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Parental separation and children's education – changes over time?

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Parental separation and children's education – changes over time?

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Abstract

Objective and background

The association between parental separation and children's education has been widely studied, but mostly at a single time point, for one educational outcome at a time and for marital dissolution only. We examine whether the (generally negative) association has changed across cohorts for several educational outcomes and whether the association differs by parental union type (marriage, cohabitation) and family background (parental education). Due to high rates of separation, the association with children's education could have weakened over time.

Methods

We use Finnish total population register data. We focus on child cohorts born between 1987 and 2003 (N=1,004,823) and analyse grade point averages, secondary education and tertiary education using linear probability models with standard errors clustered within families.

Results and conclusion

The association between parental separation and educational achievement is negative and has remained similar across the birth cohorts. Differences according to parental union type and socioeconomic family background are small and do not exhibit changes over time. The stability of the association over time suggests that the consequences of parental separation on children's education have not changed, even though attitudes towards separation may have changed.

Keywords: parental separation, parental divorce, children's education, cohort differences

Introduction

Much of the existing research reports a generally negative association between parental separation and children's education (e.g. Grätz, 2015; Bernardi & Radl, 2014; Gähler & Palmtag, 2015), but relatively little is known about whether, and how, this association has changed over time (e.g. across cohorts) and whether the association differs for different educational outcomes or by socioeconomic family background. In particular, it is not known whether parental separation from a marital or cohabiting union is more consequential for the children.

We study the dynamics between parental separation and educational achievement in Finland, which presents a particularly interesting context since the country is a forerunner in the changes in partnerships associated with the second demographic transition. Non-marital cohabitation has become an increasingly common union type, and separation and divorce are increasingly common life events, each of which has become broadly socially accepted. Therefore, it could be assumed that the association between family transitions, such as parental separation, and child outcomes, such as children's education, has weakened over time (Härkönen et al., 2017). However, previous studies do not seem to support this assumption: some studies find that the association has remained similar over time (Dronkers & Härkönen, 2008; Sigle-Rushton et al., 2005), and one study even found strengthening associations (Kreidl et al., 2017). It is possible that since some of these studies include data only up to the early 2000s (e.g. Sigle-Rushton et al., 2005), they have not been able to identify potential positive trends. Moreover, none of the studies have analysed the association with cohabitation or by socioeconomic family background (parental education).

In this article, we ask how parental separation is related to children's education and whether the association has changed across birth cohorts. We use rich Finnish total population register data and child cohorts from 1987 to 2003, 2000 or 1995, depending on the outcome. We add to the existing literature by examining, first, how parental separation from marriage or cohabitation is associated with children's education. Second, we examine how the association between parental separation and children's educational achievement has changed across child cohorts. Third, we examine whether the association differs based on different educational outcomes. Fourth, we examine whether socioeconomic family background (parental educational) moderates the association. To the best of our knowledge, the present study is the first to examine the relationship over time separately for cohabitation and marriage and based on different educational outcomes.

Background

Previous research has generally found that children who have experienced parental separation fare less well in a wide range of outcomes. For instance, they have, on average, more mental health problems (e.g. Amato & James, 2010; Gähler & Palmtag, 2015), lower levels of education (e.g. Grätz, 2015; Bernardi & Radl, 2014; Gähler & Palmtag, 2015) and a higher risk of union dissolution (e.g. Härkönen et al., 2017; Kailaheimo-Lönnqvist et al., 2021; Wolfinger, 2005). Scholars have proposed many reasons for these associations, such as stress related to family conflict and the weakening of family resources due to separation, when children often live in single-parent households and benefit less from the resources of non-resident parents.

Parental separation is rather common, and many children experience it during childhood. In Finland, approximately 35 per cent of children experience parental separation (either from cohabitation or marriage) before the age of 16. Parental separation is much more common when

the parents live in a non-marital cohabitation arrangement. In our study of cohorts born in the years 1987–2003, half of children whose parents were cohabiting when the children were born had experienced parental separation by the age of 16, whereas the proportion was one third for children whose parents were married at some point during their childhood (authors' own calculations). Compared to the US, where nearly 50 per cent of marriages will likely end in divorce (Raley & Sweeney, 2020), the separation rate in Finland is lower for married couples.

In this paper, we examine how parental separation is related to children's education and how the association has changed across child cohorts. When parents separate, the child is likely to lose both social and economic resources. Perhaps the most obvious lost resource is the double-income household since, after the dissolution of the union, the child will often live in a single-income household, and previous research suggests that they then face an increased risk of poverty (Hübgen, 2018; Smock et al., 1999). However, the importance of lost economic resources may nonetheless be relatively small in a country like Finland, where the state provides welfare support based on a universalistic approach (Jalovaara & Andersson, 2008; Esping-Andersen, 1999) and education free of charge, which causes it to differ from other more liberal and less generous welfare states, such as the United States.

As mentioned earlier, much prior research has linked parental separation to various negative child outcomes, such as mental health problems and lower levels of education (Amato, 2001; Amato & James, 2010; Gähler & Palmtag, 2015; Kiernan & Mensah, 2009; Mandemakers & Kalmijn, 2014; Grätz, 2015; Bernardi & Radl, 2014). Thus, our initial hypothesis is based on the following assumption:

H1: Parental separation is negatively related to children's educational achievement (general hypothesis).

To what extent are child cohorts affected by changes over time? Finland is a forerunner of changes in partnership dynamics associated with the second demographic transition (Guzzo, 2014; Lesthaege, 2010). As non-marital cohabitation, non-traditional family forms and separations become increasingly more common, the social stigma previously attached to them has faded (Lansford, 2009). However, previous research has found that the association between parental separation and children's education has remained similar over the years (Dronkers & Härkönen, 2008; Sigle-Rushton et al., 2005), and one study has even found evidence of strengthening associations (Kreidl et al., 2017). The authors explain that the strengthening association might be due to stronger selection for family stability, and therefore, more 'low conflict' couples that separate, which may cause the negative consequences of separation to outweigh the positive consequences of separation (Kreidl et al., 2017). In the Finnish context, where long-lasting cohabitations and other less traditional family forms are more widespread than in many country contexts, we propose two competing hypotheses:

H2a: The association between parental separation and a child's educational achievement has weakened across child cohorts (changes over time hypothesis).

H2b: The association between parental separation and a child's educational achievement has remained similar across child cohorts (no changes over time hypothesis).

Despite Finland being a forerunner in the second demographic transition, there are still notable differences between cohabitation and marriage. Most marriages start with cohabitation (Jalovaara, 2012), and couples that continue to cohabit often are in lower socioeconomic positions than those that eventually marry (Jalovaara, 2013; Jalovaara & Kulu, 2018). Even in the Nordic countries, married couples report higher levels of commitment and higher levels of

partnership quality than cohabiters (Wiik et al., 2009), which may result in a lower risk of separation. Despite these differences, previous research has shown that the antecedents to union dissolution are similar both for cohabiting and married couples (Jalovaara 2013). Thus, the third hypothesis is based on the following assumption:

H3: The association is stronger for children from married families compared to those from cohabiting families (union type hypothesis).

The consequences of parental separation may also depend on socioeconomic family background and available resources (e.g. Grätz, 2015; Prix & Erola, 2017). According to the theory of maximally and effectively maintained inequality (Lucas, 2001; Raftery & Hout, 1993), intergenerational educational inequality is persistent because individuals with advantaged family backgrounds are better able to access advantageous educational options than their peers from less advantaged family backgrounds. Consequently, the effect of parental separation on the child's education may be especially pronounced for children from advantaged family backgrounds, as they have the most to lose in terms of (potential) resources. In contrast, the cumulative disadvantage theory (O'Rand, 2009) posits that parental separation is most adverse for children from less advantageous family backgrounds because, when negative life events or a shortage of resources accumulate, this accumulation negatively affects children's achievements. Previous research on parental separation has found support for both theories, with some studies finding the most negative effects are experienced by children from advantaged family backgrounds (e.g. Bernardi & Radl, 2014; Biblarz & Raftery, 1999) and others finding such negative effects among those from disadvantaged family backgrounds (e.g. Augustine, 2014; Grätz, 2015; Mandemakers & Kalmijn, 2014). One possible reason for the discrepancies in the findings is that different studies have used different cohorts, so the role of

family background may also have changed over time. We propose two competing hypotheses regarding family background:

H4a: Parental separation is more strongly (negatively) associated with a child's education when the child has an advantaged family background compared to children from a less advantaged family background because parental separation interferes with social inheritance (advantaged family background hypothesis).

H4b: Parental separation is more strongly (negatively) associated with a child's education when the child has a less advantaged family background compared to children from an advantaged family background because of the accumulation of disadvantages (less advantaged family background hypothesis).

Data and methods

We use Finnish total population register data and focus on the grade point average (GPA) of child cohorts from 1987 to 2003, secondary education of child cohorts from 1987 to 2001 and tertiary education of child cohorts from 1987 to 1995. We restricted the sample to children born in Finland because the data comprise a full educational history only for those who attained educational degrees in Finland. This criterion results in a total of 1,004,823 children in the GPA sample, 926,615 children in the secondary education sample and 577,688 children in the tertiary education sample.

The child outcomes are (1) a grade point average (GPA), which is measured at the end of primary education, around ages 15 and 16 of age, (2) completion of secondary education by the age of 20 and (3) completion of or enrolment in tertiary education by the age of 26.

Parental separation from cohabitation and marriage arrangements was measured when the child was 0–15 years old (binary). Control and moderating variables include family income, sex, having a stepparent and highest parental education. Family income is the average total household income for a child between 1 and 15 years of age. Family income consists of all earnings and income transfers subject to state taxation in the household, such as universal child allowance, before taxes. It also includes any possible income of the stepparent for those years when the stepparent lived in the same household as the child. In the analysis, income is divided into family income deciles. As a measure of socioeconomic family background, we have used the highest parental education, which is categorical and measured when the child is between 1 and 15 years of age (primary, secondary and tertiary education). Sex is a binary variable and living with a stepparent (at some point) is measured when the child is between 1 and 15 years of age (binary).

We analysed parental separations from cohabitation and marriage arrangements separately. Our married sample included children whose parents married before or during their childhood (although they may have cohabited before marriage). The cohabitation sample includes children whose parents cohabited and did not marry by the time the child was 15 years of age. We used linear probability models with robust standard errors (clustered on the family) to examine cohort differences in parental separation. Linear probability models for binary outcomes were used because their estimates can be directly interpreted as probabilities (e.g. Gomila, 2021).

Results

As expected, parental separation was more common among children whose parents cohabited compared to those whose parents were married (Table 1). The parents' educational level and

family income were also higher in families where parents married. Having a stepparent was more common in families where the parents cohabited, which is partially explained by the higher union dissolution rate among cohabiting couples. Lastly, GPA as well as secondary education and tertiary education completion (or enrolment) rates are lower for children of cohabiting parents. The findings indicate that children whose parents are married generally are more advantaged.

Table 1. Descriptive statistics

	GPA		Secondary education		Tertiary education	
	Cohabitation (%)	Marriage (%)	Cohabitation (%)	Marriage (%)	Cohabitation (%)	Marriage (%)
Secondary education			72	81		
Tertiary education					40	54
Parental separation	50	33	50	33	49	35
Woman	50	49	49	49	49	49
Highest parental education						
Primary	27	16	29	17	31	18
Secondary	53	47	53	48	53	49
Tertiary	20	37	18	35	16	32
Stepparent	26	21	26	21	27	22
Family income decile (mean, SD)	4.43 (2.13)	5.46 (2.28)	4.39 (2.14)	5.45(2.29)	4.36 (2.13)	5.46 (2.29)
GPA (standardised, mean/SD)	-0.22 (1)	0.03 (1)				
N	125,193	879,630	113,384	813,331	62,176	515,512

Descriptive patterns of parental separation over time

The trends involving risk of separation are different for cohabiting and married couples (Fig. 1). The proportion of children whose cohabiting parents separated has increased from 40% to 50% over time, while the proportion of children whose married parents separated has declined.

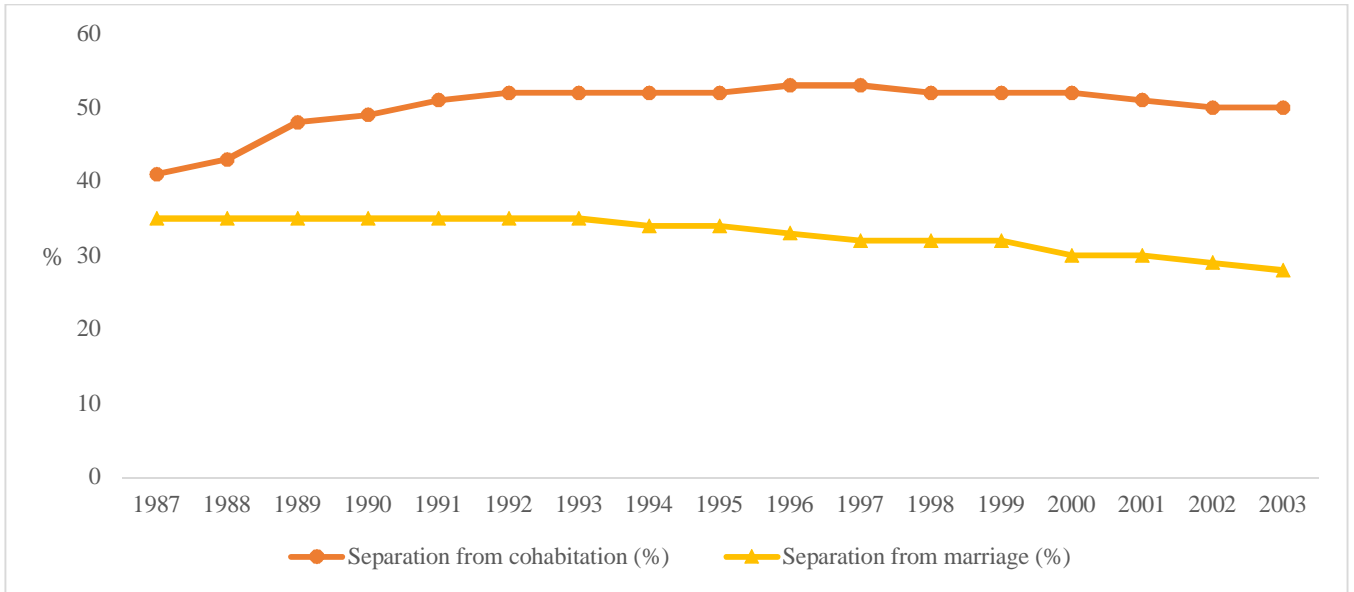


Figure 1. The proportion of children who experienced parental separation when parental separation occurred when the child was between 0 and 15 years of age (N=967,418).

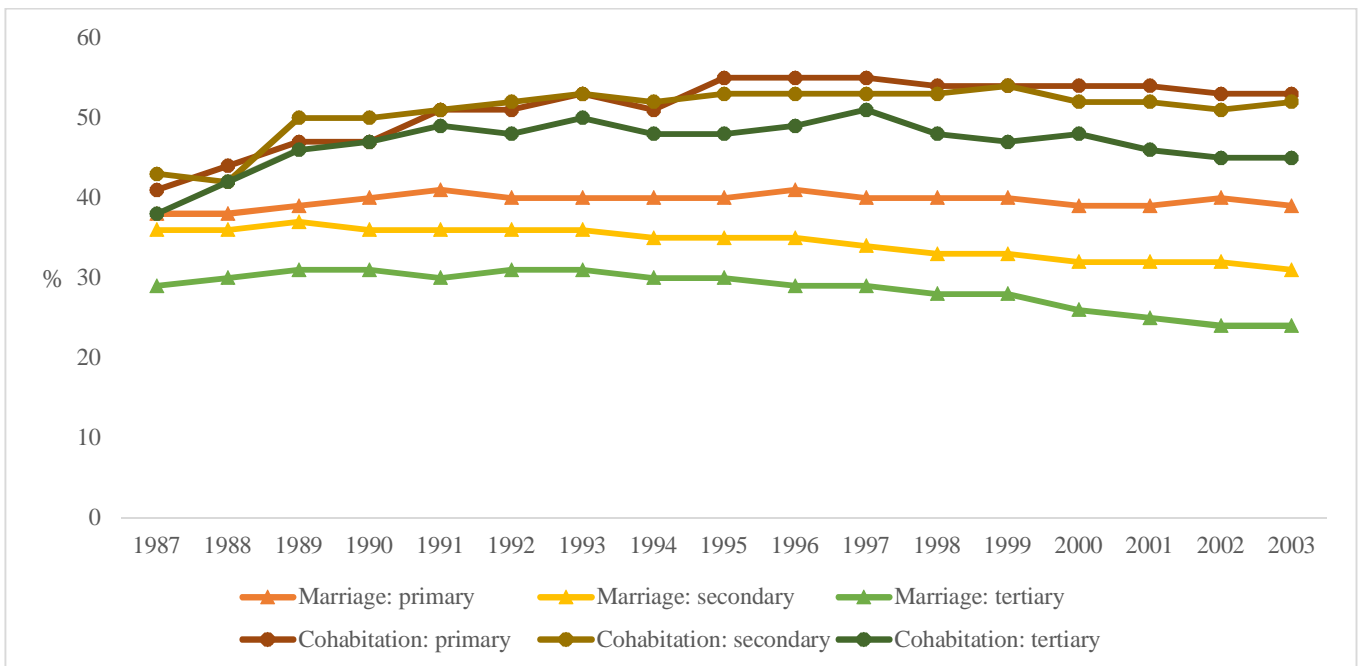


Figure 2. The proportion of children who experienced parental separation (age 0–15), whether from cohabitation or marriage, by child's year of birth and parental education.

Figure 2 shows that the proportion of children whose parents had separated is lowest when the parents have a tertiary level of education and highest when parents have only a primary education. This finding holds true both for married and cohabiting couples. The educational differences grow over time for both groups, and for the most recent cohorts the risk of experiencing separation is more than double for children with lower educated cohabiting parents compared to those with higher educated married parents.

Parental separation and children's education

Table 2. The association between parental separation and a child's GPA in primary school; linear probability model with standard errors clustered within families

	Cohabitation		Marriage	
	M1	M2	M1	M2
Parental separation	-0.215*** (0.006)	-0.122*** (0.006)	-0.256*** (0.002)	-0.151*** (0.003)
Woman	0.552*** (0.005)	0.552*** (0.005)	0.535*** (0.002)	0.536*** (0.002)
Year of birth	0.013*** (0.001)	0.013*** (0.001)	0.009*** (0.000)	0.011*** (0.000)
Parental education (ref.: primary)				
secondary	0.194*** (0.007)	0.141*** (0.007)	0.217*** (0.003)	0.165*** (0.003)
tertiary	0.758*** (0.009)	0.585*** (0.009)	0.792*** (0.003)	0.605*** (0.004)
Family income		0.085*** (0.001)		0.079*** (0.001)
Stepparent		-0.145*** (0.007)		-0.146*** (0.003)
Constant	-28.027*** (1.191)	-27.169*** (1.166)	-18.907*** (0.439)	-23.319*** (0.430)
<i>N</i>	124,398	124,398	879,630	879,630

Table 2 shows the association between parental separation and a child's GPA. In Model 1, we find that the association is negative and is similar for children of cohabiting and married parents

– just slightly stronger for children of married parents. The magnitude of the association, one fifth to one quarter of the standard deviation, is large. For example, it is larger than the difference in GPA for children with parents with a primary versus secondary education.

Model 2 adds family income and the presence of a stepparent as controls. Both are influenced by separation itself and are best interpreted as potential mechanisms through which separation influences a child's outcomes. A decrease in income and the presence of a stepparent are both associated with lower GPA. When controlling for these factors, the remaining association between parental separation and GPA is roughly halved compared to Model 1.

Table 3. The association between parental separation and a child's secondary education; linear probability model with standard errors clustered within families

	Cohabitation		Marriage	
	M1	M2	M1	M2
Parental separation	-0.084*** (0.003)	-0.047*** (0.003)	-0.107*** (0.001)	-0.069*** (0.001)
Woman	0.050*** (0.003)	0.051*** (0.003)	0.034*** (0.001)	0.034*** (0.001)
Year of birth	-0.001*** (<0.001)	-0.001*** (<0.001)	-0.002*** (<0.001)	-0.002*** (<0.001)
Parental education (ref.: primary)				
secondary	0.109** (0.004)	0.086*** (0.003)	0.099*** (0.002)	0.082*** (0.003)
tertiary	0.206*** (0.004)	0.134*** (0.004)	0.174*** (0.002)	0.115*** (0.002)
Family income		0.035*** (0.001)	-	0.025*** (<0.001)
Stepparent		-0.056*** (0.007)		-0.060*** (0.001)
Constant	0.503 (0.678)	0.866 (0.667)	5.268*** (0.218)	3.878*** (0.216)
<i>N</i>	112,368	112,368	813,331	813,331

We also examined how parental separation is related to the education level achieved by children. We find that the association between parental separation and a child pursuing a

secondary and tertiary education is negative, and it is slightly larger for children of married rather than cohabiting parents (Tables 3 and 4, Model 1). Similar to the GPA analysis, fully adjusted models show that decreasing income and the presence of a stepparent are associated with a lower likelihood of pursuing secondary and tertiary education, and controlling for these variables weakens the association between separation and educational outcomes by approximately half (Tables 3 and 4, Model 2).

Table 4. The association between parental separation and a child's tertiary education; linear probability model with standard errors clustered within families

	Cohabitation		Marriage	
	M1	M2	M1	M2
Parental separation	-0.083*** (0.004)	-0.046*** (0.004)	-0.106*** (0.002)	-0.057*** (0.002)
Woman	0.112*** (0.004)	0.113*** (0.004)	0.111*** (0.001)	0.112*** (0.001)
Year of birth	-0.005*** (0.001)	-0.006*** (0.001)	-0.009*** (<0.001)	-0.008*** (<0.001)
Parental education (ref.: primary)				
secondary	0.084** (0.002)	0.062*** (0.004)	0.108*** (0.002)	0.084*** (0.002)
tertiary	0.364*** (0.006)	0.290*** (0.006)	0.376*** (0.002)	0.286*** (0.002)
Family income		0.039*** (0.001)		0.039*** (<0.001)
Stepparent		-0.053*** (0.005)		-0.062*** (0.002)
Constant	9.760*** (1.528)	11.165*** (1.507)	18.575*** (0.514)	16.758*** (0.506)
<i>N</i>	61,622	61,622	515,512	515,512

Trends over time

When examining changes across child cohorts, we find that the association between parental separation and a child's GPA has remained notably similar both for children with married and

cohabiting parents (Fig. 3). The findings were likewise similar regarding secondary and tertiary education (Fig. 4).

< Figure 3 here >

Figure 3. Children 's GPA and parental separation by child's year of birth; linear probability model with standard errors clustered within families (models are adjusted for the highest parental education and sex).

< Figure 4 here >

Figure 4. Parental separation and child's secondary and tertiary education level by child's year of birth; linear probability model with standard errors clustered within families (models are adjusted for the highest parental education and sex).

Stratified models by socioeconomic family background

To examine how the association between parental separation and a child's education may be different for different children, we conducted stratified analyses by socioeconomic family background (highest parental education). For each parental education group, the association between parental separation and children's GPA has remained quite similar across the child cohorts and the pattern is similar for both married and cohabiting parents (Fig. 5). The stratified models by family background tell a similar story for secondary education (Fig. 6) and tertiary education (Fig. 7); there are no notable differences by cohort or socioeconomic family background.

< Figure 5 here >

Figure 5. Parental separation and child's GPA by child's year of birth and parental education; linear probability model with standard errors clustered within families (models are adjusted for sex).

< Figure 6 here >

Figure 6. Parental separation and child's secondary education by child's year of birth; linear probability model with standard errors clustered within families (models are adjusted for sex).

< Figure 7 here >

Figure 7. Parental separation and child's tertiary education by child's year of birth and parental education; linear probability model with standard errors clustered within families (models are adjusted for sex).

Support for hypotheses

Thus, we find support for *Hypothesis 1*, which states that parental separation is negatively related to children's educational achievement. Moreover, we do not find support for *Hypothesis 2a*, which states that the association has decreased over the years. Instead, we find support for *Hypothesis 2b*, which states that the association has remained similar over the years. Our results show that the association between parental separation and a child's education has remained similar across child cohorts at all educational levels. We find partial support for *Hypothesis 3*, which states that the association is stronger for children with married parents compared to those with cohabiting parents – while a negative association is most clearly observed in the latter case, the differences between cohabiting and married parental arrangements are nonetheless negligible. Lastly, we do not find support for *Hypotheses 4a* and *4b* – the differences based on socioeconomic family background were quite modest.

Robustness analysis

We examined whether the association depends on the age at which the child experiences the separation (Table A1, Appendix). The results are quite similar. They reveal that if parental

separation occurs at an older age, the association weakens slightly, but overall, the timing of parental separation did not prove decisive.

We examined linear predictions to ascertain whether parental separation is related to children's education by relative and absolute outcomes. The results show that even though children who have experienced parental separation have a lower education than those who live in an intact family, parental separation only has a limited role in the intergenerational transmission of educational achievement, i.e. children with highly educated parents are also likely to be highly educated despite the parental separation, and vice versa (Figs. A1–A3, supplementary material).

Lastly, we examined whether the results differ if we consider both the mother's and father's education separately, not just the highest parental education. Such a change in focus for the most part does not affect the results (Figs. A4–A5, supplementary material), except with respect to children's secondary education when parents separate from marriage: they show no differences at different educational levels, but paternal education is more strongly related to children's secondary education than is maternal education.

Discussion

This study assessed whether the association between parental separation and children's education has changed over time. Previous research has found that children whose parents had separated fare less well on a variety of outcomes; for instance, they have more mental health problems, lower levels of education and a higher risk of union dissolution in adulthood (e.g. Grätz, 2015; Gähler & Palmtag, 2015; Kailaheimo-Lönnqvist et al., 2021). However, most of the studies examined the association between parental separation and a child's education only at a single time point and for one educational outcome, while only a few studies have accounted

for parental cohabitations. Moreover, only a few studies have examined how the association between parental separation and children's education has changed over time (across cohorts). Some studies find that the association has remained similar (Dronkers & Härkönen, 2008; Sigle-Rushton et al., 2005), and one study even found strengthening associations (Kreidl et al., 2017).

This study asked how the association between parental separation and children's education has changed across nearly two decades of child cohorts and whether the association differs by parental union type or socioeconomic family background (parental education). We found, first, that parental separation is negatively associated with children's education at all educational levels (GPA from primary education, secondary education and tertiary education). Moreover, the association is similar at all educational levels; parental separation seems to decrease children's secondary and tertiary education by 8.3 to 10.7 percentage points, and when controlling for a stepparent and family income it decreases by 4.6 to 6.9 percentage points. This can be interpreted to mean that some of the negative association between parental separation and children's education is mediated by economic factors and changes in family structure.

Second, we found that the association is slightly stronger for children of married parents compared to children of cohabiting parents. This might be due to selection: couples that continue to cohabit often are in lower socioeconomic positions than those that eventually marry (Jalovaara, 2013; Jalovaara & Kulu, 2018), and thus parental separation may be more consequential for children with married parents because separation interferes with the intergenerational transmission of education. However, we did not find clear differences by family background when stratifying the analyses by parental education.

Third, we found that the association has remained similar across cohorts. Thus, our study is in line with the majority of the previous studies, which have found that the association has remained similar over time (Dronkers & Härkönen, 2008; Sigle-Rushton, Hobcraft, & Kiernan, 2005).

Härkönen et al. (2017) explain the stability of the association, first, by highlighting that even though some factors associated with parental separation, such as social stigma, previously attached to separation may have faded, other consequences, such as family conflict, may have remained stable (e.g. Pryor & Rodgers, 2001). Second, another potential explanation refers to changing the selection criterion to that of separation because, for example, parental separation has become increasingly associated with low levels of education (Härkönen et al., 2023; Härkönen & Dronkers, 2006). Thus, according to Härkönen and Dronkers (2006) the changing selectivity of parental separation can offset any weakening trend in its effects. However, we accounted for this factor in our study by examining the association by family background (parental education) and did not find support for the finding.

As with all studies, our study has both strengths and weaknesses. The strength of our study is the reliability of the total population register data, which cover a long time period and enable us to study educational outcomes at all levels. Importantly, the data enable us to examine changes over time and across cohorts. Another strength is that we were able to include both cohabitation and marriage in our analysis, which is increasingly important due to the commonness of cohabitation. The main limitations include the fact that the register data did not make it possible to examine and account for the parent-child relationship or quality of parenting, which may have a role in children's educational attainment. Thus, our study did not

investigate all possible mechanisms, and our results should be interpreted as associations, not as causal relations. The generalisability of our findings to other countries should be treated with caution because countries differ greatly in terms of the educational system and welfare systems.

To summarise, our study suggests that the changes in society (e.g. policy changes, support) have not alleviated the consequences of parental separation. Our findings show that the consequences of parental separation on children's education have not changed across almost two decades of child cohorts.

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Appendix

Table A1. Parental separation by child's age, until 35, and child's education; linear probability model with standard errors clustered within families.

	Cohabitation	Marriage
GPA		
Parental separation 0–15	-0.218*** (0.006)	-0.280*** (0.003)
Parental separation 16–35	-0.213*** (0.008)	-0.214*** (0.004)
Secondary education		
Parental separation 0–15	-0.088*** (0.003)	-0.114*** (0.001)
Parental separation 16–35	-0.073*** (0.004)	-0.093*** (0.002)
Tertiary education		
Parental separation 0–15	-0.080*** (0.005)	-0.117*** (0.002)
Parental separation 16–35	-0.088*** (0.005)	-0.091*** (0.002)

Note: Models are adjusted for highest parental education, year of birth and sex.

Supplementary material

Figure A1. The association between parental separation and a child's GPA by highest parental education.

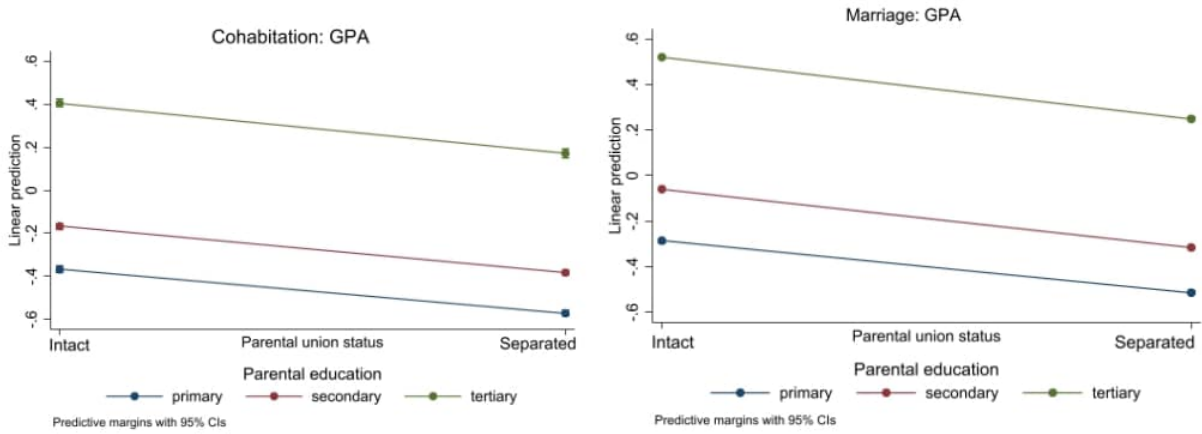


Figure A2. The association between parental separation and a child's secondary education by highest parental education.

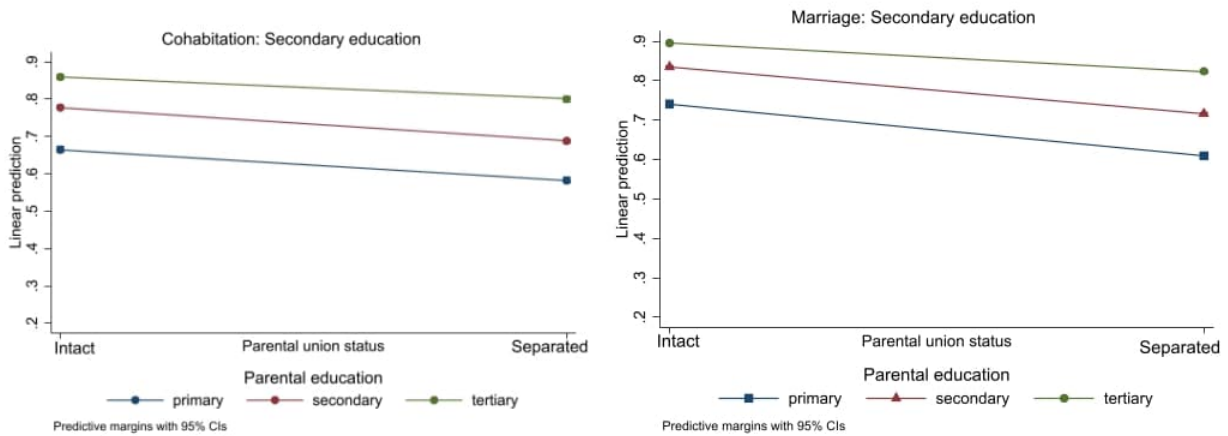


Figure A3. The association between parental separation and a child's tertiary education by highest parental education.

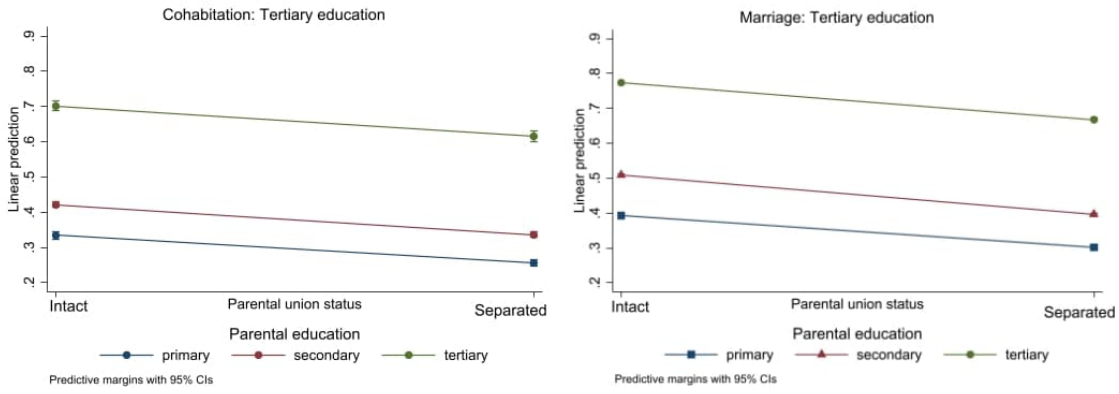
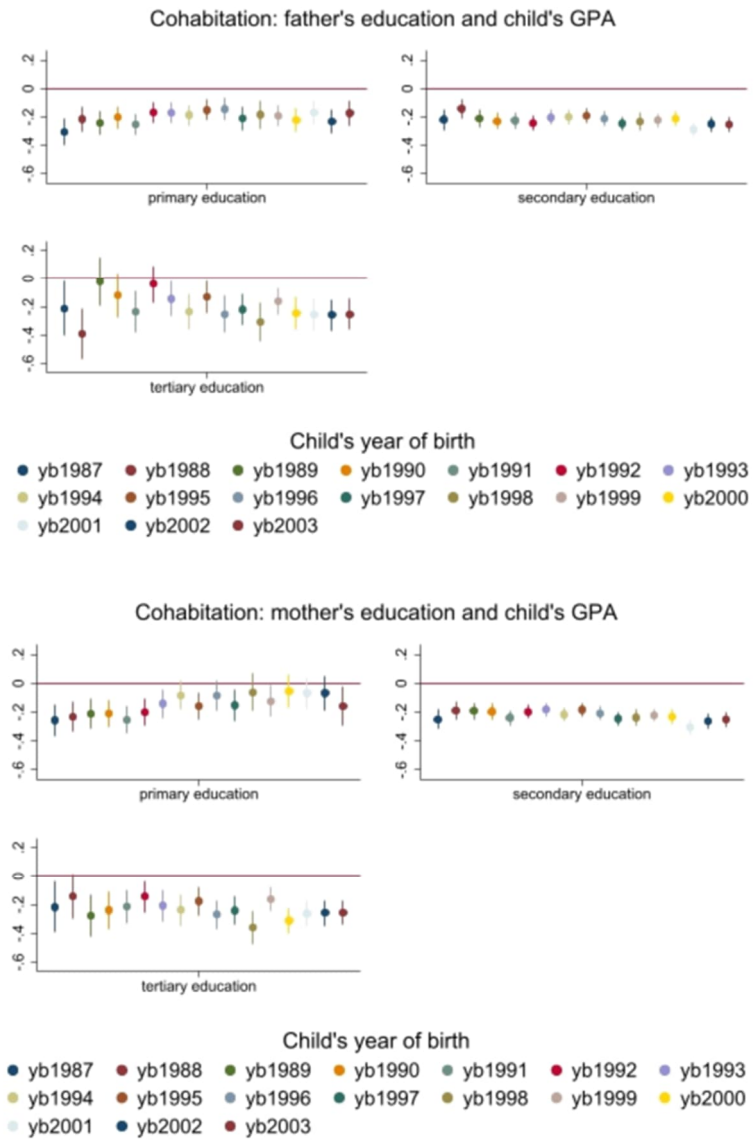


Figure A4. Parental separation and child's GPA by parental education.



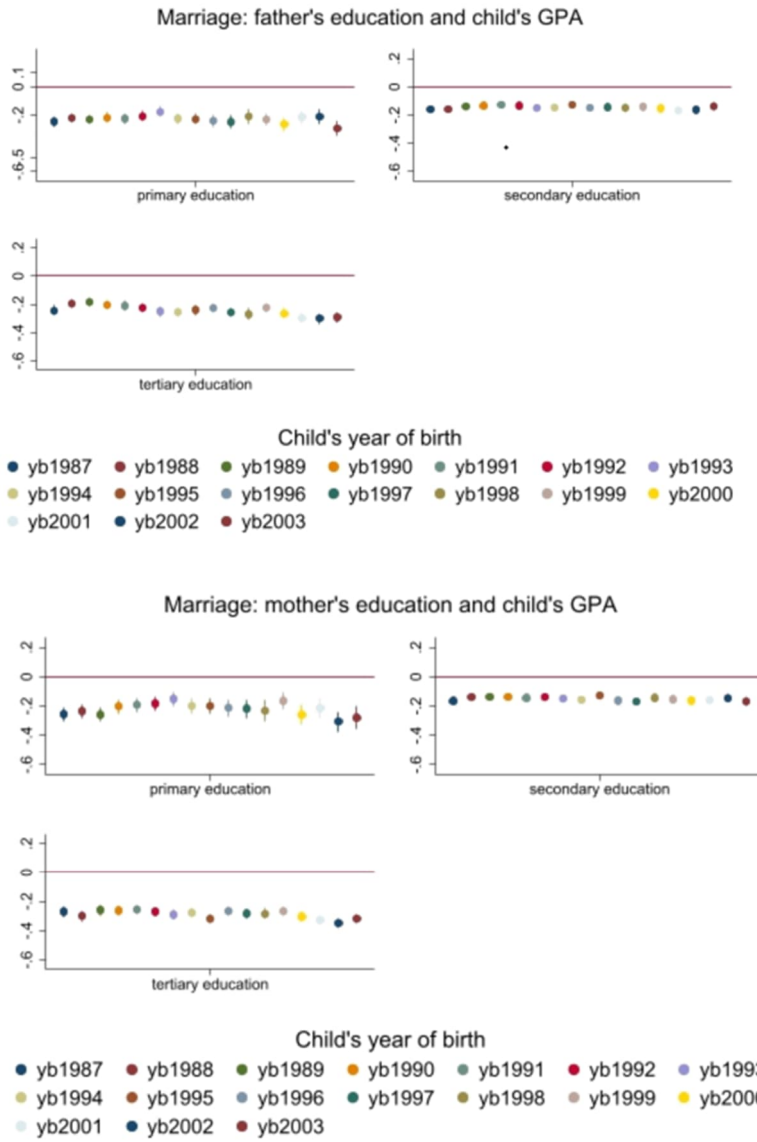
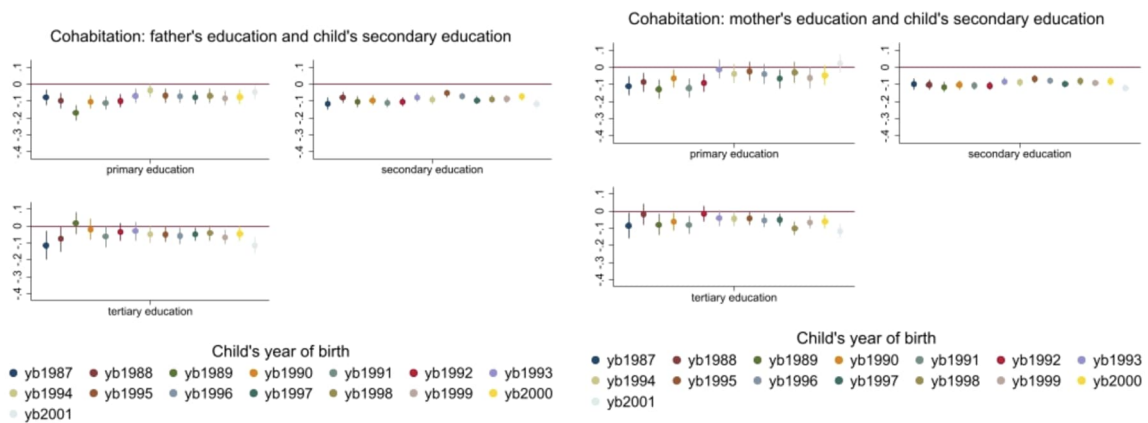


Figure A5. Parental separation and child's secondary education by parental education.



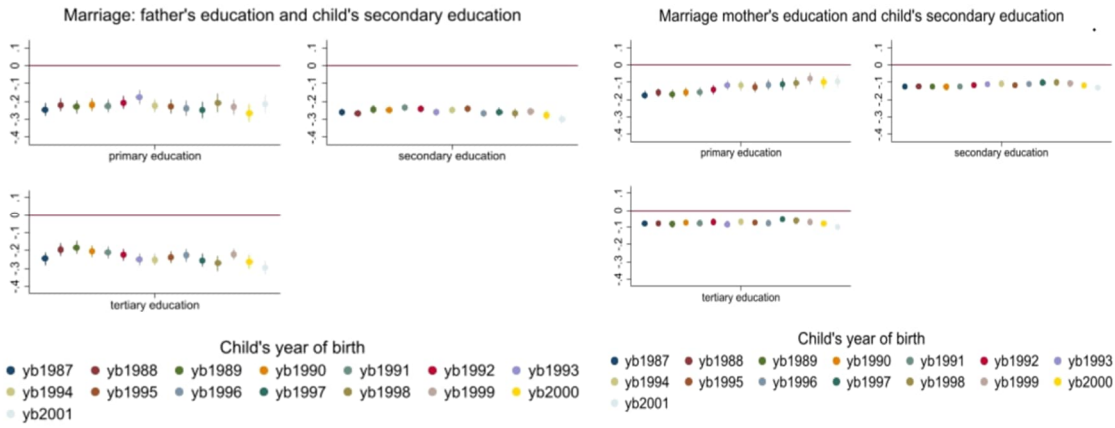
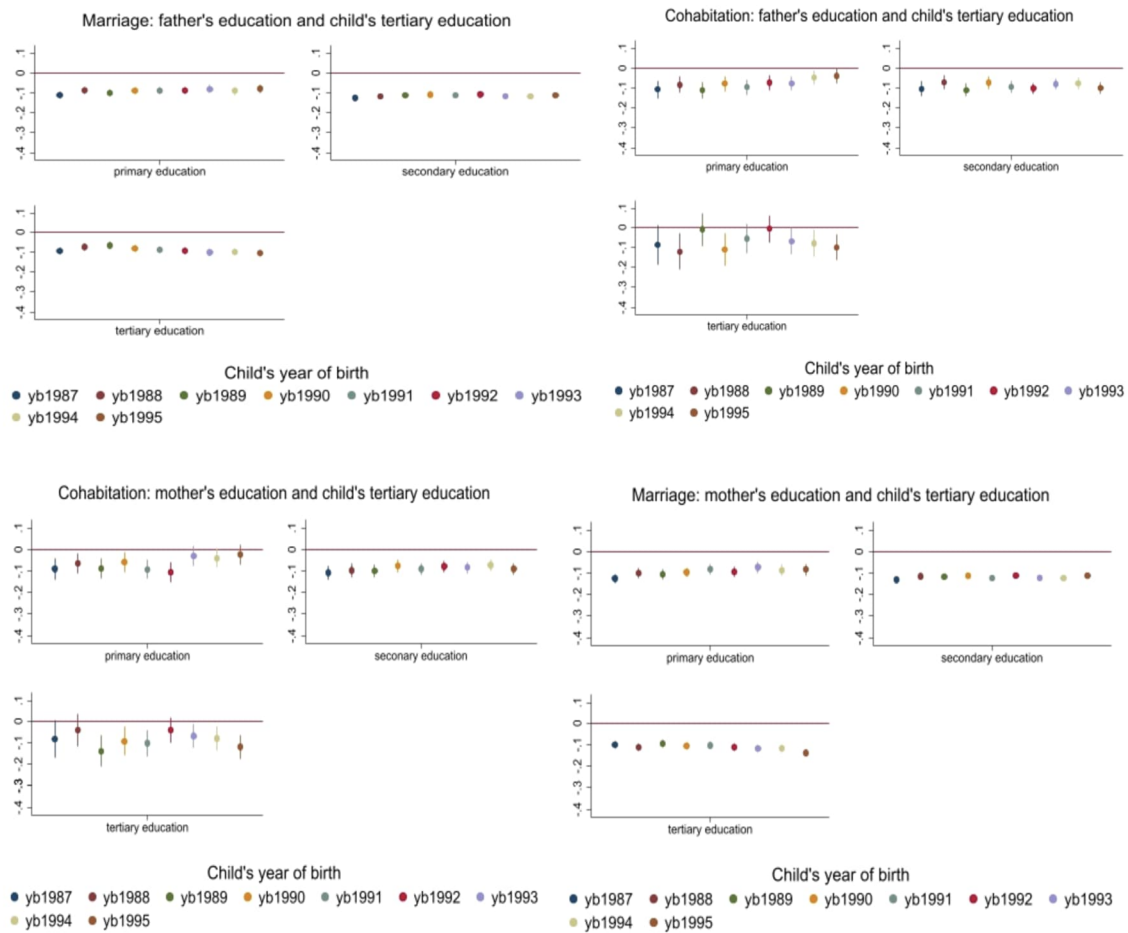


Figure A5. Parental separation and child's tertiary education by parental education.



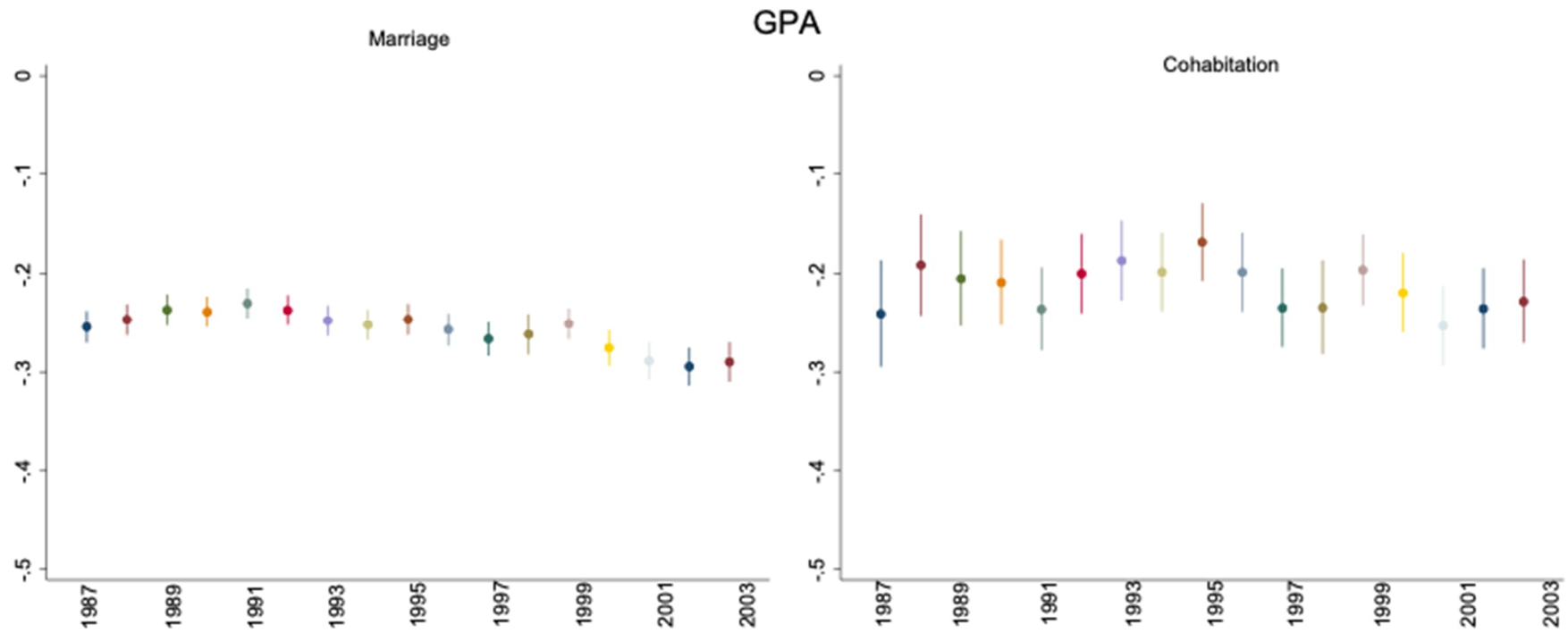


Figure 3. Children 's GPA and parental separation by child's year of birth; linear probability model with standard errors clustered within families (models are adjusted for the highest parental education and sex).

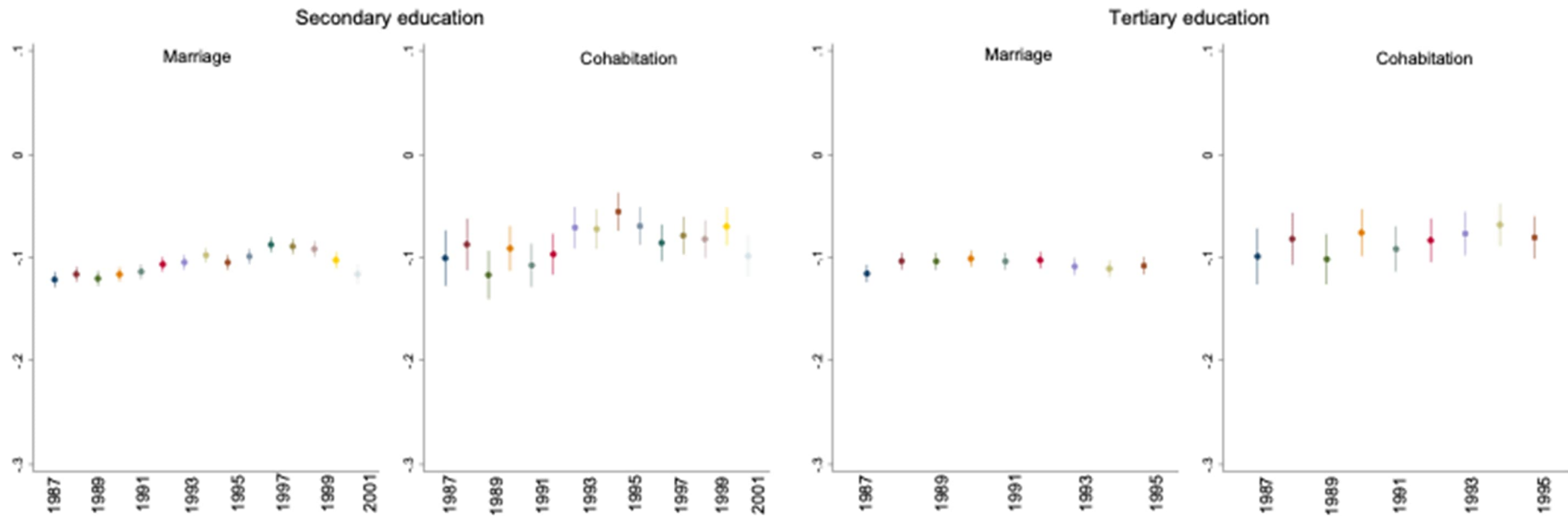


Figure 4. Parental separation and child's secondary and tertiary education level by child's year of birth; linear probability model with standard errors clustered within families (models are adjusted for the highest parental education and sex).

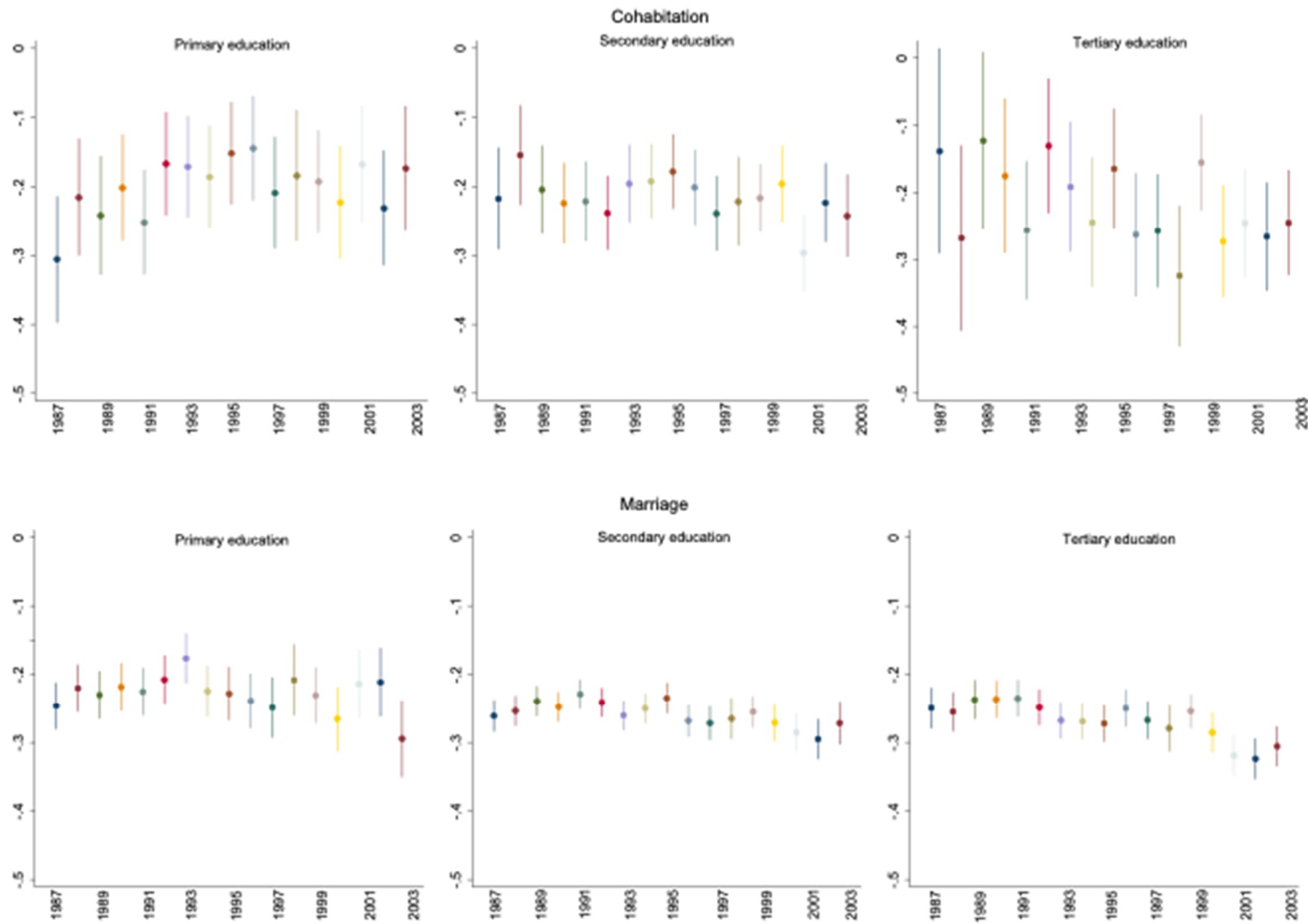


Figure 5. Parental separation and child's GPA by child's year of birth and parental education; linear probability model with standard errors clustered within families (models are adjusted for sex).

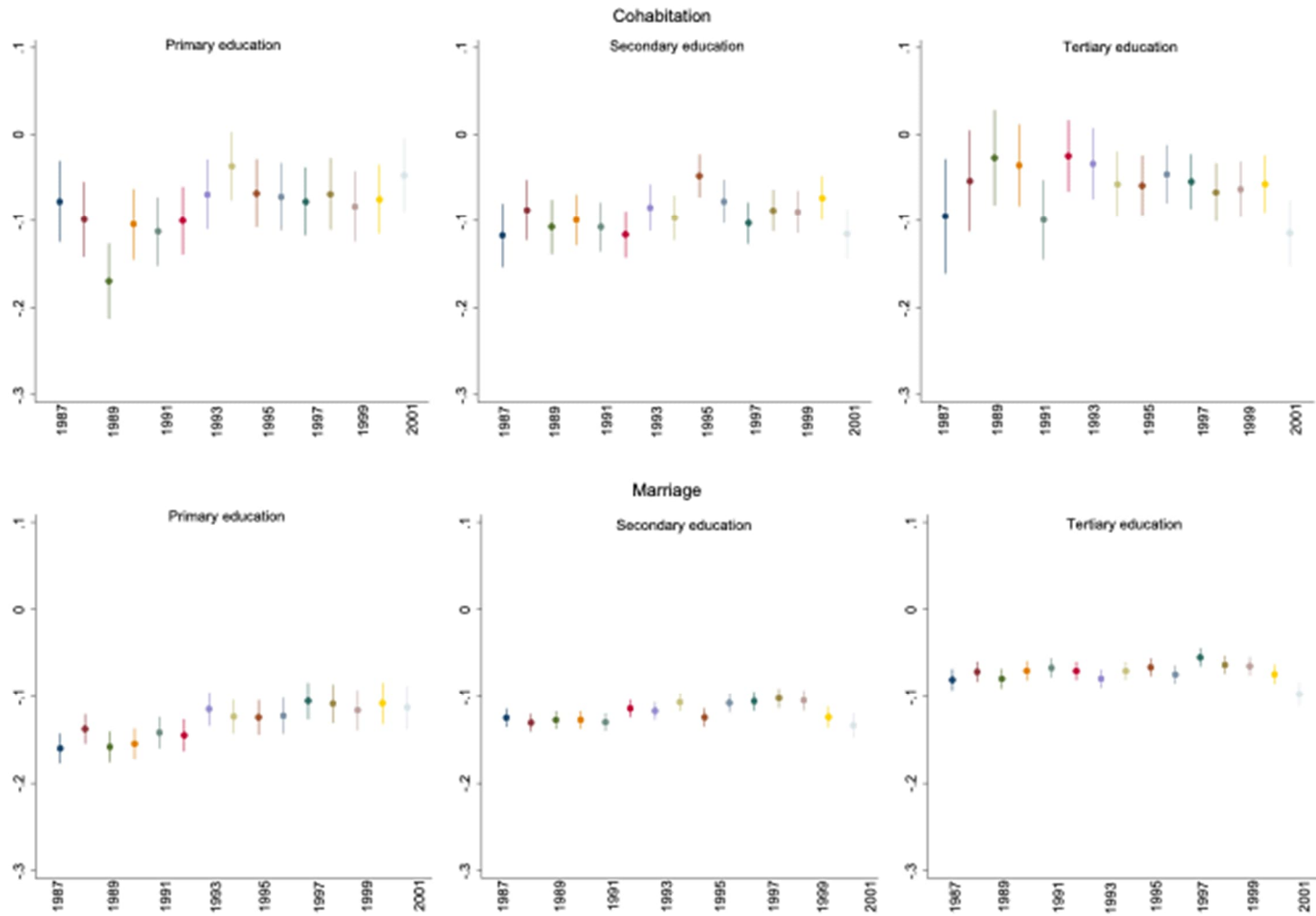


Figure 6. Parental separation and child's secondary education by child's year of birth; linear probability model with standard errors clustered within families (models are adjusted for sex).

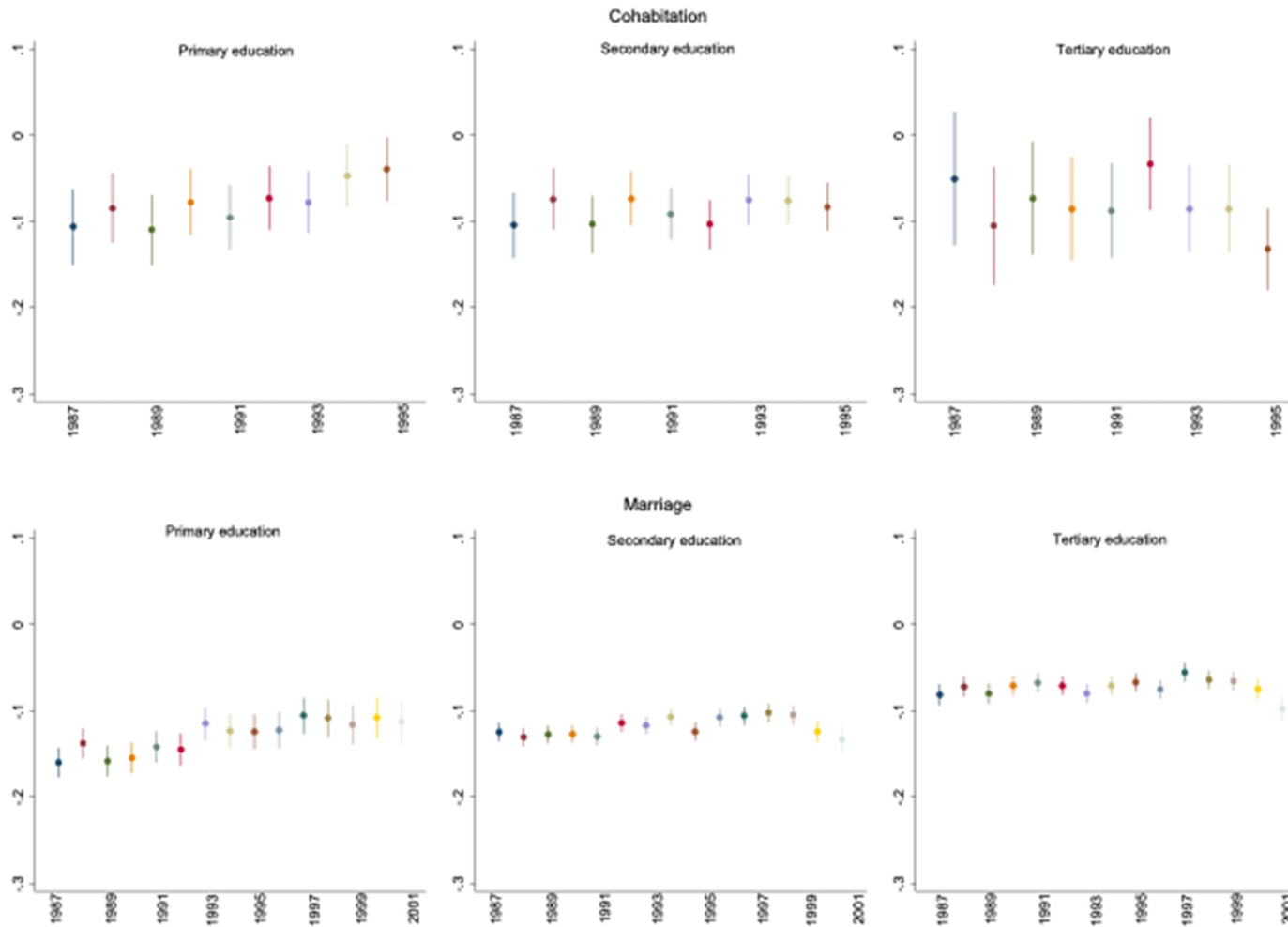


Figure 7. Parental separation and child's tertiary education by child's year of birth and parental education; linear probability model with standard errors clustered within families (models are adjusted for sex).