Examining the Relationship Between Transitions in the Presence of Parents or a Parent's Cohabiting Partner and Child Well-Being

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May 6, 2021

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Overview

- Motivation
- Research Questions
- Data
- Methods
- Results
- Limitations
- Conclusions

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Motivation: Transitions and Child Well-Being

- Family structure transitions have been linked to children experiencing behavior problems and decreased achievement (Magnuson and Berger 2009; Lee and McLanahan 2015; Perkins 2019)
- Family instability has been tied to lower cognitive development (Lee and McLanahan 2015) and poorer health (Bzostek and Beck 2011)
- Precise role of family instability in determining child well-being remains a subject of debate in the literature, with some studies failing to identify a clear link between the two (Waldfogel et al. 2010)

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Motivation: Selection Issues and Propensity Score Analysis

- Research on family structure transitions and their effect on child outcomes is affected by selection
  - Some factors that trigger transitions, such as poverty, may also trigger negative child outcomes, such as decreased school engagement or poorer health
  - It can be difficult to establish a causal relationship between a child experiencing a transition and suffering a given negative outcome
- Propensity score analysis can help account for selection into instability and offer a clearer picture of the impact of transitions on children's well-being

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Research Questions

- Is there a relationship between transitions in the presence of parents or a parent's cohabiting partner and child well-being outcomes like:
  - school engagement?
  - level of participation in extracurricular activities?
  - health status?
- Does propensity score analysis provide advantages for conducting this type of research?

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Data: 2018 Survey of Income and Program Participation (SIPP)

- Nationally representative, longitudinal panel survey administered by the U.S. Census Bureau
  - Collects information on a variety of socioeconomic and child well-being characteristics
- Collects monthly data for the previous calendar year that can be used to measure changes in household and family composition and economic circumstances over time
  - Reference period for 2018 SIPP data is calendar year 2017

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Methods

We follow the approach laid out by Lanza et al. 2013:

1. Generate propensity scores via a logistic regression model to measure children's likelihood of experiencing a transition

2. Adjust for confounding by generating inverse probability of treatment weights (IPTWs) for the average treatment effect (ATE)

3. Assess balance by calculating standardized mean differences are less than +/-0.2

4. Model the association between transitions and child well-being, controlling for selection into transitions and other sociodemographic factors

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Variables: What Is a Transition?

- We generate a dichotomous indicator of whether a child experienced:

  1) a change in the number of coresident parent(s) between consecutive months
     - e.g. children live with their biological mother in September, and then with their biological mother and stepfather in October

  2) a change in the identity of the parent(s) between consecutive months
     - e.g. children live with their biological mother in May, and then with their biological father in June

  3) a change in the presence of a parent's cohabiting partner who is not directly identified as the child's parent between consecutive months
     - e.g. children live with their biological mother in November, and then with their biological mother and her boyfriend in December

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Variables: Propensity Score Models

- Child Characteristics:
  - Sex
  - Householder is child's parent
- Household Characteristics
  - Region
  - Tenure
  - Poverty
  - Household size
- Householder Characteristics
  - Sex
  - Race/Hispanic origin
  - Age
  - Nativity
  - Educational attainment
  - Employment status
  - Marital status

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Child Well-Being Outcomes of Interest

Outcomes:

- Health status (binary) - logistic model
- Participation in different types of extracurriculars (count) - Poisson model
- School engagement (index) – OLS model

Weight: Average treatment effect (ATE)

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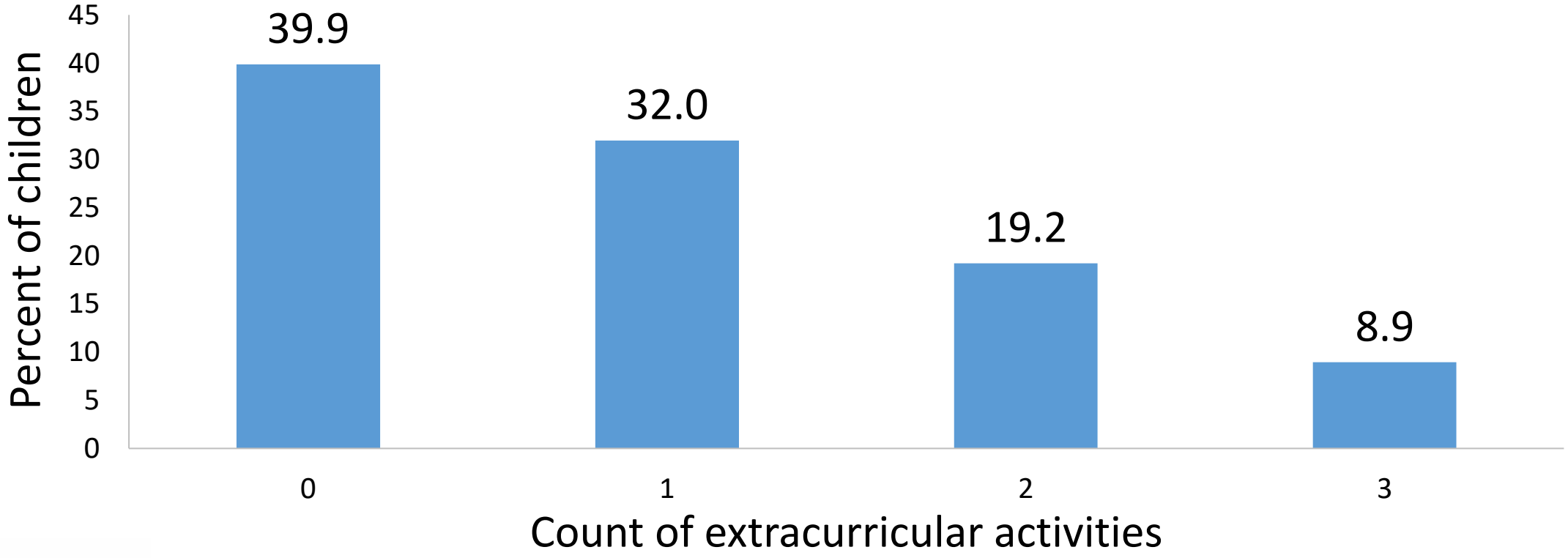
Child Well-Being Outcomes of Interest

Figure 1. Percent of Children 6-17 Years Old by Participation in Extracurricular Activities, SIPP 2018



Source: U.S. Census Bureau, 2018 Survey of Income and Program Participation, public use data.

Child Well-Being Outcome Modeling

- 3 models per outcome:
  - 1 - ATE weighting with basic covariates
    - Basic characteristics: child's age, sex, race/Hispanic origin, householder's educational attainment, household poverty status
  - 2 - No ATE weight, basic covariates
  - 3 - No ATE weight, expanded set of covariates (including those from the propensity score model)
- Key independent variable: experiencing a transition in parental presence

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Results

Outcome	Frequency (unweighted)	Estimate	Standard Error	Significance
Extracurricular activities (Poisson regression)				
Model 1 - with ATE weight and with basic variables	9,694	0.17	0.02	***
Model 2 - no ATE weight with basic variables	9,694	0.13	0.07	*
Model 3 - no ATE weight with full variables	9,694	0.10	0.07	n.s.

Source: U.S. Census Bureau, 2018 Survey of Income and Program Participation, public use data.
Statistical significance: *p < .05; **p < .01; ***p < .001; n.s. not significant.

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Limitations

- Other types of changes are important but not captured in this study
  - Other family and household membership changes
  - Changes in residence
  - Changes in parental presence prior to SIPP survey data
- Short duration of time between transition and collection of information regarding well-being – effects may not be fully evident yet

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Conclusions

- Experiencing a transition in parental presence during childhood matters and has a negative impact on a child's well-being, specifically with respect to participation in extracurricular activities
- Results were not significant for health and school engagement
- Significant relationships to child well-being are evident using just one year of month-to-month changes in SIPP data regarding parental presence, underscoring utility of the data

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Conclusions (cont.)

- Applying propensity score methodology via ATE weights increased certainty in our main findings confirming the usefulness of this approach to account for selection in analyses of this sort

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Possible Next Steps

- Further refinement of existing models
- Explore the possibility of other selection mechanisms
- Use multiple years of data
- Study other types of transitions

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Questions?

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Average Treatment Effect (ATE) weights

- if child had a transition then

ATE = 1 / (probability of a transition)

- if child had no transitions then

ATE = 1 / (1 – probability of a transition)

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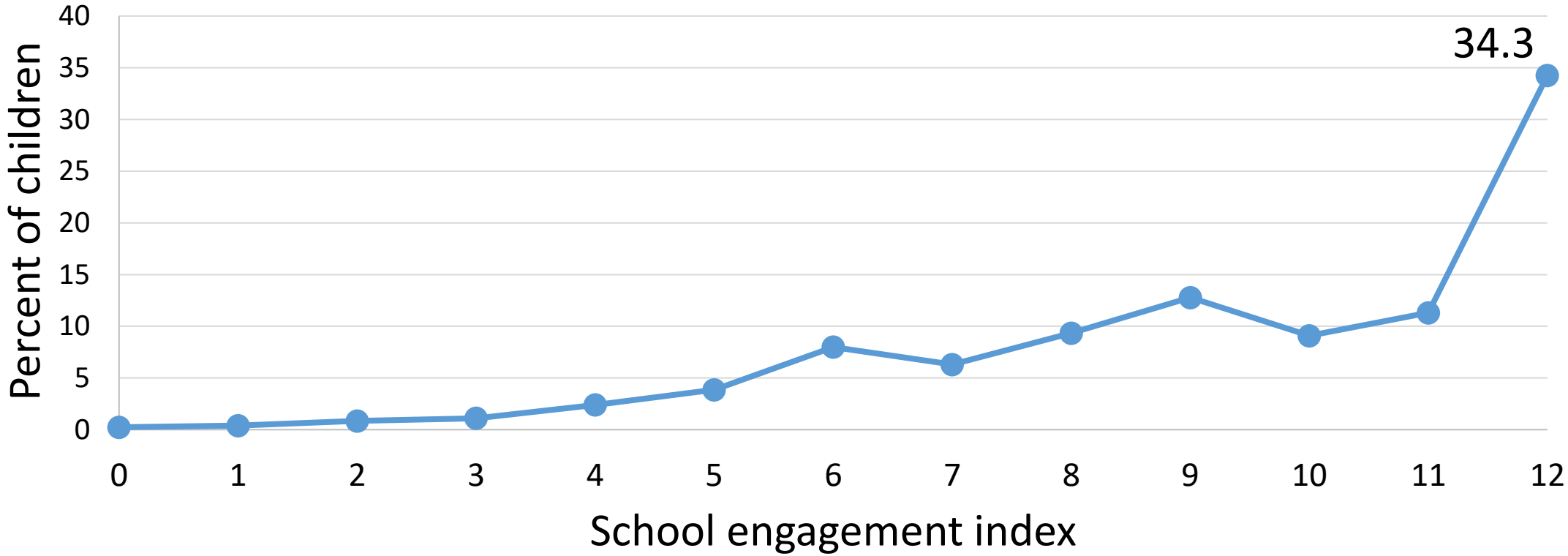
Child Well-Being Outcomes of Interest

Figure 2. Percent of Children 6-17 Years Old by School Engagement, SIPP 2018



Source: U.S. Census Bureau, 2018 Survey of Income and Program Participation, public use data.

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