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EDUCATIONAL ASPIRATIONS

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Abstract

The purpose of this study is to check to what extent different environmental and institutional surroundings affect educational aspirations. We conduct a comparison study between different local municipalities in Poland. We use statistical description to compare educational aspirations in selected regions of Poland and apply econometric techniques to test formally the relation between educational aspirations and education, income and other socioeconomic factors. We show that the level of aspirations is well diversified and is higher in developed areas of Poland. We also found that contrary to the existing literature, the educational aspirations seem to rise with age of the respondent.

Keywords:

aspirations, returns to education

JEL:

J31, J61, I21

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1 Introduction

In today's world, education is a necessity, and for that reason, it has assumed an increasingly important role in future plans, especially for young people. During the educational process people gain necessary skills and competencies to be able to function on different competitive markets. Higher levels of education are associated with higher income, a more prestigious career, lower risk of unemployment and an improved well-being. Education is also a key factor in promoting and sustaining economic growth and technological development. When there is a lack of qualified labour force technological expansion is hampered. Also, along with technological changes the society must learn how to adjust to them and for that reason good education is needed desperately. The people in Poland in general are of opinion that education is valuable, over 92% of the respondents support this view (CBOS, 2009). The main motivations are economics ones - the higher wages and the better career. This view is shared among all socio-demographic groups, and therefore, the educational aspirations are equally spaced in the society. However, among groups with lower education and income levels, support for education is slightly lower. The most of respondents indicate a desire for a university education for their children (86%). The former is true for all respondents and independent from the children's upbringing and the stage of their education. Almost nobody wants their children to drop out from the educational system after completing the primary or the lower secondary school, and only a few accept the upper secondary school level as a desired education for children. The educational aspirations and expectations are closely linked to respondents' level of education. The higher the education level of the respondent, the higher educational aspirations. Rather unexpectedly, there are no significant differences among respondents with different material status, although the correlation seems to be positive, i.e. the higher income the higher aspirations. One of the phenomena of the transition period in Poland is that the difference between educational aspirations in towns and rural areas has diminished. As an increased number of persons has declared

the importance and desire for higher education for their children in recent years (CBOS, 2009), a lot of research seek to identify the key determinants of educational aspirations. In our analysis, we put an emphasis on a comparison study between different gminas, that is local communities at the lowest level of administrative territorial division in Poland. Our aim is to check to what extent different environmental and institutional surroundings affect educational aspirations. The present study builds on general opinion survey on the one hand and the economic theory on the other. We use statistical description to compare educational aspirations in selected regions of Poland and apply econometric techniques to test formally the relation between educational aspirations and socioeconomic factors such as age, gender, education, income, etc. The evidence regarding determinants of educational aspirations in Poland is limited. The empirical investigation is restricted to public opinion surveys with no deeper socio-economic analysis. Therefore, the focus of the present study is partly explanatory. However, we do test our predictions about the shape of the dependence relationship between education, income and educational aspirations.

2 Theoretical Background

The educational aspirations is a topic that lies on the edge of economic analysis. The aspirations are studied rather by sociologists and psychologists than economists. There are different theoretical perspectives on the interpretation of educational aspirations and their significance for the future behaviour. The dominant model is the sociological theory of status attainment, which stresses aspirations as a cognitive state that motivates or drives young people to strive for academic success (Khoo and Ainsley, 2005). The model recognises that both personal dimension (e.g. the impact of significant others or students' perception of their own personal attributes) and social dimensions (e.g. quality of schooling, or parental social class) are important transmitting factors. Parents in particular have been seen as the most significant others in

shaping aspirations because they provide the opportunities, encouragement and support for their children's learning (Garg et al., 2002). However, in economic models the problem of educational aspirations is viewed from a different perspective. They portray educational aspirations as a purely rational assessment of students' economic and social circumstances. Students may aspire to continue in post-compulsory education as a result of a realistic evaluation of both push factors as, e.g. the avoidance of unemployment, and pull factors, such as higher expected earnings in the long term. In this framework educational aspirations have no motivational overtones. There are only rational judgements based on current economic circumstances. In our article we are going to follow that point of view.

The education itself creates better economic perspectives and is a necessity in today's world. Education is also important for the economic and social position of a person. The better educated people are the wider perspective and the better material and social position. The share of highly trained workers is a crucial asset in providing and sustaining fast economic growth. From the economic point of view, aspirations create a strong stimulus for younger generations. They are determined by the economic and social position of the family and by a social and economic surrounding. Usually parents expect that their children at least retain the same socio-economic status. Therefore, aspirations and the economic process of forming them can be linked to the economic theory of clubs (Buchanan, 1965). However, a possibility of preventing consumption by entire groups of people is limited, but it is also a non-rival good in that its consumption by one individual does not curb the consumption of another individual. On the other hand, there exist differences in accessibility to education. The most obvious is between towns and rural areas. Usually various educational institutions are located in the former, while in most cases just only one is available in the latter. Moreover, this „no choice” option in rural areas may influence the process of aspirations formation. Usually literature on the subject mentions three groups of factors that form educational aspirations: background, personal factors and

environmental factors. The background factor is comprised of social and demographic attributes such as age, gender, socio-economic status and a family structure. The personal factor is psychological in nature and is composed of an individual's personal attributes, self-perception of competence and attitude toward education, school and work. The environmental factors include aspects of social support, i.e. parental involvement, affecting the individual. The influence of these factors is well documented in the literature (see Garg et al., 2002). The problems in economic studies on educational aspirations are twofold. The first is that a vast majority of the research on educational aspirations concentrates on surveying young pupils, because correlation coefficient between educational intention and the achieved result is high (Khoo and Ainsley, 2005). However, adolescents are usually not independent in their educational decisions as it is assumed in economic models of choice, and up to some particular point are commanded or guided by parents. On the other hand, parents may have unrealistic educational aspirations for their children, especially those who strive to provide income support for the family. Many researchers indicate that economic pressure has a negative impact on parents (see Trusty et al., 1997). Economic stress lowers the educational expectations simply because parents are devoted to providing income for their family. The second is also methodological in its nature. The personal and environmental factors are difficult to measure and hard to quantify. Both factors require the inclusion of psychological variables, however, this is always problematic in quantitative researches. There is neither well established theory, nor strong empirical evidence.

3 Descriptive analysis

The source of empirical data is the COMPETE survey, which is an independent socioeconomic survey that covers various aspects of life from demographic structure of the household, though economic, and labour market activity, wealth, living conditions and income to the soft measures such as

Table 1: Actual sample sizes

Gmina	Sample size
Gliwice	366
Gostyń	366
Małogoszcz	383
Manowo	391
Zgierz	369

Source: Own computations based on COMPETE data.

sports, cultural activity and healthcare. The sample covers and is fully representative for five selected local communities in Poland, namely Gostyń, Gliwice, Manowo, Małogoszcz and Zgierz. The Gostyń is a town and also semi-urban, semi-rural gmina which represents economically developed area from Wielkopolska. The Wielkopolska region is believed to have many organizations and civic associations. The town of Gliwice lies in Upper Silesia conurbation, a large industrial and post industrial area where mines and steel mills were dominant manufactories. A gmina Manowo represents poor, rural area of the Zachodniopomorskie region. The Małogoszcz is a semi-urban, semi-rural gmina that lies in poor rural area of south-central Poland in Świetokrzyskie region. Gmina Zgierz is a rural area in the suburbs of city of the Zgierz and the city of Łódź.

The sample size were designed to contain 500 individual observations for each local municipality. Unfortunately, not all respondents have answered all questions, which is a common problem in socio-economic research. Consequently, the sample used in the model is about 25% smaller.

In the COMPETE survey, four questions are directly related to the educational aspirations. Unfortunately, the first two are asked to people that have children in the primary or the secondary school only and for that reason the answers contain a lot of missing responses. The first two in chronological order are those asked to the respondents who have children in the primary or the secondary school. The first set of questions is about motives for choos-

ing a particular school. Respondents are asked to answer two questions on five-point scale from very important to not important at all:

- How important is your own school district
- How important is to You school quality

One has to bear in mind that usually „own school district” means the closest school of a particular kind in the geographical sense, and also that in small towns or villages there is probably only one school at the secondary level and in practice, the choice of school is a difficult compromise between the quality and the distance to school. In all surveyed local communities, except the smallest Manowo, most of the respondents support the view that school in the closest neighbourhood is very important. Especially those respondents in Gostyń and Zgierz are convinced that own school district is important. The lower support of idea of school district is found in a big city of Gliwice. This may be simply explained by the fact that in a bigger town the density of the school network is bigger. Moreover, the existence of non-governmental schools with tuition fee and with a private or association owner expands the number of possible choices.

The importance of school quality is declared by all respondents. The differences are negligible; however, we found the highest number of responses for whom the school quality is not important or totally not important in local community of Manowo. We believe that this is a matter of no-choice in that local community. Nevertheless, the answer „very important” is more frequent in a town of Gliwice and the rural community in Zgierz, which lies just at the border of the second largest city in Poland, namely Lodz. This may imply that the people who are located in a more competitive labour market recognise the importance of good education more easily. However, this may indicate that among analysed local communities only in Gliwice and Zgierz people face opportunity to choose a particular school.

In another question the respondents are asked about their opinion on education. Firstly, they are asked to express their attitude to the statement

Figure 1: The importance of school in own district.

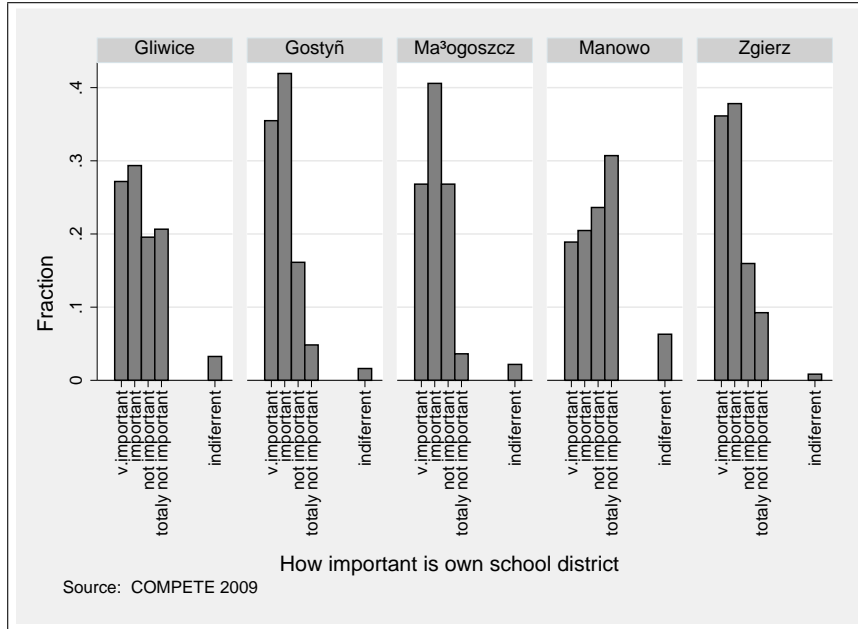
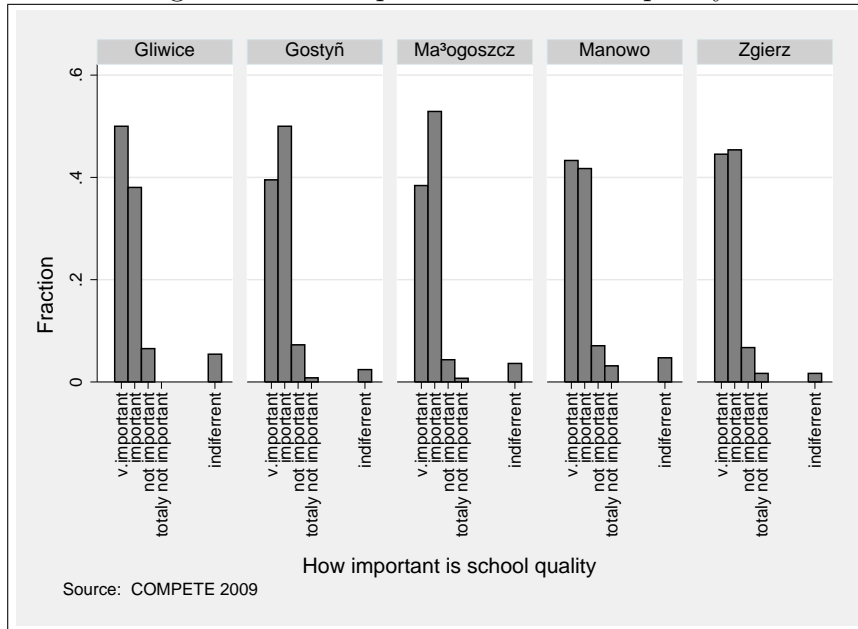
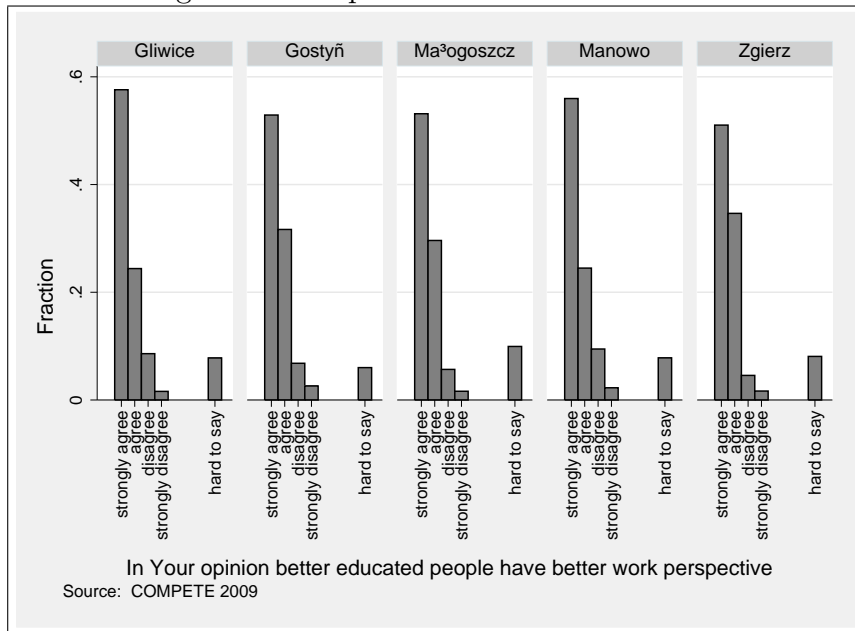


Figure 2: The importance of school quality.



that „better educated people have better work perspectives” on a five-point scale from strong agreement to strong disagreement. In all surveyed local communities over 80% of the people questioned „strongly agree” or just „agree” with this statement that better educated people have better work perspectives. The differences in the observed distribution of the answers are negligible, because they are a kind of choice between agree and strongly agree.

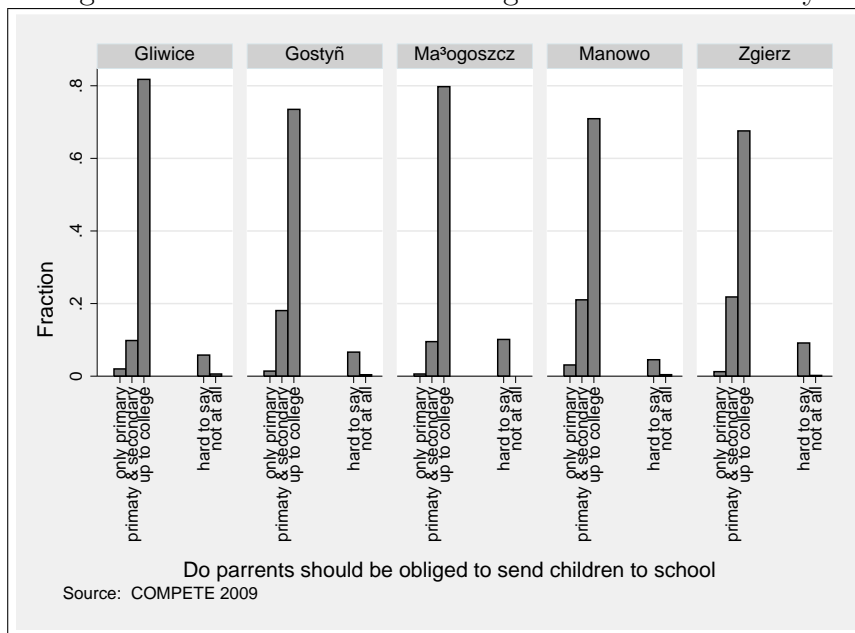
Figure 3: The personal view on education.



The last question concerns compulsory education, namely school-duty. The question is „Up to which stage of education should parents be obliged to send their children to school”. There are visible differences among local communities in the response to this question to which level of education parents should be obliged to send children to school. In all local communities well over 60% of respondents choose „up to college”, however in Zgierz, Manowo and Gostyń, that is in small towns, about 20% of respondents choose the option „up to secondary school (gymnasium)”. This may reflect parents’ perception of local labour market. There is practically very low demand for

highly qualified workers in small local labour markets, and relatively many opportunities for low-skilled labour.

Figure 4: To which level schooling should be mandatory.



4 Hypotheses

We would like to conduct our analysis on two levels. First of all, our intention is to compare educational aspiration among different local communities. In the second step we would like to check the form of dependency between aspirations and age and also between education and income. Basing on the CBOS survey results (CBOS, 2009) we expect that there is an inverted U-shaped relation between age and the educational aspirations. We believe that middle-aged persons who are at the peak of their professional career are those who evaluate education as a very important factor in a successful career. The nature of the dependence relationship between age and aspirations is important because it is likely that in poor areas or disadvantaged families children are brought up by their grandparents instead of parents. If the

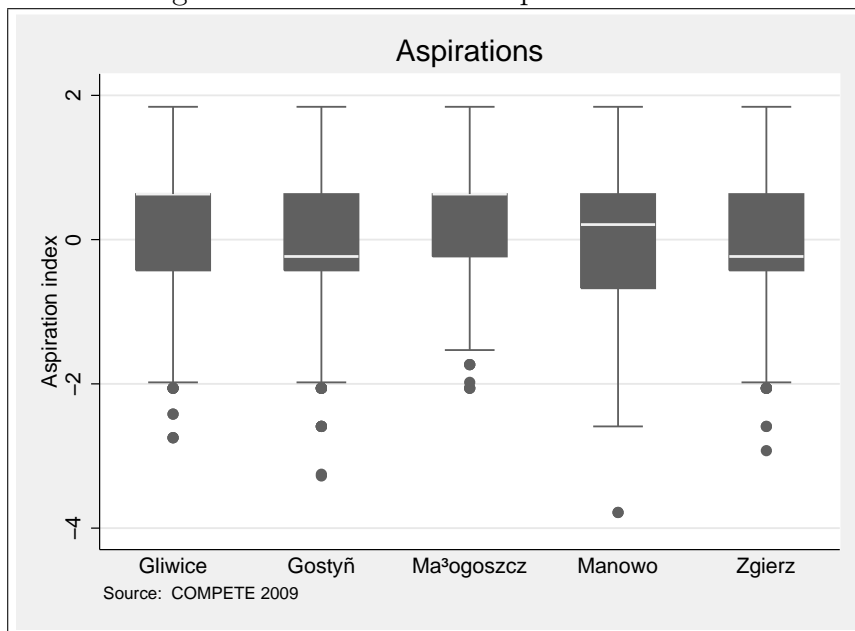
older generation has lower educational aspirations this can lead to a weaker stimulus for children, and another relative disadvantage in comparison to the other children. The dependency between household income and educational aspirations has also an inverted U shape, but for a different reasons. The children from poor families are closed in a deadlock trap. They have to start working career early; therefore they are not able to afford higher levels of education. At the other edge of income distribution the economic motives are of a different kind. Parents and also their children view education over a certain level as obsolete, because they already provided a role for their children in the family business.

5 Model

Our modelling strategy encompasses two stages. At the first one, we explore polychoric correlations between aforementioned questions (items) in the descriptive part. A polychoric correlation is a technique for estimating the correlation between two theorised normally distributed continuous latent variables, from the observed ordinal variables. In this way, we build an index of aspirations. The distribution of an aspiration index is skewed to the left in all local communities. Despite that, there are significant differences among them in the level of educational aspirations. The highest average of aspirations is observed in Małogoszcz and Gliwice. In those two local communities over 75% of the respondents have educational expectations above the average. In the remaining local communities the probability mass is not so concentrated in the right tail. The lowest average of educational aspirations are found in Zgierz and Manowo, local communities with a large share of rural area. However, those differences are very small.

We use a constructed aspiration index in the second stage regression in which we try to find its determinants. The most obvious explanatory variable, used in almost all models, is age. Due to Polish specificity resulted from recent economic transition we expect that younger persons should put more

Figure 5: Distribution of aspirations index.



emphasis on education, and therefore have a higher educational aspirations. There is an agreement in the theoretical literature and empirical works that women's have a higher educational aspirations. We believe that those who declare ease to move to another place or work abroad should raise qualifications and therefore should have higher educational aspirations. There is also a strand in the literature that the type of job and the main income source of a family may influence the educational aspirations (Strand&Wilson, 2008). The latter is directly linked to our research hypothesis. We include among regressors the household income in thousands of zlotys. To check the influence of the type of a performed job on educational aspirations we include a type of job dummies (full-time, part-time, occasional jobs). We expect that those who have a full-time job will have higher educational aspirations, as they know that education is a key determinant in finding and sustaining a good job. The remaining two variables in the regression describe the amount of time spent in the educational system. We test our hypothesis about the inverted U-shape relation and for that reason both the number of years of

Table 2: The determinants of educational aspirations

Dependent variable: Educational aspirations			
Variable	Coefficient		Std. error
Age	0.005	***	(0.001)
Female	-0.105	**	(0.040)
Move	-0.053		(0.040)
Work abroad	0.117	**	(0.041)
Full time job	-0.080		(0.045)
Part time job	0.016		(0.109)
Occasional job	-0.264		(0.155)
Years of education	0.132	*	(0.055)
Years of education sq.	-0.004		(0.002)
Household income	0.025	*	(0.000)
Household income sq.	-0.000		(0.000)
Constant	-1.264	***	(0.362)
R-squared	0.029		
N	1865		

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Own computations based on COMPETE data.

education and its square should be significant but the latter with the minus sign. In the table 2 regression results are presented for all local communities together. The overall fit of the model is rather low, but this is not a major concern as long as we work with the survey data and the sample size is large. Some respondents' characteristics, such as move to another town for work and dummies describing the type of job turned out to be non-significant at usual 5% level, and therefore they should rather not be considered as valid determinants of educational aspirations.

According to our beliefs the age is negatively associated with educational aspirations scale. The negative coefficient for gender informs us that our hypothesis that women's have higher educational aspirations is positively

confirmed. Only one of two of our main research hypotheses find support in the data. We can see that the relationship between years of education and educational aspirations in fact could be modelled as a square function. On the other hand, we are not able to confirm the hypothesis about the functional form of the relation between household income and educational aspirations. It rather seems that educational aspirations rise along with income.

To check discrepancies between different gmina's we extend our model and in specification of regression equation include local communities specific dummies. The results of the exercise are presented in the table 3 below. The reference category is gmina Gliwice. Two local communities are significantly differ from Gliwice in terms of the level of educational aspirations. After controlling for the differences in age, household incomes and years of education of the respondents we are able to loosely say that the educational aspirations are 16% lower in Małogoszcz than in Gliwice and in Gostyń are 14% lower than in Gliwice. Aspirations in Manowo and Zgierz do not statistically differ from those in Gliwice.

To provide robustness of our results apart from the main model we also estimates five separate models, one for each gmina. We simply regress the aspiration index on all covariates used in the main model except for gmina dummies. The results are summarized in Table 4. The plus sign in „joint significance” column indicates statistical significance of the regression for a particular gmina and variables related to education and household income. One has to take into consideration that the sample size within one gmina is relatively small (about 350 observations), and the lack of significance may be a purely statistical issue. We see that the model is valid for local communities in Gostyń and Manowo only. However, in the former gmina nor years of education variables (i.e., the number of years of education and its square) neither household income variables (i.e. household income and its square) are significant. Only in the latter gmina both research hypotheses are supported by the data and can be viewed as positively confirmed.

Summing up our findings we show that the level of aspirations is diversi-

Table 3: Determinants of educational aspirations at gmina level

Dependent variable: Educational aspirations			
Variable	Coefficient		Std. error
Gostyn	-0.140	*	(0.063)
Manowo	0.086		(0.063)
Malogoszcz	-0.164	**	(0.062)
Zgierz	-0.066		(0.064)
Age	0.004	***	(0.001)
Female	-0.105	**	(0.040)
Move	-0.035		(0.041)
Work abroad	0.104	*	(0.041)
Full time job	-0.073		(0.045)
Part time job	0.004		(0.109)
Occasional job	-0.241		(0.155)
Years of education	0.140	*	(0.055)
Years of education sq.	-0.004		(0.002)
Household income	0.000	**	(0.000)
Household income sq.	-0.000		(0.000)
Constant	-1.244	***	(0.367)
R-squared	0.039		
N	1865		

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Source: Own computations based on COMPETE data.

Table 4: Summary of separate models at gmina level

Gmina	Joint significance of education and income	Years of education	Household income
Gliwice	-	-	-
Gostyń	+	-	-
Małogoszcz	-	-	-
Manowo	+	+	+
Zgierz	-	-	+

The „+” sign informs that all variables are jointly significant at 0.05 level; the „-” sign informs that they are not significant.

Source: Own computations based on COMPETE data.

fied. The highest educational aspirations are observed in Gliwice (Silesia) and Małogoszcz (Wielkopolska) traditionally mostly developed parts of Poland. We found rather unexpectedly that the educational aspirations rise with age of the respondent. What is in accord in our findings with the existing literature is that woman in general have higher educational aspirations.

To verify our main research hypotheses we divided our model into two stages. At the first stage we estimated an educational aspirations index based on survey questions. In the second one, we regress this index on the set of selected determinants according to the literature. In our model we are able to confirm our first hypothesis about the influence of education on educational aspirations. The relation is found to be of inverted-U shape, which means that younger and older respondents have limited aspirations in comparison to the middle-aged ones. Unfortunately, the second hypothesis concerning household income does not find the general support in the data. However, it seems that in poor rural gmina of Manowo they are both confirmed.

The last concern is that the first stage model is based on two variables only. Consequently, the variance of the educational aspiration index is limited. We tried to include two additional set of variables, namely responses

to questions about school in own district and school quality. However, these questions were not given to all respondents and therefore we would lose a vast share of the sample. We face the trade-off problem between the good aspirations scale and statistically significant differences between local communities. To provide robustness of our findings we also explored imputation techniques, which bring pretty similar results. Therefore, we conclude that our results are in this sense robust.

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