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# Overeducation in the labour market

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#### Abstract

Motivation: Many new phenomena which the Polish economy had never seen before transition manifested themselves. The society showed greater interest in higher education and the market for education services expanded, increasing the number of colleges and universities. This helped the spread of higher education, which for years determined the level of human capital represented by the supply of labour. Today's labour market in Poland is showing signs of imbalance. One of the reasons involves overeducation. The phenomenon has been known since the 1970s. It was then described for the first time in pertinent literature, with the US where overeducation occurred on a large scale and where it had a number of adverse effects across the entire economy having been used as an example. It seems important to understand and analyse the reasons for the emergence and perpetuation of this phenomenon on the Polish labour market and to indicate its implication.

Aim: The paper aims to present and discuss overeducation in terms of selected economic theories, identify its causes in Poland and further to determine the economic and social implications of the persistence of the phenomenon in the long run.

Results: Based on the author's analysis, it can be concluded that overeducation is a complex phenomenon. It is possible to identify several reasons for its occurrence and long-drawn persistence on the Polish labour market. Some of the reasons have to do with the dynamic growth of the labour market and the educational services sector, society's desire to gain higher education, structural mismatches in the labour market and a common education policy at the EU level. Overedutaion has far-reaching consequences, both for the entire economy and the single participant of the labour market alike. The fact of its occurrence determines the processes taking place in the labour market.

Keywords: labour market; overeducation; human capital IEL: All; Al2; Al4



### 1. Introduction

In EU countries, especially in Spain, Greece, Portugal, Croatia, Sweden, The United Kingdom and Italy (Rękas, 2015, pp. 103–110), where there is a high unemployment among young people with higher education the phenomenon called 'overeducation' has been observed for many years (Arak, 2013, p. 9). This means that a highly qualified person works at the position not requiring such high qualifications. Where there is a long-drawn persistence of the phenomenon, this is a signal for the economy that the labour market functions incorrectly. Structural mismatches connected with the fact that job offers do not match the existing labour supply cause income inequality, which from the perspective of the economy as a whole is disadvantageous. This is also the source of many adverse phenomena in the society, such as: long time unemployment, decrease in the professional activity of young people, decrease in interpersonal relations, worse self-esteem, weaker motivation to take up activities aiming at self-education and mastering the already acquired skills, as well as pathologies, including: alcoholism, aggression, thefts, divorces and various abuses.

The paper aims to present and discuss overeducation in terms of selected economic theories, to identify the phenomenon and its scale in Poland and further to determine the economic and social implications of the persistence of the phenomenon in the long run. Two hypotheses have been adopted in the research:

- Hypothesis 1: Overeducation is connected with overrepresentation of people with higher education on the labour market.
- Hypothesis 2: Overeducation leads to inequality on the labour market.

From the point of view of both: efficient functioning of the whole economy and interests of particular entities it is necessary to match the human capital existing on the market and the needs of enterprises which use this capital in their activity. In economic reality there is a mismatch in this field. Sometimes the mismatch is treated as an element of market economy. In this context it is connected with insufficient information on the labour market, time necessary to find a job and change the place of residence due to changing the place of work. In the literature the phenomenon is called frictional unemployment and it appears on the labour market in a natural way. Its scale depends on development level of the labour market and efficiency of its mechanisms.

Lack of appropriate workers who do not meet the expectations of the employers may be manifested in two ways. In the first case employers look for workers with particular skills for a particular job — without success — this is a skill shortage situation (McGuinness & Bennett, 2006, pp. 265–279). In the second case the persons working on a particular position have too low skills or skills other than required for this position — this is called a skill gap (Hogarth & Wilson, 2001).

The phenomenon of skills mismatch may be horizontal or vertical. This means that in case of horizontal mismatch employers expect from workers the skills, necessary at work, other than the ones they actually have. In practice,

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this means that a worker does not have full skills to work on a particular position. This causes dissatisfaction of both parties. The employer is not sure of his employee and the employee is not sure of his competences, which may lead e.g. to receiving by the employee remuneration below his expectations and skills. This situation is not good for any of the parties.

Vertical mismatch is connected with the situation when the persons employed at a particular position or in a particular profession have too low or too high skills. Also in this case the problem of remuneration occurs, especially when it is lower than the pay based on the actual skills of the employee. This is the source of a conflict resulting from unfulfilled expectations of the employees. A significant source of skill mismatch is the level of education. Quite often in economic reality the situations when a job-holder has qualification above that which would be required for a specific job are observed — overeducation, also called excessive education, is then faced (Budria & Moro-Egido, 2009, pp. 329–345). In the opposite situation, when the employees's education is lower than required by the employer undereducation is observed (PARP, 2011, pp. 109–111). This phenomenon will be the subject matter of further study.

In the next part of the paper overeducation will be discussed based on selected economic theories indicting different causes of the phenomenon as well as the consequences of persistence of this phenomenon on the labour market in the long run.

### 2. Literature review

Overeducation is an interesting phenomenon due to its specificity and complexness. At present it is constantly present on the labour market in many countries all around the world (Verhaest & Omey, 2010, pp. 608–625). Overeducation means that educated graduates possess excess educational qualifications relative to those the jobs they take up require (McGuinness, 2006, pp. 387–418). This also means a situation where there is no conformity between the existing professional structure and market needs and the structure of graduates leaving various higher education institutions of different profiles. There is an excess of university graduates on the labour market who due to devaluation of the diploma take up a job below their qualifications because they have faster and easier access to such a job (Melosik, 2013, pp. 36–37).

In literature there are theories explaining the reasons of overeducation and justifying its short or long term presence on the labour market. This phenomenon is connected with structural mismatches on the labour market. It means that overeducation is the result of the discrepancies between the job offers and the educational structure of workers. Observing the educational structure in Poland after 1990 a considerable asymmetry regarding the level of education of the society may be noticed. In the above mentioned period the number of people with secondary and vocational education systematically decreases,



whereas the number of people with higher education dynamically increases. This rapid growth is connected with:

- expansive development of the private sector of educational services at the higher level
- broader and easier access to higher education
- desire to be socially promoted
- attention and prestige for higher education
- desire to gain higher earnings
- desire to get a better job
- prolongation of the process of education
- higher aspirations of the parents towards their children (Kiersztyn, 2011, pp. 7–8).

### 2.1. Sources of overeducation

Within over two decades the number of people with higher education has increased from 403824 thousand in 1990/91 to 1 469 386 thousand in 2014/15, that is by over 363%. In the discussed scope, the enrolment ratio at the level of higher education studies has increased from 9.8% to 37.8% (GUS, 2015, p. 26, 29). In consequence, overrepresentation of people with higher education on the labour market has occurred. This has generated problems connected with efficient entering of graduates on the labour market. The transition process has been prolonged and at the same time, which is much more worrying and disadvantageous for the economy, it has not been successful (Piróg, 2013, pp. 131–138; 2015, pp. 103–118). In Poland this phenomenon has the tendency to consolidate.

Despite this the rush to gain higher education is going to be sustained, since the graduates — future employees — will compete for a limited pool of well paid jobs. This is known in literature as a job competition theory (Thurow, 1972, pp. 66-81). According to the theory there are not enough well paid jobs for everyone who has the highest skills. Those who will not get these jobs will be employed in less well paid and less demanding professions. This entails further consequences connected with shifting worse educated workers to perform simple works, or at the least they will increase the number of the unemployed because there will be no work for them. Such a scenario is possible due to the employers' preferences regarding recruitment. If they have such a possibility they choose persons with higher education (PARP, 2011, p. 134) based on the belief that they will be more efficient and training them will be shorter and less expensive (Kiersztyn, 2011, p. 9). On the basis of this theory it may be stated that the situation of those unsuccessful is even more difficult because often while working below their qualifications they are not able to compete for the 'attractive' jobs with the people who are just entering the market. Nevertheless, young people still perceive their professional success in light of higher education and they persistently strive to obtain their goal. Also the structure of schools in Poland supports

this attitude: the majority of schools are secondary grammar schools and specialised technical secondary schools, and thus the further path of study leads to higher education schools, which prolongs the education process and postpones entering the labour market. Definitely less popular are specialised vocational schools preparing to specific professions and enabling entering the labour market just after graduation.

The second way to explain overeducation derives from the theory of N. Sicherman and O. Galor (1990, pp. 169–192) on job mobility. The authors of this theory form the thesis that the beginners on the labour market take up jobs below their qualifications and abilities on purpose. This is to gain professional experience and to better prepare for promotion and fulfil the duties in the future, on the target position. According to this theory overeducation is transient and short term. This is one of the natural processes that take place on the labour market, purposely initiated by graduates and it is one of the first stages of professional career. The motivations connected with gaining experience on the labour market are understandable. However, on the other side, such conservative activities are disadvantageous from the point of view of using the existing human capital in the economy since this leads to depreciation of human capital.

In literature also the third attempt to explain the existence of the phenomenon of overeducation on the labour market may be found. It is based on the thesis that due to rich and complex educational offer higher education schools, especially the private ones, decrease the quality of they offer in order to compete for the students. In consequence, the service level is varied, which leads also to diversification of human capital among the graduates. These differences are verified on the labour market because the skills and possibilities to do the same job as well as individual features of the graduates having the same level of education may be different. Therefore, it is legitimate to employ some people below their qualifications. This theory indicates market efficiency in the context of allocation of people to appropriate jobs. It is perceived that overeducation results from the quality of education. The fact that some individuals permanently have low position on the professional structure may be explained by 'psychological deficit' or 'skills deficit' (Hurn, 1985, pp. 35–36).

It seems that also common UE educational policy may be included into the possible causes of occurrence and persistence of overeducation on the labour market. In the analyzed context the agreements regarding Europe 2020 in the field of education seem to be worrying. They apply to the activities aimed at increasing the percentage of persons with higher education to 40%. This indicator applies to people in the age of 30-34 in the society. Every member state treats this issue in an individual way, but from introducing Europe 2020 strategy a systematical growth of people with higher education has been observed in EU member states, including Poland, in many cases over 40% (Eurostat, 2016). At the moment in Poland this indicator is already at the level of 43.4%, which means that in the specified age range almost every other person has higher education (Eurostat, 2016). The desire to constantly increase the level **\$** 

of education in the society and therefore increase the human capital quality is complaint with the idea to build the economy based on knowledge, innovations and sustainable growth. Unfortunately, the labour market in many countries is not ready to absorb so many people with the highest qualifications. It may be stated that the activities taken up within Euro 2020 strategy in the field of education are among the sources of overeducation and they consolidate the phenomenon in EU member states, including Poland.

The above mentioned theories try to explain overeduaction on the labour market in different ways. There is no consensus as to which of these theories is the leading one. It results from the research that the risk of overeduaction applies mostly to the graduates of higher education institutions. In Poland the situation in this field looked in the following way: on the basis of POLPAN research conducted in 2008 and 2013, intensification of the analyzed phenomenon can be clearly observed. In the said period the percentage of people in the age of 21–25 with higher education, employed for unlimited period of time decreased from 38% to 19%, whereas there was a considerable increase in the percentage of people employed on the basis of civil-law agreements: from 11% in 2008 to 39% in 2013 (Kiersztyn, 2015, p. 5). Civil-law agreements are usually associated with less demanding positions. They do not give full employee's rights and this they are less attractive for those who look for a job.

Overeducation is measured on the labour market. By using the data regarding the labour market accessible in Poland, that is POLPAN research, which gathers panel data, three alternative measurement methods ay be demonstrated (Kiersztyn, 2013, pp. 78–91). Two of them are of objective character, they are based on the level of education of the examined persons and the professions performed by them. The third is of subjective character and is based on the opinion of job-holders on the level of using their skills in the place of work. These methods may be treated as complementary towards each other, thus giving better and more complex view of the analyzed phenomenon. On the basis of the above mentioned research, A. Kiersztyn states that in the period from 1988 to 2008 every fifth person employed in Poland was characterized by overeducation. Taking into consideration the age of the examined persons, this phenomenon applies mostly to the people in the age of 21–25. Every third person in this group of employees is characterized by overeducation. It should be also stated that in the discussed period, from 1988 the percentage of people with overeducation systematically increased among all job-holders. In 1988 it was 7.5%, in 1993 13.9%, in 1998 15.8%, in 2003 20.1% and in 2008 19.1%. As proved by the data from the last several dozen of years, the scale of this phenomenon is increasing. Overeducation is then a permanent element on Polish labour market.

## 2.2 Overeducation and labour market inequality

A well-established belief regarding higher education is based on the assumption that this is the fastest and easiest way to get the best, prestigious and well paid

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jobs on the market. One can come across an expression that this is like a lift moving people to higher levels (Melosik, 2013, p. 22). According to T. Gmerek (2001), social inequality is the consequence of the differences, not so much in the levels of education, but intelligence and talents. According to the theory proclaimed by the credentialists (Collins, 1979) investments in human capital, that is higher education, contribute to the increase in the number of people with university diplomas. The diplomas in turn have the function of the so called 'currency in circulation' to obtain such goods as a good job. Due to 'massification' of higher education diploma inflation has occurred, which in consequence has led to diversification of the value of diplomas and their exchange value. This in turn creates favourable conditions for social inequality. The adherents of this theory reject the thesis according to which the increase of the persons with university diplomas will automatically translate to the increase of social prosperity (Boylan, 1993, pp. 206–208). The example of US economy proves this, where from the 1970' the inefficiency of the labour market in the process of absorption of highly qualified employees is observed. Education is perceived at the same time as the source of labour market inequality and tool to eliminate the inequality. No doubt, education leads to increasing human capital in the society and adds to its quality. It offers equal access for everyone and only individual abilities and motivations determine which resource of human capital is worked out by an individual. Natural selection appears, which identifies the most remarkable individuals who may be successful on the labour market. It is based on competition for good jobs with the use of diplomas and motivation. The inequality on the labour market connected with the lack of opportunities to fully use the competencies, qualifications and skills of workers is the result of the above mentioned selection and this entails income inequality.

Overeducation persistent for a long period on the labour market entails both: economic and social consequences. Income inequality resulting from diversification of pay may be considered one of the economic consequences. This diversification is based mostly on lowering income due to not fully used skills on the labour markets. This is a documented waste of the existing resources. The fact that people with higher education work on positions not requiring such high qualifications means that the people with lower qualifications work on positions requiring even lower skills or are unemployed, so income inequality apples to people with different level of education, which represents broadly understood labour supply on the market (Marcinkowska et al., 2008, pp. 24–30). The fact that the people having the highest qualifications push down the persons with lower education to less attractive and less well-paid positions has also social consequences, including: depreciation of human capital, regression, the sense of failure, depreciation of self-esteem, difficulties in competing for better jobs with the ones who just enter the labour market, lack of perspectives, and in the opinion of employers the need of professional trainings, depressive and pathological behaviours.

### 3. Methods

The paper consists of a theoretical part developed on the basis of selected Polish and English-language literature. The sources of information have been purposely selected in order to use them especially while discussing the causes of occurrence and persistence of overeducation on the labour market in the long run. The empirical material used in the paper comes from latent data originating in domestic and EU statistical databases, and is further partly sourced out from the author's own research, and data collected by other researchers who have dealt with overeducation in their works. The data from the Eurostat Data Base from several years as well as data from GUS — Polish national statistical data bases have been used. Numerical data additionally enrich the theoretical content of the paper and illustrate the scale of the analyzed phenomenon.

### 4. Results

On the basis of the above contemplations it may be stated that the hypotheses regarding overeducation posed at the beginning of the paper are true. It can be stated that the phenomenon of overeducation is connected with overrepresentation of people, especially with higher education, on the labour market. This causes structural mismatches and income inequality on the labour market, which proves that it functions incorrectly.

### 5. Conclusion

Overeducation on Polish labour market is a fact and it has a permanent character. It makes assets other than a university diploma significant in the process of looking for a job. A diploma is no longer something distinctive and a key asset, but greater importance is assigned to other features of a candidate including the so called general impression, the ability to handle stressful situations, the way of speaking and reasoning one's stand, team work, work organisation etc. Also hobbies are important, the ways of spending free time or the environment and contact network of the prospective employee. From the point of view of efficient functioning of the economy the key barrier seems to be structural mismatching of the existing vacancies and the supply of work with specified and accessible competencies. Theories explaining in different ways the sources, conditions favourable for persistence of the discussed phenomenon in the long run and its consequences in relation to whole economy and individual entities may be found in literature. The theories discussed in the paper may be treated as complementary towards each other. It is worth to reflect for a while on the impact of real application of the guidelines of Europe 2020 on Polish labour market and overeducation. Systematically there will be more and more people with higher education. From the point of view of the topic discussed in the paper it seems that examining and demonstrating what educational structure would be

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appropriate or optimum for efficient functioning of the labour market in EU member states, especially in Poland is important. This efficient functioning may be related to minimisation or eliminate if the imbalances on the labour market. Such information would be extremely helpful at drawing national education policy for all levels of education and it would give the possibility to fully use the existing resources in the economy, especially the human capital, in the future.

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