

The Replaceable: The Inheritance of Paternal and Maternal Socioeconomic Statuses in Non-Standard Families

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Abstract

This paper studies how socioeconomic attainments of parents in intact two-parent families, non-residential parents, single parents, and parents in stepfamilies affect children's attainments. In doing so, we draw together two lines of research: one on the inheritance of social status that consistently reports that children benefit from greater maternal and paternal resources, and another on family instability that argues that parental separation is associated with children's lower socioeconomic achievement in adulthood. The analyses are based on Finnish Census Panel data and sibling models, and socioeconomic statuses are measured by occupation-based ISEI scores. The results suggest that in terms of socioeconomic inheritance, fathers are replaceable: the influence of a non-residential father was very weak and was compensated by the strengthened effect of the single mother and by the further strong influence of a stepfather. The socioeconomic status of non-residential mothers and stepmothers contributed very little to a child's status. The socioeconomic attainments of children who had lived in single-parent families were lower than those of children who had been raised in intact two-parent families, but the differences were modest and varied with parental status. In absolute terms, the outcomes were poorest for children who lived with a low-status single parent, but the loss associated with parental separation was greatest for those who had high-status non-residential fathers. The total family background effect, measured as sibling similarities in socioeconomic attainment, was weaker in single-mother families than in other family types.

There is a growing body of research focusing on the inheritance of social status, i.e., how family background influences children's social and economic positions later in life. Studies report that parental higher education, occupational class status and income correlate positively with their children's socioeconomic achievement, with substantial variation stemming from differences in social structures and institutions between different societies (e.g., Hout & DiPrete 2006). A question that has attracted increasing attention ponders whose status it is that children inherit. Recent research suggests that both maternal and paternal status affect children's socioeconomic attainments, but paternal status usually matters more (Beller 2009; Buis 2013; Korupp, Ganzeboom, and van der Lippe 2002).

An underlying assumption in this type of research is still that there is always *the* father and *the* mother in the child's family, i.e., the child lives in an intact two-parent family. However, being raised by separated parents and stepparents has become common in advanced societies, a development that may have affected the processes of socioeconomic inheritance. Numerous studies on parental divorce, single parenthood and stepfamily formation suggest that family instability during childhood and adolescence is associated with lower socioeconomic achievement in adulthood (e.g., Amato 2000; 2010; Jonsson & Gähler 1997; McLanahan & Percheski 2008; McLanahan & Sandefur 1993). A potential but less explored explanation for such weaker outcomes is that parental separation leads to changes in the sources and amounts of parental resources from which children can benefit (see Kalmijn 2015). For instance, children may have less access to non-residential parents' resources, and the residential parents may not compensate for these losses.

In this article, we explore the intergenerational reproduction of socioeconomic inequalities, taking into account contemporary family diversity. Our research asks: How do children's socioeconomic statuses in adulthood depend on the socioeconomic statuses of parents in different family types? We distinguish the influences of residential and non-residential parents, single parents and stepparents; we also examine whether these influences depend on the parent's sex. In addressing this question, we contribute not only to the literature on socioeconomic inheritance, but we also clarify how growing up in a single-parent family or stepfamily, referred to as *non-standard families*, relates to the child's socioeconomic attainment.

In terms of socioeconomic indicators, we focus on occupational status, as measured by ISEI scores (Ganzeboom, De Graaf, and Treiman 1992). We also estimate the extent to which children's education mediates the influences of different types of families and parents

on children's occupational attainments. We apply sibling models to estimate the impact of parental socioeconomic status, family structure and a shared environment.

Finland is an intriguing setting for a study that examines the links among socioeconomic inheritance, gender, and contemporary family forms. It is a forerunner in terms of changing family dynamics, including growth in separation rates. It is also a leading country in terms of gender equality. Finnish women's employment patterns closely resemble those of men; women tend to work full-time (Rønsen & Sundström 2002) and stay in the labor force until retirement age, merely taking family leave from work when they have young children. Women's paid employment is also not a recent development; the female labor-force participation rate was 61 percent in 1970 and over 70 percent in 1980 (OECD 2015). The setting thus provides an excellent opportunity to study the inheritance of paternal *and* maternal occupational attainments. Together with high employment among mothers, the relatively generous welfare state likely alleviates harmful material effects related to family instability. Another major strength of this study lies in its use of register-based follow-up data with information on co-residential and non-residential family members over time, with no sample bias arising from non-response. The large number of observations (N=30,276) allows us to also distinguish between less common types of families and parents.

Theoretical Background and Previous Research

The Inheritance of Paternal and Maternal Socioeconomic Status

Research on social status inheritance consistently reports that children benefit from greater parental resources, which are measured in terms of education, occupational status and income (e.g., Hout & DiPrete 2006). The literature provides different theories on the intergenerational transfers behind this inheritance. Broadly speaking, parents influence their children's attainments in two ways: through endowments and investments (Becker and Tomes 1976; Behrman, Rosenzweig, and Taubman 1994; Coleman 1988; Esping-Andersen 2011; Musick and Mare 2006; Rosenzweig 1990). Endowments are anything that parents have from which their children can potentially benefit. In addition to economic resources, endowments include cultural and social capital, which contribute to tastes, values, family ties and other social connections, and genes, which affect cognitive ability, personality traits and physical characteristics. Investments refer to intentional parental behavior that aims to influence child outcomes, in most cases positively. Investments include the money that parents spend on children's education and living conditions, and the amount of time and effort that they put into the supervision and support of their offspring. Parental behavior may

also have negative consequences, which are overlooked by the distinction between endowments and investments. A frequently documented example of a supposedly negative influence is behavior that is linked to parental separation and children's subsequent lower socioeconomic attainment (Amato 2000; 2010; Dronkers & Härkönen 2008; Erola, Härkönen, and Dronkers 2012).

To better understand the processes of socioeconomic inheritance, research has increasingly paid attention to whose status it is that children inherit. For decades, research concentrated on the influence of the status of the husband-father, who often was the only provider of the family's economic resources (Erikson 1984; Goldthorpe 1983; Sorensen 1994). Recent empirical studies have shown that both parents' statuses matter; however, the higher-status parent has a greater impact, supporting the 'dominance principle' (Beller 1999; Korup et al. 2002). Moreover, several studies report that maternal educational attainment is particularly influential, regardless of paternal status (Buis 2013; Dronkers 1995; Kalmijn 1994). Finally, with the growth in women's paid employment, maternal status has become an increasingly important predictor of children's socioeconomic attainments (Beller 2009; Kalmijn 1994).

Nevertheless, the literature largely ignores the fact that a large proportion of children do not grow up in intact two-parent families. Few studies address how the socioeconomic resources of different types of parents (i.e., biological parents, stepparents, and residential and non-residential parents) influence children's attainments (see Eriksen, Sundet, and Tambs 2013; Kalmijn 2015; also Tach 2015). The discussion of how parental separation influences child outcomes, as reviewed below, has generally focused more on the differences in the social circumstances surrounding children, mothers and fathers.

Child Outcomes of Parental Separation and Repartnering

The incidence of divorce and separation has risen tremendously in Western societies, and increasing proportions of children live in single-parent families and stepfamilies. There is a consensus in sociological and economic theories that children who are raised in intact two-parent families have more economic, social and cultural resources at their disposal that facilitate educational and occupational success than do children who are raised in single-parent families or stepfamilies. According to sociological theories of socialization and learning, the intact two-parent family is optimal in providing children with parental support and control, which may be seen as non-monetary investments, and with, for instance, positive role models, a type of endowment. Furthermore, parental separation is a stressful life event

and may affect children's life trajectories. Most empirical studies conclude that parental union dissolution and growing up in a single-parent family or stepfamily are associated with intergenerational socioeconomic disadvantages (for reviews, see Amato 2000; 2010; Biblarz & Raftery 1999; McLanahan, Tach, and Schneider 2013; Smock, Manning, and Gupta 1999; for Finland, see Erola, Härkönen, and Dronkers 2012). We therefore expect that living in a single-parent family or stepfamily as a child will negatively affect one's occupational attainment.

Many studies conclude that parental union dissolution has negative causal effects on various child outcomes, but there is little research on long term socioeconomic attainment (McLanahan, Tach, and Schneider 2013). A study comparing Sweden and the US reported that living in a non-intact family correlated negatively with children's education and income, but when unobserved family characteristics were controlled for, the effect of the family structure became statistically insignificant (Björklund, Ginther, and Sundström 2007). Similarly, in Canada, Corak (2001), found that the association between divorce and socioeconomic child outcomes was relatively weak or insignificant when parental income and labor market attachment prior to divorce were considered. The results of these studies imply that net of parental socioeconomic status, any negative association between parental separation and occupational attainment is slight (see also Sigle-Rushton et al. 2014).

The Finnish context gives further cause to expect the negative effects of living in a non-standard family to be modest. The high rates of female labor force participation alleviate poverty in single-mother families (Hakovirta 2001). Previous research suggests that the main determinant of occupational success is educational achievement, and we expect that any negative outcomes associated with living in a non-standard family are largely mediated by the children's educational attainments. Finland, however, has always had tuition-free higher education, and students are provided with allowances to cover living costs. The welfare state also provides other services and income transfers that should buffer against harmful consequences of family dynamics. Some of these benefits include low-cost or free health care, housing subsidies, and strongly subsidized child daycare (see Hakovirta 2011). However, the labor market remains gendered, women continue to have poorer access to high-status jobs, and there is a persistent wage gap (Mandel & Semyonov 2005).

Different Parents and Socioeconomic Inheritance

Above, we discussed two lines of research: one about the inheritance of paternal and maternal status and the other about child outcomes resulting from parental separation and re-partnering. We draw these together by analyzing how the children's attainment depends on the status of residential and non-residential parents, single parents and stepparents. We expect the influence of a parent's socioeconomic attainment to depend on whether that parent lives with the child and whether he or she is a biological parent or a stepparent.

After parental separation, children tend to reside with one parent, while the other parent, most often the father, becomes a non-residential parent. It is possible that co-residence does not influence the inheritance process, i.e., non-residential parents and parents in intact two-parent families have similar effects on their children's attainments. The parent and child live in different households, but the past is not erased, and parenthood continues in investments and endowments: in the genes, in children's visits to the other parent (along with other contact), and in economic support. Previous life experience is potentially important; past research suggests that parental socioeconomic status during early childhood is the best predictor of adult socioeconomic outcomes (Duncan & Brooks-Gunn 2000; Erola 2012). A recent Dutch study on intergenerational educational attainment suggests that nonresidential fathers are as influential as resident biological fathers (Kalmijn 2015).

Nevertheless, it can be expected that non-residential parenthood will lead to at least some loss of parental influence on the part of the non-residential parent. Parent-child relationship is likely to weaken markedly compared with a relationship that is based on continuous shared family life. Previous research suggests that non-residential parenthood is associated with lost parental influence in terms of both investments and endowments, but the depth and type of loss varies (Biblarz & Raftery 1993; Corak 2001; Lang & Zagorsky 2001). Most children spend some time with the non-residential parent, but many do not; according to a Finnish study, 30 percent visit the non-residential parent less often than once a month or not at all (Hakovirta & Broberg 2007). What also varies is the extent of economic investment that non-residential parents make in their children. In Finland, a non-residential parent is usually required to pay child support, the sum generally depending on his or her income level, and can voluntarily contribute more. Although the exact institutional mandates differ between societies, we assume that the non-resident's contribution tends to be smaller than that of the resident parent. Therefore, it is possible that in terms of parental influence, the non-

residential parent is not only an ex-partner but also to some extent an ex-parent. We thus posit our first hypothesis:

H1: Non-residential parenthood will weaken the influence of that parent's socioeconomic attainment on his or her children's attainments compared with the influence of parents in intact two-parent families (the Ex-Parent Hypothesis).

By the same token, single parenthood might be expected to strengthen the impact of that parent's socioeconomic status, compensating for the non-residential parent's weakened contribution. This strong influence may follow from the single parent deliberately trying to recover the investments and endowments lost but also from the simple fact that the resources available through a single parent constitute a greater share of the total investments and endowments that influence a child. We thus posit the following hypothesis, which complements H1:

H2: Single parenthood will strengthen the influence of that parent's socioeconomic attainment on his or her children's attainments compared with the influence of parents in intact two-parent families (the Predominant Parent Hypothesis).

Many separated parents re-partner, thereby introducing a stepparent into the child's family (*stepparent* is defined here as a parent's new partner who lives in the same household as the child). There are reasons to expect that stepparents will not influence children's socioeconomic statuses to the degree that they replace the original, non-residential parent in processes of socioeconomic inheritance. Genes are a type of endowment that stepparents cannot replace. Many studies report that, compared with relations between residential biological parent and child, those between stepparent and stepchild are generally characterized by greater emotional distance and uncertainty; more problems and conflict; and less interaction, involvement and parental investment (Biblarz, Raftery, and Bucur 1997; Coleman, Ganong, and Fine 2000; Jensen & Howard 2015). Overall, the expectations from and obligations of stepparents are fewer and less clearly defined. Moreover, they may prefer or be obliged to invest their resources in their biological children from previous relationships (*ibid.*). The separation rates of higher-order unions are also higher, thus shortening the period of time that stepparents live with stepchildren; following the dissolution of the union, there is most likely little or no contact between stepparent and stepchild, given the lack of direct biological or legal ties. Disadvantages of living in a stepfamily are shown in short-term follow-ups. For instance, a recent study (Berger and McLanahan 2015) shows that, at the time they enter kindergarten, children living in stepfather families exhibit weaker cognitive skills and more behavior problems than children in two-parent biological families. Less is

known about long-term outcomes. The above-cited Dutch study suggested that for education, stepfathers are less influential than biological fathers, resident or not (Kalmijn 2015).

Nevertheless, it is also reasonable to expect that stepparents will generally add to the resources of a single-parent family, contribute to endowments and investments, and therefore represent at least a partial recovery of parental influence. Stepparents are in frequent contact with children in the same family household, which is crucial for socialization. Studies about children's ties to their stepfathers and non-residential fathers suggest that shared residence is more important than biological relatedness (e.g., Kalmijn 2013; King 2006). Stepparents may significantly affect children's socioeconomic attainments if, for instance, they influence education choices. Eriksen, Sundet, and Tambs (2013) even conclude that the educational level of stepfathers is positively associated with their stepsons' adult intelligence. Stepparents are not legally required to pay child support, but they may choose to invest in their stepchildren and they generally add to the family resources by sharing living costs. Stepparents' investments in children vary but tend to be significant, especially if they are married to and have shared children with the biological parent (e.g. Hofferth & Anderson 2003). If the influence of non-residential parents is weak, as *the Ex-Parent Hypothesis* suggests, and we find a strong positive influence of the stepparent's socioeconomic attainment, we can say that stepparents compensate for non-residential parents in the process of socioeconomic inheritance. We thus posit the following hypothesis:

H3: A stepparent's socioeconomic attainment will have a similar significant and positive influence on his or her stepchildren's attainments as that of a parent in an intact two-parent family (the Supplementary Stepparent Hypothesis).

As with the effect of family type in general, we expect the positive influence of a stepparent's higher socioeconomic status to be partly mediated by the stepchildren's educational attainments; however, there may be more direct effects, due, for instance, to widened social networks.

Single parents are predominantly women, while nonresidential parents and stepparents are mostly men. In practice, studying these larger gender specific categories will yield the most reliable results. However, our hypotheses are gender neutral, as we have no particular reason to expect gender differences in the mechanisms involved. Previous research on stepparents almost exclusively focuses on stepfathers (Kalmijn 2013; 2015; McLanahan, Tach, and Schneider 2013).

DATA AND METHODS

Data

We used the Finnish Census Panel data from Statistics Finland (Statistics Finland 1996). The data comprise a one-percent sample of the Finnish population in 1970, which is then extended to cover family members between 1970 and 2005. The final data cover about one million persons. The data from various censuses and registers are linked and include information from every fifth year from 1970 to 2005. Some of this study's major strengths lie in the use of such data. For instance, there is no sample bias arising from non-response, and there are symmetrical data on all family members. A large-N data set is a crucial advantage in analyzing less common family types, such as single-father families. Moreover, the data cover all residential and non-residential parents, regardless of marital status. Finnish registers contain information about the place of residence down to the specific dwelling, which enables the linkage of household family members, including unmarried cohabiting couples, with a high degree of accuracy.

The analyses focus on children born between 1966 and 1975. The outcome variable in all of the analyses is the child's current or previous occupational status at ages 25–29 and 30–34. For 1.8 percent of the sample, there was no information on occupation, and these cases were therefore dropped. The final data included 30,276 children from 21,873 families. Siblings are defined as children who lived in the same family in 1975, regardless of biological relatedness.

Occupational status can be considered the optimal measure of socioeconomic position, as it relates to both social status and earnings, whereas education merely reflects the potential for success in terms of the other dimensions. Occupational status is also less sensitive than is, for instance, income level to short-term variation. Occupational status is measured at a relatively young age before some have reached their full potential in the labor market. However, previous research (Erola 2012) shows that in the study cohorts, the influence of parental background on children's occupational attainment is the same regardless of the age (from 25 onwards) at which the outcome is measured. We coded the occupational data into ISEI status scales (Ganzeboom, De Graaf, and Treiman 1992).

The main independent variables are family structure and parental occupational status, which is also measured as ISEI. We z-standardized the ISEI scales, i.e., set the mean to zero

and the standard deviation to one. The ISEIs were coded as zero for the 5 percent of parents with no current or previous occupational data, which implied their permanent joblessness.

We defined the *original parents* as those who lived in the same family household as the child when the child was 0–4 years of age. Their occupational status was measured when the child was 10–14 years of age, regardless of whether these parents were residential or non-residential parents, i.e., whether they were living with the child at that time. The occupational status of (residential) stepparents was also measured when the child was 10–14 years of age. The missing values for stepparents when there are single-parent or intact families are in the mean.

Table 1 shows the distribution of family situations when the child was 0–4 years of age and 10–14 years of age. As age increases, the proportion of children living with both original parents decreases, and other family situations become more common. The data were dropped on children living in situations other than two-parent or single-parent families.

<Table 1>

All models controlled for the mother's age at childbirth (as a linear effect), the child's year of birth (as dummies), and indicators for the death of the original mother and the original father before the child turned 20. The models also controlled for the family situation when the child was 0–4 years of age (two parents, single mother, single father). The child's sex was included in all of the models, as either a stratifying or control variable.

To assess the extent to which the child's educational attainment mediated any effects of different types of families and parents, some of the analyses include educational attainment at ages 25–34 (i.e., the same age bracket when socioeconomic status was measured), which falls into one of five categories. In Finland, children take nine years of compulsory education (1: basic), after which they can choose either the vocational track (2: lower secondary) or the track that leads to the matriculation examination (3: higher secondary). Those with a higher secondary education can continue on to a lower tertiary education in universities or polytechnics (4: lower tertiary) or even further to a higher tertiary education in universities (5: higher tertiary).

Methods

We used sibling models to estimate the impact of parental socioeconomic status, family structure and a shared environment of the children in the family. We applied a three-level random-effects linear regression model, in which observations on the children's statuses are clustered according to families and individuals. We first report the effect (regression coefficients) of the original parents' ISEIs when the children were 0–4 years of age and 10–14 years of age on the ISEIs of their sons and daughters. The main analyses focus on how the type of family and the attainments of the original parents and stepparents jointly affect children's socioeconomic attainments; based on the fixed part of the random-effects model, statistically significant results are reported as predicted margins, i.e., “predictive margins” or “adjusted predictions.” Presented as graphs in Figure 2, the marginal effects indicate the predicted change in the child's ISEI when the parent's ISEI increases by one standard deviation, which is modeled as a linear effect and adjusted for the other covariates in the model. All results are also reported as ordinary regression estimates in Table 2. These analyses apply to singletons as well as siblings.

Nevertheless, estimating parental effects through regression coefficients and predictions alone has its limitations. If, for instance, the observed effects of the parents' ISEIs weaken after parental separation, the overall effect of family background on the child's attainment will not necessarily be weak, as unmeasured family effects may strengthen. Such strengthening may occur, for example, if parental separation is a severe crisis, with a similar long-term negative impact on all of the children in the family. In that case, the overall effect of family background might be stronger than it is in intact families, even if the observed effects of parental status are weaker. A weakened parental impact may also be compensated by the influence of other family members (including stepparents). To consider these possibilities, we examine how the total family background effect, in terms of children's occupational status, varies with different family types. We also examine how much of this effect can be attributed to the observed occupational statuses of different parents.

We have data on all children who were born in each family between 1966 and 1975, and there were two occupational status observations (at ages 25–29 and 30–34) for most children. Our models thus include random effects for unobserved heterogeneity (i.e., unexplained variance) at the family level and the individual level. The model can be expressed with the following regression equation:

$$y = \beta' X_{ijk} + \delta_i + \varepsilon_{ij} + u_{ijk} \quad (1),$$

where X_{ijk} includes the observed parental and child characteristics; residual δ_i reflects differences in occupational status due to *unobserved family-level heterogeneity*, which does not vary between children of the same family; ε_{ij} refers to *unobserved individual-level heterogeneity*, which is constant over the two socioeconomic status observations for each individual; and u_{ijk} refers to unobserved temporal heterogeneity for each individual. We separately estimate the unobserved family-level heterogeneity for each family type. This component includes all unobserved sources of background variation that siblings share (e.g., shared social environment or genetic background). Although many of these effects correlate with the observed controls that are included in the models, a substantial proportion will remain as unobserved heterogeneity. Adding controls for anything shared among siblings reduces this variation. Unobserved individual-level variation that is constant over the two socioeconomic status observations includes anything related to the permanent component in occupational attainment that does not originate from the shared background and is not captured by the controls. Controlling for factors that are specific to each sibling rather than shared, including, for example, individual differences in career mobility or individually experienced life course events that influence attainment, reduces this variation.

The share of the variance in socioeconomic attainment that stems from family background can then be calculated as a proportion of the family-level variation of the sum of individual- and family-level variation:

$$\rho = \frac{\sigma_{\delta_i}^2}{\sigma_{\delta_i}^2 + \sigma_{\varepsilon_{ij}}^2} \quad (2),$$

which represents the average correlation in the outcome variables between two randomly drawn siblings, i.e., a sibling correlation. The greater the *rho* (ρ) is, the stronger the influence of the siblings' shared characteristics is. Temporal variation in attainment, $\sigma_{u_{ijk}}^2$, shown at the lowest level of clustering, can be ignored (see Mazumder 2005).

In an uncontrolled model, a sibling correlation can be interpreted as an estimate for the *total effect* of family background. Also referred to as the “omnibus measure of family background”, the total effect reflects not only the influence of all parental characteristics, including shared biological inheritance, but also other factors that siblings share, such as

extended family members, neighborhoods and schools (e.g., Björklund et al. 2002; Conley and Glauber 2005; Hauser and Mossel 1985; Jencks et al. 1972). By including control variables and observing the extent to which including each factor affects the *rho*, we can estimate the extent to which that factor (and its unmeasured confounders) contributes to inheritance (e.g., Björklund, Lindahl, and Lindquist 2010).

In the following analyses, we separately estimate family variances for each family type; separate sibling correlations are thus provided for each type. We control for the ISEIs of different parents in various combinations to see the extent to which each parent's socioeconomic attainment explains the total family background effect.

Because it is simply a proportion of the family-level variation of the sum of the individual- and family-level variation, *rho* can grow even if the total amount of variation is reduced; such growth would signal a stronger total family background effect. Note also that sibling correlations are likely to be a lower-boundary estimate of the total family background effect; parents may, more or less intentionally, treat their children differently. In that case, parental influence increases variance at the individual level.

RESULTS

Associations Between Parental and Child Socioeconomic Status at Various Ages

<Figure 1>

We start by presenting results of an analysis that does not yet distinguish between residential and non-residential parents or include the influence of stepparents. *Figure 1* shows the regression estimates for the impact of the ISEIs of the original (both residential and non-residential) mothers and fathers (net of each other) when their children were 0–4 years of age and 10–14 years of age on their children's ISEIs in adulthood. The patterns are consistent. Both maternal and paternal socioeconomic attainments correlate positively with their children's attainments (very similarly for both age brackets). The father's ISEI has a stronger influence, as the effect size is about double that of the mother's ISEI. Furthermore, the effect of the father's ISEI is somewhat stronger on sons than on daughters, and the effect of the mother's ISEI is stronger on daughters. The differences are nevertheless minimal. Sons and daughters are therefore analyzed together in the following models, and the child's sex is simply controlled for.

Associations between Parental and Child Socioeconomic Status by Family Type

<Figures 2 a–g>

We now proceed to analyze how the associations between parental and child ISEIs depend on family structure and type of parent. We focus on statistically significant interactions between family type and the attainments of fathers and mothers (original parents and stepparents). These are presented in the form of marginal effects and their 95 percent confidence intervals. Additionally, Table 2 shows ordinary regression estimates from the model.

Figures 2 a–d show the joint impact of family structure and parental status (both when the child was 10–14 years of age) on the child’s own attainment at ages 25–34; these figures show the marginal effects of the socioeconomic statuses of the original mother and father and of the stepfather in various family types. All of the marginal effects are based on Model A in Table 2 and incorporate all of the main effects and interactions between family structure and each parent’s ISEI when the child was that age, as well as a set of control variables that are listed in the respective footnote. The marginal effects indicate the predicted change in the child’s attainment when the parent’s attainment increases by one standard deviation and the other factors are held constant.

To provide a point of comparison, all of the figures show the marginal effect for the ISEIs of the original father or mother in baseline families, i.e., intact two-parent families in which children at ages 10–14 lived with their original parents. These baseline effects are similar to previously observed effects for all families; paternal and maternal occupational attainments both positively correlate with the children’s attainments, but the paternal effect is stronger.

Previous research led us to expect that not living in an intact two-parent family would have a negative (though, in the Finnish context, a modest) influence on the child’s socioeconomic attainment. Accordingly, we found only small differences by family type. Among families with average parental ISEIs (Figures 2 a and b), we observed a small difference; the socioeconomic attainments of children who had lived in a single-mother or single-father family were slightly lower than those of the reference category. However, the difference between family types varies according to parental status—paternal status in particular. The difference between the children of single-mother families and baseline families was greatest when the original father’s attainment was high; when the father’s attainment was low, his children’s attainments tended to be similarly low regardless of the family situation (Figure 2b). The difference between single-parent families and the reference category also varied depending on the single parent’s socioeconomic attainment; when it was

high, there was no difference, with negative socioeconomic outcomes being limited to parents with low or average statuses (Figures 2a and 2b).

The marginal effects in Figures 2 a and b show how, in single-parent families, the socioeconomic attainments of both the single parent and the original, non-residential parent affect their children's attainments. The results indicate that the influence of the mother's ISEI is stronger in single-mother families than in baseline families (Figure 2a), while the influence of the non-residential father's ISEI is much weaker (Figure 2b) than in baseline families. It thus seems that being a non-residential parent weakens the father's impact, but this weakened impact is offset by the strengthened impact of the single mother. The result for single fathers is very similar; being a single parent strengthens the influence of the father's socioeconomic status on the child's attainment (Figure 2b). However, the influence of the original, non-residential mother's status in single-father families seems to differ less from that of the baseline mother (Figure 2a). The implication is that the mother's impact is more stable compared with that of the father.

Figures 2 c and d show the results for children who live with their (original) mother and stepfather. Interestingly, the impact of the stepfather's higher standing is practically as strong as that of the father's standing in baseline families (Figure 2d). We earlier observed that children in single-mother families tend to gain less from the non-residential father's high attainment, and these results suggest that if the family includes a stepfather, the original father's impact is even weaker (Figure 2d). The impact of the mother's status is similar to that of mothers in the baseline families (Figure 2c). Note that the confidence intervals in this family type are wide. The results for the few children who live with their (original) father and stepmother (0.5% of the children) are shown in Table 2, Model A. The impact of the ISEIs of the original mother and stepmother is not statistically significant. The impact of the father's ISEI in father-and-stepmother families is stronger than in the baseline families ($B=0.211$), presumably reflecting selection into this rare family type.

We now consider how controlling for the child's educational attainment affects the patterns. This can be seen from Table 2 by comparing the estimates from Model A to those from Model B; the latter also controls for education. The main effects for family situation show that when education is added to the model, the differences by family situation practically disappear among families with average parental occupational attainment (e.g., the negative effects of living in a single-mother family reduced from $B=-0.155$ to $B=-0.037$). This suggests that any negative impact of growing up in an intact family is largely attributable to the lower-than-average educational attainments of the children who are raised

in these families. Further, the notable positive impact of the stepfather's higher occupational standing is mediated by his stepchildren's educational attainments to the same extent as the impact of the baseline father's higher status ($B=0.204$ reduced to $B=0.121$ compared to $B=0.273$ reduced to $B=0.169$).

<Table 2>

The Total Family Background Effect

Thus far, we have focused on the observed effects of parental socioeconomic status in different family configurations. The results suggest that, on average, parental separation predicts somewhat lower socioeconomic attainments among children, at least in single-parent families and that non-residential parents, or at least fathers, contribute little to the children's status; however, the stepfather's status has a surprisingly strong effect. We now consider how these differences are manifested in the total effect of family background. How does the total family background effect vary across family situations, and what is the importance of different parental types in explaining sibling similarity in terms of socioeconomic attainment in these constellations?

Table 3 shows the sibling correlations (i.e., *rho*'s), which are calculated from the variance components, and their standard errors by family type. As mentioned above, the sibling correlation can be considered an omnibus measure for the family background effect. Model 1 does not control for parental socioeconomic status at all; Model 2 controls for the original mother's occupational attainment; Model 3 controls for the original father's occupational attainment; and Model 4 controls for the occupational attainments of both original parents. Models 5 and 6 concern stepfamilies only. Model 5 controls for the attainments of the residential parents, i.e., one original parent and one stepparent, and Model 6 controls for the attainments of all parents—both original parents and the stepparent(s).

According to Model 1, in intact two-parent families, the family background that the siblings share explains 39 percent of the children's socioeconomic attainments. Only in the single-mother families does the family background effect differ substantially from that of intact families, being one-third smaller. In other family types, sibling correlations are comparable with those in intact families. In other words, the total family background effect is high in those family types that include a male adult in the household. It is worth noting that the total family background effect is not any stronger in non-standard families than it is in

intact two-parent families, which suggests that being raised in a single-parent family or stepfamily does not harm children in any observable way as a stronger sibling similarity.

In intact families, parents' ISEIs together account for more than two-thirds of the background variation that is observed as sibling correlation (reduced from 39 percent in Model 1 to 24 percent in Model 4). The father's independent contribution is greater than that of the mother (Model 2-Model 4 vs. Model 3-Model 4), although much of the contribution is shared or overlapping and cannot be attributed to either parent alone ([Model 1-Model 4]-[Model 2-Model 4]-[Model 3-Model 4]).

In the case of single-mother families, the mother's socioeconomic status alone explains a considerable share of the sibling correlation. In fact, the proportion is comparable with the father's independent contribution in intact families. After the single mother's attainment is accounted for, the non-residential father's ISEI explains very little (0.17 vs. 0.15). According to our previous results on observed effects, the non-residential father's socioeconomic status correlates with that of the child, but this analysis reveals that the positive association explains almost nothing of the sibling similarity, once the single mother's status has been controlled for.

Mother-and-stepfather families are similar to single-mother families in that the mother's ISEI explains a notable proportion of the family background effect. The results also suggest that the stepfather's socioeconomic status explains a substantial part of the similarity among the siblings who grow up in these families. The independent contribution to sibling similarity is of the same magnitude as the independent effect of fathers in intact families or of mothers in single-mother families. After the residential parents' ISEIs have been accounted for, the non-residential father's ISEI does not contribute at all (Model 5 vs. Model 6). These results confirm our previous observation that the stepfather's socioeconomic status can make a difference and seems to compensate for the missing contribution of the original father.

The patterns for single-father and father-and-stepmother families resemble each other. In both types, the original, residential father's ISEI accounts for three-quarters of the total variation in family background. It is likely that socioeconomic selection into the family situation plays a particularly strong role in these types. Once the father's ISEI has been taken into account, the remaining sibling correlations are remarkably low—less than 10 percent. The non-residential mother's ISEI does not play an independent role in either type, nor does the stepmother's attainment contribute to sibling similarity. This finding lends further support to our earlier observation that the stepparent's important role only relates to stepfathers.

Overall, the analyses suggest that what most explains sibling similarity in non-standard families is the original, residential parent's occupational attainment. In the case of mother-and-stepfather families, the stepfather's status is also important. Non-residential parents contribute to sibling similarity very little or not at all. The effect of the non-residential father seems to be replaced by the increased influence of the original, residential mother and the stepfather.

Tests of Robustness: Duration, Employment, Marriage, and Selection

To further assess the reliability of the results above, we conducted several tests of robustness. One question concerns the age at which the family situation and parental socioeconomic status should be measured. A usual presumption is that earlier life conditions are more consequential (e.g., Duncan & Brooks-Gunn 2000; Erola 2012). However, in many societies, the decisive educational choices are made in adolescence, which may therefore be a critical stage for adult socioeconomic achievement (c.f. Breen & Jonsson 2005). The analyses above focused on the effects of family situation and parental ISEI on children aged 10–14. The differences according to parental attainments were largest at this age. We also performed all of the analyses using measurements at ages 5–9 and 15–19, with very similar results. We then explored the possibility that parental status' influence would vary in accordance with the duration of the family situation, comparing two categories of children: those who had lived in the same type of family five years earlier (at ages 5–9) and those who had not. The effects were no stronger on those who had lived in the same type of family for a longer period of time. Thus, the age- and duration-specific results do not suggest that disadvantages accumulate when children have been exposed to a non-standard family situation from a younger age or when the situation lasts longer.

In the subsidiary analyses, we also controlled for each original parent's employment status (employed vs. non-employed) when the child was 0–4 and 10–14 years of age. Unemployment is a known union dissolution risk factor (Lyngstad & Jalovaara 2010). Single mothers are also more likely than partnered women to be in the labor force, which might explain their stronger influence on their children's socioeconomic attainments, according to the conventional view. The results were nevertheless unaffected by these controls.

Thus far, all of our models include partnered parents regardless of their marital status. The common thought is that cohabitation is a "looser bond," and this might be related to weaker intergenerational transmission, particularly for stepfamilies (e.g., Berger &

McLanahan 2015; Hampden-Thompson & Galindo 2015). We examined whether the influence of a non-residential father's attainment was stronger if he was originally married to the child's mother; we a slightly stronger but a non-significant effect. Further, the effect of the stepfather's socioeconomic was not stronger if he was married to the mother.

Previous studies (e.g., Jalovaara 2013; Lyngstad and Jalovaara 2010) have found that union dissolution is more frequent among persons with low socioeconomic statuses. Lower parental status *before* dissolution is thus one reason why the children of separated parents may fare more poorly. To ensure that socioeconomic selection *into* the different family types is adequately accounted for, we also controlled for an interaction in the models between family structure and the original parents' ISEIs when the child was 0–4 years of age. However, the results for differences in children's occupational attainments at ages 10–14 by family type and parental status remained unchanged. It thus appears that solely considering parental attainments when the child is at that age did not bias our findings.

CONCLUSIONS

The study focused on the links between social stratification, gender and contemporary family dynamics, as manifested by socioeconomic attainment in Finnish cohorts born between 1966 and 1975. Our research question was: How does the children's socioeconomic status in adulthood depend on the parents' socioeconomic statuses in different family types? We distinguished the influences of residential and non-residential parents, single parents and stepparents, and also examined whether these influences depended on the parent's sex. We found a very weak effect of the non-residential parent's status, which lends support to the Ex-Parent Hypothesis. Single parenthood strengthens the influence of that parent's occupational standing, thereby supporting the Predominant Parent Hypothesis, regardless of the parent's sex. The findings for stepfathers supported the Supplementary Stepparent Hypothesis; a higher socioeconomic status has a substantial positive effect on the child's attainment, comparable with the effect of the original father in intact families; the effect was also to a notable extent mediated by educational attainment. This finding suggests that a stepfather can clearly influence children's socioeconomic attainments if, for instance, he influences educational choices. In contrast to that of stepfathers, a stepmother's socioeconomic attainment does not affect the child's attainment. Children thus do not seem to benefit from a stepmother's greater resources, whether in terms of intentional investment or of endowment availability. The significance of step-parenthood for socioeconomic inheritance is clearly gender-specific.

Are early childhood parents replaceable in the process of socioeconomic inheritance? The answer seems to be that fathers, in a sense, are replaceable; being a non-residential parent significantly weakens the father's influence, and the strengthened influence of the single mother compensates for this weakened fatherly influence. If there is a stepfather in the family, the influence of his socioeconomic status is important, and the original father's status seems to play no role. It thus seems that the benefits of men's greater resources are largely restricted to the family in which they are currently living. In contrast, mothers generally play a smaller role in socioeconomic inheritance but seem to be less easily replaceable: being a non-residential parent did not weaken the mother's influence. The difference between non-residential mothers and fathers may be partly related to differential selection processes into these family types and to other factors, such as the greater involvement of a non-residential mother in the child's life. However, we note that—owing to the generally weaker influence of maternal status—the influence of non-residential mothers was no stronger than that of non-residential fathers.

Our findings also contribute to the discussion of how growing up in a single-parent family or stepfamily affects a child's socioeconomic status. As previous research on various child outcomes (e.g., Amato 2010; McLanahan, Tach, and Schneider 2013) led us to expect, we found that occupational attainments were, on average, somewhat lower among children who had lived in alternative family situations. However, these lower attainments only appear true for children of single-parent families; children raised in stepfamilies did not fare any worse than those in intact families. The latter finding disagrees with previous research (e.g., Jonsson & Gähler 1997), which has reported the negative effect of living in a stepfamily. Furthermore, we found strong interactions between family situation and parental socioeconomic standing. For instance, the negative impact of living in a single-mother family is much greater for children with a high-status non-residential father. This finding suggests that children tend to benefit little from the greater socioeconomic endowments of their father if he is living elsewhere. It also appears that, *ceteris paribus*, children who had lived with a high-status single parent achieved an equally high status as the children of high-status parents in intact families. This is in line with recent research suggesting that the long-term consequences of parental divorce vary according to parental socioeconomic status (Bernardi & Radl 2014).

Our results on the weaker benefits from a high-status non-residential father's resources bears resemblance to Blau and Duncan's (1967) finding on "perverse equality", referring to group differences in the returns to socioeconomic resources that lead to

cumulative disadvantages (DiPrete & Eirich 2006). In contrast to this, we do not find a global, pervasive negative effect of living in a non-standard family. The noteworthy significance of stepfathers and the weak influence of non-residential fathers also suggest that direct investments and genetic endowments are less important in socioeconomic inheritance than are other endowments. Our result is in contrast to a previous study (Kalmijn 2015) suggesting that for education, nonresident fathers are as influential as resident biological fathers, whereas stepfathers did not matter as much. One likely explanation for the contrast is that genetically inherited cognitive skills correlate more strongly with educational than occupational attainment. However, our results agree with Eriksen, Sundet, and Tambs (2013) who find that even strongly genetically inherited intelligence is positively associated with the stepfathers' educational attainment.

Furthermore, we found that any disadvantageous outcomes that were associated with non-standard family situations could be largely attributed to the generally lower educational attainments of the children who lived in such families. Finally, our findings on sibling similarity suggest that family background plays an equal or lesser role in non-standard families than in intact families. Thus, parental separation does not appear to be a severe crisis for the children in the family, i.e., one that will determine their socioeconomic destinies. Our finding that living in a non-standard family has no significant effect on a child's socioeconomic attainment in adulthood is plausible, given our focus on a gender-egalitarian Nordic welfare state, in which factors such as women's labor force participation and strong state support for education likely alleviate adverse effects of family dynamics (c.f. Björklund, Ginther, and Sundström 2007; Corak 2001; Bernardi & Radl 2014). More research should be conducted that focuses on the institutional differences between countries and over time. One could expect, for instance, that the influence of non-residential parents is stronger in contexts where child support payments are higher, spousal alimonies paid after divorce are a common practice, and state support for acquiring higher education is weaker.

Recent research on socioeconomic inheritance has addressed the question about the significance of the mother's status as opposed to that of the father for a child's socioeconomic inheritance. In line with Beller (2009), the original father's attainment has a stronger effect than that of the mother; the effect is approximately double. We contribute two refinements to the existing literature. First, we found that stepfathers contribute to socioeconomic inheritance, while stepmothers do not. Second, the father's socioeconomic status explains a larger proportion of sibling similarity in single-father families than in single-mother ones. In single-father and father-and-stepmother families, the family background

effect is almost entirely related to the father's socioeconomic status. A clear exception to the noteworthy role of fathers involves non-residential fathers, who contribute very little in the case of single-mother families and nothing at all in the case of mother-and-stepfather families. Although beyond the scope of this paper, these findings suggest that the dominance principle on the decisive role of the higher-status parent (e.g. Erikson 1984; Goldthorpe 1983) may be limited to the parents living in the same household as the children.

Our results raise various questions that could be addressed in the future. One of our main findings was that non-residential fathers contribute little, but we know almost nothing about specifying factors and mediating processes. The data have limitations that influence our conclusions. Register data do not inform us about the frequency of visits or other contact. Such information would allow us to better estimate the extent of this parental loss, and perhaps identify a group of active and involved non-residential parents whose status matters more than that of the majority of non-residential parents that drive the current results. Shared physical custody is neglected in register data but it was very rare in the 1970s. Our data also include no information about the geographical locations of residences and the distance between them. More extensive information about children's living arrangements and residency after parental separation would facilitate further study of this question, which is increasingly important, given contemporary family patterns.

Finally, a question remains as to how much our main findings would vary depending on the national context. There is no particular reason to expect significant variation in the outcomes relating to the Ex-Parent Hypothesis and the Predominant Parent Hypothesis. It may be that results on the importance of stepparents (the Supplementary Stepparent Hypothesis) depend to a greater extent on factors such as state support for higher education, the strength of the institution of (re)marriage and the prevalence of the male-breadwinner model. A cross-cultural, multi-country examination of this topic could be addressed in future research.

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Table 1: Distributions (%) of family situations at various ages.

Family situation	Child's age in years			
	0–4	5–9	10–14	15–19
Two original parents	95.5	85.8	80.1	71.0
Single mother	4.1	8.9	13.7	16.7
Single father	0.5	1.1	2.2	3.3
Mother and stepfather		1.6	1.4	1.4
Father and stepmother		0.5	0.5	0.5
No parents		1.6	1.6	6.7
New parent(s)		0.5	0.4	0.5
Total	100	100	100	100

Table 2: Regression models of child's own ISEI; regression coefficients (B) and standard errors (SE). Model B includes child's educational attainment.

	Model A		Model B	
	B	SE	B	SE
Sex: female	0.015	0.010	-0.106 ***	0.008
Mother's death	-0.131 ***	0.027	-0.057 **	0.021
Father's death	-0.085 ***	0.017	-0.033 *	0.013
Mother's age at birth	0.007 ***	0.001	0.002 *	0.001
In single-mother family at age 0–4	0.022	0.032	0.025	0.025
Family situation at age 10–14 (ref: Intact two-parent family)				
Single-mother family	-0.155 ***	0.017	-0.037 **	0.013
Single-father family	-0.153 ***	0.037	-0.038	0.029
Mother-and-stepfather family	-0.100 *	0.047	-0.025	0.038
Father-and-stepmother family	-0.011	0.088	0.033	0.070
Original father's ISEI at age 10–14 ^a	0.273 ***	0.006	0.169 ***	0.005
Interaction effects of family structure and original father's ISEI at age 10–14				
Single-mother family × original father's ISEI	-0.108 ***	0.019	-0.088 ***	0.015
Single-father family × original father's ISEI	0.100 **	0.036	0.073 *	0.029
Mother-and-stepfather family × original father's ISEI	-0.224 *	0.098	-0.156 *	0.078
Father-and-stepmother family × original father's ISEI	0.211 *	0.100	0.142	0.080
Original mother's ISEI at age 10–14 ^a	0.142 ***	0.007	0.073 ***	0.005
Interaction effects of family structure and original mother's ISEI at age 10–14				
Single-mother family × original mother's ISEI	0.097 ***	0.018	0.082 ***	0.014
Single-father family × original mother's ISEI	-0.026	0.052	-0.039	0.041
Mother-and-stepfather family × original mother's ISEI	0.025	0.052	0.027	0.042
Father-and-stepmother family × original mother's ISEI	-0.171	0.155	-0.157	0.124
Stepfather's ISEI at age 10–14	0.204 ***	0.048	0.121 **	0.039
Stepmother's ISEI at age 10–14	-0.034	0.105	0.016	0.083
Education (ref: Higher tertiary level)				
Basic level			-1.508 ***	0.015
Lower secondary level			-1.565 ***	0.013
Higher secondary level			-0.936 ***	0.013
Lower tertiary level			-0.594 ***	0.016
Constant	-0.185 ***	0.034	1.282 ***	0.030
BIC	141059		127574	

Note: The models also control for dummies for each year of birth 1966–75. * p<0.05; **p<0.01; ***p<0.001 (two-tailed tests); three-level random-effects linear regression (Stata 14).

^a Main effect. Shows the effect for the baseline group, i.e., children living in intact two-parent families.

Table 3: Sibling correlations (rhos) from Models 1–6. Standard errors in parentheses.

	Model 1: Control variables	Model 2: Model 1 + ISEI of original mother	Model 3 : Model 1 + ISEI of original father	Model 4: Model 1 + ISEIs of original parents	Model 5: Model 1 + ISEIs of residential parents	Model 6: Model 1 + ISEIs of all parents
Intact two-parent family	0.39 (0.01)	0.31 (0.01)	0.26 (0.01)	0.24 (0.01)		
Single-mother family	0.27 (0.02)	0.17 (0.02)	0.21 (0.02)	0.15 (0.02)		
Single-father family	0.34 (0.05)	0.29 (0.05)	0.09 (0.06)	0.08 (0.06)		
Mother-and-stepfather family	0.32 (0.06)	0.25 (0.06)	0.30 (0.06)	0.25 (0.06)	0.19 (0.07)	0.19 (0.07)
Father-and-stepmother family	0.40 (0.09)	0.37 (0.10)	0.09 (0.14)	0.09 (0.14)	0.09 (0.14)	0.09 (0.14)

Note:

Model 1 controls for: single mother at 0–4 yrs; single father at 0–4 yrs; sex; year of birth; parental death; mother's age at birth.

Model 2: Model 1 + ISEI of original mother

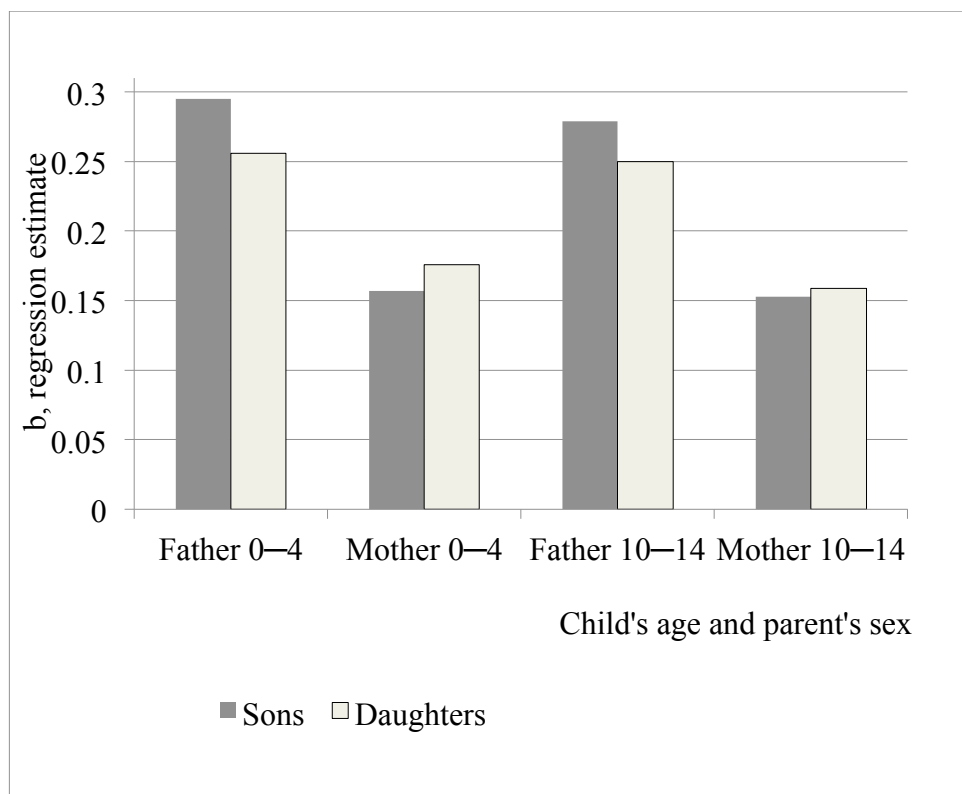
Model 3: Model 1 + ISEI of original father

Model 4: Model 1 + ISEI of both original parents (original mother and original father)

Model 5: Model 1 + ISEI of residential parents (one original parent and one stepparent)

Model 6: Model 1 + ISEI of all parents in stepfamilies: original mother, original father, and stepparent

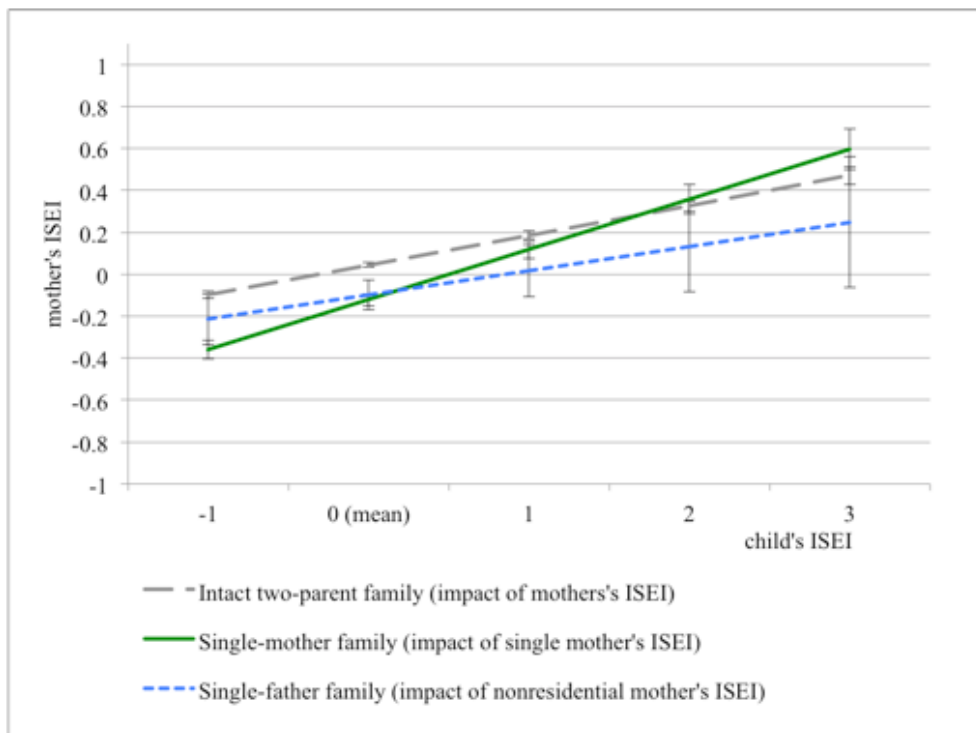
Figure 1: Estimates for impact of ISEI classes of original mothers and fathers at child's ages 0–4 and 10–14 on ISEI classes of sons and daughters.



Notes: Controlled for: mothers age at birth, child's year of birth, mother's death, fathers' death. The models were fitted separately for both age groups. At age 10–14, the parents include residential as well as non-residential original parent.

Figure 2: Children's ISEI according to family situation and parental ISEI (at age 10–14); z-standardized values. Marginal effects based on linear prediction, and their 95-% confidence intervals.

2a. Child's ISEI by the mother's ISEI in single-parent and the baseline families.



2b. Child's ISEI by the father's ISEI in single-parent and the baseline families.

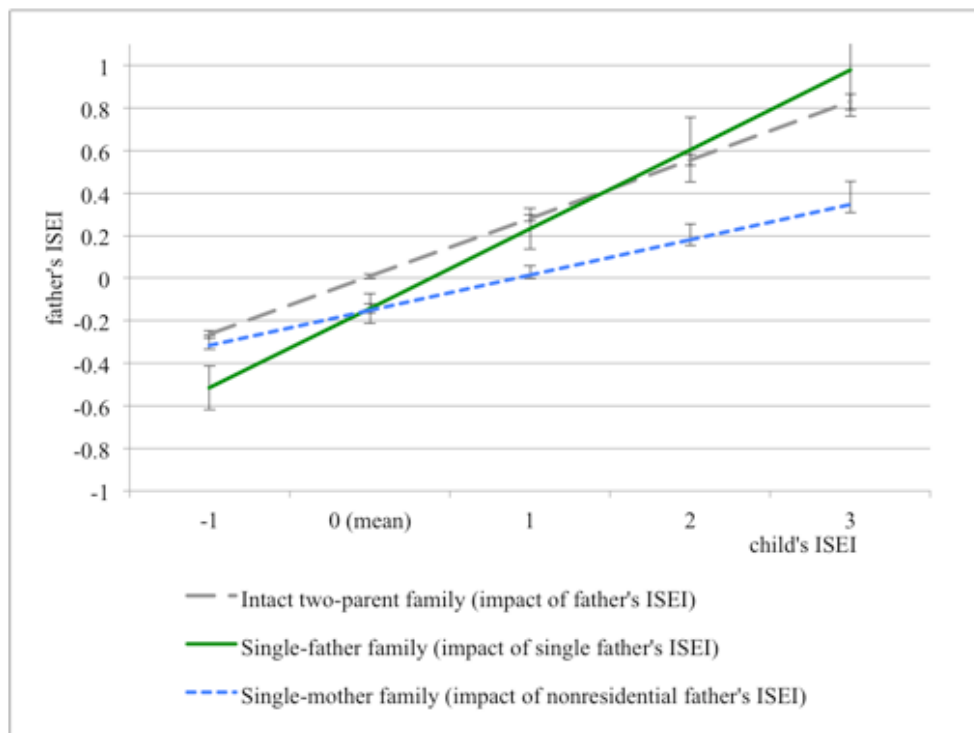
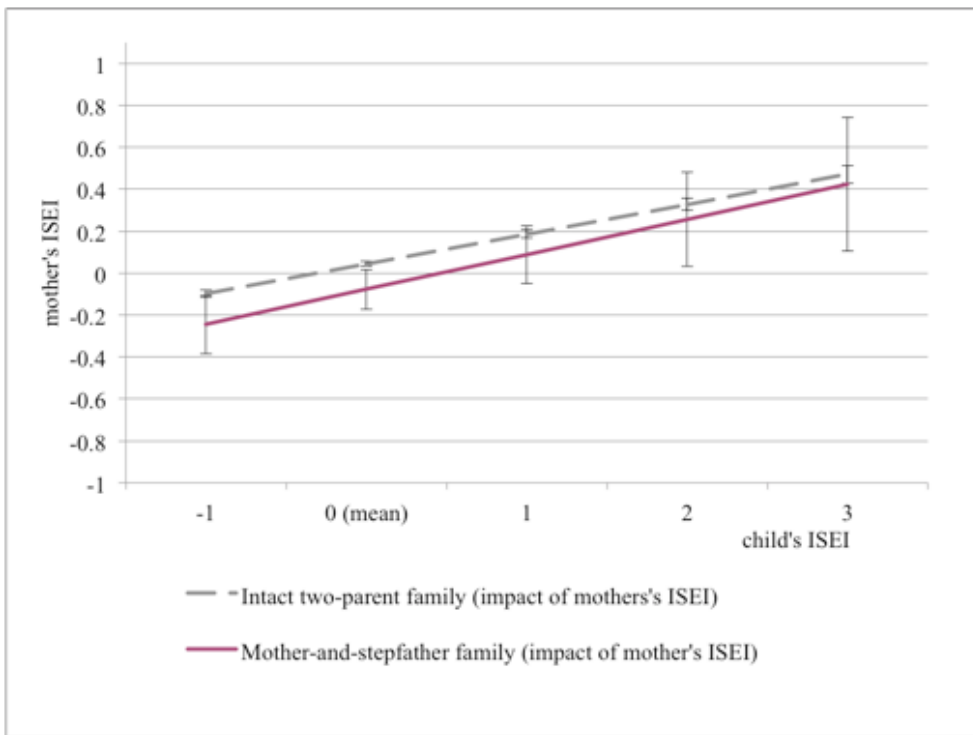


Figure 2 continued

2c. Child's ISEI by the mother's ISEI in mother-and-stepfather families and the baseline families.



2d. Child's ISEI by the fathers' ISEI in mother-and-stepfather families and the baseline families.

