

# Family Structure and Adult Children's Location Decisions

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## Non-Technical Summary

Geographic distance between adult children and their elderly parents is an important determinant for the wellbeing of both generations, affecting the frequency of contact between parents and children through visits and phone calls, helping behaviour, the mutual exchange of social and instrumental support, and parental care decisions.

Our immediate objectives were to provide new evidence about the relationship between family size and adult children's location decisions and whether the former causes the latter. The more detailed objectives of the research were to address answers to the following key questions:

Do adult children from larger families live further away from their parents' residence because they have more siblings with whom to share parental visits, intergenerational support, and parental care decisions?

Is there a causal relationship between family structure and child-parent proximity?

Are there differences in child-parent geographic proximity for siblings of different birth order?

To address these questions, we took advantage of very rich register data from Statistics Sweden containing detailed geographic location information. We used a 35 percent random sample of cohorts born in Sweden in 1945-1960. Using the population register, biological siblings and biological parents were matched to individuals in the random sample. A unique feature of the data is the possibility to follow the geographic location of all these individuals over time, through information in the censuses in the years 1975, 1980, 1985 and 1990. Using the geographic co-ordinates of the main town/village in each parish and household identifiers for both generations, we calculated the approximate distance in kilometres – as the crow flies – between children and their mothers every five years between 1975 and 1990.

Our calculation of the approximate distances based on the co-ordinates of parish of residence in 1990 reveals that the average child-mother distance in Sweden was around 70 kilometres. Only around 2 percent of adult children lived in the same household as their mothers, and 31 percent lived in the same parish.

We find a positive relationship between family size and child-mother geographic distance: increasing the family size by one child increases the average distance by around 5 km. Controlling for parental characteristics does not considerably reduce this relationship. We also find that the average child-parent distance is non-linear and increasing in family size, such that the more children, the larger the child-parent geographic distance. For example, our baseline estimates suggest that adult children from two-child families live on average 11 kilometres further away from their parents than

only children. Moving on to three-child families reveals that the average distance increases to 16 km compared to only children. The non-linear relationship between family size and child-parent proximity holds for families with up to seven children. We also examine whether birth order effects are responsible for the observed relationship between family size and child-parent proximity. When controlling for birth order effects, we find an even stronger relationship between family size and child-parent geographic distance.

One key methodological contribution of our research project is on the causal relationship between family size and the location decisions of adult children. We make use of two different instrumental variable (IV) strategies. The first IV approach uses the sibling sex composition in families with two or more children as an exogenous variation for family size, and exploits parental preferences for having a mixed sibling sex composition. The basic idea here is that parents of same-sex siblings are more likely to have another child than parents who already have a daughter and a son. Our second IV strategy exploits an exogenous increase in family size through a multiple births, i.e., twins or triplets. We focus on multiple second and third births, so that both IV strategies identify an exogenous increase in the number of children of moving from the second to the third child.

When exploring the causal effect of family size on mobility by using sibling sex composition and multiple births as exogenous variation for family size, we do not find any evidence that the positive relationship found previously represents a causal effect. The estimates drop considerably in magnitude, and some of the effects even become negative. Given that family sizes continue to fall in developed countries, our findings suggest that the trend towards smaller families will not necessarily cause adult children to be more constrained in terms of their geographic location decisions.

Another key contribution of our research project is to re-examine the findings of the “Geography of the Family” paper by Konrad et al. (2002, AER). We provide not only new and comprehensive empirical evidence on the relationship between family size and child-parent geographic proximity across a wide range of European countries, but also some novel theoretical insights. On the empirical side, we made use of the international comparative data of the Survey of Health, Ageing and Retirement in Europe (SHARE). The empirical estimates across nine European countries suggest that both firstborn and second-born siblings are more likely to live further away from their elderly parents than only children. Moreover, in line with this family location pattern, we also find evidence that frequency of help to elderly parents is lower among siblings than among only children. Finally, while children with siblings appear to behave intrinsically differently than only children, there is no significant asymmetry in the behaviour of firstborn and second-born siblings in terms of their location decisions. We conclude that significant differences between siblings (both firstborn and second-born) and only children in terms of their location decisions are also mirrored by their time transfers to their parents. This raises doubts about the robustness of the empirical results presented by Konrad et al. (2002).