

CHANGES OF FIELDS OF STUDIES AT POLISH HIGHER-EDUCATION INSTITUTIONS IN THE CONTEXT OF THE LABOR MARKET NEEDS

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***Abstract.** The paper concerns the issue of adjusting the offer of Polish higher-education institutions to the labor market needs. Massification of access to higher education reported in recent years has put into question the quality of education at higher-education institutions in Poland and thus the adequacy of their offer to the demands of the labor market. Therefore, the main objective of this paper is to analyze the changes in the sphere of higher education in recent years in the context of cohesion between education programs and demands of the economy.*

***Keywords:** higher-education institution, labor market, educational offer.*

1. Introduction

The development of higher education accompanied by the increasing number of higher- education institutions and rising gross enrolment ratios was possible due to a few factors. One of these was the changes in higher education law introduced at the beginning of the nineties of the previous century, which enabled the creation of private schools. Another factor was, as far as the development of higher education is concerned, a favorable demographic situation, and finally, high educational aspirations of the society. All these factors made access to higher education institutions much easier. During the transformation in Poland, graduating from college or university was treated as a good investment. What may be surprising, however, is the fact such an attitude towards education was, to some extent, caused by market economy. Such beliefs had been common in developed countries for many years. One of the first people who treated education as an investment was J.R. Walsh. In the article published in 1935, he stated that “...education will bring economic

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benefits” [10]. This article became important also for the Polish economy since higher education could guarantee a better job and salary and interesting career prospects. Moreover, higher education could contribute to the fall in unemployment and to greater occupational and geographical mobility.

Taking the importance of social and economic aspects of higher education into account, the main aim of the paper is to analyze the changes occurring in this sphere in recent years in the context of adjusting the offer of academic institutions to the needs of the Polish labor market. The main thesis is that the changes occurring in higher education in Poland have not been accompanied by activity ensuring cohesion between the offer of academic institutions and the labor market needs.

2. Changes in higher education

The changes occurring in recent years both in the Polish economy and higher education have created a trend towards gaining knowledge by young people. This has been reflected in the gross enrolment ratios, which are a measure of universality of education (table 1). These ratios have quadrupled for the last several years. Gross enrolment ratios in the academic year 1990/1991 was 12.9%, and in the year 2011/2012 53.1%. Net enrolment ratio rose from 9.8% to 40.6% [6,7]

Table 1.

Higher education enrolment ratios.

| enrolment ratio | 1990/91 | 1995/96 | 2000/01 | 2005/06 | 2010/11 | 2011/12 |
|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| gross | 12.9 | 22.3 | 40.7 | 48.9 | 53.8 | 53.1 |
| net | 9.8 | 17.2 | 30.6 | 38 | 40.8 | 40.6 |

Source: *Higher education institutions and their finance in 2011*, GUS, Warsaw 2012, p. 28.

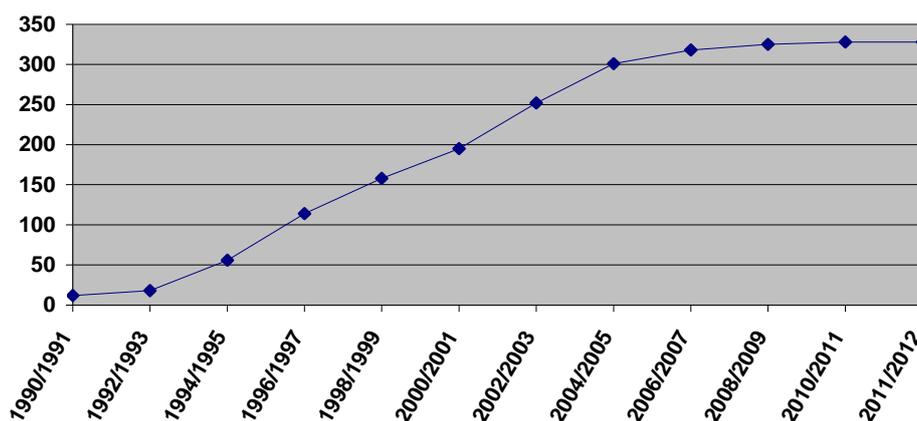
An increasing interest in higher education was connected with a significant growth of higher-education institutions, the number of which rose from 112 in the academic year 1990/1991 to 460 in the year 2011/2012 [1]. The most rapid growth was during the last ten years of the previous century and the first years of the present one (table 2).

Table 2.*Higher-education institutions according to type.*

| specification | Number of higher-education institutions | | | |
|--|---|------------|------------|------------|
| | 1990/91 | 2000/01 | 2010/11 | 2011/12 |
| Total | 112 | 310 | 460 | 460 |
| universities | 11 | 15 | 19 | 19 |
| technical universities | 33 | 23 | 23 | 25 |
| universities of agriculture | 9 | 9 | 7 | 7 |
| higher schools of economics | 5 | 94 | 79 | 77 |
| pedagogical academies | 10 | 19 | 18 | 17 |
| medical universities / medical academies | 12 | 10 | 9 | 9 |
| maritime academies | 2 | 2 | 2 | 2 |
| academies of physical education | 6 | 6 | 6 | 6 |
| academies of arts | 17 | 21 | 22 | 23 |
| academies of theology | 7 | 15 | 14 | 14 |
| schools of national defence department and the interior department | – | 10 | 7 | 7 |
| other | – | 86 | 254 | 254 |

Source: *Higher-education institutions and their finance in 2011*, GUS, Warsaw 2012, p. 29.

This development coincided with the rapid growth of private higher-education institutions. Their number increased from 12 at the beginning of the academic year 1990/1991 to 328 in the year 2011/2012 (figure 1).

**Figure 1.** Number of private higher-education institutions.

Source: own elaboration based on *Higher-education institutions and their finance in 2011*, GUS, Warsaw 2012, pp. 29-30.

The rapid growth of higher-education institutions went hand in hand with a considerable increase in the number of students and graduates. While there were 403.8 thousand students and 56.1 thousand graduates in the academic year 1990/1991, the numbers rose to 1764.1 thousand and 497.5 thousand respectively in the year 2011/2012 (figure 2). It is worth emphasizing that the record number of students was in the academic year 2005/2006, which was 1953.8 thousand. Since then, the number of students has decreased steadily [3]. The main reasons are the demographic situation and the new legislation, which is the result of the changes in the *Higher Education Law Act*, which imposed the fees on the students who want to study a second subject or more and regulated the number of places available at a higher-education institution. If enrolment exceeds this number by 2% in relation to last year's, the approval of the Ministry of Science and Higher Education is required.

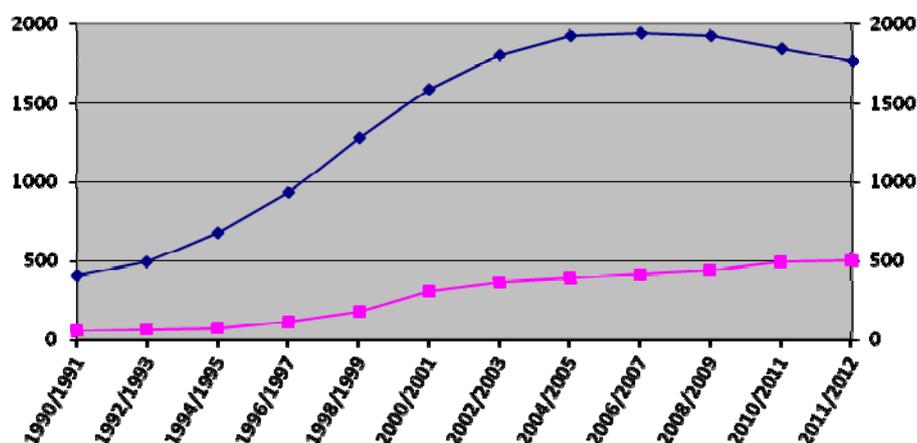


Figure 2. Number of students and graduates.

Source: own elaboration based on *Higher-education institutions and their finance in 2011*, GUS, Warsaw 2012, p. 28.

It is worth mentioning that a significant part of students and graduates comes from private higher-education institutions. Their record number of students was in the academic year 2006/2007 and was 640.3 thousand. Since there has been a steady decline in the number of students of private higher-education institutions, in the academic year 2011/12, the number of students was 518.2 thousand and the number of graduates was 171.8 thousand [8]. As far as public institutions are concerned, the numbers were 1,245.9 thousand and almost 500 thousand respectively.

3. Fields of studies and labor market

As it was mentioned above, more opportunities and a greater interest in studying at higher-education institutions lead to the increase in the proportion of people who have a degree. This refers to both people in general and particular groups. At the same time the structure of the unemployed changed, among whom the proportion of educated people increased year by year. At the end of 1999, there were about 2% people with higher education who were registered in employment offices; at the end of 2002 – almost 4%; at the end of 2011 – 11.4%; and at the end of 2012 – 11.7%. In the structure of unemployed graduates, there were 29.45% people with higher education at the end of 2012 [9].

As the data show, having a diploma does not guarantee immediate employment on the present job market, which is full of specialists with higher education, but it improves the chances of finding a job, since the unemployment rate is relatively low among people with higher education (also among graduates). During the fourth quarter of the year 2012 that rate was 5.7% in comparison with 18.7% in case of people with junior high school education, elementary and incomplete primary education [8].

The biggest number of unemployed people can be found among those who have the following three jobs which require higher education: a pedagogy specialist (16% in this job are unemployed); a public administration specialist (13.8%); and an economist (7.5%) [12].

The comparison between the above-mentioned data, the popularity of study fields offered by higher-education institutions and the choice of a study field by candidates do not go hand in hand with the labor market needs. It turns out that the most popular fields of study are the following: economics, administrative, pedagogical, humanities and social. It is true that the data on the popularity of study fields have shown in the past few years that the interest in them has decreased slightly, but there are still a lot of people who choose these particular fields of study (figure 3).

Figure 3. Students of higher-education institutions according to fields of study.

| groups of fields | students | | | |
|------------------------------------|---------------|---------------|---------------|---------------|
| | 2008/09 | 2009/10 | 2010/11 | 2011/12 |
| total (thousands) | 1927.8 | 1900.0 | 1841.3 | 1764.1 |
| including – in %: | 100.0 | 100.0 | 100.0 | 100.0 |
| pedagogical | 11.8 | 12.3 | 11.8 | 11.2 |
| arts | 1.4 | 1.5 | 1.6 | 1.8 |
| humanities | 8.2 | 7.7 | 7.5 | 7.2 |
| social | 13.5 | 12.8 | 12.0 | 11.2 |
| journalism and information | 1.1 | 1.2 | 1.3 | 1.3 |
| economics and administrative | 23.5 | 23.2 | 22.6 | 21.9 |
| law | 3.1 | 3.1 | 3.2 | 3.2 |
| biological | 1.9 | 1.9 | 1.8 | 1.8 |
| physical | 1.5 | 1.5 | 1.5 | 1.5 |
| mathematical and statistical | 0.9 | 0.8 | 0.9 | 1.0 |
| information technology | 4.6 | 4.3 | 4.0 | 4.0 |
| engineer and technical | 6.9 | 6.8 | 7.2 | 7.7 |
| production and processing | 3.2 | 3.3 | 3.5 | 3.6 |
| architecture and construction | 3.6 | 3.9 | 4.2 | 4.7 |
| agricultural, forestry and fishing | 1.8 | 1.7 | 1.5 | 1.4 |
| veterinarian | 0.2 | 0.2 | 0.3 | 0.3 |
| medical | 6.1 | 6.7 | 7.2 | 7.2 |
| social welfare | 0.2 | 0.3 | 0.3 | 0.4 |
| services for people | 3.9 | 3.7 | 3.6 | 3.5 |
| transportation services | 0.9 | 1.0 | 1.0 | 1.1 |
| environment protection | 1.4 | 1.4 | 1.5 | 1,6 |
| protection and security | 0.4 | 0.8 | 1.5 | 2.3 |

Source: *Higher-education institutions and their finance in 2011*, GUS, Warsaw 2012, p. 32; *Higher-education institutions and their finance in 2010*, GUS, Warsaw 2012, p. 29.

Although a lot has been said about the growing importance of engineer and technical fields of study, there are very few graduates in them. In the academic year 2010/11 engineer and technical fields of study were the second, just after the medical ones (growth by 1.8 percentage points) that experienced the highest growth (by 0.9 percentage point to 5.7%). However, the proportion of graduates in these fields to the total number of graduates is symbolic.

What seems interesting in this context is the findings of the survey *Studia wyższe – dla kogo, po co i z jakim skutkiem* (*Higher Education – for whom, why and what result*) which was conducted by CBOS (Public Opinion Research Centre) in June this year. They show that 64% of respondents think that higher technical education improves the chances of finding a job. Moreover, the findings support the popular opinion about the disappearing elite character of education at higher-education institutions. As many as 78% of those surveyed state that higher education in Poland is on a mass scale and accessible to everyone. Also, 93% of those who hold a degree share this belief. Over half of the people asked think that having a diploma is not of great value on the labor market, which is often supported by both those who have such a diploma, managers who participated in the survey and students themselves. Also the findings of the international survey *Pierwsze kroki na rynku pracy* (*First Steps on the Labor Market*) show the necessity of changing the curricula in order to adjust them to the labor market needs. The survey was conducted again by Deloitte and Warsaw School of Economics in chosen countries of Central Europe in 2013. Another research report *Studenci – przyszłe kadry polskiej gospodarki* (*Students – Future Staff of the Polish Economy*) presents similar findings in this respect.

The amended *Higher Education Law* is to be the answer to the problem of the curricula which are not adjusted to the needs of the economy. Under Article 13 one of the basic tasks of an academic institution is “to educate students so that they gain and improve knowledge and skills necessary for work”. Also, it is obligatory for an academic institution to monitor the graduates’ careers so as to adjust fields of study and curricula to the labor market needs. Monitoring should take place immediately after graduation and, especially, after three and five years after it. Careers service is to play a big part not only in monitoring graduates’ career paths, but also it is to be a link between students and graduates and the labor market. On the one hand, careers service should help students find a job after graduation or during studies [4]. On the other hand, its task is to establish and maintain contact with entrepreneurs in order to bridge the gap between the academic world and employers in connection with the issues concerning employment and the labor market.

Another step taken to adjust curricula to employers' needs is the participation of outside stakeholders in the process of their design and reform. Thus, a curriculum should include, apart from monitoring the graduates' career paths, the results of the analysis of the coherence between the anticipated educational outcomes and the labor market needs.

4. Conclusions

Massification of studies, which has been observed over the past years, casts doubt on the quality of education at higher-education institutions, including the adequacy of their offer for the needs of the labor market. The above-mentioned findings of the research clearly indicate that there is no coherence between the offer of higher-education institutions and the needs of the labor market. The main reason is surely the imperfection of the system, which was 'indifferent' to the development of fields of studies, without paying attention to their adequacy for the needs of the economy.

What is also significant is candidates' the choice of fields of studies. This is the outcome of many factors, for example, candidates' interests, the offer of a higher-education institution, the distance between home and the academic institution or candidates' abilities to take up particular studies. However, what is intriguing is how conscious young people are when they decide to take up studies which are thought to put them at risk of unemployment.

Another reason can be the changes happening both in the economy and in enterprises, which cause curricula to become soon outdated. This issue is often mentioned as an explanation why adjusting educational offers to the needs of the labor market is impossible.

In conclusion, in the context of the problems discussed in the paper, it is worth pointing out the social and economic aspects of the functioning of higher education institutions. These aspects have dominated the discussions about human resources and the investments which aim at their developing. The discussions concentrate on the thesis that "the effective development of human resources is connected with such supply of well-educated specialists that suits the needs of economy, culture, education system and education itself" [2].

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