“What Kids Get from Parents: Packages of Parental Involvement across Complex Family Forms”

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October 24, 2010

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Abstract

While demographers have continued to document the notable family changes that have occurred in recent decades, the nature of family functioning across diverse family forms is less well understood. In particular, we know little about the level and quality of parental investment that children receive across a range of contemporary family types. In this paper, we use data from a recent U.S. urban birth cohort to examine the ‘package’ of parental involvement that young children receive in two key domains across family types. We aggregate parent-child engagement across three potential parent(-figures)—biological mothers, biological fathers (resident or non-resident), and resident social fathers—and also assess the child’s household income. We examine parental investments at child age 5 and changes in investments between child ages 1 to 5 by family structure categories. Overall, we find that children living with both of their (married) biological parents are advantaged with respect to both economic resources and parental engagement, while children living with single mothers fare especially poorly in both domains; children in social-father families receive similar levels of engagement to those in biological-father families but are much less economically advantaged. Our research sheds light on the consequences of changing family demography for parental investments in children and may have implications for public policies designed to support disadvantaged families.
Introduction

With growing divergence between marriage and childbearing, the prevalence of complex families—those not comprised of two (married) biological parents and only their mutual children—has increased in recent decades. It is well-known that divorce rates rose dramatically in the 1960s and 1970s. Although they have declined since that time, about one-third of first marriages that took place in the 1970s to 1990s ended in divorce within ten years (Martin 2006). At the same time, the fraction of births that occur outside of marriage has steadily risen since the 1960s such that today, fully 41% of all births (including 53% of Hispanic and 72% of African American births) are nonmarital (Hamilton, Martin, and Ventura 2010). Less well-known is the fact that ongoing fertility in the context of high union instability implies that many adults today (will) have children with more than one partner—so-called “multi-partnered fertility” (MPF). In turn, many children (will) have half- or step-siblings and/or live with a partner of one of their biological parents, to whom they are not biologically related. Taken together, these demographic patterns suggest that a minority of children born in recent cohorts will spend their entire childhood living with only their married biological parents and full siblings. This is particularly true among disadvantaged groups, and especially for children born outside of marriage who are typically born to parents that are young, have low levels of educational attainment, and a high likelihood of family instability (McLanahan Forthcoming).

While family demographers have continued to document the notable changes in marriage and fertility, and the resulting family instability, the nature of family functioning across increasingly diverse family forms is less well understood. In particular, although the rearing and socialization of children remains a fundamental responsibility of parents and families, we know little about the level and quality of parental investment that children receive across the range of
contemporary family types. In this paper, we use data from a recent urban birth cohort to examine the ‘package’ of parental involvement that five-year-old children receive in two key domains (parent-child activities and access to economic resources) across a range of family types. First, we describe the prevalence of family types that children experience at approximately age 5. Second, using measures of parent-child activities that have been linked to healthy child development (e.g., reading), we examine the total ‘amount’ of parental involvement that children receive across family structures by aggregating reported parent-child interaction with the child’s biological mother, biological father, and, if present, a resident social father (i.e., cohabiting partner or spouse of the biological mother). We also describe differences in levels of income across children’s households, given the importance of material resources for child development.

This paper provides new descriptive information about the level of parental interaction to which children are exposed across the full set of parental figures in their lives (resident and non-resident biological parents and resident social parents), as well as the total amount of family income potentially available for their care, across an array of family types. Our findings shed light on the consequences of changing family demography for parental investments in children and may thereby have implications for public policies designed to support disadvantaged children in diverse family circumstances.

**Previous Research**

Our research is guided by recognition of the fundamental importance of parental investments for children’s health, development and wellbeing (Bornstein 2006; Collins, Maccoby, Steinberg, Hetherington, and Bornstein 2000; Maccoby 2000; Maccoby and Martin 1983). In addition to the genetic endowments that parents pass on to their children, two key areas
of parental contributions include parental engagement (time) and economic resources (money) (Thomson, Hanson, and McLanahan 1994). Although there is no commonly accepted definition or threshold by which to evaluate parenting, high-quality parenting can generally be described as combining parental warmth (such as being responsive, affectionate, nurturing and supportive) with appropriate control and discipline that are intrinsic to ‘authoritative’ parenting (Baumrind 1986), as well as teaching children information and skills in a productive and positive manner (Brooks-Gunn & Markman, 2005). An extensive body of research shows that, compared to children raised by authoritarian or permissive parents, young children and adolescents raised by authoritative parents exhibit higher levels of self-esteem and less depression and anxiety; they are also less likely to engage in antisocial behavior such as delinquency and substance use (Steinberg, 2001). Greater economic resources are also important, as they enable parents to purchase the necessary material goods and services (such as medical care, high-quality child care or schooling, and books and toys) that improve developmental processes and enhance wellbeing. Finally, it is important to note that economic resources and parenting are linked: greater economic resources are associated with higher-quality caregiving environments and may reduce parents’ psychological distress and the harshness of their parenting (McLoyd, 1998).

Prior studies that have described parenting across family types fall into three main areas. First, an extensive literature on family structure and child wellbeing has focused on parental behaviors and economic wellbeing as two key mechanisms that help account for how family structure affects children. Many papers describe the levels of parenting and economic resources that children receive across family structures, although they typically consider only a small number of family types and often exclude the contributions of social parents. Second, there have been a number of recent studies—focused particularly on fathers and father-figures—that
describe paternal behaviors across family types. Third, studies of parental time use have
documented the level and change in time that mothers and fathers (and sometimes other actors)
spend with children. We summarize research in these three areas below.

*Family Structure, Parenting, and Economic Resources.* Studies in this area have
described the levels of parenting and economic resources in various family types, generally
approaching parenting and economic resources as the primary mediators (mechanisms) through
which family structure affects children and youth. A number of studies show that children in
single-parent families experience lower levels of parental support, supervision, and monitoring,
as well as less consistent discipline than children in two-biological-parent families (Astone and
Thomson, Hanson, and McLanahan 1994). Also, children living in single-mother families (both
divorced and never-married) have considerably lower incomes, on average, than those in two-
biological-parent families. According to U.S. Census data, in 2006, average family cash income
for married couples with children was $89,096, compared to only $28,865 for single-mother
families with children (U.S. House of Representatives, 2008); and, married fathers have much
higher earnings than unmarried fathers (Mincy, Hill, and Sinkewicz 2009). In turn, economic
resources have been shown to account for about half of the gap in wellbeing between children

Whereas earlier family structure studies largely focused on single- versus two-biological-
parent families, more recent studies have increasingly considered married and cohabiting social-
father families, finding that these families have economic resources that fall somewhere between
those of married biological-parent families and single-parent families (Manning and Brown
2006; Manning and Lichter 1996). At the same time, most prior research suggests that social-
father families exhibit lower levels of parental engagement—largely because the social fathers themselves (rather than the biological mothers in these families) are less involved with children than biological fathers (Hofferth and Anderson 2003) (see below for discussion of these comparisons). However, there is also some evidence that maternal parenting quality may also decline when mothers re-partner (Berger 2007).

Multi-partnered fertility (MPF) introduces additional complexities to family life and may diminish the quantity and quality of resources provided to children (Carlson, Furstenberg, and McLanahan 2009). Amidst the challenges of rearing children in common, parents with children from former relationships face additional stresses associated with coordinating the parenting of such children across more than one household (assuming the other parent is involved) or of being the sole biological parent in the child’s life (if the other parent is not involved). Since resources are finite, time and money investments in previous children necessarily yield diminished investment in the current family. When fathers have children by a new partner, they are less likely to visit (Manning and Smock 1999) and provide lower levels of economic support (Manning and Smock 2000) to non-resident children from a previous union; also, the effective collection of child support by fathers is hindered when they have children by more than one partner (Meyer, Cancian, and Cook 2005). There has been limited attention in prior work to how parental investments in children may vary across a range of family types with and without MPF.

*Fathering Behaviors across Family Types.* With the change in fathering roles in recent decades, such that fathers are now expected to play an active role in childrearing rather than simply serving as the family’s breadwinner, a growing literature has endeavored to measure the nature of fathers’ involvement with children and how it may vary across family types or by a father-figure’s biological status vis-à-vis a child. Studies comparing married biological and
social fathers generally find that social fathers engage in lower-quality parenting practices than married biological fathers (Hofferth and Anderson 2003; Hofferth, Cabrera, Carlson, Coley, Day, and Schindler 2007). However, two recent studies using data on an urban birth cohort from the late 1990s find that resident social fathers display equal or even higher levels of paternal involvement than do resident biological fathers (Berger, Carlson, Bzostek, and Osborne 2008; Gibson-Davis 2008); this may suggest that differences by biological status have diminished in recent cohorts or that such differences tend to be smaller among urban families in which parents were likely to have begun their childbearing outside of marriage.

**Parental Time with Children.** A number of studies have measured the amount of time that parents spend engaged in particular activities with children, generally using detailed time diary measures that ask parents to report in specific increments about how they spent their time on a given weekend day or weekday. Most of these studies have focused on married parents living with their biological child(ren) and have evaluated the absolute and/or relative level of mothers’ versus fathers’ time spent with children. Results from these studies suggest that married fathers’ time with children has increased since the 1960s and that married mothers’ time with children has held constant (despite much higher labor force participation); as a result, fathers’ relative time—as a share of mothers’ time—has increased (Bianchi 2000; Sayer, Bianchi, and Robinson 2004). Yet, there remain important differences in the nature of mothers’ versus fathers’ time with children: fathers are less likely than mothers to spend time in childcare as a primary activity and are more likely to spend time with children in a ‘helper’ role to mothers or in activities (such as playing) that are more time-flexible (Craig 2006). Also, fathers’ time use with children—and their total time relative to that of mothers—varies between weekend days and weekdays (Yeung, Sandberg, Davis-Kean, and Hofferth 2001). Since most of these studies focus only on married or
two-parent families, they shed little light on the levels of parental time that children experience across a broader range of family types.

In sum, while various studies have considered differences in parenting behaviors and economic resources across family types, existing work has typically focused on comparisons across a single contrast (e.g., two- versus one-parent families, or biological fathers versus social fathers) and has not considered the parental investment that children receive across a fuller array of contemporary family types. In this paper, we extend the extant literature by describing the full ‘package’ of parenting and economic resources that children from a recent urban birth cohort receive from their biological mother and father as well as any resident social father. We describe levels of investments at approximately child age 5 and also consider changes in investments over time between child ages 1 to 5. Although we expect that these levels of parenting are linked to children’s wellbeing, our task here is only to provide a basic description and comparison of these levels across family types. In future work, we will evaluate the association between parenting across the various family types and children’s wellbeing.

Data and Methods

We use data from the Fragile Families and Child Wellbeing Study (FFCW), a longitudinal, birth cohort survey designed to track the conditions and capabilities of unmarried parents in large urban areas—along with a comparison group of married parents—and their children over time (Reichman, Teitler, Garfinkel, and McLanahan 2001). The study has followed 4,897 children and their parents in 20 U.S. cities with populations of 200,000 or more from birth (1998-2000) until the focal child was about five years old. Unmarried parents were oversampled

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1 The original FFCW sample consisted of 4,898 births, but data for one family was subsequently removed at the family’s request.
such that the initial sample was comprised of 3,710 nonmarital births and 1,187 marital births. However, when weighted, the data are representative of all births in large U.S. cities during the sampling period (1998-2000). FFCW interviewed mothers in person at the hospital within 48 hours of having given birth to the focal child; fathers were either interviewed in person in the hospital (if present) or were interviewed in person elsewhere as soon as possible. Follow-up interviews were conducted when focal children were approximately 1, 3 and 5 years old (an age-9 interview has just been fielded).

Response rates for the baseline survey were 82 percent for married mothers and 87 percent for unmarried mothers; married biological fathers were interviewed in 89 percent (and unmarried biological fathers in 75 percent) of cases where the mother was interviewed. At the one-, three- and five-year follow-up surveys, interview response rates for mothers (fathers) who were married at the focal child’s birth were 91 (82), 89 (82), and 86 (78) percent, respectively, with eligibility being defined by the mother having completed a baseline interview; response rates for unmarried mothers (fathers) were 90 (71), 88 (69), and 87 (67) percent, respectively. Social fathers were not directly interviewed in any of the FFCW survey waves. Therefore, in order to include data on as many father(figure)s as possible and to achieve consistency in reporters across father types, we use only data from mothers’ interviews.²

Our cross-sectional measures are drawn primarily from the five-year follow-up interview with mothers; for the longitudinal analysis, we also use similar measures from the one- and three-year interviews. Our covariates are assessed primarily at the baseline survey. We include both unmarried and married cases at birth and use city sampling weights to adjust for the over-sampling of nonmarital births. We limit our analyses to those children who were residing with

² We also tested the robustness of our results using non-resident fathers’ own reports of their involvement, which we discuss in the Results section.
their biological mother at the time of the age-5 interview, since FFCW does not include a large enough sample of children with other living arrangements for meaningful analysis. As such, our results can be generalized to children who were born in large U.S. cities between 1998 and 2000 and were living with their biological mothers at approximately age 5.

From the original FFCW sample of 4,897 children, we excluded 759 cases (15 percent) because the mother did not participate in the age-5 interview. We excluded an additional 90 cases (2 percent) because the focal child was not living with his or her mother at least half time, 9 cases (<1 percent) with missing family structure data, 349 cases (7 percent) with missing parental investment data, 286 cases (6 percent) with missing MPF data (including whether the mother and social father have a common child), and 76 cases with missing city level sampling weights.3 As such, we utilize an analysis sample of 3,329 5-year-old children and their families.

Measures

Family structure. We categorize the family structure in which a child resides by considering whether the child’s biological parents are married (and co-resident), cohabiting, dating or none of these. For those biological parents who are not in a romantic relationship, we further consider whether a resident ‘social father’ (cohabiting or married partner or spouse of the biological mother who is unrelated to the focal child) is present in the child’s household.4 As such, our analyses focus on six mutually exclusive and exhaustive family structure categories: married mother and biological father, cohabiting mother and biological father, married mother and social father, cohabiting mother and social father, mother living alone but dating biological

3 All other variables with missing data were assigned either the mean value on that variable in the sample (for continuous variables) or a value of zero (for dichotomous variables). We included dummy variables indicating these substitutions in our regression models used to predict adjusted values of the outcome variables.
4 We originally defined family structure to also include whether the child’s grandparents were present in the household, but the cell sizes became too small for analysis. Overall, 10 percent of children are living with their mother and one or more grandparents at approximately age 5 (see Table 1 for frequencies by family type).
father, and mother living alone and single (defined as not romantically involved with biological father—but she could be dating a new partner).

*Parental investments.* We focus on two measures of parental investment in children. First, we measure the *frequency of parent-child activities* that children experienced with their biological mother, biological father (whether resident or non-resident), and resident social father (if present). Mothers reported on the frequency with which each of these potential parental figures engaged in eight parent-child activities during the week prior to the interview: singing songs or nursery rhymes, reading stories, telling stories, playing inside with toys, telling child the parent appreciated something s/he did, playing outside, going on outings, and watching TV or a video. Response options ranged from zero to seven days during the week. Factor analysis indicated that the items loaded onto a single parenting construct ($\alpha=.69$ for biological mothers; $.94$ for biological fathers; and $.96$ for resident social fathers). When non-resident biological fathers had not seen the child more than once in the past month (20 percent), mothers were not asked the activity questions; hence, these fathers are assigned scores of zero on all activity items. Likewise, children who did not have a co-resident social father received a score of zero for social-father activities. To assess the total activities that children experienced with each parental figure, we summed the activity frequency scores across all potential activities for each parental figure (the total score for each parental figure has a possible range of 0 to 56). We then summed the total scores for the three potential parental figures to create an overall total activities score. As such, each child has a total parent-child activity value, as well as specific values for biological mother-child activities and biological father-child activities; children living with a social father also have a value for social father-child activities.
Second, we measure *household income*, which is reported by mothers and reflects the total amount of income the household received in the prior year. We recognize that total income does not necessarily represent the family’s direct financial investment in the focal child. However, we utilize this measure to approximate the amount of financial resources that are potentially available for such investment.

In the analyses that follow, we primarily present simple descriptive statistics on the mean levels of parental investment (engagement in activities and access to income) that children receive across family structures. However, we also examine differences in mean levels of investment after adjusting for key baseline characteristics (measured at the time of the focal child’s birth) that may be associated with both parental investment level and family structure category. These include: child is female; child was low birth weight; maternal race (Black non-Hispanic, White non-Hispanic, Hispanic, and other non-Hispanic); maternal age (in years) at the child’s birth; mother is US-born; maternal education (less than high school, high school degree/GED, some college or higher); whether mother used substances during pregnancy; whether focal child is mother’s first birth; mother-father relationship length (in months); whether either parent considered aborting the focal child; whether the mother lived with both of her biological parents at age 15; mother’s religious service attendance (range=1-5), mother’s traditional gender role attitudes (range=1-4); mother’s report of relationship quality with the biological father (range=1-3); number of children in mother’s household; number of adults in mother’s household; whether a grandparent co-resided with the mother; the log of household income around the time of birth (2005 dollars); whether mother worked last year; and whether mother received Temporary Assistance to Needy Families last year.
Methods

The majority of our analyses consist of calculating overall mean or median levels of parental interaction and economic resources that children receive. We present these descriptive statistics for our six family structures. For mothers living with social fathers, in some analyses we further consider whether or not the couple shares a common biological child. Finally, to obtain means or medians that have been adjusted for differences in the baseline characteristics described above, we estimated (weighted) ordinary least squares regression models predicting each of the parental investment measures as a function of family structure and the full set of covariates described above. We then calculated adjusted mean levels of activity engagement and household income based on the family structure coefficients produced by these regressions. These adjusted values allow us to evaluate parenting and income levels net of key selection factors that are known to ‘sort’ individuals into various family types.

Results

Table 1 presents data on the prevalence of family structures among our sample of 5-year-old children (shown in bottom row), as well as information about baseline characteristics by family type (weighted by city sampling weights). Overall, 55 percent of sample families include both of the focal child’s married biological parents, 10 percent include his or her cohabiting biological parents, 2 percent include a social father who is married to the child’s mother, 7 percent include a social father who is cohabiting with the child’s mother, 3 percent are headed by a single mother who is romantically involved with (i.e., dating) the child’s biological father, and

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5 Specifically, we calculated mean activity engagement and mean income for each family type by adding the OLS regression coefficient on that family type to the unadjusted mean value on the outcome for married mother and biological father families (the reference group in the regressions).
22 percent are headed by the child’s single, biological mother who is not romantically involved with the child’s father (and may or may not be dating another man).

Turning to the baseline characteristics, our data reveal that, compared to the other family types, married two-biological parent families are disproportionately comprised of white, more highly educated, and older mothers who were more likely to have lived with both of their biological parents at age 15, and less likely to have had a child by another partner. Comparing across family types other than married two-biological parents, we find that black mothers are disproportionately in the categories of cohabiting with a social father or living alone (either dating the biological father or not); Hispanic mothers are disproportionately in the categories of cohabiting with the biological father or being married to a social father. Mothers living alone but dating the biological father have a higher mean age, and they are more likely to have a high school degree, to have lived with both biological parents at age 15, and to be living with one of the child’s grandparents, compared to mothers in any of the other ‘complex’ family categories.

We present unadjusted mean levels of parental investment by family type in the top panel of Table 2 and show the same information graphically in Figure 1. As described above, a child can receive a total activities score of 0 to 56 (representing 8 activities experienced on 0 to 7 days in the last week) for each potential parent-figure. As such, children in families that include a social father may receive an overall score ranging from 0 to 168, whereas those in all other family types (i.e., with no social father) may receive an overall score ranging from 0 to 112.

On the whole, the data show that married and cohabiting two-biological parent families exhibit similar levels of total activities (64 and 66, respectively). However, these mean scores are notably lower than those of both married social-father families (76) and cohabiting social-father families (70). Children in single-mother families experience fewer parental activities than those
in all other family types; this is true when mothers are dating the biological father (59) but especially when their mother is not romantically involved with the child’s biological father (44).

For the most part, these general conclusions about the cumulative scores also apply to the individual activity items, which reflect the average level of parent-child interaction on a given activity across all parent-figures (shown below the overall totals in Table 2).

Three interesting patterns are apparent in these data. First, the maternal activities level is quite consistent across all six family types (ranging from 36 to 39), although mothers’ activities are actually lowest among mothers who are married to the child’s biological father. Second, resident social fathers engage in similar (or higher) levels of activities compared to resident biological fathers (28 and 30 for married and cohabiting biological fathers, vs. 35 and 29 for married and cohabiting social fathers, respectively). Third, whereas the total level of activities children experience in biological- and social-father families is quite similar, non-resident biological fathers participate in very few activities with children when a social father is present (average scores of 2 and 3 for married and cohabiting social-father families, respectively) as compared to single-mother families in which the mother is (mean of 20) and is not (mean of 7) romantically involved with the biological father.

We also find substantial differences in household income across family types—the primary one being that married two-biological parent families have considerably higher mean and median incomes than all other family types. The mean (median) income for biological married parents is $80,468 ($60,000) compared to about $33,000 ($29,000) or less for all other family types. At the same time, we note that, at least among the two-parent (biological or social father) families in this sample, differences in parent-child activity levels do not appear to closely mirror differences in income. Also of particular note, the 22 percent of children living with a
single mother not romantically involved with the child’s biological father seem to be strikingly
disadvantaged with respect to both parental time and parental income, with a mean level of total
parent-child activities of 44, and a median household income of $13,440—below the U.S.
poverty line ($14,840) for a family of two in 2008 (DeNavos-Walt, Proctor, and Smith 2009).

Figure 2 shows the same analyses as above but using adjusted means (produced by the
OLS regressions using baseline covariates, described above). The overall pattern of these results
is consistent with the unadjusted results, suggesting that differences in parent-child interaction
across family types (though less so in income) are not primarily driven by the differences in
characteristics of mothers between family structure categories. Therefore, we present unadjusted
results for the remainder of our analyses. We note, however, that despite similarities in the
relative pattern of investment across family types, adjusting for differences in background
characteristics results in higher absolute levels of activity engagement—and especially higher
mean incomes—for the other family types relative to married biological-father families. This
makes sense, since married mother and biological father families have higher socioeconomic
capacities than the other family types.

Thus far, we have examined average differences in activity levels by family type.
However, the distributions of activities engaged in by biological mothers, biological fathers, and
social fathers across family types are also informative. These data are presented in the
histograms in Figure 3, which show the density (proportion of fathers, mothers, and social
fathers) at each activity level in units of five (i.e., 0-5 activities, 6-10 activities, etc.). Mothers’
activities are represented by the shaded bars, biological fathers’ activities by diagonally-striped
bars, and social fathers’ activities by horizontally-striped bars.
The first two histograms show that the activity levels of mothers and fathers in married and cohabiting two-biological-parent families are approximately normally distributed. However, the entire distribution of fathers’ activities is to the left of that of mothers, suggesting that fathers engage in fewer activities than mothers throughout the distribution. The histograms for married and cohabiting social-father families suggest that mothers and resident social fathers engage in activity levels that are relatively similar to those of mothers and resident biological fathers. The distributions for both mothers and social fathers are approximately normally distributed and, as was the case for biological fathers, the social-father distribution is to the left of that for mothers. These histograms also reveal that, when mothers are married to or cohabiting with a social father, a large proportion of biological fathers engage in no or very few activities with the focal child (89 percent and 86 percent for married and cohabiting social father families in the 0-5 bar, respectively; note that the bars are ‘open’ at the top because they extend beyond the scale of the figure). Furthermore, of those biological fathers who do participate in activities with their child, the distribution is heavily skewed toward the left (few activities) with a thin right tail.

For families in which the biological mother and father are living apart but dating, we see that a non-trivial proportion (over 15 percent) of biological fathers participate in no or few activities with the child, and that the distribution for those who do is relatively normally distributed and, again, to the left of the distribution for mothers. Finally, in single-mother families in which the mother and father are not romantically involved, 69 percent of biological fathers engage in no or very few activities with the child, and the remainder of the distribution is considerably skewed to the left with a thin right tail.

Our analyses to this point have primarily focused on the overall level of parent-child activity engagement to which children in different family types are exposed; we have virtually
ignored potential differences in the types of activities children experience across family types. To provide insight into such differences, we compare levels of participation in two of the eight activities—reading and TV/video watching—across the six family types. These results are presented in Figure 4. We chose to compare reading and TV/video watching because they may present the most extreme contrast with regard to promoting positive child development. That is, of the eight possible activities, reading with a child is arguably the most important for (at least cognitive) healthy development, whereas TV/video watching is arguably the least important (or involves the least intensive parental engagement). As such, comparing levels of these two types of activities provides insight into whether particular family types—and particular parental figures therein—are more likely to engage in more or less developmentally-stimulating activities.

The results in Figure 4 suggest that mothers in all family types engage in relatively similar levels of reading and TV/video watching. As such, the primary differences in activity types across family types appear to result from men’s behaviors. In general, we see relatively higher levels of father TV/video watching compared to reading in cohabiting biological-father families, married and (especially) cohabiting social-father families, and both forms of single-mother families. Married biological fathers engage in relatively similar levels of both activities.

*Differences by multiple-partnered fertility status.* We next examine whether overall patterns of activity engagement differ by multi-partnered fertility (MPF) status. Because the cell sizes available to investigate differences across all six family types and MPF status would be too small for meaningful analysis, we consider only three family types: whether the child lives with both (married or cohabiting) biological parents, lives with his or her mother and a (married or cohabiting) social father, or lives with a single mother. These results (not shown) indicate that children in two-biological-parent families receive similar levels of total activity engagement
regardless of whether or not either (or both) of their parents has a child with another partner. At
the same time, two-biological-parent families with MPF have considerably lower average
incomes than those without MPF. Among (married and cohabiting) social-father families,
children whose biological parents have MPF experience greater overall engagement than those
whose biological parents have children only with one another (72 vs. 67 total activities). This
appears to be largely driven by higher levels of social-father involvement in families with MPF.
By contrast, among single-mother families, we see higher levels of engagement among families
with no MPF compared to those with MPF (49 vs. 44 total activities). This appears to be
primarily driven by higher levels of biological-father activities among the former. As with two-
biological-parent families, we find that both social-father and single-mother families have lower
levels of income when biological parents have MPF than when they do not.

One potential explanation for higher levels of activities in social-father families where
biological parents have MPF is that the social father and mother share one or more common
biological children; in other words, the MPF occurred with a new partner after the focal child’s
birth, and the new partner is the current social father to the focal child. In such situations, social
fathers may be more engaged with the focal child as a result of their engagement with their joint
child(ren) with the mother. An examination of this possibility (results not shown) revealed,
however, that this does not appear to be the case. Among social-father families in which the
mother and social father do versus do not share at least one common child, we find no
substantively meaningful differences in overall levels of activities, nor levels of social-father
activities. However, biological fathers engage in slightly fewer—and mothers in slightly more—
activities when the mother and social father have had a child together.
Association between biological- and social-father engagement for children living with a social father. Next, we examine the relationship between biological- and social-father activity engagement for the subset of children that live with a social father (for both married and cohabiting social-father families). Figure 5 presents a three-dimensional representation of the joint density of biological- and social-father activities from two different angles. The figures exclude cases in which the biological father did not engage in any activities with the child. The areas of the highest density (i.e., the “humps”) in Figure 5 suggest that there is a considerable group of children in social-father families who receive a very low level of biological-father activities but a medium to high level of social-father activities; there is also a considerable group of children who receive a low to medium level of biological-father activities and a relatively high level of social-father activities. In addition, there is a much smaller group of children who receive high levels of both biological- and social-father activities. On the whole, this indicates that there is considerable variation in combined levels of social and biological father investments for children who live with a social father and receive some investments from both father types. At the same time, the majority of children who live with a social father are not engaged in any activities with their biological father.

Change in parental investment over time. Our results thus far have focused on cross-sectional measures of parental engagement and household income around child age 5. However, changes over time in the parenting packages children experience are also salient for child development and are likely to differ by the family configurations to which children are exposed. Thus, we also examine patterns of change in parental investments and family types over time.

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6 We exclude families with no father engagement from the figure solely to ease our ability to see the contours in the associations between biological- and social-father investments: when these fathers are included, the figure is dwarfed by the large (82 percent) proportion of biological fathers who spend no time with their child who lives with a social father. However, the general relationship between biological- and social-father activities among families in which the biological father has some involvement with the child is the same as that depicted in the figure—just less prominent by comparison.
Specifically, we categorized family types as a function of whether the child lived in each of three family types—with his or her mother and biological father, mother and a social father, or single mother—at age 1 and age 5. (To preserve larger cell sizes, we do not differentiate between marriage and cohabitation in biological- and social-father families.) This resulted in nine possible categories of family stability or change between the two time points. However, since our data contained no cases in which children lived with a social father at age 1 followed by a biological father at age 5, only 14 cases in which children lived with their mother and a social father at both time points, and only 8 cases in which children transitioned from a mother and social-father family at age 1 to a single-mother family at age 5, we exclude these potential groups from the results presented in Figure 6, where we focus on six family structure categories.

Figure 6 shows results for the change in total activity engagement, as well as activity engagement for each parent figure, between years 1 and 3 and 3 and 5 for each of the six family types. We see that overall levels of engagement (panel A) are relatively stable for three groups of children: those who lived with their mother and biological father at both years 1 and 5, those who lived with their mother and biological father at age 1 and their mother and a social father at age 5, and those who lived with their single mother at age 1 and their mother and biological father at age 5. There is a notable decline in engagement for children who lived with their mother and biological father at age 1 and their single mother at age 5, and a more modest decline for those who lived with their single mother at both ages 1 and 5. By contrast, we see a substantial rise in engagement for those that transitioned from living with their single mother at age 1 to their mother and a social father at age 5.

Turning to the involvement of each parent separately (panels B-D), we see that maternal engagement is remarkably similar across all six family types—engagement is relatively stable
from ages 1 to 3 and then declines slightly between ages 3 and 5 (which may reflect a change in maternal behaviors and/or children entering preschool and spending less time with mothers). The pattern for biological fathers is quite different: Consistent with the cross-sectional results, biological father activity engagement is closely related to family type. Engagement remains relatively high for children in mother and biological father families at both time points (although, like maternal engagement, it decreases between ages 3 and 5), as well as those living with their single mother at age 1 and their mother and biological father at age 5. Biological-father involvement drops dramatically for the two categories in which focal children lived with their mother and biological father at child age 1 but either their single mother or, in particular, their mother and a social father at age 5. For social father involvement (panel D), we see the opposite pattern – social father involvement increases dramatically when social fathers have moved in with the mother by child age 5, especially when the mother was living singly at child age 1.

Finally, we also examined change in mean household income as a function of change in family type (Figure 7). We see that the one circumstance where income remains consistently high (mean around $70,000-80,000 across ages 1, 3 and 5) is when biological fathers remain in the household. Household income is much lower across all other family types. It declines over time for children who live with their mother and biological father at age 1 and their single mother at age 5. Income increases somewhat for those that move in with their biological father by age 5 (less so for those moving in with a social father) and remains relatively stable (and very low) for those living as a single mother at both time points.

*Non-resident fathers’ own reports of parental engagement.* Our primary analyses rely on mothers’ reports of biological and social fathers’ engagement with children. Both because maternal reports of non-resident biological fathers’ behaviors may be particularly ill-informed, if
not biased, and because a subset of biological (but not social) fathers is interviewed in FFCW, we re-estimated our results (shown in Appendix Table A1) using non-resident biological fathers’ own reports of their engagement in activities with children (for the four family types where biological fathers are not co-resident); for comparison, we also show married and cohabiting biological-father families based on the father-interviewed sample. These results yield notably higher estimates of biological fathers’ involvement for the three family structure categories that involve a non-resident biological father—mother and social father married (1.82 using mothers’ reports versus 11.21 using fathers’ reports), mother and social father cohabiting (3.20 using mothers’ reports versus 13.99 using fathers’ reports), and mother single and not dating the biological father (6.81 using mothers’ reports versus 18.02 using fathers’ reports); there is little difference for the category of mother and biological father dating (20.13 using mothers’ reports and 20.57 using fathers’ reports). Some—but not all—of these differences are likely due to the fact that the sub-sample of fathers who are interviewed in FFCW consists of those men who are more involved with their children relative to the those who are not interviewed; mothers’ reports suggest that interviewed fathers are indeed more involved with focal children than non-interviewed fathers. When we look at change over time (results not shown) using non-resident fathers’ own reports of their activity engagement, we again find that non-resident biological fathers self-report higher absolute levels of activity engagement than is reported by mothers, but the patterns of activity engagement as a function of stability or change in family type over time are similar to what we observe based on mothers’ reports.

7 We do not use biological fathers’ own reports for cases in which the biological father is co-resident because the FFCW data do not include comparable self-reported activities for social fathers, and we have no reason to believe maternal reports on resident biological-father versus resident social-father activities would systematically differ such that we should utilize mothers’ reports for resident social fathers but men’s own reports for resident biological fathers.
Discussion

In this paper, we have described the parenting ‘packages’—with regard to both parent-child activity engagement and economic resources potentially available for investment in children—received by young, urban children across a range of family structures. With respect to parenting, consistent with prior research, we find that levels of parental engagement with children are highest among two-parent families as compared to single-parent families (McLanahan and Sandefur 1994; Thomson, Hanson, and McLanahan 1994). However, contrary to prior research on parenting across particular family structures (e.g., Thomson et al. 1994) or that compares paternal involvement among biological versus social fathers (e.g., Hofferth and Anderson 2003), we find that among children living with two parents/parent-figures, those living with their biological mother and a social father (regardless of whether cohabiting or legally married) experience greater overall levels of parental interaction than their counterparts living with two biological parents. This is because resident social fathers display similar or higher levels of involvement to resident biological fathers, and children living with social fathers may also receive a modest amount of interaction with their non-resident biological father (although a large proportion of these children have no interaction with their biological father).

Consistent with the extensive body of literature on family structure and economic resources (e.g., McLanahan and Sandefur 1994; Thomson et al. 1994), we find that children living with their married biological parents have much higher levels of income than children in single-mother families. However, contrary to the research comparing economic resources in married biological- versus married social-father families (i.e., stepfamilies) (e.g., McLanahan and Sandefur 1994), we do not find that levels of economic resources are similar across these

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8 This finding is consistent with those of several recent studies of urban parents also using FFCW (Berger et al. 2008; Gibson-Davis 2008).
two family types. Indeed, the economic resources of all (married and cohabiting) social-father families in our sample are more similar to those of the single-mother families than the married biological-father families. We suspect that levels of economic resources for married social-father families are lower in our study because such parents in the FFCW are primarily those who have re-partnered after a nonmarital birth (since few of the married parents at birth had divorced and re-partnered by the five-year follow-up survey)—as compared to remarried stepfamilies typically compared to married biological parents in large national surveys. Indeed, the economic resources of the cohabiting mother and biological-father families are also more similar to those of the single-mother families than to those of the married mother and biological-father families.

We were struck by the fact that, across all family types, the level of maternal activity engagement with children is remarkably consistent. It appears that resident mothers play a rather constant influence in the lives of their children, regardless of their surrounding family configuration. At the same time, mothers do not appear to compensate for low levels of nonresident biological fathers’ involvement. As such, when biological fathers live outside of children’s homes—especially when the mother is no longer romantically involved with him—children receive much lower levels of total parental investment. Yet, it is important to note that many children living with a single mother also live with a grandparent, and our analyses do not capture grandparent involvement (or that of any other relatives or caregivers). Thus, we may be underestimating the total investment that children in such circumstances receive from other relatives or household members.9

The fact that the overall pattern of differences in parent-child activities across family types does not change when we adjust for a number of baseline covariates suggests that selection

9 In addition, it is important to recognize that our measures tap only the frequency with which parents engage in eight activities with children. As discussed below, our analyses are silent with regard to the quality of parent-child interactions, as well as other aspects of parenting.
on these key variables (age, race, education, family background, immigrant status, substance use, first birth, mother-father relationship length, religiosity, attitudes, number of children and adults in the household, grandparent co-residence, income, work, and welfare receipt) is not the dominant reason why we observe differences in parenting by family structure. Yet, we recognize that there may be additional factors that differentiate both family structure and levels of parental involvement that have been omitted from our analyses. The household income values are more notably changed by adjusting for baseline characteristics, suggesting that a large part of why married two-biological-parent families have higher income is due to their (primarily socioeconomic) capacities; at the same time, the rank ordering of family types by income is not altered in the adjusted estimates.

We also compared involvement across family types in two particular activities representing more (reading) versus less (watching TV/videos) developmentally-stimulating activities for children. Although we found maternal reading to be slightly higher in married (biological and social) families than other family types, the biggest differences appear to be in men’s behaviors: compared to married biological fathers, cohabiting biological fathers, married social fathers, and cohabiting social fathers all engage in higher levels of TV/video-watching with children. These differences suggest that it will be important for future work to disaggregate the components of the cumulative parenting activities when considering effects of parental involvement on children’s wellbeing.

We expected that parental MPF would be associated with diminished investment in children. Although we found considerable differences in income, such that families in which parents had experienced MPF had lower incomes than those in which biological parents had children with only one another, we found less consistent patterns of differences in activity
engagement. Children in single-mother families with MPF experienced lower overall parent-child activities than those in single-mother families without MPF, largely because non-resident biological fathers are much less involved in the context of MPF. We also found very slightly lower overall involvement among two-biological-parent families with MPF than those without. However, for mother and social-father families, we found that, where differences by MPF status do exist, they tend to favor children whose parents have children by prior partners; this is because mothers and especially social fathers engage in higher levels of activities with children in the context of MPF (while non-resident biological fathers are slightly less involved). While we suspected that this finding was driven by social fathers being more involved when they have a common biological child with the mother, we found no evidence that this is the case.

On the whole, we found that biological fathers tend to have relatively little involvement when their child lives with a social father. This pattern is consistent with recent research suggesting that maternal re-partnering is associated with decreased non-resident biological father involvement (Tach, Mincy, and Edin 2010). However, we did not find a strong inverse relationship between biological and social father involvement for children living with social fathers who also had some contact with their biological father. Instead, we found considerable variation in joint levels of biological and social father involvement in these families. While one study has noted that ongoing contact with non-resident biological fathers does not appear to diminish the benefits of social father involvement for children (Bzostek 2008), how biological and social father involvement are linked (i.e., whether complements or substitutes) for children with both—and how they conjointly affect child wellbeing—is a useful topic for future research.

Our results also provide new information about changes over time in levels of parental investment as a function of changes in family configuration. We find that maternal engagement
with children remains quite consistent over time, regardless of family structure changes. This is in contrast to several studies showing that mothers’ partnership transitions are linked to greater parenting stress and low-quality or harsh mothering (Beck, Cooper, McLanahan, and Brooks-Gunn 2010; Cooper, McLanahan, Meadows, and Brooks-Gunn 2009; Osborne and McLanahan 2007); yet, our results are consistent with two papers showing that family structure changes are not linked to maternal engagement (Gibson-Davis 2008) or literacy-promoting activities (Beck, Cooper, McLanahan, and Brooks-Gunn 2010). It appears that mothers’ (positive) engagement activities with children may be much more stable in the face of family structure change than are mothers’ negative parenting behaviors.\(^{10}\)

We find much more variation over time as a function of family structure changes in the behaviors of both biological and social fathers. As men move into or out of children’s lives, their involvement changes accordingly, underscoring the notion of the ‘package deal’ that links fathers’ partner and paternal roles (Edin, Tach, and Mincy 2009; Furstenberg and Cherlin 1991; Tach, Mincy, and Edin 2010). Consistent with prior empirical research using the same data about urban parents, we find that non-resident biological fathers are much less involved than either married or cohabiting biological fathers (Gibson-Davis 2008), and social fathers who live with children are equally or more involved than resident biological fathers (Berger, Carlson, Bzostek, and Osborne 2008).

There are several limitations to our analyses. First, all of our information about parent-child interaction for all parent-figures in our main results comes from the child’s biological mother. Maternal knowledge of non-resident biological fathers’ interactions with focal children may be especially limited or inaccurate, since mothers are unlikely to observe these interactions and/or may harbor ill feelings, given the failure of their romantic relationship with the non-

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\(^{10}\) Again, it is important to note that our analyses do not assess parenting quality.
resident father. Furthermore, there may be social desirability bias such that mothers report higher levels of involvement by resident social or biological fathers than non-resident fathers, since the former are partners with whom they are engaged in ongoing cohabiting or marital relationships and, presumably, who they hope or expect to be actively involved with her/their child(ren). Fortunately, our analysis of non-resident fathers’ reports of their involvement suggests that, although the levels of engagement reported by fathers may be somewhat higher than those reported by mothers, the patterns by family type that we observe using mothers’ reports are not challenged by the use of non-resident fathers’ reports.

Second, our measures assess only the frequency of parent-child interaction and are silent with regard to the nature or quality of these interactions. Yet, we recognize that quantity may be a poor proxy for quality of involvement. In addition, we use the same metric for assessing parenting activities across different types of parental figures and also for both resident and non-resident biological fathers, despite the fact that a given level of parent-child activities may not have the same ‘meaning’ across these different contexts. For example, non-resident fathers’ face-to-face activities with a child require much more effort, time and logistical coordination than resident fathers’ activities. As noted above, in future research we plan to examine how the level of parent-child interaction is related to child outcomes across these various contexts and actors. We hope that such research will yield evidence about ‘returns’ to different levels and types of parental activities across various family configurations.

Third, since we only have measures of social father involvement while social fathers are living with children, we may be over-reporting social father involvement over the long term. To the extent that mothers’ relationships with social fathers are unstable, high levels of social-father involvement observed at a given point in time may be a weak indicator of long-term investment.
This is of particular concern because, given the absence of a biological tie, social fathers are likely to have (at best) limited involvement with their ex-partners’ children following the dissolution of their romantic relationship. At the same time, social father investments may begin well before the mother and social father form a cohabiting union. Our analyses are also silent in this regard.

A related concern is that we cannot disentangle the direction of association between social and biological father involvement. That is, although our data reveal that biological fathers are less involved when children live with a social father, we cannot determine if mothers have greater incentive to find a new partner when the biological father is not involved or if, once mothers move in with a new partner, biological fathers become less involved. Future research can move further toward disentangling the direction of these paternal processes—and the consequences for children.

In sum, this study provides new descriptive evidence about two key parental inputs—time and money—with respect to five-year-old children living in a range of contemporary family types, as well as evidence regarding patterns of change in these behaviors between child ages 1 and 5. We find that children living with both of their (married) biological parents are advantaged with respect to both economic resources and levels of parent-child activities, while children living with single mothers fare especially poorly in both domains; children in social-father families receive similar levels of activity engagement to those in biological-father families, but are much less economically advantaged. To the extent that the parental inputs we consider are important factors in promoting children’s health, development and wellbeing, our results suggest that these early differences may have long-term consequences for the next generation and that public policy might usefully intervene to support children in disadvantaged families.
References


Table 1: Characteristics of Family Types

<table>
<thead>
<tr>
<th>Age 5 family type:</th>
<th>Mother and biological father married</th>
<th>Mother and biological father cohabiting</th>
<th>Mother and social father married</th>
<th>Mother and social father cohabiting</th>
<th>Mother and biological father dating</th>
<th>Mother single and not dating biological father</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline family characteristics (at focal child’s birth):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother and biological father married</td>
<td>0.87</td>
<td>0.02</td>
<td>0.23</td>
<td>0.12</td>
<td>0.02</td>
<td>0.20</td>
</tr>
<tr>
<td>Mother and biological father cohabiting</td>
<td>0.10</td>
<td>0.71</td>
<td>0.26</td>
<td>0.35</td>
<td>0.22</td>
<td>0.27</td>
</tr>
<tr>
<td>Mother and biological father dating</td>
<td>0.00</td>
<td>0.02</td>
<td>0.12</td>
<td>0.10</td>
<td>0.19</td>
<td>0.08</td>
</tr>
<tr>
<td>Mother single and not dating bio. father</td>
<td>0.02</td>
<td>0.25</td>
<td>0.38</td>
<td>0.43</td>
<td>0.57</td>
<td>0.45</td>
</tr>
<tr>
<td>Child is female</td>
<td>0.40</td>
<td>0.46</td>
<td>0.50</td>
<td>0.49</td>
<td>0.50</td>
<td>0.49</td>
</tr>
<tr>
<td>Child was low birth weight</td>
<td>0.04</td>
<td>0.08</td>
<td>0.07</td>
<td>0.16</td>
<td>0.17</td>
<td>0.12</td>
</tr>
<tr>
<td>Mother is white</td>
<td>0.44</td>
<td>0.06</td>
<td>0.21</td>
<td>0.17</td>
<td>0.05</td>
<td>0.13</td>
</tr>
<tr>
<td>Mother is black</td>
<td>0.16</td>
<td>0.43</td>
<td>0.37</td>
<td>0.57</td>
<td>0.74</td>
<td>0.52</td>
</tr>
<tr>
<td>Mother is Hispanic</td>
<td>0.25</td>
<td>0.48</td>
<td>0.39</td>
<td>0.24</td>
<td>0.18</td>
<td>0.31</td>
</tr>
<tr>
<td>Mother is of another race/ethnicity</td>
<td>0.11</td>
<td>0.03</td>
<td>0.03</td>
<td>0.02</td>
<td>0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>Mother age at focal child’s birth</td>
<td>29.40</td>
<td>25.43</td>
<td>22.94</td>
<td>23.91</td>
<td>25.92</td>
<td>24.64</td>
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<tr>
<td>(5.38)</td>
<td>(6.06)</td>
<td>(5.20)</td>
<td>(5.45)</td>
<td>(5.41)</td>
<td>(6.40)</td>
<td></td>
</tr>
<tr>
<td>Mother US born</td>
<td>0.67</td>
<td>0.74</td>
<td>0.93</td>
<td>0.89</td>
<td>0.90</td>
<td>0.84</td>
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<td>Mother has less than a high school education</td>
<td>0.15</td>
<td>0.41</td>
<td>0.35</td>
<td>0.53</td>
<td>0.33</td>
<td>0.43</td>
</tr>
<tr>
<td>Mother has a high school degree or GED</td>
<td>0.26</td>
<td>0.40</td>
<td>0.30</td>
<td>0.31</td>
<td>0.53</td>
<td>0.36</td>
</tr>
<tr>
<td>Mother has more than a high school education</td>
<td>0.59</td>
<td>0.19</td>
<td>0.21</td>
<td>0.16</td>
<td>0.14</td>
<td>0.21</td>
</tr>
<tr>
<td>Mother used substances during pregnancy</td>
<td>0.16</td>
<td>0.25</td>
<td>0.19</td>
<td>0.29</td>
<td>0.22</td>
<td>0.24</td>
</tr>
<tr>
<td>First birth to mother</td>
<td>0.58</td>
<td>0.72</td>
<td>0.55</td>
<td>0.64</td>
<td>0.49</td>
<td>0.60</td>
</tr>
<tr>
<td>Mother-father relationship length</td>
<td>94.98</td>
<td>58.91</td>
<td>50.42</td>
<td>58.08</td>
<td>35.18</td>
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<tr>
<td>(64.13)</td>
<td>(50.31)</td>
<td>(55.49)</td>
<td>(53.63)</td>
<td>(45.01)</td>
<td>(53.64)</td>
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<td>Either parent considered abortion</td>
<td>0.09</td>
<td>0.39</td>
<td>0.46</td>
<td>0.40</td>
<td>0.19</td>
<td>0.34</td>
</tr>
<tr>
<td>Mother lived with biological parents at age 15</td>
<td>0.69</td>
<td>0.42</td>
<td>0.21</td>
<td>0.38</td>
<td>0.66</td>
<td>0.32</td>
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<tr>
<td>Mother’s religious service attendance</td>
<td>2.63</td>
<td>3.28</td>
<td>2.96</td>
<td>3.04</td>
<td>2.69</td>
<td>2.96</td>
</tr>
<tr>
<td>(1.33)</td>
<td>(1.32)</td>
<td>(1.26)</td>
<td>(1.25)</td>
<td>(1.19)</td>
<td>(1.38)</td>
<td></td>
</tr>
<tr>
<td>Mother’s gender role attitudes</td>
<td>2.15</td>
<td>2.16</td>
<td>2.03</td>
<td>1.96</td>
<td>2.01</td>
<td>2.12</td>
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<tr>
<td>(0.71)</td>
<td>(0.64)</td>
<td>(0.72)</td>
<td>(0.58)</td>
<td>(0.52)</td>
<td>(0.60)</td>
<td></td>
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<tr>
<td>Mother’s report of relationship quality</td>
<td>2.63</td>
<td>2.61</td>
<td>2.37</td>
<td>2.48</td>
<td>2.68</td>
<td>2.42</td>
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<td>(0.67)</td>
<td>(0.46)</td>
<td>(0.70)</td>
<td>(0.46)</td>
<td>(0.34)</td>
<td>(0.63)</td>
<td></td>
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<tr>
<td>Number of children in mother’s HH</td>
<td>1.02</td>
<td>1.27</td>
<td>1.15</td>
<td>1.56</td>
<td>1.20</td>
<td>1.32</td>
</tr>
<tr>
<td>(1.25)</td>
<td>(1.28)</td>
<td>(1.41)</td>
<td>(1.48)</td>
<td>(1.35)</td>
<td>(1.38)</td>
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<tr>
<td>Number of adults in mother’s HH</td>
<td>2.15</td>
<td>2.38</td>
<td>2.40</td>
<td>2.23</td>
<td>2.04</td>
<td>2.23</td>
</tr>
<tr>
<td>(0.58)</td>
<td>(0.93)</td>
<td>(1.30)</td>
<td>(1.03)</td>
<td>(1.28)</td>
<td>(1.04)</td>
<td></td>
</tr>
<tr>
<td>Grandparent present in mother’s HH</td>
<td>0.06</td>
<td>0.27</td>
<td>0.36</td>
<td>0.29</td>
<td>0.31</td>
<td>0.32</td>
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<tr>
<td>LN mother’s HH income (2005 $s)</td>
<td>10.82</td>
<td>9.78</td>
<td>9.83</td>
<td>9.58</td>
<td>9.43</td>
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<tr>
<td></td>
<td>(1.04)</td>
<td>(1.39)</td>
<td>(1.04)</td>
<td>(1.05)</td>
<td>(0.97)</td>
<td>(1.42)</td>
</tr>
<tr>
<td>--------------------------------</td>
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<td>--------</td>
<td>--------</td>
<td>--------</td>
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</tr>
<tr>
<td>Mother worked last year</td>
<td>0.74</td>
<td>0.69</td>
<td>0.76</td>
<td>0.56</td>
<td>0.88</td>
<td>0.67</td>
</tr>
<tr>
<td>Mother received TANF last year</td>
<td>0.11</td>
<td>0.36</td>
<td>0.25</td>
<td>0.56</td>
<td>0.35</td>
<td>0.35</td>
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<tr>
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<td>467</td>
<td>126</td>
<td>358</td>
<td>113</td>
<td>1124</td>
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<td>0.22</td>
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Note: 3,329 observations. Means/proportions presented with standard deviations in parenthesis where applicable. Data are weighted.
Table 2: Mean Activity Engagement with Child

<table>
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<tr>
<th></th>
<th>Mother and Biological Father Married</th>
<th>Mother and Biological Father Cohabiting</th>
<th>Mother and Social Father Married</th>
<th>Mother and Social Father Cohabiting</th>
<th>Mother and Biological Father Dating</th>
<th>Mother Single and Not Dating Biological Father</th>
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<tbody>
<tr>
<td>Total Activity Engagement</td>
<td>64.32 (16.77)</td>
<td>66.08 (17.02)</td>
<td>75.67 (15.34)</td>
<td>70.09 (20.62)</td>
<td>59.14 (17.91)</td>
<td>43.81 (15.83)</td>
</tr>
<tr>
<td>Mother Activity Engagement</td>
<td>36.12 (9.09)</td>
<td>36.42 (9.48)</td>
<td>38.57 (7.22)</td>
<td>37.81 (8.29)</td>
<td>39.01 (8.76)</td>
<td>37.00 (9.85)</td>
</tr>
<tr>
<td>Biological Father Activity Engagement</td>
<td>28.20 (9.62)</td>
<td>29.66 (10.07)</td>
<td>1.82 (5.00)</td>
<td>3.20 (8.90)</td>
<td>20.13 (11.76)</td>
<td>6.81 (11.51)</td>
</tr>
<tr>
<td>Social Father Activity Engagement</td>
<td>0.00 (0.00)</td>
<td>0.00 (0.00)</td>
<td>35.27 (9.63)</td>
<td>29.08 (11.55)</td>
<td>0.00 (0.00)</td>
<td>0.00 (0.00)</td>
</tr>
<tr>
<td>Total Songs or Nursery Rhymes</td>
<td>7.42 (3.68)</td>
<td>7.50 (3.67)</td>
<td>7.52 (3.47)</td>
<td>7.83 (4.22)</td>
<td>6.76 (2.80)</td>
<td>5.08 (2.80)</td>
</tr>
<tr>
<td>Total Reading Stories</td>
<td>8.57 (3.56)</td>
<td>7.41 (3.52)</td>
<td>9.46 (3.76)</td>
<td>8.03 (3.84)</td>
<td>6.38 (2.98)</td>
<td>4.97 (2.67)</td>
</tr>
<tr>
<td>Total Telling Stories</td>
<td>7.54 (3.94)</td>
<td>6.90 (3.94)</td>
<td>8.83 (4.11)</td>
<td>7.04 (4.04)</td>
<td>7.00 (3.75)</td>
<td>5.07 (2.90)</td>
</tr>
<tr>
<td>Total Playing Inside with Toys</td>
<td>8.37 (3.77)</td>
<td>8.15 (4.14)</td>
<td>10.81 (3.85)</td>
<td>9.30 (3.73)</td>
<td>7.66 (3.30)</td>
<td>5.98 (3.18)</td>
</tr>
<tr>
<td>Total Telling Child Appreciated Something</td>
<td>12.19 (2.73)</td>
<td>12.63 (2.26)</td>
<td>13.44 (2.34)</td>
<td>12.28 (3.34)</td>
<td>10.97 (2.71)</td>
<td>7.84 (2.73)</td>
</tr>
<tr>
<td>Total Playing Outside</td>
<td>7.02 (3.51)</td>
<td>7.30 (3.53)</td>
<td>7.43 (3.51)</td>
<td>7.80 (4.21)</td>
<td>6.71 (3.95)</td>
<td>4.38 (2.83)</td>
</tr>
<tr>
<td>Total Outings</td>
<td>5.32 (2.76)</td>
<td>5.55 (2.94)</td>
<td>6.86 (2.90)</td>
<td>6.00 (3.13)</td>
<td>5.40 (3.74)</td>
<td>4.01 (2.61)</td>
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<tr>
<td>Total Watching TV or a Video</td>
<td>7.90 (4.13)</td>
<td>10.65 (3.45)</td>
<td>11.32 (3.80)</td>
<td>11.81 (3.45)</td>
<td>8.27 (3.68)</td>
<td>6.47 (3.07)</td>
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<tr>
<td>Household Income (2005 $s)</td>
<td>80467.97 (75095.82)</td>
<td>32117.54 (35099.74)</td>
<td>33268.40 (24772.54)</td>
<td>23784.89 (23845.20)</td>
<td>20554.04 (18910.21)</td>
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<tr>
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<td>28948.65 (25000.00)</td>
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<tr>
<td>Observations</td>
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<td>467 (467)</td>
<td>126 (126)</td>
<td>358 (358)</td>
<td>113 (113)</td>
<td>1124 (1124)</td>
</tr>
</tbody>
</table>

Note: 3,329 observations. Means (and standard deviations) presented unless otherwise noted. Data are weighted.
Figure 1. Activity Engagement and Income by Family Type (unadjusted)
Figure 2: Activity Engagement and Income by Family Type
(adjusted for baseline characteristics)
Figure 3: Distribution of Activities within Each Family Type
Figure 4

Reading and Watching TV/Videos by Family Type

Activity Engagement

<table>
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<tr>
<th></th>
<th>Mother</th>
<th>Bio Father</th>
<th>Social Father</th>
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<td>Read</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>TV/Video</td>
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<tr>
<td>Mom and bio dad married</td>
<td>Black</td>
<td>White</td>
<td>Black</td>
</tr>
<tr>
<td>Mom and bio dad cohabiting</td>
<td>Black</td>
<td>White</td>
<td>Black</td>
</tr>
<tr>
<td>Mom and social dad married</td>
<td>Black</td>
<td>White</td>
<td>Black</td>
</tr>
<tr>
<td>Mom and social dad cohabiting</td>
<td>Black</td>
<td>White</td>
<td>Black</td>
</tr>
<tr>
<td>Mom and bio dad dating</td>
<td>Black</td>
<td>White</td>
<td>Black</td>
</tr>
<tr>
<td>Mom single, not dating bio dad</td>
<td>Black</td>
<td>White</td>
<td>Black</td>
</tr>
</tbody>
</table>
Figure 5: Biological and Social Father Activity Scores
Figure 6: Change in Activity Engagement Years 1, 3 and 5 by Family Type

Panel A

Total Activity Engagement

Panel B

Mother Activity Engagement

Panel C

Biological Father Activity Engagement

Panel D

Social Father Activity Engagement
Figure 7: Change in Mean Household Income Years 1, 3 and 5 by Family Type
Appendix Table A1: Mean Activity Engagement with Child Using Non-Resident Fathers’ Own Reports of Their Activities

<table>
<thead>
<tr>
<th></th>
<th>Mother and biological father married</th>
<th>Mother and biological father cohabiting</th>
<th>Mother and social father married</th>
<th>Mother and social father cohabiting</th>
<th>Mother and biological father dating</th>
<th>Mother single and not dating biological father</th>
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<tbody>
<tr>
<td><strong>Panel A: using non-resident fathers’ own reports of their activities</strong></td>
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<tr>
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<td>66.44</td>
<td>84.37</td>
<td>80.70</td>
<td>59.23</td>
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<td>(17.00)</td>
<td>(17.26)</td>
<td>(24.40)</td>
<td>(16.18)</td>
<td>(19.28)</td>
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<tr>
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<td>35.84</td>
<td>36.75</td>
<td>38.10</td>
<td>37.96</td>
<td>38.66</td>
<td>36.38</td>
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<td></td>
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<td>(9.28)</td>
<td>(7.16)</td>
<td>(8.61)</td>
<td>(8.99)</td>
<td>(9.87)</td>
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<td>11.21</td>
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<td>20.57</td>
<td>18.02</td>
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<td>(16.79)</td>
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<td>(15.78)</td>
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<td>(9.99)</td>
<td>(12.60)</td>
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<td>20527.66</td>
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<td>(36048.99)</td>
<td>(23713.24)</td>
<td>(26241.34)</td>
<td>(18620.25)</td>
<td>(23028.63)</td>
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<td>Household income (median)</td>
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<td>40000.00</td>
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<td><strong>Panel B: using mothers’ reports but father report sample</strong></td>
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<td>(9.99)</td>
<td>(12.60)</td>
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<tr>
<td>Household income (2005 $s)</td>
<td>78461.71</td>
<td>30832.39</td>
<td>39293.58</td>
<td>24365.00</td>
<td>20527.66</td>
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<td>(23713.24)</td>
<td>(26241.34)</td>
<td>(18620.25)</td>
<td>(23028.63)</td>
</tr>
<tr>
<td>Household income (median)</td>
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<td>25,000.00</td>
<td>40,000.00</td>
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Note: 2,245 observations of families with non-missing father-reported activity data. Biological father reports of their own activities are utilized for all families with a non-resident biological father; mother reports are used in all other cases. Means (and standard deviations) presented unless otherwise noted. Data are weighted.