

# **Role of parental occupational status and education in the educational attainment of their children**

Master's Degree Programme in Inequalities, Interventions and New Welfare State (INVEST)

Department of Social Research

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Master's thesis

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### **Abstract**

This study investigates the influence of parental occupation, education, their independent and combined effects in outcome of children's educational attainment in Finland. The study utilizes data from the European Social Survey (ESS) rounds 8, 9, 10, and 11, collected in 2016, 2018, 2020, and 2023 respectively. The sample consists of 3143 respondents aged 30–70 years. The analysis employs a binary logistic regression model which includes the interaction of parental characteristics to find out its effect on children's education. Furthermore, the study explains its results with predicted probabilities for better understanding of readers. We found that parental education and occupation have positive effects on the education of their offsprings. When we look at their independent effect, parental education is the strongest predictor following parental occupation. We also found that advantage in one parental characteristic compensates for disadvantage in another.

Keywords: Parental education; parental occupation; children's education; compensatory advantage

## **1. Introduction**

Factors of parental background, such as parental occupation and parental education have significant influence on educational attainment by children. A pattern that consistently emerges during research has established a very strong relationship between parental status and children's educational performance whereby parental occupational and educational levels tend to correspond with higher educational outcomes among offspring. It crosses over different cultural and social contexts and where family resources, parental guidance and accessibility to quality education are influenced. To redress educational inequalities and achieve upward social mobility, we must know the extent and nuances of these effects. Parental education and occupational status are widely accepted as important determinants of children's academic outcomes, affecting the resources available to children, and opportunities for success. Children belonging to low socio-economic backgrounds do not have access to quality education because of the social capital of parents which includes social networks and parents' financial stability. (Bernardi & Ballarino, 2016; Erola, 2016)

This study seeks to answer the following overarching research question:

“Do parent's occupation and education compensate the intergenerational effects for children's education?”

The focus of this research explores how parent work status alongside education levels independently and in combination shape their children's school achievements in Finland. Specifically, the study aims to:

- 1. Examine the independent and combined effects of parental education and occupational status on children's educational outcomes.**

2. Explore how different combinations of parental characteristics (e.g., low parental education but high occupational status and vice versa) shape children's educational success.

The above-mentioned theories are tested using quantitative data from the European Social Survey (ESS), specifically rounds 8–11 (2016, 2018, 2020, and 2023). The dataset includes information on Finnish respondents aged 30–70 and measures children's educational attainment as a dichotomous variable based on ISCED classifications. Binary logistic regression is employed to analyze the data, focusing on interactions between parental education and occupation to assess the validity of the compensatory advantage theory.

Educational outcomes of children are dependent on multiple factors including parental involvement, environmental influence and genetic inheritance. Parents with higher education are better qualified to navigate their children through the complexities of educational systems and to pave the way for tertiary education, thus enhancing the possibility of enrollment into tertiary education. Parents with higher education can play their role in helping children with their homework or making educational decisions later. These parents create a home environment that encourages learning and discuss academic interests that make children's attitude positive towards high educational achievements (Ludeke, 2021). However recent studies like Grätz (2015) argued that genetic inheritance may influence more than home environment. The study suggests that parental involvement generates less noticeable results on academic outcomes when we include genetic inheritance, because genetic factors demonstrate stronger impacts than environmental conditions. Comparing children's education with their foster parents with children's education with their biological parents, there are more similarities of education achievement in children's with their biological parents than in children with foster parents. Summarizing this section of argument, we can say that although genetic inheritance influences children's education, genetic inheritance alone cannot explain the outcome of

children's education, but parents' education also plays a vital role in educational attainment of children.

Family occupation, which includes social class and income levels, and professional networks have equal influence on how education develops for children. Occupational status points typically lead people to acquire better financial means and educational opportunities and human capital that strengthen children in their academic development (Shah & Hussain, 2021).

Previous research has predominantly focused on economic and genetic factors like family income with socio-economic status and genetic inheritance as mentioned in introductory paragraphs, often overlooking the interplay between parental education and occupational status as distinct yet complementary influences. This study is evaluating, if and how parents' education and occupation compensates for the children education attainment, we are using compensatory advantage theory as our main theory which explains that parents with one advantage can overcome the disadvantage in their children's achievements. The study will test the hypothesis based on compensatory advantage theory that how parents have low education but high occupation compensating for children education or parents having high education but low occupation compensating for children education.

## **2. Theoretical Foundation**

Social Reproduction Theory (Bourdieu, 1977) explains the mechanism of how parental education and occupation shape the outcome of their children's education. It discusses the cultural capital which are non-economic factors such as education and social skills; social capital which refers to social relationships and community ties and economic capital which includes the finances and financial stability. The social reproduction framework argues that family background is important in the education system excellence. Children belonging to highly educated parents can excel in the education system more easily because of their parents'

social skills and knowledge. Those parents can train and teach their children with more complex topics and can make them exposed to activities which can enhance their cognitive skill and value by the education system. Parents with higher social capital can use their networks to provide their children with high quality training programs through internships and more information about good schools with skills required to get into them. Higher occupational status families function as an explanation through their ability to offer financial means and social capabilities which support children's educational achievements. Those parents with finances and social skills know how to prioritize the education and navigate their children for social mobility, whereas parents with low occupational status cannot invest as much in their children's education resulting in low education of their children also. Educational institutions tend to value the cultural norms, knowledge on diverse topics and values which are prevalent in families with higher social status which also leave the children from lower social class behind.

Compensatory Advantage Theory (Bernardi, 2014) offers an understanding of how individual being disadvantageous in one area of life can mitigate the negative effect by utilizing their advantageous characteristics for other. Bernardi employs regression discontinuity design to explain how children having few months older age than school entry age are socially and emotionally more mature which also develop high self-esteem than the children few months younger than the school admission age. For the older kids, age compensates and contributes toward better grades and skills in early school life whereas for the younger children, educated parents can compensate for their children's disadvantage of being young by training them with cognitive and social skills. In his paper Bernardi also takes the example from Hsin (2012), which explain educated mothers having children with lower birth weight focus more on their developmental and social skills by devoting more time than their normal birth weight children whereas low educated mothers spend more time on their normal birth weight children than

lower birth weight children. It explains how educated mothers can compensate for their children's early life disadvantage to excel in overall life later. Similarly, Bernardi and Cebolla-Boado (2014) found that in France, children who completed their school education with lower grades but were from higher socio-economic background, 60% of the students enters into prestigious academic fields which in later open a path for them to enter in universities, whereas children belonging to lower socio-economic backgrounds completed school education with low grades were only 15% to enter in a university for higher education. This explains how family background can compensate for the children in educational achievement. It also offers the understanding that children of parents with lower levels of education, but high occupational status may still experience higher educational attainment due to the advantages provided by the parents' job, such as financial stability, access to social networks, and other resources that can compensate for educational disadvantages. It focuses on the starting point of an individual not necessarily explains the educational attainment and status in society, but it depends on how effectively one can use other advantageous factors that can contribute positively to climb on social ladder.

The Relative Risk Aversion theory also provides theoretical foundation for this study as it explains how parents utilizing their achievements in education and occupation help their children to avoid downward mobility. It explains that parents help with their resources and knowledge in decision making for their children to achieve at least the educational and occupational level as their parents have. Parents with higher education and occupation prioritize achieving higher education status for their children with their investment and social capital to increase the stability and decrease the risk to downward mobility in future whereas parents from low social status, having low education do not invest in their children education as much due to financial instability and fear of loss of time and investment. It also explains that children from educated parents with mid-level occupations may experience the upward

education and social mobility but with greater sensitivity to financial risks (Breen & Goldthorpe, 1997).

Boudon's Primary and Secondary Effects in Education are also important to consider in this study. Primary Effects refer to differences in academic performance resulting from social background factors, such as parental education and occupation, which directly impact children's cognitive abilities and learning outcomes. Children from more educated families perform better in school due to cultural and intellectual resources at home. Secondary Effects encompass decision-making processes related to educational transitions (e.g., whether to continue higher education). Boudon argues that these decisions are influenced by socio economic status. Children from disadvantaged backgrounds may be less likely to pursue higher education due to perceived costs and risks, even if their academic performance is strong. Boudon's framework provides a comprehensive lens for examining both performance disparities and decision-making processes, making it critical for understanding how parental characteristics shape educational attainment. (Boudon, 1969).

### **Integration of Theories**

This research adopts an integrated framework which examines how Finnish children's educational outcomes are shaped by their parents' education levels and their professional positions. Academic success through parental resources is explained by social reproduction theory, then theory of compensatory advantages and relative risk aversion models help analyze mediating elements and rational decision-making approaches. By employing these theoretical lenses, the study seeks to contribute to a nuanced understanding of educational inequality and intergenerational mobility in an egalitarian context like Finland.

**Hypothesis 1:** Children of parents with lower levels of occupation and higher levels of education will achieve higher educational attainment compared to children of parents with lower levels of education.

**Hypothesis 2:** Children of parents with higher levels of occupation and lower levels of education will achieve higher educational attainment compared to children of parents with lower levels of occupation.

Research shows that parental educational achievement functions as a leading factor for academic achievements because it delivers cultural understanding and intellectual competencies for student educational navigation.

### **Previous Studies**

Haveman and Wolfe (2002) examined how parental education influences children's education outcome over time. The study found that parents' education is a strong predictor for children's educational achievements. Children with parents have at least college degrees are more likely to get into colleges and earn good grades. The study shows that parents with higher education see education as an investment and invest more in their children's education in terms of attention and motivation with their possessed knowledge of the educational system and labor market. Davis Kean (2005) explored the relationship between parental education and children education achievement and found that parents with higher educational degrees are more likely to provide their children with knowledge and training that make their children achieve higher education. It explains that parents with higher education can invest their time with children in reading with them and offering them suggestions on navigating the educational system to make good choices which in result make their children achieve higher educational status. The less education parents compared to educated parents not only have less resources but also less cultural capital and knowledge that helps children to end up with higher education.

The study on maternal education and achievement of children's education was conducted with the National Longitudinal Survey of Youth (NLSY) from America. The study found that highly educated mothers are more likely to engage with their children to help them with studies and transfer their knowledge to be successful in the academic field. The study also found that mothers who complete or get additional education in their older ages do not benefit that much to children as compared to the completed education of young mothers. Educated mothers generate a learning environment in their homes and engage their children in social and cognitive activities that develop reasoning and high social skills that matter in the school environment. (Magnuson, 2007)

Rahman et al. (2023) Data shows that educational disparities between children result primarily from family background differences and specifically because of parental educational standing. The academic achievement environments of families with more educated parents provide both guidance and important resources which lead to student success. Parents who maintain advanced education typically transfer their education-related abilities such as study methods combined with analytical thinking and issue resolution talents to their children leading to improved academic performances (Carlisle & Murray, 2015).

A positive relationship exists between parental educational levels and the enrollment frequency of tertiary education programs. Research reveals that parents with better schooling backgrounds provide enhanced support to their children regarding complex educational pathways and therefore create higher chances for both academic achievement and continued educational success (Goldthorpe 2010). The educational progress of children with parents who have minimal educational attainment meets barriers because they receive little academic assistance along with minimal educational expectations.

Parents educational attainment together with parental participation to help children with their studies shows positive impact on children self-concept, which is their ability to assess their academic ability and potential to excel in academics. According to the research by Gonzalez-Pianda et al. (2002) this self-concept of children strongly relates to their academic success.

Parental occupation determines important factors which impact the academic development of children. Social-economic variables such as parental occupational status and social class together with professional networks constitute parental income which determines access to available resources and opportunities. Families who hold higher positions in their careers have better capabilities to spend money on their children's educational needs. Academic performance improves considerably when families obtain access to elite schooling institutions which combine with private educational support and extracurricular and cultural enrichment opportunities (Considine & Zappalà, 2002). These families have better skills for maximizing institutional benefits thus securing exclusive educational opportunities for their children.

Shah and Hussain (2021) examined how upper-level professional jobs create positive effects on children's school results compared to occupations with lower standings due to better social capital provisions. Children whose parents maintain low occupational positions encounter various types of difficulties. Such families' insufficient resources and limited access to important social networks which prevent them from obtaining quality educational opportunities. Studies show children from these households will likely experience poor academic results while facing more obstacles in ending intergenerational disadvantage (Erola, 2016).

Breen and Jonsson (2005) found that parents having low level skill like manual labor work are likely to engage their children in vocational studies rather than advancing their children with more academic paths like universities. The reason for this decision is not only financial

restraints but also not having expectation of higher education from children. Parents with low level of occupation do not take much risk of finances and choose the safest route as the parents did for themselves. This way parents with low occupation levels can place a safe bet for children to not end up with nothing.

The cross-national study from 20 nations from Pfeffer (2008) found that parental occupation status has a significant effect on children's education achievements. The study found that children from parents belonging to higher occupational status achieve higher education compared to the children with low occupational status parents. The study also found that the countries with higher income inequality like America, parents' occupation is a strong predictor for children education achievement, whereas the countries like Sweden and Finland with more egalitarian policies with more income equality has less impact of parent's occupation for children in achieving higher education. The study also mentions that in a country like Germany where student choose their academic track in a very early stage of school, the parents occupation influence does not matter that much. The study discusses that regional context does matter when looking at the outcome of children education, with more income equal societies the educational system can mitigate the disadvantage of parent's low occupation status whereas more high-income inequality societies, the parents' occupation matter more.

Children's educational achievement shows distinct complexities regarding socio-economic advantages when examined through the joint effects of parental education and occupational status. According to Goldthorpe (2010), Bukodi and Goldthorpe (2013) these elements backup each other to create more educational inequality between groups. Parents with higher education in upper-class jobs share intellectual and cultural knowledge with their children while offering financial support and social networks that enhance educational success. Several factors integrating with each other can create substitutional advantages. Bernardi and Karlson (2014) explain compensatory advantage as an effect which allows high parent occupational status to

equalize the educational shortfall or low educational levels to reduce occupational disadvantages. The identified connection between these factors reveals a fundamental understanding of how some disadvantaged children succeed educationally. Students who have parents with high educational backgrounds tend to avoid grade repetition regardless of when they were born relative to school cutoff dates. Since the schools require to have certain age to get into school, the children having a few months older age than school admission requirement have developmental advantage than children a few months younger than the schools specified age of admission. Parents with higher education can train their children to overcome the gap of a few months in their favor than waste the few months to wait for next year's admission. It explains how parents with higher educational backgrounds help their children with transferring knowledge and training at the young age to avoid grade repetition (Bernardi, 2014).

Both parental education and occupational status have different influences which support each other. Scientific findings show that parental educational background delivers academic capabilities which help people navigate schools while occupational position determines their financial ability to continue academic advancement (Bukodi & Goldthorpe, 2013). The concept of disorganized family structure establishes the complex mechanisms by which family origins affect school achievement.

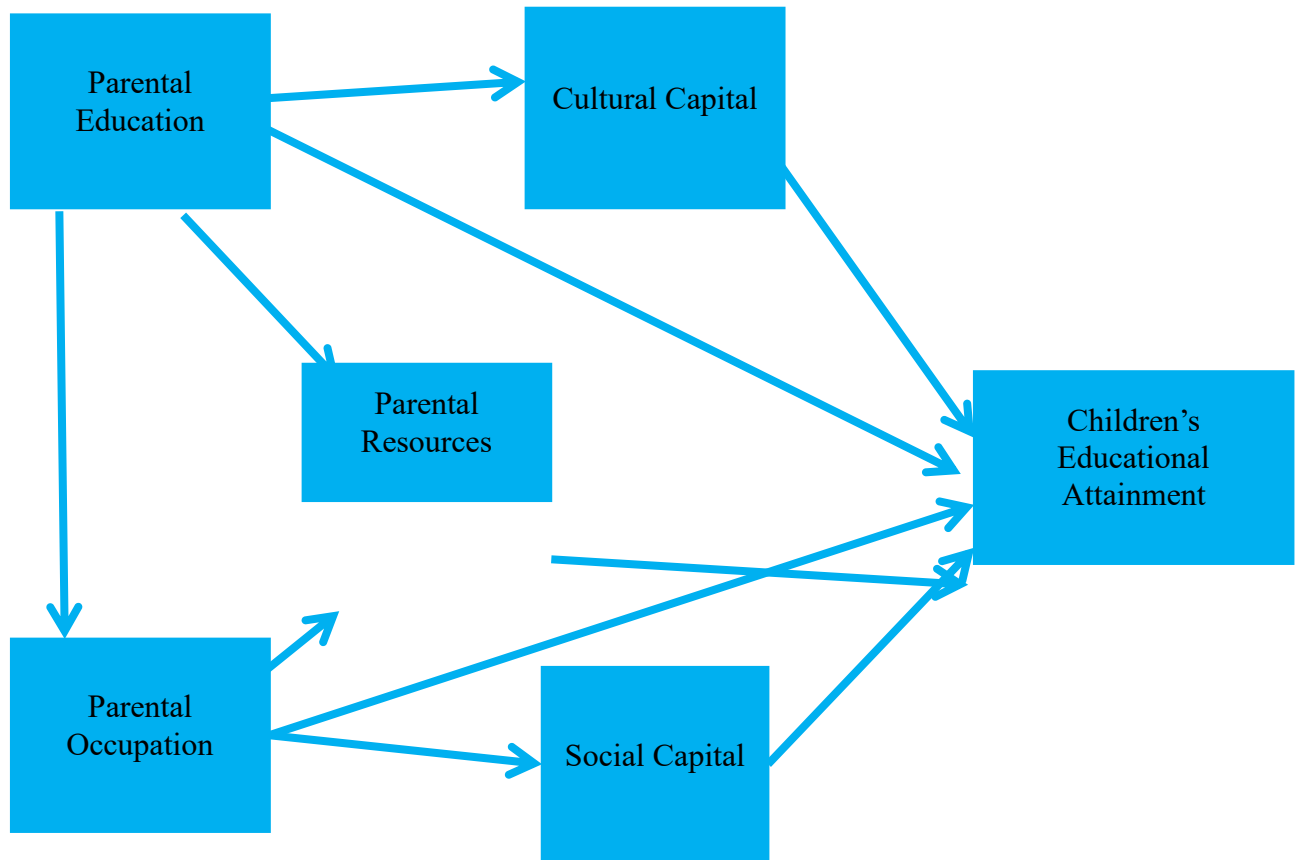
External global events tend to worsen established differences in how people reach their education goals. Children belonging to families with limited educational background showed large learning declines when schools remained closed because of the COVID-19 pandemic according to Engzell, Frey, and Verhagen (2021). The findings show why institutions need to handle structural inequalities as a way to reduce unexpected barriers in education. Research mainly examines how parental education and occupation shape child educational outcomes, yet family structure and neighborhood context and school quality characteristics also impact children's educational results. Jäger (2012) proved that family resources from extended

relatives help level out low SES when parents live in nuclear family settings because relational connections directly impact school success. Safarzyńska (2013) investigated how income levels directly influence family decisions to invest in private tutoring services which intensifies academic achievement gaps between different social classes. This review unifies knowledge from both traditional investigations and modern research to demonstrate how parental schooling level and professional careers create unique and connecting effects on their children's academic achievements. The comprehension of these social factors helps create strategies that fight educational inequality in pursuit of social equity standards.

### **Conceptual Framework**

This conceptual framework outlines the pathways through which parental education and occupational status impact children's educational outcomes, aligning with the theoretical basis of Social Reproduction Theory, Cultural Capital Theory that explains parents with resources, knowledge and behaviors can help their children in getting higher education achievements, and Compensatory Advantage Theory.

### Conceptual model explaining factors influencing children's education



The key components of the study are parental education, occupation and children's educational attainment. Parents with higher education can provide academic guidance, intellectual resources and home environment that prioritize the learning skills which refers to the cultural capital, this is how parents' education enhances children's ability to succeed academically for resulting in achieving higher educational outcomes (Bourdieu, 1977). The Parental occupation contributes to social capital, providing financial resources, stability, and access to networks that enable better educational opportunities and equipped children to navigate the educational system. Having parents with high occupational status also ensures access to quality education and success in education and extracurricular resources (Bukodi & Goldthorpe, 2013). Whereas

parental education and occupation together increases parental resources which helps children to access quality education. This is how parental education, and occupation can have independent as well as combined effects in educational attainment of their children.

### **3. Data and Methods**

This study utilizes quantitative data from the European Social Survey (ESS), specifically rounds 8, 9, 10, and 11, and collected data in 2016, 2018, 2020, and 2023 respectively. The total number of participants in the initial data was 6,820. It is focusing only on Finland, and we are taking respondents from aged 30–70, so we drop all the participants that are not in the mentioned age range. Furthermore, for our analysis we divide our participants education with lower and higher educational backgrounds, after necessary cleansing of the data from missing values and dropping participants who don't fit in our focused age range, we get a total of 3143 observations for respondents '.

The dependent variable, children's educational attainment, will be measured in terms of completed education categorized as high or low attainment based on ISCED classifications. The low education level is ISCED level 0-4A which is equivalent from incomplete primary education to vocational education, access upper tier whereas the high education ISCED level 5B-6 is from advance level of vocational education to onward to highest level of education.

The independent variable for parents' education is coded using the same categories (high, and low) as mentioned above for children's educational attainment. The independent variables include parents' education (categorized as high or low qualifications) and parents' occupation (categorized as high or low occupational status, following Breen and Goldthorpe's model). The variable for parents' occupation is also coded as high and low occupation where low occupation includes skilled workers, semi-skilled, unskilled and farm workers whereas for high occupation we use service, sales, clerical, high administrator and professional occupation. Since we are

interested in the outcome of children’s education with parents’ education and occupation, we are using the parental variables combined for parents’ education and parents’ occupation.

Control variables include respondent gender and respondent age (30 – 70) years. We are using multiple ESS rounds for this study, that’s why adding birth year was not possible.

### Descriptive Statistics

Table 1 shows the distribution of data used in the study

<b>Table 1- Descriptive Statistics</b>						
<b>Variable</b>	<b>Observations</b>	<b>Mean</b>	<b>Percentages</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
Higher Children Education	3143	0.573	57.3%	0.495	0	1
Higher Parental Education	3143	0.359	35.9%	0.478	0	1
Higher Parental Occupation	3143	0.561	56.1%	0.497	0	1
Age	3143	50.54	N/A	11.67	30	70
Female	3143	1.494	49.4%	0.500	1	2

Table 1 presents the descriptive statistics for the key variables used in the analysis of child education. The mean, standard deviation, minimum, and maximum values provide an overview of how these variables are distributed in the dataset.

The dependent variable is children education, representing children's educational attainment, has a mean value of 0.573 with a standard deviation of 0.495. Since its minimum value is 0 and its maximum is 1, this confirms that child education is a binary variable, where 1 represents

educational attainment. The mean value of 0.573 suggests that around 57% of children have higher education in our data.

The independent variable of parent's education and occupation is combined now, the mean of parent's education is 0.359 which represents that almost 36% of parents fall in higher education category. Furthermore, parental occupation has a mean of 0.561 which represents that 56% of parents have higher occupation level.

The age variable has a mean of 50.54 years, with a standard deviation of 11.67, for age groups ranging from 30 to 70 years. The relatively high mean age suggests that the sample includes a broad range of adults, which may influence the analysis of educational attainment and its contributing factors.

The gender variable gander, coded as 1 for male and 2 for female, has a mean of 1.494 and a standard deviation of 0.500. With values ranging between 1 and 2, this indicates that the sample has an almost equal distribution of male and female respondents with 49.4% of females in the data.

Overall, the descriptive statistics provide an overview of the dataset, highlighting that child education is relatively high in the sample, and the gender distribution is nearly equal. The wide age range further indicates a diverse sample that can help analyze educational trends over different age groups.

### **Methods:**

To analyze the relationship between parents' education and occupation and children's educational attainment in Finland, we use logistic regression for analysis, since our dependent variable is in binary, so the best suited method is logistic regression. Logistic regression estimated the probability of an event occurring considering the value of predictor and with how it changes with change in the value of predictor. Using logistic regression, we get results in log

odds which are difficult to interpret and difficult to understand for readers, so we convert our results into odd ratio first further more we calculate the predicted probabilities of children education with different combinations of parental characteristics so the results are easy to understand, as we can get the results in absolute percentages and also can see the change in average percentage points for outcome variable with respect to the reference category. The dependent variable, children's education, is binary, indicating whether they attained a higher level of education. Parental education and occupation serve as key independent variables, categorized as high or low, with gender and respondent age (30–70) as control variables. The results will be reported with respect to different ESS rounds also to see how the outcome of children's education is changing with time.

An interaction term (parental education  $\times$  occupation) is introduced to test the compensatory advantage theory, assessing whether high parental education offsets low occupational status or vice versa. The interaction term is useful to understand how parental education influences children's education by changing the value of occupation. The study uses a logistic regression model to estimate the probability of children's educational attainment based on parental characteristics.

This approach aligns with prior research, ensuring a comprehensive examination of the relationships and trends in the Finnish context. The inclusion of logistic regression, and AME analysis enhances understanding of results, allowing for a more precise interpretation and understanding of the trend.

#### **4.Results**

Table 2 mentioned below consists of the simple logistic regression results. The results shows the independent effect of parental education and parental occupation on outcome of children education.

<b>Table 2- Logistic regression results</b>					
Children Education	Coefficient	Odd. Ratio	Std. Error	Z value	P value
Higher Parental Education	0.967	2.63	0.091	10.55	0.000
Higher Parental Occupation	0.331	1.39	0.083	3.96	0.000
Female	0.636	1.88	0.077	8.30	0.000
Age	-0.139	0.987	0.003	-4.02	0.000
ESS Round					
Round 9	0.205	1.22	0.103	1.99	0.047
Round 10	0.341	1.41	0.107	3.18	0.001
Round 11	0.188	1.21	0.106	1.78	0.075
Constant	0.023	1.02	0.206	0.11	0.911

Table 2 represents the results from logistic regression where we also have added odd ratio in it to understand the results a little better. The higher parental education coefficient with log-odds of 0.967 and odd ratio 2.63 represents that with one unit increase in parental education, the odds of children getting higher education increase by 2.63 times, whereas the odds of children receiving higher education increase by 1.39 times when parental occupation is increased by one unit. The odds ratio for gender represents that the odds for female getting higher education increase by 1.88 times than male.

The logistic regression shows the independent effect of parental education and parental occupation which represents that both characteristics of parents have a positive influence on children education whereas parental education has more positive influence than parental occupation.

The coefficient for age is -0.139 and the odd ratio is 0.98 which explains that as the age increases the odds for getting higher education decrease by 2%. Considering the overall results of logistic regression, there is a positive influence of parental education and occupation on children’s education which is also statistically significant.

Looking at the results for ESS rounds separately, we can conclude that the odds of receiving higher education are positively increasing in every ess round and are statistically significant.

Table 3 consists of the results of logistic regression with adding the interaction term between parental education and parental occupation on outcome of children’s education

<b>Table 3- Logistic regression results with interaction term</b>					
Children Education	Coefficient	Odd. Ratio	St. Error	Z value	P value
Higher Parental Education	0.639	1.89	0.167	3.83	0.000
Higher Parental Occupation	0.229	1.25	0.094	2.45	0.014
Parents Education * Occupation	0.457	1.57	0.196	2.33	0.020
Female	0.641	1.89	0.767	8.36	0.000

Age	-0.014	0.99	0.003	-4.10	0.000
ESS Round					
Round 9	0.201	1.23	0.103	2.00	0.046
Round 10	0.347	1.41	0.107	3.23	0.001
Round 11	0.194	1.21	0.106	1.83	0.068
Constant	0.073	1.07	0.201	0.35	0.723

The odd ratio in table 3 for parents having higher education is 1.89, which suggests that the main effect of parents with higher education with interaction term when holding parents' occupation constant as low, the outcome of children getting higher education increases by 1.89 times. The results are also statistically significant.

The results for the impact of parental occupation on children's education are lower than the parents' education. The odd ratio of 1.25 for parents with high occupation suggests that the outcome of children getting higher education increases by 1.25 times when holding parents' education constant as low.

The findings from interaction term of parental education\*parental occupation represents an increase of probability in children getting higher education, which suggests that combining parental characteristics together increases the probability for children to end up with higher education. The odd ratio of 1.57 represents that, with interaction of higher parental education and high occupation, the odds of children getting higher education increases by 1.57 times. The combined effect of parental characteristics is a little smaller than the main effect of education. This means that education alone is the strongest predictor for children's education.

The findings show that being female increases the likelihood of getting higher education 1.89 times more than male whereas with increasing age decreases the odd for getting higher education 0.99 times. Since we are considering ESS rounds of 8-11, the results show that in every ESS round, with interaction between parent’s education and occupation, the probability of getting higher education increases, however the results are not statistically significant for ESS round 11.

Table 4 represents the average predicted probabilities for children getting higher education with different combinations of parent’s education and occupation. When we hold parents’ education and parents’ occupation as low, there is a 46% predicted probability that children will achieve higher education status.

<b>Table 4- Predicted probabilities for Children Education</b>				
Parental Occupation	Education Level	Predicted Probabilities	Percentages	Std. err
Lower Parental occupation	Low parental Education	0.463	46%	0.014
Low Parental Occupation	Higher Parental Education	0.615	61%	0.035
Higher Parental Occupation	Low parental Education	0.519	51%	0.171
Higher Parental Occupation	Higher Parental Education	0.757	76%	0.014

**Hypothesis 1:** We are moving toward our first hypothesis where we analyze and report the results. We assumed in the first hypothesis that parents with low occupations and higher

education will compensate for children high education attainment. We will discuss how parents' low occupation and high education together shape the outcome of children.

The predicted probability for lower parental occupation and higher education is 61%, meaning that children from households where parents have low occupational status, but higher education is 61% of children will attain higher education. Since the predicted probability for children getting higher education from low occupation and low educated parents are 46%, The results show that probability of getting higher education for children from low occupation, but high education parents are 15 percentage points more likely to get higher education than children from low occupation and low educated parents.

These findings align with Bourdieu's Cultural Capital Theory, emphasizing the role of parental education in shaping academic success. They also support research by Muraina (2011) and Bernardi (2014), reinforcing that parental education plays a key role in shaping the outcome of children's educational achievements. The results also confirm our hypothesis with respect to the compensatory advantage theory which explains in our case that parents with higher education can compensate for their low occupational status for children achieving higher education. The findings from Goldthorpe (2010) support our findings that shows a positive relationship exists between parental educational levels and the enrollment frequency of tertiary education programs. Research reveals that parents with better educational backgrounds provide enhanced support to their children regarding complex educational pathways and therefore create higher chances for both academic achievement and continued educational success (Goldthorpe 2010).

**Hypothesis 2:** We are moving toward our second hypothesis where we analyze and report the results. We assumed in second hypothesis that parents with high occupations and low education will compensate for children high education attainment. We will discuss how parents with high occupation and low education together shape the outcome of children.

Table 4 presents the predicted probabilities from the logistic regression model, showing how changes in parental occupation and education influence the probability of child education.

The predicted probability of high parental occupation with low education is 51% with a p-value of 0.000, indicating a statistically significant positive effect. This suggests that the predicted probability for children getting higher education from households where parents have high occupational status, but low education is 51%. This is the increase of 5 percentage points from the category where parents have low occupation and low education

The results prove our second hypothesis, but there is a very small increase of predicted probability for children getting higher education. The results are still aligned with our compensatory advantage theory that argued that higher level of parental occupation can compensate for parental education for attaining higher education for children. The results are also aligned with Social Reproduction Theory (Bourdieu, 1977) which argues that higher occupational status functions as an explanation through its ability to offer financial means and social capabilities which support children's educational achievements. Parents with higher occupations have access to more economic resources that make them able to provide children with tutoring and extracurricular activities which can improve children's educational success.

The results supporting our hypothesis 2 which explains parental higher occupation does matter for better outcome of children's education also supported by the findings from study of Considine (2002) which found that families who hold higher positions in their careers have better capabilities to spend money on their children's educational needs. Academic performance improves considerably when families obtain access to elite schooling institutions which combine with private educational support and extracurricular and cultural enrichment opportunities (Considine & Zappalà, 2002).

Figure A1 attached in Appendix for further understanding of how parental education and parental occupation alone and in combination influencing children educational attainment. It is clear through the figure that parental education is the strongest predictor even when occupation is low while high occupation with low education does also compensate but the effect is smaller than parental education being high.

## **5. Conclusion**

This study examined how parental occupation and education interact to shape children's educational attainment. The independent effects of parental education and occupation align with the previous research mentioned in our research. The results from Hypothesis 1 and Hypothesis 2 reveal key patterns regarding compensatory advantages, combined role of parental occupation and education.

The findings suggest that low parental occupation combined with high education can compensate for occupational disadvantages, whereas we found that parental education is the most important indicator for children getting higher education. We also found that parental education alone is the strongest factor for children's education, indicating that compensatory advantages are applicable in our research. The generational effect was evident, with younger cohorts achieving higher education levels than older ones, reflecting improved access to education over time.

High parental occupation compensates for low educational attainment, reinforcing the Compensatory Advantage Theory but the effect of higher parental occupation is very small combining with low education. The interaction between occupation and education showed a positive effect, confirming that economic stability and occupational networks create educational opportunities for children.

From the analysis we conclude that considering parental characteristics, parental education plays the most important role for shaping the outcome of children education as well as compensating for disadvantages, whereas parents' occupation also positively influences in children's educational achievement but not as strong as education does. This confirms Boudon's primary effects that children from disadvantaged backgrounds are still likely to pursue higher education due educated parents. The results also support the Social Reproduction Theory (Bourdieu, 1977) which explains that cultural and social capital is very important for children's educational achievement. We also found the results that align with the Social Reproduction theory that parents with education and high occupation status can help their children to achieve higher education status.

### **Policy and Research Implications**

The study highlights the need for comprehensive educational policies that integrate both parental education and occupational stability to improve child education outcomes. Policymakers must focus on reducing structural barriers, expanding financial support for education, and implementing gender-inclusive educational programs.

To enhance intergenerational social mobility, governments should invest in scholarship programs, vocational training for parents, and employment opportunities that provide financial stability. Future research should explore how these trends vary across different socioeconomic and cultural contexts, providing a more nuanced understanding of the long-term effects of parental occupation and education on child success.

This study contributes both theoretical and practical insights into how parental characteristics shape child education. Addressing structural inequalities and supporting both educational and occupational growth will be key to achieving long-term educational equity and social mobility.

### **Limitations and Future Research Directions**

The study faced several limitations. First, the dataset included only people from Finland that can limit the generalizability of research across other regions. Regional biases may exist due to variations in socioeconomic and educational systems. The study measured educational attainment using a binary variable that potentially simplifies the wide range of educational outcomes. The research predecessors grouped occupational and educational classifications in a wide manner even though it disregarded the distinct characteristics of individual occupational and educational categories. The analysis didn't specifically incorporate cultural or institutional factors including regional policies and educational infrastructure although they might impact results. Long-term causal relationships between parental SES and children's outcomes remain unclear because of the study's cross-sectional nature.

The examination of parental SES effects on children's education requires study into the ways cultural norms and regional policies together with institutional factors affect this relationship. Research through cross-country comparison must study the specific aspects which vary across different social economic systems. The relationship between parental occupation and education and their impact on child outcomes needs long-term measurements across time and familial generations to understand their lasting career and societal mobility effects. Future research needs to investigate various socioeconomic settings through diverse geographic regions while studying additional variables that include social influences from peers and educational institution quality and extracurricular activities Gender-focused examination of educational data must be performed to understand varying educational pathways and gender-specific social conditioning that affects males and females.

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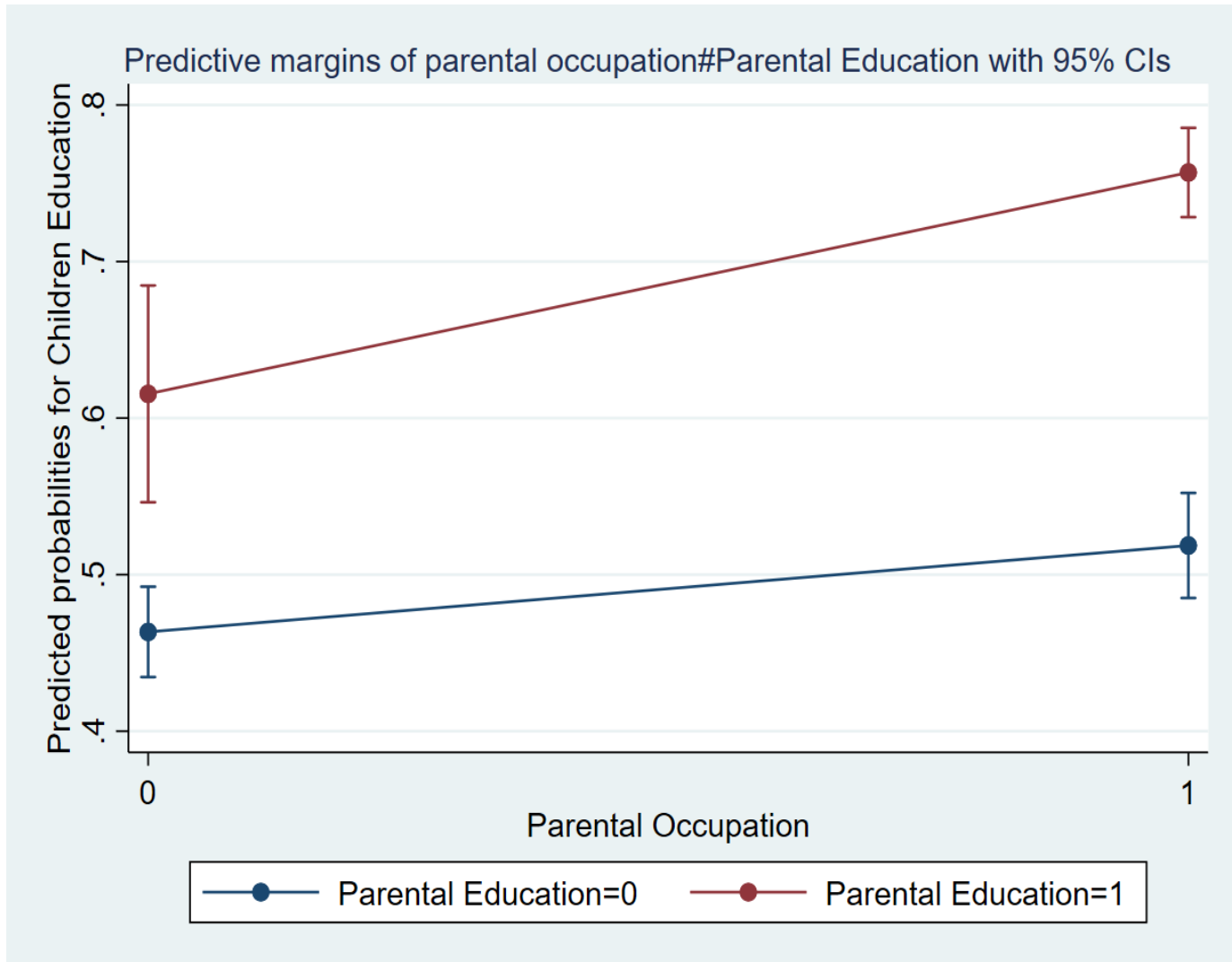
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## Appendix

Figure A1



The figure explains that parental education is key factor for educational outcome of children, even though occupation does play a role in it, but education alone is the strongest predictor.

The predicted probability for children's education is 15 percentage points more when we increase parents' education from low to high keeping parental occupation constant.