

# THE PRIMACY OF EDUCATION IN INCREASING THE QUALITY OF LIFE

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## **Abstract:**

*The investments in education are, or should be, a priority in the developed countries as well as in the developing ones. Priority comes from the contribution of this sector to the economic growth of those countries and the positivism of these ideas results from the coherent strategies regarding the economic growth over medium and long term.*

*For this purpose Europe has proposed through Lisbon Strategy to be an economy/society based on knowledge in its development (in the sense that the economy sectors derive profit from knowledge produced by educational services). Thus the social development is based on increasing knowledge, the number of innovations/inventions, their quick adjustment and widely dissemination.*

*This aspect leads to the obligatory presence of global competition, creativity and talent of the employees from any organization; employees' creativity and skills are directly dependent on education. We talk about the employees' adaptation to the new demands of the technology through their continuous training and improvement, situation that if it was accomplished would increase the GDP / capita or the GNI / capita.*

*The need for these things is evident from the statements of some policy makers who issued the idea that education is the strategic factor of the national development in the future, that it has an essential contribution to the formation of the human capital.*

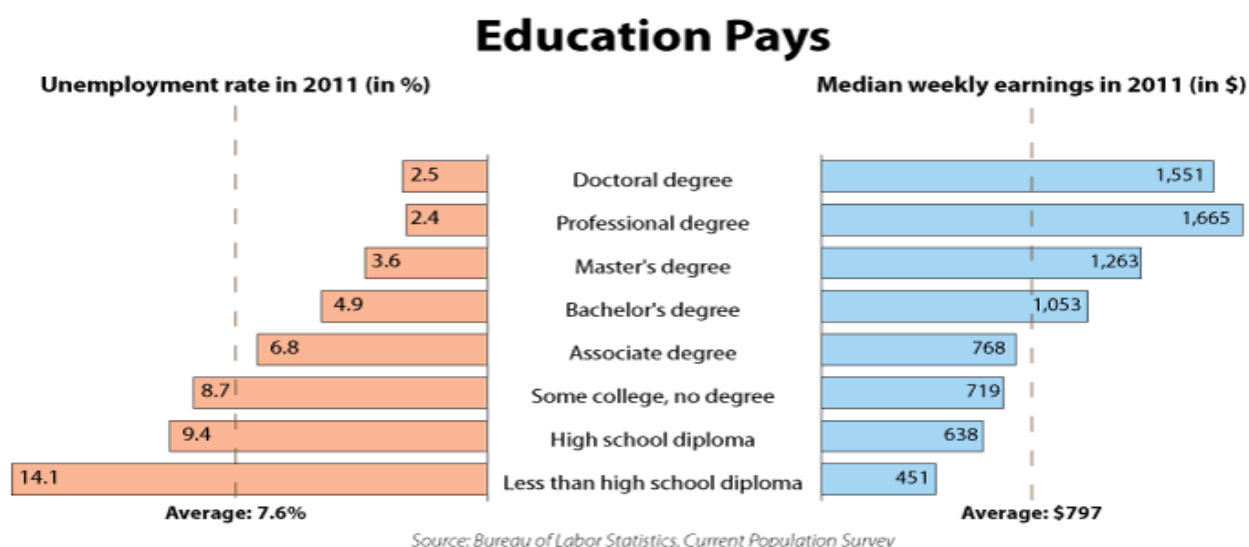
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**JEL classification:** A12, H52, I25

## **INTRODUCTION**

Education services are a necessity of the XXI century both for human development in society and for their contribution to the economic growth. We talk about the satisfaction felt by an educated person in daily life, the safety of the workplace, the wages and implicitly the revenues increases, the Gross Domestic Product growth etc. All these as a consequence of the efforts the families make when they send their youths to University and not at last to Colleges.

In these cases the benefits of which the university young graduates enjoy are much higher than those obtained by high school graduates both in terms of wages and employment. The arguments brought in this situation are presented in the following chart:



**Figure no. 1. The employees' payment and the rate of unemployment by the level of education**

Source: Bureau of Labour Current Population Survey

Note: The statistics were taken from the Bureau of Labour Statistics, Current Population Survey and include people aged over 25 years<sup>1</sup>.

We observe an evolution of the earnings got in accordance with each level of education in the U.S.A. Thus, earnings increase with each level of education from about 451 USD per week for the secondary education level to about 1.053 USD per week for a graduate degree. The highest average earnings in the U.S. in 2011 was about 1.551 USD per week for an employee with a doctor of science degree. Regarding unemployment, it appears that the trend is rather opposite to that given by the evolution of incomes in accordance with the studies held (the unemployment rate increases from 2.5% for doctors of science to 14.1% for secondary graduates). This situation can be found among the population of Romania<sup>2</sup>.

I. Eurostat data show that on average there is a difference of income at the persons who have accumulated many years of school and a consistent educational knowledge. Thus the Romanians with primary education have registered an average gross income of 1649 Euros, for those with secondary education or post-secondary school, the average income was of 2943 Euros, while the Romanians with higher education have an average income of 4944 Euros.

At the European Union level a person with primary education achieves an average annual income of 13480 Euros, while the average in the Euro Area is of 14891 Euros. If we discuss about the people with secondary education we notice that the average of the medium annual income in the European Union is of 16363 Euros and the average in the Euro Area is of 19153 Euros. The average income of the people with higher education in the European Union is of 24282 Euros and the average in the Euro Area is of 25015 Euros.

Analyzing the data in terms of education level, we see that although the trend of the unemployment rate growing is present regardless of the education level, the level of growth, however, depends on the group that has been analyzed (table no 1). II. We notice that, by level of education, the evolution of the employment rates differs substantially. Thus, for young people (15-24 years) the total employment rate has fallen by 3,5% and for the higher education graduates (ISCED 5-6) in the same category, it has decreased by 28% while for ISCED 3-4 it has decreased by 7,2%, and for ISCED 0-2 it has decreased by 3,5%. For this category there is a trend in employment retention of the categories of very low-skilled population.

**Table no.1 Employment rates by age groups and highest level of education attained (%) 2003, 2006 and 2011**

	TIME		2003			2006			2011	
GEO	ISCED/ AGE	15-24	25-49	50-64	15-24	25-49	50-64	15-24	25-49	50-64
	0-2	19,8	64,6	51,2	15,9	60,3	46,7	16,3	58	43,6
	3-4	36,6	76,8	46,1	32,7	77,8	51,1	29,4	77,1	49,2
RO	5-6	71,3	91	59,3	57,6	92,2	74,2	42,5	90,1	68,6
	TOTAL	27,3	75,8	49,9	24	76,4	51,5	23,8	75,5	49,2

Source: Eurostat (Labour Force Survey);

[http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Employment\\_statistics](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Employment_statistics)

Therefore, the importance of education on the labor market, in 2010, continued the increasing trend in the share of people who completed their education, from the total of the active population. The data show that in the total of the active population, there are less illiterate persons.

## EDUCATION BENEFITS

IV. Therefore, a stable, democratic society, can't exist if most people do not have a minimum level of civic culture. The idea would be that the education a child receives brings benefits not only to his parents or to himself, but to the other members of society. "The education of my child contributes to your welfare by promoting a stable and democratic society"<sup>3</sup>. The state support of a minimum level of education of the population as well as the compulsory schooling of young people, the requiring specialization of the people in the present context of rapid technological changes have confirmed the presence of the benefits to the society.

The current situation reiterates that the Romanian education is likely to become a competitive one if we consider that the investment in education generates both costs and benefits, justification found in the analysis of the opportunity costs that highlight the potential gains that such persons would have received if they had not continued the learning (specialization) process and had been integrated into the labor market. The confirmation of this theory is found in the results obtained by conducting a survey at the three high school educational institutions in the city of Falticeni ("Nicu Gane" College, "Mihai Băcescu" Technical College, "The Agricultural College"). The participants to this survey were twelfth graders in the day school form of education, in the school year 2010-2011, and the objectives pursued have been materialized in:

- the identification of the options of the high school graduates to continue their studies and / or the options of employability;
- the development of certain proposals for the design of a monitoring system of educational options and /or professional of the graduates;
- the delineation of the conceptual framework on education and lifelong learning and the permanent guidance;
- the determination of the probability to find a job after the high school graduation;
- the comparison of anticipated benefits as a result of the alternatives.

This research aims to highlight "the options the students have after school graduation" as well as the analysis of the main variables that affect the school route of the future graduate. The instrument used for data collection was a questionnaire comprising 12 questions.

The results of this research revealed the following conclusions:

- the respondents who answered the question "Do you consider necessary to continue your studies?" an important percentage of 45% said yes, and from the graduates who live in urban areas 37% expressed the desire to continue the studies. I mention that among the factors influencing this decision there are: the parents' education, their occupation, the traditional elements which are the determinants of the educational decisions.

- most of the sample students choose to continue the studies both in post-secondary education (25%) and higher education (50%). The remaining subjects are limiting themselves to complete the

level of education they are already included (12,63%), or they haven't taken yet a decision in this regard (12,37%).

- the perspective of the confrontation with the labor market concerns the questioned subjects although almost 15,88% of them doubts on the possibility of their professional insertion after graduation. This is due to the fact that in the young people's mentality there is still the idea that only the skills with a good quality training represent essential conditions of the professional integration, of the success in profession, in life.

- 47,63% of respondents are optimistic and believe that only after graduating from higher education will be able to integrate into the labor market, while 46,25% think that the salary will be higher after completing these studies.

As we can see there is a high aspiration for completing the studies at higher levels of education and training. The situation is explained by the fact that a significant share of students who have opted for the secondary branch have the intention, from the very beginning to continue their education, even if this intention is not always turned into reality. Moreover, in the last years, the demand for higher level education has increased continuously as a result of the students' awareness of the importance to continue the studies, respectively the investment in education for obtaining future incomes.

Thus, by investing in education and giving up some immediate benefits is proved the fact that respondents know and apply the concept of opportunity cost<sup>4</sup>.

The graduates make an assessment of the alternatives to be followed and they will answer the question whether it is good or not to continue their studies. The hope that the skills and the abilities<sup>5</sup> acquired will bring them a higher salary and faster employment opportunities will determine a quite large percentage of high school graduates to continue their studies. The investment in education for this social category is determined by other policy makers: the parents' financial possibilities, the parents' education, the place of residence, the elements of tradition, the existing situation on the labor market, the investment payback time, etc. The factors presented as well as the results of the survey highlight the fact that a percentage of 63,9% of the respondents will invest in education being convinced of the influence the studies have on the further studies.

We note that a percentage of 22,5% of graduates do not wish to continue their studies assuming the risk of having a low income immediately after graduation.

Both the results based on the questionnaire and the trends registered in Romania in the recent years on the educational levels showed that an increasing number of people have taken the "risk" of continuing the studies<sup>6</sup>.

The continuation of studies imposes costs both for students and their parents and the cost of this action measures "the gain obtained" by "losing" the best alternative (sacrificed variants) and it is a decision based on the cost-benefit method, that is the evaluation and comparison method.<sup>7</sup>

According to Vadim Cojocaru<sup>8</sup> in adopting a rational decision concerning the efficiency of the investment in higher education we must take into account the fact that the period of the university studies varies from 3 to 5 years, while the additional income will be obtained throughout the active life. It is therefore necessary to update future benefits obtained after the university graduation.

In order to find the value of the amount produced in a year (V1) we use the formula:

$V1 = V_p (1 + i)$  where:  $V_p$  – the present value,  $i$  - the interest rate.

From the above relationship we calculate the present value of an income which is obtained over a year.

$$V_p = \frac{V_1}{1 + i};$$

To obtain education costs and revenues over a period of time (5-6 years for some specialties - medicine, architecture, etc.) it is created an extension of the presented formula:

$$V_p = \frac{E_1}{1 + i} + \frac{E_2}{(1 + i)^2} + \dots + \frac{E_n}{(1 + i)^n}$$

where:  $E_1, E_2, \dots, E_n$  are earnings increases expected for each year of study,  $n$  the individual expectancy for an active life;  $i$  - the interest rate.

If we want to know whether the investment made by the individual in his educational preparation is justified, we use the internal rate of the investment return ( $r$  - called private return of the investment in human capital), which is the discount rate for which the net present value of the invested human capital is zero:

$$V_p = \frac{E_1}{1+r} + \frac{E_2}{(1+r)^2} + \frac{E_3}{(1+r)^3} + \frac{E_4}{(1+r)^4} + \frac{E_5}{(1+r)^5} = 0$$

where:  $E_1, E_2, E_3, E_4, E_5$ , are direct and indirect costs corresponding to five years of university studies (we consider even six years of study),  $r$  - the highest rate of interest that may be paid to certain people to finance investment in human capital.

According to the above relationship the investment in the human capital is profitable when  $r > i$  and the investment isn't profitable when  $r < i$ .

The analysis made on the version Cycle 1 of studies (3 academic years) showed that  $r > i$ , so the investment is profitable.

In the above presented context we find that the rate of recovery of the investment in the educational capital is different for the different levels of education.

If we refer to the master and doctoral level where the alternative costs are high, the recovery rate of investment in educational capital is the lowest compared with the rate for the compulsory secondary education, where the alternative costs for this level are zero (the highest rate of return). In conclusion, with the increasing of the educational level or of the number of the years of study, the evolution rate of the return on education is decreasing.

The studies realized in USA, in the postwar period had as a result the obtaining of a formation supplement of 5-15%, as a consequence of the training from each year in the higher education institution, while the average rate of the benefit on real capital was only 4%. The result shows the fact that the American public education occupies the first rank in the system of social needs.

At the same time, the private rates of the recovery of the investment in education on every level of education on global regions are inferior to the social rates of recovery of the investment in education, the difference being of 8,1 to 6,9 percentage points, more accentuated for the higher level of education. A result obtained in the study by G. Psacharopoulos<sup>9</sup> entitled "Returns to Investment in Education" and whose explanation lies in the way the social rate is defined – there are taken into consideration total costs (private and external) and the benefits, the social ones not being included.

Therefore, in the regions where the average of school years is higher, it is obtained a coefficient of recovery with the lowest value due to the fact that there remain fewer years for those people to benefit from the investment made. This situation also explains the fact for which most of the people who follow academic studies are young. In comparison with the countries of the European Union where a percentage of 23% of the population has university education, in Romania only 12% of the total population aged 15-64 years had graduated university studies in 2010 (table no. 2).

Indicator %	Country /area	Classification ISCED 97	2004	2005	2006	2007	2008	2009	2010
The population (15-64 years) depending on the level of education	Uniunea Europeană	Pre-primary, primary and gymnasium - levels 0-2 (ISCED 1997)	37	34	33	33	32	31	31
		High school and post- high school levels 3-4 (ISCED 97)	41	45	45	46	46	46	46
		University education - levels 5-6 (ISCED 97)	20	20	20	20	21	22	23
	România	Pre-primary, primary and gymnasium - levels 0-2 (ISCED 1997)	35	33	32	31	30	30	30
		High school and post- high school levels 3-4 (ISCED 97)	56	58	58	59	59	59	58

		University education - levels 5-6 (ISCED 97)	9	9	10	10	11	11	12
Employment – the level of education	Uniunea Europeană	The rate of employment -total	65	64	65	65	66	65	64
		Pre-primary, primary and gymnasium - levels 0-2 (ISCED 1997)	51	48	49	49	48	48	45
		High school and post- high school levels 3-4 (ISCED 97)	70	69	70	70	71	69	68
		University education - levels 5-6	83	83	83	84	84	83	82
	România	The rate of employment -total	59	58	59	59	59	59	59
		Pre-primary, primary and gymnasium - levels 0-2 (ISCED 1997)	40	40	40	40	41	42	43
		High school and post- high school levels 3-4 (ISCED 97)	66	64	65	64	64	62	62
		University education - levels 5-6	85	84	86	86	86	84	82

Sursa: INS 2011

Romania being on a modest position compared to EU-27 countries in terms of participation at all levels of education of the population aged 6 -29 years.

This is understandable due to the major lack of funds, poverty, immigration, school dropout and leads to increased unemployment. In order to remedy the above mentioned situation it is necessary the supporting of the students and their families by attracting financial resources from public and private sector of the economy as well as the increasing of the percentage allocated of the GDP to education.<sup>10</sup>

## CONCLUSIONS

To achieve these objectives that will lead to an improved quality of life is necessary to have a democratic political system that should consider coherent demographic policies and well founded strategies from demographic point of view. The lack of these needs leads to the appearance of some negative effects (besides the positive ones) of subeducation / and overeducation which can be found both in the discrepancy of incomes obtained by people who have benefited from education compared to the others and in the effect known as "cogwheel"<sup>4</sup> and also the effect on rural economies<sup>11</sup>. Regarding this latter aspect A.H. Hawley<sup>12</sup> believes that migration and urbanization have positive effects on the economic development of a nation. Therefore, the relationship between education on one hand, and the degree of a society development, on the other hand is mutual, leading to an improved quality of life by satisfying people's material, spiritual, human, biological, psychological needs correlated to the conditions of the existence of the society and individual, interpersonal relationships and those with the natural environment or created by society.

What is important to keep in mind is also the fact that the concern for maintaining and developing this field results from the share of education expenditure in GDP by the state budget, expenditure that are considered an advance of GDP. Thus, most of the world countries allocate large sums for this service (about 6-9% of GDP), occupying the first positions among public expenditure. It is interesting to note that a part (some) of the most educated countries rely the least on public money, which covers only part of the total education expenditure. We have to mention that in these circumstances the European Union is making good progress, but insufficient in reducing the dropout rate (**presents a slight decrease from 17% in 2002 to 13,5% in 2011 according to Eurostat**), increasing the number of graduates of high secondary education (to increase to at least 40%), improving the reading skills, and increasing the percentage of adults participating in education or training.

We are talking about knowledge based societies, where knowledge is the real capital and the first resource that leads to wealth creation and where school doesn't end after the completion of

certain study phases but continues during a long-life process. To support these activities there are different organizations, enterprises, institutions that aim to instruct and train their own employees.

These aspects<sup>13</sup> can be cultivated and developed over time through an increased share of public participation at all levels of education, age structure, and participation in full or part-time programs. Participation is a fundamental feature of learning, an almost universal requirement felt both at international level and at national, regional and local levels. We are talking about a concept with a history developed during several decades involving an individual aspiration to integrity and dignity.

All these<sup>7</sup> can be found in the acceptance and not in the mandatory participation, fact that explains the orientation towards problem solving, development of a common understanding of an issue, problem detection, as well as their perception and formulation. The implementation of these initiatives depends on the extent of participation at international as well as national and local scales, taking into consideration that on the one hand the battlefield of global problems is local<sup>14</sup> in reality, but it can't be related only to this because the preservation of mankind's ecological and cultural heritage, the solving of food and energy problems as well as of other world problems require increased competence and taking initiatives in the general interest. We remark that the attributes of participation are found in man's preparation and development, in his integration into an active mechanism that recommends the direct experiences and removes the illusion according to which the active withdrawal from society is possible because it leads to a morbid isolation. In conclusion, the participation in both local version and in the global one, attracts cooperation, dialogue, communication, reciprocity and empathy.

The correct interpretation of the data taken from the Statistical Yearbook and the National Institute of Statistics shows that, for the moment, there is a need for the improvement and diversification of the opportunities offered by the Romanian education and of the vocational training system. The need for these things is evident from the statements of some policy makers who issued the idea that education is the strategic factor of the national development in the future, that it has an essential contribution to the formation of the human capital. Related to the context where we live, it is most important for Romania that education should become a public project of strict priority over the next 20 years as education is equivalent to qualified employees and the opportunity to exploit knowledge in order to become competitive in the world economy. All these requirements are obligatory for imposing some coherent educational strategies, for changing attitudes that contribute to get a quality human capital in a relatively short period of time. The lack of investments in education can be disastrous for Romania's economic growth.

**IX.** I emphasize the fact that education is important both for the present and for the future, too, giving people knowledge, skills, aptitudes to participate effectively at the social life, to develop themselves and to successfully integrate on the labor market which will lead to the obtaining of a lasting customer satisfaction.

## METHODOLOGICAL NOTES<sup>15</sup>:

1. The unemployment rate represents the percentage of the unemployed persons, according to the international definition (ILO), in the active population. It is calculated as the ratio between the number of the unemployed persons and the active population ( $R = \frac{S}{Pa} * 100$ )
2. The employment rate is the share of the employed population from the age group x in the total population of the same age group x. Thus, the employment rate of working age population is the share of employed population aged 15-64 years in the total population aged 15-64 years.
3. The education level was grouped into:
  - lower secondary (ISCED 2), primary (ISCED 1), without graduated school (ISCED 0);
  - middle: high school, the first stage of high school and vocational level (ISCED 3), -



- specialized post high school or technical education (ISCED 4);
- high education: university of short / long term (including Bologna type graduate and master degree) or postgraduate (ISCED 5), doctoral or postdoctoral (ISCED 6)

The national classification regarding the educational level corresponds to the International Standard for the Classification of Education (ISCED-97).

## NOTES

1. [http://www.bls.gov/emp/ep\\_chart\\_001.htm](http://www.bls.gov/emp/ep_chart_001.htm)
2. The correlation which is established between the educational level of the population and the overall income obtained in Romania is well related, determined by factors such as age (usually, at the same level of education, the youngest earn less than the older ones), inherited wealth, existing skills beyond the formal education (for example the case of the leading footballers or the case of some entrepreneurs), distributional inequities, the theft, etc.
3. Milton Friedman, *Capitalism și Libertate*, colecția Biblioteca Băncii Naționale, Editura Enciclopedică, București, 1995, pag. 104
4. In the work *Economic Education* (Economic Publishing House, 2005), written by Marta Christina Suciu, it is presented a model for evaluating the alternatives to be followed by the high school graduates.
5. Ben Porath Y has introduced in *The production of human capital and the life cycle of learning*, in Journal of Political Economy, 1967, No. 4, pp. 352-365, a production function of the human capital. He believes that a person can produce and incorporate in itself an additional amount of human capital  $Q$  in a fraction  $m$  from his time, different from the free time. He uses a  $q$  quantity of goods (books) and training services and calls on the  $H$  stock of human capital already incorporated in himself:  $Q = \beta_0(H_m)^{\beta_1} \times q^{\beta_2}$ . ( parameters  $\beta_0 \beta_1 \beta_2$  - express the individual's skills to use the three factors of production,  $H$  – is a state variable, being inherited from the past).
6. He takes into account the direct costs (tuition fees, administrative expenses and so on), the alternative costs (giving up to the immediate earnings for the future ones), the expected monetary benefits, the non-monetary benefits.
7. He takes into account the direct costs (tuition fees, administrative expenses and so on), the alternative costs (giving up to the immediate earnings for the future ones), the expected monetary benefits, the non-monetary benefits.
8. Vadim Cojocaru, Calin Făuraș, *Education in economic approach*, ASEM Publishing House, Chișinău, 2006, p.10
9. G. Psacharopoulos, H.A. Patrinos, *Returns to Investment in Education: A. Further Update*, Wold Bank Policy Research Working Paper 2881, September 2002.
10. When considering the importance of the education field in a country, we don't have to refer to a share of GDP but rather to the share of costs with this field in total public expenditure.
11. The educated people migrate to the large urban agglomerations creating labor shortages in rural communities on the one hand, and employment growth more than labor supply in urban areas, on the other hand.
12. A.H. Hawley, D. Fernandez, H. Singh, *Migration and Employment in Peninsular Malaysia*, Econ. Dev. Cult., 1979
13. The effective participation, the creative participation are based on consent because the requirement is rather counterproductive - James W. Botkin, Mahdi Elmandjra, Mircea Malita, *Contemporary ideas. The limitless horizon of learning. The liquidation of the human gap*, Publishing House, Bucharest, 1981, page 52
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15. The National Institute of Statistics, Press Release no. 89 of 17<sup>th</sup> April 2012

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