



## THE KEY ROLE OF INVESTMENTS IN HIGHER EDUCATION

Georgeta ILIE

"Dimitrie Cantemir" Christian University, Bucharest, Romania, E-mail: [g2009ilie@gmail.com](mailto:g2009ilie@gmail.com)

**Abstract** *The education is essential for the future of the young generation and the development of the countries. The paper emphasizes the consequences of investments in higher education, and its effectiveness, in correlation with the labour market requirements and perspectives. It is also proposed a few options regarding the appropriateness and effectiveness of the use of investment resources between the attending the university courses, starting a business or employing in a company in the context of post-crisis economic recession. At the same time, the paper emphasizes the role of higher education in the formation of new opinions, solutions and leaders should guide future societies in beneficial directions.*

**Key words:**

Higher education, investment, economic growth, labour market, employment

**JEL Codes:**

J24, A23, E22

### 1. Introduction

The education is not only important to the future of the young generation but critical to the future and development of the countries. The education provided by universities and other higher education institutions plays an important role in society, creating new knowledge, transferring knowledge to students and fostering innovation. Although no longer the sole generators of knowledge needed for development, through their research and teaching universities help to produce expertise, manage development, engineer social transformation, and defend social values and cultural ethos.

### 2. The role of education in the welfare of the society

For many people and countries, a bright future starts with *good education*. For many decades, a college education has been viewed in many countries as essential to securing a stable, well-paid job.

*Education is one of the most significant investments a country can make in its people and its future. The consequences of investments in education are very strong: education results in raising income, improving health, promoting gender equality, mitigating climate change, and reducing poverty:*

- Education gives people significant *skills and tools* to help them better provide for themselves.
- Education helps people work better and can create opportunities for *sustainable and viable economic growth* now and into the future.

- Education encourages *transparency, good governance, stability* and helps fight against graft and corruption.
- Education helps *improve health*, and helps fight the spread of many diseases.

Education is the key to unlocking a country's potential for economic growth:

- All critical parameters - wages, agricultural income and productivity - very important for reducing poverty, are higher where people receive a better education.
- One extra year of schooling increases an individual's earnings by up to 10%.
- Each additional year of schooling raises average annual GDP growth by 0.37%.
- If all students in low income countries left school with basic reading skills 171 million people could be lifted out of poverty. This is equal to a 12% cut in global poverty.<sup>1</sup>
- An increase of one standard deviation in student scores on international assessments of literacy and mathematics is associated with a 2% increase in annual GDP per capita growth.<sup>2</sup>

<sup>1</sup>UNESCO, *Education Counts. Towards the Millennium Development Goal*, published in 2010 by the United Nations Educational, Scientific and Cultural Organization, available on <http://unesdoc.unesco.org/>

<sup>2</sup> Eric A. Hanushek (2007). Ludger Wößmann, *The Role of Education Quality in Economic Growth*, World Bank Policy Research Working Paper 4122, February, available on <https://openknowledge.worldbank.org/>

### 3. Higher education: a good long-term investment?

While the opportunity to pursue a course of higher education was previously a dream for many people, nowadays it is a *path full of risks*.

The financial and economic crisis has affected higher education in different ways, with some countries investing more and others making *radical cutbacks in their education spending*.

The consequences of the global economic crisis and recession make difficult to *maintain, develop, or start businesses and create job opportunities*.

Pursuing a higher education requires an investment in *time, effort, and significant financial resources*. As a consequence, students are effectively investing in higher educations that can no longer guarantee employment or a suitable level of future remuneration.<sup>3</sup> On average, OECD countries directly *invest more than USD 30,000 in public sector funds* to support an individual pursuing higher education.

However, investments in education generate public returns from higher income levels. Higher educated persons will get back this investment through *greater income taxes, increased social insurance payments and lower social transfers*.

The public returns for a person investing in tertiary education are positive in all countries.

Table 1. Public benefits for a person obtaining higher education (in USD, 2007)

Countries	Public benefits	Countries	Public benefits
United States	193,584	Ireland	85,917
Germany	168,849	Australia	84,532
Belgium	167,241	Italy	82,532
Hungary	166,872	Czech Republic	81,307
Slovenia	155,664	Canada	79,774
Finland	100,177	Japan	67,411
United Kingdom	95,322	France	63,701
Netherlands	95,030	Norway	61,507
Poland	94,125	New Zealand	46,482
<b>OECD average</b>	<b>91,036</b>	Sweden	37,542
Austria	89,705	Spain	29,582
Portugal	89,464	Denmark	28,621
Korea	89,034	Turkey	21,724

Source: OECD, *Education at a Glance, 2011*, available on <https://www.oecd.org>

As shown in the above table, on average, OECD countries receive a *net return of USD 91,000 on the public costs to support a man in tertiary education* – more than three times the amount of the public investment. In Belgium, Germany, Hungary, Slovenia and the United States, this return is particularly high, exceeding USD 150,000.

The global economic crisis and the economic recession change this *cost-benefit equation*. For example, the *higher unemployment rates* provoked by the crisis are likely to have reduced the opportunity cost of foregoing work in order to attend university. However, they also may have *reduced some of the benefits* of having a higher education, because unemployment rates rose among tertiary-educated people during the crisis.

Likewise, the *sustained global expansion of higher education* could have different effects. As the supply of highly-educated individuals grows, the relative economic benefits of having a tertiary education may go down over time. However, if *economies continue to become more knowledge-based – increasing the demand for highly-educated people even more* – the economic benefits of higher education could continue to expand.<sup>4</sup>

Furthermore, because people with higher education tend to have *higher earnings*, they're likely to *pay more in income taxes and social welfare contributions*. There's also the *"opportunity cost"* of foregone earnings when people enter university instead of the labour market.

Placing the economic implications of higher education, however, the progressively rising college enrollment rate demonstrates that *many persons still consider higher education as a reliable investment opportunity*. It is unclear whether this is the result of continuing confidence in the education system or a failure to appreciate the changing nature of the economy and its workplaces. It cannot be denied that *rising education fees and a poor job market* continue to perpetuate a cycle of increasing student debt and lost opportunities. If not this can be addressed, *higher education will continue to correspond to an increasingly risky and uncertain investment* in the coming years.

### 4. Higher education and the labour market

In recent decades, the number of young people who have completed tertiary education has continued to *increase*.

In parallel, young people's access into the labour market is a preoccupation in many countries since it has been *negative affected by the economic crisis*.

<sup>3</sup>Lewis Humphries, *Is Higher Education Still A Good Investment?*, available on <http://www.investopedia.com/articles/>

<sup>4</sup>J.D. LaRock, *Higher education: a good long-term investment?*, OECD, *Global perspectives on education*, available on <http://oecdeducationtoday.blogspot.ro/>

A growing number of young people is *overqualified* for the type of employment they find. This suggests the *need for more efficient forecasting* of the short and long term needs of the work market with a view to providing reliable educational and careers guidance to students so that improvements can be made in matching young people's educational qualifications with actual employment opportunities.

The mixture of *diminishing employment prospects*, *reduced government spending* and *high education fees* has changed the look of higher education in many countries and left many questioning whether it still represents a solid financial investment. The fact remains that students pursue higher education in order to gain specific academic qualifications, which in turn ensures that they are employable within their chosen fields.

As the job market continues to sustain a weak and slow recovery, parents and aspiring graduates are undecided to invest in education that is unlikely to secure financial and professional security.<sup>5</sup>

As graduates continue to fight with a slow-moving job market, they are unable to contribute towards a sustainable economic growth.

In *US*, the college enrollment rate among high school graduates has risen gradually since 1960. In 2009, this rate reached a high of 70% which leaves a *potentially vast demographic of citizens who cannot afford to purchase houses, cars or invest in their long-term financial futures*. In addition to creating a generation of adults who are unable to fulfill the American Dream and achieve their full potential, the implications for a long-term economic recovery are also very worrying.

In *Europe*, highly educated people have better employment opportunities but many *tertiary graduates are now overqualified for their jobs*. About 80% of young people in *Europe* aged 20-24 successfully completed upper secondary education in 2010, confirming the rising trend shown across Europe since 2000. The EU average percentage of persons with a tertiary qualification has increased for all age groups since 2000. In spite of the general increase in the number of tertiary graduates, a growing percentage appears to be overqualified for the type of employment they find. More than *one in five* tertiary graduates are over-qualified for their job, and this proportion has increased since 2000. In addition, discrepancies in student participation in the various academic disciplines at tertiary level continue to intensify. Since 2000, the most remarkable variation in the distribution of tertiary graduates across the disciplines is the reduction the

---

<sup>5</sup> Lewis Humphries, *Is Higher Education Still A Good Investment?*, article published in *Investopedia* 2013, available on <http://www.investopedia.com/articles/>

proportion of graduates in science, mathematics, and in the field of education.

*Tertiary education graduates integrate into the job market two times more quickly* than people with at most lower secondary education. At European Union level, the average interval of the *transition to the first significant job* was only 5 months for people with tertiary qualifications, close to 7 months for the upper secondary level and up to 10 months for people with lower education levels.<sup>6</sup>

Thanks to numerous technological and social advancements, the *nature of the workplace has changed* considerably since the turn of the century. This has led to a *rise in the number of self-employed citizens and freelancers*. In many countries, an important part of workforce is now operating independently.<sup>7</sup>

### 5. How higher education can be a bad investment

Benjamin Franklin once said "*an investment in knowledge pays the best interest*".

However nowadays, people would have to be more optimistic to believe that an investment in higher education will be totally rewarded.

After spending time and money on a college degree, the *graduate unemployment rate is now worryingly high*. What's more, even those who have gotten a post often settle for work that's hardly appropriate with their education. In the US, this situation has helped to generate a trillion dollar student loan bubble, with the average debt per student up 70% since 2004.<sup>8</sup>

The College Board lists average tuition, fee, accommodation and board charges for 2012-2013 at private, four-year out-of-state colleges as USD 40,000 annually. In all, that adds up to about USD 160,000 across all four years.

Considering the situation of an average student can contribute a USD 50,000 investment by means of savings or family contribution, this would leave the student the option to go into debt for the remaining USD 110,000 confident that the knowledge and contacts made in school will yield a good job.

According to a report of *The Wall Street Journal*, based on US Labor Department data, there were 284,000

---

<sup>6</sup> *Key Data on Education in Europe 2012*, published by the Education, Audiovisual and Culture Executive Agency, EURYDICE, EUROSTAT, 2012, available on <http://epp.eurostat.ec.europa.eu/>, <http://eacea.ec.europa.eu/education/eurydice>

<sup>7</sup> Lewis Humphries, *Is Higher Education Still A Good Investment?*, article published in *Investopedia* 2013, available on <http://www.investopedia.com/articles/>

<sup>8</sup> Tara Clarke, *How Higher Education Can Be the Worst Investment Ever*, article published in *Money Morning*, May 2013, available on <http://moneymorning.com/2013>

graduates with a bachelor's degree or higher working minimum wage jobs in 2012. This is double the number from 2007, and up 70% from ten years earlier. Under these conditions the amount of money will not be recovered only over some decades, which is *ineffective*. Six months after graduation, the loans come into reimbursement. If that cost is tacked on to an already lengthy monthly payment list of rent, auto, and health costs, students quickly finish up in debt. McKinsey & Co.'s survey shows that *more than half of US college graduates regret their decisions regarding higher education*. In the meantime, four out of every 10 graduates from top 100 US colleges could not get jobs in their chosen fields and are flat-out disappointed.

In these conditions, given that half of graduates are overwhelmed by debts and obvious regrets, the question arises whether students would be better to turn to *other alternatives that are available*. What are some potentially better ways to invest that initial USD 50,000?

Nevertheless, one alternative would be to *set up a business*. Starting a business from scratch, or franchising, or doing either of these projects while also attending an affordable community college *on a part-time basis* seem a great approach to *maximize rewards from investment*.

If running a business does not live up to expectations, one more choice is *working for a good company* in an industry where the student wants to be implicated. Perfecting skills, gaining experience, networking, and climbing the corporate stepladder a potential student could receive the financial support for his education from the company he works for.

But the best part is earning a salary all the while. Total pre-tax earnings lost by a high school graduate attending college and not working for four years comes out to nearly \$100,000.

So that initial USD 50,000 higher education investment, plus any money being earned, could result in purchasing a new house or starting a retirement account.

Using the method of calculating retirement, in case someone invests USD 50,000 for retirement at age 20 with a 6% annual rate of return, making no additional contributions, by age 65 that initial investment could grow to about USD 740,000.

These details are not trying to imply that *higher education is always a waste of time and money, but if it is not done appropriately it can lead to playing financial catch-up for decades*. Considering all these elements, the impression that higher education automatically shifts socio-economic status is totally dissipated.

## 6. The necessity of reforming the traditional model of academic universities. Acquiring productive skills for the future of education

Despite the above, there are studies that prove that demand for higher education is set to grow in the coming decades.<sup>9</sup> Secondary school graduates will increase in number and a rising share will struggle to go on their education at the tertiary level in pursuit of "*good jobs*".

Unfortunately, these future students have no guarantee that their tertiary education will actually equip them with the skills they need to fill those jobs. A lot of current graduates are discovering that regardless of their academic qualifications – often gained at considerable expense – they are deficient in the specific technical and professional skills demanded by the changing jobs market.

A clear response to this problem is to *reform the traditional model of academic universities* aimed at the middle classes in advanced economies so that it places more emphasis on *professional and vocational education and training*. Many countries that score highly on the *World Economic Forum's Global Competitiveness Index* have such systems, which can be adapted to the needs of emerging economies where much of the increase in demand for tertiary education will be centred.

Because the public sector with limited resources struggles to meet rising demand for higher education, it is also expected that for-profit institutions will take this mission. The necessarily high tuition and fees at many such institutions may lead them obviously to focus on the *preparation of jobs-ready graduates*, to the detriment of disciplines with less attractive career remunerations, such as the arts and humanities.

In addition to generating graduates with specific skills demanded by the labour market, societies require graduates who can engage in informed and thoughtful discussions of values and norms.

An interconnected world cannot afford to neglect nurturing a new generation of well-informed opinion leaders who can guide societies in beneficial directions. The challenge is not only to prepare the future workforce, but to do so in a way that *preserves the role of higher education in focusing minds on the bigger picture*.

## 7. Conclusions

Through education, individuals are equipped with considerable skills to help them realize their talents and contribute significantly to national development.

---

<sup>9</sup>World Economic Forum, *Global Risks 2014, Ninth Edition*, available on <http://www.weforum.org/risks>

The better educated the students are, the better they will perform economically. It has been observed that with improved education, so many other areas of human existence are positively affected. Higher education is a tool that can bring about the kind of social change that will benefit all of humanity.

The paper emphasizes that nowadays taking into account the surplus of higher educated people compared with the labour market, the investments in higher education at national and individual level need to be reconsidered in terms of efficacy and efficiency. Consequently a university degree may not be a wise choice for students who attend less rigorous institutions, take out large student loans, or get degrees in lower-paying fields. There is a cultural mindset that everyone should go to college. But many people would be better off getting specific training in a trade or a craft, like computer programming or cooking.<sup>10</sup>

As public finances come under pressure, the rising costs of higher education are increasingly borne by the individual. Many graduates in developed economies leave university not only highly educated but also highly indebted.

Unfortunately, many then struggle to find their way into careers commensurate with their education levels or sufficiently remunerated to pay off their debts. According to the International Labour Organization (ILO), under-30s in advanced economies are far more likely than over-30s to be taking up jobs for which they are overqualified. Often they change frequently from one temporary job to another. Even before the crisis, the term “Generation 700 Euros” had become a common way to describe this phenomenon in Greece.

If potential students perceive higher education as a *risky investment*, they may increasingly embark on university degrees only if their families are able to offer financial support. Higher education has traditionally been a way of reducing income disparities by enabling people to move up the social ladder, but it may now be starting to entrench income disparities instead, with potentially dire consequences for social cohesion.

Highly indebted students who cannot find a career allowing them to pay back their debts will not be in a position to save for the future, storing up trouble for social safety nets. They will also be reluctant to take on more financial risk to re educate or invest in a start-up, which could potentially reduce the dynamism of economies.

Fortunately, the function of technology may finally restore the role of higher education. The spread of high-speed Internet is opening up access to free or inexpensive quality *online courses*. Such courses also

promise to help make education and further training a lifelong possibility in developed as well as developing economies, enabling people to bring up to date their skills in response to the fast-changing job markets of contemporary knowledge economies.

*Educational establishments and businesses also need to work together* to ease the school-to-work transition. The *professional education system* needs to be revised in many countries. A dual education system, such as in Germany and Switzerland – with professional education on the job and parallel education at a vocational school – may lower many of the barriers and risks depicted above. Other models for public-private partnerships to mitigate risks for effective investment in skills and training have to be considered.

## References

1. Clarke, T. (2013). *How Higher Education Can Be the Worst Investment Ever*; article published in Money Morning, May, available on <http://money.morning.com/2013>
2. Hanushek, Eric A.; Wößmann, Ludger - *The Role of Education Quality in Economic Growth*, World Bank Policy Research Working Paper 4122, February 2007, available on <https://openknowledge.worldbank.org/>
3. Humphries, Lewis - *Is Higher Education Still A Good Investment?*, article published in *Investopedia* 2013, available on <http://www.investopedia.com/articles/>
4. LaRock, J.D. *Higher education: a good long-term investment?*, OECD, Global perspectives on education, available on <http://oecdeducationtoday.blogspot.ro/>
5. Moodie, Alison. *Higher education can be a bad financial investment—Stud*, available on <http://www.universityworldnews.com/>
6. \*\*\* EUROSTAT, *Key Data on Education in Europe 2012*, published by the Education, Audiovisual and Culture Executive Agency, EURYDICE, EUROSTAT,, 2012, available on <http://epp.eurostat.ec.europa.eu/>, <http://eacea.ec.europa.eu/education/eurydice>
7. \*\*\* UNESCO, *Education Counts. Towards the Millennium Development Goal*, published in 2010 by the United Nations Educational, Scientific and Cultural Organization, available on <http://unesdoc.unesco.org/>
8. \*\*\* USAID, *Supporting Development Solutions through Higher Education*, available on <http://www.hedprogram.org/resources/>
9. \*\*\* UNESCO, *International Institute for Educational Planning*, Newsletter, N° 1/2007, available on <http://www.iiep.unesco.org/>
- 10.\*\*\* World Economic Forum, *Global Risks 2014, Ninth Edition*, available on <http://www.weforum.org/risks>

<sup>10</sup>Alison Moodie, *Higher education can be a bad financial investment—Stud*, available on <http://www.universityworldnews.com/>