

## **Blended families, sibling structure and child outcomes in Sweden**

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### **Introduction**

This paper uses data from Sweden to study the relationship between adult outcomes and childhood sibling structure. Many studies have investigated the link between adult outcomes and childhood family structure, that is, whether the child grew up with two biological parents, a single parent or in a step family. Less research attention, has however, been paid to the relationship between adult outcomes and sibling structure, where sibling structure refers to the biological relationship between the children in the household; whether they are full siblings, half siblings or step siblings, i.e., not biologically related at all. Previous research suggests that the presence of half siblings is negatively related to outcomes.

The motivation for our paper comes from our prior work, Björklund, Ginther & Sundström (2007), which finds for Sweden and the United States that the association between a person's educational attainment (and annual earnings) and his/her number of siblings is more negative for the number of half siblings than for the number of full siblings. In particular, having lived with half siblings is negatively correlated with educational and earnings outcomes even when controls are made for number of half and full siblings. This is in line with the finding of Ginther & Pollak (2004) that children in 'blended' families do worse than children who live in a traditional 'nuclear' family, regardless of whether they are the biological children of both parents or of just one of the parents. In fact, in some cases, they find that children who lived with a single parent did better than those from blended families. Clearly, if we only focus on whether a child lives with both biological parents ('intact' family) and disregard the sibling structure, we miss important aspects of the family.

It is, of course, likely that these findings reflect selection rather than causation--that neither family structure nor sibling structure is randomly assigned. In line with this expectation, Björklund et al (2007) find no difference in educational or earnings outcomes when they analyze sibling differences in proportion of childhood lived in certain family structures for Sweden and the US. By contrast, Case, Lin & McLanahan (2001) find that children who lived with a step mother did worse than the biological children of that woman using similar methods.

Why would half siblings affect outcomes negatively? One possible explanation is that parents' time and step parents' time are imperfect substitutes and that this leads to fiercer competition for the parent's time between full and half siblings which in turn brings about

more stress for them. Children in 'blended' families may also experience more stress because, as suggested by Cherlin (1978), the parental and stepparent roles in them lack clear definitions. Another possible explanation, borrowed from evolutionary psychology, is that parents favor their own offspring over their stepchildren (Ginther & Pollak 2004, Case, Lin & McLanahan 2001). Thus, in a blended family where there are biological children of the couple and half siblings who are the biological children only of the mother, the father will favor his own offspring over his step children but the mother will equalize inputs and outcomes between her children. She has the means to do so since she most often does the lion's share of the housework. However, if the half siblings are the biological children of the father only, the mother will not try to equalize between the common child and her step children. This explanation is consistent with the findings of Case et al. (2001) that children raised by step, adoptive or foster mothers receive less schooling than the biological children of that woman.

Our paper makes three important contributions to the literature. First, previous papers on blended families in the U.S. lack sufficient sample size to draw definitive conclusions about the effect of blended families on child outcomes. Our study will use data from Swedish population registries which permits large enough sample sizes to identify the parameters of interest. Second, it is interesting to examine Sweden in this context because Sweden has more generous welfare provisions which may reduce economic disadvantages related to belonging to a stepfamily as compared to a 'nuclear' family. Third, growing up in a non-intact family is likely to be associated with less of a social stigma in Sweden. This would suggest that the effects of growing up in a blended family would be ameliorated relative to the United States. That said, our previous research Björklund, Ginther & Sundström (2007) finds a very similar effect of family structure on children in the United States and Sweden.

### **Data**

For Sweden we use a random sample of almost 36,000 (non-adopted) individuals born in Sweden in the years 1964 through October 1965 drawn from the population registers of Statistics Sweden and observed in the bi-decennial censuses in 1965, 1970, 1975 and 1980. We combine the Census information on household composition with data from the Swedish Multigenerational Register to classify the family structure and the sibling structure of the individuals. Our sample will include information on all siblings of these 36,000 individuals creating a sample size of over 100,000 total observations. Outcomes are measured by years of schooling and annual earnings in 1996.

### **Purpose and method**

The purpose of our paper is to analyze the relationship between childhood sibling structure and adult outcomes in Sweden. We focus on children who spent part of childhood

in a 'blended' family and compare their educational attainment and adult earnings to those of children who lived in a traditional 'nuclear' family and children who lived in a single parent family. Further and in particular, we analyze the possible explanations, mentioned above, for the adverse outcome for children in 'blended' found e.g. by Ginther & Pollak (2004). We do this by comparing outcomes for children in two types of 'blended' families: those where the half-siblings are the children of the mother with those where the half siblings are the children of the father. In addition, we compare the outcomes of children from stepfather blended families with those of children who grow up with their biological mother and a stepfather. Furthermore, we investigate whether the relationship between sibling structure and adult outcomes is causal by using a sibling difference analysis where we compare the outcomes of children who lived in the same family and had the same mother and, in addition, compare the outcomes of those who lived in the same family and had the same father.

**Preliminary results**

Below we provide a preliminary analysis of the research question. In Table 1 we see that a sizeable portion of the sample (15.9 percent) has half siblings. In Table 2 we observe no large differences in educational attainment by having a half-sibling. However, there are large differences in earnings. Tables 3 and 4 present cross-sectional estimates of the effect of family type on years of schooling and earnings. Once we include covariates, we observe that children who grew up outside of traditional nuclear families have significantly lower educational attainment. However, those children with half-siblings do not experience significantly lower earnings.

**Table 1. Percent of childhood by family type in Sweden**

	<b>Percent of childhood</b>
Single mum/dad, P> 60 %	2.2
Intact no half sib, P> 60 %	69.2
Intact with half sib/Blended, P>60 %	4.8
Stepfamily with half sibling, P≥50 %	4.1
Intact has half sib elsewhere, P> 60 %	7.0
Other family types	12.7
All	100.0

**Table 2. Average years of schooling and earnings for Sweden by family type**

	Single mum/dad	Intact no half sib	Intact w half sib/ Blended	Intact, half sib elsewhere	Step family
Schooling Sweden,	10.9	11.7	11.0	11.2	10.8
Earnings, Ths SEK	151.1	173.4	154.5	164.9	154.2

**Table 3. Cross-section estimates on years of schooling and family type for Sweden**

	Sweden
Single mum/dad	-0.57*
Intact with half sib/Blended	-0.13*
Stepfamily	-0.54*
Intact has half sib elsewhere	-0.21*
Other family types	-0.55*
Parents' educ, gender, age, #siblings	Yes

Ref. group Intact no half siblings, \*  $p < .01$ , ^  $p < .05$

**Table 4. Cross-section estimates on log annual earnings and family type for Sweden**

	Sweden
Single mum/dad	-0.18*
Intact with half sib/Blended	-0.02
Stepfamily	-0.06
Intact has half sib elsewhere	-0.01
Other family types	-0.17*
Parents' educ, gender, age, #siblings	Yes

Ref. group Intact no half siblings, \*  $p < .01$ , ^  $p < .05$

## References

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