# Family Complexity and Children's Behavior Problems over Two U.S. Cohorts

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Family demographers have increasingly recognized the growing complexity of American families, as many unions with children today will dissolve, and parents will go on to re-partner and potentially have additional children with new partners (Brown, Stykes and Manning 2016, Bzostek, McLanahan and Carlson 2012, Guzzo 2014). From the perspective of children, parents' repartnering and subsequent childbearing introduces multiple sources of family complexity, including the presence of a parent's new romantic partner who may also take on the role of stepparent or social parent; half-siblings born into parents' new or prior unions; and stepsiblings who were born in the new partner's former union (Fomby and Osborne 2017). While a vast literature has considered how family structure (often measured as parents' marital status, living arrangements, and biological status) influences children's development and wellbeing, less well understood is how more nuanced circumstances of family life have changed over time and may be linked with children's health, development and wellbeing. In particular, relatively little work has distinguished between parental union status and sibship composition to identify their distinctive associations with children's well-being (but see Fomby, Goode and Mollborn 2016, Gennetian 2005, Halpern-Meekin and Tach 2008). While informative, work on this topic to date is a) based on cohort studies that have typically considered children's behavior at a single age or life stage, b) examined older cohorts that may not have been subject to the same family structure regimes in force today, and/or c) offered limited capacity to account for parental background prior to union formation, typically relying upon retrospective reports about earlier characteristics.

In this paper, we use data from two cohorts of the Child Development Supplement (CDS) in the Panel Study of Income Dynamics (PSID) to extend the literature about changing family complexity and its consequences. PSID is the nation's longest-running household panel study, having begun in 1968 as a sample of 4,800 US households including a low-income oversample. The study has followed descendants of those original householders to the present. The original CDS cohort began as a sample of 3,653 children ages 0-12 residing in PSID households in 1997. Children were followed over two subsequent waves (2002, 2007); up to two age-eligible children per PSID household were selected for inclusion at baseline. More recently, a new round of CDS conducted in 2014-15 included all children born since 1997 who were present in PSID households in 2013 (N=4,333, age 0-17 in 2014). Together, these cohorts (nearly two decades apart) provide nationally-representative profiles of children in families that were present in the United States in 1997.

We focus on children's externalizing behavior problems, which are shown to be robustly associated with family structure (McLanahan, Tach and Schneider 2013) and represent an important aspect of 'non-cognitive skills' that are linked with long-term success and attainment (Jones, Greenberg and Crowley 2015). We use the PSID-CDS to address the following three research questions for which these data are uniquely well-suited:

1. How has the prevalence of family complexity (considering parents' marital/partner status, and the presence of coresident or nonresident half-siblings and step-siblings in a family system) changed from 1997 (the first CDS wave) to 2014 (the most recent CDS wave)?
2. How is family complexity (as represented by parental union status and sibship composition) associated with children's behavioral problems in the two cohorts, and has family structure become more or less strongly linked with child behavior over time as the selectivity of particular family experiences may have changed?
3. Using the longitudinal data for the original CDS cohort collected over 1997, 2002 and 2007, to what extent is *change* in family structure and complexity associated with *change* in behavioral problems over this period? This research will provide new information about the family circumstances of contemporary cohorts of children and how such experiences may influence their sociobehavioral wellbeing.

To address these research questions, we combine CDS data with information from PSID family unit rosters collected at each wave, parents' marital and birth histories, and the Family Identification Mapping System (FIMS) to establish the following elements of children's family composition from birth to the time of observation in CDS:

- Maternal union status (married, cohabiting, divorced/separated/widowed; never in a union)
- Biological relatedness of mother's spouse/partner to the focal child
- Number of coresident or nonresident full-, half-, and step-siblings.

Our outcome measure is the 15-item primary caregiver-reported externalizing behavior score constructed from responses to the Behavior Problems Index included at each wave of CDS.

We will use conventional data description techniques to address the first research question, examining the (weighted) prevalence of family types across CDS cohorts. To address the second research question, we will use conventional regression techniques, controlling for sociodemographic characteristics and background characteristics of the focal child's parent descended through the PSID lineage, including family structure and socioeconomic status in childhood and adolescence as measured by family income, own parents' educational attainment, family home ownership, residential stability, age at home-leaving, educational attainment, labor force attachment, and union instability in the extended family. In addition, we will use propensity score matching techniques to construct balanced pseudo-populations in the two cohorts to provide a more robust estimate of whether the estimated causal effect of family complexity on child behavior has changed between cohorts.

To address the third research question, we will use a difference-in-difference approach to assess change in behavior scores between two waves in the original CDS cohort, which was observed over up to three waves between 1997 and 2007 as a function of changing family composition between waves (i.e., 1997-2002 for children who were 3-12 years in the earlier wave and 2002-2007 who were 0-7 years in 1997 with stacked observations for children observed at all three waves). Our analysis will focus on children who have always lived with their biological mother, but we will conduct sensitivity analyses to assess bias introduced by this restriction.

Preliminary results appear in Tables 1 and 2 below. Table 1 shows the unweighted and weighted distribution of maternal union status in CDS-1997 and CDS-2014 for children who were between 3 and 12 years old. The share of children living in a cohabiting union with a biological or social parent nearly doubled in the more recent cohort compared to the earlier cohort, but these union types remain relatively infrequent overall. The share of children who have no siblings or who have both full siblings and half/stepsiblings has also significantly increased over time.

Table 2 presents average primary caregiver-reported externalizing behavior scores (range=0 to 15) by maternal union status and sibship composition separately and in combination in the two periods. Children living with a married stepparent or cohabiting social parent and children with an unpartnered mother have significantly higher externalizing behavior scores in both periods compared to children living with married biological parents (panel 1). In the earlier period—but not the later period, children living with cohabiting parents also had higher average externalizing behavior scores. With regard to sibling composition, children with half- or step-siblings had significantly higher behavioral problem scores compared to children with full siblings only in the more recent cohort (panel 2). Panel 3 is consistent with these patterns, although not all group comparisons to the modal category (living with both parents and full siblings) are statistically significant.

In sum, using data from an important but as yet little-used resource for understanding patterns of family change across two cohorts, this paper will provide new information about the extent to which family complexity has changed over nearly two decades. Also, the paper will provide new information about the association between family complexity and externalizing behavioral problems across the two cohorts – a key child outcome that predicts later-life socioemotional wellbeing. Finally, using longitudinal data across waves, we will assess whether changes in family complexity appear to be linked with changes in behavioral problem scores among the same children as compared to children who remain in stable family arrangements.

References

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Table 1. Maternal union status and sibling composition, children 3-12 years,
PSID Child Development Supplement, 1997 and 2014 (N, unweighted and weighted percentages)

| | 1997 | | | 2014 | | | |
|---|---|---|---|---|---|---|---|
| *Maternal union status* | | | | | | | |
| | N | Unwtd % | Wtd % | N | Unwtd % | Wtd % | |
| Married/cohabiting biological parents | 1,536 | 63.3% | 71.8% | 1,593 | 61.2% | 71.8% | |
| Married/cohabiting step/social parent | 145 | 6.0% | 5.2% | 176 | 6.8% | 7.5% | * |
| Single parent | 744 | 30.7% | 23.0% | 836 | 32.1% | 20.7% | |

*2014 different from 1997 at p<.05

| | 1997 | | | 2014 | | | |
|---|---|---|---|---|---|---|---|
| *Sibling composition* | | | | | | | |
| | N | Unwtd % | Wtd % | N | Unwtd % | Wtd % | |
| No siblings | 393 | 14.8% | 12.2% | 440 | 15.5% | 14.1% | |
| Full siblings only | 1,863 | 70.1% | 77.3% | 1,826 | 64.3% | 72.5% | * |
| Half/stepsiblings only | 293 | 11.0% | 7.4% | 418 | 14.7% | 8.6% | |
| Both full and half/step | 110 | 4.1% | 3.1% | 158 | 5.6% | 4.8% | * |

*2014 different from 1997 at p<.05

| | 1997 | | | 2014 | | | |
|---|---|---|---|---|---|---|---|
| *Marital union status and sibling composition* | | | | | | | |
| | N | Unwtd % | Wtd % | N | Unwtd % | Wtd % | |
| No siblings | | | | | | | |
| Married/cohabiting biological parents | 173 | 7.1% | 6.4% | 184 | 7.1% | 7.3% | |
| Married/cohabiting step/social parent | 18 | 0.7% | 0.5% | 20 | 0.8% | 0.9% | |
| Single parent | 147 | 6.1% | 4.8% | 182 | 7.0% | 5.3% | |
| Full siblings only | | | | | | | |
| Married/cohabiting biological parents | 1,306 | 53.9% | 63.6% | 1,333 | 51.2% | 61.6% | |
| Married/cohabiting step/social parent | 88 | 3.6% | 3.6% | 88 | 3.4% | 3.8% | |
| Single parent | 359 | 14.8% | 11.5% | 311 | 11.9% | 9.4% | |
| Half/stepsiblings only | | | | | | | |
| Married/cohabiting biological parents | 8 | 0.3% | 0.2% | 17 | 0.7% | 0.7% | * |
| Married/cohabiting step/social parent | 25 | 1.0% | 0.9% | 45 | 1.7% | 1.8% | |
| Single parent | 209 | 8.6% | 5.7% | 305 | 11.7% | 5.2% | |
| Both full and half/step | | | | | | | |
| Married/cohabiting biological parents | 49 | 2.0% | 1.6% | 59 | 2.3% | 2.2% | |
| Married/cohabiting step/social parent | 14 | 0.6% | 0.3% | 23 | 0.9% | 1.1% | * |
| Single parent | 29 | 1.2% | 1.0% | 38 | 1.5% | 0.8% | |

*2014 different from 1997 at p<.05

Table 2. Average primary caregiver-reported externalizing behavior scores, children 3-12 years
PSID Child Development Supplement, 1997 and 2014 (N, weighted mean and standard deviation)

| | 1997 | | | 2014 | | |
|---|---|---|---|---|---|---|
| *Maternal union status* | | | | | | |
| | N | Mean | SD | | N | Mean | SD | |
| Married/cohabiting biological parents [B] | 1,479 | 5.13 | 3.46 | | 1,227 | 5.44 | 3.23 | |
| Married/cohabiting social/stepparent | 142 | 6.38 | 4.05 | * | 135 | 6.69 | 3.67 | * |
| Single parent | 715 | 6.37 | 4.50 | * | 663 | 6.00 | 4.77 | * |

*Different from married/cohabiting biological parents at p<.05

† Different from married/cohabiting biological parents at p<.10

[B] Period differences in conditional mean scores are significant at p<.10

| | 1997 | | | 2014 | | |
|---|---|---|---|---|---|---|
| *Sibling composition* | | | | | | |
| | N | Mean | SD | | N | Mean | SD | |
| No siblings | 372 | 5.97 | 3.98 | † | 347 | 6.00 | 3.73 | |
| Full siblings only | 1,799 | 5.46 | 3.66 | | 1,397 | 5.54 | 3.39 | |
| Half/stepsiblings only | 285 | 5.96 | 4.79 | | 337 | 6.39 | 5.21 | * |
| Both full and half/step | 108 | 6.10 | 4.23 | | 123 | 6.40 | 4.28 | † |

*Different from full siblings only at p<.05

† Different from full siblings only at p<.10

NOTE: Period differences in conditional mean scores by maternal union status and sibling composition are not statistically significant.

| *Marital union status and sibling composition* | N | Mean | SD | | N | Mean | SD | |
|---|---|---|---|---|---|---|---|---|
| No siblings | | | | | | | | |
| Married/cohabiting biological parents | 163 | 5.60 | 3.73 | | 143 | 5.30 | 3.21 | |
| Married/cohabiting step/social parent | 18 | 4.41 | 4.36 | | 17 | 5.94 | 3.54 | |
| Single parent | 136 | 6.31 | 3.87 | * | 144 | 6.65 | 4.20 | * |
| Full siblings only | | | | | | | | |
| Married/cohabiting biological parents [B] | 1,261 | 5.09 | 3.42 | | 1,019 | 5.41 | 3.21 | |
| Married/cohabiting step/social parent | 86 | 6.24 | 3.80 | * | 67 | 7.09 | 3.77 | * |
| Single parent [A] | 347 | 6.75 | 4.47 | * | 243 | 5.26 | 3.91 | |
| Any half/step and/or full | | | | | | | | |
| Married/cohabiting biological parents [B] | 55 | 4.83 | 3.37 | | 65 | 6.19 | 3.67 | |
| Married/cohabiting step/social parent | 38 | 7.60 | 4.11 | * | 51 | 6.42 | 3.54 | |
| Single parent | 232 | 5.78 | 4.87 | | 276 | 6.55 | 6.34 | * |

*Different from married/cohabiting and full siblings only at p<.05

[A] Period differences in conditional mean scores are significant at p<.05

[B] Period differences in conditional mean scores are significant at p<.10