

POLISH LABOUR MARKET AND EMPLOYEES WITH HIGHER EDUCATION

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Abstract

This paper presents the situation of persons with higher education on the Polish labour market. The analyses aspects concerning the performance of educated persons on the Polish labour market, in particular: stability of employment, occupied position, working time and level of job satisfaction, along with the main determinants of such an assessment. Special attention is paid to invisible underemployment (overeducation) and overemployment. The source of the data are the results of an empirical study conducted among a group of over 900 respondents with higher education. Statistical methods were used (primarily descriptive statistics).

The research presented in the article indicates that the vast majority of people with higher education are employed. The activity rate for this group is significantly higher than for less educated persons. What is more, such persons usually have permanent employment and, less often, work for a specified period or run their own business. However, it should be emphasized that about 40% of employees hold positions that do not require college education, which are below their qualifications. Another important problem is overtime work (overemployment). Almost every third of highly educated employees would like to work fewer hours per week.

Key words: labour market, higher education, overeducation, overemployment

JEL Code: I23, J22, J24

Introduction

In recent years, the unemployment rate in Poland has been systematically falling, reaching an exceptionally low level (approaching that of natural unemployment). The lowest level of unemployment occurs among persons with higher education. In this group, therefore, the problem of unemployment is negligible at the present. However, various difficulties encountered by employees in their workplaces can be analyzed. Whereas, for persons who are out of work, it is important to be able to find it, in the case of persons who are already employed, the quality of work or its compliance with expectations is extremely important.

The main issue raised in labour market studies is not only unemployment, but increasingly also underemployment (i.e., a situation where an employee would like to work more than his or her working time) (e.g. Wilkins, 2007) and overemployment (the employee works more hours than he or she would like to). Of these two issues, among persons with higher education in Poland, the latter is the prominent one. Overemployment is a larger problem than underemployment (Wooden, Warren, & Drago, 2009) and is difficult to explain clearly, because "there is a lack of theoretical development on the question of why persons work long hours" (Douglas & Morris, 2006). Explanations of this phenomenon are sought, in particular, within the theory of asymmetric information on the labour market, according to which employers apply long hours of work to distinguish between productive and non-productive workers (Sousa-Poza & Ziegler, 2003). Some explanations are also provided by analyses related to earnings inequalities, opportunities for advancement, and occupational prospects (Bowles & Park, 2005, p. 398; Michelacci & Pijoan-Mas, 2007).

The level of quality of life of employees who are overemployed is lower than those who work the expected number of hours (Wooden et al., 2009, p. 171). In addition, long working hours may lead to a number of negative consequences associated with psychological and physical health (Barnay, 2016; De Moortel, Dragano, Vanroelen, & Wahrendorf, 2018; Wooden et al., 2009) and, therefore, it is a matter that is worth monitoring and analyzing.

The second, next to overemployment, extremely important problem among persons with higher education seems to be overeducation, that is, working below one's education or qualifications. About 40% of educated Poles experience this phenomenon. This topic is often taken up by researchers and seems to be still valid. Such surveys, conducted for the Polish labour market by, among others, Kiersztyn (2013), prove the stability of the overeducation problem (i.e., a significant probability of remaining overeducated in the subsequent years) and an increased risk of overeducation, especially among young persons. Overeducation is explained through theories of the labour market, in particular, the theory of the labour queue (Thurow, 1975), according to which education is a key factor that increases the possibility of employment, or the job assignment model (Sattinger, 1993). According to Sattinger (1993), persons who are overeducated work below their qualifications and, therefore, earn less, because they work in jobs that limit their productivity, which means that their skills are wasted. It goes without saying that skill level is, to an extent, assigned to a position regardless of the characteristics of the person who occupies that position .

Various methods for measuring overeducation are used, including (McGuinness, Bergin, & Whelan, 2018):

- 1) Respondents' subjective assessment of education and training required to apply for a given position;
- 2) The method of comparing the level of education held by a given employee with the average level of education possessed by persons occupying a given position;
- 3) The occupational dictionary method, which compares the level of education with the occupational classification system for a given position.

It should be noted, however, that all of the above-mentioned methods lead to similar results (McGuinness, 2006; Sloane, 2003).

The study was based on the results of empirical research¹, carried out in November–December 2016 on a nationwide sample of Poles that had completed higher education (graduates with a Bachelor's degree or higher) aged 25–45 years. Nine-hundred and two interviews were carried out. Statistical methods were applied to determine the results, primarily descriptive statistics. The overeducation level was determined using the first of the former mentioned methods.

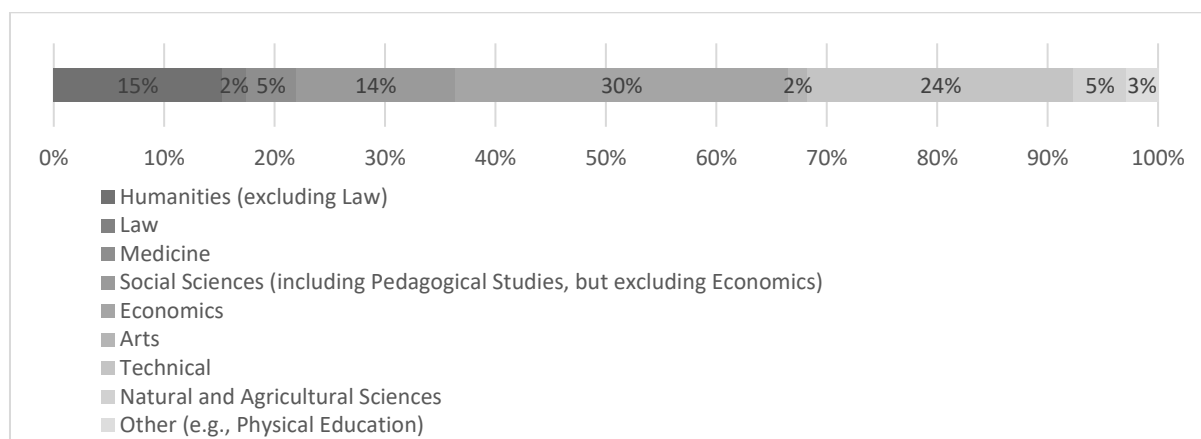
1 Employees with higher education on the Polish labour market: survey results

1.1 Characteristics of respondents and the labour market of persons with higher education

The survey was taken among persons aged 24–45 years, 29% of which were aged up to 30 years, 26% were in the 31–35 and 36–40 age ranges, and the remaining persons were over 40 years old. Women accounted for 60% of the respondents. All respondents had higher education, with the vast majority holding a master's degree (60%). A degree higher than the master's degree was held by 4% of the respondents, while a higher professional degree (e.g., bachelor's degree) was held by 31%. Other respondents had an incomplete higher education. Most of the respondents had an economic (30%) or technical (24%) education, and the lowest number of respondents had artistic (1.7%) education. The division of respondents according to the field of completed studies is shown in Figure 1.

¹ within project: *Resourcefulness of Polish Families*, carried out at Wrocław University of Economics

Fig. 1: Division of employees with higher education aged 24-45 according to the field of study



Source: own calculation based on the results of the survey *Resourcefulness of Polish Families*

Eight out of ten persons with higher education had an employment contract (of which over 80% had a permanent contract), and only less than 6% had odd jobs and/or had other types of employment contracts. Self-employed persons accounted for 6.5% of the respondents, while unemployed persons accounted for less than 2%. Employment in the private sector was dominant (67%). 21% worked in state-owned enterprises and 12% in the budget sector. Most of the educated Poles worked in office positions (e.g. as an accountant, secretary, clerk), were freelancers or were specialists (almost 60% in total). Many also worked as traders (13%), and the fewest worked in agriculture (less than 0.5%). Eighteen percent had subordinate employees, and 6.5% had additional work.

Almost 70% of employees experienced excessive work duties (of which every tenth experienced them often). Most rated their work as rather good. The assessment of the work was influenced primarily by the remuneration for work and job satisfaction, and the least by prestige or social perception of the profession or place of work (enterprises, institutions, etc.).

1.2 Overemployment

Many employees are unsatisfied with their current working time. Some would like to work less, and some more, with former group being twice as large (30%) as the latter. This means that working time in Poland does not match the employees' expectations very well. Overemployment concerns, in particular, persons working full-time and men to a greater extent than women.

In terms of working hours, it is important to be aware that in Poland, employees work on average more hours per week than in other EU countries. The average number of working

hours for Polish employees was 41 hours per week in 2016, which was the highest result among the EU countries (including Greece).

Highly-educated persons work in Poland on average over 41 hours per week, with 40 hours per week being the dominant working time (66%). However, 23% work more (of which 5% work over 60 hours per week), and only every tenth person works less than 40 hours. Eleven percent work part-time. However, for the majority (63%), this is only a temporary situation.

1.3 Overeducation

The percentage of overeducated persons among all employees in Poland is much lower than among persons with higher education (McGuinness et al., 2018). The scale of overeducation is also to a large extent related to the field of education. Table 1 presents the extent of overeducation according to the fields of study.

Tab. 1: Extent of overeducation among highly educated employees aged 24-45 years according the field of study²

Field of study		Overeducation (formally) ³	Overeducation (actually) ⁴
Humanities (excluding Law)	Proportion	35.3	36.9
	SE	0.04	0.04
Law	Proportion	17.7	17.7
	SE	0.10	0.10
Medicine	Proportion	31.6	31.6
	SE	0.08	0.08
Social Sciences (including Pedagogical Studies, but excluding Economics)	Proportion	32.8	33.6
	SE	0.04	0.04
Economics	Proportion	33.1	35.5
	SE	0.03	0.03
Arts	Proportion	69.2	76.9
	SE	0.13	0.12
Technical	Proportion	48.0	49.5
	SE	0.04	0.04
Natural and Agricultural Sciences	Proportion	42.9	45.7
	SE	0.08	0.09
Other (e.g. Physical Education)	Proportion	66.7	66.7
	SE	0.10	0.11
Total	Proportion	39.4	41.5
	SE	0.02	0.02

Source: own calculation based on the results of the survey *Resourcefulness of Polish Families*

² SE- Standard errors

³ Based on the respondent's recorded answer to the question 'What was the minimum level of education required in hiring a candidate for your job?' (where an employee was considered as overeducated if the level of education indicated was lower than the achieved higher education)

⁴ Based on the respondent's recorded answer to the question: 'What is the minimum level of education actually needed for the position you occupy?' (where an employee was considered as overeducated if the level of education indicated was lower than the achieved higher education)

The least overeducated group of employees is the group with a degree in Law, while the most overeducated were those with an Artistic or Other degree (e.g., Physical Education), with more than half of persons who finish these majors working in positions below their level of education. Surprisingly, a Technical degree also does not give the employees in Poland a greater chance to utilize their educational background in their work. About half of the employees with this degree work below their qualifications.

The level of actual overeducation proves to be greater than (or the same as) the official requirements that are presented to the employees when they are recruited to work suggest. This may indicate overstated, compared to the actually expected, criteria for hiring new employees in Poland. Overeducation affects the assessment of job satisfaction and its individual aspects. Table 2 presents the assessment of job satisfaction and individual aspects of it according to non-overeducated and overeducated persons (along with the level of education required for the job).

Whereas work is assessed higher by persons who are non-overeducated, an important aspect is a sense of an actual match between the level of education and a given position, rather than between level of education and the education officially required for recruitment. The lowest rate of their work and its individual aspects is assessed by persons working in positions requiring the lowest qualifications (vocational education)⁵. This assessment is lower than that performed by persons who are employed in positions without clearly defined educational requirements. The largest difference in the assessment between non-overeducated and overeducated persons pertains to aspects such as the use of knowledge and education, but also the use of skills and experience, which may indicate that an education mismatch coincides with a skill mismatch. Once again, there is also a clear discrepancy between the assessment for formal and actual matching. Persons who are actually non-overeducated are more satisfied than those who are only formally non-overeducated, and actually overeducated persons are less satisfied than persons who are only overeducated. It seems, therefore, logical to conclude that the actual, rather than the formal, requirements affect a sense of being well-matched and satisfaction of the employee at work.

⁵ here, the median and dominant are lower than for the other groups

Tab. 2: Satisfaction with work and its individual aspects among highly educated employees aged 24-45 years, divided into non-overeducated and overeducated persons⁶

		Use of skills and experience	Use of knowledge and education	Income	Work time	Overall rating
Non-overeducated	formally	4.11	4.22	3.97	3.98	3.97
	SE	0.04	0.04	0.04	0.04	0.04
	actually	4.17	4.28	4.04	4.01	4.03
	SE	0.04	0.03	0.04	0.04	0.03
Overeducated	formally	3.53	3.53	3.51	3.63	3.48
	SE	0.10	0.10	0.10	0.09	0.09
	actually	3.49	3.49	3.44	3.60	3.42
	SE	0.10	0.10	0.10	0.09	0.09
according to:						
Level of education required for a given position						
secondary education	formally	3.66	3.65	3.55	3.70	3.52
	SE	0.07	0.07	0.08	0.06	0.07
	actually	3.61	3.59	3.42	3.67	3.51
	SE	0.07	0.07	0.07	0.07	0.06
vocational education	formally	2.96	3.24	3.34	3.48	3.22
	SE	0.17	0.16	0.17	0.15	0.13
	actually	3.02	3.20	3.33	3.33	2.95
	SE	0.15	0.15	0.16	0.14	0.14
no requirements	formally	3.51	3.38	3.51	3.49	3.56
	SE	0.15	0.16	0.14	0.15	0.13
	actually	3.49	3.42	3.65	3.63	3.53
	SE	0.16	0.16	0.16	0.15	0.14

Source: own calculations based on the results of the survey *Resourcefulness of Polish Families*

2 Outcomes associated with overemployment and overeducation

The mismatch between the expectations of the employee and the work performed, both in terms of education and working time, can affect various aspects of life. Job satisfaction affects the sense of satisfaction with life or a sense of stability. Work also plays an important role in terms of the person's income and living standards.

The aim of this part of the study was to indicate some of the effects that can potentially be related to overemployment and overeducation. This was done by presenting the descriptive statistics for selected variables, which can be loosely interpreted as reflecting the outcomes experienced by the respondents. Table 3 presents the descriptive comparisons of overemployed

⁶ SE – Standard errors

Average level of satisfaction with work and selected aspects of it on a scale from 1 to 5, where the higher value means a higher level of satisfaction.

formally: Based on the respondent's recorded answer to the question, "What was the minimum level of education required in hiring a candidate for your job?"

actually: Based on the respondent's recorded answer to the question: "What is the minimum level of education actually needed for the position you occupy?"

workers with adequately-employed workers, but also non-overeducated workers with overeducated workers⁷.

Tab. 3: Selected outcomes of overemployment and overeducation for highly-educated employees aged 24–45 years⁸

	Adequately-employed		Overemployed		Non-overeducated		Overeducated	
	Females	Males	Females	Males	Females	Males	Females	Males
Life satisfaction	4.03 (0.03)	4.00 (0.04)	3.84 (0.06)	3.98 (0.07)	4.07 (0.04)	4.01 (0.05)	3.80 (0.05)	3.86 (0.06)
Job satisfaction	3.81 (0.04)	3.96 (0.05)	3.59 (0.08)	3.83 (0.08)	3.94 (0.05)	4.02 (0.06)	3.34 (0.07)	3.65 (0.07)
Financial situation	3.55 (0.04)	3.57 (0.05)	3.34 (0.08)	3.50 (0.10)	3.65 (0.05)	3.75 (0.05)	3.32 (0.07)	3.32 (0.08)
Wealth	3.16 (0.04)	3.14 (0.04)	3.06 (0.07)	3.13 (0.07)	3.25 (0.04)	3.26 (0.05)	2.90 (0.07)	2.95 (0.06)
Personal income	2819 (69)	3422 (126)	2905 (111)	3396 (166)	2970 (80)	3322 (111)	2674 (117)	3482 (227)
Family income	5810 (200)	5948 (256)	5490 (191)	3885 (191)	6160 (234)	6023 (284)	5066 (312)	5539 (433)
Income stability	3.88 (0.04)	3.87 (0.05)	3.76 (0.07)	3.92 (0.08)	3.98 (0.04)	3.95 (0.05)	3.51 (0.06)	3.61 (0.07)
Expenditures (on housing, education)	1387 (45)	1305 (52)	1502 (66)	1053 (67)	1428 (52)	1399 (63)	1388 (71)	1225 (72)

Source: own calculations based on the results of the survey *Resourcefulness of Polish Families*

In the table, the categories Adequately-employed and Overemployed, as well as Non-overeducated and Overeducated do not constitute four separate groups, but rather, they divide employees according to two different criteria (working time and working in their profession).

Evidently, higher ratings of most aspects of life are characteristic for the non-overeducated group (i.e. those working in positions requiring higher education), while the lowest ratings occur in the overeducated group. The exception is the average income of men,

⁷In the table, only the actually non-overeducated and overeducated categories were used (as they reflected the real situation of employees better)

⁸ Standard errors are indicated in parentheses.

- Life satisfaction: Average level of satisfaction with life on a scale from 1 to 5, where the higher value means a higher level of satisfaction.
- Job satisfaction: Average level of satisfaction with work on a scale from 1 to 5, where the higher value means a higher level of satisfaction.
- Financial situation: Average level of satisfaction with financial situation on a scale from 1 to 5, where the higher value means a higher level of satisfaction.
- Wealth: Average rating of wealth compared to others on a scale from 1 to 5, where the higher value means a higher level of wealth.
- Personal income: Average net monthly income for the individual, in PLN.
- Family income: Average net monthly income for the family, in PLN.
- Income stability: The average measurement of income stability on a scale from 1 to 5, where the higher value means a higher level of stability.
- Expenditures: Monthly average household expenditures on housing and education, in PLN.

which was lower in the non-overeducated group than in the overeducated group (where it was the highest). This may mean that men work below their level of education, because they can gain a higher income this way. In turn, the income of women who were overemployed was higher than those adequately employed. Their expenses on house maintenance were also higher. For men, there was no such regularity, i.e., women worked more to earn more money for higher expenses. In turn, family income was significantly lower for overemployed men (compared to adequately employed men) than for women.

Conclusions

Although employees with higher education have no difficulty finding a job in Poland, this job often does not suit their expectations and needs. Most employees with higher education have permanent employment and work in a single place. The 40-hour working week is the dominant and most desirable mode, but almost every fourth employee works more than this. Thirty percent of employees would like to work less, and two out of five work in a position that does not require higher education, i.e., below their qualifications. The problem to a greater extent affects persons who are educated in specific fields (e.g. Art).

These mismatches may lead to lower satisfaction with work and to a lower income and level of life satisfaction. This assessment decreases as the discrepancy between the possessed and the required education level in a given place of work increases. What is puzzling, however, is that overeducated men achieve a higher average income than those who work in positions adequate to their education. Therefore, having a higher education does not necessarily guarantee a higher salary.

In summary, Poles want to work in positions adequate to their education, and the most desirable working time is 40 hours per week. However, a significant percentage of persons work below their level of education and for hours exceeding the expected number. Therefore, both overemployment and overeducation require further research, and labour market statistics that should be taken into account include not only lack of work, but also its quantity and quality as well as its compliance with the expectations and ambitions of the employees.

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