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Family Structure and the Reproduction of Inequality: A Decomposition Approach

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ABSTRACT

Over the past 50 years, family patterns have become more diverse by socioeconomic status (SES), raising concerns about the role of family structure in the reproduction of inequality. Using data on young adults from the National Longitudinal Survey of Youth 1997 cohort (N = 4,887) and decomposition models, the present study examines the extent to which differences in children's educational attainment by parents' socioeconomic status (as measured by parents' level of education) are attributable to SES differences in family structure, as well as how much of this "family structure effect" is due to SES differences in family structure *composition* versus SES differences in the *association* between family structure and children's attainment. The results suggest that family structure plays a surprisingly small role in explaining population-level differences in children's educational attainment by the educational background of their family of origin. This study adds new evidence to the ongoing debate on the importance of family structure for intergenerational economic mobility.

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In March 1965, Daniel Patrick Moynihan wrote a controversial report on changing family patterns in the United States and their implications for the intergenerational transmission of poverty (Moynihan, 1965). The 50th anniversary of this report sparked renewed debate on this topic (Kristof, 2015; Sawhill, 2013). Whereas Moynihan's report focused on family differences between Blacks and Whites, today discussion tends to focus on differences by social class rather than race. Although the family lives of children from all backgrounds have been rendered more unstable over the past 50 years by increases in divorce, cohabitation, and nonmarital childbearing (Cherlin, 2010), these changes have occurred at much higher rates among parents with lower levels of education and other indicators of social disadvantage (Carlson & England, 2011; McLanahan & Jacobsen, 2015; McLanahan, 2004). These trends are worrisome, given that growing up in a non-intact family is associated with a range of negative outcomes for children both early in life and in adulthood (McLanahan & Sandefur, 1994; Sigle-Rushton & McLanahan, 2004). As a result, both scholars and the public at large have voiced concerns about the extent to which family diversity is responsible for perpetuating socioeconomic, or class, inequality across generations (McLanahan, 2004; McLanahan & Percheski, 2008; Murray, 2012; Putnam, 2015).

The present study directly addresses this question by examining whether family structure differences by socioeconomic status (SES), measured by parents' level of education, can account for socioeconomic differences in children's educational attainment at the population level. To conduct this analysis, I use decomposition techniques to assess how much the educational attainment of children at the lower end of the socioeconomic distribution would be expected to change if they had the same family structure as their more advantaged peers. I also examine how much of this "family structure effect" is due to class differences in family structure *composition* versus class differences in the *association* between family structure and children's attainment. I focus specifically on the outcome of children's educational attainment in young adulthood because it has been shown to be a strong predictor of their economic attainment (Ashenfelter, Harmon, & Oosterbeek, 1999; Haveman & Smeeding, 2006), and physical and mental health (Link & Phelan, 1995; Phelan, Link, & Tehranifar, 2010), later in life. The results of this study can help to inform the debate about how differences in the organization of family life by social class are contributing to "diverging destinies" for our nation's children (McLanahan, 2004) and fueling the reproduction of socioeconomic inequality (McLanahan & Percheski, 2008).

I. BACKGROUND

Class disparities in youth's educational attainment

A key motivation for this paper is the existence of large differences in children's educational attainment by the SES of their family of origin (Haveman & Smeeding, 2006; Price, 2004; Rouse & Barrow, 2006). Although secular gains in educational attainment over the past several decades have increased the likelihood that children from all class backgrounds will achieve higher levels of education than their parents (Ryan & Siebens, 2012), children's educational attainment remains highly constrained by their parents' SES (Ermisch, Jantti, & Smeeding, 2012). Recent estimates from the Panel Study of Income Dynamics suggest that children from the highest SES quartile are about 50 percent more likely to graduate from high school than those from the lowest SES quartile (Haveman & Wilson, 2007). This disparity is even more pronounced at the college level; estimates from the same study suggest that children from high-SES families are over three times more likely to attend college and over seven times more likely to graduate from college

than their low-SES peers (Haveman & Wilson, 2007). In today's economy, where college graduates can expect to earn nearly $1 million more over their lifetime than individuals with only a high school education (Julian & Kominski, 2011), these disparities in educational attainment portend persistent and extensive economic inequality over the life course.

For family structure to play a role in producing these disparities, it must have an effect on children's educational attainment. Prior research suggests this is indeed the case. In this paper, I use the term "intact" to refer to families headed by two biological parents and "non-intact" to refer to all other family structures. Studies have found that children who are raised in intact families achieve higher test scores (Thomson, Hanson, & McLanahan, 1994), are less likely to drop out of high school (Astone & McLanahan, 1991; Lang & Zagorsky, 2001; McLanahan & Sandefur, 1994), are more likely to graduate from college (Deleire & Kalil, 2002; McLanahan & Sandefur, 1994), and achieve more overall years of education (Ginther & Pollak, 2004; Lopoo & Deleire, 2013) than children who grow up in non-intact families. These effects are thought to stem from higher levels of parental investments in children—in terms of both money and time—in families headed by two biological parents relative to other types of families (Carlson & Berger, 2013; McLanahan, 1985; Putnam, 2015; Thomson & McLanahan, 2012). In addition, the stress associated with marital dissolution, single parenthood, and remarriage are thought to reduce children's school performance and overall educational attainment (Hill, Yeung, & Duncan, 2001; McLanahan, 1985).

Despite these plausible theoretical links between family structure and children's well-being, in the scholarly literature debate continues about whether this association is causal or is driven entirely by other unobserved differences in parents across different types of family structures (that is, by social selection; McLanahan, Tach, & Schneider, 2013). Studies that have used rigorous methods, such as fixed-effects models or natural experiments, to account for unobserved differences across families have generally found that, although these techniques reduce the association between family structure and children's attainment (relative to techniques that only control for observed factors), they do not eliminate it altogether (Amato & Keith, 1991; Biblarz & Gottainer, 2000; Ermisch & Francesconi, 2001). Questions also remain about whether all types of non-intact families are equally detrimental for children's attainment. There is some evidence that children born to single mothers have worse outcomes later in life than children who experience their parents' divorce (McLanahan & Sandefur, 1994; Waldfogel, Craigie, & Brooks-Gunn, 2010), perhaps because previously married fathers tend to invest more emotional and financial resources in their children both before and after the divorce than fathers who were never married to their children's mother (Carlson, 2006; Cheadle, Amato, & King, 2010). However, other studies suggest that family instability, rather than the absence of a biological father, is especially harmful for children (Cavanagh & Huston, 2006; Fomby & Cherlin, 2007; Osborne & McLanahan, 2007), due in part to the changes in residence, income, and family roles that often accompany changes in mothers' romantic partners. In light of these considerations, in the present study I focus not only on differences in children's attainment between intact and non-intact families, but also on differences among different types of non-intact families.

The role of family structure in understanding class disparities in educational attainment

The fact that family structure affects children's educational attainment does not necessarily mean it contributes to class disparities in children's attainment at the population level. For these disparities to emerge, family structure must also differ by social class in one or both of the following ways. First, the prevalence of certain family structures could vary by parental SES (*differences in composition*). If children born to low-SES parents are more likely to be raised in a non-intact family, or in a particular type of non-intact family, than those born to high-SES parents, then the higher prevalence of these types of families at the low end of the socioeconomic distribution will produce disparities in children's educational attainment by parental SES for the next generation.

Second, the effect of family structure on educational attainment could differ by parental SES (*differences in association*). If growing up in a non-intact family, or in a particular type of non-intact family, has a stronger, negative effect on the educational attainment of children born to low-SES parents than it does on those born to high-SES parents, this difference could also produce disparities in children's educational attainment. For instance, low-SES parents may have fewer economic and/or psycho-social resources to buffer the negative effects of raising a child alone, whereas high-SES parents may be able to provide their child with similarly beneficial opportunities regardless of their family structure status (Sigle-Rushton & McLanahan, 2004; Thomson et al., 1994). On the other hand, because wealthier and more educated parents have the potential to pass along greater levels of human capital to their children, the reduction in material resources and parent-child engagement that often accompanies family dissolution may be particularly detrimental in this context (Coleman, 1988). In other words, growing up in a non-intact family may be especially harmful for children of high-SES parents because they have "more to lose," whereas children born to low-SES parents may be unlikely to attain high levels of education regardless of their family structure. If the latter theory is correct, then differences in the association between family structure and children's educational attainment by parental SES could mitigate class disparities in children's educational attainment at the population level.

Most empirical research on differences in family structure by social class has focused on differences in composition. Recent demographic work has found that women with lower levels of education are less likely to marry and more likely to divorce than highly educated women (Goldstein & Kenney, 2001; Martin, 2006). They are also much more likely to have children outside of marriage (Ellwood & Jencks, 2004). As a result, children born to low-SES mothers are much more likely to experience father absence and family instability than children born to high-SES mothers (McLanahan, 2004). Although these patterns suggest that differences in family structure composition by social class are contributing to class disparities in children's educational attainment, this hypothesis has yet to be tested empirically.

Compared to differences in composition, much less theoretical or empirical work has focused on differences in the association between family structure and children's educational attainment by social class. The few studies that have looked at this have uncovered mixed results, depending on children's ages and the outcomes of interest. Two recent studies of children's school performance in early and middle childhood (ages 3 to 10) found that the negative effect of family structure was stronger for children whose mothers had lower levels of

education (Augustine, 2012; Mandemakers & Kalmijn, 2014), which suggests that differences in association may serve to exacerbate existing SES disparities in educational attainment. However, two studies of children's completed educational attainment found that the negative association between family structure and educational attainment was stronger for children from high-SES families (Biblarz & Raftery, 1999; Martin, 2012), which suggests that differences in association may actually mitigate existing SES disparities in attainment. These mixed findings point to the need for additional research on how parental SES moderates the association between family structure and various indicators of children's educational attainment, and on the implications of this moderation for population-level SES disparities in children's attainment.

The present study

The purpose of the present study is to examine the extent to which differences in family structure are contributing to inequality in young adults' educational attainment by the SES of their family of origin, as measured by their parents' level of education. To conduct this analysis, I use decomposition models to quantify how much SES differences in youth's educational attainment would be reduced if youth from low-SES families had the same family structure composition and/or associations as youth from high-SES families.

This study contributes to prior literature on the role of family structure in the reproduction of inequality in three important ways. First, it helps to place the findings from previous studies in context. Most studies on family structure and children's attainment have used individual-level regression models to examine the association between growing up in a particular family structure and an individual child's outcomes. Although the results of these models are informative, they do not tell us how these individual effects combine to produce class disparities in children's attainment at the population level. Second, this analysis considers the role of SES differences in family structure composition *and* of SES differences in the association between family structure and children's attainment in the production of these disparities. While a number of scholars have argued that the former is likely contributing to inequality in children's outcomes, much less attention has been paid to the latter.

A third contribution of this analysis is that it aims to answer a question that is at the heart of many social policies: How much would children benefit if parents at the low end of the socioeconomic distribution experienced the family patterns of parents at the high end of this distribution? Decomposition models act as a useful counterfactual tool for assessing how population-level changes in family structure would be expected to influence the next generation's educational attainment. Although the estimates these models produce are purely descriptive and should not be interpreted as causal (a point I will return to later), they are still informative for policies designed to promote equal outcomes among children and young adults.

II. METHOD

Data and sample

The data for this project come from the National Longitudinal Survey of Youth 1997 cohort (NLSY97). The NLSY97 contains a nationally representative sample of 8,984 men and women who were born between 1980 and 1984 and were 12 to 17 years old when first interviewed in 1997. Follow-up interviews have been conducted annually, with the most recent round of

available data coming from 2011 when respondents were 26 to 31 years old. Retention rates for the follow-up surveys have been quite high; for instance, over 82 percent of the original sample completed the 2011 round of data collection. During the initial round of data collection, one parent of each respondent (usually the mother) was asked to complete a supplemental parent interview: 88 percent of respondents had a parent complete this supplement. This portion of the survey contains important information on biological parents' educational attainment, their marital history, and other key demographic characteristics.

From the full NLSY97 sample, I dropped 825 cases (9.2 percent) who did not complete an interview when they were 25 years or older, because this was the youngest age at which it seemed reasonable to measure youth's completed educational attainment (Barro & Lee, 2013). I also excluded 1,792 cases (19.9 percent) whose mother did not complete the parent interview and 1,171 cases (13.0 percent) who did not live with their mother continuously throughout their childhood. Supplemental analyses (described in the Results section) indicated that my findings were robust to the inclusion of young adults whose father completed the parent interview and/or who lived continuously with their father throughout childhood. I also dropped 56 cases (0.6 percent) who were missing information on their own educational attainment and 131 cases (1.5 percent) who were missing information on their parents' educational attainment. Finally, I dropped 122 cases (1.4 percent) who were missing information on any of the control variables in the multivariate analyses. As I continue to work on this paper, I will use multiple imputation with chained equations to retain cases with missing covariates in my analyses (White, Royston, & Wood, 2011). My final analytic sample consisted of 4,887 youth who were ages 25 to 31 in 2005 to 2011.

Measures

Youth's Educational Attainment

I examined three different indicators of youth's educational attainment. The first was a continuous measure of their completed *years of schooling*. The second was a dichotomous measure of whether they completed 12th grade (*graduated from high school*). Youth who received a GED but did not complete 12th grade were not counted as having graduated from high school. Finally, the third was a dichotomous measure of whether they completed a bachelor's degree (*graduated from college*). Although related, these indicators draw attention to distinct components of the schooling process, all of which have different implications for young adults' economic attainment later in life (Baum, Ma, & Payea, 2013). All of these measures were derived from respondents' self-reports when they were 25 to 31 years old.

Family Structure

I examined two different measures of youth's family structure, both of which reflected their full history of family structure experiences from birth to age 18. These measures were created from a combination of mother and youth reports. Before the 1997 survey, youth's family structure can be ascertained from mothers' reports of the start and end dates of all their marital relationships. Beginning in 1997, youth's family structure can be ascertained from their own reports of their household roster. At each survey wave, youth indicated whether they were living with their mother and biological father, their mother and a stepfather, or their mother only. (As mentioned previously, youth who did not live with their mother continuously throughout their

childhood were excluded from the main analyses.) From this information, I created a three-category measure of youth's living arrangements for each year of their life from birth through age 17 (for a total of 18 years). Categories included "both biological parents," "mother and stepfather," and "mother only." All family structure transitions were assumed to occur at the start of the year; for example, if mothers got married in the same year their child was born, I coded them as married when their child was born. Also, because mothers were not asked the identity of their child's biological father, I assumed that their spouse in the year of the child's birth (or in the following year, if they weren't married when their child was born) was their child's father and that any subsequent spouse was a stepfather. The only exception was if youth indicated that they were living with their biological father in adolescence; in these instances, I coded mothers' partner as youth's biological father rather than a stepfather.

From this information on youth's family structure at each age, I created a detailed, categorical measure capturing the full history of youth's family structure experiences from birth to age 18. This measure included the following six mutually exclusive and exhaustive categories:

1. **Intact** (lived continuously with both biological parents from birth to 17 years old).
2. **Stable single mother** (lived continuously with mother only from birth to 17 years old).
3. **Two parent to single mother** (lived at birth with both biological parents, experienced dissolution of parents' relationship, and subsequently lived with single mother through age 17).
4. **Two parent to single mother to stepfather** (lived at birth with both biological parents, experienced dissolution of parents' relationship, and subsequently lived with a stepfather through age 17).
5. **Single mother to stepfather** (lived at birth with a single mother and subsequently lived with a stepfather through age 17).
6. **Other** (experienced more transitions or a different sequence of transitions than the remaining categories).

In addition to this detailed measure, I also created a simple, dichotomous measure of whether youth were raised in an *intact* versus a *non-intact* family.

Parental SES

My primary measure of parents' SES reflected the educational attainment of respondents' biological mother and father (based on mothers' reports). This was preferable to a measure of SES based on parents' income or employment because most individuals complete their education before having children (or when children are very young); thus, educational attainment is more likely to be exogenous to youth's family structure than these other indicators of parental SES. Youth from *low-SES* families were defined as those in which both parents had a high school education or less, whereas youth from *high-SES* families were defined as those in which at least one parent had some college education or more. This cutoff reflected the median education level of parents in the sample. To examine the sensitivity of my results to other ways of measuring parental SES, I also constructed a measure of SES that distinguished families in which neither parent graduated from high school from families in which at least one parent had a bachelor's

degree or higher. Parents who received a GED but did not finish 12th grade were not counted as having graduated from high school. These categories reflected the bottom and top quartiles of parents' educational attainment in the sample. I discuss the results from these supplemental analyses in the Results section.

Controls

Finally, I also included a selection of control variables in my models, to account for factors that may confound my estimates of the association between family structure and SES differences in youth's educational attainment. These factors included youth's race/ethnicity (White, Black, Hispanic, or Other); their total number of reported full and half siblings; whether both of their biological parents were born in the United States; and the mothers' age at the youth's birth.

Analytic strategy

My analyses proceeded as follows. First, I estimated descriptive statistics for my measures of youth's educational attainment, family structure, and the control variables, separately by parental SES. This descriptive analysis was important for motivating the decomposition models by illustrating the magnitude of SES differences in educational attainment and family structure composition. If educational attainment or family structure did not vary by parental SES, then there would have been little point in examining the contribution of SES differences in family structure composition to SES differences in educational attainment. The descriptive analyses were weighted using custom weights provided by the NLSY97 to account for differential sampling probabilities and survey attrition.

Next I ran regression models for each measure of youth's educational attainment, separately by parental SES. I used ordinary least squares (OLS) regression to model the outcome of "years of education" and logistic regression to model the outcomes of "graduated from high school" and "graduated from college." This analysis was necessary to determine whether family structure was associated with educational attainment within SES groups net of the control variables, and whether these associations varied by parental SES. If family structure did not predict youth's educational attainment within SES groups, then there would have been little point in examining the contribution of SES differences in association to SES differences in educational attainment. Standard errors were adjusted to account for the clustering of respondents at the household level (about 37 percent of respondents had a sibling in the sample).

Finally, after examining whether youth's educational attainment and family structure varied by parental SES, and whether family structure was related to educational attainment within SES groups, I turned to the decomposition models. The Blinder-Oaxaca decomposition method was developed to decompose mean differences in a continuous outcome variable using OLS regression (Blinder, 1973; Oaxaca, 1973). This makes the method ideal for decomposing mean SES differences in youth's total years of schooling, given that it is a continuous variable. I discuss how I decomposed differences in the remaining two outcome variables later in this section.

The basic logic of the Blinder-Oaxaca method is as follows. Mean years of education in each SES group can be expressed with a regression model predicting years of education for

youth raised in high-SES families (subscript *h*) and youth raised in low-SES families (subscript *l*) separately (notation follows Jones and Kelley, 1984). That is,

$$\overline{Y}_j = \alpha_j + \overline{X}_j\beta_j \; j \in [h, l] \qquad (1)$$

where α is a regression constant, X is a vector containing the means on the independent variables (family structure and the control variables), and β is a vector of the associations to be estimated.

The difference in mean years of schooling can then be expressed as the difference between these linear predictions. That is,

$$D = \overline{Y}_h - \overline{Y}_l = \left(\alpha_h + \overline{X}_h\beta_h\right) - \left(\alpha_l + \overline{X}_l\beta_l\right) \qquad (2).$$

To identify the contribution of SES differences in composition and associations to the overall outcome difference, (2) can be rearranged as,

$$D = (\alpha_h - \alpha_l) + (\overline{X}_h - \overline{X}_l)\beta_l + \overline{X}_l(\beta_h - \beta_l) + (\overline{X}_h - \overline{X}_l)(\beta_h - \beta_l) \qquad (3)$$

(Winsborough & Dickinson, 1971). This decomposition is expressed from the perspective of the low-SES group. That is, it measures the expected change in the low-SES group's mean years of schooling if this group had the composition/associations of the high-SES group. The first component of equation (3),

$$(\alpha_h - \alpha_l)$$

tells us the "unexplained" part of the difference due to group membership. In other words, it is the portion of the SES difference in mean years of schooling that remains after accounting for the variables in the model. The second component,

$$(\overline{X}_h - \overline{X}_l)\beta_l$$

tells us the expected change in the low-SES group's mean years of schooling if this group had the same composition as the high-SES group with respect to family structure and the control variables, but its association between family structure and years of schooling remained the same. The third component,

$$\overline{X}_l(\beta_h - \beta_l)$$

tells us the expected change in the low-SES group's mean years of schooling if this group had the same associations, or returns to family structure and the control variables, as the high-SES group, but its family structure composition remained the same. Finally, the fourth component,

$$(\overline{X}_h - \overline{X}_l)(\beta_h - \beta_l)$$

is an interaction term representing the contribution of simultaneous differences in the composition and associations between the two groups. This interaction term is difficult to

interpret, and is often dropped from the model (using an alternative weighting procedure) or arbitrarily re-allocated to the second and third components. However, I decided to retain the term in the model because doing so produces more conservative estimates of the second and third components (Jann, 2008; Karraker, DeLamater, & Schwartz, 2011).

Recently, a more general version of the Blinder-Oaxaca model was developed to decompose differences in discrete outcome variables (Yun, 2004), such as whether youth graduated from high school and whether they graduated from college. The basic logic of the method is the same as the above, but instead of using an OLS model to decompose differences in the group-specific means of a continuous outcome variable, a logistic regression model is used to decompose differences in the group-specific log odds of a discrete outcome variable. In other words, on the left-hand side of equation 1, $\overline{Y}_j$ is replaced with logit$[\overline{P(Y=1)}]_j$. I used this method to decompose SES differences in youth's log odds of graduating from high school and their log odds of graduating from college. I implemented all of the decomposition models in Stata 13 using the "Oaxaca" command (Jann, 2008). As with the regression models, standard errors were adjusted to account for the clustering of respondents at the household level.

III. RESULTS

Descriptive results

Descriptive information on the educational attainment, family structure, and other demographic characteristics of the sample are displayed in Table 1. Overall, young adults in the sample completed about 14 years of schooling (2 years of schooling beyond high school). Over 85 percent of the sample graduated from high school and over 37 percent graduated from college, consistent with national estimates of educational attainment for this cohort (U.S. Department of Education, 2014). However, these average levels of educational attainment belied significant differences by parental SES. Whereas youth from low-SES families completed around 12.8 years of schooling, youth from high-SES families completed nearly 15 years of schooling. About 75 percent of low-SES youth graduated from high school whereas over 90 percent of high-SES youth did so. Finally, only 17 percent of young adults from low-SES families graduated from college, whereas slightly more than 50 percent of young adults from high-SES families did so. All of these differences in educational attainment by SES were statistically significant at $p \leq .01$.

Turning to the family structure experiences of the sample, around 55 percent of the sample grew up in an intact family; that is, they lived with both of their biological parents from birth to age 18. Just under 12 percent grew up in a stable, single-mother family. Around 19 percent of the sample experienced their biological parents' separation or divorce, with around 11 percent living with a single mother for the rest of their childhood and 8 percent eventually living with a stepfather. Around 4 percent of the sample lived with a single mother at birth but eventually lived with a stepfather. Finally, 11 percent of the sample experienced more transitions or a different sequence of transitions than those described above. As with educational attainment, family structure also differed significantly by parents' SES. Young adults from high-SES families were much more likely to grow up in an intact family than young adults from low-SES families. They were also much less likely to live with a single mother at birth or to experience high amounts of family instability while growing up (as captured by the "other" category).

Finally, youth from high-SES families were slightly more likely to experience their parents' divorce and live with a single mother for the remainder of their childhood than youth from low-SES families. All of these differences were significant at $p \leq .01$.

With regard to the demographic characteristics of the sample, nearly three-fourths of young adults in the sample were White, about 14 percent were Black, and about 12 percent were Hispanic. The average number of full and half siblings was 2.3. Over 86 percent of young adults indicated that both of their parents were born in the United States. Finally, mothers were, on average, about 26 years old when their child was born. Again, these characteristics differed significantly by SES (all differences were significant at $p \leq .01$). Youth from high-SES families were more likely to identify as White and less likely to identify as Black or Hispanic, than youth from low-SES families. They also reported fewer siblings, and were more likely to have U.S.-born parents. Finally, high-SES youth had mothers who were slightly older, on average, than low-SES youth.

Table 1. Descriptive statistics, overall and by parental SES

	Overall		Low SES		High SES		SES
	M or %	(SD)	M or %	(SD)	M or %	(SD)	Dif.
Youth's educational attainment							
Years of schooling	14.05	(2.82)	12.75	(2.77)	14.95	(2.47)	**
Graduated from high school	85.8		75.7		92.8		**
Graduated from college	37.6		17.4		51.6		**
Family structure							
Intact	54.5		42.9		62.6		**
Stable single mother	11.9		18.7		7.1		**
Two parent to single mother	11.4		10.2		12.3		**
Two parent to single mother to stepfather	7.5		8.0		7.2		
Single mother to stepfather	3.8		6.0		2.0		**
Other	11.0		14.1		8.8		**
Race							
White	72.6		59.2		81.9		**
Black	14.3		20.5		10.1		**
Hispanic	12.1		19.5		7.0		**
Other	0.9		0.8		1.0		
Number of siblings	2.25	(1.75)	2.59	(2.11)	2.01	(1.45)	**
Parents born in U.S.	86.4		84.4		87.8		**
Mother's age at youth's birth	26.08	(5.14)	24.58	(5.63)	27.12	(4.53)	**
N	4,887		2,317		2,570		

Note: Parental SES measured by median level of parents' education ("Low SES" reflects a high school education or less and "High SES" reflects some college education or more). All values weighted to account for differential sampling probabilities and attrition.

† p ≤ 0.10, * p ≤ 0.05, ** p ≤ 0.01: significance levels for two-tailed tests of coefficient differences by parental SES.

M = mean; SD = standard deviation

Regression results

Table 2 displays the regression results for the measures of youth's educational attainment, separately by parental SES. These models were used to investigate whether family structure was

associated with educational attainment and whether these associations differed by parental SES. For each measure of educational attainment, I ran two separate models. In the first model, I regressed the outcome variable on the basic, dichotomous measure of family structure to assess whether growing up in any type of non-intact family was associated with a reduction in youth's educational attainment. In the second model, I replaced this basic measure with the more detailed, six-category measure of family structure, to assess whether growing up in certain types of non-intact families was particularly detrimental for educational attainment. These models also included all of the covariates, although to conserve space they are not presented in the table and will not be discussed further here. I used OLS regression to model young adults' years of schooling and logistic regression to model young adults' log odds of graduating from high school and college.

Table 2. Regression results for youth's educational attainment, separately by parental SES

	Years of schooling (OLS regression models)							Graduated from high school (logit regression models)								Graduated from college (logit regression models)							
	Low SES			High SES			SES Dif.	Low SES				High SES			SES Dif.	Low SES				High SES			SES Dif.
	β		t	β		t		β		exp (β)	z	β		exp (β)	z		β		exp (β)	z	β		exp (β)	z	
Model 1: Basic Family Structure																									
Family structure																									
Intact	--		--	--		--		--		--	--	--		--	--		--		--	--	--		--	--	
Non-intact	-0.65	**	-5.19	-1.06	**	-8.83	*	-0.62	**	0.54	-5.26	-1.21	**	0.30	-6.65	**	-0.42	**	0.66	-3.17	-0.80	**	0.45	-8.35	*
Constant	12.82			13.98				1.68		5.37		2.16		8.64			-1.86		0.16		-0.84		0.43		
Model 2: Detailed Family Structure																									
Family structure																									
Intact	--		--	--		--		--		--	--	--		--	--		--		--	--	--		--	--	
Stable single mother	-1.01	**	-6.32	-1.49	**	-6.97	†	-0.89	**	0.41	-6.17	-1.64	**	0.19	-6..81	**	-0.69	**	0.50	-3.65	-1.05	**	0.35	-5.80	
Two parent to single mother	-0.49	**	-2.49	-0.81	**	-4.50		-0.49	**	0.61	-2.63	-1.11	**	0.33	-4.85	*	-0.34	†	0.71	-1.62	-0.60	**	0.55	-4.32	
Two parent to single mother to stepfather	-0.54	*	-2.45	-1.00	**	-4.77		-0.42	*	0.66	-1.96	-0.98	**	0.38	-3.35		-0.78	**	0.46	-2.45	-0.88	**	0.42	-5.01	
Single mother to stepfather	-0.58	*	-2.13	-1.07	**	-3.11		-0.67	**	0.51	-3.10	-1.19	**	0.31	-3.02		0.01		1.01	0.04	-0.68	**	0.51	-2.44	†
Other	-0.34	*	-1.95	-1.14	**	-5.93	**	-0.39	*	0.68	-2.40	-1.16	**	0.31	-4.52	**	-0.16		0.85	-0.83	-0.88	**	0.42	-5.43	**
Constant	12.67			13.98				1.56		4.74		2.05		7.80			-1.97		0.14		-0.83		0.43		
N	2,317			2,570				2,317				2,570					2,317				2,570				

Note: Parental SES measured by median level of parents' education ("Low SES" reflects a high school education or less and "High SES" reflects some college education or more). All models include controls for race/ethnicity, number of siblings, parents born in U.S., and mother's age at youth's birth.

† p ≤ 0.10, * p ≤ 0.05, ** p ≤ 0.01: significance levels for two-tailed tests of coefficients.

Looking first at the models for years of schooling, the results from Model 1 indicate that in both low-SES and high-SES families, youth from non-intact families had significantly fewer years of schooling than youth from intact families. This association was stronger for youth from high-SES families: growing up in a non-intact family was associated with more than a 1.0-year reduction in schooling in a high-SES context versus a 0.65-year reduction in schooling in a low-SES context. The results from Model 2 suggest that young adults raised in all types of non-intact families attained fewer years of schooling than young adults raised in intact families, although the reduction in schooling was especially large for youth raised by a stable single mother. Again, growing up in a non-intact family—particularly in a stable, single-mother family or in an especially unstable family (the "other" category)—appeared to be especially detrimental to youth from high-SES families.

The results for the models of young adults' log odds of graduating from high school largely mirrored those for years of schooling. In Model 1, youth from non-intact families were less likely to graduate from high school than youth from intact families. Youth with high-SES parents experienced a larger reduction in their log odds of graduating from high school (log odds = -1.21; odds ratio = 0.30) if they grew up in a non-intact family than youth with low-SES parents (log odds = -0.62: odds ratio = 0.54). Turning to Model 2, for youth from both low-SES and high-SES families, growing up in any type of non-intact family was associated with a reduction in the log odds of graduating from high school relative to growing up in a non-intact family, and this penalty was slightly larger for youth raised in a stable, single-mother family. Again, the reduction in schooling associated with growing up in a non-intact family was larger for youth raised in a high-SES context than for youth raised in a low-SES context.

Finally, turning to the results from the logistic regression models for graduation from college, the results from Model 1 suggest that growing up in a non-intact family was associated with a significant decrease in young adults' log odds of graduating from college, and that this association was stronger for young adults from high-SES families. Among youth from high-SES families, growing up in a non-intact family was associated with a 0.80 reduction in the log odds of graduating from college (odds ratio = 0.45), while among youth from low-SES families, growing up in a non-intact family was associated with a 0.42 reduction in the log odds of graduating from college (odds ratio = 0.66). In Model 2, growing up in any type of non-intact family was associated with a decrease in the log odds of graduating from college for high-SES youth, but not for low-SES youth. Low-SES youth who were born to a single mother but subsequently lived with a stepfather, or who experienced another family structure trajectory than those described here, did not experience lower odds of graduating from college. Growing up in the other three types of non-intact families was associated with a reduction in the log odds of graduating from college for both low-SES and high-SES youth.

Decomposition results

Table 3 shows the results of the Blinder-Oaxaca decomposition of SES differences in young adults' years of schooling as a function of three components: (1) differences in the composition of family structure by SES, (2) differences in the association between family structure and years of schooling by SES, and (3) interactions between 1 and 2. The SES differences in years of schooling presented in the table are covariate-adjusted, meaning they represent the portion of the difference that remained when SES differences in the covariates were accounted for. Model 1 used the basic, dichotomous measure of family structure, whereas Model 2 replaced this with the

detailed, six-category measure of family structure, to assess whether SES differences in years of schooling were driven by SES differences in particular types of non-intact families. Results are presented both as absolute numbers and as a proportion of the total difference. Positive values indicate that differences in family structure composition or association contributed to fewer years of schooling for low-SES youth, whereas negative values indicate that differences in family structure composition or association served to offset the observed reduction in schooling for low-SES youth.

Table 3. Decomposition of SES differences in years of schooling (N = 4,887)

	Years of schooling	Proportion of difference
Model 1: Basic Family Structure		
Differential		
Low SES	12.43	
High SES	13.55	
Difference (High - Low)	1.12*	
Compositions		
Non-intact	0.13**	0.12
Associations		
Non-intact	-0.25**	-0.22
Interactions		
Non-intact	0.08**	0.07
Total		
Explained difference	-0.04	-0.04
Unexplained difference	1.16	1.04
Model 2: Detailed Family Structure		
Differential		
Low SES	12.26	
High SES	13.53	
Difference (High - Low)	1.27**	
Compositions		
Stable single mother	0.15**	0.12
Two parent to single mother	-0.02*	-0.02
Two parent to single mother to stepfather	-0.00	0.00
Single mother to stepfather	0.02*	0.02
Other	0.02*	0.02
Total	0.17	0.13
Associations		
Stable single mother	-0.12*	-0.09
Two parent to single mother	-0.03	-0.02
Two parent to single mother to stepfather	-0.03	-0.02
Single mother to stepfather	-0.03	-0.02
Other	-0.12**	-0.09
Total	-0.33	-0.26
Interactions		
Stable single mother	0.07	0.06
Two parent to single mother	-0.01	-0.01
Two parent to single mother to stepfather	-0.00	0.00
Single mother to stepfather	0.02	0.02
Other	0.04*	0.03
Total	0.12	0.09
Total		
Explained difference	-0.04	-0.03
Unexplained difference	1.31	1.03

Note: Parental SES measured by median level of parents' education ("Low SES" reflects a high school education or less and "High SES" reflects some college education or more). Models adjusted for all covariates. Reported numbers may not add to totals due to rounding.

† $p \leq 0.10$, * $p \leq 0.05$, ** $p \leq 0.01$.

Looking at the results for Model 1, youth from high-SES families averaged 1.12 more years of schooling than youth from low-SES families. The results of the decomposition indicate that if low-SES families had the same family structure composition as high-SES families (but retained their association between family structure and years of schooling), this difference would have been reduced by 0.13 years, or 12 percent. If low-SES families had the same association between growing up in a non-intact family and years of schooling as high-SES families (but retained their family structure composition), this difference would have increased by 0.25 years, or 22 percent. Finally, the interaction effect accounts for an additional reduction of 0.08 years (or 7 percent) in the difference in years of schooling for high-SES versus low-SES youth. Taken together, these results suggest that if youth from low-SES families had the same proportion of non-intact families, and the same association between growing up in a non-intact family and years of schooling, as youth from high-SES families, the difference in years of schooling for these two groups would have been 0.04 years greater than was actually observed.

The results for Model 2 shed light on which types of non-intact families contributed most to SES differences in years of schooling. Using this more detailed measure of family structure, the estimated difference in years of schooling between high-SES and low-SES youth increased slightly, to 1.27 years. Looking first at differences in composition, stable single-mother families were the largest contributor to differences in years of schooling: If the proportion of low-SES youth growing up in a stable single-mother family was the same as for high-SES youth, the difference in years of schooling for these two groups would have decreased by 0.15 years (12 percent). Although differences in the composition of other types of non-intact families also contributed to differences in years of schooling, the magnitude of these effects was much smaller. Turning to differences in association, the larger associations between growing up in a stable single-mother family or "other" type of non-intact family for high-SES youth implies that if low-SES youth had experienced these associations, the difference in years of schooling would have increased by 0.24 years (0.12 + 0.12), or 18 percent (9 percent + 9 percent). Overall, like Model 1, if youth from low-SES families had experienced the same family structure composition and associations as youth from high-SES families, the difference in years of schooling would have been slightly greater (0.04 years) than was actually observed.

The results for the decompositions of the remaining two outcome variables—graduation from high school and graduation from college—are displayed in Tables 4 and 5. These results tell a similar story to the decompositions of years of schooling. Holding constant the association between family structure and educational attainment, if youth from low-SES families experienced the same family structure composition as youth from high-SES families, the difference in the log odds of graduating from high school and the log odds of graduating from college would have decreased. In Model 1 for the outcome for high school graduation (Table 4), the reduction in the log odds would have been 0.12, or 34 percent of the total difference. In Model 1 for the outcome of college graduation (Table 5), the reduction in the log odds would have been 0.08, or 9 percent of the total difference. Holding constant family structure composition, if low-SES youth experienced the same association between growing up in a non-intact family and these educational outcomes as high-SES youth, the difference in the log odds of graduating from high school and the log odds of graduating from college would have been exacerbated. In Model 1 for the outcome of high school graduation, the increase in the log odds would have been 0.36, or 103 percent of the total difference. In Model 1 for the outcome of

college graduation, the increase in the log odds would have been 0.23, or 24 percent of the total difference.

Table 4. Decomposition of SES differences in log odds of graduating from high school (N = 4,887)

	Log odds of graduating from high school	Proportion of difference
Model 1: Basic Family Structure		
Differential		
Low SES	1.30	
High SES	1.66	
Difference (High - Low)	0.35	
Compositions		
Non-intact	0.12**	0.34
Associations		
Non-intact	-0.36**	-1.03
Interactions		
Non-intact	0.12**	0.34
Total		
Explained difference	-0.12	-0.34
Unexplained difference	0.47	1.34
Model 2: Detailed Family Structure		
Differential		
Low SES	1.17	
High SES	1.55	
Difference (High - Low)	0.38	
Compositions		
Stable single mother	0.14**	0.37
Two parent to single mother	-0.02*	-0.05
Two parent to single mother to stepfather	-0.00	0.00
Single mother to stepfather	0.02**	0.05
Other	0.02*	0.05
Total	0.16	0.42
Associations		
Stable single mother	-0.18**	-0.47
Two parent to single mother	-0.06*	-0.16
Two parent to single mother to stepfather	-0.04	-0.11
Single mother to stepfather	-0.03	-0.08
Other	-0.11**	-0.29
Total	-0.42	-1.11
Interactions		
Stable single mother	0.11**	0.29
Two parent to single mother	-0.02†	-0.05
Two parent to single mother to stepfather	-0.01	-0.03
Single mother to stepfather	0.02	0.05
Other	0.04*	0.11
Total	0.14	0.37
Total		
Explained difference	-0.12	-0.32
Unexplained difference	0.50	1.32

Note: Parental SES measured by median level of parents' education ("Low SES" reflects a high school education or less and "High SES" reflects some college education or more). Models adjusted for all covariates. Reported numbers may not add to totals due to rounding.

† $p \leq 0.10$, * $p \leq 0.05$, ** $p \leq 0.01$

Table 5. Decomposition of SES differences in log odds of graduating from college (*N* = 4,887)

	Log odds of graduating from college	Proportion of difference
Model 1: Basic Family Structure		
Differential		
Low SES	-2.11	
High SES	-1.17	
Difference (High - Low)	0.94*	
Compositions		
Non-intact	0.08**	0.09
Associations		
Non-intact	-0.23*	-0.24
Interactions		
Non-intact	0.08*	0.09
Total		
Explained difference	-0.07	-0.07
Unexplained difference	1.01	1.07
Model 2: Detailed Family Structure		
Differential		
Low SES	-2.24	
High SES	-1.17	
Difference (High - Low)	1.07*	
Compositions		
Stable single mother	0.11**	0.10
Two parent to single mother	-0.01	-0.01
Two parent to single mother to stepfather	-0.01	-0.01
Single mother to stepfather	-0.00	0.00
Other	0.01	0.01
Total	0.10	0.09
Associations		
Stable single mother	-0.09	-0.08
Two parent to single mother	-0.02	-0.02
Two parent to single mother to stepfather	-0.01	-0.01
Single mother to stepfather	-0.04†	-0.04
Other	-0.11**	-0.10
Total	-0.27	-0.25
Interactions		
Stable single mother	0.06	0.06
Two parent to single mother	-0.01	-0.01
Two parent to single mother to stepfather	-0.00	0.00
Single mother to stepfather	0.02†	0.02
Other	0.04**	0.04
Total	0.11	
Total		
Explained difference	-0.06	-0.06
Unexplained difference	1.13	1.06

Note: Parental SES measured by median level of parents' education ("Low SE"' reflects a high school education or less and "High SES" reflects some college education or more). Models adjusted for all covariates. Reported numbers may not add to totals due to rounding.

† $p \leq 0.10$, * $p \leq 0.05$, ** $p \leq 0.01$.

Turning to Model 2 for these two outcomes, again, differences in the composition of stable single-mother families were the largest contributor to SES differences in educational attainment. Holding differences in association constant, if the proportion of low-SES youth growing up in a stable single-mother family was the same as the proportion for high-SES youth, the difference in the log odds of graduating from high school and college would have decreased. However, the larger, negative associations between growing up in most types of non-intact families and these educational outcomes for high-SES youth implies that, if low-SES youth had experienced these associations, the difference in these educational outcomes would have increased. Overall, the decompositions for graduating from high school and graduating from college show that if low-SES youth had experienced the same family structure composition and associations as high-SES youth, SES differences in both of these outcomes would have been greater than were actually observed.

Supplemental analyses

To examine the sensitivity of these decomposition results to my decision to measure parental SES using parents' median educational level, I re-ran the models using an alternative measure of parental SES. In these new analyses (N = 2,041), low-SES parents were defined as those in which neither parent had graduated from high school (the bottom education quartile) and high-SES parents were defined as those in which at least one parent had a bachelor's degree or higher (the top education quartile). Results from these analyses are summarized below (and are available from the author upon request).

Not surprisingly, SES differences in youth's educational attainment were much larger when using this alternative measure of SES. For instance, after adjusting for covariates, youth from low-SES families averaged 2.70 fewer years of schooling than youth from high-SES families (11.77 years versus 14.47 years), as compared to 1.12 fewer years in the main analyses. However, unlike the results based on parents' median level of education, when children from the bottom and top education quartiles were compared, SES differences in family structure composition no longer contributed to SES differences in educational attainment. This implies that if youth from low-SES families were to experience the same family structure composition as youth from high-SES families, the disparity in their educational attainment would not change. This was true for all three outcome variables. Further examination revealed that this result stemmed from the fact that, among youth whose parents were in the bottom education quartile, family structure was not associated with their educational attainment. Youth from these families were unlikely to achieve higher levels of education regardless of the type of family in which they were raised. As was the case in the main decomposition models, differences in association contributed to greater educational disparities between low-SES youth and high-SES youth. Overall, the results of these supplemental analyses revealed that if youth whose parents were in the bottom education quartile had the family structure composition and associations of youth whose parents were in the top education quartile, SES disparities in educational attainment would be much larger than were actually observed.

I also re-ran my analyses using a slightly larger sample that included youth who lived continuously with either of their biological parents (not just their mother) during childhood and whose mother or father completed the parent interview (N = 5,570), to test whether my findings might be generalizable to youth who grew up in father-headed households (results not shown but

available upon request). My measure of family structure for these analyses was the same as the detailed, six-category measure described previously, but with the addition of a category for youth who spent a portion of their childhood living apart from their mother in a household headed by their biological father (unfortunately, cell sizes were too small to distinguish among different types of father-headed households). Descriptive analyses indicated that, unlike other types of non-intact families, father-headed families were about equally prevalent in high- and low-SES contexts. Furthermore, while the associations between growing up in a father-headed family and young adults' educational attainment were negative (compared to growing up in an intact family), these associations did not differ significantly by SES. Thus, while my main findings about intact and non-intact families headed by mothers were robust to the use of this larger sample, the findings did not appear to generalize to non-intact families headed by fathers. Unlike mother-headed families, there is no indication that father-headed families play a significant role in either widening or attenuating the education gap between high- and low-SES youth.

IV. DISCUSSION

Rising rates of nonmarital childbearing and marital dissolution, particularly among poor and disadvantaged parents, have fueled concerns that changes in family life may be contributing to disparities in children's well-being by the social class of their family of origin. Evidence of stark inequalities in a wide range of child outcomes, including physical health, behavior problems, and school grades, by family structure (Amato, 2000; Sigle-Rushton & McLanahan, 2004) and socioeconomic status (Conti & Heckman, 2012; Kalil, 2013), appear to support the validity of these concerns.

The main objective of the present paper was to provide a direct test of the argument that socioeconomic differences in family structure are responsible for socioeconomic differences in children's well-being, focusing specifically on the outcome of children's educational attainment. Decomposition models offered a straightforward, counterfactual tool for quantifying how much the educational attainment of youth from low-SES families would be expected to change if they experienced the same family structure as their high-SES peers. Overall, the results from these analyses suggest that differences in family structure by parental education play a negligible role in explaining disparities in youth's educational attainment. When I accounted for SES differences in both family structure composition and the association between family structure and educational attainment, I found that disparities in youth's educational attainment were not reduced; if anything, they were magnified.

The bulk of the theoretical literature on the consequences of family structure for the reproduction of class inequality has focused on the implications of differences in family structure *composition* by social class (Carlson & England, 2011; McLanahan, 2004; McLanahan & Percheski, 2008). Consistent with this literature, when I measured parental SES based on parents' median level of education, I found that the higher proportion of non-intact families at the lower end of the socioeconomic distribution accounted for a portion of these children's lower educational attainment. This was true for all three measures of educational attainment (years of schooling, graduating from high school, and graduating from college). I also found that not all types of non-intact families mattered equally for understanding SES differences in educational attainment. The greater prevalence of children growing up with a single mother or experiencing high levels of family instability (as captured by the "other" category) at the low end of the SES

distribution accounted for most of the compositional effect of family structure on SES differences in educational attainment. In contrast, SES differences in the prevalence of children experiencing their parents' separation or divorce explained a much smaller portion of these education differences. Youth born to parents with low levels of education were not significantly more likely than youth born to parents with high levels of education to experience these types of non-intact families, and these types of non-intact families appeared to be less detrimental for youth's educational attainment (especially compared to stable, single-mother families).

Even though the greater prevalence of certain types of non-intact families among low-SES youth accounted for a portion of the youth's lower educational attainment, these compositional differences were more than offset by the stronger negative association between growing up in a non-intact family and educational attainment among high-SES youth. For all three outcome variables, high-SES youth experienced a greater penalty for growing up in a non-intact family than low-SES youth. Why might this be the case? Better educated parents have the potential to pass along great levels of human capital to their children; thus children of high-SES parents may simply have "more to lose" than children born to low-SES parents (Coleman, 1988; Martin, 2012). Getting divorced or having a child outside of marriage may impose a larger economic penalty on highly educated parents. Diminished contact with a nonresident parent may also cause high-SES children to miss out on important life lessons and social networking opportunities available to their peers in two-parent families. In contrast, children born to less educated parents often face a number of obstacles to their attainment in addition to family structure. Even in households headed by two biological parents, income and savings are likely to be low, and parents' behaviors are less likely to foster their children's high academic achievement (Lareau, 2003; Putnam, 2015). As a result, the penalty for growing up in a non-intact family is likely smaller in this context.

Moreover, when I used an alternative measure of parental SES and compared the educational attainment of children whose parents were in the bottom education quartile to those whose parents were in the top education quartile, I found that even differences in composition no longer accounted for any of the SES differences in children's educational attainment. This was not because differences in the prevalence of non-intact families in the bottom and top education quartiles were not large (in fact, they were very large). It was because, for youth born to parents in the bottom quartile of the education distribution, family structure had no bearing on their educational attainment. These young adults were equally unlikely to graduate from high school, graduate from college, or attain more years of education, regardless of the type of family in which they grew up. This finding raises important questions about the potentially heterogeneous effect of family structure on children's social mobility. Most social mobility studies have not considered how the implications of family structure may vary depending on parents' socioeconomic position. The few studies that have examined this have found that family structure plays a much smaller role in the educational and economic attainment of youth from low-SES families compared to that of youth from high-SES families (Biblarz & Raftery, 1999; Martin, 2012). These findings point to the need for more empirical work on how parents' socioeconomic status moderates the effect of family structure on children's attainment in adulthood.

The results of the present study are useful for thinking about the possible implications of policies aimed at changing family formation patterns among disadvantaged men and women

(Dion, 2005; Myrick, Ooms, & Patterson, 2009). In accordance with existing research, I found that family structure matters for children's educational attainment. However, policies and programs that focus on reducing the number of non-intact families in the lower half of the SES distribution are unlikely to significantly affect children's economic mobility because growing up in a non-intact family appears to have larger, negative implications for the educational attainment of children born to parents at the top of the SES distribution. Children born to disadvantaged parents—particularly those born to parents with exceedingly low levels of education—are not especially likely to increase their educational attainment regardless of their family structure. Other factors, such as parental income and employment, may be equally or more important in improving children's educational outcomes (Kalil & Wightman, 2011; McLanahan & Sandefur, 1994). Fortunately, today's healthy marriage and relationship education programs appear to be focusing less on encouraging marriage and preventing divorce, and focusing more on improving the relationship skills and employment prospects of all parents—married and unmarried—raising children together. To the extent that these programs enhance opportunities for children from disadvantaged backgrounds, they are likely to be more successful at reducing the SES gap in children's educational attainment than programs that focus on family structure alone.

Although the counterfactual calculations presented in this paper are useful for thinking about the possible magnitude of the impact of changes in family structure on SES differences in youth's attainment, the results should be interpreted as descriptive, not causal. The estimates produced by the decomposition models describe the educational inequality that we would observe if family structure composition were to change while the association between family structure and educational attainment remained the same, or conversely, if the association between family structure and educational attainment were to change while family structure composition remained the same. A causal interpretation of these results would require assuming that changes in the prevalence of certain types of family structures would not alter the association between family structure and children's educational attainment, which is unlikely to be true. In addition, while the models presented here controlled for a handful of factors that are likely to be related to SES differences in educational attainment and family structure, a number of other factors could have been driving this association. For example, a more complete causal model would need to control for factors such as mothers' mental health status, receipt of public assistance benefits, or income before their child's birth, all of which have been shown to be related to family structure and children's educational attainment (Meadows, McLanahan, & Brooks-Gunn, 2007; Moffit, 1998; Waldfogel, Han, & Brooks-Gunn, 2002).

Three other limitations are important to bear in mind when interpreting these results. First, this study considered only one indicator of children's well-being—their educational attainment in young adulthood. Studies of children's outcomes at younger ages, such as their behavior problems or test scores, have produced mixed results; some studies have found a larger effect of family structure on children's well-being in high-SES families (Ryan, Claessens, & Markowitz, 2015) and other studies have found a larger effect in low-SES families (Augustine, 2012; Mandemakers & Kalmijn, 2014). Thus, it is possible that the conclusions from the present study would not generalize to other indicators of well-being. Second, the present study measured parental SES using parents' education level. However, SES is typically considered a multi-dimensional construct that reflects an individual's position in the social hierarchy and does not map perfectly to education. Although it would have been ideal to incorporate other indicators of parents' social position—such as their wealth, income, or occupation—in my measure of SES,

because the NLSY does not contain retrospective information on these characteristics before children's birth, and these characteristics are likely to change as a function of family structure, this was not possible. Third, my measure of family structure did not capture mothers' cohabiting relationships when children were young, and it confounded cohabiting and marital relationships when children were older. This is because children's family structure before 1997 was derived from mothers' reports of their marital history, whereas their family structure since 1997 was derived from youth's reports of their household roster (which did not distinguish between marital and cohabiting relationships). Thus, I was unable to examine whether SES differences in the prevalence of marriage versus cohabitation might be driving SES differences in children's educational attainment.

Despite these limitations, the findings from the present study can help to inform ongoing debates about the role of family structure in the diverging destinies of children by social class (McLanahan, 2004; McLanahan & Percheski, 2008; Putnam, 2015). Although the higher prevalence of non-intact families—particularly single-mother families and highly unstable families—at the lower end of the socioeconomic distribution may be reducing the educational attainment of these children relative to that of their high-SES peers, the negative implications of growing up in a non-intact family appear to be larger for youth at the higher end of the socioeconomic distribution. Children raised by the least educated parents in our society are unlikely to achieve high levels of education, regardless of their family structure. These results suggest that researchers and policymakers should look beyond the family formation patterns of our nation's most disadvantaged parents to identify other factors that contribute to disparities in children's educational outcomes. Policies and programs that focus on family structure alone are unlikely to be sufficient to improve the life chances of children from disadvantaged backgrounds.

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