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Does death really make us equal? Educational attainment and resource compensation after paternal death in Finland

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ABSTRACT

Attempts to explain the persistent importance of family background for children's educational attainment typically highlight the ways in which parents pass down educational, economic and social resources to their children. However, parental resources may also play a crucial role for preventing family crises from spiraling into cumulative disadvantage. To study such compensation processes, we examine the consequences of a father's death on children's educational trajectories, using a Finnish register-based sample of children born between 1982 and 1987. The results based on multilevel linear probability models both support and contradict our compensation hypothesis. Children who lost their father were not more likely to drop out of upper secondary school, as long as their surviving mother had high levels of socioeconomic resources. Similar compensation processes were visible in the case of entering polytechnic higher education. However, with regard to university attendance, bereavement noticeably reduced the traditional advantage of children with high-resource parents.

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1. Introduction

The persistent positive association between children's educational and socioeconomic outcomes and their parents' educational, cultural and economic resources is one of the best established sociological findings across time and national contexts (Blau and Duncan, 1967; Breen and Jonsson, 2005; Van de Werfhorst and Mijs, 2010). This should make family a central concept in social stratification and social mobility research. But despite this centrality, it is only fairly recently that social mobility research has begun to pay more attention to the variety of family forms and the ways in which the transition between different types of family may affect intergenerational social inheritance (Biblarz and Raftery, 1993; McLanahan and Percheski, 2008). By changing children's relationships with their non-residential parent (Albertini and Garriga, 2011; Kalmijn, 2015), family transitions may attenuate the influence of this parent's social, economic and cultural resources on the child's later attainment (e.g., Biblarz and Raftery, 1993). In this respect, some forms of family transitions, in particular, the death of a parent, are more final than others. However, compared to parents' separation, the death of a parent has received much less attention in the social stratification literature, possibly due to the small number of children experiencing this event in typical survey data sets. The few sociological studies that exist on the topic have usually found a weak negative effect on children's educational and socioeconomic outcomes (Amato and Anthony, 2014; Berg et al., 2014; Biblarz and Gottainer, 2000; Jonsson and Gähler, 1997; Steele et al., 2009).

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Using Finnish data, we contribute to this literature by focusing on the way in which a father's death may affect his children's educational outcomes as young adults. In contrast to parental separation, the death of a father may be regarded as a more clear-cut case of parental loss. This should also make it more suitable as a test case for analyzing the consequences of losing parental resources for children's later outcomes. Our motivation to focus only on paternal deaths stems mainly from the fact that losing one's father is a dramatically more common bereavement experience for children in Finland than the death of one's mother. Whereas 4% of children in our data have experienced the death of a parent by the time they turn 16 years old, in 75% of these cases, the deceased parent was their father rather than their mother.

While prior research on the consequences of bereavement has focused predominately on average effects, our key interest lies with examining the extent to which both the deceased father's as well as the surviving mother's resources moderate the impact of bereavement on children's subsequent educational outcomes. Recent research on parental separation has indicated that family disruption does not entail equally negative outcomes for all children, but it differentially affects children of advantaged and disadvantaged social backgrounds. However, there is no consensus in the research literature as to which group of children face more negative consequences (Albertini and Dronkers, 2009; Bernardi and Radl, 2014; Grätz, 2015). These equivocal findings may, in part, reflect the contradictory nature of the possible mechanisms at work. On the one hand, children from affluent family backgrounds may have more to lose in terms of advantages and resources compared to children who start out from already disadvantaged social positions (Bernardi et al., 2014). In other words, the personal losses of these advantaged children may at the same time level the playing field for disadvantaged children. However, one could also argue that parents with a higher level of resources will be in a better position than parents with less resources to compensate the losses and buffer the strains that family disruptions entail for their children (Erola and Jalovaara, 2015; Mandemakers and Kalmijn, 2014).

In order to disentangle these compensating and equalizing mechanisms potentially at play, our analyses in this article consider the role of both the deceased father's as well as the surviving mother's resources for moderating the impact of bereavement on children's subsequent educational outcomes. As a consequence, our study contributes a new perspective on the consequences of bereavement for children's later educational trajectories. Our analyses are based on extensive register-based Finnish panel data on the educational trajectories of children born between 1982 and 1987. We follow these children, a sample of over 66,000 individuals, until they turn 23 years old. At the centre of our investigations are three types of educational outcomes. As a short-term outcome, we model drop-out from upper secondary education by the time a child reaches age 18. Next, we focus on entry into higher education by age 23, distinguishing between the two types of higher education available in Finland: the vocationally oriented polytechnics (*ammattikorkeakoulu*) and the academically more selective universities. Our analyses in this article are guided by the following three research questions:

- 1) Do bereaved children on average end up with lower educational qualifications compared to their peers?
- 2) Is the impact of bereavement on children's outcomes greater if their deceased father's resources were low or high?
- 3) To what extent can the surviving mother's educational, occupational and economic resources compensate or buffer the negative effects of father's death on children's educational outcomes?

2. Background and hypotheses

Previous research has frequently reported a weak negative effect of parental death on a variety of children's outcomes, including their achievement in mathematics (Amato and Anthony, 2014), their mean grades (Amato and Keith, 1991; Berg et al., 2014), their probability to enter (Jonsson and Gähler, 1997; Steele et al., 2009) and complete upper secondary education (Berg et al., 2014; Biblarz and Gottainer, 2000; Steele et al., 2009), as well as their economic position as young adults (Corak, 2001; Lang and Zagorsky, 2001). The psychological upheaval connected to losing a parent in childhood may have a role to play in producing these lower educational outcomes and their subsequent socioeconomic repercussions in adulthood. For instance, bereaved children have been found to suffer from lower self-esteem (Amato and Keith, 1991; Worden and Silverman, 1996) and run a greater risk of developing depression (Brent et al., 2009; Cerel et al., 2006). Through their effects on children's educational achievement, such psychological consequences of bereavement may subsequently also alter children's educational trajectories and adult educational attainment. Moreover, there are some indications that bereaved children score lower in their educational aspirations and academic self-perception (Brent et al., 2012; Worden and Silverman, 1996), which could be thought to affect their risk assessment when deciding on future educational pathways (Breen and Goldthorpe, 1997).

However, drawing on recent research on parental separation (e.g., Bernardi et al., 2014; Mandemakers and Kalmijn, 2014), we argue that part of the negative consequences of bereavement may also stem from the fact that the death of a father constitutes not only an emotional crisis for his child, but at the same time entails the loss of his socializing and cultural influence and financial support. Although even a deceased father may continue to serve as a role model and affect his children's assessment about realistic future educational or occupational pathways, this effect is likely to be significantly weakened due to his lack of physical presence, continuous interaction and educational guidance in his children's lives. In this respect, children of fathers with high levels of educational and socioeconomic resources could be thought to have more to lose through their father's death than children bereaved of disadvantaged fathers. Hence, the death of a father with high

socioeconomic and educational capital may have equalizing effects on the educational chances of bereaved children. On the other hand, it could be argued that precisely the lack of such paternal resources even prior to their father's death may make this emotional crisis harder to bear for their children, thus exacerbating already existing disadvantage instead of levelling the playing field for bereaved children. In our models, we therefore examine the *interaction between father's death and father's resources* to get a clearer view on whether the level of deceased father's educational and socioeconomic capital *exacerbates or equalizes social differentials among bereaved children*.

But father's resources are most likely not the only source of potential heterogeneity in the consequences of bereavement for children's later educational outcomes. Psychological research has shown that the surviving parent has a vital role to play for supporting bereaved children's resilience in the aftermath of this loss. These studies have repeatedly reported significantly better emotional and psychological outcomes following bereavement for children whose surviving parent was able to respond with high levels of coping skills, parental warmth, communicative openness and high caregiver functioning (Elizur and Kaffman, 1983; Lin et al., 2004; Melhem et al., 2008; Raveis et al., 1999). Furthermore, there are indications that secondary stressors after bereavement, such as a drop in family income or a move to a new neighbourhood, may form part of the explanation why the loss of a father negatively affects their children (Kranzler et al., 1990; Thompson et al., 1998). In order to withstand this variety of family strains following the death of a father, we therefore assume that surviving mothers and their resources will be of crucial importance for children's adaption process. Put differently, we expect that losing a father will have less severe consequences for the educational pathways of those children whose surviving mothers have high levels of educational and socioeconomic capital at their disposal. For testing this *compensation hypothesis*, we examine the *interaction between surviving mothers' resources and father's death* in our models of children's educational attainment.

Rather than measuring children's social background using a single variable, all our models contain three types of both mothers' and fathers' resources: education, occupational class and average personal income. This also means that we focus on the *direct* impact of each type of resource, while holding constant the other two components of social background in our models. In other words, the hypotheses we outline below are geared towards what we consider to be the specific impact of each resource, net of what it shares with other related forms of capital in our model.

2.1. Deceased fathers' resources: equalizing advantage or exacerbating disadvantage?

Parents' educational attainment is well known to affect children's educational outcomes, for which a variety of mechanisms have been suggested. Higher educated parents may shape children's aspirations and frames of reference on their educational future, providing them with advice about realistic or risky pathways (Breen and Goldthorpe, 1997), first-hand experience and guidance as to how to navigate the educational system (Pfeffer, 2008), and support for their cognitive development (Boudon, 1974), but they may also familiarize their children with particular types of cultural familiarity, styles of behaviour and forms of expression that are favoured by educational institutions (Bourdieu and Passeron, 1990). In addition, fathers with higher levels of education may show higher levels of involvement with their children, particularly through activities aimed at assisting and stimulating their children's academic achievement (Yeung et al., 2001). Losing a highly-educated father may thus deprive these children of a substantial part of their traditional advantage over children with less educated fathers. Against this backdrop, we expect children who lost a highly educated father to suffer a greater negative effect on their educational outcomes compared to children whose deceased father was less educated.

Net of both education and income, occupational class has been shown to disproportionately affect workers' health as well as their risk of premature death, particularly among men (Rahkonen et al., 2006; Torssander and Erikson, 2010). In addition, the typically higher levels of independence and control over the work process as well as greater job security in professional compared to blue-collar occupations have been linked with social class differences in mental health (reviewed in McLeod, 2013) and in feelings of self-worth and well-being, which in turn may also affect levels of family discord (reviewed in Menaghan, 1991). From this perspective, children whose deceased father had been working in low-skilled occupations may have been exposed to greater family strains already prior to their father's death. As a consequence, these children may be less resilient when faced with paternal bereavement as an additional stressor. We therefore expect children who lost a father in low-skilled occupations to suffer a greater negative effect on their educational outcomes compared to children whose deceased fathers worked in a salaried occupation.

Deceased fathers who used to be high earners are more likely than less well-off fathers to have savings, insurance policies and other assets to bequeath to their children. Thus, for children bereaved of high-earning fathers, the inheritance of wealth is likely to buffer or prevent financial distress in children's surviving families. By contrast, the relative financial impact of losing a father with lower earnings may be greater, given that low-income fathers may have had more difficulties to accumulate savings and wealth prior to their death. As a consequence, the relatively greater economic distress following paternal bereavement may interfere with children's adaption processes. We therefore expect children who lost a father with low earnings to suffer a greater negative effect on their educational outcomes compared to children whose deceased father had high earnings.

2.2. Resources of the surviving mothers: potentials for compensation effects?

Previous research has shown that women with higher levels of education spend more time with their children (Sayer et al., 2004) and usually experience lower levels of parenting stress after family disruptions (such as separation and re-partnering) compared to lower-educated mothers (Cooper et al., 2009). In addition, scholars have found highly educated mothers to

report greater levels of perceived social support (Harknett and Hartnett, 2011). If education thus boosts mothers' resilience, bereaved children's outcomes may be more favourable if their mothers have higher rather than lower levels of education (Brent et al., 2009). In turn, this greater resilience may better enable highly educated mothers to pass on their cultural capital to their children and support them on their trajectory through the educational system. Hence, *we expect a weaker impact of father's death on the educational outcomes of children with highly educated mothers* compared to those whose mothers have attained lower educational qualifications.

In a similar way, mothers' occupational class and average income may act as buffers for the detrimental impact of father's death on their children's outcomes. Financial distress and low economic status can have wide-ranging consequences, such as a lower level of cognitive stimulation in children's home environment (Votruba-Drzal, 2003) and harsher and less-involved parenting practices (for a review, see Conger et al., 2010). In this sense, economic strains may exacerbate the impact of paternal death for bereaved children's educational attainment. But for mothers with higher levels of income, the death of their children's father is likely to constitute a weaker blow to the household finances. In this respect, mothers with higher income may be more able than those with lower average income to compensate the economic impact of paternal death and thus prevent additional distress for their families. Similarly, we suspect mothers in low-skilled positions may be working in more precarious jobs and have lower control over their working hours compared to mothers employed in salaried positions. This may lower these mothers' own resilience and increase their caregiver strains. In line with this reasoning, *we expect a weaker impact of paternal death for the children of mothers with high incomes and those in advantaged occupational class positions compared to bereaved children whose mothers have low income and a low-skilled occupational class position.*

3. Data and methods

Given that parental death in childhood is a comparatively rare event, any empirical research on this matter requires an exceptionally large data set to ensure sufficient statistical power. Our point of departure is a register-based, 10% sample of the Finnish population drawn in 1980 (Statistics Finland, 2016). For our analyses, we select the children of these sample persons who were born between 1982 and 1987. The resulting data set includes over 66,000 children, followed from the year of their birth until the year 2010. Approximately three percent of the children in this sample had experienced the death of their father by the time they were 16 years old. We exclude from the sample children without information on their mother or father in the registers (663 cases) as well as children whose mother had died when they were 16 years old or younger (760 cases). Furthermore, we restricted the analytical samples to children who resided in Finland at the time that our dependent variables were measured, which led to very slight differences in the sample size used for the models referring to drop-out from upper-secondary education and our higher education attendance models.

Our analyses are based on multilevel linear probability models, which allow taking into account the clustering of siblings within their immediate families (indicated by their mother). Linear probability models are not affected by the scaling problem inherent in logit regressions, and parameters can be interpreted as average marginal effects (Mood, 2010). Each of our educational outcomes is modelled separately, to allow for varying strengths of effects across the educational hierarchy. Starting out with main effects models, we subsequently test the interaction between father's resources and father's death, before adding a further interaction term between mother's resources and father's death to the model. We perform these analyses for each type of father's and mother's resources separately. Finally, we run a number of robustness checks. To gauge the possible impact of unobserved heterogeneity in prior family strains on our results, we differentiate causes of father's death. Additionally, we test for gender differences in the consequences of father's death. The results of these sensitivity checks are reported in the concluding section of this article.

4. Variables

4.1. Dependent variables

All of our dependent variables are dummy variables and measure children's educational attainment as teenagers or young adults. The earliest educational outcome in our analyses is *drop-out* from upper secondary education, which may capture short-term effects of paternal death. Our definition of upper secondary education includes both academic high schools (*lukio*) and vocational schools (*ammattikoulu*). Both types of upper secondary education enable students to apply for studies at Finnish higher education institutions. Given that children in Finland typically complete upper secondary education at age 19, we define our drop-out variable as not being enrolled in upper secondary education at age 17 and/or age 18.

Our remaining educational outcome variables are measured when children reach the age of 23, thus capturing possible longer term effects of paternal death. In this context, we focus on entry into higher education, which in Finland is differentiated into the academically more selective universities, on the one hand, and the more vocationally oriented polytechnics (*ammattikorkeakoulu*), on the other.¹ Entry into either one of these types of higher education is defined as ever having been enrolled in at least a bachelor's degree programme.

¹ An alternative English translation to polytechnics is 'universities of applied sciences'.

The main difference between these two types of Finnish higher education institutions lies in their substantive focus. Universities, with their monopoly on granting doctoral degrees, are largely academically and research-oriented. Polytechnic degrees, on the other hand, are typically geared towards providing students with more applied skills for the labour market (see also [Ministry of Education and Culture, 2016](#)). Entrance into both types of institutions is restricted and commonly based on entrance examinations. In 2010, Finnish universities admitted approximately 29% of their applicants compared to an admission rate of approximately 37% at polytechnics. Especially for those with a vocational upper secondary qualification rather than a high school diploma, polytechnics are the more accessible form of higher education: only 9% of applicants with qualifications from vocational schools were offered a place at a university, while the polytechnics admitted 32% of applicants with this type of background in 2010 ([Statistics Finland, 2012](#): 146–149, own calculations).²

4.2. Key independent variables

All of the predictors of interest in our models were measured during children's childhood, referring to an observation window that starts at age one and ends with the year the child turns 16. This upper limit of age 16 for defining our sample's childhood period coincides with the typical first educational turning point for children in Finland. It marks the end of the compulsory schooling period, after which children must decide whether to continue into upper secondary education (as well as between academic and vocational types of upper secondary schools). Hence, we assume that the experiences and the family resources prior to this turning point are likely to affect children's later educational pathways and outcomes. For children whose father died before the child turned 16, the observation window for this father's resources shortens to cover the period up until the year of his death. To pick up possible non-linear associations, we operationalize most independent variables of interest as categorical rather than continuous predictors.

Of particular interest to our analyses in this article is the dummy variable *father dead*, which takes on a value of 1 for children who were aged 16 or younger when their father died (approximately 2200 cases in our analytical sample), and a value of 0 if their father is still alive or died only when children were older.³ In our robustness analyses, we modify this variable to further distinguish two groups of bereaved children: those whose fathers died of causes possibly linked to prior problems in the affected family (suicide, violence, alcohol-related diseases, accidental poisoning) and those whose fathers died of other causes.

We differentiate three types of fathers' and mothers' resources: educational attainment, occupational class position and income.⁴ *Father's* and *mother's education* is defined as each parent's highest level of educational attainment on record during the observation window. Using a categorical predictor, we distinguish basic education (at most 9 years of compulsory education), upper secondary education (either a high school diploma or 2–4 years of vocational training after compulsory schooling) and tertiary education (post-secondary vocational education (*opisto*) or a higher education degree).

Father's and *mother's occupational class* is measured at the latest available data point during the observation period, which ends in the year that children in our sample turn 16 years old. Therefore, these variables illustrate each parent's occupational situation at the closest possible time prior to their children's key educational turning point, namely the end of compulsory schooling. We measure occupational class using a modified version of the Erikson-Goldthorpe-Portocarero (EGP) class scheme ([Erikson and Goldthorpe, 1992](#)) and distinguish four groups: salaried employees (EGP I,II), skilled workers (EGP IIIa,V,VI), self-employed workers and farmers (EGP IV), and lastly, low- and unskilled workers (EGP IIIb,VII) together with those not currently employed.⁵ For retrieving these EGP codes, we first mapped the original Finnish occupational classifications into the International Standard Classification of Occupations (ISCO-88) and applied Harry Ganzeboom's conversion tools ([Ganzeboom and Treiman, 1996](#)), which we however adapted for the Finnish context (details available on request).

Father's income as well as *mother's income* is measured as the respective parent's sum of personal earnings (from employment and self-employment) and capital income per year, deflated and averaged over the observation period. Therefore, these variables emphasize the average financial situation of each parent during their children's childhood. Although this variable cannot capture sudden gains or drops in income, higher mean income levels may also to some degree indicate a less fragmented employment history, particularly in the case of women. To accommodate possible non-linear associations, we use a categorical version of these variables, based on the quartiles of our analytical sample distribution.

4.3. Control variables

Whether or not children have experienced the death of their father, they may have lived in a variety of *family forms* during their childhood. Such family transitions may have had an impact on children's educational outcomes, over and above any consequences potentially suffered through the death of their father. Hence, we add controls for all family types that children

² Admission rates are calculated as the share of new students among all applicants to each type of Finnish higher education in 2010.

³ We group children who experienced the death of their father or mother after age 16 together with non-bereaved children. Supplemental analyses found no confounding arising from this decision, with coefficients remaining substantially equivalent even after excluding this group of bereaved children from our analyses.

⁴ Despite including several resource measures into our models, multicollinearity remained acceptable, with variance inflation factors (VIF) of at most 2.5.

⁵ Supplemental analyses, in which the non-employed were categorized according to their previous occupation, yielded substantially equivalent results.

have experienced up until the year in which they turn 16, regardless of whether or not these children have also been bereaved of their father during this time span. The included dummy variables are *ever lived with a single parent* (while both parents were alive), *ever lived in a stepfamily* (regardless of whether through parental death or separation), and *ever lived without any biological parent*. For generating these variables, we disregarded parents' marital status and focused solely on yearly family cohabitation patterns.

Previous studies using fixed effects models have found that the association between family types and children's later educational outcomes may be significantly confounded by children's *birth order* (Grätz, 2015; Sigle-Rushton et al., 2014). First born children (though not necessarily only children) have a general tendency for more favourable educational outcomes (Black et al., 2005), but they also experience family disruptions at necessarily older ages than their younger siblings. We therefore add a control for *birth order*, distinguishing children's status as their mother's first, second, or third (including higher-order) birth.

Furthermore, as drop-out rates from upper secondary education decreased between 2000 and 2009 in Finland (Statistics Finland, 2012: 81), we add a categorical control for birth cohort to our model, distinguishing children born in 1982–1983, 1984–1985, and 1986–1987.

We also add a categorical control for the *number of children living in the child's household* (regardless of their kinship relation to the target child) when the child was approximately 16 years old, assuming that resources and attention may be scarcer in larger households, which in turn may affect children's educational outcomes. Finally, we include father's age at the birth of the child, as older fathers tend to be more responsive and involved with their infant children (Volling and Belsky, 1991), but they may also have a higher mortality risk relative to younger fathers. Descriptive statistics for all variables in our models are reported in Table 1.

5. Results

5.1. Do bereaved children on average end up with lower educational qualifications compared to their peers?

In Table 2, we focus on the main effect of paternal death on upper secondary enrolment and higher education entry. On average, children in Finland who experienced the death of their father by the time they turn 16 have a higher risk of dropping out of secondary education by age 18 and are less likely to have entered higher education (either a polytechnic or a university) by age 23. In line with previous research (e.g., Berg et al., 2014; Jonsson and Gähler, 1997), our results also suggest that much of the association between paternal death and educational attainment relates to the fact that this type of family disruption more often affects already disadvantaged children. This is illustrated by the dramatic change in the coefficient size for father's death, which, compared to Model 1, reduces by half or even more (70% in the case of university attendance) once children's family background variables are controlled (Model 5). Nevertheless, a small disadvantage for bereaved children persists even when other family transitions and all family resources are controlled. Accordingly, net of their family background, bereaved children are on average 3.5 percentage points more likely to drop out of upper secondary education by age 18. With regard to higher education, bereaved children in Finland are approximately 3 percentage points less likely to have entered either a polytechnic or university by age 23 (Model 5 in Table 2).

5.2. Are bereaved children more disadvantaged if their deceased father's resources were low or high?

As argued above, the consequences of bereavement may vary depending on whether losing a father also entails losing crucial socioeconomic and educational parental resources. To investigate this possibility, we add interactions between father's resources and father's death to our full main effect models. In order to avoid excessive multicollinearity, we include only one interaction term at a time for each type of father's resource to the main effects model. Model 1 of Table 3 reports the interaction between father's death and father's educational attainment. Interactions involving father's occupational class and income are shown in Model 1 of Appendix Tables 1 and 2, respectively.

The nonsignificant interaction terms in Model 1 of Table 3 suggest that, contrary to our expectations, a father's educational resources do not appear to modify the impact of his death on his children's risk to drop out of upper secondary schooling or their chances of entering polytechnic higher education. In other words, the level of resources lost does not appear to play a central role in the detrimental impact that a father's death has on children's educational outcomes. A clear exception, however, is entry into universities, as demonstrated by the statistically significant negative interaction term for this outcome (Model 1 of Table 3). However, this interaction term also indicates that it is not children of fathers with low-to medium-levels of education who suffer most in their chances to enter university following the death of their father. Rather, our model suggests that children bereaved of fathers with top levels of resources see a notable reduction of their traditional advantage in regard to entering university by age 23 (Model 1 of Table 3).

The same patterns emerge when investigating the role of father's occupational and income resources. Again, the deceased father's resources do not moderate the impact that a father's death has on their children's risk of dropping out of upper secondary schooling or on their children's chances to attend polytechnic higher education by age 23 (Model 1 in Appendix Tables 1 and 2). However, the equalizing effects of father's death with regard to children's access to universities reported previously persists even if we measure the level of father's resources in terms of his occupational status or income, rather than his education. Accordingly, and net of other controls, children bereaved of fathers in the salaried occupational class (Model 1

Table 1

Descriptives. Dependent and independent variables' frequencies (percent), means, standard deviations (SD) and number of observations (N) in the sample.

Variable	Percent	Mean	SD	N
<i>Dependent variables</i>				
Dropout from upper secondary	11.56			66,441
Some polytechnic education	31.04			66,469
Some university education	19.48			66,469
<i>Independent variables</i>				
Father dead	3.39			66,469
Female	49.01			66,469
Parents separated	29.92			66,469
Ever lived in stepfamily	13.47			66,469
Ever lived without parents	2.45			66,469
<i>Birth order</i>				
Mother's first child	42.87			66,469
Mother's second child	35.93			66,469
Mother's third or later child	21.20			66,469
<i>Birth cohort</i>				
Born 1982–83	34.73			66,469
Born 1984–85	33.60			66,469
Born 1986–87	31.68			66,469
<i>Father's highest education</i>				
Basic (lower secondary or less)	27.00			66,469
Upper secondary	42.25			66,469
Tertiary	30.75			66,469
<i>Mother's highest education</i>				
Basic (lower secondary or less)	20.29			66,469
Upper secondary	44.45			66,469
Tertiary	35.26			66,469
<i>Father's EGP class</i>				
Salariat (EGP I,II)	28.31			66,469
Skilled (EGP IIIa,V,VI)	18.98			66,469
Self-employed and farmers (EGP IV)	16.50			66,469
Low-skilled (EGP IIIb,VII) or no occupation	36.21			66,469
<i>Mother's EGP class</i>				
Salariat (EGP I,II)	22.65			66,469
Skilled (EGP IIIa,V,VI)	15.28			66,469
Self-employed and farmers (EGP IV)	9.74			66,469
Low-skilled (EGP IIIb,VII) or no occupation	52.32			66,469
Mother's annual income ^a		20,501.64	11,111.98	66,469
Father's annual income ^a		33,339.07	28,474.57	66,469
Father's age at child's birth		30.84	5.73	66,469
Number of children in household when child aged 16		1.98	1.27	66,469

^a Income measures refer to personal annual income, deflated to constant 2014-euros and averaged over the observation period (child's age 1–16).

in Appendix Table 1) or those whose deceased father was in the top 25% of the earnings distribution prior to their death (Model 1 in Appendix Table 2) see a greater absolute decline in their chances to attend university compared to children whose deceased father had lower levels of income or occupational status.

5.3. Can a mother's resources buffer the impact of a father's death on her children's educational outcomes?

While fathers' resources did not moderate the impact of their death with regard to children's drop-out risk and their chances to enter polytechnic higher education, our results suggest that the opposite is true for mothers' resources: surviving mothers' resources and father's death significantly interact (see Model 2 in Table 3 and in Appendix Tables 1 and 2). In line with our expectations, higher levels of maternal resources appear to fully compensate or notably buffer the negative impact of paternal death with regard to attendance of upper secondary education as well as entry into polytechnic higher education. However, not even mothers with the highest levels of education, income or occupational status, appear to be able to attenuate the negative consequences that a father's death has on children's probability to enter universities. Adding the interactions between father's resources and father's death to these models does not substantially alter these results (see Model 3 in Table 3 and in Appendix Tables 1 and 2).

But what level of resources is needed to fend off any lasting consequences of paternal bereavement for children's educational trajectories? The interaction terms in Table 3 suggest that those who are most at risk of drop-out are bereaved children whose mothers are the most marginalized in terms of their resources. This is further illustrated in Fig. 1 (top panel), which shows that bereaved children with low-educated mothers have an approximately 8 percentage point higher risk of not being enrolled in upper secondary education by the time they are 18 compared to non-bereaved children with the same level of resources. Thus, for these children, the death of their fathers further entrenches an already existing disadvantage. However,

Table 2

Coefficients for main effects models predicting dropout of upper secondary education by age 18 and higher education attendance by age 23 (multilevel linear probability models). Standard errors in parentheses.

	Dropped out of upper secondary education					Ever attended polytechnic higher education					Ever attended university				
	M 1	M 2	M 3	M 4	M 5	M 1	M 2	M 3	M 4	M 5	M 1	M 2	M 3	M 4	M 5
Father dead	0.072 (0.007)	0.053 (0.007)	0.042 (0.007)	0.039 (0.007)	0.035 (0.007)	−0.078 (0.010)	−0.055 (0.010)	−0.039 (0.010)	−0.035 (0.010)		−0.032** (0.010)	−0.098 (0.009)	−0.074 (0.009)	−0.037 (0.008)	−0.032 (0.008)
−0.029 (0.008)															
<i>Added controls</i>															
Family structure	no	yes	yes	yes	yes	no	yes	yes	yes	yes	no	yes	yes	yes	yes
Parents' education	no	no	yes	yes	yes	no	no	yes	yes	yes	no	no	yes	yes	yes
Parents' EGP	no	no	no	yes	yes	no	no	no	yes	yes	no	no	no	yes	yes
Parents' income	no	no	no	no	yes	no	no	no	no	yes	no	no	no	no	yes
Intercept	0.252 (0.008)	0.18 (0.009)	0.271 (0.009)	0.296 (0.010)	0.334 (0.010)	0.163 (0.012)	0.245 (0.013)	0.137 (0.014)	0.104 (0.014)	0.07 (0.015)	−0.069 (0.011)	0.012 ^{NS} (0.011)	−0.084 (0.011)	−0.102 (0.011)	−0.09 (0.012)
N	66,441	66,441	66,441	66,441	66,441	66,469	66,469	66,469	66,469	66,469	66,469	66,469	66,469	66,469	66,469

Note: All models (M) control for female, father's age at child's birth, birth cohort, birth order, number of children in household at age 16. All reported coefficients are significant in two-tailed tests at $p < 0.001$, except those marked with ** ($p < 0.01$) and ^{NS} (non-significant).

Table 3

Coefficients for interactions between father's death and father's and mother's education (multilevel linear probability models). Standard errors in parentheses.

	Dropout from upper secondary education			Ever attended polytechnic higher education			Ever attended university		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Father dead	0.048*** (0.011)	0.070*** (0.013)	0.076*** (0.014)	−0.043** (0.016)	−0.058** (0.018)	−0.062** (0.021)	−0.008 (0.013)	−0.011 (0.015)	−0.001 (0.017)
Father dead × Father's education									
Father dead × upper secondary	−0.023 (0.015)		−0.017 (0.015)	0.011 (0.022)		0.006 (0.022)	−0.011 (0.018)		−0.009 (0.018)
Father dead × tertiary	−0.023 (0.020)		−0.002 (0.021)	0.037 (0.029)		0.010 (0.031)	−0.093*** (0.023)		−0.08*** (0.025)
Father dead × Mother's education									
Father dead × upper secondary		−0.041* (0.016)	−0.039* (0.016)		0.017 (0.023)	0.016 (0.024)		−0.011 (0.019)	−0.007 (0.019)
Father dead × tertiary		−0.065*** (0.019)	−0.065** (0.020)		0.073** (0.027)	0.070* (0.029)		−0.054* (0.022)	−0.028 (0.023)
N	66,441	66,441	66,441	66,469	66,469	66,469	66,469	66,469	66,469
BIC	33,335.9	33,325.9	33,346.7	83,697.5	83,691.2	83,713.3	53,913.5	53,923.6	53,934.2

Note: Models include all control variables, lower-order terms and intercepts. Statistical significance (two-tailed): * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

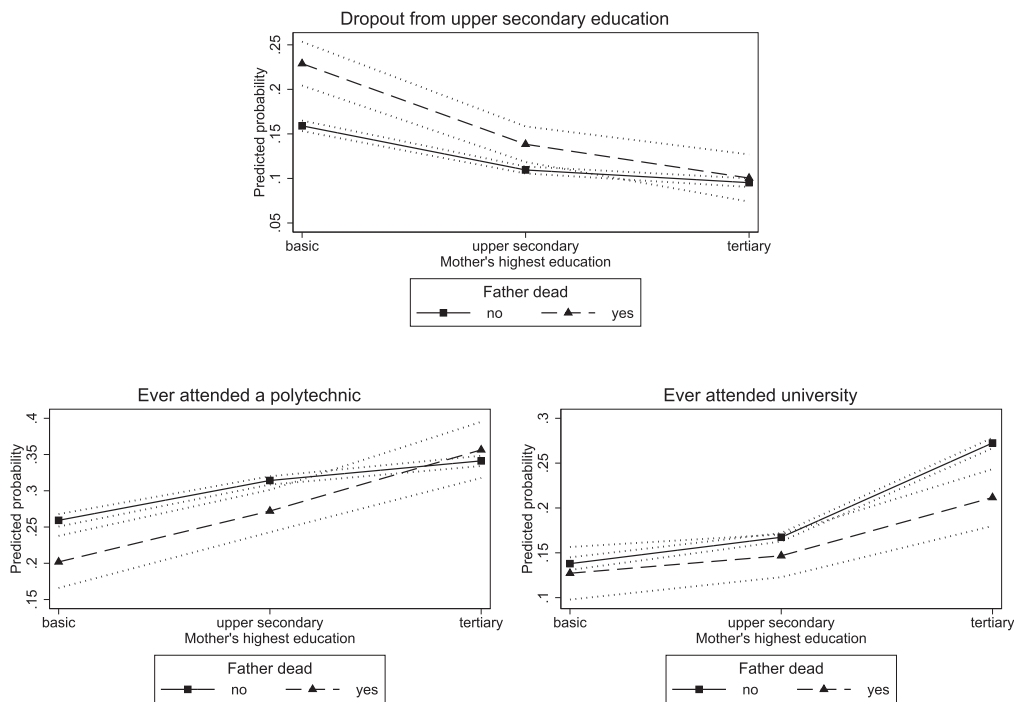


Fig. 1. Bereaved and non-bereaved children's predicted probabilities for dropping out of upper secondary education by age 18 and for entering a polytechnic or a university by age 23, conditional on their mother's educational attainment (results are based on interaction model 2 in Table 3).

medium-levels of maternal education already appear to substantially reduce or fully compensate this negative impact of bereavement (top panel of Fig. 1). Examining the compensatory potential of mothers' occupational resources leads to similar patterns: mothers in the salaried class and those in skilled occupations are able to buffer the impact of father's death on their children's risk to drop out of secondary school (Appendix Table 1). On the other hand, for a mother's income to have such compensating effects, financial resources in the top quartile of the distribution seem to be required (Appendix Table 2).

For outcomes on the upper rungs of the educational hierarchy, our findings suggest that only higher-than-medium levels of maternal resources are able to prevent bereavement from affecting children's educational trajectories. With regard to polytechnic higher education, the children not negatively affected by their father's death are those with tertiary-educated mothers (lower left panel in Fig. 1). Bereaved children of mothers with mid and low levels of education, on the other hand, face a clear negative effect to enter polytechnic higher education, despite its less competitive character compared to the universities. Examining the moderating impact of other types of maternal resources leads to substantially equivalent conclusions (see Model 2 in Appendix Tables 1 and 2): only salaried mothers and those with average income in the top quartile are able to compensate the impact of father's death on their children's chances to enter polytechnics.

No such compensation, however, is visible in the case of university education – on the contrary, it is again children with high levels of maternal resources (be that education, occupational class position or income) who experience a greater absolute decline than others with regard to their probability of entering a university (see right panel in Fig. 1 and Model 2 in Appendix Tables 1 and 2). In other words, compensation processes appear to alleviate the negative effect of bereavement for children from well-off family backgrounds only in one of the two sectors of Finnish higher education, namely the polytechnics. We discuss possible mechanisms underlying this result in the conclusion of this article.

6. Discussion and conclusion

Contributing to the literature on the role of family disruption for intergenerational social mobility and social inheritance, we examined the extent to which children who experienced the death of their father by age 16 differ in their educational trajectories from children whose parents were alive during their childhood. While previous studies in several Western countries have observed an average drop in children's educational performance and attainment following the death of their father, this article focused on the hitherto underexplored question as to whether this negative impact of bereavement varies between children from different social backgrounds. More precisely, we suspected that the level of a deceased father's educational, economic and occupational resources may in itself affect the severity of their children's loss with regard to their educational chances, either *equalizing* previous advantages or *exacerbating* disadvantages. The surviving mother's resources,

on the other hand, may play a crucial role in *compensating* any such losses: we expected mothers with high levels of education, occupational class position or income to be better equipped to prevent both the emotional and socioeconomic impact of father's death from enduringly affecting their children's educational trajectories.

Our results in part contradicted and in part supported these hypotheses. With regard to drop-out of upper secondary education and entry into polytechnic higher education, the death of a father had a uniform negative effect on children, regardless of whether they lost a father with high or low levels of educational and socioeconomic capital. Contrary to our hypotheses, it thus seems that neither the amount of resources nor the type of resources lost through bereavement modifies the negative impact effect of father's death on children's drop-out risk and their chances to enter polytechnic higher education. This may point to a greater significance of the psychological rather than the socioeconomic dimensions of bereavement, at least with regard to children's chances of securing mid-level as well as the less prestigious form of higher education. However, we did find support for the equalization hypothesis in our analysis of university access. Children bereaved of fathers with high levels of resources saw their traditional advantage for entering the universities notably reduced, which at the same time resulted in a lower social gradient for bereaved children's access to university. Again, whether we measured father's resources in terms of his education, occupational class or average income level did not change the overall pattern of these results. Thus, it may be the case that with regard to affecting children's educational outcomes, the quantity of parental resources may be more important than differences in the particular type of capital.

On the other hand, our results supported our expectation that the socioeconomic and educational resources of surviving mothers play a key role in helping bereaved children compensate or buffer the impact of a father's death, thereby preventing any lasting educational consequences for their bereaved children. In most cases, this compensating role of surviving mothers was substantial: paternal death had no or a significantly lower educational impact on children whose mothers were characterized by top levels of education and income or an advantaged social class position, whereas bereaved children whose mothers had only low levels of socioeconomic resources suffered a drop in their educational chances. However, access to universities again proved to be an exception: even children with mothers in the most advantaged social positions were somewhat less likely to have entered universities by age 23 if they had experienced the death of their father during their childhood.

The general trend in our data suggested a protective role of maternal resources from the negative effects of paternal death on children's educational trajectories. Why is it then that this protective mechanism does not extend to the more prestigious form of Finnish higher education, where children from the most advantaged family background face the greatest decline in their chances to enter university education after paternal bereavement? We speculate that a risk aversion perspective may provide some pointers to this puzzle. If it can be assumed that children's educational trajectories are influenced by a general motivation to avoid intergenerational downward mobility, then the most advantaged children have the most pressing needs to attain higher education. However, they may also be a more heterogeneous group in terms of ability compared to those children from disadvantaged backgrounds who take the risk of embarking on intergenerational upward mobility trajectories. If the experience of paternal death affects performance as well as educational aspirations, as previous research has suggested, the polytechnics may appear as a safer route for attaining higher education qualifications, not least due to their greater degree of occupational specificity and their somewhat higher admission rates compared to the universities. Alternatively, the finding that bereavement reduces the traditional advantage of well-off children with regard to entering universities may also be a product of our relatively short follow-up. It may simply be that a father's death leads to a *later* entry into university for those with an advantageous family background, rather than to a more fundamental change in their educational destinations. In other words, it is possible that these bereaved children are able to catch up with their peers from similar socioeconomic backgrounds later on.

Although the causal nature of any impact of family disruption on child outcomes is heavily debated among researchers focusing on parental separation, causal interpretations for the negative consequences of parental death have typically been viewed with less suspicion. However, mortality research clearly demonstrates a link between socioeconomic disadvantage and younger ages of death in Finland, particularly among men (Martikainen et al., 2001). A possible driver of this result may be mental health problems, which have been identified to lower men's life expectancy in particular (Wahlbeck et al., 2011). As a result, children from bereaved families may have been subjected to a number of stressors prior to the death of a parent, such as family discord, parental separation or substance abuse (Cerel et al., 2000). In this sense, the detrimental effects of a father's death may in part stem from stressors that preceded the family disruption rather than the event of bereavement as such. Family fixed effects models may be able to limit the risk of possible unobserved heterogeneity bias stemming from such sources. However, we are unable to use such models, given that the sample size of bereaved full siblings does not reach feasible levels for the relevant cohorts in our data. As an alternative way to explore a possible bias originating from this type of unobserved heterogeneity, we examined whether the results of our analysis differed depending on the father's cause of death. Distinguishing children whose fathers died of alcohol-related diseases, substance abuse, or suicide, from children bereaved by other causes of paternal death yielded no substantial differences. We also investigated whether the death of a father may have differential consequences for boys and girls, but again, our models revealed no significant gender differences. Nevertheless, a more detailed analysis of the various causes of death as well as the role of gender, particularly with regard to compensation processes, may prove a fruitful avenue for future research, especially if such analyses can make use of an oversampling of bereaved children.

While our research remains unique in investigating the role of both parents' resources for moderating the impact of paternal death on children's educational outcomes, some recent studies have pursued a similar line of inquiry for examining the impact of parental separation on children's education (e.g., Grätz, 2015; Mandemakers and Kalmijn, 2014). Some of these studies echo the compensation effects found in this article, yet, on the whole, evidence remains mixed. Variations in institutional context within and across countries may be one possible explanation for these equivocal results. Supporting this notion, a recent cross-country study of Bernardi and Radl (2014) found indications of equalizing as well compensating processes after parental separation with regard to access to tertiary education, depending on the degree of stratification and tracking of the secondary education systems in question. But, as argued above on the basis of our results, educational systems with horizontal differentiation within a given qualification level may potentially allow for horizontal strategies of compensation if less prestigious institutions can provide a trade-off for securing access to a given qualification level. A closer investigation of such horizontal strategies may open up further insights into the role of compensation processes after family disruption.

To conclude, our analyses suggest that the possibility of buffering the impact of crises and misfortunes may be an important part of the social mechanisms that sustain the inheritance of advantage across generations. Despite the fact that Finland is a country with free education at all qualification levels, high levels of public spending on families and a very little deprivation among children living in single parent families (UNICEF Innocenti Research Centre, 2012), social groups with higher levels of resources nevertheless remain better equipped to buffer the detrimental impact of a crisis such as bereavement. For this reason, we suspect that such compensation processes might play an even greater role for social status reproduction in other countries, such as the US, where tertiary education is subject to tuition fees and social inequality is substantially higher than in Finland.

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Appendix

Appendix Table A 1

Coefficients for interactions between father's death and parents' EGP class (multilevel linear probability models). Standard errors in parentheses.

	Dropout from upper secondary education			Ever attended polytechnic higher education			Ever attended university		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Father dead	0.044*** (0.010)	0.053*** (0.009)	0.059*** (0.011)	-0.044** (0.014)	-0.051*** (0.013)	-0.058*** (0.015)	-0.014 (0.011)	-0.022* (0.010)	-0.013 (0.012)
Father dead × Father's EGP class									
Father dead × salarial	-0.022 (0.019)		-0.010 (0.020)	0.055 (0.028)		0.040 (0.029)	-0.092*** (0.023)		-0.090*** (0.024)
Father dead × skilled	-0.009 (0.019)		-0.009 (0.019)	0.014 (0.027)		0.015 (0.027)	0.011 (0.022)		0.011 (0.022)
Father dead × self-employed	-0.029 (0.022)		-0.023 (0.022)	0.006 (0.031)		-0.002 (0.032)	-0.016 (0.025)		-0.016 (0.026)
Father dead × Mother's EGP class									
Father dead × salarial		-0.044* (0.019)	-0.042* (0.020)		0.069* (0.028)	0.061* (0.029)		-0.039 (0.023)	-0.016 (0.023)
Father dead × skilled		-0.063** (0.020)	-0.062** (0.021)		0.039 (0.030)	0.035 (0.030)		-0.006 (0.024)	0.002 (0.024)
Father dead × self-employed		-0.041 (0.028)	-0.033 (0.030)		0.036 (0.041)	0.038 (0.043)		-0.002 (0.034)	0.004 (0.035)
N	66,441	66,441	66,441	66,469	66,469	66,469	66,469	66,469	66,469
BIC	33,347.2	33,336.4	33,368.5	83,706.5	83,703.2	83,734.5	53,923.3	53,938.5	53,956.1

Note: Models include all control variables, lower-order terms and intercepts. Statistical significance (two-tailed): *p < 0.05, **p < 0.01, ***p < 0.001.

Appendix Table A 2

Coefficients for interactions between father's death and parents' average income (multilevel linear probability models). Standard errors in parentheses.

	Dropout from upper secondary education			Ever attended polytechnic higher education			Ever attended university		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Father dead	0.041*** (0.010)	0.051*** (0.014)	0.053*** (0.015)	-0.043** (0.015)	-0.067*** (0.020)	-0.067** (0.021)	-0.013 (0.012)	-0.006 (0.016)	0.001 (0.017)
Father dead × Father's income									
Father dead × 2nd quartile	-0.025 (0.017)		-0.019 (0.018)	0.024 (0.025)		0.008 (0.025)	-0.031 (0.020)		-0.023 (0.021)
Father dead × 3rd quartile	-0.000 (0.019)		0.008 (0.020)	0.023 (0.028)		0.002 (0.029)	0.005 (0.023)		0.015 (0.023)
Father dead × 4th quartile	-0.003 (0.022)		0.008 (0.023)	0.006 (0.032)		-0.027 (0.033)	-0.075** (0.026)		-0.059* (0.027)
Father dead* Mother's income									
Father dead × 2nd quartile		-0.003 (0.019)	-0.002 (0.020)		0.000 (0.028)	0.000 (0.028)		-0.007 (0.023)	-0.006 (0.023)
Father dead × 3rd quartile		-0.024 (0.020)	-0.023 (0.020)		0.034 (0.029)	0.034 (0.029)		-0.023 (0.023)	-0.020 (0.023)
Father dead × 4th quartile		-0.038* (0.019)	-0.038 (0.020)		0.099*** (0.027)	0.102*** (0.028)		-0.060** (0.022)	-0.051* (0.023)
N	66,441	66,441	66,441	66,469	66,469	66,469	66,469	66,469	66,469
BIC	33,347.3	33,344.3	33,375.6	83,709.1	83,692.9	83,725.1	53,931.4	53,932.8	53,958.9

Note: Models include all control variables, lower-order terms and intercepts. Statistical significance (two-tailed): *p < 0.05, **p < 0.01, ***p < 0.001.

References

- Albertini, M., Dronkers, J., 2009. Effects of divorce on children's educational attainment in a Mediterranean and Catholic society: evidence from Italy. *Eur. Soc.* 11 (1), 137–159.
- Albertini, M., Garriga, A., 2011. The effect of divorce on parent–child contacts: evidence on two declining effect hypotheses. *Eur. Soc.* 13 (2), 257–278.
- Amato, P.R., Anthony, C.J., 2014. Estimating the effects of parental divorce and death with fixed effects models: parental divorce and death. *J. Marriage Fam.* 76 (2), 370–386.
- Amato, P.R., Keith, B., 1991. Parental divorce and adult well-being: a meta-analysis. *J. Marriage Fam.* 53 (1), 43.
- Berg, L., Rostila, M., Saarela, J., et al., 2014. Parental death during childhood and subsequent school performance. *Pediatrics* 133 (4), 682–689.
- Bernardi, F., Radl, J., 2014. The long-term consequences of parental divorce for children's educational attainment. *Demogr. Res.* 30, 1653–1680.
- Bernardi, F., Boertien, D., Popova, D., 2014. Differential Effects of Parental Separation on Child Outcomes: Are Children from Higher Social Backgrounds Affected More? *EUI Working Paper MWP 2014/06*.
- Biblarz, T.J., Gottainer, G., 2000. Family structure and children's success: a comparison of widowed and divorced single-mother families. *J. Marriage Fam.* 62 (2), 533–548.
- Biblarz, T.J., Raftery, A.E., 1993. The effects of family disruption on social mobility. *Am. Sociol. Rev.* 97–109.
- Black, S.E., Devereux, P.J., Salvanes, K.G., 2005. The more the merrier? The effect of family size and birth order on children's education. *Q. J. Econ.* 120 (2), 669–700.
- Blau, P.M., Duncan, O.D., 1967. *The American Occupational Structure*. Free Press, New York.
- Boudon, R., 1974. *Education, Opportunity, and Social Inequality: Changing Prospects in Western Society*. Wiley & Sons, New York.
- Bourdieu, P., Passeron, J.-C., 1990. *Reproduction in Education, Society and Culture*. Sage, London.
- Breen, R., Goldthorpe, J.H., 1997. Explaining educational differentials: towards a formal rational action theory. *Ration. Soc.* 9 (3), 275–305.
- Breen, R., Jonsson, J.O., 2005. Inequality of opportunity in comparative perspective: recent research on educational attainment and social mobility. *Annu. Rev. Sociol.* 31, 223–243.
- Brent, D., Melhem, N., Donohoe, M.B., et al., 2009. The incidence and course of depression in bereaved youth 21 months after the loss of a parent to suicide, accident, or sudden natural death. *Am. J. Psychiatry* 166 (7), 786–794.
- Brent, D., Melhem, N., Masten, A., et al., 2012. Longitudinal effects of parental bereavement on adolescent developmental competence. *J. Clin. Child Adolesc. Psychol.* 41 (6), 778–791.
- Cerel, J., Fristad, M.A., Weller, E.B., et al., 2000. Suicide-bereaved children and adolescents: II. Parental and family functioning. *J. Am. Acad. Child Adolesc. Psychiatry* 39 (4), 437–444.
- Cerel, J., Fristad, M.A., Verducci, J., et al., 2006. Childhood bereavement: psychopathology in the 2 years postparental death. *J. Am. Acad. Child Adolesc. Psychiatry* 45 (6), 681–690.
- Conger, R.D., Conger, K.J., Martin, M.J., 2010. Socioeconomic status, family processes, and individual development. *J. Marriage Fam.* 72 (3), 685–704.
- Cooper, C.E., McLanahan, S.S., Meadows, S.O., et al., 2009. Family structure transitions and maternal parenting stress. *J. Marriage Fam.* 71 (3), 558–574.
- Corak, M., 2001. Death and divorce: the long-term consequences of parental loss on adolescents. *J. Labor Econ.* 19 (3), 682–715.
- Elizur, E., Kaffman, M., 1983. Factors influencing the severity of childhood bereavement reactions. *Am. J. Orthopsychiatry* 53 (4), 668.
- Erikson, R., Goldthorpe, J.H., 1992. *The Constant Flux. A Study of Class Mobility in Industrial Societies*. Clarendon Press, Oxford.
- Erola, J., Jalovaara, M., 2015. The Replaceable: the Inheritance of Paternal and Maternal Socioeconomic Statuses in Non-standard Families. *Turku Center for Welfare Research Working Papers on Social and Economic Issues 2*.
- Ganzeboom, H.B.G., Treiman, D.J., 1996. Internationally comparable measures of occupational status for the 1988 international standard classification of occupations. *Soc. Sci. Res.* 25 (3), 201–239.
- Grätz, M., 2015. When growing up without a parent does not hurt: parental separation and the compensatory effect of social origin. *Eur. Sociol. Rev.* 31 (5), 546–557.
- Harknett, K.S., Harknett, C.S., 2011. Who lacks support and why? An examination of mothers' personal safety nets. *J. Marriage Fam.* 73 (4), 861–875.
- Jonsson, J.O., Gähler, M., 1997. Family dissolution, family reconstitution, and children's educational careers: recent evidence for Sweden. *Demography* 34 (2), 277–293.
- Kalmijn, M., 2015. Relationships between fathers and adult children: the cumulative effects of divorce and repartnering. *J. Fam. Issues* 36 (6), 737–759.

- Kranzler, E.M., Shaffer, D., Wasserman, G., et al., 1990. Early childhood bereavement. *J. Am. Acad. Child Adolesc. Psychiatry* 29 (4), 513–520.
- Lang, K., Zagorsky, J.L., 2001. Does growing up with a parent absent really hurt? *J. Hum. Resour.* 36 (2), 253–273.
- Lin, K.K., Sandler, I.N., Ayers, T.S., et al., 2004. Resilience in parentally bereaved children and adolescents seeking preventive services. *J. Clin. Child Adolesc. Psychol.* 33 (4), 673–683.
- Mandemakers, J.J., Kalmijn, M., 2014. Do mother's and father's education condition the impact of parental divorce on child well-being? *Soc. Sci. Res.* 44, 187–199.
- Martikainen, P., Mäkelä, P., Koskinen, S., et al., 2001. Income differences in mortality: a register-based follow-up study of three million men and women. *Int. J. Epidemiol.* 30 (6), 1397–1405.
- McLanahan, S., Percheski, C., 2008. Family structure and the reproduction of inequalities. *Annu. Rev. Sociol.* 34, 257–276.
- McLeod, J.D., 2013. Social stratification and inequality. In: Aneshensel, C.S., Phelan, J.C., Bierman, A. (Eds.), *Handbook of the Sociology of Mental Health*. Springer, Dordrecht, pp. 229–253.
- Melhem, N.M., Walker, M., Moritz, G., et al., 2008. Antecedents and sequelae of sudden parental death in offspring and surviving caregivers. *Archives Pediatr. Adolesc. Med.* 162 (5), 403–410.
- Menaghan, E.G., 1991. Work experiences and family interaction processes: the long reach of the job? *Annu. Rev. Sociol.* 419–444.
- Ministry of Education and Culture, 2016. University of Applied Sciences' Education in Finland. Available from: <http://www.minedu.fi/OPM/Koulutus/ammattikorkeakoulutus/?lang=en> (Accessed 14 June 2016).
- Mood, C., 2010. Logistic regression: why we cannot do what we think we can do, and what we can do about it. *Eur. Sociol. Rev.* 26 (1), 67–82.
- Pfeffer, F.T., 2008. Persistent inequality in educational attainment and its institutional context. *Eur. Sociol. Rev.* 24 (5), 543–565.
- Rahkonen, O., Laaksonen, M., Martikainen, P., et al., 2006. Job control, job demands, or social class? The impact of working conditions on the relation between social class and health. *J. Epidemiol. Community Health* 60 (1), 50–54.
- Raveis, V.H., Siegel, K., Karus, D., 1999. Children's psychological distress following the death of a parent. *J. Youth Adolesc.* 28 (2), 165–180.
- Sayer, L.C., Gauthier, A.H., Furstenberg, F.F., 2004. Educational differences in parents' time with children: Cross-national variations. *J. Marriage Fam.* 66 (5), 1152–1169.
- Sigle-Rushton, W., Lyngstad, T.H., Andersen, P.L., et al., 2014. Proceed with caution? Parents' union dissolution and children's educational achievement. *J. Marriage Fam.* 76 (1), 161–174.
- Statistics Finland, 2012. *Oppilaitostilastot 2011 [Educational statistics 2011]*. Statistics Finland, Helsinki.
- Statistics Finland, 2016. Register-based Dataset U208, User Licence TK53-507-12.
- Steele, F., Sigle-Rushton, W., Kravdal, Ø., 2009. Consequences of family disruption on children's educational outcomes in Norway. *Demography* 46 (3), 553–574.
- Thompson, M.P., Kaslow, N.J., Price, A.W., et al., 1998. Role of secondary stressors in the parental death–child distress relation. *J. Abnorm. Child Psychol.* 26 (5), 357–366.
- Torssander, J., Erikson, R., 2010. Stratification and mortality—a comparison of education, class, status, and income. *Eur. Sociol. Rev.* 26 (4), 465–474.
- UNICEF Innocenti Research Centre, 2012. *Measuring Child Poverty. New League Tables of Child Poverty in the World's Rich Countries*. UNICEF Innocenti Research Centre, Florence. Available from: https://www.unicef-irc.org/publications/pdf/rc10_eng.pdf (Accessed 22 June 2016).
- Van de Werfhorst, H.G., Mijs, J.J., 2010. Achievement inequality and the institutional structure of educational systems: a comparative perspective. *Annu. Rev. Sociol.* 36, 407–428.
- Volling, B.L., Belsky, J., 1991. Multiple determinants of father involvement during infancy in dual-earner and single-earner families. *J. Marriage Fam.* 53 (2), 461–474.
- Votruba-Drzal, E., 2003. Income changes and cognitive stimulation in young children's home learning environments. *J. Marriage Fam.* 65 (2), 341–355.
- Wahlbeck, K., Westman, J., Nordentoft, M., et al., 2011. Outcomes of Nordic mental health systems: life expectancy of patients with mental disorders. *Br. J. Psychiatry* 199 (6), 453–458.
- Worden, J.W., Silverman, P.R., 1996. Parental death and the adjustment of school-age children. *OMEGA J. Death Dying* 33 (2), 91–102.
- Yeung, W.J., Sandberg, J.F., Davis-Kean, P.E., et al., 2001. Children's time with fathers in intact families. *J. Marriage Fam.* 63 (1), 136–154.