3. The changing relationship between socio-economic background and family formation in four European countries

Jarl E. Mooyaart; Aart C. Liefbroer; Francesco C. Billari

Abstract Family formation, a process that includes union formation, fertility, their timing and pathways, has become increasingly diverse and complex in Europe. We examine how the relationship between socio-economic background (measured by parental education) and family formation as a process has changed over time in France, Italy, Romania and Sweden, using data from the first wave of the Generations and Gender Survey (GGS). Competing Trajectories Analysis (CTA), a procedure which combines event-history with sequence analysis, allows us to examine family formation as a process, capturing both differences in timing of the start of family formation and in the pathways that young adults follow. For timing, socio-economic background differences in France and Sweden remained relatively small, whereas in Italy and Romania higher parental education has become more strongly associated with postponement. For pathways, we observe a divergence between individuals of different socio-economic backgrounds in all countries, particularly in Sweden and France. Generally, those with high educated parents increasingly shun pathways which involve early marriage and parenthood, whereas a high share of those with low educated parents still enters these pathways, while also being increasing likely to enter pathways which involve childbearing outside of marriage.

1 A similar, but somewhat different version of this chapter is currently under review at an international peer-reviewed journal.
3.1 INTRODUCTION

Over the last decades, there has been a diversification and destandardization of family formation patterns in Europe (Brückner and Mayer 2004; Buchmann and Kriesi 2011). Marriage rates have declined, unmarried cohabitation and out-of-wedlock childbearing have risen (Lesthaeghe, 2010; OECD 2011). Some scholars have argue that these changes have contributed to increasing social inequality, because of the rise in more precarious forms of family formation particularly among the disadvantaged (Amato et al. 2015; Perelli-Harris et al. 2010). This idea is well captured by McLanahan (2004) with the notion of “Diverging Destinies”: the disadvantaged are increasingly more likely to experience single parenthood or divorce, and less likely to marry. A core question is whether also the children of the disadvantaged have become increasingly likely to experience these family formation pathways.

While there are many studies describing and explaining the societal changes in family formation in Europe, few studies have examined how the effect of family background on family formation has changed over time. Moreover, Europe is heterogeneous. According to the Second Demographic Transition (SDT) theory, European differences in family formation patterns are expected to become smaller, the more the SDT spreads across European countries (Lesthaeghe 2010). Some research (e.g., Billari and Liefbroer (2010)) suggests however that cross-national differences may rather be increasing. This study examines how the effect of socio-economic background on family formation has changed over time in four European countries, selecting two countries which can be described as forerunners in the SDT, i.e. Sweden, France and two countries that can be described as laggards in the SDT, i.e. Italy and Romania.

Although there has been ample research on the effect of young adults’ own educational attainment on family formation patterns (Blossfeld and Huinink 1991; Perelli-Harris et al. 2010; Zimmermann and Konietzka 2017), there has been relatively little research on the impact
of the socio-economic characteristics of the family of origin, or socio-economic background. This is surprising, as socio-economic background is an ascribed rather than an achieved characteristic, and thus if it has an effect it would demonstrate continuing stratification on the basis of characteristics the individual had no influence on. Previous research on the link between socio-economic background and family formation across time and space has typically focused on specific demographic events. These studies show differences in the timing and choice for marriage or cohabitation between countries (Brons, Liefbroer, and Ganzeboom 2017; Hoem et al. 2009; Wiik 2009) or in the relationship context in which a child is born (Koops, Liefbroer, and Gauthier 2017; McLanahan and Percheski 2008; Perelli-Harris et al. 2010).

Yet, examining separate transitions does not provide a complete picture on the comprehensive effect of socio-economic background. Conceptualizing and analyzing family formation as a process has merit, as the family events are clearly interrelated. It is important to examine sequences of family events, as sequences contain rich information about the timing, quantum, and ordering of family events (Billari 2001), but also on the duration of time that is spent in specific family states (Studer and Ritschard 2016). Existing studies using sequence analysis and latent-class analysis have indeed allowed a detailed examination of the diversity in family pathways in Europe (Lesnard et al. 2016; Perelli-Harris and Lyons-Amos 2016; Schwanitz 2017; Sironi, Barban, and Impicciatore 2015; Van Winkle 2018). However, hardly any attention has been paid to differences in family pathways between young adults coming from different socio-economic backgrounds (Sironi et al. 2015). Thus, little is known about how the influence of socio-economic background on the process of family formation has evolved over time and to what extent this process is similar across countries. In this study, we therefore formulate two research questions: (1) To what extent does socio-economic background shape the family formation process among young adults? (2) Does the extent
through which socio-economic background shape family formation change across cohorts and between national contexts?

3.2 BACKGROUND

3.2.1 Structuring the family formation process

Family formation is a complex process. People differ in when the process starts (for some rather early, for some rather late), but also in the type of family formation pathways they follow once the processes has started. The distinction between timing and type makes it easier to observe to what extent differences in family formation between subpopulations are based on differences in when they start family formation and/or whether they differ in the family formation pathways that they follow. Thus, this distinction facilitates the comparisons between family formation life course trajectories. The distinction is also important, as the consequences of the same type of pathway may depend on its timing. For instance, Berrington and Diamond (1999) find that early marriages are more likely to be dissolved, and that early single parenthood in particular has a large impact on future socio-economic status (Christopher et al. 2002; Dariotis et al. 2011). Still, single parenthood remains a risk when it occurs at a later age as well, because the backup of a partner is lacking. Therefore, even though single parenthood that starts during a person’s twenties may have fewer negative consequences than teenage single parenthood, both have an inherent precariousness in them.

In what follows, family formation is therefore viewed as a process that starts when young adults experience their first family-formation event, and that continues with subsequent family-formation events. The first event defines the timing of family formation, and it could be either starting to live with a partner (either married or unmarried) and/or becoming a parent.
After the first event, *pathways* are defined by subsequent family-formation events. In our analyses, the pathways period will include the first six years after the first event has taken place. While for some individuals, the family formation process has already finished well within this time period, for others it might still be under way. However, even though for some the family formation process may not have finished, for most individuals the first six years of their family formation pathway can be seen as decisive for their further family careers.

In the next sections we use this framework in which we distinguish between the timing of the start of family formation and the subsequent pathways to describe temporal changes in the family formation process between individuals with different socio-economic background. First, we discuss the general impact of socio-economic background on family formation.

### 3.2.2 Socio-economic background and the family formation process

Socio-economic background influences the timing and pathways of family formation through various mechanisms. First, differences in how children from different social background are socialized are important. Particularly highly educated parents may warn their children on the risks of unprotected sex, early union formation and childbearing (Cavanagh 2011; Sassler, Addo, and Hartmann 2010; Wiik 2009). However, socialization may also have a more indirect influence. Individuals with higher educated parents, compared to those with lower educated parents, tend to have higher career aspirations, increasing their likelihood of entering tertiary education (Blossfeld and Shavit 1993; Palmer et al. 2010). This in turn leads to the postponement of family formation (Blossfeld and Huinink 1991; Thornton, Axinn, and Teachman 1995). In addition, children from lower background families have a higher likelihood to drop out of compulsory education (Chevalier et al. 2013).
Second, children from high background families tend to have higher expectations about their partner’s social status (Kalmijn 1998). This implies they may only settle for a partner if this partner meets certain criteria, such as a sufficient educational level or income. From a marriage market perspective, as these candidate partners are in high demand and relatively scarce, it will take more time to find such a partner (Oppenheimer 1988).

Third, children from high social background may have higher consumption aspirations. They may only want to start a family when they feel that they can maintain the same lifestyle that they had during their childhood. This means family formation is postponed until after they have found steady employment with good enough income (Easterlin 1980). Moreover, children from high background families may be reluctant to leave the parental home to start a family as the parental home provides economic and psychological security, in contrast to the homes of those from disadvantaged backgrounds, who may have less to lose when leaving the parental home (Easterlin 1980; Gierveld, Liefbroer, and Beekink 1991). On the other hand, highly educated parents may be more likely to assist their children financially in their transfer to family life (Avery, Goldscheider, and Speare 1992).

Fourth, even though many children, regardless of their socio-economic background, initially have the intention to marry at some time in their lives (Wood, Avellar, and Goesling 2008), life may not go as planned. This is particularly true for disadvantaged youths who are more likely to engage in risky behaviors, such as unprotected sex (Miller 2002), thereby increasing the risk of becoming a teenage parent. While this indicates a risk of early family formation for disadvantaged youths, this also influences the structure of family formation. Disadvantaged youths are not only likely to start family formation earlier, but they are also more likely to become parents outside of marriage and to a lesser extent outside of any cohabiting union (Koops et al. 2017; Perelli-Harris et al. 2010).
Fifth, while young adults from a low social background family may follow more precarious family formation pathways, those from a high social background family are more likely to opt for pathways that are more reversible and require less initial commitment. Highly educated parents are more likely to raise their children to value autonomy rather than conformity (Kohn 1963), which may make the children themselves less likely to commit to family life early in their life as they want to remain more autonomous and spend time on self-development. Moreover, when they enter the family formation process, they may do so more carefully, by for instance first cohabiting rather than marrying, in order to retain some independence. Furthermore, they cohabit for a longer period of time before transitioning to marriage, because they may need more time before giving up autonomy and fully commit to family life. Because children with an advantaged background tend to value autonomy more than conformity, they may also be less likely to conform to traditional pathways, such as having children shortly after marriage. They may even not marry at all, in order to break with traditions (Lesthaeghe 2010), opting for having children within cohabitation and never marrying instead.

In summary, socio-economic background influences both the timing of family formation and subsequent pathways in the family formation process. Young adults from high social background will generally start later than those from low social background. Furthermore, those from high social background are more likely to postpone family commitments that are less reversible, as they may first want to focus on realizing their personal goals or maintaining their social status. Additionally, young adults from lower social background are more likely to have children without living with a partner. While those from lower background families may have a faster family formation process, they may be less likely to achieve a stable family form such as being married and having children in the end.

The question we address in the next section is to what extent the influence of socio-economic background on family formation has changed over time.
3.2.3 Change over time

During the first half of the previous century, the family formation process had become highly standardized. The vast majority of young adults left the parental home in order to marry and start a family (Mayer 2004). Since the Second World War, the rise in unmarried cohabitation, divorce and parenthood outside of marriage, and the decrease in marriage and fertility rates led to a diversification of family formation pathways. Lesthaeghe and Van de Kaa (1986), in their Second Demographic Transition (SDT) thesis, see these family formation changes to be the result of cultural change. The explanation that Lesthaeghe (Lesthaeghe 1998, 2010) provides can be linked to changes that involve the whole family formation process, including the timing of its start and the pathways that follow. One reason for change, Lesthaeghe argues, is that increasing welfare and ideational change pushed the focus of individuals towards realizing personal goals, such as self-realization. As a result, family formation was postponed, because individuals first focused on self-fulfillment (for instance on their own career) rather than on conforming to family life. Other societal changes that caused a delay in the timing of family formation were the increased use of contraceptives, educational expansion and an increasing number of women entering higher education and the labor market. Also secularization, feminism, and generally the spread of liberal values made it more likely that young adults opted for unmarried cohabitation and divorce.

The question is whether these general temporal changes have also influenced the linkages between socio-economic background and the family formation process. According to the SDT theory, it is the highly educated segment of the population that were trendsetters on new living arrangements such as unmarried cohabitation (although in an adjustment of the original theory it has also been acknowledged that in some national contexts these new behaviors were initiated by the lower social strata (Lesthaeghe 2014)). Nonetheless, the SDT
theory assumes that the demographic trends diffuse among all layers of the society. This appears to imply that the link between socio-economic background and family formation patterns would have become weaker across birth cohorts. In our reading, according to the SDT theory, at the start of the SDT differences between socio-economic background would increase, as children from high background families adopted new family formation behaviors earlier than children from low background families. However, these differences would decrease again as these new family formation patterns became more widespread and eventually even lead to overall smaller differences according to socio-economic background in family formation than before the SDT.

The SDT has not remained unchallenged. Main criticisms include that it merely is a continuation of the first demographic transition and that the SDT mainly applies to Northern and Western European countries (Coleman 2003; Sobotka 2008; Zaidi and Morgan 2017). If indeed the SDT mainly applies to North-West Europe, the influence of socio-economic background may have changed in Northern and Western European countries, but not (so much) in Southern and Eastern countries. Lesthaeghe, however, insists that the SDT, having started in Northern and Western Europe, has later spread to other developed countries, including Southern and Eastern Europe (Lesthaeghe 2010). We can therefore infer that the influence of socio-economic background on family formation patterns changed later in Southern and Eastern Europe than in Northern and Western European countries. With respect to Eastern Europe, scholars even claim that only after the fall of the iron curtain, the SDT could spread to the former Soviet union countries (Frejka 2008; Potârcă, Mills, and Lesnard 2013).

Another criticism of SDT theory is that it assumes an irreversible cultural change, while relatively little attention is being paid to changes in economic conditions (Zaidi and Morgan 2017). Perelli-Harris et al. (2011) suggest that new family forms, such as unmarried cohabitation, are not chosen because of individualistic preferences, but rather because of
financial necessity, and call this explanation the Pattern of Disadvantage (PoD). Furthermore, they claim that childbearing outside of marriage is usually chosen by the lower educated (Perelli-Harris et al. 2010; Perelli-Harris and Lyons-Amos 2016). The importance of economic conditions for family formation is also stressed by Mills and Blossfeld (2013) who emphasize the process of globalization led to rising uncertainty about individual economic prospects, creating a need for people to opt for flexible unions, and preferring cohabitation over marriage. Both the PoD and globalization theory suggest that socio-economic status may be one of the main drivers of the diversification of family formation patterns and that differences in family formation between individuals from different family backgrounds remain.

The SDT and PoD perspectives lead to different expectations about how the relationship between socio-economic background and family formation changes across cohorts. As discussed earlier, from an SDT perspective, one would expect first a slight divergence to be followed by convergence and eventually little to no differences in family formation behavior on the basis of social origin. In terms of timing, it implies that at the beginning of the SDT those from high background families postpone their family formation process more than those from lower background families, but that in the end individuals of all social origins postpone family formation. It also implies that young adults from high background families will pioneer new demographic behaviors, such as unmarried cohabitation, union dissolution and childbearing outside of marriage, but that these behaviors will later spread to individuals of all social origins. From the PoD perspective, the strength of the link between socio-economic background and family formation depends on the level of poverty among the low background groups. If the economic circumstances of the lower social strata become worse, the children from disadvantaged families will become less able to afford marriage. This could imply the postponement of family formation. At the same time, those with little parental resources may have the financial need to cohabit. Furthermore, as described above, if social inequality is
linked to less social mobility, young adults from low background families may lose confidence in their career and marriage prospects and resort to risky behavior that can lead to early parenthood. On the other hand, children with high background families may have the financial safety net to support marriage and a family. Thus, from the PoD perspective one would expect that unmarried cohabitation and particularly childbearing outside of marriage is a phenomenon that will occur among young adults from low socio-economic background families rather than among young adults from high socio-economic background families. Finally, while from the SDT perspective one expects a similar process, but starting at different points in time, across countries, the PoD perspective argues that the link between family background and family formation is context-dependent, and will mainly be driven by the position of low socio-economic background groups in a given society.

3.3 DATA & METHODS

3.3.1 Data

This study uses data from the first wave of the Gender and Generations Survey (GGS) harmonized version 4.2 (Perelli-Harris et al. 2010; Vikat et al. 2007). The GGS contains rich information on family formation histories, including timing of all married and unmarried cohabitating relationships and childbirth. As a measure for socio-economic background we opt for educational level of the parents as the information. Although socio-economic background can be also captured by other indicators, such as occupational status of the parents, educational level of the parents may reflect more the cultural and to a lesser extent the economic aspect of the parental home compared with occupational status (Lyngstad 2006). The GGS includes information on the educational attainment of the mother and father, from which we construct a
measure in which we take the highest education among both parents, reducing the number of missing values on this variable to about 5%. Starting from the ISLED scale (Schröder and Ganzeboom 2013) as recorded for the GGS data by Brons and Mooyaart (2018), parental education is recoded to three parental education categories: low (ISLED <33), mid (ISLED>=33 and ISLED<66) and high (ISLED>66).

We focus on four countries that differ in the timing of the onset of the SDT and in their welfare systems. The key aim is to examine how the impact of socio-economic background on family formation changes across cohorts, and how this process differs across countries that differ in their SDT patterns and welfare system. If we would include all available countries, it would be hard to condense the large amount of information on country differences, which would in our view reduce the clarity of the results. The four countries that we selected—France, Italy, Sweden and Romania—can provide information on the level of heterogeneity in the links between socio-economic background and family formation across birth cohorts. Number of respondents, parental education, gender and age distributions can be found in Table 1.

Table 1 *Descriptive information per country*

<table>
<thead>
<tr>
<th></th>
<th>France</th>
<th>Italy</th>
<th>Romania</th>
<th>Sweden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Parental Education</td>
<td>57.6%</td>
<td>79.5%</td>
<td>72.2%</td>
<td>63.2%</td>
</tr>
<tr>
<td>Middle Parental Education</td>
<td>29.2%</td>
<td>16.0%</td>
<td>20.2%</td>
<td>21.8%</td>
</tr>
<tr>
<td>High Parental Education</td>
<td>13.1%</td>
<td>4.6%</td>
<td>7.6%</td>
<td>15.1%</td>
</tr>
<tr>
<td>Male</td>
<td>43.4%</td>
<td>46.6%</td>
<td>49.9%</td>
<td>48.5%</td>
</tr>
<tr>
<td>Female</td>
<td>56.6%</td>
<td>53.5%</td>
<td>50.1%</td>
<td>51.5%</td>
</tr>
<tr>
<td>Birth year mean</td>
<td>1957.9</td>
<td>1959.3</td>
<td>1955.9</td>
<td>1964.7</td>
</tr>
<tr>
<td>Birth year stand. dev.</td>
<td>16.5</td>
<td>12.7</td>
<td>16.3</td>
<td>17.0</td>
</tr>
</tbody>
</table>
3.3.2 Analytical strategy

Our focus is on how parental education influences both the timing of the start of the family formation process and the course of family formation after that start. To empirically study this issue, we use Competing Trajectories Analysis\(^2\) (Studer, Liefbroer, and Mooyaart 2018), a method that combines elements of event history analysis and sequence analysis. Sequence analysis is used to create a meaningful typology of pathways during the first six years of family formation. Event history analysis is used to analyze the timing of family formation.

Creating a typology of family formation pathways

For all respondents, family formation sequences starting at the moment that the first family event occurs (i.e. when the state switches from single to any of the other family states), are constructed. Each month respondents are assigned to one of the following states: unmarried cohabitation (cohabitation), marriage, parenthood outside of relationship (parenthood), having a child in a cohabiting relationship (cohabitation and child), having a child within marriage (marriage and parenthood) and finally being in no cohabiting relationship and having no child (single). It is important to note that having a child does not necessarily mean that the respondent is living with the child. Furthermore, we do not distinguish between having one or more children. Respondents are followed for six years (72 months) after that first event. We opted

\(^2\) Although we apply CTA, we diverge from the original usage in Studer et al. (2018). First, we use different types of analyses as described above. We use predicted cumulative incidence whereas they used discrete time hazard and multinomial regression models. Second, we do not right-censor observations in our event-history part of the analysis that do not have a shorter than 6 year trajectory (because timing of interview minus the timing of the start of family formation > 6 years), but rather include these in the Kaplan-Meier survival analysis, but leave these out in the cumulative incidence rate, simply because they cannot be included here.
for a six-year family formation sequence as we that the kind of family formation pathway young adults will follow becomes clear within that time window. Respondents who had not experienced any family event or could not be followed for six years after the first event occurred were censored at the time of interview, age 45, or the time of the first event, depending on which of these events occurred earliest. For the clustering of the sequences we make use of the TraMineR and WeigthedCluster packages in R (Gabadinho et al. 2011; Studer 2013). We choose Optimal Matching (Abbott and Tsay 2000) with substitution costs based on the transition rates between family states in the data to calculate distances between all six-year family formation sequences. Finally, hierarchical clustering (Ward method) is used to generate the optimal number of clusters (see Appendix for details).

**Analyzing differences by parental education**

First, median ages of at which the first family formation event occurred by country, birth cohort, gender and parental education group, are presented, based on Kaplan-Meier estimates. Next, the predicted cumulative incidence functions into each family formation cluster, for each country, birth cohort and parental education group are estimated non-parametrically and visualized, using the R–cmprsk package (Scrucca, Santucci, and Aversa 2010). Gray’s tests are conducted to verify whether the predicted cumulative incidence rates differ between groups with different levels of parental education (Gray 1988).

---

If we would opt for a longer period we would have to exclude too many sequences from the analyses as they would be right censored. Thus, with CTA there is always a trade-off between the length of sequence (which would contain more information) and the number of sequences included in the analysis (the shorter the sequence the more could be included). We opt for a 6 year sequence as we believe this length balances both issues.
3.4 RESULTS

3.4.1 Family formation pathways

Based on the sequence analysis, seven family formation pathways can be distinguished (see Figure 1). We provide names to the clusters that describe their distinguishing features. The first cluster (*marriage and parenthood*) portrays what traditionally has been the most “socially acceptable” pathway. Marriage constitutes the first family formation event, quickly followed by having a first child. The second cluster (*slow marriage and parenthood*) is quite similar to the first, but more people cohabit prior to marriage and childbearing within marriage only starts 2.5 years after the union. We consider this a more modern version of the first cluster, given that family formation is more delayed and involves unmarried cohabitation more often. The third cluster (*cohabitation dissolution*) includes respondents who experience the dissolution of their
first cohabiting union. Some re-enter a new union relatively soon, whereas others do not. The fourth cluster (marriage) includes people who marry, but do not enter parenthood within the first six years of their family formation pathway. The fifth cluster (Single parenthood) is characterized by the fact that entry into single parenthood constitutes the start of the family formation pathway. The sixth cluster (Cohabitation) is mainly composed of people who remain cohabiting for six years, although some enter a different family state towards the end of the six-year period. The final cluster (Cohabitation and parenthood) includes respondents who enter a cohabiting union and have a child within this union. Only a small minority marries after the child is born. Most individuals follow the Marriage and parenthood (44%) pathway, followed by Slow marriage and parenthood (19%), Cohabitation (12%), Marriage (10%), Cohabitation and parenthood (7%), Single parenthood (4%) and Cohabitation dissolution (3%).

3.4.2 Results by country

Now, socio-economic background differences in the timing of onset of family formation and in the family pathways chosen after the start of family formation are examined, as well as how these socio-economic background differences vary across cohorts and countries. For each country, a Table with information on the median age of entry into family formation for each parental education group and birth cohort is presented. These results are split for men and women, since there are substantial differences between them in their timing of family formation.

---

4 Note, that being a single parent does not necessarily mean co residing with the child.

5 These statistics are comparing percentages of those who have a 6-year family trajectory. In total about 76% have a 6-year family trajectory. 8% have started family formation, but have not reached the 6-year mark in the data.
A graph displays the cumulative entry into different family formation pathways, with from left to right, the oldest (1925-44), middle (1945-64) and youngest (1965-94) cohorts and from top to bottom, those with low, middle, and high parental education. We discuss the results in the order in which the SDT (may) have occurred in each country, with Sweden first, followed by France, Italy and finally Romania. We only discuss significant differences as observed in the Chi\(^2\) tables in the appendix.

**Sweden**

Table 2 displays the median age of entry into family formation per country by gender, cohort and parental education group. When examining the results for Sweden, we observe little differences in median age between those with low, middle and high parental education, with a maximum difference of 1.5 years for both men and women. For men there appears to be a slight downward trend in timing differences between the parental education groups, whereas for women differences appear to be quite stable. Generally, the higher the parental education the later the start of the family formation process, but in the youngest cohort it is actually those with middle educated parents that have the lowest median age of entering family formation. For men the relationship between parental education and timing of family formation even completely reverses as those with low educated parents have the highest median age. Nevertheless, the overall picture in Sweden is that parental education has little impact on family formation timing and that this did not change across cohorts.
Table 2 *Median entry into family formation per country split by gender, cohort and parental education*

<table>
<thead>
<tr>
<th>gender</th>
<th>cohort</th>
<th>par. educ.</th>
<th>median age of entry into family formation (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sweden</td>
<td>France</td>
</tr>
<tr>
<td>female</td>
<td>1925</td>
<td>low</td>
<td>21.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>middle</td>
<td>22.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>high</td>
<td>22.8</td>
</tr>
<tr>
<td></td>
<td>1945</td>
<td>low</td>
<td>20.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>middle</td>
<td>21.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>high</td>
<td>21.8</td>
</tr>
<tr>
<td></td>
<td>1965</td>
<td>low</td>
<td>21.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>middle</td>
<td>21.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>high</td>
<td>22.2</td>
</tr>
<tr>
<td>male</td>
<td>1925</td>
<td>low</td>
<td>23.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>middle</td>
<td>25.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>high</td>
<td>25.3</td>
</tr>
<tr>
<td></td>
<td>1945</td>
<td>low</td>
<td>23.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>middle</td>
<td>24.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>high</td>
<td>24.3</td>
</tr>
<tr>
<td></td>
<td>1965</td>
<td>low</td>
<td>24.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>middle</td>
<td>24.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>high</td>
<td>24.3</td>
</tr>
</tbody>
</table>
Figure 2 Predicted cumulative entry into family formation pathways by parental education and birth cohort in Sweden

Figure 2 displays the cumulative entry into family formation pathways for each birth cohort and parental education group for Sweden. In the 1925-44 cohort, the process of family formation differs little between parental education groups. Among all parental educational groups the Marriage and parenthood pathway is clearly dominant.

In the 1945-64 cohort, a trend towards more diversity is observed. The percentages following the Cohabitation and Cohabitation and child pathways and to a lesser extent the Cohabitation dissolution pathway increase, resulting in fewer people following pathways that include marriage and childbearing. At the same time, significant differences between parental education groups emerge. Young adults with low educated parents are most likely to still follow the traditional Marriage and parenthood pathway. The Cohabitation and child and Single
parenthood pathways are also most common among young adults with low educated parents. It is the other way around for the Cohabitation dissolution pathway, which is mainly found among young adults with higher educated parents. Having middle-educated parents is associated with a higher likelihood of following the Slow marriage and parenthood pathway.

For the 1965-94 cohort the general trends observed in the second cohort continue, with a decreasing percentage of young adults following pathways that include marriage and childbirth, and an increasing percentage following pathways that include cohabitation. Differences between the parental education groups largely remain similar to those found among the 1945-64 cohort.

In summary, in Sweden young adults with highly educated parents consistently postpone family formation compared to young adults with lower educated parents. Differences by parental education in the types of family formation pathways have increased. Young adults with low educated parents have become relatively more likely to enter pathways that involve either early marriage (i.e. marriage, marriage and parenthood) or parenthood outside marriage (i.e. cohabitation and parenthood, single parenthood), whereas young adults with highly educated parents have become relatively more likely to opt for the Cohabitation pathway.

France

When examining the results on median age of entry for France in Table 2, we find that timing differences in family formation between those with different parental education slightly increased in the 1945-64 cohort with respect to the 1925-44 cohort, but that in the 1965-94 cohort the differences have become smaller than in the 1925-44, meaning a general decline in differences in median age of entry between the parental education groups across cohorts. For men the differences even become almost zero in the 1965-94 cohort. However, similar to Sweden, the differences between those with low, middle or high parental education are not
large. For both men and women the maximum difference in median age of entry into family formation between those with high and low educated parents, observed in the 1945-64 cohort, is just under 2 years for both men and women. Contrary to Sweden, in France those with a higher educated parents consistently have a higher median age of entry into family formation compared with those with lower educated parents.

Figure 3 displays the cumulative entry into family formation pathways by birth cohort and parental education group for France. In the 1925-44 cohort, only few differences between the parental educational groups are observed. Among all groups Marriage and parenthood is the dominant pathway. The main difference is that young adults with a middle educated parent are more likely to opt for Slow marriage and parenthood. In line with the idea that young adults from more educated classes are frontrunners in new family formation pathways, those with high educated parents have a slightly stronger tendency to opt for the Cohabitation and parenthood pathway.

In the 1945-64 cohort, similar changes are observed among all parental education groups; the percentage that enter the Marriage and parenthood pathway declines, while there is a strong increase in all the other pathways except Single parenthood. Although most people still enter opt for Marriage and parenthood, the Slow marriage and parenthood and Cohabitation pathways become increasingly popular. Yet, differences between parental education groups become much more pronounced. Compared to young adults with low educated parents, young adults with highly educated parents become less likely to opt for traditional pathways, such as Marriage and parenthood, Slow marriage and parenthood and Marriage, but more likely to enter Cohabitation and Cohabitation dissolution pathways. Finally, young adults with middle educated parents are less likely to enter the Single parenthood pathway.
Figure 3 Predicted cumulative entry into family formation pathways by parental education and birth cohort in France

Note: from left to right: cohorts 1925–44, 1945–64 and 1965–90. From top to bottom: low parental education, middle parental education, high parental education

In the 1965–94 cohort, a continuation of the general trend is observed. Only a minority now opts for Marriage and parenthood, but at the same time there no clear new dominant family formation pathway emerges. Particularly, there is an increase in the percentage of young adults who enter the Cohabitation and Cohabitation and parenthood pathways. Nonetheless, differences between parental education groups remain. The rates into pathways involving marriage are all higher for young adults with low educated parents compared to those with higher parental education. On the other hand, having middle or high educated parents is associated with a higher rate into the Cohabitation dissolution pathway and with a lower rate of entry into the Cohabitation and parenthood pathway. Contrary to the previous birth cohort, all parental education groups are equally likely to enter the Cohabitation pathway. Thus,
overall differences by parental education seem to decrease a bit, suggesting a mild process of convergence.

To summarize, in France differences in family formation timing between individuals with different socio-economic background are small and declining. In terms of family pathways, differences between those with low and those with high educated parents have increased, particularly between those born in 1925-44 and 1945-64. Compared to young adults with low educated parents, young adults with high educated parents have increasingly become less likely to opt for pathways including parenthood, and more likely to opt for flexible pathways including cohabitation but not marriage. On the other hand, those with low educated parents are increasingly more likely to enter pathways involving marriage and parenthood (i.e Marriage, Marriage and parenthood), but also Single parenthood.

**Italy**

The results on differences in timing of family formation between parental education groups in Italy can be found in Table 2. These results show divergence between parental education groups in median entry in family formation across cohorts for both men and women. In the 1925-44 and 1945-64 cohorts, the maximum age difference in median entry into family formation between the parental education groups was 1.6 and 3 years for men and women respectively, but this increased to 4.0 and 5.9 years in the 1965-94 cohort. For both men and women, those with middle educated parents show the least increase over time, resulting for men that those with middle educated parents have the lowest median age of entering family formation in the 1965-94 cohort. There is a gender component, as for men it is mainly those with high educated parents that diverge in terms of their median entry age from those with middle and low educated parents, with the first having a lower median age of entry into family formation than the latter in the youngest cohort. However, for women it is simply the higher educated one’s parents are,
the higher the median age of entering family formation, in which the differences between those with low, middle and high educated parents increase across cohorts.

Figure 4 displays the cumulative incidence of family formation pathways by birth cohort and parental education group for Italy. The *Marriage and parenthood* pathway is the dominant pathway in the 1925-44 cohort, and hardly anyone opts for a pathway which does not include marriage. Differences between the parental education groups are small, with two exceptions. Individuals with middle educated parents are least likely to enter the *Marriage and parenthood* pathway, while those with low educated parents enter this pathway fastest and those with high educated parents catch up to some extent. Finally, although few young adults follow the *Cohabitation* pathway, those with middle educated parents are more likely to do so than the others.

In the 1945-64 cohort, the relative popularity of the *Marriage and parenthood* pathway decreases, with people generally more likely to opt for the *Marriage* or the *Slow marriage and parenthood* pathways. Pathways that do not include marriage remain unpopular. The differences between those with low educated parents and the others become more pronounced. As in the 1925-44 cohort, young adults with low educated parents are more likely to enter a traditional pathway. On the other hand, those with middle and high educated parents are more likely to enter the *Slow marriage and parenthood, Cohabitation dissolution* and *Cohabitation* pathways. These results are in line with the SDT theory in that those with higher educated parents are more likely to initiate new forms of family formation behavior. In the 1965-94 cohort, the graphs mainly show a general postponement of entering all family pathways, whereas the relative entry into the different pathways is quite similar to that in the 1945-64 cohort. Young adults with middle and high educated parents in particular show a lower entry into particularly the *Marriage and parenthood* pathway. They also are less likely to follow the *Marriage* pathway compared to those with low educated parents. However, Italy remains,
across all birth cohorts, a country in which a family pathway that includes marriage is dominant across all social groups.

To summarize, in Italy there mainly is divergence in the timing of entry into family formation between those with high and low educated parents, with the latter increasingly entering family formation relatively faster than the first. Family formation pathways that emphasized marriage remain dominant across birth cohorts, but young adults with high educated parents are becoming increasingly reluctant to quickly move into parenthood.

*Figure 4* Predicted cumulative entry into family formation pathways by parental education and birth cohort in Italy

Note: from left to right: cohorts 1925-44, 1945-64 and 1965-90. From top to bottom: low parental education, middle parental education, high parental education
In Table 2 we can assess the differences between parental education groups in median age of entry into family formation for Romania. Similar to Italy, these results also show an increase in differences between parental education groups in median age at entry into family formation across cohorts for both men and women. In the 1925-44 and 1945-64 cohorts, the age difference in median age at entry into family formation between those with high and low educated parents was 1.6 and 2.0 years for men and women respectively in the 1925-44 cohort, but this increased to 3.0 and 5.0 years in the 1965-94 cohort. The divergence is strongest for women, while for men the divergence only becomes substantial in the 1965-94 cohort. Those with low educated parents have consistently the lowest median age (with the exception of women in the 1925-44 cohort), with low educated women even having a median age under 20 in the 1965-94 and 1945-64 cohorts.

Figure 5 displays the cumulative incidence of family formation pathways by birth cohort and parental education group in Romania. In the 1925-44 cohort, hardly anyone follows a family formation pathway which does not include marriage. Differences between parental education groups are small, with only two exceptions. Higher parental education appears to be associated with a higher rate into the Marriage pathway. In addition, those with high educated parents have a slight tendency to enter the Cohabitation dissolution pathway, while those with low or middle educated parents do not.

In the 1945-64 cohort, the general picture remains roughly the same. The rates into the Marriage and parenthood pathway increase slightly, but less so for those with a high educated parent, leading to a significant difference in entry into this pathway between parental education groups. At the same time, those with a high or middle educated parent are more likely to follow the Marriage pathway. Furthermore, having a high educated parent increases the chance of entering the Cohabitation dissolution pathway, although in absolute terms only very few do so.
Figure 5 Predicted cumulative entry into family formation pathways by parental education and birth cohort in Romania

![Graph showing cumulative entry into family formation pathways by parental education and birth cohort in Romania.](graph)

Note: from left to right: cohorts 1925-44, 1945-64 and 1965-90. From top to bottom: low parental education, middle parental education, high parental education

Results from the 1965-94 cohort show even more strongly that in particular individuals with higher educated parents refrain from entering the *Marriage and parenthood* pathway. What is also noticeable is that the rates into *Single parenthood* and *Cohabitation and parenthood* are also higher for those with low educated parents compared to those with higher educated parents.

In summary, in Romania an increasing divergence in timing of family formation can be witnessed, with those with higher educated parents entering family formation relatively later in more recent birth cohorts. In terms of the family formation pathways, those with low educated parents increasingly enter *Marriage and parenthood*, *Cohabitation and parenthood* and *Single parenthood* relatively more compared with those with higher educated parents.
Country comparison

The separate country analyses presented above suggest both similarities and differences in the way parental education influences family formation patterns of young adults. In this section, we synthesize these similarities and differences. There are three key points. First, children with high educated parents enter the process of family formation at higher ages than children with low educated parents in all four countries. However, across cohorts, the age difference between both groups becomes slightly smaller in Sweden and France, but clearly increases in Italy and Romania. In these last two countries, all young adults increasingly postpone entry into family formation across cohorts, but this is even more true for those with high educated parents than for those with low educated parents. Second, differences between young adults with low, middle and high educated parents in their family formation pathways increase across cohorts in all four countries, although mainly when comparing the oldest (1925-44) with the middle (1945-64) and youngest (1965-94) birth cohorts. Third, the type of socio-economic background divergence in family formation pathways that is witnessed differs between Italy and Romania on the one hand and France and Sweden on the other. In Italy and Romania unmarried cohabitation remains a marginal phenomenon for all three birth cohorts and differences between young adults with low and high educated parents increase mainly because those with high educated parents increasingly postpone all pathways that include parenthood at some moment during the first six years after the start of family formation. In Sweden and France, differences between young adults with low and high educated parents across cohorts partially increase for the same reason (those with high educated parents postpone parenthood), but also because those with higher educated parents are increasingly more likely to enter pathways with cohabitation and less likely to enter the Single parenthood pathway. Thus, in Italy and Romania we observe divergence because young adults with high educated parents are increasingly more likely to postpone entry into family formation and entry into parenthood. In France and Sweden
we observe divergence not because young adults with high educated parents are more likely to postpone entry into family formation, but because they are more likely to postpone marriage and parenthood and opt to start with cohabiting as an alternative instead.

3.5 DISCUSSION

In this article, we investigated the role of the family of origin in the family formation process over time and space. While there has been ample research that showed a clear diversification of the family formation landscape across cohorts in European countries (Elzinga and Liefbroer 2007; Van Winkle 2018), relatively little research has acknowledged the role that family background may continue to have. The main result is that differentials in family formation in terms of social origin remain strong and have arguably increased.

A novelty of this study was the separate examination of the timing of the start of family formation and the subsequent family formation pathway. In terms of timing, we found that in most cases those with low parental education entered family formation earlier than those with higher educated parents. Across cohorts, differences between parental educational groups became larger in Italy and to a lesser extent in Romania, while for France and Sweden differences remained rather small. In the youngest Swedish birth cohort, it were even those with a middle educated parent who entered family formation fastest. Perhaps in Sweden, those with low educated parents have increasingly become a selective group with lower desirability on the marriage market, which delays their timing of entry into family formation compared to those with higher educated parents.

Regarding differences between parental education groups in the subsequent family formation pathways, we observed one common trend across all countries. Young adults with
highly educated parents are increasingly less likely to follow what used to be the most traditional way of forming a family, i.e. marrying quickly succeeded by childbirth. While young adults with low parental education have also become less likely to opt for these kinds of pathways, they are still more likely to do so compared to those with high parental education. The family pathways of young adults with middle educated parents were generally slightly more similar to those with high than to those with low educated parents. Another trend is that those with low educated parents were more likely to enter cohabitation and parenthood and single parenthood compared to those with higher educated parents. However, we hardly observed this trend in Italy. It appears that in Italy young adults with high socio-economic background postpone family formation rather than choose for postponement of marriage and childbearing within the family formation process.

Overall, these results indicate that young adults of high socio-economic background are increasingly opting for a slow, more careful, family formation process either by staying longer in cohabitation and marriage before taking on the role of parenthood or by postponing family formation altogether, whereas young adults of low socio-economic are still more likely to enter marriage and parenthood at a high rate, but at the same time are also more likely to follow pathways that includes single childbearing or childbearing within cohabitation. Thus, in terms of the family pathways that are followed, there is clear divergence between individuals of low and high socio-economic background across birth cohorts in all four countries. The only difference is that the specific type of divergence differs across countries. In Italy and Romania, divergence occurs because young adults with high educated parents are increasingly more likely to postpone entry into family formation and entry into parenthood. In France and Sweden, divergence occurs because young adults with educated parents are more likely to postpone marriage and parenthood and opt for cohabitation. In line with the Divergent Destinies literature (Amato et al. 2015; McLanahan 2004; McLanahan and Percheski 2008), our
study suggests that the impact of socio-economic background on family formation patterns is increasing rather than being stable or declining (Brons et al. 2017; Koops et al. 2017; Wiik 2009).

The general changes in family formation across cohorts and the differences in this process between France and Sweden on the one hand and Italy and Romania on the other hand, are in line with expectations from SDT theory. However, the SDT does not stress the persistent impact of family background. The theory portrays general changes in societies, but neglects permanent divides within societies. In terms of intra-country differences, regional differences and religion are mentioned by SDT theorists (Lesthaeghe 2010; Lesthaeghe and Neidert 2005), but even here it is argued that some regions are slower to adapt and that religious groups resist changes of the SDT, i.e. as if eventually everyone will change. We find that social background differences do not become smaller. To the contrary, they increase. This is where the Pattern of Disadvantage theory can complement the SDT theory. The PoD theory focusses on socio-economic differences, but cannot explain changes in patterns that occur across all social strata.

Cultural changes that drove the SDT have facilitated routes to disadvantaged family patterns, including forms of nonmarital childbearing that would previously not have been socially accepted or would have been prevented by institutions, such as the church. Before the SDT more uniformity existed in family formation pathways of young adults from all social class background, as almost everyone entered family formation by marrying and subsequently having children. Hence, one can argue that the cultural processes behind the SDT created more room for diversity on the basis of social class background. The less effective social norms are in forcing people towards one particular family formation pathway, the larger social inequality in terms of family formation pathway patterns will become.

Although research on change in family formation pathways have criticized the lack of attention for educational level (e.g. Zimmermann and Konietzka 2017), most research only
focusses on the impact of young adults’ own educational attainment (Mikolai et al. 2018; Perelli-Harris & Lyons-Amos 2016). Our study shows that ascribed characteristics related to young adults’ family background also continue to shape their family formation patterns. Although the impact of parents may have declined since the time that the majority of parents arranged marriages for their children (Cherlin 2012), this study demonstrates that in a subtler form the impact of parents on family formation is still salient. It is worth noting that the results from studies investigating the role of own education on family formation show similar results. For instance, Mikolai et al. (2018) find that childbearing within cohabitation is more common among low educated, which is in line with our finding that those with lower educated parents have a higher risk of childbearing outside of marriage. This suggests that the intergenerational transmission of education is an important explanation as to why differences in family formation patterns arise between individuals with different parental education.

Our study is not without limitations. First, we used a single indicator of socio-economic background, i.e. highest parental education. It would be worthwhile to examine the impact of other indicators of socio-economic background, such as parental occupational status, household income and assets. Furthermore, the meaning of parental education may have changed. Whereas in the past the educational level of the father might have mattered most, nowadays that of the mother might matter more or both might be equally important. Future research could try to disentangle the impact of both the father and the mother on the family formation behavior of their children. Second, although we selected four quite distinct European countries, i.e. Sweden, France, Romania and Italy, these may be too specific to generalize the results to the whole of Europe. Therefore, it is important in future research to investigate more in detail how country and regional differences impact the relationship between socio-economic background and family formation.
A strong point of this research was the clear clustering of different family formation pathways. The distinction between (1) timing of the start of family formation and (2) the subsequent pathways allowed us to create clearer clusters. Furthermore, CTA solves a key problem of sequence analysis as the latter often uses a fixed age range in which sequences differ only in the timing of the first event, which makes clustering solutions less clear (Studer et al. 2018). Research using clustering techniques such as sequence analysis have rarely been able to use each other’s typology, and therefore start over again with creating their own typology. This leads to a plurality of results, in which it is difficult to tell which typology is best and clusters often suffer from large within-cluster heterogeneity. Our approach has created a clearer typology of family formation, which could be used in future research.

REFERENCES


Amato, Paul R., Alan Booth, Susan M. McHale, and Jennifer Van Hook, eds. 2015. Families in an Era of Increasing Inequality. Cham: Springer International Publishing.


Vikat, Andres et al. 2007. “Generations and Gender Survey (GGS) Towards a Better


APPENDIX

This Appendix provides additional information on (a) the choice of the number of clusters of family formation pathways that are distinguished, (b) statistical tests for differences in family formation pathways between parental education groups, (c) survival curves for entry into family formation for different parental education groups, and (d) competing risk hazard models for three different birth cohorts.

Choice of number of family formation clusters

The choice of the number of different types of family formation pathway clusters is based on statistical partitioning indicators, including ASW (weighted), HG, PBC and HC (Studer and Ritschard 2016), but also on whether the cluster solution provides clearly distinct clusters which are in accordance with the literature on family formation. The optimal number of clusters according to this procedure is seven clusters. Figure A displays the values of statistical partitioning indicators for each cluster solution. One can clearly see an optimum at 7 (all indicators need to be as high as possible, with the exception of HC for which a lower value indicates a better cluster solution). Furthermore, when the distributions of states within the clusters in Figure 1 is examined, clearly distinct clusters are observed. With the 6-cluster solution one loses the distinction between those who cohabit and mostly stay together and those who cohabit but separate soon afterwards. The 8-cluster solution splits up the second cluster into those who do and those who do not experience unmarried cohabitation before having children within marriage. While one could argue that this is an interesting distinction, the statistical indicators clearly indicate a much weaker structure in this clustering. Therefore, we opt for the 7-cluster solution.
Figure A Partitioning statistics on different cluster solutions (2-10)

Statistical tests for differences in family formation pathways between parental education groups

Table B1 Gray’s tests (df=2) on differences between parental education groups in the rate of entry into different family formation pathways, by birth cohort in Sweden

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Marriage and parenthood</td>
<td>2.07</td>
<td>19.48**</td>
<td>26.97**</td>
</tr>
<tr>
<td>Slow marriage and parenthood</td>
<td>3.62</td>
<td>9.10*</td>
<td>2.76</td>
</tr>
<tr>
<td>Cohabitation dissolution</td>
<td>0.21</td>
<td>22.74**</td>
<td>5.42</td>
</tr>
<tr>
<td>Marriage</td>
<td>0.48</td>
<td>0.43</td>
<td>7.47*</td>
</tr>
<tr>
<td>Single Parenthood</td>
<td>0.58</td>
<td>13.46**</td>
<td>11.90**</td>
</tr>
<tr>
<td>Cohabitation</td>
<td>2.02</td>
<td>3.44</td>
<td>1.90</td>
</tr>
<tr>
<td>Cohabitation and parenthood</td>
<td>1.70</td>
<td>16.47**</td>
<td>25.33**</td>
</tr>
</tbody>
</table>

Note: ** p<0.01, * p<0.05
Table B2 Gray’s tests (df=2) on differences between parental education groups in the rate of entry into different family formation pathways, by birth cohort in France

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Marriage and parenthood</td>
<td>4.44</td>
<td>39.03**</td>
<td>19.39**</td>
</tr>
<tr>
<td>Slow marriage and parenthood</td>
<td>13.25**</td>
<td>3.38</td>
<td>8.89*</td>
</tr>
<tr>
<td>Cohabitation dissolution</td>
<td>2.67</td>
<td>13.66**</td>
<td>11.65**</td>
</tr>
<tr>
<td>Marriage</td>
<td>3.99</td>
<td>8.69*</td>
<td>11.53**</td>
</tr>
<tr>
<td>Single Parenthood</td>
<td>2.93</td>
<td>6.18*</td>
<td>16.50**</td>
</tr>
<tr>
<td>Cohabitation</td>
<td>4.90</td>
<td>53.46**</td>
<td>0.94</td>
</tr>
<tr>
<td>Cohabitation and parenthood</td>
<td>8.82*</td>
<td>1.10</td>
<td>37.58**</td>
</tr>
</tbody>
</table>

Note: ** p<0.01, * p<0.05

Table B3 Gray’s tests (df=2) on differences of rate into family formation pathways per birth cohort in Italy

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Marriage and parenthood</td>
<td>7.22*</td>
<td>63.69**</td>
<td>53.37**</td>
</tr>
<tr>
<td>Slow marriage and parenthood</td>
<td>1.48</td>
<td>9.66*</td>
<td>2.99</td>
</tr>
<tr>
<td>Cohabitation dissolution</td>
<td>0.41</td>
<td>25.71**</td>
<td>0.01</td>
</tr>
<tr>
<td>Marriage</td>
<td>1.12</td>
<td>5.82</td>
<td>8.00*</td>
</tr>
<tr>
<td>Single Parenthood</td>
<td>0.41</td>
<td>0.33</td>
<td>2.13</td>
</tr>
<tr>
<td>Cohabitation</td>
<td>7.47*</td>
<td>22.13**</td>
<td>2.52</td>
</tr>
<tr>
<td>Cohabitation and parenthood</td>
<td>1.30</td>
<td>0.48</td>
<td>1.46</td>
</tr>
</tbody>
</table>

Note: ** p<0.01, * p<0.05
Table B4 Gray’s tests (df=2) on differences between parental education groups in the rate of entry into different family formation pathways, by birth cohort in Romania

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Marriage and parenthood</td>
<td>7.03*</td>
<td>9.50**</td>
<td>156.76**</td>
</tr>
<tr>
<td>Slow marriage and parenthood</td>
<td>0.76</td>
<td>1.10</td>
<td>1.211</td>
</tr>
<tr>
<td>Cohabitation dissolution</td>
<td>10.31**</td>
<td>23.26**</td>
<td>0.00</td>
</tr>
<tr>
<td>Marriage</td>
<td>7.36*</td>
<td>11.31**</td>
<td>2.40</td>
</tr>
<tr>
<td>Single Parenthood</td>
<td>4.08</td>
<td>0.36</td>
<td>14.39**</td>
</tr>
<tr>
<td>Cohabitation</td>
<td>3.99</td>
<td>3.91</td>
<td>1.11</td>
</tr>
<tr>
<td>Cohabitation and parenthood</td>
<td>2.84</td>
<td>4.67</td>
<td>43.94**</td>
</tr>
</tbody>
</table>

Note: ** p<0.01, * p<0.05