

Problems in the development of higher education in Poland

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ABSTRACT: Nowadays, there are more highly educated people than in the past, which in theory should assure them fast placement into the labour market. However, the number of unemployed people with higher education is rising in many countries, and this leads to economic, social and political problems. This article presents quantitative and qualitative analysis of higher education development in Poland based on international perspectives. The authors also indicate the effects and problems of the rapid development of higher education in Poland, and how these have led to a decrease in quality and a devaluation of higher education. The authors present statistical data comparing the number of people with higher education qualifications and the unemployment rate in this group that prove the negative effects of inappropriate higher education development. The authors also present data on the differences in employability and unemployment rates, especially, engineering and technology graduates versus degree holders in other professions.

INTRODUCTION

Unemployment is a major problem in the Polish economy at both macro and micro scales. It also causes economic and social problems; the unemployment rate in Poland is higher than in most of EU countries [1][2]. The problem of unemployment is very common and concerns not only people with insufficient skills and qualifications.

According to statistical data, educational qualifications are still the best insurance against unemployment, which increases for people with lower levels of education. This characteristic was noted in all EU member states in 2012, as the average unemployment rate in the EU-27 for those aged between 25 and 64 having attained at most a lower secondary education was 16.8%, much higher than the rate of unemployment for those that had obtained a tertiary education qualification (5.6%) [3]. However, based on protests by young unemployed people in Spain, Greece or Portugal in recent years, a question arises: does higher education still provide a strong protection against unemployment? The analysis of that situation in Poland is the main aim of this article.

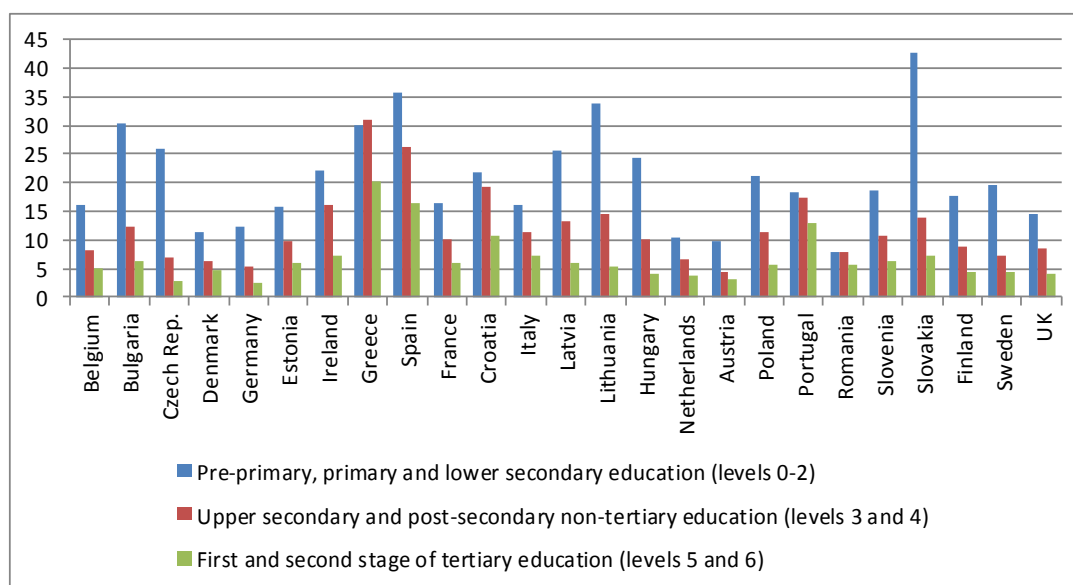


Figure 1: Unemployment rate for various levels of education attained (%) (Source: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Unemployment_statistics).

EFFECTS OF HIGHER EDUCATION IN POLAND - THE QUANTITATIVE APPROACH

The last general census conducted by the Central Statistical Office (CSO) during the period from April to June 2011 shows that the number of people with higher education increased by over three-quarters in comparison to 2002 (Table 1), when the proportion of people with higher education was 9.9%. In 2011, this share was 17.5%.

Table 1: Population aged 13 and above according to educational level in the years 2002 and 2011.

Educational level	Population in thousands in the years	
	2002	2011
Total	32,435.4	33,505.3
Higher	3,203.6	5,693.7
of which:		
Higher education with doctoral degree at least	107.7	153.7
Master's or doctoral degree or equivalent degree	2,277.4	3,990.4
Engineers, bachelors, economists	818.5	1,549.6

Source: own study based on CSO data

The quantitative development of education in Poland can be assessed very positively in light of the above data. Unfortunately, the results of the analysis of economic activity of people with higher education disturb this assessment. Admittedly, in the analysed period 2003-2013, the number of economically active people with higher education is growing steadily, while the number of the unemployed with higher education has also grown steadily since 2008, but with a significantly higher growth rate than the growth of the economically active people (Figure 2).

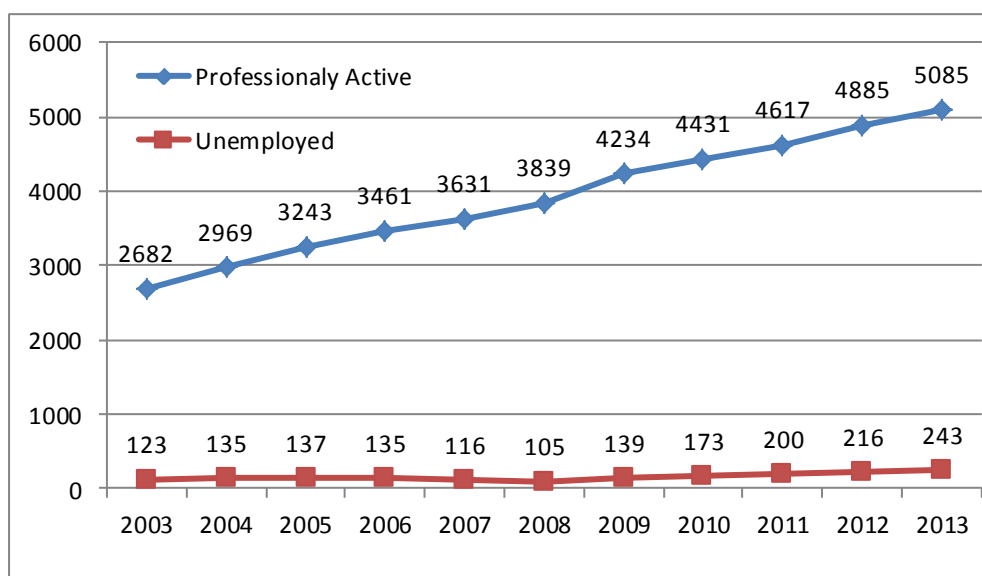


Figure 2: People with higher education on the labour market in Poland (in thousands). (Source: Own study based on CSO data).

At the end of 2013, more than 243,000 people with higher education were unemployed. Importantly, their number is growing the fastest - over the year it increased by 12.4%. For example, the number of unemployed with vocational education increased by 7.6% and those with secondary education - by 5.8 per cent.

The argument for education and training is often based on a statistical measurement of the labour market and opportunities for employment. However, these data are also underestimated because many people have to have a job to pay for their continuing studies and are already employed. After graduation, they do not enter the job market because they already have a job and, therefore, there is no direct relationship between their level of education and finding employment.

It is also important to pay attention to a mass emigration of which a significant part is constituted by young people with higher education, because if they stayed in Poland, certainly they would cause an increase in the number of unemployed.

Experts have no doubts that it is one of the effects of the educational boom which Poland has experienced in recent years. The CSO data show that at the end of 2013, about five million (28%) of economically active Poles (both

employed and unemployed), had a university degree. This means that they constituted a group twice as large as the group ten years ago. Thus, when unemployment is rising, there are more higher education graduates among the people without a job. Their number is growing fast because the job market has been saturated with a range of specialists (*inter alia*: teachers, sociologists, historians, graduates of philology, marketing, management or economics) for many years.

According to experts, some problems of university graduates are also associated with the quality of education, something noted by Wojciechowski, the Chief Economist at Invest-Bank. In his opinion, *...there are many universities where students can just buy a bachelor's degree - it means that if they pay fees, the requirements are virtually none. Some people agree to it deliberately, delude themselves that a diploma gained in this way will help them in the labour market.* The CEO of PZU (universal insurance office), A. Klesyk notes that *...in the world, there is a race the aim of which is to find talented people, who are able to use their knowledge. You have to catch them, help them to improve their abilities and promote. Lack of this ability is the Achilles heel of the Polish education at every level* [4].

Therefore, not coincidentally among people with diplomas, there are more and more who are long-term unemployed. In the middle of 2014, nearly 73,000 of them had been looking for a job for over a year. This is 34,000 more than two years ago.

The increase in the number of the educated unemployed is not only a Polish problem. The number is increasing all over Europe. According to data from Eurostat, in Spain, the unemployment rate among people with higher education at the age of 25-64 was 14%, in Greece - 17% and in Portugal - 10.5% [5].

STUDY COURSES AND CHANCES FOR EMPLOYMENT

The type and the level of degree awarded to graduates are factors which in popular opinion differentiates the career opportunities of graduates. The data presented in Table 2 indicate a significant increase in employment chances after obtaining the title of engineer in relation to the Bachelor. The increase in employment opportunities between the category of a people holding a Bachelor's degree (63.8% of workers) and the category of graduates obtaining a Master's degree (80.7%), as in the case of an Bachelor-qualified engineer (76.5%) and Master-qualified engineer (85.3%) can be noted. This growth of employment chances can be seen in the decrease of the number of economically inactive graduates and the number of unemployed graduates.

Table 2: The higher education degrees awarded and professional situation in Poland.

Professional situation	Bachelor	Engineer	Master	Master engineer
Working	63.8%	76.5%	80.7%	85.3%
Unemployed	16.9%	12.4%	10.3%	10.1%
Inactive	19.3%	11.1%	9.0%	4.6%

Source: Own study based on Górnica [6]

A report prepared within a human capital framework shows detailed analysis of employability differences among courses [6]. It should be noted that since 2008, the Ministry of Science and Higher Education in Poland has conducted a programme involving special funding of higher education for the courses classified as strategic for development.

Within the programme, universities receive additional funds for: modernisation of study programmes, classes led by outstanding professionals, courses and internships carried on in firms of potential employers, study visits to enterprises offering employment for graduates, student participation in scientific and technical conferences. The strategic courses are engineering ones in the vast majority (Table 3).

Table 3: Share of unemployed/economically inactive graduates of selected courses according to the strategic and mass courses classification by the Ministry of Science and Higher Education (2010-2012).

Strategic courses	Unemployed	Unemployed + inactive	Mass courses	Unemployed	Unemployed + inactive
Informatics	4.9	7.5	Management and marketing	8.5	16.3
Construction	4.8	10.3	Law	5.2	16.3
Mathematics	1.9	11.2	Economy	5.4	15.3
Biotechnology	5.3	12.1	Administration	7.8	16.5
Physics	1.1	13.8	Pedagogy	6.6	17.1
Environment protection	8.1	14.5	Sociology	7.9	19.8
Chemistry	4.1	16.2	Management	13.3	14.0
Environmental engineering	8.1	17.6	Tourism and recreation	18.4	28.2

Source: Own study based on Górnica [6]

The data in the table indicate that the employment ability of graduates of the courses identified as strategic has improved (the percentage of employment in this group is higher by approx. 6%) in relation to employment chances among graduates of other courses). However, within this strategic group, there are still some courses with high unemployment and inactivity rates: environmental engineering (17.6%) and chemistry (16.2%). The courses with the highest rates of unemployed and economically inactive graduates were: tourism and recreation (28.2%), sociology (19.8%) and pedagogy (17.1%).

This negative result in the case of pedagogy and sociology can be explained by the current demographic decline, which is causing an employment crisis in education. An interesting, but unfortunate point, concerning the negative effect of indiscriminate development of higher education is relatively high unemployment and lack of professional activity among graduates of administration (16.5%), management and marketing (16.3%) and even law (16.3%).

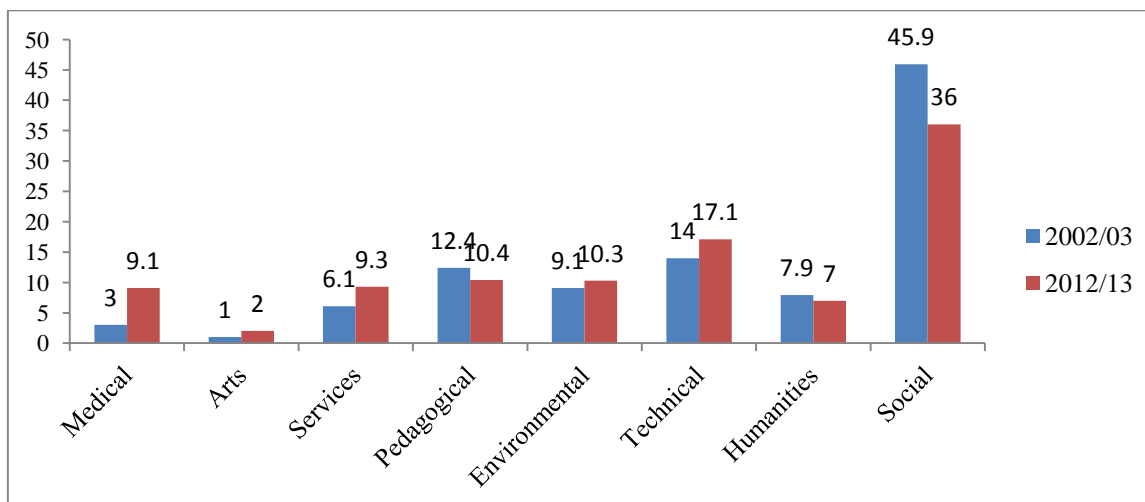
Those graduating in humanities and social studies allege that they condemn themselves to unemployment because their courses do not provide them with practical competencies that may be attractive to employers. Moreover, their financial expectations overestimate market realities. It seems that high unemployment is caused not only by low GDP growth and lack of new investments, but also by university education not being geared to the market requirements but the interest of candidates. At the same time, it is worth noting that universities follow a cost-based approach, i.e. educating in the humanities and social courses which is cheaper than engineering education.

The high demand for professionals with engineering education is one of the fundamental characteristics of the contemporary Polish labour market. According to IBC Group report [7], it was estimated that there will be a shortage of about 70,000 engineers for industry and services in Poland in 2013. Table 4 data show the forecast of the number of engineer shortage by specialisation. The highest demand is reported to be mechanical engineers, mining and metallurgical engineers, construction and environmental engineers.

Table 4: Prognosis of engineer shortage in industry and services according to specialisation in 2013.

Industry engineer specialisation	Engineer shortage	Services engineer specialisation	Engineer shortage
Designers and analysts of computer systems	53	Designers and analysts of computer systems	1,174
IT specialists	498	IT specialists	1,468
Agriculture and forestry engineers	633	Agriculture and forestry engineers	---
Construction and environment engineers	1,103	Construction and environment engineers	4,396
Chemical engineers	2,170	Chemical engineers	489
Computer programmers	817	Computer programmers	2,446
Electronics and telecommunications engineers	1,828	Electronics and telecommunications engineers	---
Electrical engineers	2,540	Electrical engineers	1,854
Mining and metallurgical engineers	4,275	Mining and metallurgical engineers	---
Food technology engineers	2,495	Surveyors and cartographers engineers	1,223
Mechanical engineers	13,825	Mechanical engineers	4,199
Others specialisation engineers	16,621	Others specialisation engineers	5,563
Total	46,858	Total	22,812

Source: Own study based on [7]



Source: own study based on [8]

Figure 3: Study structure in Poland in the academic year of 2002/03 and 2012/2013 according to courses.

There is a mismatch between employment supply and demand due to the market saturation caused by having too many specialists in many areas and unmet demand for technical graduates in other areas in Poland. Although this situation is slowly changing (Figure 3) as more young people choose study courses after considering current and future labour market needs. The proportion of students studying technical and related services courses has increased, while the proportion of students in social and humanities courses has decreased significantly.

HIGHER EDUCATION TRAPS IN POLAND

Analysing the effects of education in Poland, and taking into account the number of people with higher education can lead to positive conclusions. It is undeniable that there has been a huge increase in the number of people with higher education. One should consider whether the success is a current educational fad which popularises higher education. Zakowski describes this situation in a mature way *...Millions of young people, in the last two decades, have lost billions of hours of life gaining quasi-knowledge, at quasi-universities. The culture of pseudo-intellectuals deprived of the habit of reading and an ability to understand the world was created* [9].

He also suggests considering whether the current model of knowledge transfer is suitable for the present time and the challenges it brings. The development of erudite programmes, which transmit the current state of knowledge is required, but currently knowledge resources are a couple of orders of magnitude more extensive. Whereas during classes there is no time for collective thinking, debate or teamwork, diversity is excluded and tests with answer keys which limit independent thinking are promoted. What is more, there is a lack of space to promote individuality and students' interests in education. Instead, they promote an egoistic individualism, ignoring the methodology supporting an ability to create bonds and a joint action.

This model of education met the needs of Ford's capitalism one hundred years ago, with hierarchical systems of totalitarian and primitive markets. With such a model, students, and then graduates, can work and form the basis of their consumption, but they will not take risks by creating innovative, revolutionary ideas deviating from accepted standards.

Learned helplessness, loneliness and self-interest in this case close the way for such action. Therefore, it is important to graduate from university with the habit of creative thinking, an ability to develop interests and to use them creatively, to build relationships which are necessary for interdisciplinary teamwork. Empathy to communicate successfully with others is also very important [9].

Nawrocka, searching for the causes of problems of this situation, described a state of affairs that points to deeper systemic problems associated with reforms and management of education in Poland. It has resulted in high school graduates having a lower level of knowledge before going into university. Nawrocka, speaking about high school graduates states that: *...These are people who have become challenged, because they were packed with absurd knowledge, which was presented so as they can solve tests with a monkey's ability. But they are not able to use it creatively; they do not associate facts and understand circumstances* [10].

Next, it is possible to notice that a large section of the students are not interested in studying. Most just want to have a diploma, *a document*. Unfortunately, teaching staff sometimes ignore it, tolerating even students with insufficient knowledge, due to the definite standards according to which in a classroom, during lectures, there has to be a certain number of students. When there are fewer students, one of the teachers can lose their job. The result is *...students, who do not learn and cannot learn, do not read the literature, do not think, they are not able to build a long, consistent oral expression, and write with stylistic correctness and without spelling mistakes* [11].

Systemic problems of higher education in Poland do not only affect students and the level of education. Unfortunately academic teachers, in order to save their tenure, constantly try to find additional hours of employment. Almost all academic teachers moonlight. They teach in several schools (about 80% of academic teachers have two jobs), looking for a variety of additional classes, which in many cases are far away from their scientific interests and they are willing to take any extra work [12]. This state more often makes them feel burned out and hemmed in by absurdities. They just feel that their job is meaningless. In addition, sometimes *universities are like feudal kingdoms, where bureaucracy reigns* [13].

Apart from the bureaucratic problems created by university administrations, which can be eliminated by proper management, it is necessary to pay attention to the bureaucratic system associated with activities and requirements at the central level. This is related to the implementation of tasks dictated by the so-called *Bologna Process*, whose effect is to distract academic staff from their substantive duties by forcing them to produce endless reports, revise continuously in a variety of forms.

An example of this is the requirement to prepare and amend syllabus. It is unnecessary work which takes a lot of time, and which is used only by the institution and ministerial administration whose role is restricted to a careful examination of whether these documents are prepared correctly or their individual components are complementarily whole or whether the number of hours devoted to lectures, tutorials, seminars, consultation and students' own work are in line with previous, top-down arrangements [14][15].

A good example of small utility of implementation requirements associated with syllabus can be the fact that two universities, Oxford and Cambridge, which have leading positions not only in Britain but throughout the world, totally ignored requirements to create syllabus. Unfortunately, more and more often, academic teachers are faced with the choice of whether to work on what they have been employed for, that is the actual teaching, research, writing articles and books, or whether to create documents and fill in questionnaires about syllabus and/or other bureaucratic forms, which limit scientific developments and educational opportunities.

SUMMARY AND CONCLUSIONS

The assumption is that a higher level of education allows graduates to find a job faster and to keep it longer than in the case of less educated. Unfortunately, in the light of the detailed statistical analyses and employers' opinions - this simple relationship cannot be fully confirmed in the case of Poland. It is evidenced by the rapidly growing number of unemployed people with higher education and employers' opinions about low usefulness of graduates to perform a job and the risk of long-term unemployment of a significant proportion of the people belonging to this group.

An attempt was made to analyse the reasons for this negative situation, indicating a number of negative effects of systemic reforms of higher education in Poland. The significant problems in the area of scientific development, which repeatedly reduce the efficiency of education because of the need to comply with the grants received should also be indicated. The issue of scientific advancement, excessive and inappropriate (for real achievements) quantification of scientific achievements or funding of scientific development should be noted here.

Despite the raw data on employment presented here that show the relatively better chance of employment experienced by engineers relative to social studies or humanities graduates, it is extremely important to examine continuously the effects of higher education in Poland in relation to employment ability among graduates according to study courses, as well as particular universities.

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