the representatives of the powers of a United Europe can not be addressed without an analysis of the investment involved in the programs proposed in the light of the major changes to occur.

At the beginning of XXI century the European Union is clearly surpassed the United States in the dynamics of development, productivity and economic competitiveness, and discrepancies have continued to increase. Therefore, governments of developed European countries have begun to face problems in retaining talent and attracting human capital necessary for the proposed strategies. Exodus of highly qualified specialists in Europe, especially to America, is increasing, affecting especially science and technology. In order to stop these losses of "brains", the European Union has decided to invest 1.6 billion euros through the Sixth Framework Programme for research and technology development.

But representatives of the Member States are aware that surpassing these difficulties requires not only massive investment in research, development or in the communication technology but also in the human capital development.

Studies to date² indicate that the reasons for the low European performances in comparison to the North American states are found in obvious mismatches between the skills offered by the current systems of education and the labor market needs. They are rooted in the low level of participation in education of working-age population. For European Union many years were necessary to extend the average length of schooling from 70% in the year 1971 to 87% in 2000 compared to the duration of schooling in the U.S..

The research undertaken lead to the fact that in the countries with less rigid wage structures from Europe, an additional year of schooling increases the individual earnings level by about 6.5% to 9%. The strong link between education and wages is better highlighted starting with training at secondary level.

This is a threshold from which any form of further education implicitly draws a salary increase³. Bourguignon and Morrison⁴ show that an one percent increase in the workforce segment with secondary education increases the income of the poorest two-fifths of the population by 6% and that of the poorest three-fifths of the population by 15%, thus contributing to an equalization of incomes.

Table 1. The proportion between education and income⁵

Education Level		Income Deciles							Total		
	1 2	2	3	4	5	6	7	8	9	10	
Without secondary education	31%	24%	17%	12%	7%	4%	3%	1%	1%	1%	100%
Complete secondary education	13%	20%	23%	17%	11%	7%	3%	2%	2%	1%	100%
Apprentice school	15%	13%	16%	16%	14%	10%	5%	4%	2%	2%	100%
Stage I high school	11%	11%	16%	16%	15%	11%	8%	6%	3%	2%	100%
Vocational school	7%	8%	10%	11%	10%	13%	14%	11%	10%	8%	100%
Complete high school	7%	10%	12%	15%	16%	10%	10%	8%	5%	5%	100%
College	4%	5%	8%	10%	12%	15%	14%	14%	9%	9%	100%
Faculty +	5%	5%	9%	11%	13%	13%	11%	11%	9%	14%	100%
Total	11%	12%	14%	14%	13%	10%	9%	7%	5%	5%	100%

Comparative analysis of indicators can easily draw the conclusion that the employment rate increases with the level of education attained, even when it comes to

elderly people⁶. This aspect is very important, given the low level of employment opportunities for this category of persons in the EU area, an area already experiencing serious problems arising from population aging continuously.

Higher educational level implies a higher amount of labor reflected in enhanced productivity. Despite the measures taken, Europeans with ages between 55 and 64 have large gaps in the qualifications and education, although everyone agrees that people with higher education are more easily absorbed into the labor market, earn more money and enjoy a better social status. Currently, only 49% of people aged 55 to 64 have completed secondary education, while only 33% of young people aged between 25 and 29 have completed studies at this level. To this situation adds the fact that there are fewer young people in Europe than in the U.S. or in the Asian countries except Japan. In addition, the differentiation between the sexes regarding access to employment and career development persists and is increasing. Elimination of gender and age would create a significant opportunity to raise workforce, highly qualified on the European market.

Taking into account the low birth rate in the European Union countries, one might conclude that the reduction of population contributes to the reduction of expenses, as a consequence to a lower participation at all levels of education and training. In reality, although there are fewer children, school enrollments have not overall declined. At this time, more and more young people extend their postgraduate studies and enter the labor market later on.

This new form of approaching education and career, given the demographic decrease, determines the increase of investment in education in Europe. The target of the representatives of the European countries is represented by the persons who have left the formal education system. Governments are making efforts to enhance the participation of these groups at higher levels of education and training (even lifelong), to assist them to remain as much as possible active.

Many EU countries are obliged to make investments in the integration of immigrants and their children and families. In the projections of demographic development it is anticipated that approximately 73% of the population growth will be due to immigration.

Enlarging the European Union has not eased, but rather aggravated all these problems because the countries that have recently been integrated also have a negative natural population growth. Population decline on the one hand, and the loss rate of youth participation in the labor market, in particular, require radical reforms and firm investment decisions in education and training, medium and long term, wide world.

Table 2. The rate o workforce participation in economic activity 7

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Populatio	199	199	199	200	200	200	200	200	200	200	200	200	200		
n total	5	7	9	0	1	2	3	4	5	6	7	8	9		
	66,9	66,7	66,4	66,2	66,1	66.0	65,8	65,7	65,6	65,5	65,4	65,3	65,2		
Youth	58,9	57,8	56,6	56,2	55,6	55,2	54,7	54,3	54,1	54,2	54,3	54.4	54,5		
Adults	69,7	69,7	69,7	69,6	69,6	69,6	69,5	69,4	69,3	69,3	69,4	69,5	69,6		

4. The importance of investing in students

Education policy makers have an incentive to increase coverage and rigorous preschool and childcare services for all residents. Early education provides the best possibilities for children. Children who attend kindergartens and nurseries develop better skills of **JOURNAL** APPLIED

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reasoning and problem solving, are more cooperative and attentive to others, have more self confidence and are better equipped for the transition to primary school to be effective. Benefits of early education continue to grow in primary and secondary education, making transition harmonious to further education and the labor market. At the same time, kindergartens and nurseries leave time for mothers to be more active in society and the labor market.

Studies confirm that early education helps children from disadvantaged families in socio-economic level to continue their studies. Equally, those who come from families who communicate in a foreign language may provide an early and frequent contact with the language of instruction of the host country, precisely the age at which they are most receptive to learning a language.

Families with low incomes, including many families of immigrants are less likely to give their children to nurseries and kindergartens. All parents experience difficulties in accessing early education of children if places are limited and costs are high.

Immigrant parents and those with low incomes may also not be sufficiently informed about existing options, may have less confidence in the childcare leave on account of strangers and may prefer the advantages of informal education at home, provided by family members. Immigrant parents who use day care and childcare services may find that there is a lack of dialogue, understanding and empathy between them and the staff when the staff has not any intercultural experiences and, more importantly, the skills to teach the host country language as a second language. In addition, many nurseries can not adequately assess the language skills of immigrant children to ensure they benefit from appropriate support programs and learning a foreign language (if any).

Kindergartens and nurseries have to respond to the needs of these families linguistically diverse and disadvantaged at social and economic level. Authorities can ensure effective participation of low income families by giving them specific financial support or free access to preschool services.

Facilitating the transition towards higher education employment on the labor market, at EU-27 level

Within the EU, tertiary education is recognized as a crucial strategy to boost innovation, productivity and growth in a knowledge society. Percentage of young immigrants who complete a form of tertiary education varies considerably across immigrant communities. These differences can arise when young people are faced with an interruption of studies (as happens to many asylum seekers and refugees) and / or those that are from countries where few people have access to education and therefore are not deemed to enter into academic tertiary education. The differences also reflect the value that parents give to higher education.

The govern, educational institutions, civil society organizations, foundations and private companies can increase the number of scholarships and programs offered to young talents from migrant families (and to their parents).





6. The role of education and vocational training, at EU-27 level

The increase in the number of high school graduates is part of the 2000-2010 goals of the Lisbon Agenda to make the EU the most dynamic and competitive knowledge-based economy in the world. Higher education is the most desirable way to obtain the necessary skills for a knowledge society. Every effort can be made in order to ensure that young migrants acquire skills necessary to successfully complete secondary education, but education and vocational training is the second option for those who, despite the support offered, may not finish high school and leave school with very limited prospects.

Immigrants are not well represented in education and additional training and present a high rate of study withdrawal. Communication programs that offer extensive information on available courses to immigrants may be ineffective or inexistent, the courses may not be well adapted to different educational backgrounds, cultural and / or language skills of immigrants. Courses may not be structured in a flexible manner to ensure that students are able to strike a balance between commitments to the family and towards work. Work to overcome these barriers will help to encourage young immigrants to continue their education and to encourage the return to school for those who have withdrawn from their studies or abandoned them.

7. Conclusions

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> The main conclusions drawn, are strongly related with the following aspects: the employment rate grows according to the education level attained, even when it comes to elderly persons; the Europeans with ages between 55 and 64 have big gaps regarding qualification and training, although everyone agrees that the persons with higher education are easier to be absorbed by the labor market, earn more money and benefit from a better social status; even though there are less and less children, the enrollments in education have not generally decreased; the widening of the European Union has not eased, but rather aggravated all these problems because even the recently integrated countries have a negative natural population growth; preschool education helps the children that come from disadvantaged families at socio-economic level to continue their studies and not least the fact that the immigrants are not well represented in education and additional training, presenting an increased rate of withdrawal from studies.

References

- 1. Alvaro F., ESPAIR "Education par le sport de plein air contre le décrochage scolaire", Study supported by the Lifelong Learning Programme of the European Commission, Associazione Centri Sportivi Italiani, Italy, 2007.
- 2. Arcand, J.L. and B. d'Hombres, Explaining the Negative Coefficient Associated with Human Capital in Augmented Solow Growth Regressions. JRC/CRELL Scientific and Technical Reports 22733 EN, Office for Official Publications of the European Communities, Luxembourg, 2007.
- 3. Badescu, M., Measuring investment efficiency in public education. Some cross-country comparative results, JRC/CRELL Research Paper 5, EUR 22719 EN, Office for Official Publications of the European Communities, Luxembourg, 2007.

- **JOURNAL** NF APPLIED *QUANTITATIVE* METHODS
 - 4. Badescu, M., Measuring the outputs and outcomes of vocational training towards a coherent framework for indicators, JRC/CRELL Research Paper 2, EUR 22305 EN, Office for Official Publications of the European Communities, Luxembourg, 2006.
 - 5. Guerrieri, P. and P. C. Padoan (eds.), Modelling ICT as a general purpose technology, Evaluation models and tools for assessment of innovation and sustainable development at EU level, Collegium, no.35, Spring 2007, Special Edition, College of Europe.
 - 6. Hanushek, E., Wobmann, L., Does Educational Tracking Affect Performance and Inequality? Differences-In- Differences Evidences Across Countries, The Economic Journal, 116, 2006, 63-76
 - 7. Kutnick, P., RELATIONAL Approaches in Early Education, Study supported by the Lifelong Learning Programme of the European Commission, University of Brighton, United Kingdom, 2007.
 - 8. Oosterbeek H. and D. Webbink, "Wage effects of an extra year of basic vocational education" in Economics of Education Review, Volume 26, Issue 4, 2007, pp. 408–419.
 - 9. Otero, M.S. and A. McCoshan, Study on Access to Education and Training, Final Report for the European Commission, London, 2005. http://europa.eu.int/comm/education/doc/reports/doc/earlyleave.pdf
 - 10. Punie, Y., D. Zinnabauer, and M. Cabrera, A Review of Impact of ICT on Learning. Working Paper prepared for Directorate-General Education and Culture, Institute for Prospective Technological Studies, Joint Research Centre, 2006.
 - 11. Tavenas, F., Quality Assurance: A reference system for indicators and evaluation procedures. European University Association, Brussels, 2003.
 - 12. Zhang, J., Li, T., International Inequality and Convergence in Educational Attainment, 1960-1990, Review of Development Economics, 6(3), 2002, 383-392.
 - 13. * * * * Centre International d'études pédagogiques (2008), Dossier: Enseigner les langues: Un défi pour l'Europe, Revue internationale d'éducation, Sèvres, No. 47, Avril 2008.
 - 14. * * * * European Agency for Development in Special Needs Education, Lisbon Declaration -Young People's Views on Inclusive Education, Portuguese Ministry of Education,
 - 15. * * * * European Agency for Development in Special Needs Education, Special Needs Education - Country Data 2006, 2006.
 - 16. * * * * European Commission (Forthcoming), **Key figures 2008**, Directorate-General for Research,
 - 17. * * * * European Commission, Improving competences for the 21st Century: An agenda for European Cooperation on schools, COM, 2008, 425.
 - 18. European Commission, The effectiveness and efficiency of public spending, Economic Papers 301, 2008.
 - 19. * * * * European Commission, A rewarding challenge: how the multiplicity of languages could strengthen Europe, proposals from the Group of Intellectuals for Intercultural Dialogue, 2008.

http://ec.europa.eu/education/policies/lang/languages_en.html

Quantitative Methods Inquires



- 20. * * * * European Commission, GREEN PAPER: Migration & mobility: challenges and opportunities for EU education systems, SEC, 2008, 2173
- 21. * * * * OECD, Improving School Leadership, 2008.
- 22. * * * * OECD, **Education at a Glance**, 2007.
- 23. * * * * OECD, PISA 2006, Science Competencies For Tomorrow World, 2007.
- 24. * * * * OECD, Students with Disabilities, Learning Difficulties and Disadvantages. Policies, Statistics and Indicators, 2007.
- 25. * * * * http://eacea.ec.europa.eu/ressources/eurydice/pdf/0 integral/098EN.pdf
- 26. * * * * http://www.migpolgroup.com/public/docs/173.Integration_Handbook_III_15.04.10_RO.pdf

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¹ Ministry of Education and Research, Perspectives et taches du developpement de l'education en Europe a l'aube d'un nouveau milenaire, Paris, UNESCO, 21-27 September 1988, in Education-tuition, Tuition in other countries, The Ofice of Documentary Information for Tuition.

² European Commission, European Report of Competitiveness, The Working Paper of the members of the European Commission, 2002.

³ European Commission, Education at a glance, Idem.

⁴ Bourguignon F., Morrison C., Adjustment and equity in developing countries: a new approach, OECD, Paris, 1992

⁵ Source: EVS'99, Voicu B., Human capital: components, levels, structures, ICCV, March 2004, presented at the conference "Human capital and social development".

⁶ Eurostat, Ivestigation of the workforce, cited in Action Plan on Skills and Mobility, Commission Bulletin COM(2002) 72.

⁷ Source: ILO, Global Employment Trends Model, January 2007.