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Parent Entrance and Adolescent Outcomes using Longitudinal Family Structure Data

Matthew Usevitch and Mikaela Dufur, Sociology

Introduction

The effects that a parent entrance, such as the marriage of a single parent, has on child outcomes are currently not well documented. Since literature suggests that children living in single-parent families tend to have worse educational outcomes on average than children living in married-parent families, a logical hypothesis would be that a parent entrance would benefit children. Data from previous studies do not provide solid support for this hypothesis. Part of the reason for the variety of findings may be that there are opposing variables affecting children who experience this transition. An additional parent typically brings more economic resources to the family, which usually is associated with improved academic outcomes. However, experiencing a transition in the family may give children additional stress, negatively affecting their performance in school. In this study, I use the Early Childhood Longitudinal Study Kindergarten Cohort of 1998 to examine the effect of parent entrance on adolescent educational outcomes and discern whether parent entrance helps or hurts children. Additionally, I seek to understand if there are differing effects if the entering parent is the biological parent of the child. I predict that children who are born to a single parent and experience a parent entrance through marriage will have improved reading and math test scores compared to children who are born to a single parent and experience no family structure transitions. I also predict that the children who experience a biological parent entrance will have higher reading and math test scores than children experiencing a non-biological parent entrance.

Methodology

Data was drawn from the US Early Childhood Longitudinal Study, which contains questionnaires, interviews, and assessments from approximately 21,260 children, their parents, and their teachers at school from kindergarten to eighth grade. Previous work by Dr. Dufur and other students created variables identifying the structure of the child's family for each wave of the survey: married, cohabiting, or single. Using STATA statistical software, I grouped children together by whether they had the same path of family structures (e.g. single parent to married parents back to a single parent, etc.). I then used R, another statistical software, to create Sankey graphs which showed the different paths taken. Three Sankey graphs were created, showing the paths of children born to married, cohabiting, or single parents. Sankey graphs are well suited to diagramming these transitions because they show both the different paths taken as well as proportions of children who follow each path.

After creating the family structure organization, I then limited my scope to studying two groups of children who were born to a single parent. The first included children who stayed in a stable single parent family throughout the study, and the second included children whose single parent married, which I call a parent entrance. I then compared to see if this parent entrance was associated with scoring higher on academic tests using an ordinary least squares regression.

The outcome variables of interest were eighth grade reading and math test scores. The key independent variable was the family structure category, either the stable single parent group or the parent entrance group. Controls of economic resources, stress (measured by internalizing behaviors), and social resources were included to determine if those factors played a significant role. Additional controls of biological sex and race were also included.
Results

Figure 1 shows an example of the Sankey graphs created, specifically showing the transitions that children born to single parents in the US experience. The largest portion of these parents ended up marrying, and the next-most common path was to stay in a stable single-parent family.

The first regression model with none of the controls showed that children in the parent entrance group performed four to five percentage points higher than their peers in the stable single parent group. Additional models showed that much of this difference was accounted for by economic resources and race. After including all the controls, there was no difference between the two groups of children. Additionally, there were no differences between children who had a biological parent enter versus a non-biological parent. Both of my hypotheses were incorrect.

Discussion

Categorizing children by family structure path has opened opportunities to eliminate some confounding effects that come from experiencing different family structure transitions. Creating the Sankey diagrams also is a novel way to quickly visualize the most common family transitions that children experience in the United States.

While there is much discussion about how children from two-married-parent families perform better than children in single-parent families, this study finds that marriage following being born to a single parent has no significant effect on academic scores. This data suggests that what may have been a perceived benefit...
of parent entrance or marriage is hidden by confounding factors. For example, children who come from higher income families usually perform better in school, and those higher income families are more likely to have married parents rather than single parents. Similarly, black children in the US typically perform worse than other racial groups, and black parents have a higher likelihood of living singly rather than being married. Economic resources and race thus play more of a part in influencing children’s outcomes than family structure does.

**Conclusion**

While family structure may affect the educational performance of children, there are additional factors which play more of a role. Economic resources and race had more of an impact on children in school than a history of experiencing a parent entrance. Future research should test how parent entrance affects other social or behavioral outcomes such as mental health, connection with parents, or stress. Figure 1: Family Structure Transitions of US Children born to a Single Parent

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