

# Imputing parenthood status in EU-SILC using SHARE for Spain, Austria, and Finland

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## 1. Abstract

This research note details the methodology employed to impute partnership status in EU-SILC when children leave home and no information of being a parent is available. To that end, we explore the information available at the Survey of Health, Ageing and Retirement in Europe (SHARE). In this note, four models are presented, applied separately on males and females of Austria, Spain and Finland. Our results show that the substitution effect of higher education prevails for females and decreases the probability of having a child; while the income effect prevails for men, increasing the probability of having a child. Higher income, both at individual and household level, is associated with increased probability of having a child in all samples, except the one of Spanish males. Nevertheless, the negative effect on the probability of having a child was spotted in one of the higher household income quartiles, possibly capturing the substitution effect of their partners.

*Keywords: Education, Demographic Change, National Transfer Accounts*

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## 1. Introduction

National Transfer Accounts (NTA) are usually estimated by age and sometimes gender, but there is a high potential for analysis at a more disaggregated level. Abio et al. (2020) estimate disaggregated National Transfer Accounts adding education and family status to the previous characteristics. Unlike education, which varies only marginally throughout the life-cycle, partnership status and living with children are the two most important characteristics affected by the timing of the surveys. Most surveys provide information on the number of household members residing in the household at the moment of the survey, leaving outside of the survey children who do not live in the household because they have moved out to live on their own or to live with the other parent. This problem exists across all ages; however, it becomes accentuated in the older age groups. To overcome it, we use the Survey of Health, Ageing and Retirement in Europe (SHARE) that contains information on parenthood status irrespective of the household composition for the 50+ population. From the information contained in SHARE, we create an imputation procedure that allows us to identify parenthood status from the age of 50 onwards in EU-SILC. Because EU countries have different welfare regimes, we perform the analyses separately for each country except for the UK, as this country does not participate in the SHARE.

## 2. Method

A total of 6,856 individuals from Austria (3,782 females, SHARE WAVE 4), 5,623 from Spain (2,896 females, SHARE WAVE 4) and 2,586 from Finland (1,327 female, SHARE WAVE 7) were included in the initial survey data. After deleting observations with missing values of the relevant variables, our final sample consists of 5,247 individuals from Austria, 3,727 from Spain and 2,007 from Finland.

Parenthood is our dependent variable. For Finland, parenthood is a binary indicator that equals one for those individuals who ever had a biological child, even if the child is deceased, and zero otherwise. For Austria and Spain, the binary indicator equals one for those individuals who have an alive child, including biological, foster, adopted children, and the children of their partner.

The determinants of parenthood include age, education, partnership status, individual income and household income. The independent variable age begins at 50 years and is split in seven groups: 50-54, 55-59, 60-64, 65-69, 70-74, 75-79 and 80+. Age is included to control for any possible cohort effects. The inclusion of education was decided due to its widely accepted relationship to fertility (Musick et al., 2009; Nisén et al., 2014; Jalovaara et al., 2019). Being in a partnership has also been shown to result in higher likelihood of having a child (Brien et al., 1999; Baizán et al., 2003). In our study, partnership status is defined as binary variable that takes the value of one for those who have a partner and zero otherwise. Education includes three different binary indicators; the first equals one for those individuals with have less than a high school level of education, the second equals one for those individuals who have obtained a high school diploma, and the third equals one for those individuals who hold a university degree. Income - both at the individual and household level - is also commonly accepted as a determinant of fertility (Schultz, 2006; Herzer et al., 2012); thus, it is also included in our analysis. Individual income includes earnings from employment or self-employment, annual old age pensions, annual retirement pensions, annual survivor and war pensions, annual private occupational pensions, annual disability pensions and benefits, annual sickness pensions and benefits, annual unemployment and insurance benefits, and annual public care insurance benefits. Household income refers to average net monthly household income. Both individual and household incomes are divided into quartiles and each quartile is

represented by a different binary indicator, with Q1 being the lowest income quartile and Q4 being the highest income quartile.

Given the binary nature of our dependent variable, we employ weighted logistic regressions with robust standard errors. Each regression was performed separately for men and women and for each country.

We estimate four different models of parenthood. Model 1 is defined as follows:

$$y_i = \alpha_i + \beta_i Partner + \sum_{j=0}^3 \gamma_j Age_{ji} + \sum_{j=0}^3 \delta_j Education_{ji} + \varepsilon_i \quad (1)$$

with  $y_i$  denoting our outcome variable,  $Age_g$  are the age groups,  $Education_g$  represents the educational level groups and  $\varepsilon_i$  is the error term.

In models (2) and (3) we add individual and household income quartiles to model (1), respectively. Finally, all determinants are included in model 4:

$$y_i = \alpha_i + \beta_i Partner + \sum_{j=0}^3 \gamma_j Age_{ji} + \sum_{j=0}^3 \delta_j Education_{ji} + \sum_{j=0}^3 \lambda_j IndIQ_{ji} + \sum_{j=0}^3 \mu_j HHIQ_{ji} + \varepsilon_i \quad (2)$$

Due to the lack of individual income data, we were only able to estimate models 1 and 3 for Finland.

Due to missing educational level values, the final samples used in models 1 and 2 contain 4,958 observations (2,831 females) for Austria, 3,471 observations (1,893 females) for Spain and 1,969 observations (1,052 females) for Finland. Finally, due to missing data on household income, the number of observations in models 3 and 4 were further reduced to 3,001 observations (1,785 females) for Austria, 1,661 (933 females) for Spain and 1,188 (621 females) for Finland.

Table 1. Descriptive statistics, Austria.

	All		Males		Females	
	N	Mean	N	Mean	N	Mean
Is a parent	5,083	0.874	2,157	0.868	2,881	0.878
Has a partner	5,083	0.649	2,157	0.781	2,881	0.551
Age	5,083	65.806	2,157	65.444	2,881	66.078
Less than secondary education	4,958	0.248	2,127	0.142	2,831	0.328
Secondary education	4,958	0.496	2,127	0.554	2,831	0.452
University education	4,958	0.254	2,127	0.302	2,831	0.219
Individual income (euros)	5,038	5,833.35	2,127	8,120.43	2,881	4,121.02
Household income (euros)	3,020	5,971.92	1,221	7,211.29	1,799	5,131.43

Tables 1-3 present descriptive statistics of the baseline characteristics of the study population stratified by gender. In all three countries more than 65%, except for Austrian women, has a partner and almost one in nine adults is a parent. The most striking cross-country difference is in the highest educational level attained. While above 65% of Austrians and Finish hold at least secondary education, in Spain the figure is only around 20%.

Table 2. Descriptive statistics, Spain.

	All		Males		Females	
	N	Mean	N	Mean	N	Mean
Is a parent	3,643	0.900	1,659	0.887	1,984	0.910
Has a partner	3,643	0.769	1,659	0.854	1,984	0.698
Age	3,643	67.793	1,659	67.679	1,984	67.889
Less than secondary education	3,471	0.824	1,578	0.796	1,893	0.847
Secondary education	3,471	0.091	1,578	0.102	1,893	0.082
University education	3,471	0.083	1,578	0.100	1,893	0.069
Individual income (euros)	3,643	4,227.90	1,578	5,567.14	1,984	3,108.05
Household income (euros)	1,738	4,243.34	758	4,264.35	978	4,227.05

Table 3. Descriptive statistics, Finland.

	All		Males		Females	
	N	Mean	N	Mean	N	Mean
Is a parent	1,971	0.887	917	0.874	1,054	0.898
Has a partner	1,971	0.755	917	0.798	1,054	0.717
Age	1,971	65.972	917	65.967	1,054	65.975
Less than secondary education	1,969	0.294	917	0.317	1,052	0.274
Secondary education	1,969	0.326	917	0.348	1,052	0.307
University education	1,969	0.378	917	0.333	1,052	0.418
Household income (euros)	1,188	3,402.68	567	3,479.53	621	3,332.52

## Results

The estimation results of the likelihood of being a parent are shown in Tables 4-9. All available samples, that is, individuals aged 50 and above, are used in the analyses presented here. It should be noted that in the initial estimations, that were later used to impute parenthood in EU-SILC, only individuals aged 60 and above were considered. These analyses are given in the Appendix to this research note.

### Partnership

As expected, people having a partner are more likely to be parents as revealed by the positive and statistically significant coefficients  $\beta$  in all four models. The largest effect is found in Spanish males in Model 4, where the change in partnership status increases the probability of being a parent by 356 percentage points (pp). Even the smallest impact of partnership status on the likelihood of having a child, observed for Finnish females in Model 1, is quantitatively important (53.8 pp). The only coefficients that turned out not to be statistically significant are those found for Finnish males and females in Model 4, possibly due to the low number of available observations.

### Education

Although not all higher education coefficients  $\delta$  are statistically significant, the ones that are statistically significant reveal a lower probability of parenthood for females with lower education and a higher probability of parenthood for males with a higher education.

More specifically, Austrian females who hold a university degree are less likely to become mothers compared to their counterparts with less than secondary education. The effect is stable across all four models, being the largest in Model 1 with highly educated Austrian women being 75.4 percentage point less likely to have a child than those with the lowest levels of education. The inverse relationship between education and parenthood is also observed for Spanish women, however the effect is only marginally significant in 1 and 2.

An opposite pattern is observed in some of the models that use the male samples. However, only a few of the estimated coefficients are statistically significant at the margin for Spanish and Finnish men. Being those more educated more likely to be a parent.

### Individual Income

The impact of individual income on the likelihood of being a parent is positive, both for males and females but not in all models and not in all samples. The strongest effect is observed for Spanish men. The likelihood of having a child among Spanish men from the two highest income quartiles is between 75 and 81 pp higher than that of their counterparts belonging to the lowest income strata. The individual income is not statistically significant in Model 4 when the household income is added to the covariates.

For women, individual income exerts a positive effect on the probability of having a child, both in Spain and in Austria. However, only a few of the coefficients are statistically significant at the margin and the increase is of around 40 pp.

Interestingly, once the household income is added (Model 4), individual income remains relevant only for Spanish females. Women from the higher income quartiles are more likely to be mothers than those from the lowest quartile. That may be explained by the

fact that Spanish women included in wave 4 of SHARE belong to a cohort characterised mainly by male breadwinner and female homemaker families.

There are no results for Finland, due to the unavailability of individual income data.

### **Household Income**

Our findings reveal that household income does not significantly impact the likelihood of having a child for women. The only exception is the significant and positive effect of household income among Finish women. Females from the third income quartile are more likely, 114.4 pp, to be mothers than their counterparts from the lowest income quartile.

For men in Austria and Finland, household income is a consistently the strongest determinant of the likelihood of being a parent. For Austrian males, the probability of parenthood is around 90 percentage points higher in the well-off households. In the case of Finland, men are also more likely, more than 120 pp, to be fathers if they are from wealthier families.

Finally, the only negative statistically significant effect of household income on the probability of being a parent is found for Spanish males. But it only holds for those belonging to the second lowest income quartile compared to those from the lowest quartile.

### **3. Discussion and concluding remarks**

With the exception of partnership, our models revealed a significant level of heterogeneity, both across genders and countries. University education decreases the probability of having a child for Austrian females, but increases it for Spanish males. Secondary education reduces the likelihood of having a child for Spanish females, but increases it for Finnish males. The overall trend appears to be that the higher levels of education have a positive effect for males and a negative one for females. This could be attributed to relative levels of the substitution and income effects between the two genders when it comes to fertility (Cohen et al., 2013). The cost of having a child falls disproportionately on women, highlighting the substitution effect. At the same time, the income effect prevails for men.

The positive impact of income on the likelihood of being a parent, when significant, implies a stronger income effect. This also holds when instead of individual income, household income is included in the analyses. The only exception is observed for Spanish males where income increases significantly reduce the probability of having a child. Nevertheless, a positive income effect among individuals belonging to lower socioeconomic strata has been shown in previous research (Cohen et al., 2013). The observed relationship could be capturing the substitution effect of females within the household.

In order to be able to make accurate predictions of the parenthood and to impute the probability of being a parent into the EU-SILC dataset, the results must be strengthened statistically and the differences between the groups must be clarified. To achieve these goals, we are going to update the present research note, employing a series of techniques aimed at better expanding our survey data.

Table 4. The likelihood of being a parent for Austrian Males

Variables	Model 1	Model 2	Model 3	Model 4
Having a partner	2.189*** (0.156)	2.176*** (0.158)	1.687*** (0.216)	1.709*** (0.221)
Education (Ref. Less than secondary)				
Secondary	0.022 (0.223)	-0.039 (0.229)	-0.056 (0.282)	-0.065 (0.287)
University	0.006 (0.242)	-0.112 (0.257)	-0.163 (0.307)	-0.195 (0.318)
Age groups (Ref. Aged 50-54)				
Aged 55-59	0.072 (0.278)	0.058 (0.274)	0.267 (0.345)	0.261 (0.343)
Aged 60-64	-0.157 (0.231)	-0.086 (0.241)	0.071 (0.280)	0.163 (0.286)
Aged 65-69	-0.135 (0.244)	-0.048 (0.266)	0.123 (0.300)	0.285 (0.329)
Aged 70-74	-0.086 (0.253)	0.038 (0.281)	0.145 (0.311)	0.335 (0.346)
Aged 75-79	0.617* (0.363)	0.753** (0.380)	0.996** (0.460)	1.184** (0.471)
Aged 80+	0.854*** (0.329)	0.991*** (0.340)	0.719* (0.377)	0.908** (0.392)
Individual income (Ref. Q1 (lowest))				
Q2	-	-0.132 (0.245)	-	-0.090 (0.398)
Q3	-	0.175 (0.237)	-	-0.100 (0.386)
Q4 (highest)	-	0.408* (0.230)	-	0.289 (0.370)
Household Income (Ref. HHQ1 (lowest))				
HHQ2	-	-	0.821*** (0.265)	0.780*** (0.299)
HHQ3	-	-	0.904*** (0.289)	0.833*** (0.318)
HHQ4 (highest)	-	-	0.962*** (0.285)	0.827*** (0.303)

Note: Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 5. The likelihood of being a parent for Austrian Females

Variables	Model 1	Model 2	Model 3	Model 4
Having a partner	0.941*** (0.145)	0.997*** (0.152)	1.312*** (0.233)	1.22*** (0.240)
Education (Ref. Less than secondary)				
Secondary	-0.284 (0.174)	-0.258 (0.173)	-0.147 (0.215)	-0.105 (0.215)
University	-0.754*** (0.190)	-0.696*** (0.198)	-0.664*** (0.231)	-0.590** (0.241)
Age groups (Ref. Aged 50-54)				
Aged 55-59	-0.029 (0.253)	-0.005 (0.257)	-0.104 (0.308)	-0.075 (0.313)
Aged 60-64	0.263 (0.24)	0.269 (0.261)	0.446 (0.291)	0.465 (0.328)
Aged 65-69	0.267 (0.251)	0.286 (0.28)	0.673** (0.313)	0.668* (0.360)
Aged 70-74	0.043 (0.246)	0.061 (0.276)	0.312 (0.306)	0.328 (0.358)
Aged 75-79	0.355 (0.313)	0.346 (0.339)	0.668* (0.375)	0.638 (0.420)
Aged 80+	-0.208 (0.265)	-0.188 (0.295)	0.062 (0.304)	0.067 (0.360)
Individual income (Ref. Q1 (lowest))				
Q2	-	0.393** (0.191)	-	0.120 (0.306)
Q3	-	0.043 (0.201)	-	-0.423 (0.311)
Q4 (highest)	-	0.219 (0.219)	-	-0.193 (0.342)
Household Income (Ref. HHQ1 (lowest))				
HHQ2	-	-	-0.042 (0.205)	0.227 (0.237)
HHQ3	-	-	0.150 (0.280)	0.359 (0.288)
HHQ4 (highest)	-	-	0.107 (0.240)	0.263 (0.281)

Note: Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 6. The likelihood of being a parent for Spanish Males

Variables	Model 1	Model 2	Model 3	Model 4
Having a partner	3.273*** (0.232)	3.35*** (0.232)	3.504*** (0.339)	3.559*** (0.340)
Education (Ref. Less than secondary)				
Secondary	0.115 (0.476)	0.137 (0.462)	0.614 (0.626)	0.552 (0.590)
University	0.686* (0.398)	0.777* (0.403)	0.443 (0.568)	0.552 (0.577)
Age groups (Ref. Aged 50-54)				
Aged 55-59	0.252 (0.429)	0.145 (0.422)	-0.035 (0.588)	-0.090 (0.582)
Aged 60-64	0.008 (0.441)	-0.051 (0.439)	0.252 (0.590)	0.195 (0.588)
Aged 65-69	0.088 (0.441)	-0.100 (0.436)	-0.002 (0.583)	-0.191 (0.591)
Aged 70-74	0.658 (0.471)	0.513 (0.464)	0.636 (0.633)	0.454 (0.644)
Aged 75-79	0.747 (0.476)	0.600 (0.486)	0.742 (0.613)	0.551 (0.625)
Aged 80+	1.144** (0.464)	1.022** (0.468)	0.850 (0.610)	0.723 (0.615)
Individual income (Ref. Q1 (lowest))				
Q2	-	0.565 (0.403)		0.293 (0.637)
Q3	-	0.812*** (0.313)	-	0.587 (0.530)
Q4 (highest)	-	0.752** (0.327)	-	0.104 (0.556)
Household Income (Ref. HHQ1 (lowest))				
HHQ2	-	-	-0.906** (0.403)	-0.865** (0.401)
HHQ3	-	-	0.445 (0.445)	0.549 (0.458)
HHQ4 (highest)	-	-	0.341 (0.467)	0.480 (0.484)

Note: Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 7. The likelihood of being a parent for Spanish Females

Variables	Model 1	Model 2	Model 3	Model 4
Having a partner	1.404*** (0.234)	1.521*** (0.253)	1.998*** (0.356)	2.216*** (0.408)
Education (Ref. Less than secondary)				
Secondary	-0.652* (0.375)	-0.646* (0.375)	0.125 (0.541)	0.112 (0.533)
University	-0.196 (0.358)	-0.188 (0.357)	-0.268 (0.484)	-0.156 (0.508)
Age groups (Ref. Aged 50-54)				
Aged 55-59	0.294 (0.392)	0.324 (0.394)	0.252 (0.569)	0.279 (0.563)
Aged 60-64	0.992** (0.439)	1.002** (0.440)	0.719 (0.606)	0.640 (0.591)
Aged 65-69	0.671 (0.409)	0.694 (0.423)	0.580 (0.594)	0.540 (0.593)
Aged 70-74	0.704 (0.430)	0.708 (0.444)	0.638 (0.619)	0.474 (0.609)
Aged 75-79	0.704* (0.428)	0.675 (0.434)	0.640 (0.592)	0.379 (0.564)
Aged 80+	0.609 (0.396)	0.600 (0.402)	0.720 (0.560)	0.502 (0.533)
Individual income (Ref. Q1 (lowest))				
Q2	-	0.510* (0.294)	-	0.815* (0.427)
Q3	-	0.297 (0.308)	-	0.749* (0.401)
Q4 (highest)	-	0.331 (0.321)	-	0.381 (0.455)
Household Income (Ref. HHQ1 (lowest))				
HHQ2	-	-	-0.105 (0.396)	-0.080 (0.401)
HHQ3	-	-	-0.392 (0.384)	-0.431 (0.374)
HHQ4 (highest)	-	-	-0.286 (0.344)	-0.273 (0.349)

Note: Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 8. The likelihood of being a parent for Finish Males

Variables	Model 1	Model 3
Having a partner	1.038*** (0.339)	0.514 (0.372)
Education (Ref. Less than secondary)		
Secondary	0.633* (0.356)	0.275 (0.460)
University	0.313 (0.380)	-0.104 (0.534)
Age groups (Ref. Aged 50-54)		
Aged 55-59	0.090 (0.526)	-0.158 (0.653)
Aged 60-64	-0.435 (0.553)	-0.787 (0.611)
Aged 65-69	1.116* (0.619)	0.740 (0.735)
Aged 70-74	0.637 (0.546)	0.525 (0.679)
Aged 75-79	0.289 (0.685)	0.340 (0.806)
Aged 80+	0.787 (0.650)	0.833 (0.822)
Household Income (Ref. HHQ1 (lowest))		
HHQ2	-	0.076 (0.468)
HHQ3	-	1.215** (0.520)
HHQ4 (highest)	-	1.468** (0.612)

Note: Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 9. The likelihood of being a parent for Finish Females

Variables	Model 1	Model 3
Having a partner	0.538** (0.273)	-0.029 (0.393)
Education (Ref. Less than secondary)		
Secondary	-0.100 (0.424)	0.347 (0.448)
University	-0.566 (0.443)	-0.343 (0.434)
Age groups (Ref. Aged 50-54)		
Aged 55-59	0.155 (0.464)	-0.271 (0.521)
Aged 60-64	0.521 (0.489)	0.172 (0.566)
Aged 65-69	0.605 (0.538)	0.755 (0.753)
Aged 70-74	0.334 (0.556)	0.259 (0.640)
Aged 75-79	0.416 (0.598)	0.222 (0.696)
Aged 80+	0.186 (0.620)	0.218 (0.704)
Household Income (Ref. HHQ1 (lowest))		
HHQ2	-	0.483 (0.450)
HHQ3	-	1.144** (0.533)
HHQ4 (highest)	-	0.968 (0.617)

Note: Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

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## Appendix

Tables A1-A6 contain the estimation results of the likelihood of being a parent for the restricted sample that includes only individuals aged 60 and above.

Table A1. The likelihood of being a parent for Austrian Males

Variables	Model 1	Model 2	Model 3	Model 4
Having a partner	1.851*** (0.181)	1.87*** (0.182)	1.644*** (0.231)	1.658*** (0.231)
Education (Ref. Less than secondary)				
Secondary	0.100 (0.243)	0.117 (0.250)	0.112 (0.293)	0.143 (0.293)
University	-0.125 (0.260)	-0.068 (0.290)	0.003 (0.324)	0.053 (0.347)
Age groups (Ref. Aged 60-64)				
Aged 65-69	0.008 (0.231)	-0.012 (0.232)	0.013 (0.286)	0.005 (0.289)
Aged 70-74	0.072 (0.241)	0.033 (0.245)	0.048 (0.303)	0.031 (0.311)
Aged 75-79	0.751** (0.349)	0.742** (0.351)	0.858** (0.431)	0.843* (0.434)
Aged 80+	0.911*** (0.320)	0.908*** (0.327)	0.634* (0.377)	0.625 (0.386)
Individual income (Ref. Q1 (lowest))				
Q2	-	0.330 (0.307)	-	0.376 (0.521)
Q3	-	0.410 (0.276)	-	0.066 (0.490)
Q4 (highest)	-	0.324 (0.258)	-	0.153 (0.474)
Household Income (Ref. HHQ1 (lowest))				
HHQ2	-	-	0.750** (0.327)	0.858** (0.338)
HHQ3	-	-	0.368 (0.325)	0.452 (0.368)
HHQ4 (highest)	-	-	0.434 (0.314)	0.494 (0.342)

Note: Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table A2. The likelihood of being a parent for Austrian Females

Variables	Model 1	Model 2	Model 3	Model 4
Having a partner	0.813*** (0.168)	0.866*** (0.187)	1.232*** (0.273)	1.001*** (0.289)
Education (Ref. Less than secondary)				
Secondary	-0.397** (0.191)	-0.391** (0.190)	-0.246 (0.236)	-0.197 (0.242)
University	-0.781*** (0.213)	-0.764*** (0.221)	-0.708*** (0.248)	-0.624** (0.258)
Age groups (Ref. Aged 60-64)				
Aged 65-69	-0.012 (0.224)	-0.004 (0.225)	0.208 (0.291)	0.136 (0.294)
Aged 70-74	-0.247 (0.219)	-0.237 (0.224)	-0.15 (0.287)	-0.227 (0.292)
Aged 75-79	0.035 (0.292)	0.039 (0.295)	0.217 (0.359)	0.132 (0.366)
Aged 80+	-0.538** (0.24)	-0.521** (0.243)	-0.395 (0.285)	-0.461 (0.293)
Individual income (Ref. Q1 (lowest))				
Q2	-	0.205 (0.212)	-	-0.282 (0.372)
Q3	-	0.143 (0.251)	-	-0.453 (0.396)
Q4 (highest)	-	0.130 (0.244)	-	-0.767* (0.399)
Household Income (Ref. HHQ1 (lowest))				
HHQ2	-	-	0.078 (0.245)	0.246 (0.259)
HHQ3	-	-	0.308 (0.286)	0.580* (0.300)
HHQ4 (highest)	-	-	0.217 (0.263)	0.403 (0.286)

Note: Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table A3. The likelihood of being a parent for Spanish Males

Variables	Model 1	Model 2	Model 3	Model 4
Having a partner	3.19*** (0.259)	3.195*** (0.26)	3.235*** (0.369)	3.246*** (0.366)
Education (Ref. Less than secondary)				
Secondary	-0.039 (0.472)	-0.079 (0.486)	-0.110 (0.633)	-0.099 (0.617)
University	0.037 (0.419)	0.076 (0.447)	-0.577 (0.630)	-0.569 (0.616)
Age groups (Ref. Aged 60-64)				
Aged 65-69	0.032 (0.367)	-0.013 (0.368)	-0.231 (0.508)	-0.281 (0.507)
Aged 70-74	0.606 (0.408)	0.613 (0.413)	0.228 (0.557)	0.187 (0.564)
Aged 75-79	0.641 (0.416)	0.681 (0.420)	0.496 (0.566)	0.459 (0.578)
Aged 80+	1.033** (0.414)	1.116*** (0.416)	0.700 (0.543)	0.661 (0.537)
Individual income (Ref. Q1 (lowest))				
Q2	-	-0.094 (0.449)	-	-0.689 (0.865)
Q3	-	0.315 (0.376)	-	0.165 (0.741)
Q4 (highest)	-	0.502 (0.357)	-	-0.246 (0.727)
Household Income (Ref. HHQ1 (lowest))				
HHQ2	-	-	-0.055 (0.438)	-0.139 (0.455)
HHQ3	-	-	1.093** (0.515)	1.108** (0.554)
HHQ4 (highest)	-	-	1.194** (0.538)	1.259** (0.537)

Note: Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table A4. The likelihood of being a parent for Spanish Females

Variables	Model 1	Model 2	Model 3	Model 4
Having a partner	1.579*** (0.256)	1.655*** (0.285)	1.936*** (0.420)	2.127*** (0.484)
Education (Ref. Less than secondary)				
Secondary	-0.56 (0.457)	-0.481 (0.476)	0.077 (0.703)	0.114 (0.758)
University	-0.635 (0.413)	-0.515 (0.434)	-0.538 (0.541)	-0.379 (0.582)
Age groups (Ref. Aged 60-64)				
Aged 65-69	-0.344 (0.411)	-0.339 (0.413)	-0.127 (0.551)	-0.083 (0.559)
Aged 70-74	-0.326 (0.428)	-0.335 (0.43)	-0.092 (0.577)	-0.107 (0.579)
Aged 75-79	-0.282 (0.430)	-0.322 (0.424)	-0.049 (0.563)	-0.144 (0.558)
Aged 80+	-0.374 (0.401)	-0.409 (0.406)	-0.020 (0.536)	-0.077 (0.541)
Individual income (Ref. Q1 (lowest))				
Q2	-	0.422 (0.333)	-	0.771 (0.525)
Q3	-	0.205 (0.318)	-	0.405 (0.466)
Q4 (highest)	-	-0.021 (0.343)	-	0.195 (0.499)
Household Income (Ref. HHQ1 (lowest))				
HHQ2	-	-	-0.163 (0.429)	-0.068 (0.441)
HHQ3	-	-	0.183 (0.462)	0.257 (0.458)
HHQ4 (highest)	-	-	-0.291 (0.378)	-0.272 (0.386)

Note: Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table A5. The likelihood of being a parent for Finish Males

Variables	Model 1	Model 3
Having a partner	1.248*** (0.445)	0.509 (0.531)
Education (Ref. Less than secondary)		
Secondary	0.665 (0.443)	-0.114 (0.501)
University	0.026 (0.457)	-0.533 (0.594)
Age groups (Ref. Aged 60-64)		
Aged 65-69	1.587*** (0.608)	1.335* (0.742)
Aged 70-74	1.051** (0.523)	1.185** (0.571)
Aged 75-79	0.670 (0.655)	0.944 (0.691)
Aged 80+	1.199* (0.619)	1.406* (0.730)
Household Income (Ref. HHQ1 (lowest))		
HHQ2	-	0.268 (0.608)
HHQ3	-	1.324* (0.750)
HHQ4 (highest)	-	1.698** (0.728)

Note: Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table A6. The likelihood of being a parent for Finish Females

Variables	Model 1	Model 3
Having a partner	0.637* (0.342)	0.522 (0.583)
Education (Ref. Less than secondary)		
Secondary	0.251 (0.487)	0.651 (0.575)
University	-0.620 (0.501)	-0.378 (0.566)
Age groups (Ref. Aged 50-54)		
Aged 65-69	0.049 (0.522)	0.562 (0.709)
Aged 70-74	-0.165 (0.546)	0.028 (0.578)
Aged 75-79	-0.136 (0.596)	-0.059 (0.651)
Aged 80+	-0.287 (0.618)	-0.066 (0.693)
Household Income (Ref. HHQ1 (lowest))		
HHQ2	-	1.039 (0.656)
HHQ3	-	0.536 (0.696)
HHQ4 (highest)	-	0.155 (0.852)

Note: Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1