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Supporting or Pushing Too Hard? The Impact of Parental Support on Overeducation in Poland

Wsparcie czy presja? Wpływ wsparcia rodzicielskiego na doświadczenie nadwyżki edukacyjnej w Polsce

Abstract

While education plays a key role in shaping one's future and especially career prospects, the benefits can be diminished by overeducation. Overeducation occurs when individuals who have completed higher education work in jobs that do not require a degree. Given that educational paths are strongly influenced by family, this study investigates to what extent parental support might be a cause of overeducation in Poland. Due to the specific Polish context, we examine how this relationship is affected by a rural upbringing and the mother's level of education. 2022 survey data reveal that increased parental support leads to greater alignment of education and job requirements. However, for individuals raised in rural areas with highly educated mothers, the effect is the opposite: greater parental support decreases the likelihood of a job-education match. Our findings emphasise the importance of providing more institutional support in rural areas to help parents guide their children in making informed educational decisions that take into account the realities of both the labour and educational markets.

Keywords: Rural Areas, Parental Support, Higher Education, Social Capital, Overeducation.

JEL: I23, J13, J62

Streszczenie

Edukacja odgrywa kluczową rolę w kształtowaniu przyszłości jednostki, w tym perspektyw zawodowych. Te korzyści ogranicza jednak nadwyżka edukacyjna – sytuacja, w której osoba z wyższym wykształceniem wykonuje pracę do której jej poziom wykształcenia nie jest wymagany. Biorąc pod uwagę, że rodzina wpływa na ścieżki edukacyjne jednostki, w niniejszym artykule sprawdzono jak wsparcie rodziców wpływa na wystąpienie nadwyżki edukacyjnej w Polsce. Uwzględniając specyfikę kraju uwzględniono, jak wychowanie na wsi oraz poziom wykształcenia matki wpływają na tę zależność. W oparciu o dane ankietowe z roku 2022 wykazano, że wsparcie rodziców poprawia dopasowanie między poziomem wykształcenia a wymaganiami zawodowymi. Wyjątek stanowią osoby wychowane na wsi, których matki mają wysokie wykształcenie. Dla tej grupy zachodzi odwrotny efekt: większe wsparcie rodziców jest związane z gorszym dopasowaniem poziomu wykształcenia do wykonywanej pracy. Wyniki podkreślają konieczność wzmocnienia wsparcia instytucjonalnego na obszarach wiejskich, aby pomóc rodzicom oraz ich dzieciom w podejmowaniu świadomych decyzji edukacyjnych, uwzględniających realia zarówno rynku pracy, jak i systemu edukacyjnego.

Słowa kluczowe: wieś, kapitał społeczny, wsparcie rodzicielskie, nadwyżka edukacyjna, edukacja wyższa.

JEL: I23, J13, J62

1. Introduction

Education is one of the major investments made early in life to secure a fulfilling future, particularly in terms of a professional career. However, this investment is not always fully realised in the labour market. *Overeducation*, which describes a situation in which individuals work in jobs that do not require their level of education (McGuinness, 2006), affects a significant portion of the workforce holding a degree. Overeducation limits the potential benefits of education at the individual level. It can affect key areas of life that education is intended to improve in the first place, such as earnings (Iriondo & Pérez-Amaral, 2016) and job satisfaction (Mateos-Romero & Salinas-Jiménez, 2018). It can also have negative macroeconomic effects, such as slowing economic growth due to costs being sunk into non-productive education and the misallocation of human capital (McGuinness, 2006; Neycheva, 2019).

In Poland, approximately 20–30% of degree holders are overeducated (Baran, 2018; Kiersztyn, 2013; Wincenciak, 2016), meaning they perform jobs that do not require higher education. One example is shop assistants who hold a university degree. This rate is close to the European average but lower than in Western European countries like Austria, France, and the UK, where overeducation rates exceed 30% (Rossen et al., 2019; McGuinness et al., 2018). These countries experienced an earlier educational boom and currently have a higher proportion of tertiary-educated individuals compared to Poland (Eurostat, 2024). Given that there is still potential for growth in the share of highly educated individuals in Poland, it is likely that the incidence of overeducation will also increase as the country catches up with Western nations. For this reason, it is worth undertaking a study to better understand overeducation within the Polish context.

By its nature, overeducation affects adults. However, the path towards securing a job at a level aligned with one's education starts much earlier. A future match depends heavily the educational path followed, including educational aspirations, decisions and learning efficiency. Family plays a crucial role in all of these areas. In fact, evidence suggests that it is the impact of family that surpasses that of the wider community (Haveman & Wolfe, 1995; Israel et al., 2001), and that regardless of the child's social class or the quality of schools they attend, *solid parenting within the home* plays a key role in a child's educational achievement (Desforges et al., 2003). The beneficial effect of parental support extends beyond primary and secondary education, and has found to have significant effects even as children transition into higher education (Archer et al., 2015; Iłowiecka-Tańska et al., 2022).

Given the established role of the family in shaping the educational path taken, it is only a natural progression to investigate the extent to which it contributes to overeducation. Existing research suggests a link between higher social capital in the family – typically in the form of the parent's level of education or employment – and a lower risk of overeducation (Capsada-Munsech, 2015; Erdsiek, 2016). This paper seeks to explore this relationship from a slightly different perspective. As opposed to looking at parents' characteristics, we examine to what extent the mere fact that they are supportive of their children mitigates the risk of their children's mismatch in the labour market. We define *parental support* as the extent to which

an individual feels that their parents supported their development and interests during adolescence. This base relationship is assessed using linear regression analysis.

The paper investigates evidence from Poland, a country particularly interesting from both a family and educational perspective. Like most Central-Eastern European countries, the transition from a centrally planned to a free market economy that took place in Poland after the fall of communism in 1989 entailed a rapid educational boom alongside turbulent economic, political and societal changes (Rado, 2001). In Poland – as discussed in more detail later – this resulted in specific beliefs being adopted in society about higher education, and this may have impacted the educational paths young people have taken over the last few decades. Moreover, there are two characteristics of Poland could be expected to complicate the issue of a link between parental effort and overeducation. These are the socio-economic polarisation between rural and urban areas, and the continuing traditional role of women in the family, in which the mother has a profound role in shaping her children's individuality and future. Based on these ideas, we employ moderation analysis to estimate the impact of the above-mentioned aspects on the relationship between parental support and the risk of overeducation in Poland.

The analysis confirmed the first hypothesis: in Poland, stronger parental support during adolescence increases the chances of securing a job well matched to educational attainment in adulthood. As expected, the relationship turned out to be moderated by whether a child was raised in a rural or urban area, as well as their mother's educational attainment. While there are many nuances to the outcomes of our moderation analysis, the key finding is that the only group that seems not to benefit from parental support in terms of a job-education match are the children raised in rural areas whose mothers are highly educated. In fact, for individuals with this background, greater parental support increases the chances of a mismatch. Thus, our findings suggest that the combination of a rural background and a highly educated mother limits the ability to fully benefit from educational opportunities in Poland.

The rest of the paper is organised as follows. Section 2 reviews the literature and describes the contextual background for the study. Section 3 includes a description of the data and methods used. Sections 4 and 5 explain the main results and discuss the underlying mechanisms. The last section concludes the paper.

2. Background and hypotheses

2.1. The interconnection between family, educational attainment and overeducation

The starting point for consideration in this article is how parental support interlinks with the extent to which their children make optimal use of their education on the labour market. The mismatch between occupation and education might take different forms (e.g. for a broader discussion, see Leuven & Oosterbeek, 2011; McGuinness, 2006), however, in this paper we consider the situation when a person's formal

educational attainment is higher than that expected in their job. This is referred to as *overeducation* (McGuinness, 2006). Upon reaching a certain educational level, an individual is faced with the challenge of securing employment that matches that level of education. Achieving this is conditional upon making strategic educational choices and studying effectively. These crucial areas have proven to be impacted by family background. In fact, the impact of family is found to surpass that of the wider community (Haveman & Wolfe, 1995; Israel et al., 2001).

As pointed out by Björklund & Salvanes (2011), across all societies about which we have information, there is a clear positive link between an individual's educational attainment and their parents' characteristics—their level of education or other measures of their socio-economic standing. In particular, the level of support they give and the interest they take in their children have a significant impact on a child's educational attainment and aspirations (Desforges et al., 2003; Haveman & Wolfe, 1995; Israel et al., 2001). In the Polish context, a study on the academic capital among Polish students from small towns and rural areas (Iłowiecka-Tańska et al., 2022) found that the children of more supportive and better-educated parents demonstrated higher levels of academic capital. This, in turn, led to elevated educational aspirations among the individuals in question (Iłowiecka-Tańska et al., 2022).

The literature on the role played by the family in creation of risk of overeducation itself is relatively sparse. Existing studies have focused on exploring the mechanisms through which social capital influences labour market behaviours and therefore overeducation (Capsada-Munsech, 2015; Erdsiek, 2016; Marqués Perales & Gil-Hernández, 2015; Voces & Caínzos, 2021). The general findings of these studies are that the greater the social capital in a person's family, the better the chances are of them being well-matched in the labour market. The effects of parental support on overeducation are yet to be investigated – this paper aims to address this gap in the literature.

Given the positive impact of parental involvement on educational attainment and the overall positive effect of family background on a job-education match, we arrive at hypothesis 1:

> H1: More parental support increases a child's chances of a future job-education match in Poland.

2.2. The impact of the mother

When discussing parental background and overeducation, the role of the mother emerges as especially important. Existing research has underscored the integral role of a mother's human capital in shaping her children's educational attainment (Haveman & Wolfe, 1995). Particularly in the context of parental support, a review by Desforges et al. (2003) pointed out that a higher level of maternal education went hand in hand with greater parental involvement in a child's educational journey and overall parental engagement. Psychological evidence, on the other hand, indicates that maternal education plays a generally more significant role in children's education and development (Baum & Łukasiewicz-Wieleba, 2014).

Evidence suggests that the risk of overeducation decreases when parents are more educated (Capsada-Munsech, 2015, 2020; Marqués Perales & Gil-Hernández, 2015). This underscores the value of parental education, especially maternal education, in shaping the educational trajectories and labour market outcomes of their offspring.

The role of the mother is particularly profound in Polish society, where a woman's position in the household is still traditional. Typically, it is the woman who dedicates more time to household and family responsibilities, including childcare (Suwada, 2020). Despite equal rights with regard to parental allowances, mothers spend several times more time absent from work due to offspring care than fathers (Gomółka, 2019). Ultimately, it is also the mother who is more likely to give up work due to family duties. 2015 BKL (Bilans Kapitału Ludzkiego) data points to a significant gender gap in terms of the employment rate among parents aged 25–45. On average, 88% of fathers and only 59% of mothers were employed. This indicates a 29 pp gap, while for non-parents this gap was only 1pp (Rękas, 2016). As a result, it is more often the mother, not the father, whose impact we see in the shaping of crucial aspects of an individual's personality, such as economic resourcefulness (Kośny & Piotrowska, 2019).

Building on these findings, we hypothesise that in Poland, maternal education—as a typical indicator of a mother's social capital—may impact the basic relationship in question, and thus:

> H2: The positive impact of parental support on the job-education match in Poland is moderated by the mother's education, such that having a mother who has completed higher education amplifies the positive effect of parental support on the job-education match.

2.3. The impact of rural origin

An additional factor to be considered when discussing social and educational issues in Poland is the polarisation between rural and non-rural areas. Historically, young Polish people in rural areas have had limited access to higher education due to structural and social barriers, including poorer quality of education and infrastructure, as well as an anachronic labour market structure (Wasielewski, 2013). Since the 1990s[1], Poland has witnessed a depopulation of rural areas, accompanied by the further marginalisation of these communities (Rosner & Wesołowska, 2022; Fedyszak-Radziejowska, 2005), thus driving lower social and cultural capital in these parts of the country.

This socio-geographical dynamic is manifested in the attitudes of rural inhabitants. A recent study from the Podkarpackie Voivodeship (Leśniak-Moczuk, 2022) demonstrated that rural communities still feel that they bear a disproportionate burden of the economic transformation, with inadequate education perceived as a primary barrier to adaptation to the present economy. Compared to young people in

[1] The economic and political landscape of Poland underwent a profound transformation after the fall of communism in 1989. The country shifted towards democratic governance and transitioned from a centrally planned economy to a market-driven one, which involved a change of economic structure (Kaliński, 2009). Economic changes were introduced rapidly with a set of reforms referred to as The *Balcerowicz Plan*.

urban areas, those from rural areas are also less convinced about their prospects for obtaining an education that is suited to the labour market (Leśniak-Moczuk, 2022). These disparities between urban and rural environments in Poland significantly impact an individual's personal and educational development. Rural students face challenges stemming from marginalisation, which has considerable implications for their educational trajectories. For example, as pointed out by Wasielewski (2013), young people in rural areas tend to choose faculties with easier recruitment processes, which illustrates lower educational aspirations. The same research pointed to the fact that young people in rural areas tend to be overrepresented in fields of study related to traditional jobs such as teaching (Wasielewski, 2013). This exemplifies how educational choices in rural areas are still dictated by a traditional view of the labour market, and consequently may not be attuned with the current, rapidly changing labour market.

Given the above factors, we propose a third hypothesis regarding the impact of a rural upbringing:

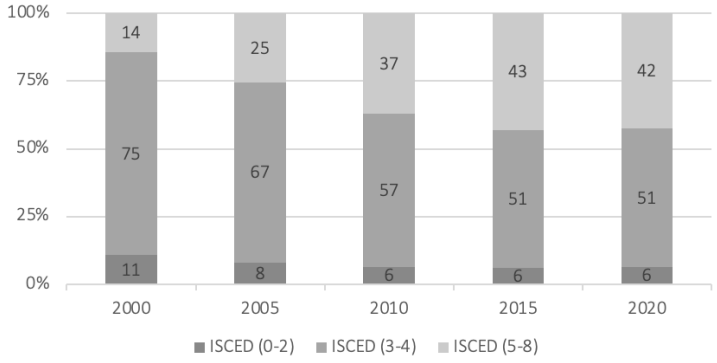
> H3: The positive impact of parental support on the job-education match in Poland is moderated by the size of the place of upbringing, such that coming from a rural area weakens the positive effect of parental support on the job-education match.

2.4. Educational expansion in Poland

When discussing educational issues in Poland, the specific context of educational expansion in the country also needs to be highlighted. Unlike Western European countries, where the increase in educational attainment was steady through the 20th and 21st centuries, Poland—similarly to other former soviet countries—noted a rapid increase in this area (Štefánik, 2014). The expansion occurred in the years following the fall of communism in 1989. The percentage of young adults completing higher education rose from 9% in 1988 to 14% in 2000, surpassing 40% by 2020 (Eurostat, 2023). As depicted in figure 1, this growth was particularly fast in the years 2000–2015, with the share of highly educated people in the lowest age group (25–34) nearly tripling.

In the context of overeducation, the observed educational boom was heavily driven by the systemic post-1989 transformation. The situation was unlike the organic growth in Western Europe, where educational reforms were usually long-term and quality-focused (Rado, 2001). In Poland, reforms—especially in higher education—were rapid and subordinated to changes happening at political, economic and social levels (see e.g. Tapper & Palfreyman, 2005 for an overview).

Figure 1.
Educational attainment structure in Poland in the population aged 25–34



Note: ISCED 0–2 = Primary education, ISCED 3–4 = Secondary education, ISCED 5–8 = Higher education; following ISCED-2011 classification.
Source: Eurostat, Labour Force Survey EDAT_LFSE_03.

Socially, there was a strong belief that higher education was the best means of social advancement (Domański, 2009), and that it translated directly into a decent, well-paid job (Boczkowski, 2014). This social perception of higher education is well reflected in a 2007 CBOS report (Centrum Badań Opinii Społecznej, 2007). The report suggests that during periods of high unemployment (2002–2005), education was viewed as a form of security against unemployment , and after Poland's accession to the European Union in 2004, as a gateway to obtaining work abroad. Moreover, the survey showed that the vast majority of Poles wished their children (regardless of whether they had a child) to obtain at least a bachelor's degree. The percentage of respondents expressing this desire rose from 64% in 1993 to as high as 84% in 2004. This suggests a significant societal tendency to highly value academic degrees, indicating that parents in Poland could be actively supporting or even pressuring their children to pursue more advanced levels of education.

In parallel, overeducation is a persistent trait of the Polish labour market (for a discussion on this see e.g. Kocór, 2019; Baran, 2018; Kiersztyn, 2013; Wincenciak, 2016). Depending on the estimation method, about 20–30% of Poles holding a degree work in jobs that do not require higher education. The link between family background and overeducation in Poland is under-investigated and to the best of our knowledge, the impact of parental support on overeducation has not yet been studied.

3. Data and methods

3.1. Data source

The data for this analysis was derived from a dedicated questionnaire that was part of a project intended to assess the relationship between overeducation and an individual's socio-economic mobility in Poland. The questionnaire was conducted via Computer Assisted Web Interviews (CAWI) by IQS Group[2], a certified third-party company operating since 1994.

Data collection took place from April 21 to May 30, 2022 and included 600 respondents from Poland. The survey population encompassed professionally active individuals (aged maximum 65 years) with higher education (minimum ISCED-2011 = = 5). The data was limited to the working population, as overeducation naturally applies only to professionally active individuals. Only tertiary-educated individuals were considered in this study, as this group is most prone to overeducation. As empirical evidence shows that overeducation rates are higher among graduates than in the general population (Capsada-Munsech, 2017), including individuals with lower levels of education in the model could lead to misleading conclusions. This approach aligns with previous studies that have analysed both European data (e.g., Barone & Ortiz, 2011; Capsada-Munsech, 2019; Rossen et al., 2019) and Polish data specifically (e.g., Baran, 2019; Palczynska, 2021), all of which focus exclusively on highly educated workers. Further, a lower age limit of 25 years was set to exclude individuals still enrolled in undergraduate or graduate studies. Given that overeducation affects only a minority of the population (in Poland, the rate for highly educated workers is around 20–30%, depending on the year and measurement method; see supplementary table 1: Overeducation rate in Poland—summary of selected studies), a stratified random sampling approach was used during data collection to ensure an adequate number of respondents affected by overeducation. Two separate samples were collected for each country: a base sample (N = 450), representative and quota-based for age and gender (also monitored in terms of educational attainment structure), and an expanded sample (N = 150) exhibiting educational surplus. The data reported in this paper is based on a representative sample of 450 respondents.

The dedicated questionnaire enabled consistent data collection on both overeducation and broader family background—a combination not available in existing datasets regarding Poland. While the study measured the main construct subjectively (as discussed in part 3.2), a potential direction for future research could be to objectivise the variables in question and compare the two approaches.

[2] The firm is associated within OFBOR, PTBRiO and certified with PKJPA (https://directory.esomar.org/country/140-poland/r2238_IQS-Sp.-z-o.o..php). For more information about IQS Group, see: https://grupaiqs.pl/en

3.2. Variables and sample description

The analysis involved five key variables that were built based on questionnaire responses structured as either single-choice questions or measured on a five-point Likert scale. Table 1 below presents the specifications of the key study variables, including the logic behind their transformation from the original questionnaire responses to variable values. Further parts of this article discuss all the variables in relation to their recoded values, as shown in the last column of table 1. In some parts, we also refer to variables by their abbreviations given in column 2.

Table 1.
Specifications of key variables used in the study

#	Variable name	Question asked	Question answers	Variable coding (Question answer – > Variable value)
1	Job-education match (JEM)	To what extent do you agree that completing your studies has helped you in your current job?	1 = Strongly disagree 2 = Disagree 3 = Neither disagree nor agree 4 = Agree 5 = Strongly agree	1 – > 1 = Strong overeducation 2 – > 2 = Overeducation 3 – > 3 = Neutral 4 – > 4 = Match 5 – > 5 = Strong match
2	Rural origin (RO)	What was the population of the place you grew up in?	1 = Villages and small towns up to 50,000 inhabitants 2 = Villages and small towns up to 50,000 inhabitants, belonging to the metropolitan area of large cities 3 = 50,000 – 200,000 inhabitants 4 = 200,000 – 1 million inhabitants 5 = Over 1 million inhabitants	1 – > 1 = Yes 2,3,4,5 – > 0 = No
3	Mother with higher education (MHD)	When you were about 14 years old, what was the highest level of education that your mother had attained?	1 = Elementary education 2 = Secondary education 3 = Higher education 4 = I don't know 5 = Not applicable	3 – > 1 = Yes 1,2,4,5 – > 0 = No
4	Father with higher education (FHD)	When you were about 14 years old, what was the highest level of education that your father had attained?	1 = Elementary education 2 = Secondary education 3 = Higher education 4 = I don't know 5 = Not applicable	3 – > 1 = Yes 1,2,4,5 – > 0 = No
5	Parental support (PS)	To what extent do you agree with a statement that when you were about 14 years old, your parents provided you with support as you were growing up and in the development of your hobbies?	1 = Strongly disagree 2 = Disagree 3 = Neither disagree nor agree 4 = Agree 5 = Strongly agree	1 – > 1 = Definitely not supported 2 – > 2 = Not supported 3 – > 3 = Neutral 4 – > 4 = Supported 5 – > 5 = Strongly supported

Source: Author's own work.

The concept of overeducation is assessed within the variable *Job-education match* where a lower value of this variable indicates a respondent's overeducation. For the operationalisation of overeducation, this study leveraged a subjective measurement approach[3]. This group of methods leverages individual responses from questionnaires to assess respondents' perceptions of their educational match. Alongside the empirical method, this approach is the most popular way of defining overeducation (Capsada-Munsech, 2019; McGuinness et al., 2018), and is especially appropriate for analyses tackling social issues in which the perception of a mismatch is an important factor.

In our study, the question regarding overeducation was framed as follows: *To what extent do you agree that completing your studies has helped you in your current job?* with the answers set on a five-point scale where 1 = strongly disagree and 5 = = strongly agree. A respondent was considered to be overeducated if he/she selected either 1 or 2, signalling disagreement with the statement.

Parental support is also measured in a subjective manner. It is assessed using a direct question about the extent to which a respondent agrees with the statement that their parents supported their development and interests during their adolescence.

We incorporate such a subjective approach for two key reasons. Firstly, the use of a direct question aimed at subjective measurement can easily be replicated in future research. This ease of replication is particularly important considering the complex nature of the concept of parental support—which is the second argument for the subjective measurement. Secondly, the construct of parental support is multi-faceted. Depending on circumstances, e.g. the child's needs or the parent's capabilities, it can take on numerous forms. These include assistance with homework, engaging in dialogue about the child's interests, and facilitating participation in extracurricular activities (Desforges et al., 2003). On top of this, the perceived adequacy of this support also plays a significant role. A parent's belief that they offer profound support may not be the child's perception—one example being when the child feels overwhelmed by extracurricular activities that do not interest them. All of these factors create a range of unobservables within the concept of parental support, thus making a case for subjective measurement. In such circumstances, as Jahedi and Mendez (2014) argue, subjective measurements may outperform objective ones due to their ability to accommodate imperfect information and account for unobserved factors.

3.3. Descriptive analyses

The analysed sample consists of 450 Polish, tertiary-educated workers aged 25–65. Table 2 displays their statistical profiles. A slight majority of the respondents are

[3] Overeducation measurement methods can be broadly divided into 3 categories. Objective methods (also referred to as Job Analysis) rely on official classifications which map occupations to appropriate education levels. Empirical methods (also known as Realized Matches) find a reference education level based on a statistical measure calculated from a sample. Finally, subjective methods (Worker Self-Assessment) rely on questions asked directly to the individual. There is no consensus as to which measurement approach is superior and the choice of the methods depends on the data availability, study design, and author's preferences. For a broader discussion, see e.g.: (Capsada-Munsech, 2019; Kucel, 2011; McGuinness et al., 2018).

men (52%). In terms of age, 42% of respondents are between 25–39 years, and 52% are between 40–59 years. Only 39% currently live in rural areas. Regarding the highest attained level of education, the majority (75%) hold a master's degree. The most popular field of study is Business, Administration and Law (26%), followed by Engineering, Manufacturing and Construction (15%) and Social Sciences, Journalism and Information and Communications Technology (13%).

Table 2.
Distribution of respondents by study variables and key characteristics

	Sample of tertiary-educated workers aged 25–65
Observations	450
	Share of the sample (%)
Adequately educated	57
Overeducated	26
Rural origin	47
Mother with higher educationa	20
Father with higher educationa	20
Perceived to be supported by parentsa	70
Men	52
Age categories	
25–39	42
40–59	52
60–65	6
Currently living in rural areas	39
Education (the highest attained level)	
Bachelor or engineer (ISCED-2011 6)	20
Master (ISCED-2011 7)	75
At least PhD (ISCED-2011 8)	5
Education (field of studies)b	
Education	11
Arts and Humanities	8
Social sciences, Journalism and Information	13
Business, Administration and Law	26
Natural Sciences, Mathematics and Statistics	11
Information and Communications Technology	6

Engineering, Manufacturing and Construction	15
Agriculture, Forestry, Fisheries and Veterinary	2
Health and Welfare	5
Services	3

Note: a. At the age of about 14, b. Fields of studies following ISCED-F-2013 classification.
Source: Author's own work.

Univariate analyses for the key study variables were conducted in the exploratory analysis phase. First, descriptive statistics were examined (see table 2). Next, Spearman's rank correlations were calculated for each pair of variables, followed by a t-test to understand the significance of the relationships (see table 3).

The overeducation rate estimated from the sample yields 26%[4]. This is within the expected ranges if compared to existing studies examining Polish data[5]. Using a subjective approach, Kiersztyn (2013) obtained a level of 34% among tertiary-educated workers aged 30–68 (per year 2012), while two studies based on the Realized Matches method point to an overeducation rate in 2016 among highly educated workers of 24% (estimates by Baran, (2019) based on a 50-percent threshold) and 32% (estimates by Rossen et al., 2019, based on the 80th percentile).

About 47% of the polled individuals were of rural origin, meaning they were living in a rural area at the age of about 14. 20% of respondents had a highly educated mother (when aged about 14). A similar rate was observed in relation to fathers. Parental support (PS) was prevalent among respondents—about 70% of individuals believed they had been supported by their parents at the age of about 14.

Table 3.
Spearman's rho correlation coefficients across study variables

	JEM	RO	MHE	FHE	PS
	Job-education match	Rural origin	Mother with higher education	Father with higher education	Parental support
JEM	1				
RO	-0.01	1			
MHE	0.05	-0.203**	1		
FHE	0.07	-0.265**	-0.547**	1	
PS	-0.166**	-0.104*	0.07*	0.116	1

Note: Spearman's rho coefficients are marked as significant based on the t-test. P-value < 0.05*, p-value < 0.01**.
Source: Author's own work.

[4] The JEM variable took a value of 1 or 2 for a total of 119 respondents. See table 1 for details of variable coding, and table 2 for the structure of responses.

[5] See supplementary table 1 for a summary.

Job-education match (JEM) demonstrates a significant correlation only with parental support (PS). This finding justifies further examination of the relationship between these two variables. In contrast, the remaining variables, which are considered to be potential moderators, do not show a significant correlation with overeducation, which is a desirable characteristic for the moderation analysis. Parental support is significantly correlated both with rural origin (RO) and maternal higher education (MHE), but not paternal higher education (FHE). Therefore, only maternal education is included in the further analysis – which is in line with existing literature pointing to the greater role of maternal education in children's education and development (Baum & Łukasiewicz-Wieleba, 2014).

3.4. Empirical strategy

The main objective of the study was to decipher the relationship between the extent to which parents support their children in their teenage years and the subsequent risk of overeducation. This was achieved in the first step through use of the linear regression model. Of particular interest was how the above-mentioned relationship is affected by maternal education and being raised (or not) in a rural area. Therefore, in the second step, moderation analysis was applied.

The analysis began with a simple univariate regression model leveraging the least squares estimation method, while accounting for the population weights to adjust for sampling design and ensure that the sample was representative of the broader population. We estimate the following model to assess the impact of parental support on the extent of job-education match[6]:

$$JEM_i = \beta_1 + \beta_2 PS_i + \varepsilon_i \quad (1)$$

Where *JEMi* measures job-education match (variable *JEM*) for respondent *i*, PS_i measures the level of parental support (variable *PS*), β_1 is an intercept, β_2 is a slope and ε_i is a random error.

With the basic relationship between parental support and job-education match estimated using the simple regression model, the next step is to include the remaining variables of interest in the analysis. The exploratory analysis gave no reasons for using them in the regression model. However, in line with theoretical considerations, the correlation matrix (see table 2) suggests that variables RO and MHD can be treated as moderators in our analysis. Therefore, after estimating linear regression, moderation analysis was applied.

At its core, moderation analysis examines the extent to which the relationship between an independent variable (X) and a dependent variable (Y) is influenced by the values of an additional variable, the moderator (W). This moderator can alter both the strength and direction of the link between X and Y. Prior to analysis, the relationships between these variables are hypothesised by the researcher. The

[6] In this and the following sections, overeducation will be referred to as *job-education match* for ease of interpretation. In general, the lower the match, the more overeducated the respondent.

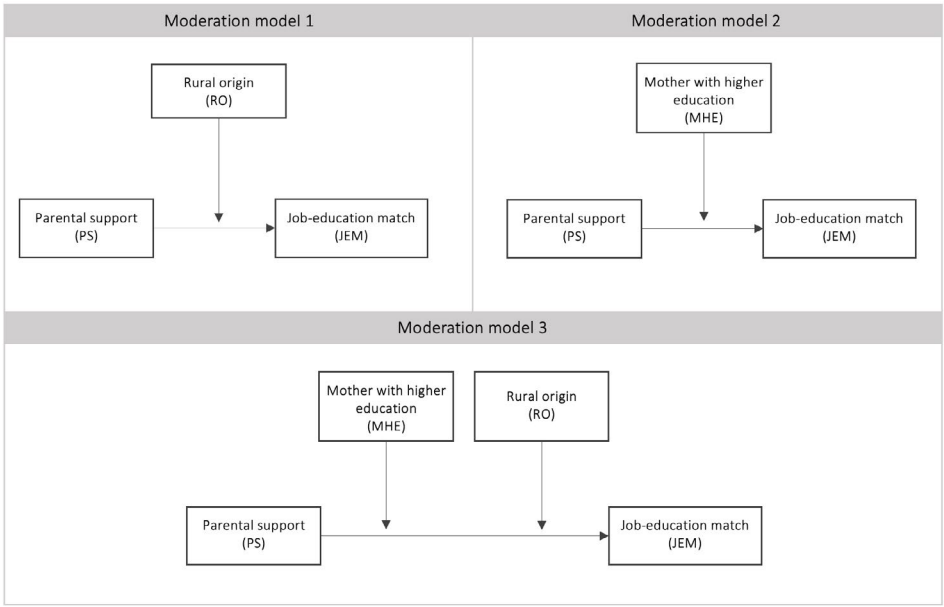
analysis may include one or more moderators, depending on the complexity of the model. An important distinction among moderators relates to their measurement scale. Broadly, moderators are classified into categorical, typically dichotomous, and continuous variables (Hair et al., 2022).

In this study, we employ two separate moderation models, each involving a distinct moderator: rural origin (RO) for the first model, and mother's educational attainment (MHE) for the second model. The independent variable in both models is parental support (PS), while the dependent variable is job-education match (JEM). Following these individual analyses, we construct a third model that integrates both moderators. This combined model serves to provide a detailed examination of the relationships identified in the first two models. Conceptual diagrams of each model are included in figure 1 below.

For all computations, we utilise Hayes' PROCESS Macro: Model 1 with 10,000 bootstrapped samples for our models 1 and 2, and model 2 for our model 3. These models are suitable for the data structure at hand as they allow for continuous dependent and independent variables and can accommodate a dichotomous moderator(s).

Figure 2.

Conceptual diagrams of moderation models estimated in the study



Source: Author's own work.

4. Results

In this section, we review the results of the analysis. First, the direct effects of parental support on the job-education match are presented. Next, we employ three moderation models—two with a single moderator and one with both moderators included simultaneously.

4.1. Direct effects

The linear regression analysis (see model 1 in table 4) reveals a statistically significant ($p < 0.001$) positive relationship between parental support (PS) and job-education match (JEM), supporting Hypothesis 1. Specifically, for every unit increase in parental support (PS), we can expect a 0.207 increase in job-education match (JEM), indicating that parental support leads to greater alignment between a person's job requirements and the educational level they possess.

To account for a potential omitted variable bias, we include a set of control variables in the regression model (see model 2 in table 4). These include demographic factors (e.g., age and sex), educational background (highest attained educational level and field of study), and socio-economic factors (e.g. parents' professional activity and financial difficulties). The results show that a significant link between parental support (PS) and job-education match (JEM) even after accounting for these controls.

The positive impact of parental support (PS) during adolescence on securing a job that matches a person's educational level (JEM) may be influenced by other unobserved factors not included in the model. These could include individual characteristics (e.g., psychological traits and abilities), parental factors (e.g., social capital), or the broader institutional environment in which one was raised. Future research could explore these aspects further. However, given that the control variables in the current model account for key background characteristics, we believe it is reasonable to at least partially attribute the job-education match (JEM) to increased parental support (PS), using this direct effect as a baseline for further analysis.

Table 4.

Direct effect of parental support on job-education match—linear regression models (including and excluding control variables)

	Effect on Job-Education Match Coefficient (Std. Error)
Model 1 (without control variables)	
Intercept	2.681 (0.244)
Parental Support (PS)	0.207*** (0.062)
Model 2 (with control variables)	
Intercept	0.563 (0.638)

Parental Support (PS)	0.207** (0.071)
Control variables	
Sex	0.156 (0.128)
Age	0.015* (0.006)
Living in rural areas	-0.236 (0.151)
Rural origin	0.177 (0.160)
Level of Education	0.457** (0.154)
Field of education	
Education	0.381 (0.229)
Arts and Humanities	0.120 (0.249)
Social Sciences, Journalism and Information	-0.310 (0.200)
Business, Administration and Law	0.275 (0.196)
Natural Sciences, Mathematics and Statistics	0.368 (0.232)
Information and Communications Technology	0.583* (0.249)
Engineering, Manufacturing and Construction	0.578** (0.216)
Agriculture, Forestry, Fisheries and Veterinary	-0.858* (0.421)
Health and Welfare	0.068 (0.299)
Services	-0.083 (0.364)
Socio-economic situation at the age around 14	
Mother working	0.190 (0.155)
Father working	0.128 (0.198)
Mother with higher education	0.170 (0.190)
Father with higher education	0.057 (0.189)
Difficulties related to housing conditions	0.023 (0.061)

Access to public transport	0.085 (0.071)
Access to cultural facilities	-0.080 (0.068)
Financial difficulties in the household	0.114 (0.075)

Note: Significance Codes: p < 0.001: *** p < 0.01: ** p < 0.05: * p < 0.1: . p ≥ 0.1: (No mark). Residual standard error: 1.31 on 448 degrees of freedom (model 1); 1.26 on 422 degrees of freedom (model 2). Multiple R-squared: 0.024 (model 1); 0.1526 (Model 2).
Adjusted R-squared: 0.022 (model 1); 0.09843 (Model 2). F statistic: 11 (model 1); 2.8 (model 2).
Dependent variable: Job-Education Match (see table 1 for specifications of variables).
Source: Author's own work.

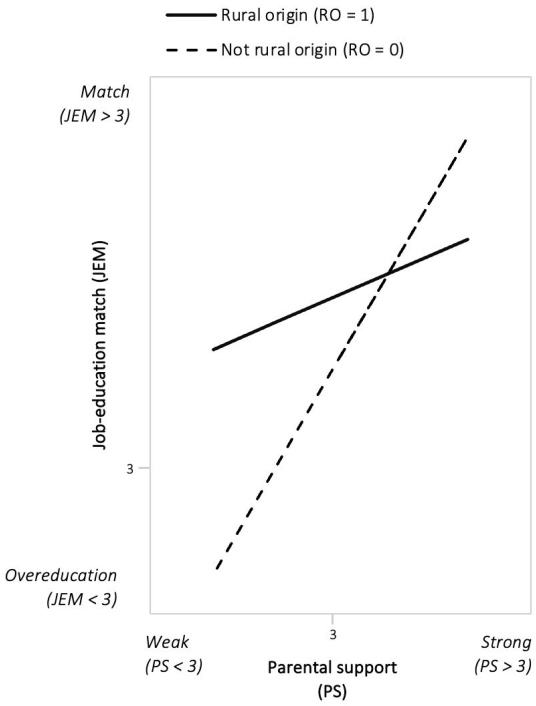
The results suggest that in Poland, parental support of a child during adolescence plays a significant role in increasing their chances in adulthood of performing work matched to their educational attainment. In other words, it mitigates the risk of overeducation.

4.2. Moderation effects

We assessed moderation effects separately for the two variables (rural origin [RO] and maternal education [MHE]), as well as their combined influence on the relationship between parental support (PS) and job-education match (JEM). The results from three separate models are reported, starting with the model examining the moderation effect of rural origin (RO).

The overall moderation model 1 (see figure 1 for the conceptual diagram and supplementary table 2 for a complete model summary) is statistically significant (p-value < 0.01) and so are the interaction terms (p-value < 0.1). Such results suggest that the relationship between parental support (PE) and job-education match (JEM) is indeed moderated by rural origin (RO). Both in the case of individuals who were raised in rural areas and those who grew up in non-rural areas, stronger parental support is accompanied by better chances of a job appropriate for the level of education. However, the impact is stronger among individuals originating from non-rural areas – which is visible as a steeper slope in figure 2.

Figure 3.
Moderation model 1. Moderation effect of parental support (PS) on job-education match (JEM) and the values of the moderator rural origin (RO)



Source: Author's own work.

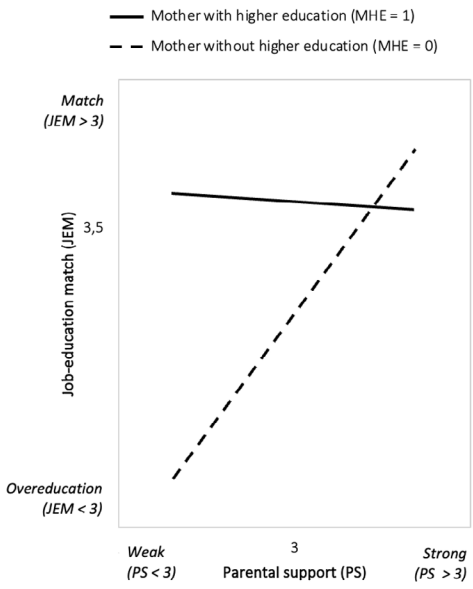
In particular, those who perceived strong parental support (PS > 3) have better chances of being matched on the labour market if they come from non-rural areas (RO = 0). The opposite is true for those who perceived weak to no parental support (PS < 3) or felt neutral about it (PS = 3). In their case, the chance of an alignment between education and occupation is improved if they were raised in rural areas. In other words, when parental support is limited (PS < = 3), growing up in rural areas seems to be advantageous for job-education match, in contrast to the situation when parental support is strong (PS > 3), in which case non-rural origin is an advantage.

Hypothesis 3 stated that the positive impact of parental support on the job-education match is moderated by the size of the place of upbringing, and thus rural origin weakens the positive effect of parental support on the job-education match. The results of moderation model 1 supported this hypothesis. Rural origin does not change the direction of the relationship, but weakens it compared to a non-rural origin as well as the overall model. Interestingly, rural origin is less advantageous in terms of the later job-education match only if the individual felt supported by his/her parents.

The overall moderation model 2 (see figure 1 for the conceptual diagram and supplementary table 3 for a complete model summary) is statistically significant

(p-value < 0.01), and so are the interaction terms (p-value < 0.1). This implies that the relationship between parental support (PS) and job-education match (JEM) is moderated by whether the mother attained higher education (MHE = 1). The moderation effect is presented in graphic form in figure 3. Among individuals whose mothers do not have a degree, greater parental support strongly increases the chances of a job-education match. However, this is not a case for children of highly educated mothers. Within this group – although overall it rates higher in the job-education match – the impact of parental support is slightly negative: the more support, the lower the chances of job-education match.

Figure 4.
Moderation model 2. Moderation effect of parental support (PS) on job-education match (JEM) and the values of the moderator mother with higher education (MHE)



Source: Author's own work.

Among those who perceived weak to no parental support or were neutral about it (PS < = 3), the chance of a job-education match is enhanced if their mothers attained higher education. This also holds true for individuals rating 4 in the PS variable – although the stronger the support, the smaller the advantage of those whose mother had a degree. An interesting result was observed for strongly supported individuals (PS > 4). In their case, having a mother with a higher degree becomes a disadvantage compared to those whose mother was not highly educated.

Hypothesis 2 stated that the positive impact of parental support on the job--education match is moderated by the mother's education, such that having mother with a degree amplifies the positive effect of parental support on the job-education

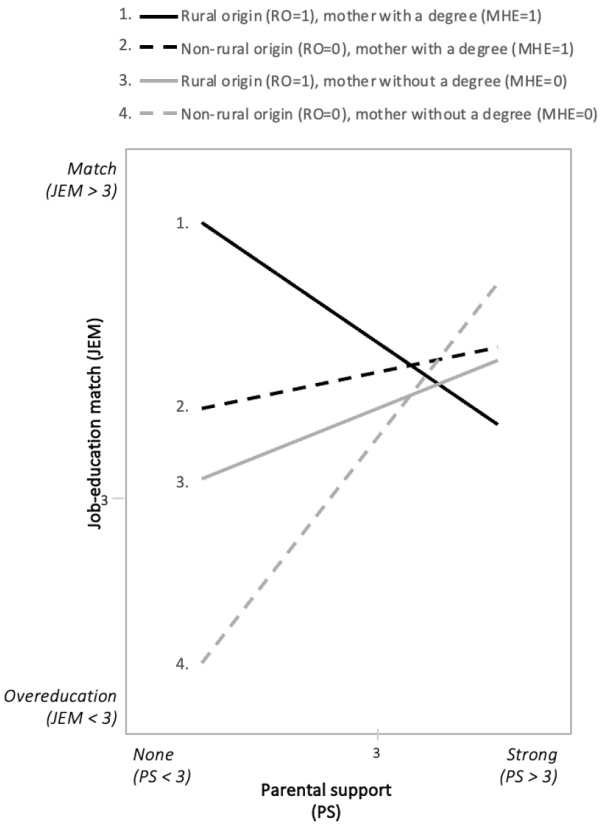
match. The results of moderation model 2 only partially supported this hypothesis. While the relationship between parental support and having a job matching the attained education is indeed moderated by maternal education, the moderation effect is opposite to what was hypothesised—with a highly educated mother, the impact of parental support on job-education match is slightly negative.

Given that the outcomes of the two individual moderation models produced certain counterintuitive findings, we decided to assess the relationships more extensively. Therefore, to provide a more comprehensive picture, we estimated the third moderation model, this time including both rural origin (RO) and maternal education (MHE) as moderators.

The overall moderation model 3 (see figure 1 for the conceptual diagram and supplementary table 4 for a complete model summary) is statistically significant (p-value < 0.01) and so are the interaction terms (p-value < 0.05 both for RO and MHE interaction terms). This implies that the connection between parental support (PE) and the job-education match (JEM) is jointly influenced by both rural origin (RO) and maternal higher education (MHE). With the two binary moderators, our variables can be divided into four groups—in figure 4 they are numbered for ease of further reference in this paper.

Group 1 (individuals originating from rural areas with highly educated mothers) is the only group where parental support has a negative impact on job-education match. Also, this combination shows the strongest link across all groups. Of the remaining groups, non-rural origin (RO = 0) combined with mothers without higher education (MHE = 0) (group 4) exhibits the strongest positive effect of parental support on job-education match. While the slopes for the two remaining groups are similar, those originating from non-rural regions (RO = 0) whose mothers held a degree (HME = 1) —namely group 2—show overall higher job-education match values than the directly opposite group 3, which includes individuals from rural areas (RO = 1) with mothers lacking higher education (MHE = 0).

Figure 5.
Moderation model 3. Moderation effect of parental support (PS) on job-education match (JEM) and the values of the moderators: Rural origin (RO) and mother with higher education (MHE)



Source: Author's own work.

In particular, among those who perceived weak to no parental support, the chance of a job-education match is higher if their mothers had attended higher education—especially if they also come from rural areas. In the case of a close to neutral view on parental support (PS ~ 3), rural origin is not a strong differentiator in terms of job-education match, while a higher level of maternal education is again associated with a better education-job alignment. Finally, with regard to strong parental support (PS > = 4), the highest match rates are observed in group 4 (non--rural origin and mother without a degree), while the lowest are in group 1 (rural origin and mother with a degree). This is exactly the inverse relationship to what we observe for no parental support (PS = 0). This also holds true for individuals with a rating of 4 for the PS variable—although the stronger the support, the smaller the advantage of those whose mother had a degree. An interesting result is found for

strongly supported individuals (PS > 4). In their case, having a mother with a degree becomes a disadvantage compared to those whose mother was not highly educated.

The combined model sheds more light on the counterintuitive results from the single-moderator models. In particular, the slightly negative impact of parental support on job-education match in the maternal higher education (MHE) group (see figure 3) seems to be driven predominantly by a subgroup coming from rural areas.

5. Discussion

Parental support has been widely proven to impact educational achievements, aspirations and attainment in children—including in tertiary education (Desforges et al., 2003; Haveman & Wolfe, 1995; Israel et al., 2001). In turn, in the broad sense, social capital—shaped by parental support—has been proven to impact the risk of overeducation (Capsada-Munsech, 2015, 2020; Erdsiek, 2016; Marqués Perales & Gil-Hernández, 2015). We therefore expected parental support to also play a role in reducing the risk of overeducation. Our analysis confirmed this hypothesis, demonstrating that the more a child is supported by their parents during adolescence, the greater their chances of securing a job that matches their qualifications.

Given the specific context of Poland, we further expected that the relationship would not be straightforward. One factor we expected to moderate the support-overeducation dynamic was rural origin. In Poland there is significant polarisation between rural and non-rural areas. This affects among others access to public transport, cultural or educational facilities, or specific labour markets (Rosner & Wesołowska, 2022; Fedyszak-Radziejowska, 2005). The diminished social and cultural capital in rural areas leads to significantly less informed educational choices and labour market behaviours. In parallel, the prevailing Polish belief that higher education is a stepping stone to better salaries, jobs and social mobility (Boczkowski, 2014) is especially strong in disadvantaged rural communities (Leśniak-Moczuk, 2022). As a result, children from rural areas may face significant pressure from their parents to attain a university degree. Finally, young people in rural areas tend to have lower educational aspirations compared to young people living in cities (Wang et al., 2021); and a lack confidence in their ability to attain an education aligned with labour market needs (Leśniak-Moczuk, 2022). All these factors—limited social and cultural capital, pressure to attend university, relatively low educational aspirations and a low level of confidence of achieving academic success—may increase the risk of overeducation. We therefore expected that rural origin would diminish the positive impact of parental support on the job-education match.

As hypothesised, the area of upbringing—urban/suburban or rural—moderates the relationship between parental support and overeducation. The positive impact of support on the job-education match is the strongest for those from urban/suburban areas. This suggests a synergy between parental support and more favourable institutional environments in urban/suburban areas.

Interestingly, urban/suburban origin proved more beneficial than rural origin only when paired with significant parental support. For respondents reporting none to

neutral parental support, it was the rural background that led to better prospects for a job-education match. This finding could be assigned to a group of high-achievers, possibly talented individuals who are strongly driven to "break away" from rural areas. Historically, it was such a group—a few talented and active individuals—who were the driving force behind migration out of rural areas; believing that only a larger city could provide the opportunities to fully unleash their potential (Wasielewski, 2013).

Even considering the high-achievers group, the result seems somewhat counterintuitive given the polarisation between rural and urban areas in Poland. One might expect that in the absence of parental support, the resources and institutional advantages available in urban/sub-urban areas would still make a significant difference, leading to better informed educational and labour market choices. However, our findings suggest that advantage can only be taken of this urban/suburban institutional support when a child receives substantial parental support. In contrast, those deprived of support display better job-education match prospects if they come from rural areas. These findings call for further investigation, which we address by introducing the second moderator—maternal education.

It has been established that overeducation is impacted by parental educational attainment (see e.g. Capsada-Munsech, 2020). In a broader context, the mother plays a key role in a child's development and educational journey (Desforges et al., 2003; Haveman & Wolfe, 1995). Her role is particularly significant in Poland. For instance, research has shown that in Poland mothers play a major role in shaping their children's economic resourcefulness, which is essential for successful labour market participation (Kośny & Piotrowska, 2019). Since overeducation is a blend of educational decisions and labour market behaviours, we hypothesise that a mother's social capital (in line with previous research, proxied with educational attainment) impacts the relationship between parental support and the risk of overeducation. Specifically, we expect that the positive impact of parental support on the likelihood of a job-education match is strengthened by higher maternal education.

This hypothesis was only partially supported. While the relationship between parental support and overeducation is indeed influenced by maternal education, the direction of this relationship differs from our initial assumptions. We observe a slightly negative impact of parental support on the job-education match when a mother has a degree. A positive impact of parental support is observed only when a mother does not hold a degree. In these cases, stronger parental support significantly increases the chances of a job-education match. In fact, when support is perceived as very strong, the chances are better for a match when the mother does not hold a degree compared to when she does. However, this pattern holds up only in this particular scenario. When the support is weaker, individuals with a highly educated mother generally display better prospects for a match (although we need to keep in mind that in this group, more support leads to slightly worse chances for a match).

The results of the moderation model leveraging maternal education convey two messages. First, there appears to be a spillover effect of maternal higher education on the match between a person's job requirements and educational attainment. This is in line with existing literature discussing a transfer of social capital, and more specifically—lower overeducation incidence among children of highly educated parents

(Capsada-Munsech, 2020; Erdsiek, 2016). Second, while more parental support translates into better job-education match for individuals whose mothers did not have a degree, the opposite is true if the mother did hold a degree. In the latter case, a slightly negative impact is observed. Accordingly, when parental support is at its strongest, children of mothers without a degree seem to be better positioned for a job that matches their educational level compared to their peers whose mothers hold a degree.

The combined effects of the two moderating factors (rural background and maternal higher education) were investigated in the third moderation model. It revealed that the strongest effect of parental support on the job-education match occurs among individuals who grew up in urban/suburban areas and whose mothers did not hold a degree. While this combination is the least advantageous when no support is provided, the exact opposite is true when parents in the same setting offer a high level of support. This confirms that the robust institutional environment of urban areas works in synergy with parental efforts to shape their children's educational opportunities and understanding of the labour market. Additionally, the spillover effect of higher maternal education continues to be applicable when considering both moderators. Regardless of origin (rural or urban/sub-urban), unless the support is very strong, children of highly educated mothers have a higher chance of a matching their job to the attained educational level.

Lastly, the model with two moderators revealed that parental support has a negative impact on the job-education match only in one scenario—among individuals who grew up in rural areas and had a mother with a degree. In all other cases, the more support, the better the match. This finding helps explain the atypical results observed in the previous models. The finding of a link between a non-rural background and a better job-education match only when parental support is high appears to be related to the diminishing positive effect of parental support among rural children when the mother holds a degree. Similarly, the slight negative impact of maternal higher education on the support-overeducation relationship is driven by this group.

The results of our moderation analysis suggest that the combination of rural background and a tertiary-educated mother places limits on the benefits of education in Poland. Applying a capabilities approach, which emphasises the key role of education in forming capabilities (Gracia-Calandín & Tamarit-López, 2021; Walker & Unterhalter, 2007), we can extend this conclusion by arguing that these circumstances create a barrier to equality of opportunities in Poland.

This outcome can be interpreted in light of several factors. The pressure to pursue a tertiary degree in Poland is generally high (Centrum Badań Opinii Społecznej, 2007). Mothers with a degree who live in marginalised rural areas (Rosner & Wesołowska, 2022; Fedyszak-Radziejowska, 2005) may exert even greater pressure on their children to pursue higher education for several reasons.

First, this pressure is amplified by the perception of a university degree as a key accomplishment that facilitates social advancement, with mothers likely wanting their children to avoid falling further down the social ladder. Such parental expectations often lead to higher educational aspirations among young people from rural areas (Byun et al., 2012).

Second, highly educated mothers might see urban areas as a better place to live (Cierpiał-Wolan et al., 2022), and therefore expect a child to attend university as a means of migrating to a larger city. Recent research by Dolinska et al. (2020), implies that many young Polish people use university enrolment as a pretext for relocating to urban centres; often being clear about the location of their residence rather than the field of study. This trend might be especially pronounced in the discussed group. With a certain level of social capital within the family, they may feel constrained by their rural environment and have a strong desire to leave.

The pursuit of higher education may be suboptimally supported by the limited resources of the rural institutional environment. Together, these factors might lead to inaccurate educational choices driven by the symbolic value of a degree rather than labour market opportunities or personal interests, ultimately resulting in a mismatch between educational attainment and occupation.

Additional interesting insights emerge from supplementary information about respondents who felt highly supported by their parents, of rural origin with a mother with a degree. This data, which was not included in the main analysis in this paper due to the size of the sample, should be treated with caution, however it provides some insightful patterns.

Firstly, unlike their rural peers who had mothers with a degree but lacked parental support, the group who felt supported originated from families experiencing improving material circumstances. This aligns with the *typical achievers* profile identified by Wang et al. (2021) among young people from rural areas, individuals with positive familial ties, better financial resources and ambitious career goals, coupled with a readiness to relocate. Secondly, this group seems to see higher education as a pathway to entering a particular professional and achieving financial status, while their decisions regarding higher education are more often influenced by the prestige of the field of study and the opinion of family and friends (more than among those who did not feel supported). This might reflect the mechanism proposed by Desforges et al. (2003), wherein parental support influences children through the internalisation of parental values, aspirations and opinions. The focus on external factors might, however, ultimately lead to educational choices misaligned with one's predispositions or the situation on the labour market, thus leading to overeducation. Lastly, this group associated a degree with elevated financial and professional expectations, in contrast to their urban counterparts who linked it more to personal development. This discrepancy, coupled with the points above, underscores the misleading narrative of higher education being an infallible gateway to social mobility (Boczkowski, 2014).

6. Conclusion

In Poland, approximately 30% of degree holders are overeducated (Baran, 2018; Kiersztyn, 2013; Wincenciak, 2016), meaning they work in jobs that do not require higher education. This leads to a range of negative effects for both individuals and the broader economy (Iriondo & Pérez-Amaral, 2016; Mateos-Romero

& Salinas-Jiménez, 2018; McGuinness, 2006), limiting the benefits of the educational process. As the proportion of tertiary-educated individuals in Poland continues to rise (Eurostat, 2024), overeducation is likely to affect even more individuals. This underscores the importance of understanding underlying mechanisms of overeducation in order to effectively prevent growth of this trend.

With family playing a significant role in shaping educational trajectories, this study explored the impact of parental support on the risk of overeducation in Poland. Taking into account the specific context of Poland, we hypothesised that the relationship between parental support and overeducation is not only present but also moderated by two factors: the size of the individual's place of upbringing and the mother's educational attainment. To test these hypotheses, we employed linear regression and moderation analyses using data from a dedicated questionnaire.

Our findings suggest that parental support generally has a positive effect on job-education match in Poland. As expected, the relationship is moderated both by the place of upbringing and maternal education. The moderation analysis revealed a nuanced picture of the relationship. Firstly, an urban/suburban origin proved advantageous only when paired with significant parental support. Examining maternal education as a moderator revealed that having a highly educated mother is generally linked to higher average levels of a match between educational attainment and occupation – a finding consistent with overeducation literature. Notably, the support of a highly educated mother was less impactful than that of a mother without a degree.

The key finding emerged from the two-moderator model, which incorporated both place of upbringing and maternal education. The positive effect of parental support on the job-education match was observed across all groups, except for individuals from rural areas with highly educated mothers. In fact, this group appears to face reduced chances of a match as parental support increases. This seemingly paradoxical result highlights the misleading narrative about higher education in Polish society and the marginalisation of rural areas, leading to a lack of social and scientific capital. Together, these factors seem to drive educational choices that do not align with labour market needs. These findings emphasise the importance of strengthening institutional support in rural areas to help parents guide their children in making informed educational decisions that take into account the realities of both the labour and educational markets.

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References

Archer, L., Dawson, E., DeWitt, J., Seakins, A., & Wong, B. (2015). "Science Capital": A Conceptual, Methodological, and Empirical Argument for Extending Bourdieusian Notions of Capital Beyond the Arts. *Journal of Research in Science Teaching*, *52*(7), 922–948. https://doi.org/10.1002/tea.21227

Baran, J. (2018). A Side Effect of a University Boom: Rising Incidence of Overeducation among Tertiary Educated Workers in Poland. *Economics and Business Review*, *4*(2), 41–63. https://doi.org/10.18559/ebr.2018.2.3

Baran, J. (2019). *Is Expansion of Overeducation Cohort-Driven? Evidence from Poland* (13, 298).

Barone, C., & Ortiz, L. (2011). Overeducation among European University Graduates: A Comparative Analysis of Its Incidence and the Importance of Higher Education Differentiation. *Higher Education*, *61*(3), 325–337. https://doi.org/10.1007/s10734–010–9380–0

Baum, A., & Łukasiewicz-Wieleba, J. (2014). Mother's Education as the Factor which Differentiates Parental Strategies to Recognise and Develop Children's Interests and Giftedness. *Chowanna*, *43*(2), 301–319.

Björklund, A., & Salvanes, K. G. (2011). Education and Family Background: Mechanisms and Policies. *Handbook of the Economics of Education*, *3*, 201–247. https://doi.org/10.1016/B978–0-444–53429–3.00003-X

Boczkowski, A. (2014). Uniwersytet a kształcenie masowe. Od idei uniwersytetu do ideologii kształcenia na poziomie wyższym. *Przegląd Socjologiczny*, *63*(3), 9–37.

Byun, S. Y., Meece, J. L., Irvin, M. J., & Hutchins, B. C. (2012). The Role of Social Capital in Educational Aspirations of Rural Youth. *Rural Sociology*, *77*(3), 355–379. https://doi.org/10.1111/J.1549–0831.2012.00086.X

Capsada-Munsech, Q. (2015). The Role of Social Origin and Field of Study on Graduates' Overeducation: The Case of Italy. *Higher Education*, *69*(5), 779–807. https://doi.org/10.1007/s10734–014–9805–2

Capsada-Munsech, Q. (2017). Overeducation: Concept, Theories, and Empirical Evidence. *Sociology Compass*, *11*(10), article 12518. https://doi.org/10.1111/soc4.12518

Capsada-Munsech, Q. (2019). Measuring Overeducation: Incidence, Correlation and Overlaps Across Indicators and Countries. *Social Indicators Research*, *145*(1), 279–301. https://doi.org/10.1007/s11205–019–02112–0

Capsada-Munsech, Q. (2020). Overeducation, Skills and Social Background: The Influence of Parental Education on Overeducation in Spain. *Compare*, *50*(2), 216–236. https://doi.org/10.1080/03057925.2019.1579085

Centrum Badań Opinii Społecznej. (2007). *Czy warto się uczyć. Komunikat z badań*. http://www.cbos.pl

Cierpiał-Wolan, M., Rządowa Rada Ludnościowa., & Zakład Wydawnictw Statystycznych. (2022). *Powiatowy wymiar sytuacji demograficznej: Materiały z III Kongresu Demograficznego. Cz. 5*. Zakład Wydawnictw Statystycznych.

Desforges, C., Abouchaar, A., & Great Britain. Department for Education and Skills. (2003). *The Impact of Parental Involvement, Parental Support and Family Education on Pupil Achievement and Adjustment: A Literature Review*. DfES.

Dolinska, A., Jonczy, R., & Rokita-Poskart, D. (2020). Post-Secondary-School Migration of Young People to Large Regional Centres as a Factor of Depopulation and Disharmonious Regional Development in Poland. *European Research Studies Journal*, *23*(3), 260–279. https://doi.org/10.35808/ersj/1637

Domański, H. (2009). Stratyfikacja a system społeczny w Polsce. *Ruch Prawniczy, Ekonomiczny i Socjologiczny*, *2*, 381–395.

Erdsiek, D. (2016). Overqualification of Graduates: Assessing the Role of Family Background. *Journal for Labour Market Research*, *49*(3), 253–268. https://doi.org/10.1007/s12651–016–0208-y

Eurostat. (2024). Population by Educational Attainment Level, Sex and Age [edat_lfse_03]. https://doi.org/10.2908/EDAT_LFSE_03

Gomółka, A. (2019). Economic Dimension of Childcare in Poland in 2017–2018. In N. Mila, J. Grzinic, & K. K. Kowalczyk (Eds), *Economic and Social Development: 44th International Scientific Conference on Economic and Social Development: Book of Proceedings* (pp. 81–90). Faculty of Management University of Warsaw.

Gracia-Calandín, J., & Tamarit-López, I. (2021). Education as a common good from the capability approach. *Journal of Philosophy of Education*, *55*(4–5), 817–828. https://doi.org/10.1111/1467–9752.12575

Hair, J. F., Kult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2022). Moderation Analysis. In *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R. Classroom Companion: Business.* Springer. https://doi.org/10.1007/978–3-030–80519–7_8

Haveman, R., & Wolfe, B. (1995). The Determinants of Children's Attainments: A Review of Methods and Findings. *Journal of Economic Literature*, *33*(4), 1829–1878. https://ideas.repec.org/a/aea/jeclit/v33y1995i4p1829–1878.html

Iłowiecka-Tańska, I., Karwińska, A., & Łukianow, M. (2022). Kapitał naukowy jako zasób modernizacyjny: Jak rozwinąć potencjał uczniów małych miast? *Przegląd Socjologiczny*, *71*(1), 154–183. https://doi.org/10.26485/PS/2022/71.1/7

Iriondo, I., & Pérez-Amaral, T. (2016). The Effect of Educational Mismatch on Wages in Europe. *Journal of Policy Modeling*, *38*(2), 304–323. https://doi.org/10.1016/J.JPOLMOD.2015.12.008

Israel, G. D., Beaulieu, L. J., & Hartless, G. (2001). The Influence of Family and Community Social Capital on Educational Achievement. *Rural Sociology*, *66*(1), 43–68. https://doi.org/10.1111/J.1549–0831.2001.TB00054.X

Kaliński, J. (2009). *Transformacja gospodarki polskiej w latach 1989–2004*. Szkoła Główna Handlowa w Warszawie.

Kiersztyn, A. (2013). Stuck in a Mismatch? The Persistence of Overeducation During Twenty Years of the Post-Communist Transition in Poland. *Economics of Education Review*, *32*(1), 78–91. https://doi.org/10.1016/j.econedurev.2012.09.009

Kośny, M., & Piotrowska, M. (2019). Economic Resourcefulness: Definition and Modeling. *Social Indicators Research*, *144*(1), 425–449. https://doi.org/10.1007/s11205–018–2048–3

Kucel, A. (2011). Literature Survey of the Incidence of Over-Education: A Sociological Approach. *Revista Española de Investigaciones Sociológicas*, *134*, 125–142.

Leśniak-Moczuk, K. (2022). Przemiany sytuacji materialnej oraz statusu społecznego mieszkańców wsi. In M. Cierpiał-Wolan (Ed.), *Powiatowy wymiar sytuacji demograficznej: Materiały z III Kongresu Demograficznego* (vol. 5, pp. 53–70). Zakład Wydawnictw Statystycznych.

Leuven, E., & Oosterbeek, H. (2011). Overeducation and Mismatch in the Labor Market. In *Handbook of the Economics of Education* (vol. 4, pp. 283–326). Elsevier B.V. https://doi.org/10.1016/B978–0-444–53444–6.00003–1

Marqués Perales, I., & Gil-Hernández, C. J. (2015). Social Origins and Over-Education of Spanish University Graduates: Is Access to the Service Class Merit-Based? *Revista Española de Investigaciones Sociológicas*, *150*, 89–112. https://doi.org/10.5477/cis/reis.150.89

Mateos-Romero, L., & Salinas-Jiménez, M. del M. (2018). Labor Mismatches: Effects on Wages and on Job Satisfaction in 17 OECD Countries. *Social Indicators Research*, *140*(1), 369–391. https://doi.org/10.1007/s11205–017–1830-y

McGuinness, S. (2006). Overeducation in the Labour Market. *Journal of Economic Surveys*, *20*(3), 387–418. https://doi.org/10.1111/j.0950–0804.2006.00284.x

McGuinness, S., Pouliakas, K., & Redmond, P. (2018). Skills Mismatch: Concepts, Measurement and Polity Approaches. *Journal of Economic Surveys*, *32*(4), 985–1015. https://doi.org/10.1111/joes.12254

Neycheva, M. (2019). How Might the Negative Impact of Higher Education on Growth be Explained? The Role of Vertical Qualification (Mis)Match in an MRWType Model. *Economics of Transition and Institutional Change*, 27(4), 943–969. https://doi.org/10.1111/ecot.12225

Palczynska, M. (2021). Overeducation and Wages: The Role of Cognitive Skills and Personality Traits. *Baltic Journal of Economics*, *21*(1), 85–111. https://doi.org/10.1080/1406099X.2021.1950388

Rado, P. (2001). *Transition in Education Policy Making and the Key Educational Policy Areas in the Central-European and Baltic Countries*. Open Society Institute. http://www.osi.hu/iep/BUDAPEST,2001

Rękas, M. (2016). Aktywność zawodowa kobiet posiadających dzieci w Polsce w latach 2010–2014. *Studia Ekonomiczne, Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach*, *292*, 158–170.

Rossen, A., Boll, C., & Wolf, A. (2019). Patterns of Overeducation in Europe: The Role of Field of Study. *IZA Journal of Labor Policy*, *9*(1). https://doi.org/10.2478/izajolp-2019–0003

Štefánik, M. (2014). European Comparison of Intergenerational Differences in Private Returns to Education in the Context of Tertiary Education Expansion. *Sociológia*, *46*(3), 243–260. http://www.unesco.org/education/information/nfsunesco/doc/isced_1997.htm

Suwada, K. (2020). Strategie organizacji opieki nad dziećmi w społeczeństwie polskim w perspektywie nierówności społecznych. *Przegląd Socjologii Jakościowej*, *16*(2), 152–169. https://doi.org/10.18778/1733–8069.16.2.09

Tapper, T., & Palfreyman, D. (2005). *Understanding Mass Higher Education: Comparative Perspectives on Access*.

Voces, C., & Caínzos, M. (2021). Overeducation as Status Inconsistency: Effects on Job Satisfaction, Subjective Well-Being and the Image of Social Stratification. *Social Indicators Research*, *153*(3), 979–1010. https://doi.org/10.1007/s11205–020–02516–3

Walker, M., & Unterhalter, E. (2007). The Capability Approach: Its Potential for Work in Education. *Amartya Sen's Capability Approach and Social Justice in Education*, 1–18. https://doi.org/10.1057/9780230604810_1

Wang, D., Hagedorn, A. D. J., & McLaughlin, D. K. (2021). Patterns of Educational, Occupational, and Residential Aspirations of Rural Youth: The Role of Family, School, and Community*. *Rural Sociology*, *86*(2), 177–203. https://doi.org/10.1111/RUSO.12331

Wasielewski, K. (2013). *Młodzież wiejska na uniwersytecie – droga na studia, mechanizmy alokacji, postawy wobec studiów*. Wydawnictwo naukowe Uniwersytetu Mikołaja Kopernika. https://www.researchgate.net/publication/261948703

Wincenciak, L. (2016). Educational Mismatches and Earnings in Poland: Are Graduates Penalised for Being Overeducated? *Ekonomia. Rynek, Gospodarka, Społeczeństwo*, *46*, 145–167. https://doi.org/10.17451/eko/46/2016/197