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Research Article

Parental socioeconomic status and the timing of first marriage: What is the role of unmarried cohabitation? Results from a cross-national comparison

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Research Article

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Abstract

BACKGROUND
Previous research has shown that individuals from high-status families enter marriage later than those from low-status families. However, in many Western societies, it has become common to cohabit prior to marriage. Does this change the link between parental socioeconomic status (SES) and marriage timing?

OBJECTIVE
This study examines to what extent the impact of parental SES on the timing of first marriage weakens after young adults start a cohabiting union. It also examines cross-national variation in the link between parental SES and marriage timing before and after young adults cohabit and whether this variation depends on countries' position in the cohabitation transition.

METHODS
We apply discrete-time hazard models and meta-analytical tools using data from 20 Western countries. To examine whether the cohabitation stage of countries explains country differences, we construct a four-stage cohabitation typology.

RESULTS
In most countries, higher parental SES results in later entry into marriage. The impact of parental SES on marriage timing weakens considerably after young adults entered a cohabiting union. Substantial cross-national variation is found in the strength of the link between parental SES and marriage timing. However, this variation cannot be explained by the cohabitation stage countries are in.

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CONTRIBUTION

First, this study provides fresh evidence of the influence of parental SES on family formation in Western countries. Second, it shows the importance of a life-course perspective, as parental SES matters less after young adults start a cohabiting union. Third, it presents a theory-based and empirically-tested typology of stages in the cohabitation transition.

1. Introduction

Previous research has conclusively shown that young adults from higher socioeconomic backgrounds enter their first marriage later than those growing up in lower-status families (e.g., Axinn and Thornton 1992; Mooyaart and Liefbroer 2016; South 2001). The intergenerational transmission of education is generally seen as an important mechanism to account for this pattern, but previous studies also indicate that even after controlling for individuals' own educational level a substantive impact of parental socioeconomic status (SES) on marriage timing remains (e.g., Brons, Liefbroer, and Ganzeboom 2017; Mooyaart and Liefbroer 2016; South 2001). Thus, next to young adults' achieved status, also their ascribed status impacts their marriage formation process.

From the 1970s onward, in many European and North American societies it has become increasingly common to cohabit with a partner before one marries, and a growing number of people do not even marry at all (Thornton, Axinn, and Xie 2007; Sobotka and Toulemon 2008). This increasing prevalence of unmarried cohabitation, predicted by the second demographic transition (SDT) theory (Lesthaeghe 2010; Van de Kaa 2001), has made the marriage formation process more complex. On both sides of the Atlantic, cohabitation has become a popular step toward marriage or even an acceptable alternative to marriage (Heuveline and Timberlake 2004). Due to this additional step in marriage formation, we can expect that the impact of parental SES on the timing of marriage might be shifting. After young adults enter a cohabiting union, the influence of parents on their offspring's marriage timing might become weaker. Young adults will become less dependent on their parents' guidance and parental resources once they decide to live together with their partner. However, since marriage is less easily reversible and more consequential than cohabitation, it could be that parents still want to be involved in their children's marriage timing (Wiik 2009). Recently, Brons, Liefbroer, and Ganzeboom (2017) indeed show that the association between parental SES and first union formation is stronger for marriage than for cohabitation. However, with the exception of Mooyaart and Liefbroer (2016), no studies on the link between parental SES and marriage timing analyze whether parental SES is still associated with the timing

of marriage after young adults have entered a cohabiting relationship. Therefore, the first question this study answers is:

> *To what extent does the strength of the association between parental socio-economic status and the timing of first marriage weaken after young adults enter a cohabiting union?*

Most studies on the link between parental SES and the timing of first marriage have been conducted in single countries (e.g., Axinn and Thornton 1992; South 2001). There are, however, reasons to expect that country variation exists in the degree to which parental SES influences marriage timing both when young adults do not live together and when they live together with their partner. Brons, Liefbroer, and Ganzeboom (2017) find substantive cross-national variation in the link between parental SES and the timing of entry into a first coresidential union, which they explain against the background of the SDT. Similarly, the present study examines cross-national variation in the link between parental SES and the timing of marriage after young adults start a cohabiting relationship, against the background of diversity in the prevalence and meaning of cohabitation across countries.

Several scholars have argued that the spread of cohabitation in European and North American societies can be viewed as a diffusion process with different countries being at different stages of this 'cohabitation transition' as part of the SDT (e.g., Hiekel, Liefbroer, and Poortman 2014; Kiernan 2001). According to Kiernan (2001) there are four different stages. Countries where cohabitation has a lower status than marriage and is often seen as marginal behavior are at the start of the diffusion process. Later on in the diffusion process, when cohabitation becomes more accepted and adopted by people from all social strata, cohabitation is mainly seen as a probationary period before marriage, also called a prelude to marriage. The majority of people still marry, but they tend to postpone it (Heuveline and Timberlake 2004; Hiekel 2014). Some Western European countries in which cohabitation is seen as an alternative to marriage are already a step further advanced in the diffusion process. The last stage of the cohabitation transition is when cohabitation is really seen as a long-lasting alternative to marriage and indistinguishable from marriage (cohabitation as the norm), as in some Northern European countries seems to be the case (Heuveline and Timberlake 2004; Hiekel 2014; Kiernan 2001). We expect that the strength of the link between parental status and marriage timing after young adults enter a cohabiting union weakens further in countries that are in more advanced stages of this cohabitation transition. Therefore, we examine whether the association between parental SES and marriage timing after young adults start a cohabiting union depends on the cohabitation stage countries are in. To our knowledge, there is no study that analyzed cross-national variability in the link between parental SES and marriage

timing before and after young adults enter a cohabiting union. Therefore, the second two-part question of this study is:

> *To what extent does cross-national variation exist in the link between parental SES and the timing of marriage before and after young adults enter a cohabiting union, and is this variation related to a country's position in the cohabitation transition?*

To answer this question, we construct a four-stage cohabitation typology of countries to examine whether the cohabitation stage a country is in can explain the cross-national variation in the link between parental SES and marriage timing.

We use data of 20 Western countries to answer these research questions. Data from the first wave of the multinational Generations and Gender Programme were combined with the UK–US Harmonized Histories, the Canadian General Social Survey, and the Dutch Survey of Family Formation. The detailed cohabitation and marriage history in these data make it possible to analyze both the timing of marriage and the timing of cohabitation.

2. Theoretical background

2.1 Parental SES and marriage formation

The well-known and persistently strong positive association between parental SES and offspring's educational achievements (Shavit and Blossfeld 1993) is an important explanation for the link between parental SES and the timing of marriage of young adults. Compared to lower-status parents, parents with high SES are likely to have and transmit higher educational aspirations to their children. These children will attend school longer than children from lower-status families and focus more on their educational and occupational career, thereby postponing the transition into marriage (Blossfeld and Huinink 1991; South 2001; Thornton, Axinn, and Xie 2007; Wiik 2009).

Next to this intergenerational transmission of education, there might be several other mechanisms explaining why higher parental SES leads to postponement of first marriage. First, young adults from advantaged backgrounds may be socialized differently than young adults from disadvantaged backgrounds. Parents with high SES often have more liberal attitudes and values with regard to cohabitation before marriage and the ideal age of marriage than lower-SES parents (Thornton, Axinn, and Xie 2007; Wiik 2009). Second, high-SES parents might stress the importance of finding a suitable marriage partner, which results in a longer searching process and postponement of marriage

(Oppenheimer 1988). Third, young adults from high-SES families might want to emulate the living standards in their parental home and thus postpone steps in the family formation process until they can afford to live up to these standards (Axinn and Thornton 1992; Easterlin 1980). Young adults from advantaged backgrounds often have higher consumption aspirations than their less-fortunate peers since they form their consumption aspirations in their wealthy parental home (Axinn and Thornton 1992; Blossfeld and Huinink 1991; Easterlin 1980). These high-consumption aspirations often result in higher expenditures on consumer goods and leisure, and this may go at the expense of saving money for a wedding or a house. At the same time, the financial resources of high-SES parents could also be used to finance their offspring's marriage or to economically support their children when buying a house (Axinn and Thornton 1992; Mulder, Clark, and Wagner 2006). Fourth and finally, since marriage is less easily reversible and has more long-term consequences than cohabitation, it can be argued that parents still try to influence their children's marriage timing (Wiik 2009). Thus, overall, we expect that young adults from high-SES families enter their first marriage later than young adults from low-SES families (H1).

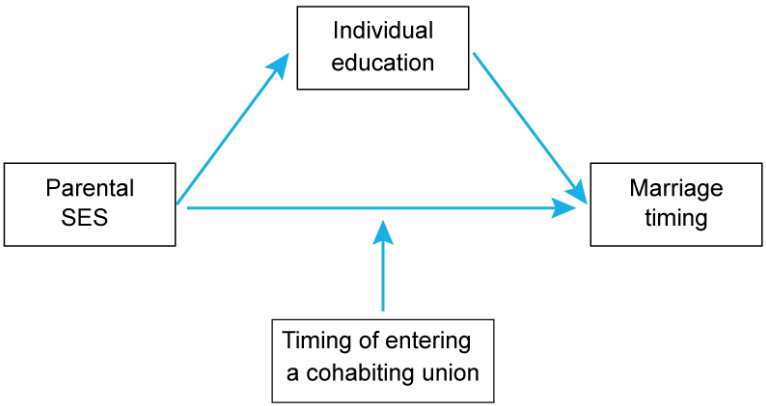
2.2 Accounting for cohabitation

According to the SDT theory, improved living standards, weakened normative regulations, and increased female autonomy have resulted in an increasing demand for self-development, autonomy, and individualism in Western societies (Lesthaeghe 2010; Sobotka 2008; Van de Kaa 2001). Among other demographic changes (e.g., below-replacement fertility and rising divorce rates), these value changes manifested themselves in an increased acceptance of cohabitation as an additional step before marriage or even as an alternative to marriage (Hiekel 2014). From the 1970s onward, more people started to cohabit before they married and, especially in some Western and Northern European countries, cohabitation has become more and more an acceptable alternative to marriage (Heuveline and Timberlake 2004; Kiernan 2001; Sobotka and Toulemon 2008; Thornton, Axinn, and Xie 2007). Hiekel (2014) shows for example that in Norway and France, unmarried cohabitation has become the type of first union for around 90% of the respondents born after 1971. Also in many Eastern European countries (e.g., Bulgaria, Hungary, and Russia), more than half of all first unions of this birth cohort started as unmarried cohabitation (Hiekel 2014). Marriage, which was once part of the natural transition into adulthood and parenthood, has lost some of its importance in structuring young adults' lives and has been replaced by cohabitation, at least as the initial first stage of family formation (Bumpass, Sweet, and Cherlin 1991; Cherlin 2004). In many countries, cohabitation has also developed into a legally accepted alternative to marriage

(Perelli-Harris and Gassen 2012). Cohabitation has acquired more legal recognition, and, in some countries, cohabiters have acquired virtually the same legal status as married couples. The increasing prevalence of cohabitation has made the marriage formation process more complex. Due to this additional step in the marriage formation process, it becomes important to also include the cohabitation history of young adults into the analysis of determinants of marriage formation.

The rising prevalence of cohabitation may have changed the strength of the association between parental socioeconomic background and the marriage process. In particular, it can be expected that the link between parental SES and marriage timing becomes weaker after young adults start a cohabiting union. On their path to adulthood, young adults' own life-course events and preferences become more important relative to the features of family background (South 2001). Life events, such as obtaining a job, leaving the parental home, and establishing independent living arrangements, often change the relationship between parents and their offspring. When young adults live together with their partner and form their own household, they usually become less dependent on parental resources and the relative importance of their parents' preferences decreases compared to those of their partner, resulting in a weaker (or even no) link between parental SES and marriage timing (Axinn and Thornton 1992; Mooyaart and Liefbroer 2016; South 2001). Moreover, with the rising prevalence of cohabitation it may become more important for parents to affect the timing of entry into cohabitation, as they do not know whether their child will eventually get married. Thus, we expect that after young adults enter a cohabiting union, the strength of the negative association between parental SES and marriage timing becomes weaker (H2). Figure 1 shows a visualization of Hypothesis 1 and Hypothesis 2.

Figure 1: Visualization of the first and second hypothesis



2.3 Country differences in the type of cohabitation

The relationship between parental SES and marriage timing may not be the same across all societies but may depend on the prevalence and type of cohabitation in a country. Earlier research already indicated that both the prevalence and type of cohabitation vary considerably across countries (Heuveline and Timberlake 2004; Hiekel 2014).

The SDT theory has often been used to describe and explain the cross-national diversity in family and living arrangements (Lesthaeghe 2010; Sobotka 2008; Van de Kaa 2001; but see Zaidi and Morgan (2017) for a critical appraisal). According to the SDT theory, all societies will experience the consequences of growing individualization, secularization, and weakening of family ties, albeit with a different starting time and speed of diffusion. Thus, country differences with regard to trends and patterns of cohabitation result from countries being at different stages of this demographic transition. Sweden and Norway are often seen as forerunners in the SDT, followed by Western, Eastern, and Southern European countries. Several studies have developed typologies about how the cohabitation transition and the different types or stages of cohabitation are structured (e.g., Casper and Bianchi 2002; Heuveline and Timberlake 2004; Hiekel 2014; Kiernan 2001). Following the SDT argument of different stages and integrating the results of these previous studies, we propose that four main stages can be distinguished in the cohabitation transition, as also proposed by Kiernan (2001). This cross-national diversity with regard to the type of cohabitation could also result in a different impact of parental SES on marriage timing across countries.

In the first stage, cohabitation is rare, has a lower status, and is less socially accepted than marriage. Marriage is still the norm and cohabitation is often seen as a 'poor man's marriage' (Heuveline and Timberlake 2004; Hiekel, Liefbroer, and Poortman 2014; Kalmijn 2011). Few couples have their first child within cohabitation (Heuveline and Timberlake 2004). Cohabitation is seen as marginal or avant-garde behavior; only few young adults start to cohabit (prior to marriage), and if so, they often have a strong intention to get married or are already engaged, so the majority marries within a relatively short period of time. We expect that in countries that are in this first stage of the cohabitation transition, the strength of the association between parental SES and the timing of marriage is strong, whether or not young adults entered a cohabiting union.

In the second stage of the cohabitation transition, marriage remains a popular and valued institution and cohabitation becomes just an intermediate step or prelude to marriage. Although cohabitation is becoming more accepted and adopted by people from all social strata, it is seen as an intermediate step toward marriage, and marriage retains its dominant status. The majority of couples still marry, but they tend to postpone it (Heuveline and Timberlake 2004; Hiekel, Liefbroer, and Poortman 2014; Kiernan 2001). However, compared to the first stage, cohabitation is more often seen as a probationary period or testing ground: Young adults do not intend to get married quickly once they

started to live together. Due to this testing phase, the percentage of cohabiting relationships that break down swiftly should be relatively high. Moreover, the duration as well as the prevalence of cohabitation should be higher in countries in this stage compared to countries that are in the first stage. In these situations, high-status parents might socialize their children to delay their first marriage as these parents might see cohabitation as a good test of whether their children have found the 'right' match. Heuveline and Timberlake (2004) split this stage into two types, namely 'prelude to marriage' and 'stage in the marriage process,' arguing that it depends on the actual timing of marriage and childbearing of couples as to whether people belong to one or the other type. Cohabiting couples who decide to have a child but do not feel strongly about the precise order and timing of childbearing and marriage belong to 'stage in the marriage process' type. But for both types, there is usually an intention to marry eventually. In countries that are in this second stage of the cohabitation transition, it can be expected that the delaying impact of parental SES becomes weaker but still influences the timing of first marriage after young adults start to cohabit. Young adults are less dependent on their parents once they cohabit, but parents still want to have a say in the marriage process of their children.

In the third stage of the cohabitation transition, cohabitation is seen as an alternative to marriage (Heuveline and Timberlake 2004; Kiernan 2001). In this stage, marriage is losing its dominant status and might not be needed anymore once young adults live together. Especially in Western and Northern European countries, cohabitation has replaced marriage as first union and many young adults do not see the need to get married (Heuveline and Timberlake 2004; Hiekel 2014; Hiekel, Liefbroer, and Poortman 2014). The average cohabitation duration and the prevalence of cohabitation are high in these countries. However, still many people decide to get married once they become parents, thus many young adults still marry eventually. In this third stage, the dependence of cohabiting young adults on their parents and resources becomes even weaker and marriage becomes less popular compared to countries that are in the second stage. As cohabitation becomes more common, parents in all social strata may become more accepting of cohabitation as an alternative to marriage. This change of view might also reduce the strength of the association between parental SES and marriage timing. Therefore, we expect that after young adults start a cohabiting union, there is a minor or even no association between parental status and marriage timing anymore since marriage is even further postponed and more often does not even happen anymore.

Some Northern European countries are in the fourth and final stage of the cohabitation transition in which cohabitation is seen as indistinguishable from marriage; cohabitation is the norm or a permanent alternative to marriage (Heuveline and Timberlake 2004). In these countries, the percentage of people who get their first child within cohabitation, as well as the prevalence and the duration of cohabitation, is higher

than in all other countries. Cohabitation is not only seen as an alternative to marriage as union type (a union without children), but the majority of people even start their own family within a cohabiting relationship. Thus, cohabitation is also an alternative to marriage as family type. In this fourth stage, we expect no association between parental SES and marriage timing anymore after young adults enter a cohabiting union since marriage is often foregone completely. Parents and their status will affect only the timing of first union formation, and thus cohabitation, but no longer the timing of first marriage after young adults start to cohabit since marriage often does not take place.

Table 1 summarizes the four stages of the cohabitation transition as identified above and four indicators (prevalence of cohabitation, percentage of people that get their first child within cohabitation, and the percentage of people that married or separated shortly after the start of cohabitation). For each cohabitation stage, we list the predictions of the relative magnitudes of these four indicators.

Table 1: Four different stages in the cohabitation transition, including empirical indicators and theoretical predictions

Cohabitation as…	Percentage cohabited as first union	Percentage first child within cohabitation	Percentage married shortly after cohabitation	Percentage separated shortly after cohabitation
Marginal behavior	low	low	high	low
Prelude to marriage	high	low	low	high
Alternative to marriage	high	high	low	low
The norm (indistinguishable from marriage)	highest	highest	low	low

In summary, we expect that the link between parental SES and marriage timing after young adults enter a cohabiting union varies across countries that are in different stages of the cohabitation transition. However, when young adults are not (yet) cohabiting, we do not expect a difference between the cohabitation stages in the link between parental SES and marriage timing. Thus, for all the different stages of cohabitation we expect that young adults from high-SES families enter their first marriage later than those from low-SES families when they are not cohabiting (H3).

However, after young adults start a cohabiting union, we expect cross-national variation in the link between parental SES and marriage timing due to the different stages of the cohabitation transition. We expect that the further cohabitation is diffused, the weaker the negative association between parental SES and marriage timing after young adults enter a cohabiting union (H4).

3. Data and methods

3.1 Data

To test our hypotheses, we used data from 20 Western countries. Data for 16 countries come from the first wave of the Generations and Gender Survey (GGS). The data were collected between 2002 and 2013, depending on the country (Gauthier, Cabaço, and Emery 2018; Generations and Gender Programme 2019). We selected only the GGS countries for which sufficiently detailed information is available on the cohabitation and marital history and on parental and individual's own educational attainment (Austria, Belgium, Bulgaria, Czech Republic, Estonia, France, Georgia, Germany, Hungary, Italy, Lithuania, Norway, Poland, Romania, Russia, and Sweden). For the United States and the United Kingdom, we used the Harmonized Histories (HH) dataset created by the Nonmarital Childbearing Network (Perelli-Harris, Kreyenfeld, and Kubisch 2010). This HH dataset consists of data from the British Household Panel Survey collected in 2005 and 2006 and US data from the National Survey of Family Growth collected in 2006–2008. For the last two added countries, Canada and the Netherlands, we used the original datasets, respectively, the General Social Survey cycle 20 (Béchard and Marchand 2008) and the Onderzoek Gezinsvorming 2008 (English translation: Survey on Family Formation 2008) (CBS 2012).

We focus on relative recent birth cohorts (born from 1960 onward) because unmarried cohabitation occurred only rarely among the older cohorts (Billari and Liefbroer 2010). After excluding respondents with missing information on at least one of the independent variables (6.5% missing for women and 7.3% missing for men), our analytical sample consists of 62,064 women and 52,353 men in 20 countries.

3.2 Dependent variable

Our dependent variable is the annual rate of entry into a first marriage. The year in which respondents had their first marriage was used to calculate the age of entry into first marriage in years. To construct the annual rate of entry into a first marriage, we converted the data into a person-year file for discrete-time event-history analyses (Allison 1984), which we chose because of the ease of handling time-varying covariates (cohabitation history, educational attainment, and enrollment). We restricted our analysis to ages 15 to 40 because entering first marriage after age 40 is rare (Billari and Liefbroer 2010). Respondents who did not enter their first marriage before the age of 40 or were not married at the time of the interview were right-censored, either at age 40 or the age at the time of the interview, depending on which occurred first.

3.3 Independent variables

Parental education is used as an indicator of the socioeconomic status of parents. The highest level of educational attainment of both parents was available for all 20 countries, which we converted into a continuous and comparative measure of educational level, the International Standard Level of Education (ISLED), which ranges from 0 to 100 (Schröder and Ganzeboom 2014). We used the average ISLED score of the father's and mother's education because we are interested in the overall effect of parental education and not whether fathers or mothers are more influential. The parental education measure was centered around its country-specific mean and divided by 10.

From the detailed information on the cohabitation history of the respondent, we created a time-varying binary variable indicating whether young adults were cohabiting (1) or not (0) at a certain age. Because we use annual information, the percentage of people that cohabited might be slightly underestimated since people that cohabited and married in the same year are not classified as cohabiters.

Country-specific information on the highest level of education completed for the respondents was also converted into the ISLED scale. We constructed a time-varying variable for respondents' educational level based on the year in which this highest level was reached, thereby assuming that respondents remained enrolled in school continuously after finishing primary school. The educational level is assumed to increase linearly from age 15 until the age at which respondents attained their highest educational level, after which it remains constant. If information was missing with regard to the year of reaching the highest level of education, the median age of reaching a certain ISLED level in that country was used to impute the missing value. This time-varying variable of education was also centered around the country-specific mean and divided by 10. Next to the educational attainment of respondents, we also included a time-varying binary variable for educational enrollment, indicating whether respondents were enrolled in the educational system at a given age.

The time-varying variable age was expressed as the number of years since age 15 and centered around its country-specific mean. The birth year of respondents was included as a continuous variable (ranging between 1960 to 1994[4]) and centered around its country-specific mean. The squared term of both of these variables and the gender of the respondent were also included. Descriptive statistics of the dependent and main independent variables can be found in Table 2.

[4] For the Netherlands, birth year ranges from 1960 to 1984. We had to omit the youngest cohorts (born from 1985 onward) since information about parental education is asked only when children do not live at the parental home anymore.

Table 2: Descriptive statistics for the dependent and main independent variables at the individual level

	Median age of marriage		Average parental ISLED	Average ISLED	N (women)	N (men)	Interview year(s)
	Women	Men					
Austria	25	27	53.65	65.09	2978	1993	2008–2009
Belgium	25	27	46.93	58.71	1834	1647	2008–2010
Bulgaria	21	24	40.74	47.30	4072	3079	2004
Canada	25	26	48.64	58.43	5706	4575	2006
Czech Republic	22	25	50.57	51.44	2411	2335	2004–2006
Estonia	23	25	47.10	54.01	2039	1268	2004–2005
France	25	27	38.34	54.70	2471	1836	2005
Georgia	22	25	49.05	53.89	2705	2346	2006
Germany	25	27	54.35	56.11	2380	1840	2005
Hungary	23	25	44.70	51.12	3016	2777	2004–2005
Italy	26	28	29.51	49.72	2312	2144	2003
Lithuania	22	23	47.75	54.67	2240	2286	2006
Netherlands	26	29	45.55	63.70	2165	1873	2008
Norway	27	28	51.27	56.86	3633	3541	2007–2008
Poland	23	25	46.40	60.47	5102	4073	2010–2011
Romania	21	24	35.14	45.26	2257	2526	2005
Russia	21	23	50.22	60.44	2468	1764	2004
Sweden	28	30	50.46	58.19	2641	2404	2012–2013
United Kingdom	25	27	48.25	61.21	2423	1980	2005–2006
United States	23	24	49.47	49.73	7211	6066	2006–2008

3.4 Country-level indicators

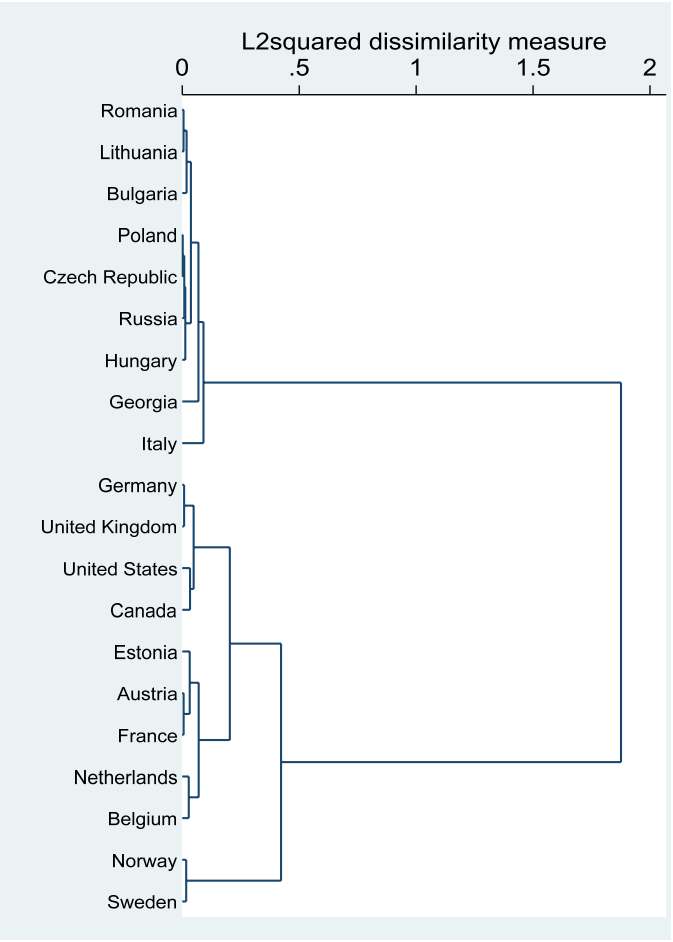
We used four country-level indicators to analyze how far countries have been developed with regard to the cohabitation transition process. One of the indicators is the prevalence of cohabitation, calculated by the percentage of respondents who cohabited as their first union. Next to this, we calculated the percentage of respondents who got their first child within cohabitation. Lastly, we calculated both the percentage of people who married within two years after they started to cohabit and the percentage of people who separated within two years after they started to cohabit.[5] All country-level indicators were aggregated from the country-specific datasets.

Based on these four cohabitation indicators, a cluster analysis, using Ward's method, was performed to empirically examine which countries can be grouped together and whether the resulting classification is in line with our hypothesized cohabitation typology (Everitt, Landau, and Leese 2001). Figure 2 shows the dendrogram of the cluster analysis.

[5] If respondents both married and separated within two years after cohabitation, we only coded them as married within two years since this is the most plausible order with regard to these demographic events.

The dendrogram indeed indicates that four different clusters of countries can be identified. We used the command `cluster stop` in STATA 15, and both the Duda-Hart (Duda, Hart, and Stork 2001) and the Calinski-Harabasz cluster-stopping indices (Calinski and Harabasz 1974) suggested four different clusters as the optimal number of clusters.

Figure 2: Dendrogram of a cluster analysis using four cohabitation indicators[1] for 20 Western countries



[1] Prevalence of cohabitation, percentage of people who got their first child within cohabitation, and the percentage of people who married or break down their relationship within two years after the start of cohabitation.

Table 3 summarizes the four indicators with regard to the cohabitation stage for each country, which were included in the cluster analysis. We grouped the countries according to the results of the cluster analysis. First, we found a set of countries where cohabitation is relatively rare. In Italy, Romania, Lithuania, Poland, Czech Republic, Bulgaria, Hungary, Russia, and Georgia, 30% or less of the respondents chose cohabitation as their first union. Moreover, in many of these countries around 50% or more married within two years after they started to cohabit,[6] and the percentage of respondents who had their first child within cohabitation is around 10% or lower (with the exception of Georgia). These countries are in the 'cohabitation as marginal behavior' stage.

At the other end of the distribution, we found Sweden and Norway, in which around 70% of all respondents ever cohabited and where only around 20% of the people married within two years after cohabitation. In these countries, where cohabitation is seen as the norm, more than 50% of the respondents had their first child within a cohabiting relationship.

With regard to the middle two stages, the pattern is less clear. The cluster analysis distinguished between a cluster that includes France, Austria, the Netherlands, Estonia, and Belgium, and another cluster, including Canada, Germany, the United Kingdom, and the United States. With regard to the first of these two clusters, the results indicate that the percentage of cohabiters is above 50% in all countries, while this percentage is below 50% for the other group of countries. Also with regard to the percentage of people who had their first child within cohabitation we see a clear difference between these two groups: In general, more people had their first child within cohabitation in the first of these two middle clusters than in the second one. Moreover, in general, fewer people married within two years after cohabitation in countries belonging to the first of these two clusters compared to the second cluster. These cohabitation indicators suggest that the countries belonging to the first cluster are further advanced in the cohabitation transition than the countries from the second cluster. Therefore, we labeled the first cluster the 'cohabitation as alternative to marriage' group and the second cluster the 'cohabitation as prelude to marriage' group.

The last indicator, the percentage of people who separated within two years after cohabitation, did not show a clear pattern with regard to the different stages. In Georgia, Bulgaria, Estonia, and Romania, this percentage is lower than 10%, while in Belgium and the United States the percentage of people who separated within two years after cohabitation is more than one-fourth.

[6] The number of observations for Italy for these two indicators (percentage of people married within two years and separated within two years after cohabitation) is relatively small since the prevalence of cohabitation is low.

Table 3: Cohabitation typology for 20 Western countries, based on the prevalence of cohabitation, proportion of people who got their first child within cohabitation, and the proportion of people who married or break down their relationship within two years after the start of cohabitation

Cohabitation as…	Proportion of adults who cohabit as first union	Proportion of adults who had first birth within cohabitation	Proportion of adults who married within 2 years after cohabitation	Proportion of adults who break down within 2 years after cohabitation
Marginal behavior				
Italy	0.079	0.040	0.401	0.151
Romania	0.157	0.098	0.530	0.050
Lithuania	0.209	0.075	0.537	0.096
Poland	0.210	0.097	0.492	0.100
Czech Republic	0.249	0.109	0.473	0.094
Bulgaria	0.264	0.154	0.575	0.042
Hungary	0.274	0.122	0.413	0.149
Russia	0.292	0.133	0.509	0.125
Georgia	0.309	0.282	0.482	0.022
Prelude to marriage				
Canada	0.353	0.216	0.235	0.147
United States	0.401	0.231	0.355	0.276
Germany	0.448	0.183	0.411	0.105
United Kingdom	0.456	0.261	0.392	0.145
Alternative to marriage				
Estonia	0.550	0.352	0.390	0.072
Netherlands	0.579	0.230	0.243	0.128
Austria	0.606	0.339	0.265	0.142
Belgium	0.610	0.249	0.252	0.291
France	0.633	0.412	0.274	0.132
The norm (indistinguishable from marriage)				
Norway	0.651	0.512	0.199	0.182
Sweden	0.718	0.603	0.155	0.226

3.5 Analytical strategy

For each country separately, we estimated discrete-time logistic hazard regression models to obtain the estimate and the standard error (SE) of the total and net effect of parental education on the timing of first marriage (Blossfeld, Hamerle, and Mayer 2014). To estimate the net effect of parental education, both respondents' educational level and

educational enrollment were included. To analyze whether the association between parental education and marriage timing weakens after young adults enter a cohabiting union, we included an interaction between parental education and the time-varying cohabitation variable. The country-specific estimates and SEs of the effects of parental education were obtained once young adults did not (yet) cohabit and from the moment they entered a cohabiting union. In all models, we included as controls age and age-squared, as well as birth year and its squared term. Moreover, we included in all models the interaction between parental education and age since previous research has shown that the impact of parental background diminishes across the life course (e.g., Axinn and Thornton 1992; South 2001; Wiik 2009). Because women generally enter their first marriage at an earlier age than men (Coppola 2004; Uecker and Stokes 2008), we also included in all models an interaction between gender and age, and age squared, birth year, and birth year squared. In additional models, we also tested whether the impact of parental education differs between men and women with an interaction between gender and parental education.

To examine cross-national variation in the link between parental SES and marriage timing, we used meta-analytic tools, as suggested by Bryan and Jenkins (2016). Due to the small number of countries (N<30), we prefer this approach to multilevel analysis. Bryan and Jenkins (2016) show that if the number of countries is small, the SE of the country-level effects is underestimated in standard multilevel models. By using meta-analytical tools, the small number of countries in this study will not result in too many incorrect rejections of a true null hypothesis since these tools provide more conservative tests of our hypotheses than multilevel analysis.

We analyzed whether an association exists between parental education and first marriage and whether this association varies across countries by performing a meta-analysis in which the country-specific estimates and SEs of the discrete-time logistic regression models were included. In meta-analysis, between-country heterogeneity in the estimate of the effect of parental education is measured by I^2, the percentage of observed total variation across countries that is due to real heterogeneity rather than random fluctuations. I^2 can vary between 0% and 100% and is calculated as $100 \times (Q - df) / Q$, where Q is Cochran's heterogeneity statistic and df is the degrees of freedom (Harris et al. 2008). If I^2 is above 50%, substantial heterogeneity across countries exists, and an I^2 above 75% indicates considerable heterogeneity (Higgins et al. 2003). Meta-analyses were performed for the total and net effect of parental education (controlling for respondents' education) on the timing of first marriage. Next to that, we also analyzed the effect of parental education when young adults are not cohabiting and when they enter a cohabiting union.

To test whether the link between parental education and marriage timing differs by the stages of the cohabitation transition process, we estimated a meta-regression (Harbord

and Higgins 2008) in which we regressed the effect of parental education on marriage timing on the four stages of cohabitation (thus, three dummy variables). All models were fitted in STATA 15, using the `Metan` command for meta-analyses and `Metareg` for meta-regressions. Countries constitute the units of these meta-analytical tools. Countries with more respondents have more influence on the relationship because in meta-analysis units are inversely weighted to the precision of their effect estimate as indicated by their SE squared.

In the result section, we will first show the overall effect of parental education on marriage timing for all the countries pooled, as obtained from the meta-analysis. Step by step we show what, in general, happens with the impact of parental education on marriage timing after including (1) individuals' own educational level and enrollment and (2) the interaction between parental education and cohabitation. Moreover, we test whether there is between-country heterogeneity in these models. If so, the country-specific results are shown. To present the country-specific effects, we classified the 20 countries according to the four cohabitation stages constructed in the cluster analysis, namely (1) cohabitation as marginal behavior, (2) cohabitation as prelude to marriage, (3) cohabitation as an alternative to marriage, and (4) cohabitation as the norm.

4. Results

4.1 Pooled model

Table 4 shows the overall mean of all the country-specific estimates and SEs to test whether there is, in general, an association between parental education and the marriage timing. The coefficients are shown as log-odds (B). The first model of Table 4 shows an overall delaying effect of parental education on the timing of first marriage (B = –.127, p = .000). The annual rate of entering first marriage decreases with 11.9% (= exp (–.127)) if the ISLED of parents increases with 10 points; thus the higher the education of parents, the later young adults enter into their first marriage. This result is in line with Hypothesis 1. The second model of Table 4 shows that after controlling for young adults' own educational attainment and enrollment, the net effect of parental education on the marriage timing of young adults remains (B = –.096, p = .000). Thus, every 10 additional ISLED points of parental education decreases the rate of entering a first marriage by 9.2% (= exp (–.096)).

The third model of Table 4 shows the association between parental education and the timing of first marriage when young adults do not (yet) cohabit (Model 3a) and after they enter a cohabiting union (Model 3b). When young adults are not cohabiting, the impact of parental education on marriage is negative, so the higher the education of

parents, the later they enter their marriage (B = –.121, p = .000). However, after young adults enter a cohabiting union, there is overall no impact of parental education on the timing of first marriage anymore (B = –.025, p = .110). This result clearly confirms Hypothesis 2, in which we stated that the strength of the association between parental SES and marriage timing becomes weaker after young adults enter a cohabiting union.

Table 4: Overall pooled model for all the 20 countries for respondents born between 1960 and 1994: Effect of parental education on timing of first marriage. Results from meta-analysis based on discrete-time logistic models

	Model 1		Model 2		Model 3a Not cohabiting		Model 3b Cohabiting	
	B (SE)	95% CI	B (SE)	95% CI	B (SE)	95% CI	B (SE)	95% CI
Effect parental education	–.127 (.014)	(–.154, –.100)	–.096 (.010)	(–.116 –.077)	–.121 (.014)	(–.148, –.094)	–.025 (.016)	(–.055, .006)
Cross-national variation (I^2)	92.3%		83.5%		88.6%		83.5%	

Note: All models are controlled for age and squared term, birth year and squared term, gender and the interactions between parental education and age (and squared term), gender and age (and squared term), and gender and birth year (and squared term).

4.2 Country-specific results

At the same time, the models in Table 4 show considerable cross-national variation in the link between parental education and first marriage (I^2 ranging from 83.5% to 92.3%), which makes it interesting to analyze the country-specific results. Figure 3 shows the results of a meta-analysis in which for each country the net effect of parental education on the timing of first marriage is analyzed, so after controlling for individuals' educational level and enrollment. In this meta-analysis, we also control for age, birth year, and gender. The countries are grouped according to the stage of the cohabitation transition they belong to. In the majority of the countries, there is a delaying effect of parental education on the timing of marriage. Only in Russia, Estonia, and Norway, there is no difference between young adults with high- and low-educated parents with regard to their marriage timing. The dotted line in Figure 3 represents the overall mean for all the countries pooled (which was also reported in Table 4), and results show that eight countries deviate from this overall mean (three countries below overall mean, five

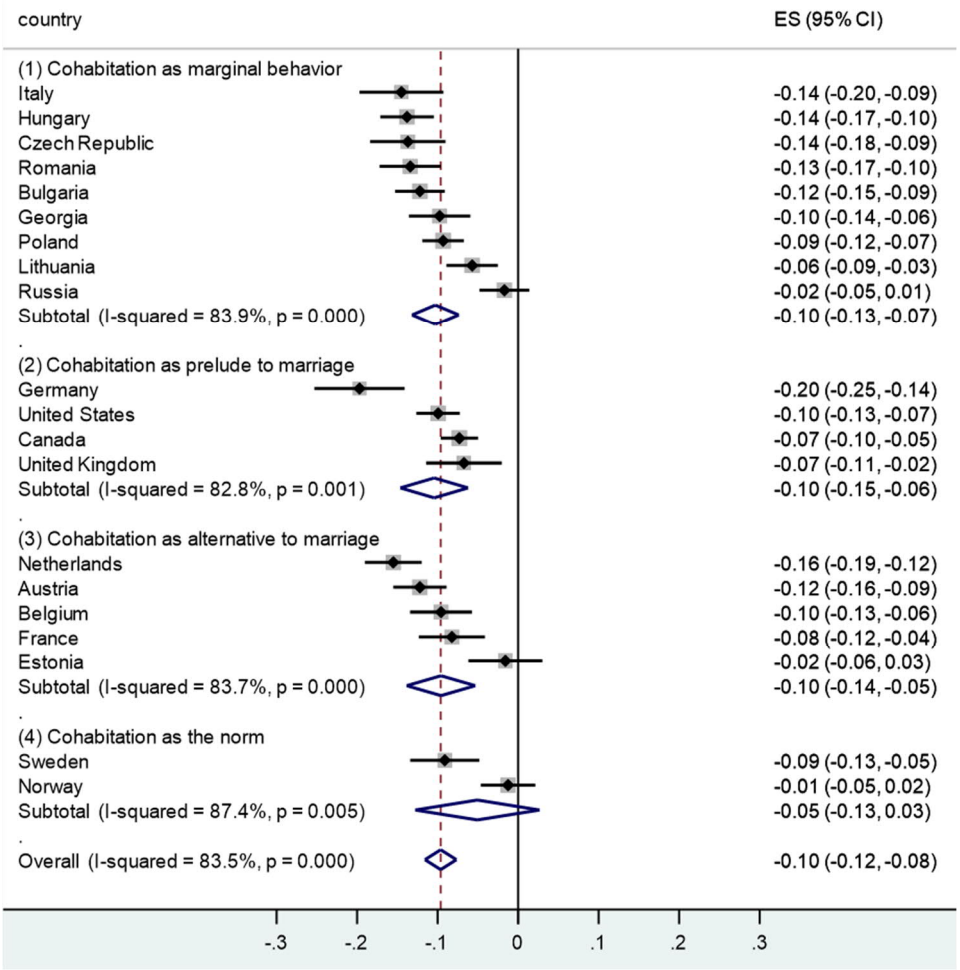
countries above overall mean). We grouped the 20 countries into the four stages of cohabitation, but Figure 3 shows that also within each cohabitation stage there is considerable cross-national variation in the link between parental education and marriage timing (I^2 ranging from 82.8% to 87.4%). Results from the meta-regression thus indicate that the impact of parental education does not vary systematically between the four stages of cohabitation (results in Appendix, Table A-1, Model 1). The subtotal means of the four stages in Figure 3 do not differ from one another.

Although the overall pattern is almost the same for men and women (see Table A-2 in Appendix), a difference is found in the net impact of parental education on marriage timing between men and women for six countries (United States, Germany, Canada, Italy, Romania, and Poland). Figures A-1a to A-3b in the Appendix show the gender-specific analyses.

What happens with the strength of the association between parental education and the timing of marriage after young adults enter a cohabiting union? Figure 4a and 4b show the country-specific results of the link between parental education and marriage timing when young adults are not (yet) cohabiting (4a) and after young adults enter a cohabiting relationship (4b), grouped by cohabitation stage. The results from Figure 4a indicate that, although the strength of the link between parental education and marriage varies across countries (two-third of the countries deviate from the overall mean), in the majority of countries there is a delaying effect of parental education on the rate of entry into marriage when young adults are not (yet) cohabiting (the exceptions are Russia, Estonia, and Norway). This result is in line with Hypothesis 3.

Figure 4b shows that most cross-national variation is found between countries classified in the 'cohabitation-is-marginal' stage. Four out of nine countries deviate from the overall mean. Moreover, for half of the countries, there is no association between parental education and the timing of first marriage after cohabitation. For Italy, Poland, and Lithuania, there is a delaying effect, while in Bulgaria young adults with high-educated parents enter their marriage sooner than the ones with lower educated parents after they have entered a cohabiting union.

Figure 3: Net effect of parental education on marriage for 20 Western countries (controlled for own education and enrollment). Meta-analysis of estimates from discrete-time logistic models



Notes:
(1) Gender differences found for US, DE, CA, IT, RO, and PL. See separate analyses for men and women in Appendix (Figure A-1a and A-1b).
(2) All models are controlled for age and squared term, birth year and squared term, gender and the interactions between parental education and age (and squared term), gender and age (and squared term), and gender and birth year (and squared term).

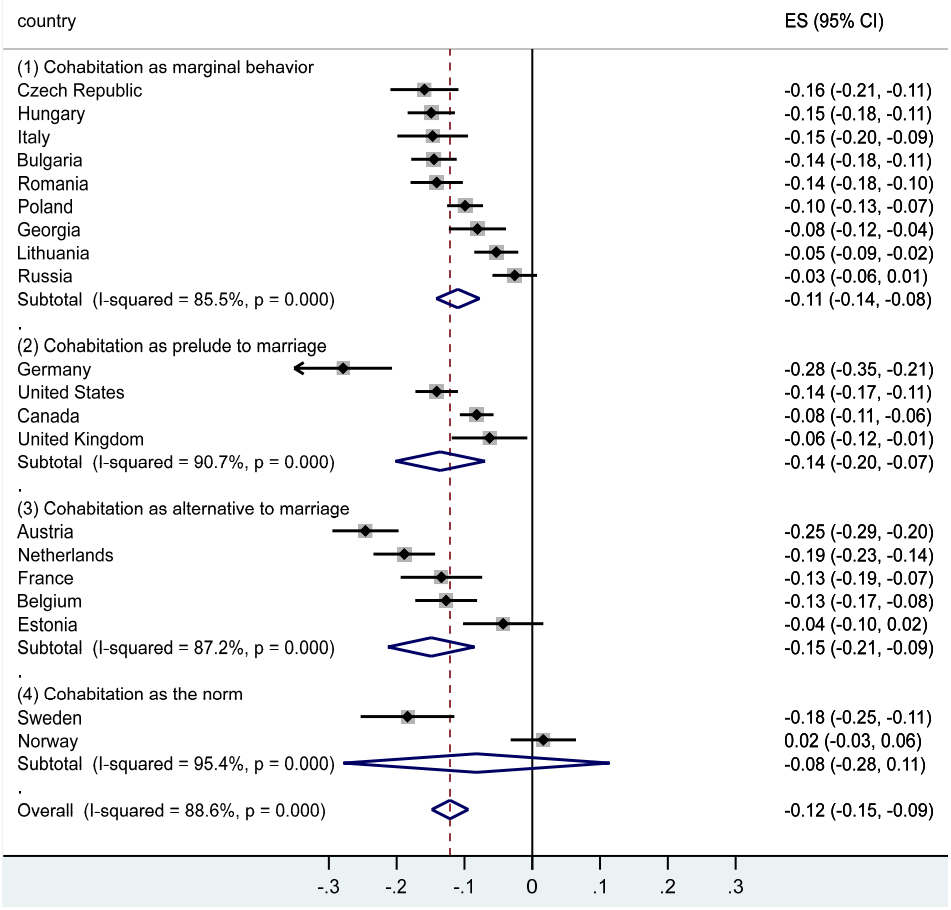
However, after young adults start a cohabiting union (see Figure 4b), we see that in almost all countries the effect of parental education changed, but in different directions.

In most countries in which cohabitation is primarily seen as a prelude-to-marriage, there is no impact of parental education on marriage timing after young adults start to cohabit. Thus, as expected, the association between parental education and marriage timing weakens after young adults enter a cohabiting union. Only for Germany, we still find a delaying effect of parental education, although this effect also diminished. Additionally, Germany is the only country within this cluster that deviates from the overall mean.

In most countries that are classified in the cohabitation-as-alternative-to-marriage stage, the effect of parental education indeed diminishes, as expected, after young adults enter a cohabiting union. However, for many countries the delaying effect of parental education on marriage timing remains. In addition, three out of five countries deviate from the overall mean. Results from Figure 4b also show that for Estonia the impact of parental education becomes positive, so young adults from high-status families marry sooner after they entered a cohabiting union. However, according to Hypothesis 4, we expected that the impact of parental education would be somewhat weaker for countries in which cohabitation is seen as an alternative to marriage compared to countries in which cohabitation is mainly seen as a prelude to marriage. Based on the results of Figure 4b, we find no confirmation of this fourth hypothesis. Results from the meta-regression also show that the association between parental education and marriage timing after young adults enter a cohabiting union does not vary across all four stages of cohabitation (results in Appendix, Table A-1, Model 2a and 2b).

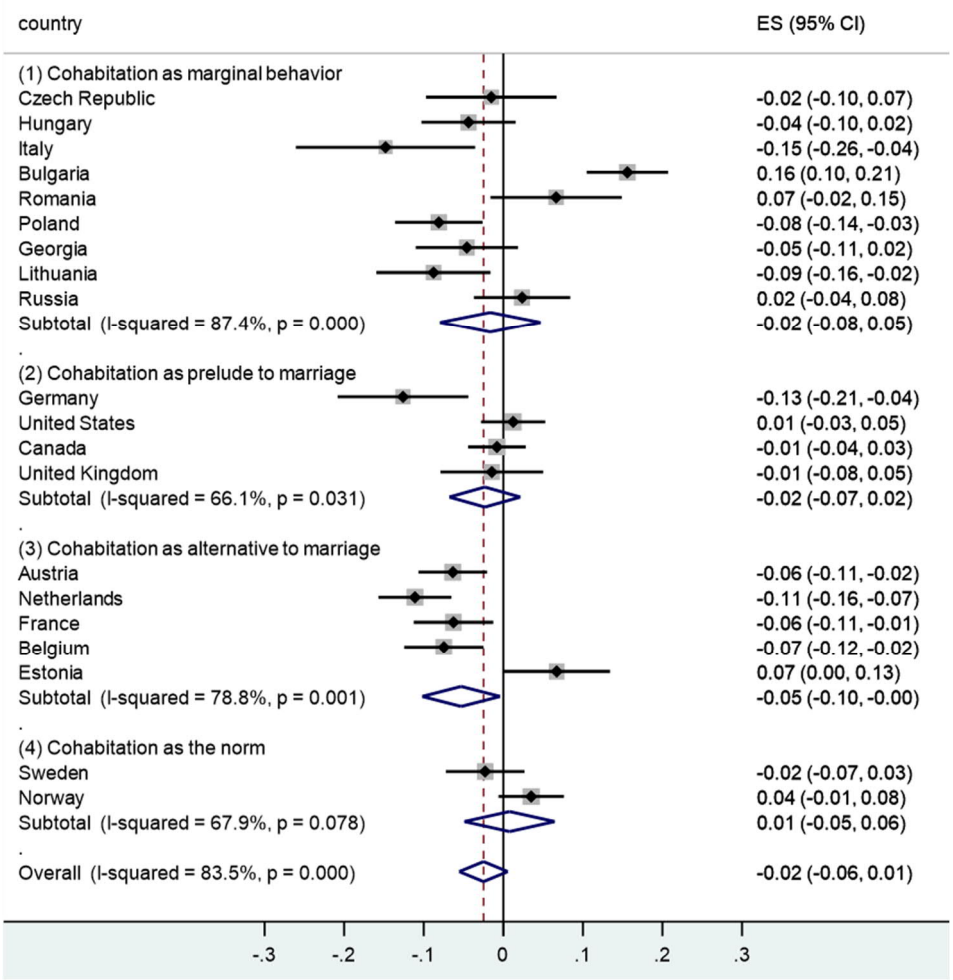
For both Sweden and Norway as countries where cohabitation is indistinguishable from marriage (cohabitation as the norm), we see that there is no association between parental education and marriage anymore after young adults start to cohabit, which is in line with Hypothesis 4. Cohabitation is diffused the most in these countries, and therefore, we expected no association between parental education and marriage timing anymore after young adults have entered a cohabiting union. Sweden fits the picture best. Although there is no effect of parental education for Norway, it clearly deviates from the overall mean.

Figure 4a: The net effect of parental education on marriage for 20 Western countries when young adults are not cohabiting. Meta-analysis of estimates from discrete-time logistic models



Notes:
(1) Gender differences found for US, DE, CA, IT, and RO. See separate analyses for men and women in Appendix (Figure A2a to A3b).
(2) All models are controlled for age and squared term, birth year and squared term, gender and the interactions between parental education and age (and squared term), gender and age (and squared term), and gender and birth year (and squared term).

Figure 4b: The net effect of parental education on marriage for 20 Western countries when young adults are cohabiting. Meta-analysis of estimates from discrete-time logistic models



Notes:
(1) Gender differences found for US, DE, CA, IT, and RO. See separate analyses for men and women in Appendix (Figure A2a to A3b).
(2) All models are controlled for age and squared term, birth year and squared term, gender and the interactions between parental education and age (and squared term), gender and age (and squared term), and gender and birth year (and squared term).

4.3 Additional analyses

Since the results rather unexpectedly show that the different cohabitation stages do not explain the cross-national variation in the link between parental SES and marriage timing, we ran several additional analyses to ensure that this finding is correct. First of all, we checked whether the four cohabitation indicators, taken separately, might explain the cross-national variation, but this is not the case either. None of the meta-regressions show an association between a specific cohabitation indicator and the effect of parental education on marriage timing (see Figure A-4a, b, c through Figure A-7a, b, c in the Appendix).

As an additional robustness check, we also analyzed whether the four cohabitation indicators constitute a single dimension and if so, whether a continuous factor score would better predict the cross-national differences than the findings of the cluster analysis. The four indicators indeed load on a single factor. However, once we also estimate a meta-regression between this continuous factor score (based on the four cohabitation indicators) and the net effect of parental SES on marriage timing, we see again no association (see Figure A-8a, b, c in the Appendix).

5. Conclusions and discussion

Previous research has conclusively shown that young adults from high-status families enter their first marriage later than young adults from low-status families (e.g., South 2001). However, the majority of these studies did not take into account the cohabitation history of young adults, while nowadays many young adults first cohabit before they formally marry their partner. The first research question of this paper was, therefore, to what extent does the strength of the association between parental SES and the timing of first marriage weaken after young adults enter a cohabiting union? The results from the overall models in which we pooled all 20 countries, show first of all, that a higher parental SES lowers the rate of entering first marriage, even after controlling for individuals' own level of education and educational enrollment. However, this study also shows that it is crucial to take into account the cohabitation history because once young adults enter a cohabiting union, the impact of parental education on the timing of marriage clearly diminishes and even disappears. Earlier research already showed that the impact of parental background on marriage timing becomes weaker once young adults become older (Axinn and Thornton 1992; South 2001). As young men and women age, their own life-course events and preferences become increasingly important, which results in a weaker impact of parental resources and preferences. The current study shows that, next to the fact that young adults become older and therefore less dependent on their parents,

it is also the start of a cohabiting union that results in a weaker impact of parental background. In a recent study of Mooyaart and Liefbroer (2016) on the Netherlands, it was also found that the strength of the association between parental education and marriage becomes weaker from the moment that young adults entered a cohabiting union. Children who have left the parental home, and particularly children who already live together with a partner, are likely to be less influenced by their parents and their resources because they can rely on their own resources or the resources of their partner. Thus, the current study shows that the choice to cohabit weakens the link between parental SES and marriage timing. Parents and their resources mainly affect their offspring's marriage timing when their children are not (yet) cohabiting. Thus, for future research it is important to take the cohabitation history into account once analyzing the timing of marriage.

The second research question of this study was, to what extent does cross-national variation exist in the link between parental SES and the timing of marriage before and after young adults have entered a cohabiting union, and is this variation related to a countries' position in the cohabitation transition? Results show considerable cross-national variation in the link between parental SES and marriage timing. Although the direction of the net association between parental education and marriage is the same in almost all countries, the strength of this association varies considerably across countries. This cross-national variation remains large even if we take into account the timing of entering a cohabiting union. In eight countries, mainly Western European ones, parental education still has a delaying effect on marriage timing after young adults have entered a cohabiting union. By contrast, in two Eastern European countries (Estonia and Bulgaria), parental education has an accelerating effect on marriage timing, and for the remaining countries no association between parental education and marriage timing is found after young adults have entered a cohabiting union.

One explanation for the substantial cross-national variation found in this study could be that countries are in a different cohabitation stage. Based on the literature (Casper and Bianchi 2002; Heuveline and Timberlake 2004; Hiekel 2014; Kiernan 2001), we constructed an empirical typology in which we distinguished four groups of countries according to how far they were advanced with regard to the cohabitation transition. We constructed a typology of countries by performing a cluster analysis. The analysis indicated four clusters of countries that correspond to the four stages in the cohabitation transition found in the literature: (1) cohabitation as marginal behavior, (2) cohabitation as a prelude to marriage, (3) cohabitation as alternative to marriage, and (4) cohabitation as the norm (indistinguishable from marriage). These clusters and the countries included in each cluster strongly align with the stages of the cohabitation transition as suggested by Kiernan (2001) and Heuveline and Timberlake (2004), although the latter suggests a

more fine-grained typology. To our knowledge, this is the first cohabitation typology that is empirically tested that includes so many countries.

However, the substantial cross-national variation in the link between parental education and the timing of marriage could not be explained by our typology. Differences in the strength of the association between parental SES and marriage timing are not in line with expectations for the four cohabitation stages. Moreover, within all four specific clusters of countries, we still found considerable variation across countries. For example, the net effect of parental SES on marriage timing between Norway and Sweden differs considerably, while both countries are classified in the same cohabitation stage, which is in line with earlier research (e.g., Heuveline and Timberlake 2004; Kiernan 2001).

One possible explanation of why cross-national variation in the strength of the effect of parental education on marriage behavior is not linked to our cohabitation typology could be that the importance of parental background depends not only on the cultural or normative context of a country but also on the economic and institutional context. For instance, Mills and Blossfeld (2013) argue that the degree of economic uncertainty that young adults face when they make demographic choices is important. It can be expected that the lower the degree of uncertainty, the less young adults depend on their family of origin. This level of dependence on the family of origin and the uncertainty young adults face are linked to the country-specific culture but also to economic possibilities and institutional support from the state. In addition, differences in the institutional and legal framework of cohabitation may explain cross-national variation (Dominguez-Folgueras and Castro-Martin 2013; Perelli-Harris and Gassen 2012; Poortman and Mills 2012). In some countries, cohabiters have essentially the same legal status as married people (for example, in the Netherlands), but in other countries cohabiting couples still remain more vulnerable, legally and financially, than married couples (Perelli-Harris and Gassen 2012). This could be a reason for people to eventually marry, especially when they buy a house or become parents. Unfortunately, it was not possible to include a country-level indicator related to legal rules regarding cohabitation and marriage since there is information about these legal rules available only for Western and Northern European countries but not for Eastern European countries (Perelli-Harris and Gassen 2012). Moreover, it can be expected that legal rules concerning intimate relationships will keep on adjusting to the demands of new family forms and that differences between cohabitation and marriage with regard to legal protection will continue to diminish once countries are further advanced in the cohabitation transition (Dominguez-Folgueras and Castro-Martin 2013). This would imply that when cohabitation is still rare, there are no institutions for legal regulation of cohabitation (other than marriage), but that once cohabitation is seen more as a prelude to marriage, more legal arrangements will be introduced. Once cohabitation is seen as an alternative to marriage or even becomes the norm, cohabiting couples also acquire more of the same legal status as married couples.

These arguments suggest that differences in the effect of parental background on marriage timing not only are rooted in differences in cultural norms but also depend on economic and institutional differences across countries. Although culture, economy, and institutions often move in the same direction, there are still significant differences between and within countries. Thus, the explanation for the cross-national variation in the link between parental SES and marriage timing is possibly more complex and path-dependent. SDT critiques have argued that the SDT has ignored this path-dependence so far (Mills and Blossfeld 2013; Zaidi and Morgan 2017), and our study also suggests that indeed a more comprehensive theory is needed to understand cross-national variation in the link between parental SES and marriage timing. For future research, it would therefore be interesting to analyze the interplay between various cultural, economic, and institutional factors within countries.

Another explanation of why cross-national variation in the strength of the association between parental education and marriage timing is not linked to the cohabitation typology could be due to the data that are used in this study. The data from the GGP are the best cross-national data currently available, but they have some limitations. One important limitation is that the measure for the highest educational level of parents is not as detailed for all countries as hoped for. In this study, we used ISLED, a continuous measure for education that is intended to maintain as much country-specific details as possible, but these details are missing for some countries. For example, for Norway there are only three categories (low, middle, high) for parental education, which can have an impact on the analyses and the results found in this study. Thus, it is important for future research that information on the level of education of respondents and their parents are collected with as much country-specific detail as possible.

Lastly, it is noteworthy that some countries (e.g., the United States, Canada, or Germany) might be more difficult to characterize than other countries due to internal diversity. The United States, for example, is an ethnically diverse country, and previous research shows racial differences in union formation behavior as well as in the impact of parental SES (Bloome and Ang 2020; Raley, Sweeney, and Wondra 2015). In general, within-country heterogeneity, due to ethnic, religious, or regional diversity, is clearly important but not captured in the current study. It would be interesting for future research to analyze single countries in detail, if there are regional or ethnic differences in the link between parental SES and timing of marriage. Moreover, studying a single country might make it also possible to test various other mechanisms between parental SES and marriage timing, next to the intergenerational transmission of education, which is tested in this study.

To conclude, the marriage formation process is socially stratified. Our study has contributed to understanding this stratification by showing how parental SES predicts the timing of marriage in different countries. A key lesson is that differences in marriage

timing by family background became weaker and in general disappeared after young adults entered a cohabiting union. However, we have to keep in mind that this does not mean that we can see unmarried cohabitation as a way to solve inequalities in the marriage formation process. Due to unmarried cohabitation, as an additional step in the marriage formation process, the social stratification shifts only to the moment of entering the first coresidential union instead of the moment of entry into first marriage.

6. Acknowledgments

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Appendix: Supplementary materials

This section contains the supplementary materials referred to in the main text and includes a range of materials that are relevant to our study but could not be accommodated in our main text. We have split the material into ten sections.

Table A-1: Meta-regression: Association between the net effect of parental SES on marriage timing and the four different cohabitation stages

	Model 1		Model 2a Not cohabiting		Model 2b Cohabiting	
Cohabitation as…	B (SE)	95% CI	B (SE)	95% CI	B (SE)	95% CI
(Constant)	–.050 (.035)	(–.124, .023)	–.078 (.054)	(–.192, .036)	.007 (.052)	(–.103, .116)
Marginal behavior	–.053 (.038)	(–.134, .029)	–.032 (.059)	(–.157, .092)	–.022 (.058)	(–.144, .101)
Prelude to marriage	–.055 (.043)	(–.145, .035)	–.058 (.065)	(–.196, .080)	–.036 (.064)	(–.172, .100)
Alternative to marriage	–.046 (.041)	(–.133, .042)	–.071 (.063)	(–.205, .063)	–.058 (.061)	(–.188, 0.72)

Note: Reference group is cluster 'cohabitation as the norm' consisting of Norway and Sweden.

Table A-2: Overall pooled model for all the 20 countries for respondents born between 1960 and 1994: Effect of parental education on timing of first marriage separately for women and men

	Model 1		Model 2		Model 3a Not cohabiting		Model 3b Cohabiting	
	B (SE)	95% CI	B (SE)	95% CI	B (SE)	95% CI	B (SE)	95% CI
Women								
Effect parental education	–.129 (.016)	(–.159, –.098)	–.089 (.011)	(–.110, –.068)	–.121 (.014)	(–.149, –.093)	–.002 (.015)	(–.031, .027)
Cross-national variation (I^2)	90.5%		76.5%		81.8%		70.2%	
Men								
Effect parental education	–.120 (.015)	(–.150, –.091)	–.102 (.014)	(–.129, –.075)	–.118 (.019)	(–.154, –.081)	–.052 (.019)	(–.090, –.015)
Cross-national variation (I^2)	79.9%		72.9%		82.6%		67.6%	

Note: All models are controlled for age and squared term, birth year and squared term, and the interactions between parental education and age (and squared term).

Figure A-1a: Net effect of parental education on marriage for women (controlled for own education and enrollment) for 18 European and 2 North American countries. Meta-analysis of estimates from discrete-time logistic models

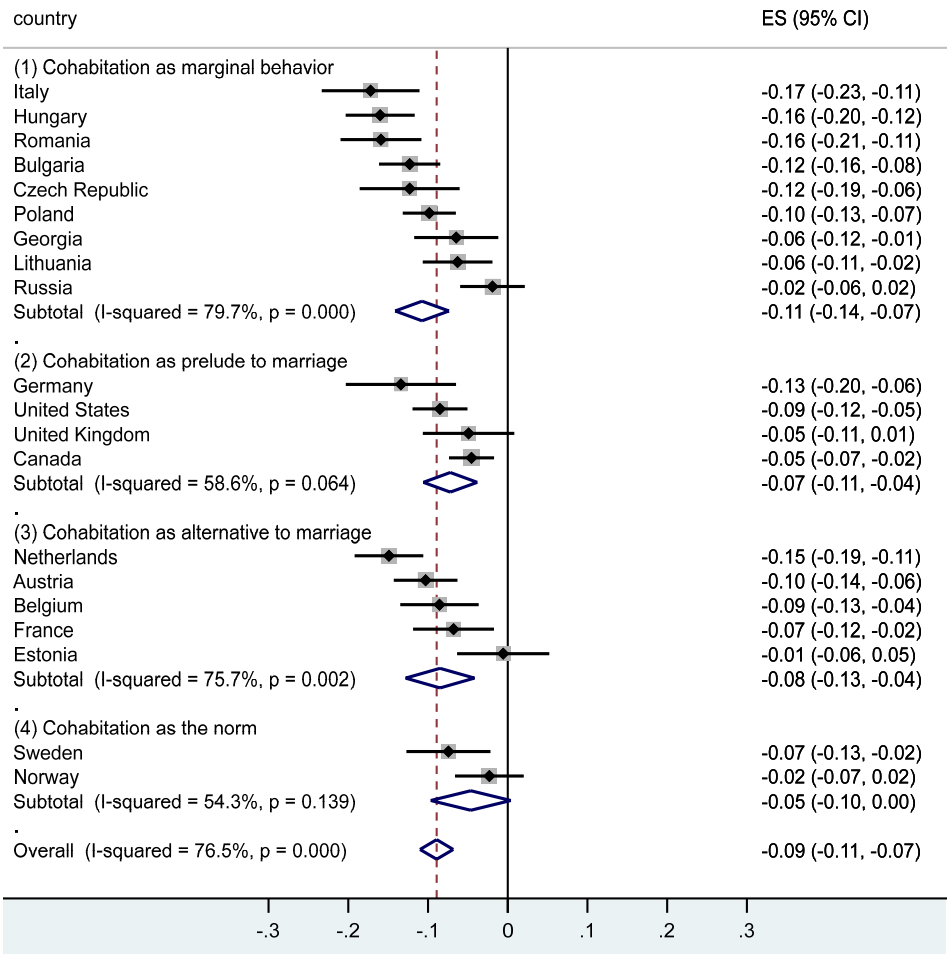

Figure A-1b: Net effect of parental education on marriage for men (controlled for own education and enrollment) for 18 European and 2 North American countries. Meta-analysis of estimates from discrete-time logistic models

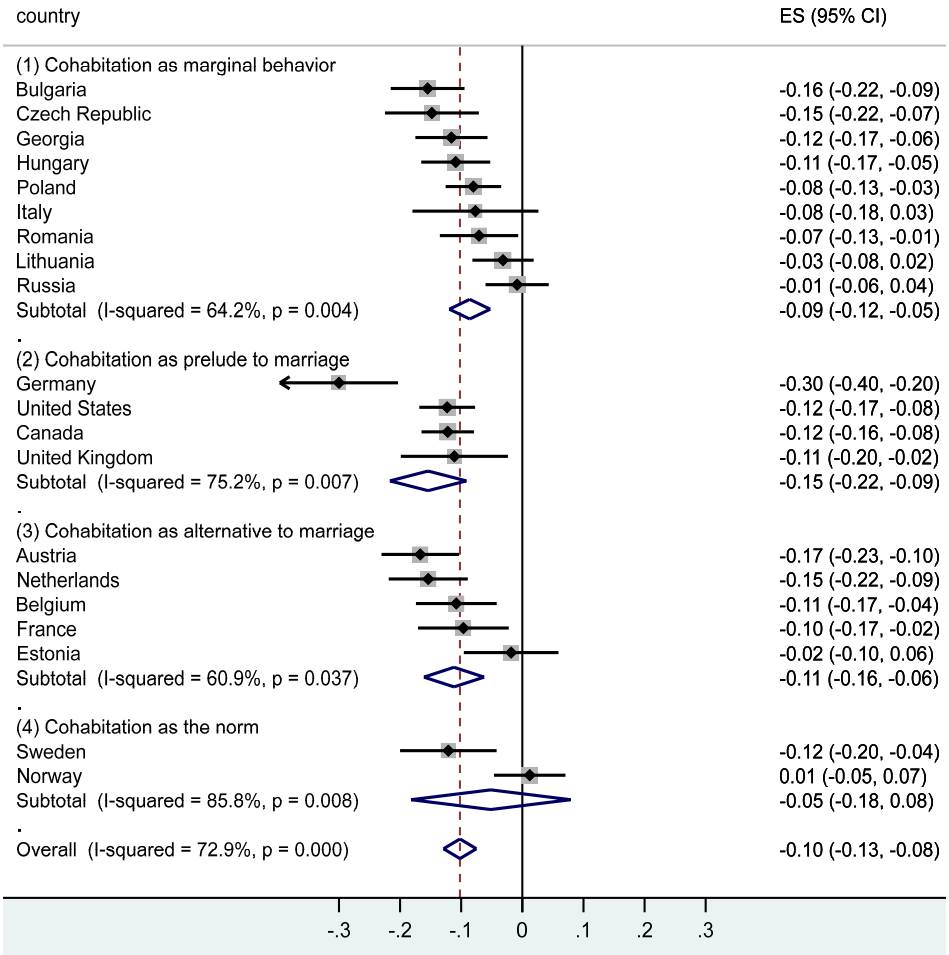

Figure A-2a: Effect of parental education on marriage when young adults are not cohabiting for women for 18 European and 2 North American countries. Meta-analysis of estimates from discrete-time logistic models

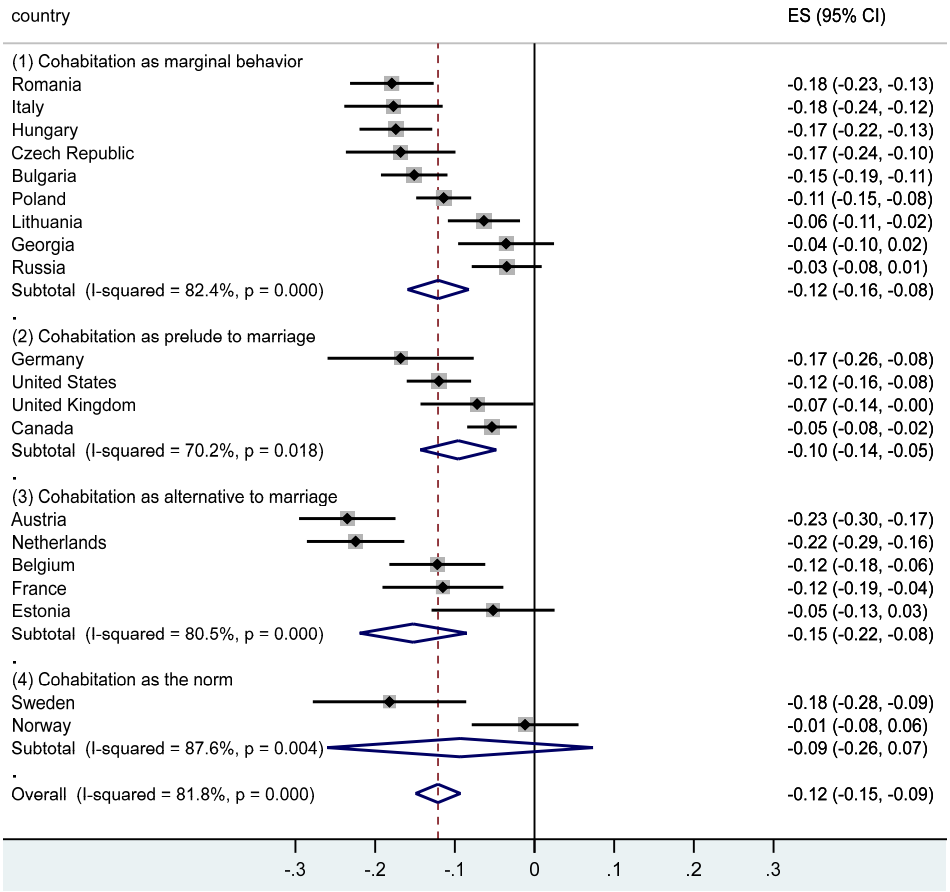

Figure A-2b: Effect of parental education on marriage when young adults are cohabiting for women for 18 European and 2 North American countries. Meta-analysis of estimates from discrete-time logistic models

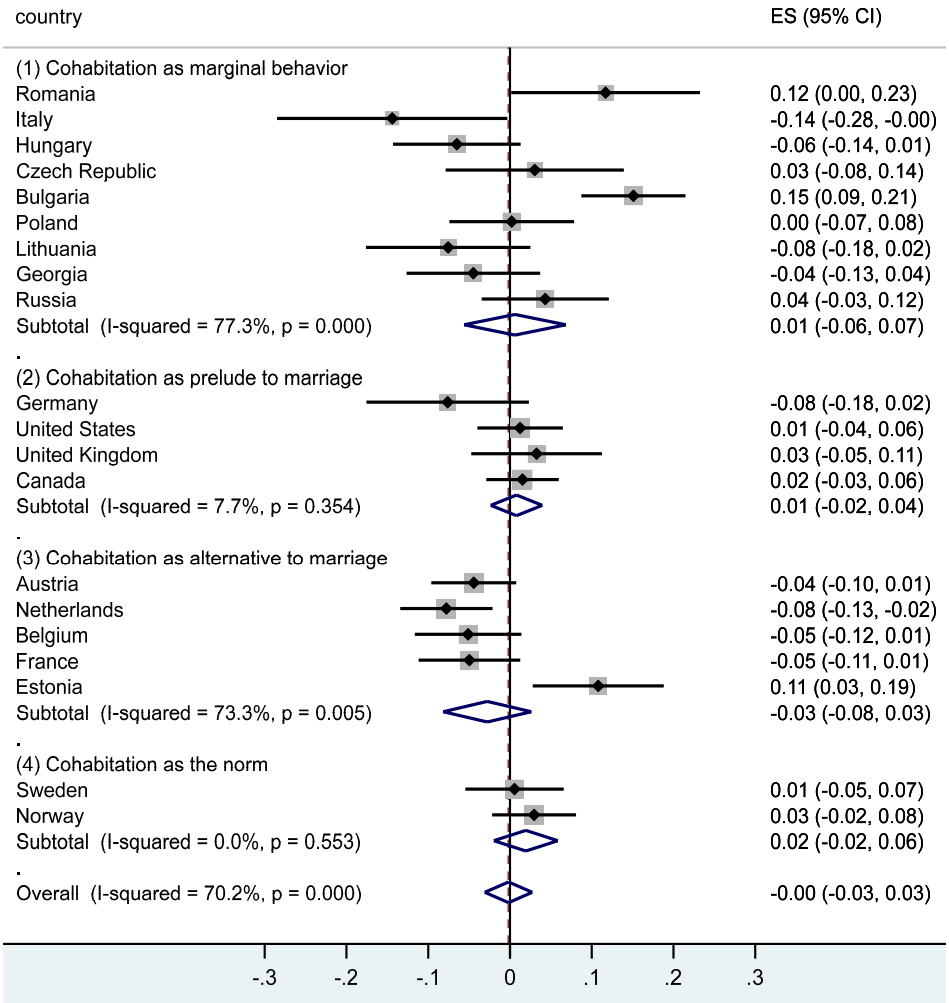

Figure A-3a: Effect of parental education on marriage when young adults are not cohabiting for men for 18 European and 2 North American countries. Meta-analysis of estimates from discrete-time logistic models

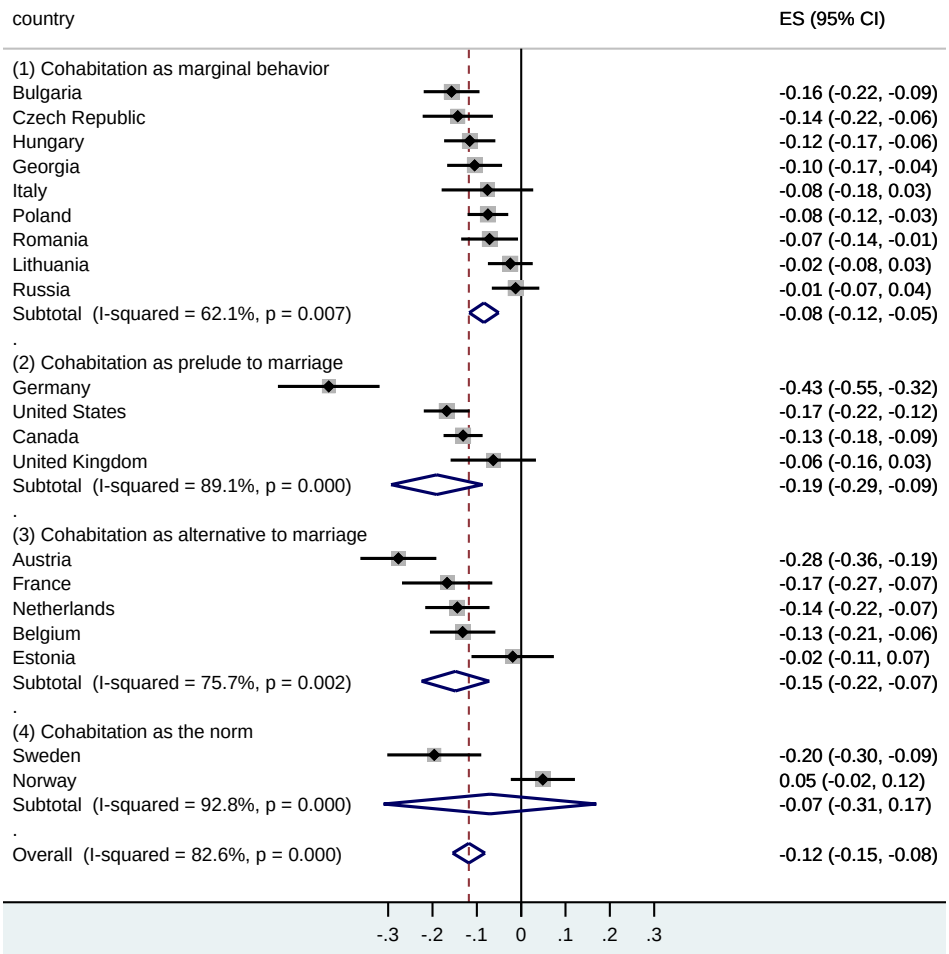

Figure A-3b: Effect of parental education on marriage when young adults are cohabiting for men for 18 European and 2 North American countries. Meta-analysis of estimates from discrete-time logistic models

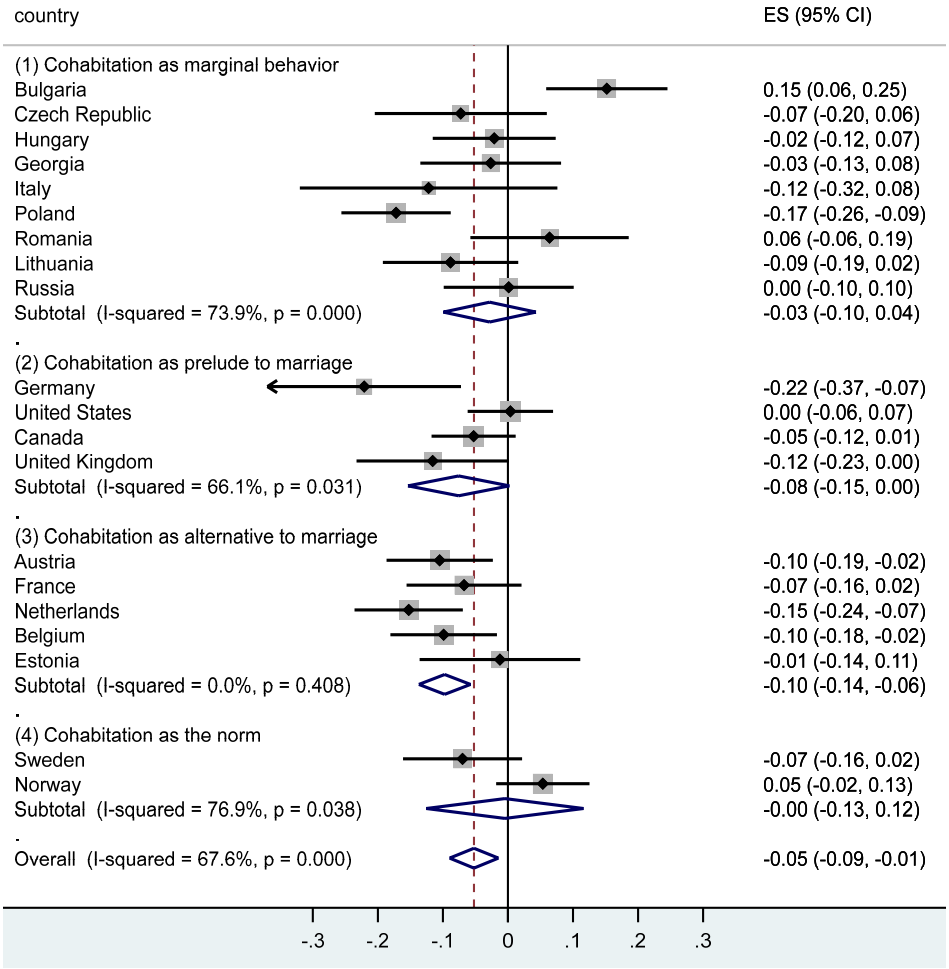

Figure A-4a: Meta-regression: Association between the net effect of parental SES on marriage timing and the percentage of cohabitation as first union

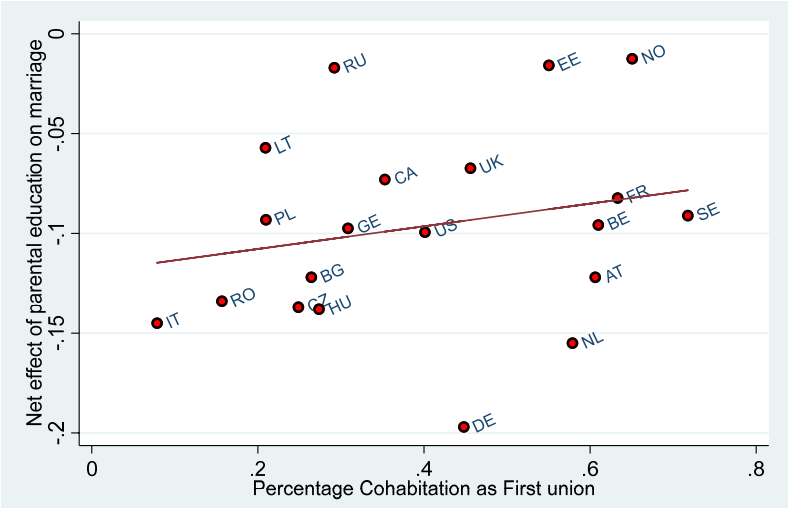

Figure A-4b: Meta-regression: Association between the net effect of parental SES on marriage timing when young adults do not cohabit and the percentage of cohabitation as first union

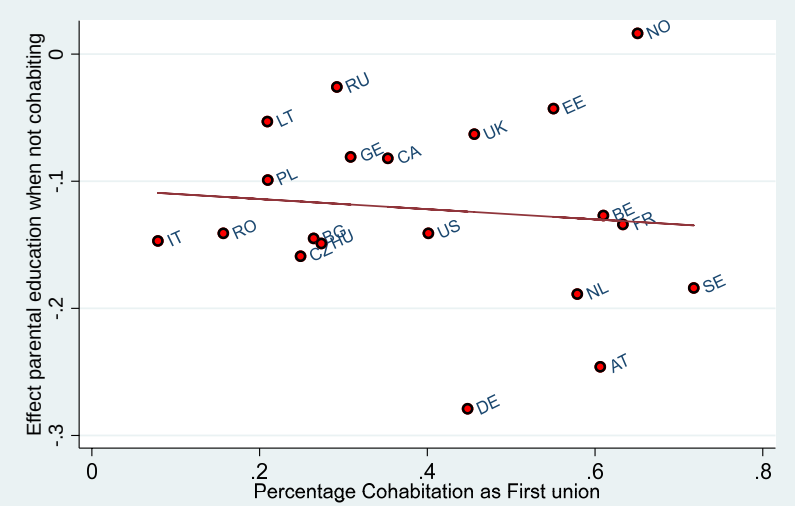

Figure A-4c: Meta-regression: Association between the net effect of parental SES on marriage timing once young adults cohabit and the percentage of cohabitation as first union

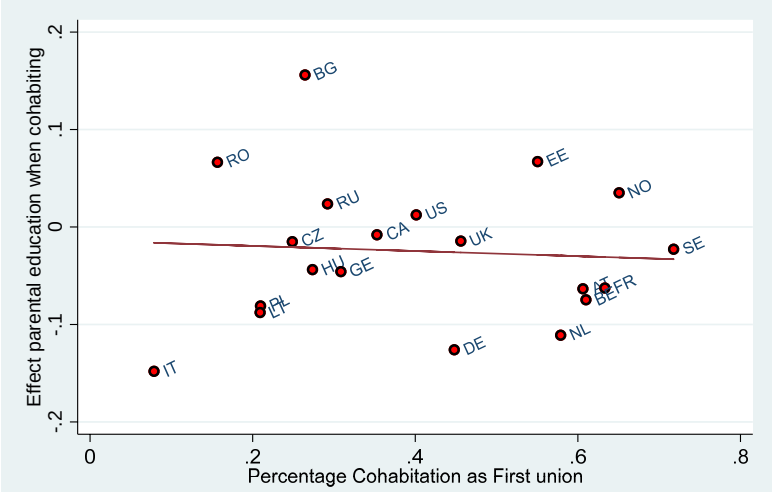

Figure A-5a: Meta-regression: Association between the net effect of parental SES on marriage timing and the percentage of birth child within cohabitation

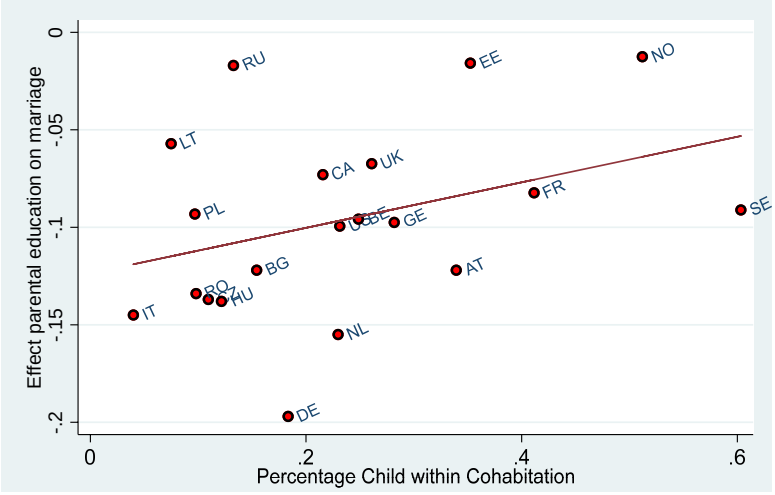

Figure A-5b: Meta-regression: Association between the net effect of parental SES on marriage timing when young adults do not cohabit and the percentage of birth child within cohabitation

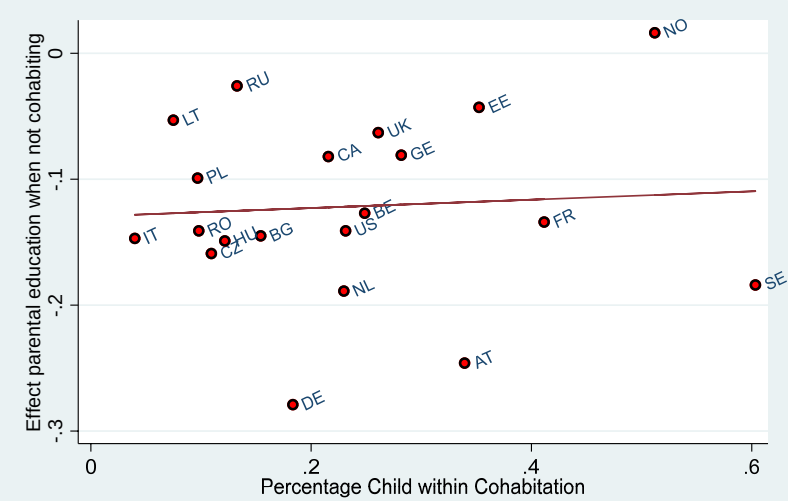

Figure A-5c: Meta-regression: Association between the net effect of parental SES on marriage timing once young adults cohabit and the percentage of birth child within cohabitation

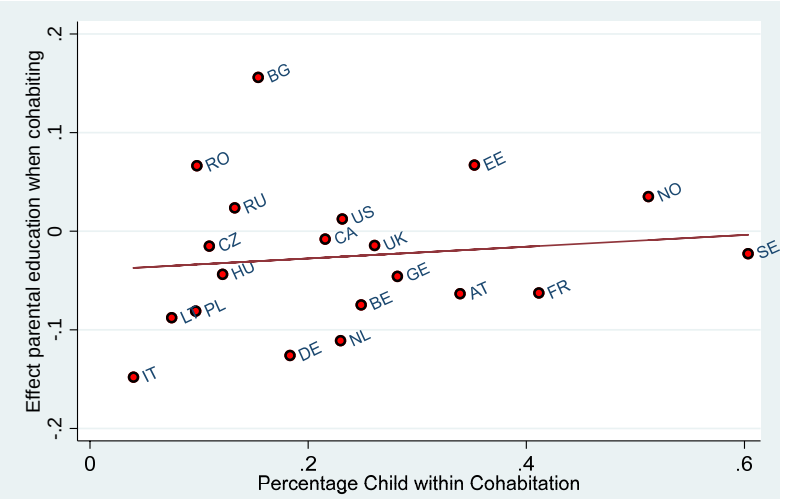

Figure A-6a: Meta-regression: Association between the net effect of parental SES on marriage timing and the percentage of people who married within two years after cohabitation

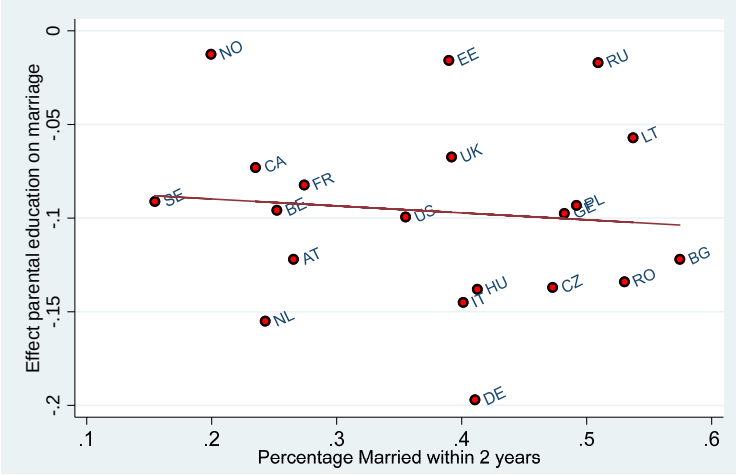

Figure A-6b: Meta-regression: Association between net effect of parental SES on marriage timing when young adults do not cohabit and the percentage of people who married within two years after cohabitation

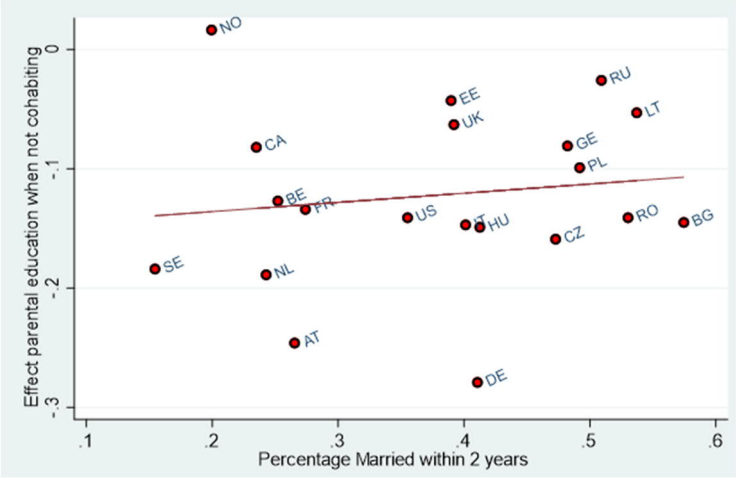

Figure A-6c: Meta-regression: Association between net effect of parental SES on marriage timing once young adults cohabit and the percentage of people who married within two years after cohabitation

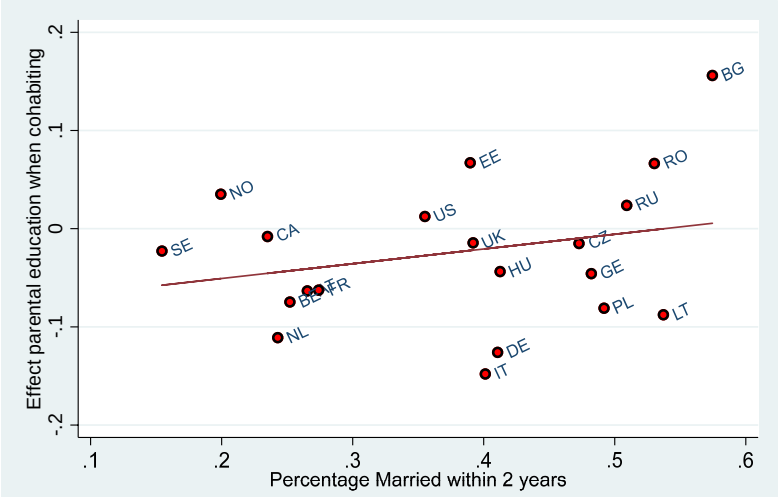

Figure A-7a: Meta-regression: Association between the net effect of parental SES on marriage timing and the percentage of people who break up within two years after cohabitation

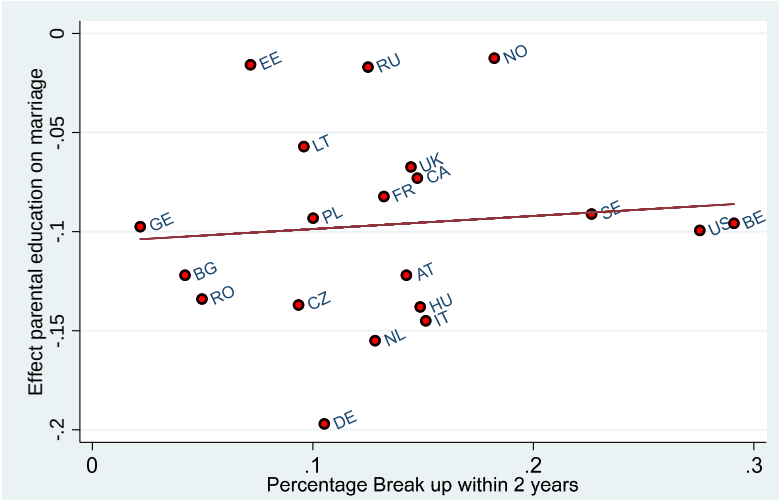

Figure A-7b: Meta-regression: Association between net effect of parental SES on marriage timing when young adults do not cohabit and the percentage of people who break up within two years after cohabitation

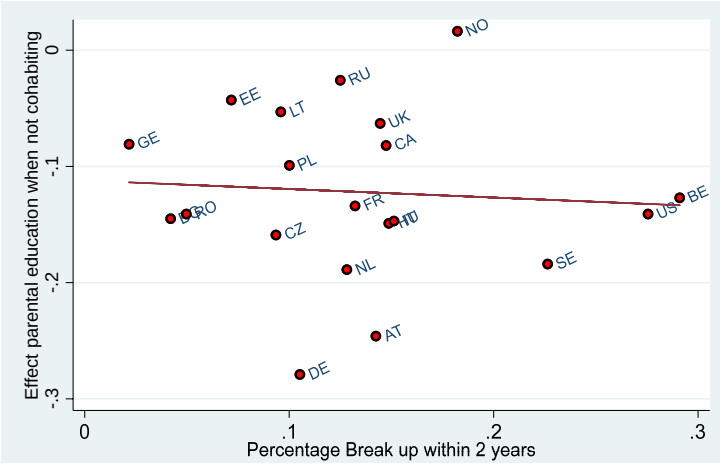

Figure A-7c: Meta-regression: Association between net effect of parental SES on marriage timing once young adults cohabit and the percentage of people who break up within two years after cohabitation

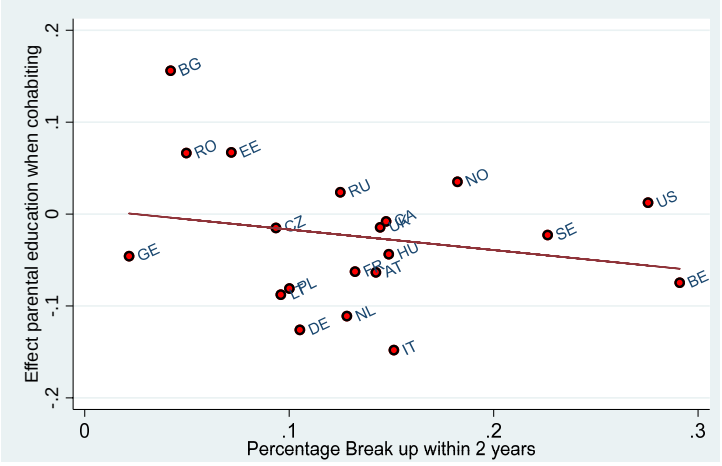

Figure A-8a: Meta-regression: Association between the net effect of parental SES on marriage timing and factor score based on four cohabitation indicators

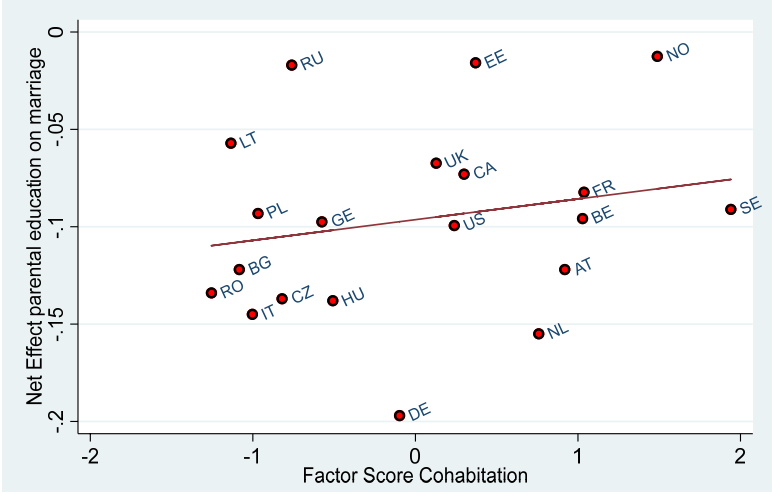

Figure A-8b: Meta-regression: Association between the net effect of parental SES on marriage timing when young adults do not cohabit and factor score based on four cohabitation indicators

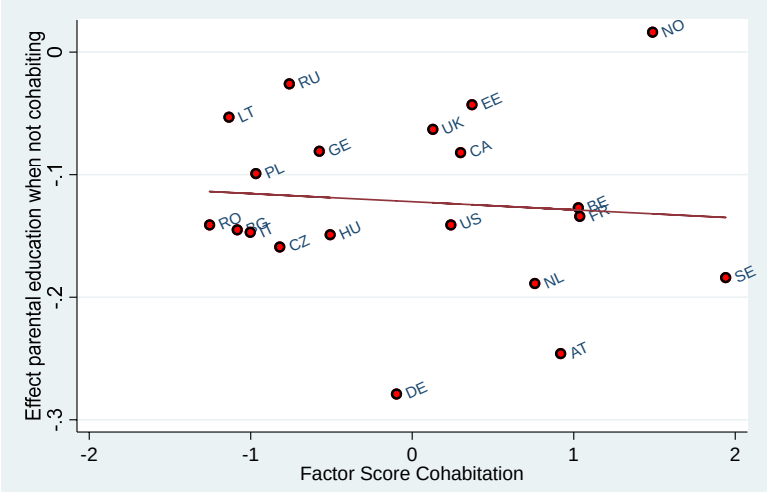
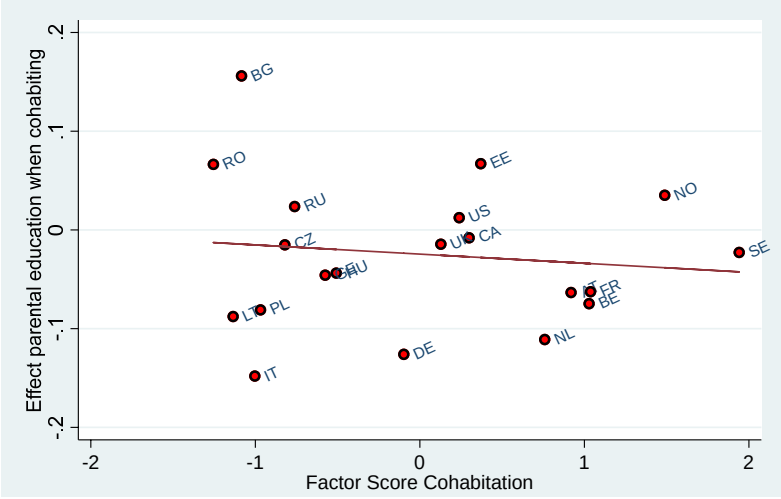
Figure A-8c: Meta-regression: Association between the net effect of parental SES on marriage timing once young adults cohabit and factor score based on four cohabitation indicators