

Father Absence and the Gender Gap in College Graduation

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Abstract: The educational attainment of young women now exceeds that of young men in most of the developed world, and women account for about 60% of new four-year college graduates in the United States. Several studies have suggested that the increase in single-parent households may be contributing to the growing gender gap in education if boys are more vulnerable to the negative effects of father absence and economic disadvantage than girls. Using data on recent cohorts of young men and women from the National Longitudinal Study of Adolescent to Adult Health (Add Health), I find no evidence that father absence early in life is associated with lower rates of college graduation for boys in either cross-sectional or family fixed-effect models. Earlier studies may have found evidence of excess male vulnerability because they focused on gendered indicators of youth behavior such as school suspensions, which may not provide comparable indicators of skill development for boys and girls, and I provide supportive evidence of gender-distinct behavioral responses to father absence and step-father presence from the first wave of Add Health.

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I. Introduction

In 1990, the proportion of young women (aged 25 to 29) who had completed four-year college degrees, after steadily increasing for several decades, reached near equality with young men in the United States. By 2014, the long-standing gender gap in educational attainment had not just disappeared but reversed—favoring women by a substantial margin. More than 37 percent of young women now have four-year college degrees or higher educational attainment, compared to less than 31 percent of young men (U. S. Census, 2016b). Similar gender gaps in education are opening up around the world, with women completing tertiary degrees at higher rates than men in almost all OECD countries (OECD, 2015).

Rising female educational attainment has been enabled by the removal of barriers to women's schooling and labor force participation that had hindered investments in women's human capital. However, the emergence of a female advantage in higher education, even though women continue to have lower employment rates and work hours than men, has been treated as a puzzle in the social sciences. Some studies find a higher college wage premium for women than for men (Dougherty, 2005) but a consensus seems to be emerging that the principal source of the college gap lies in gender differences in the nonpecuniary costs of educational persistence. These cost differences are reflected in a persistent female advantage in school performance and are due, some argue, to lower levels of non-cognitive skills among boys (Goldin, Katz, and Kuzmienko, 2006; Becker, Hubbard, and Murphy, 2010).

Recent work in economics has focused on possible causes of this gender gap in skills that enhance academic achievement, including the hypothesis that the development of capabilities such as self-control among boys is more sensitive to family disadvantage than the skill development of girls. Autor and Wasserman (2013) suggest that the increased prevalence of single-parent families and decreased contact with a stable male parent may have a particularly negative impact on boys and contribute to the growing gender gap in education. A couple of studies report empirical evidence consistent with this hypothesis. Bertrand and Pan (2013) find that the gender gap in behavior problems and school suspensions is much larger for the sons and daughters of single mothers than for children in two-parent households. Autor, Figlio, Karbownik, Roth, and Wasserman (2016) show

that family disadvantage, measured by mother's education, marital status, and father absence, have larger effects on a variety of school outcomes for boys than for girls. So far, these studies have focused on school achievement and disciplinary measures rather than educational attainment and adult labor market outcomes. In contrast, Brenøe and Lundberg (2016) analyze Danish administrative data and find that family disadvantage, though it has more negative effects on school-age outcomes of boys relative to girls, tends to have stronger impacts on the educational attainment, employment, and earnings of adult women.

In this study, I use rich longitudinal data from the National Longitudinal Study of Adolescent to Adult Health (Add Health) that lets me extend analysis of the impacts of early father absence to long-run outcomes, including college graduation, in an American context. In particular, I examine the association between family structure in adolescence and outcomes that include behavior in school, educational aspirations, and educational attainment for a recent cohort of young adults. In both cross-sectional and fixed-effects estimates using a sample of full siblings, I find, as do prior studies, that boys are more sensitive to father absence in terms of reports of problems in school. Girls, on the other hand, are more likely to respond to father absence with increased indicators of depression, and are particularly negatively affected by residence with a stepfather. When we turn to final educational attainment in later waves of Add Health, however, family structure in adolescence does not have differential effects on the college graduation rates of men and women.

These results suggest that it may be premature to interpret the greater elasticity of boys' behavioral and school disciplinary problems to father absence and other dimensions of family disadvantage as evidence of a gender gap in skills that could, in turn, help to explain the college gender gap. School-age boys and girls appear to respond to father absence and step-father families in distinct, gender-typical ways. Though non-traditional family structures in adolescence are associated with lower educational attainment for both men and women, there appears to be no significant gender difference in the effects of family structure on college graduation rates, and no evidence of greater male vulnerability to father absence in the long run.

II. The Educational Gender Gap, Non-Cognitive Skills, and Family Disadvantage

An extensive literature in education and the social sciences has documented gender differences in the academic and behavioral outcomes of boys and girls in elementary and secondary school (Buchmann, DiPrete, and McDaniel, 2008). These gender gaps are not new phenomena: girls have consistently outperformed boys in grades and have been less likely to get in trouble at school (Duckworth and Seligman, 2006). Recent studies interpret the observed gender differences in academic performance, grade repetition, special education placement, homework hours and school reports of disruptive behavior as indicative of gaps between the non-cognitive skills of boys and girls (Becker et al., 2010; Goldin et al., 2013). Gender gaps in social and behavioral skills appear to develop early—girls begin school with more advanced learning skills than boys, and this advantage grows over time. In turn, these early skill gaps explain much of the gender differential in early elementary academic outcomes (DiPrete and Jennings, 2012).

Autor et al. (2016) note that gender gaps in educational outcomes are higher among minorities, and postulate that the single parenthood and economic disadvantage disproportionately experienced by minority children may have particularly negative effects on boys. One possible explanation for such an effect is that boys are developmentally more sensitive to deficiencies in household resources, neighborhood influences, or parental attention. In particular, boys may also be more vulnerable than girls to the absence of a stable, same-sex parent. Alternatively, parental behavior may vary by socioeconomic status such that low-income parents tend to invest more in daughters than in sons.

Why might boys be particularly vulnerable to environmental influences that hamper educational success, such as poor parents, absent fathers, or low-quality schools? One possible source of male vulnerability may be sex differences in early developmental trajectories. Preschool girls are more mature than preschool boys in language skills and emotional regulation, and this may increase their resilience in adverse circumstances. Others have argued that school environments, which limit opportunities for physical play and punish losses of self-control, systematically disadvantage boys. A cultural explanation is provided by DiPrete and Buchmann (2013), who argue that developing a masculine self-image may involve a rejection of school values, and that this “oppositional culture” may be particularly relevant for boys with absent or low-education fathers. There is limited

evidence, however, supporting the notion that a consistent paternal presence is more important for the healthy development of boys than of girls. A few studies find that boys may do worse, emotionally and academically, following a divorce (Hetherington and Kelly, 2002), but meta-analysis of (correlational) studies of father absence and child wellbeing by Amato and Gilbreth (1999) finds no support for the hypothesis that boys benefit more than girls from paternal involvement.¹

Finally, parental investments may tend to favor girls in low-resource environments. Though a large literature shows that, on average, fathers spend more time with sons than with daughters, and that this gap grows with age (Lundberg, 2005), Bertrand and Pan find that single mothers spend less time with sons than daughters and report less emotional closeness with sons in early school years. Such a result suggests a parental investment variant of the Trivers-Willard hypothesis from evolutionary biology: parents who are maximizing reproductive success invest more in male offspring in good conditions but more in females in poor conditions (Trivers and Willard, 1973). Explicit attempts to test for evidence of Trivers-Willard patterns in modern families, however, have not found it to be well-supported (Keller, Nesse, and Hofferth, 2001).

This debate has recently been revived by Autor and Wasserman (2013), who suggest that changes in family structure may be disadvantaging boys and thus help to explain the emergence of the educational gender gap. Though co-residential fathers' time with children has been rising over time, increasing rates of lone motherhood have decreased paternal involvement for many children, particularly those with less-educated and minority mothers. This development may have a particularly negative impact on boys, either because boys are more vulnerable to the loss of parental time and financial resources, or due to the role model effect of the same-sex parent.

¹ Gender differences in responsiveness to childhood environment may also be related to the “differential susceptibility” hypothesis in psychology (Belsky, 1997, 2005). Differential susceptibility implies that some individuals are inherently more vulnerable to the negative effects of contextual adversity, and also that they are more likely to benefit from supportive environments. Genetic drivers of susceptibility lead to gene-environment (GxE) interactions that have been extensively documented in animals and to some extent humans (Manuck and McCaffery, 2014; Thompson, 2014). At this point, there is limited evidence of systematic gender differences in specific GxE effects, and thus little empirical basis for a genetic interpretation of the vulnerable boys hypothesis. One exception is a study that finds that genetic factors (plasticity alleles) predict the self-regulation responses of male adolescents to good and bad parenting, but finds no such link for females (Belsky and Beaver, 2011).

A recent literature has provided some evidence that boys are more sensitive to father absence, particularly as measured by behavioral problems and disciplinary actions in school. Bertrand and Pan (2013) examine the relationship between having a single or young mother and school outcomes, in particular externalizing behavior in kindergarten and in Grade 5 and school suspensions in Grade 8.² They find that living with a single mother has a much larger negative effect on the behavior of boys than girls and interpret this as evidence that the non-cognitive skills of boys are adversely impacted by non-traditional family arrangements. They suggest that “boys’ higher tendency to act out and develop conduct problems might be particularly relevant to their relative absence in colleges.” Autor et al. (2016) examine the effects of family disadvantage, measured by mother’s education and marital status, father presence, an SES index, neighborhood income and school quality on school absence and suspension, test scores and high school graduation for a large sample of children in Florida. Mother’s education, and particularly college graduation, has significantly larger effects on boys than girls for a variety of outcomes, including kindergarten readiness and test scores. Family structure, including father presence, also has significantly greater effects on boys for a few outcomes (including school absences and suspensions in Grades 3 through 8). In sharp contrast, Slade and Beller (2013) find a stronger association between nontraditional family structure in childhood and later health outcomes, including self-reported health and smoking, for girls.

Assessing the role of excess male vulnerability to father absence in explaining the emerging gender gap in college graduation requires longitudinal data that permits us to link family structure in childhood with longer-term outcomes, including final educational attainment.³ Brenøe and Lundberg (2016) are able to do this with Danish administrative data. Linking entire population cohorts from birth into adulthood, they find that the education and employment of adult women are more influenced by childhood family disadvantage than are the outcomes of adult men. In this paper, I use American longitudinal data with a richer set of intermediate outcomes to examine whether these

² Externalizing behaviors are problem behaviors directed outwards, including physical aggression, disruptive and impulsive behavior, and disobeying rules. Internalizing behaviors, in contrast, are directed inwards, and include anxiety, depression, and withdrawal (Leadbeater, Kuperminc, Blatt, Hertzog, 1999).

³ The only measure of educational attainment examined in any of the studies discussed above is high school graduation in Autor et al. For this outcome, they can use only their oldest cohorts of Florida students and are not able to link siblings, so the models are cross-sectional. Father presence is not included, but mother’s marital status and mother’s college graduation do have significantly larger associations with the high school graduation of sons compared to daughters.

results hold in an environment with different educational, social welfare, and labor market institutions.

III. Data

The National Longitudinal Study of Adolescent to Adult Health (Add Health) has collected a rich array of longitudinal data on the social, economic, psychological and physical well-being of young men and women from adolescence through young adulthood.⁴ The Add Health study began in 1994-95 with a nationally-representative school-based survey of more than 90,000 students in grades 7 through 12. The students were born between 1976 and 1984 and attended one of 132 schools in the sampling frame. In addition to oversamples of several ethnic groups and disabled students, the Add Health genetic sample includes sibling pairs living in the same household, including twins, half-siblings, and biologically unrelated siblings. About 20,000 respondents were followed in subsequent surveys, the last of which (Wave IV) was conducted in 2007-08 when the respondents were between 24 and 32 years of age.

Race and ethnic differences in family circumstances are substantial, with black and Hispanic teenagers less likely to live with both biological parents than are white, non-Hispanic teenagers. To focus on gender differences in responses to father absence, most of the analysis in this paper uses subsamples of 3,868 non-Hispanic white women and 3,459 non-Hispanic white men who lived with their biological or adoptive mother in Wave I, and for whom all key variables are non-missing.⁵ For this subsample, I define three different

⁴ This research uses data from Add Health, a program project directed by Kathleen Mullan Harris and designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris at the University of North Carolina at Chapel Hill, and funded by grant P01-HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 23 other federal agencies and foundations. Special acknowledgment is due Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Information on how to obtain the Add Health data files is available on the Add Health website (<http://www.cpc.unc.edu/addhealth>). No direct support was received from grant P01-HD31921 for this analysis.

⁵ The discrepancy in the male-female sample sizes is the result of consistently lower rates of both contact and response for male Add Health sample members. By Wave IV, the overall male/female response ratio had fallen to .88 from .98 in Wave I, very close to the .89 in my sample. Brownstein et al. (2011) conclude that Wave IV non-response results in very little bias in measures of health and risk-taking. The unweighted rates of college graduation in this sample (.33 for men, .41 for women) are somewhat lower than the rates for equivalent cohorts in the Current Population Survey (.35 for men, .43 for women) but the gender ratio is the same (U.S. Census, 2016a).

family structure groups: living with both biological parents (or adoptive parents) in Wave I, living with a step- or other non-biological father figure in the household, and living in a household with no father or father figure.

I focus on the attainment of a 4-year college degree or more as a long-term outcome. The rising returns to education in recent decades have been largely restricted to college graduates, and though there is a gender gap in high school graduation and college attendance as well, the college graduation gap has received the most attention given its substantial implications for lifetime income. I also examine high school graduation, however, as well as years of schooling. School-age outcomes that are more comparable to those in previous studies include Math and English grades, school problems including suspensions, and a standard depression scale. Educational aspirations in Wave I are based on student responses on a 5-point scale asking how much they want to attend college, and how likely it is that they will attend college. Table A1 presents summary statistics by gender for key variables for the white, non-Hispanic sample. The gender differences are as expected: adolescent boys have higher rates of school problems, lower grades, lower educational aspirations and are more likely to have a father in the household than adolescent girls; women have higher rates of high school and college graduation than adult men.

Figure 1 plots the college graduation rates for men and women who were in each of the three family structure groups in adolescence. Though women are more likely to be college graduates in each group, the ratios of male to female graduates are not significantly different. In the raw data, therefore, there is no evidence that father absence has a more negative influence on the educational prospects of boys than girls in the Add Health sample.

IV. Identifying the Differential Effect of Father Absence on Boys and Girls

Estimating the difference in the causal impact of father absence on outcomes for boys and girls requires that the distribution of male and female children across households with and without fathers is identical in terms of their potential outcomes with a father

present. For any outcome Y for boys (b) and girls (g), we can define possible outcomes in alternative family structures as:

$$Y_b \in \{Y_b^0, Y_b^1\}, \quad Y_g \in \{Y_g^0, Y_g^1\},$$

Where Y_i^0 is the outcome for child i if his or her father is present in the household ($A=0$), and Y_i^1 is the outcome if their father is absent ($A=1$).

The causal effect of father absence on boys is:

$$E[Y_b|A = 1] - E[Y_b|A = 0] = \\ E[Y_b^1 - Y_b^0|A = 1] + (E[Y_b^0|A = 1] - E[Y_b^0|A = 0])$$

The second term is selection bias—the difference between potential outcomes in the father-present state between boys who were raised in that state and boys who were not. This will be non-zero, and any estimate of the effect of father absence will be biased if there are unobserved differences in child capabilities and mother characteristics in father-present and father-absent households. An estimate of the gender difference in the effects of father absence, however, will be unbiased if the selection terms are identical for boys and girls. This will hold if the relationship between father absence and mother/child characteristics is the same in son/daughter households. Table 1 presents tests for differences in observable household characteristics between boys and girls in the same family structure. This exercise shows little evidence of differential selection of boys and girls in Add Health into the three family structure types (biological father, other father, no father), since the means of maternal characteristics, family income, and birth weight are significantly different in only one of 16 cases.⁶

Though substantial bias due to differential selection seems unlikely, an alternative approach is to use family fixed-effects and compare the outcomes of brothers and sisters across family structure groups. This requires that we assume only that the gender gap in sibling potential outcomes is independent of family disadvantage. A within-family approach eliminates concerns about selection, but has the disadvantage that it restricts

⁶ Autor et al. (2016) and Brenøe and Lundberg (2016) show that there are no gender differences in the effects of family disadvantage on outcomes at birth, which suggests an absence of selection on child capability, but Add Health does not have similar early measures.

estimation to families with gender-discordant siblings. It is also not obvious that the causal impact of father absence must be independent of the presence of siblings or sibling gender composition. If there are behavioral spillovers within the family (if boys, for example, engage in more stereotypical male behavior when they have a brother, rather than a sister), or if maternal investments in boys and girls are affected by family size or by child gender mix, then fixed-effect estimates of the effect of father absence may not be representative. In this paper, I report results from both cross-section and family fixed-effects models.

V. Results

A. College Graduation and Educational Attainment

Cross-section linear probability models of college graduation are reported in Table 2, with the base model in column 3 taking the form:

$$Y_i = \beta_0 + \beta_1 MALE_i + \beta_2 NF_i + \beta_3 OF_i + \beta_4 NF_i \times MALE_i + \beta_5 OF_i \times MALE_i + X_i \gamma + \varepsilon_i$$

NF_i is a dummy variable equal to one if child i lived in a household with no father figure in Wave I and OF_i is equal to one if a non-biological, non-adoptive father, such as a step-father, lived in the household. X_i includes maternal characteristics and the child's birth cohort. The coefficients of interest are those on the family structure-male dummy interaction terms— β_4 and β_5 . Standard errors are clustered by the school attended in Wave I.

In each model, being male has a large negative effect on the probability of receiving a 4-year college degree by Wave IV, when the Add Health subjects were in their late twenties and early thirties, beginning at about 7 percent in the initial model with no other covariates. Controlling for mother's characteristics (Columns 2-8) has little effect on the college gender gap. The coefficients on dummy variables for living in a family with no father figure or with a non-biological (step) father figure in Wave I are also large and negative.

Non-traditional family structures do not, however, have differentially negative impacts on the college graduation rates of young men (column 3). The interaction effects, expected to be negative, are positive and insignificant. Column 4 decomposes the “no

father” group into young adults who, though they did not live with their biological father at Wave I, did do so after the age of 5 (No Father Recently) and those who never lived with their father after age 5 (No Father Always). The latter status, as expected, has a larger negative association with college graduation but the gender interaction effects are once again positive, small and insignificant. Columns 6-8 report results from the core model for subsamples based on mother’s education level, and the pattern is similar—negative effects of non-traditional family structures, but no evidence that the college graduation rates of men are more strongly affected by father absence than is college graduation by women.

Columns 1-3 in Table 3 show similar patterns in the determinants of high school graduation. Men are less likely to graduate from high school than women, living with no father or a step-father in Wave I has a strong negative association with graduation, and there is no significant differential effect of family structure for men. There is, however, a significantly larger impact of father absence before age 5 (No Father Always) on men’s high school graduation, compared to women’s. Columns 6-8 split the sample by mother’s education and show that the effects of family structure on high school graduation are largely concentrated in families in which the mother had a high-school education or less. There is also a single, marginally-significant interaction term for the some college subsample—men with a mother who attended college but did not achieve a 4-year degree were more affected by father absence than similar women, in terms of their likelihood of graduating from high school.

Finally, the OLS and family fixed-effects models in Table 4 use a sample of mixed-sex siblings with the same mother and father who lived in the same household in Wave I to estimate within-family determinants of educational attainment. Since siblings experience the same family structure in Wave I, the fixed-effects model of college graduation is:

$$Y_{ij} = \delta_0 + \delta_1 MALE_{ij} + \delta_2 NF_j \times MALE_{ij} + \delta_3 OF_j \times MALE_{ij} + Z_{ij}\theta + \varphi_j + v_{ij}$$

where the variables in Z_{ij} (mother’s age at birth and birth order) vary across siblings and φ_j is a family fixed effect. The sample consists of only 206 sibling pairs and trios, and there is a loss in precision, though neither the OLS nor the fixed-effects estimates are very different from OLS estimates using the full sample. Neither the male dummy nor the male-family structure interaction terms have significant effects on college graduation, but in this sibling

sample father absence has a larger impact on high school graduation for boys than for girls. To increase the within-family variation in educational outcomes in this small sample, columns 3 and 4 replace the dichotomous graduation variables with completed years of education and a 0-5 discrete measure of educational attainment. In these models, the effect of being male is significant and negative in the fixed-effect model but the father interaction terms are, once again, not significant.

To summarize, the evidence from the Add Health cohorts of young adults strongly suggests that, though being male and living in a household without a biological father in adolescence are negatively associated with educational attainment, young men do not appear to be differentially affected by father absence when we focus on long-term outcomes such as college graduation. There is some limited evidence that high school graduation may be a hurdle for which father presence is more important for boys, however.

B. Early Outcomes: School Problems, Depression, Grades and Educational Aspirations

Most previous studies of differential male vulnerability to family disadvantage have focused on the behavior and achievements of schoolchildren rather than final educational attainment. This section investigates the effect of family structure in Wave I on contemporaneous outcomes such as grades and problems in school to see whether similar patterns can be found in the Add Health data.

In Wave I, students self-reported about problems they experienced in school, such as trouble getting along with teachers and other students, trouble getting homework done and paying attention in school (coded 0-4 from “never” to “every day”), number of absences without an excuse, and a dummy variable indicating whether the student has ever received an out-of-school suspension. Factor analysis was used to aggregate these measures into a standardized school problems index, and Table 5 reports the determinants of this index and its components. Male students report higher incidence of all these school difficulties except absences, and the male effect on the index is greater than one-quarter of a standard deviation. Living in a household without a father or father figure is positively associated with every school problem, and a step-father family increases the overall index and is significantly associated with a couple of the components.

Problems in school are often triggered by the self-control and behavioral issues that teachers report are more typical of boys, and in these results we see some evidence of differential male susceptibility to non-traditional family structure. The male/no-father interaction, in particular, is significantly predictive of school suspensions, reported problems paying attention in school and getting homework done, and the overall school problems index. The results for school suspensions in particular are strongly consistent with the findings of both Bertrand and Pan and Autor et al.⁷

A different picture emerges when we look at another set of Wave I self-reports—how often during the past week the student felt sad, lonely, depressed, blue, happy, or hopeful. These six items (plus 13 more that are not reported separately here) are the components of a standard depression scale (CES-D). Factor analysis indicates that a single factor is appropriate and it is used to form a standardized depression index that is the dependent variable in column 1 of Table 6. Boys are significantly less likely to report frequent negative emotions, and youth in no-father and step-father families are more likely to make such reports. The interaction terms indicate that depression in girls is more strongly affected by non-traditional family structure than is depression in boys.⁸ This is particularly true of living with a step-father or other parent figure, which has a substantially higher positive effect on the depression index and several index components for girls than for boys. Depression is one example of an “internalizing” response to stress that is more common for girls, as opposed to the “externalizing” or disruptive behavior more typical of boys. The contrasting results in the last two tables show that our conclusions about which gender is more sensitive to father absence depends on which school outcomes we are measuring.

Family structure does not appear to have any differential effect on self-reported grades in English and Math, though we find the usual pattern that boys’ grades are lower than girls, particularly in English (Table 7). When asked in Wave I about their college plans, Add Health boys are less likely than girls to report either that they want to attend

⁷ Bedard and Witman (2015), who find that the gender gap in diagnosis and treatment of ADHD is much larger in non-traditional families, suggest that parents in traditional families may find it easier to cope with male behavioral difficulties in early life.

⁸ This is consistent with the Add Health findings of Slade and Beller (2013). They also find that many of the effects of father absence on health and mental health outcomes in Wave I, including depression, are no longer significant in Wave IV.

college or that they expect to attend college.⁹ In this case, being in a household with no father does appear to have a more severe effect on the college intentions of boys—they are substantially less likely to report that they want to attend college than girls in similar families. This may be one indicator that boys in disadvantaged families are more likely to be influenced by an “oppositional” masculine culture with respect to education, as DiPrete and Buchmann assert, even though there is no significant association with eventual college graduation.

Table 8 reports family fixed-effects models of the key Wave I outcomes—the school problems index, depression index, and college aspirations. The excess sensitivity of girls to step-father presence persists in the within-family pattern of depression—girls in step-father households experience more depression in school than their brothers—but the interaction effect in the school problems model is not significant. One interaction effect that was not apparent in the cross-sectional models is a strong negative effect of step-father families on the college expectations of boys, compared to their sisters.

The results in this section both reinforce and expand upon the findings of previous studies that show excess vulnerability of school-aged boys in the face of family disadvantage and father absence. The gender gap in school problems is much higher for adolescents who are not living with both biological parents, and this pattern is consistent with earlier studies that find increasing gender gaps in schools suspensions and externalizing behavior. Examining a component of internalizing behavior—depression—indicates that girls may have distinctive responses to family disadvantage that were not reflected in the behavioral outcomes included in earlier studies.

⁹ Fortin, Oreopoulos and Phipps (2015) find that much of the gender gap in high school grades can be attributed to differences in the post-school plans of boys and girls.

C. Additional Results

Race

The African-American sample in Add Health is much smaller than the non-Hispanic white sample, but the higher prevalence of non-traditional families in this population makes a parallel analysis of key outcomes on this subsample potentially informative. On some dimensions, the results reported in Table 9 contrast sharply with those from the majority sub-sample. Young black men are less likely to graduate from high school or college than young black women (and by larger margins than in the white sample) and no-father households are still associated with less education, more school problems, and a higher probability of school suspension. However, in important departures from the white sample results, there are no significant gender or family structure effects on college aspirations, and no family structure effects on the depression index. There is only one significant gender/family structure interaction, and it is a surprising one. The gender gap in school suspensions is smaller for adolescents in no-father families, rather than larger. In general, school discipline rates are much higher for black students, male and female, and the behavioral determinants appear to be very different as well. The differences between the black and white samples on this dimension may be reflective of racial differences in the institutions of school discipline.

School Quality

The “male vulnerability” hypothesis has been studied primarily in terms of adolescent responses to family disadvantage, but Figlio, Karbownik, Roth, and Wasserman (2016) have also found that boys appear to be more sensitive than girls to variations in school quality in terms of test scores, absences, and suspensions. The Add Health Study includes a school administrator questionnaire that can be used to construct an index of school quality for the schools attended in Wave I. The components of the index are average daily attendance, class size, percentages of new and of experienced teachers, the percentage of teachers with a Masters’ degree, the grade 12 dropout rates, the percentages of students with standardized achievement tests at, below, or above grade level, and the percentage of 12th graders that enrolled in a 2-year or 4-year college the next year. The models in Table

10 investigate whether the short-run and long-run outcomes of male students are more responsive to variations in school quality than outcome for female students.

The school quality index has a significant positive association with college and high school graduation and college aspirations, and a negative association with school suspensions. As with father absence, gender/school quality interactions effects for educational attainment are insignificant, and this is also the case in the models for school problems and depression. However, the gender gaps in the college attendance desires and expectations and in school suspensions are much smaller in high-quality schools. In terms of short-term attitudes to education and disciplinary problems, male students do appear to be more responsive to their school environment than female students though, as with father absence, these effects do not appear to have implications for eventual educational attainment, including high school and college graduation.

VI. Conclusions

Using data on young cohorts of men and women from the National Longitudinal Study of Adolescent to Adult Health, I investigate the association between college graduation and father (and step-father) presence earlier in life. I find no evidence that father absence is associated with lower rates of college graduation for boys than for girls in either cross-sectional or family fixed-effect models. I find that girls appear more resilient to this element of family disadvantage when the outcomes are school problems, suspensions, and educational aspirations, while boys appear more resilient to father absence when we examine depression. Though these school-age outcomes are themselves associated with poor educational outcomes, these gender gaps related to father absence do not result in differential college graduation rates. The pattern of results is similar when boy/girl vulnerability to poor school quality, instead of father absence, is examined.

These mixed results—gender-specific behavioral responses to father absence among school children that do not result in gendered consequences for eventual educational attainment—suggest that previous findings of excess male vulnerability, while provocative, can be over-interpreted. Measures of problem behaviors in school often reflect gendered responses to disadvantage and they do not have clear implications for actual skill

development in boys and girls or for eventual educational outcomes. Behavior in school is a consequence, not just of underlying skills and traits, but also of constraints and expectations that operate very differently for boys and girls due to gender norms in behavior on the part of parents, teachers, and the children themselves. Externalizing behavior that leads to problems in school is much more prevalent among boys, while internalizing behavior, which includes anxiety and depression, is a more common response to stress for girls. Most of the socio-behavioral outcomes examined in other studies, such as kindergarten readiness and school suspensions, are related to externalizing behavior and so suggest greater male vulnerability to disadvantage. My analysis of Add Health data, though consistent with these earlier studies, find no evidence supporting the hypothesis that changes in family structure have contributed to the growing gender gap in college graduation.

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Figure 1: College Graduation Rates and Male/Female Graduation Ratio
White Non-Hispanic sample, Add Health

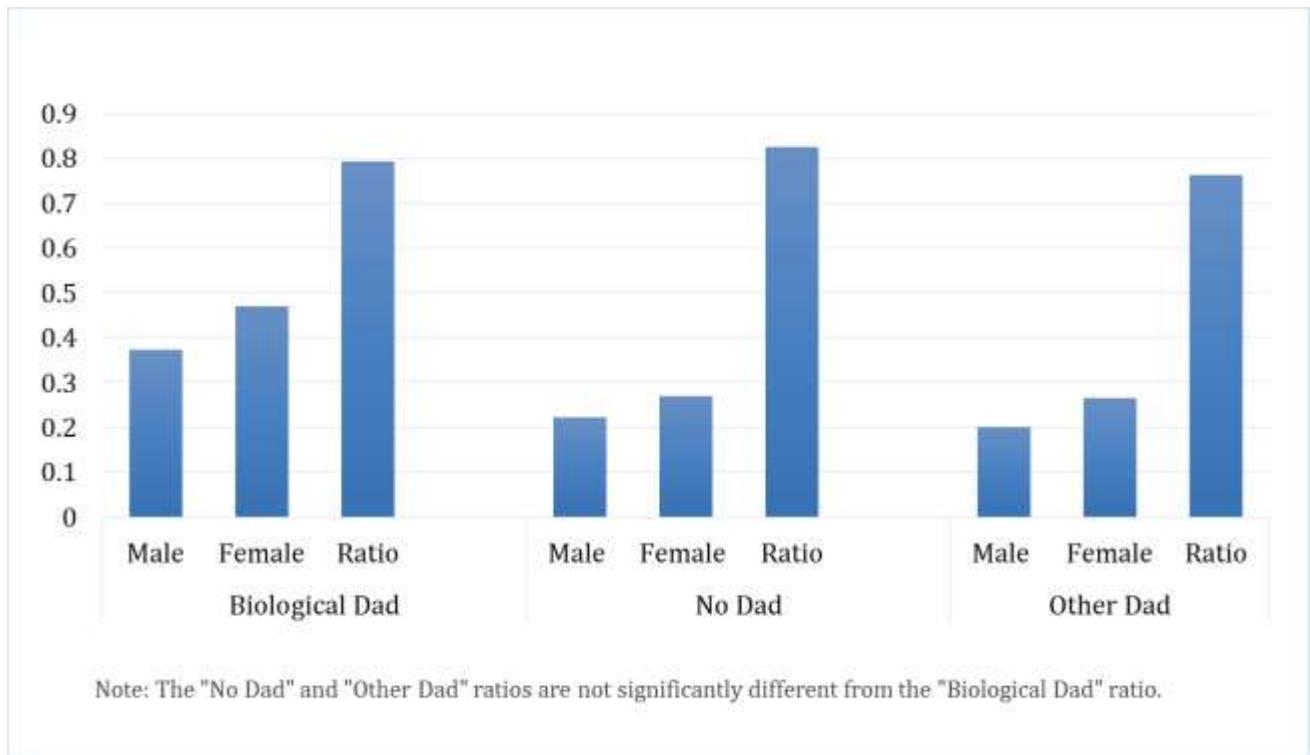


Table 1: Selection of Boys and Girls Across Household Types—Non-Hispanic White Sample Living with Bio-mom in Wave I

	Biological Father			Other Father			No Father		
	Girl Mean	Boy Mean	t-test p-value	Girl Mean	Boy Mean	t-test p-value	Girl Mean	Boy Mean	t-test p-value
Mother's education									
High School	.435	.432	0.81	.454	.510	0.13	.419	.423	0.86
Some College	.178	.200	0.04	.237	.224	0.67	.223	.221	0.96
College Graduate	.294	.290	0.76	.183	.146	0.17	.214	.219	0.82
Mother foreign-born	.035	.039	0.48	.013	.025	0.22	.030	.024	0.41
Young mother (<22)	.107	.110	0.71	.296	.311	0.67	.217	.199	0.37
Family income	51.2	49.2	0.22	44.8	45.2	0.93	25.7	31.1	0.005
Low birth weight	.071	.064	0.32	.077	.059	0.32	.080	.073	0.62
N	2568	2396		388	357		912	709	

Family income is annual income from all sources in 1994 dollars. Low birth weight is less than 88 oz.
p-values from t-test for equal means.

Table 2: College Graduation by Wave I Living Arrangements, Non-Hispanic White Sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Living with Bio-mom in Wave I				Mother High School	Mother Some College	Mother College Grad
Male	-0.0702*** (0.0169)	-0.0768*** (0.0146)	-0.0893*** (0.0178)	-0.0778*** (0.0145)	-0.0891*** (0.0179)	-0.0599*** (0.0215)	-0.0915** (0.0489)	-0.136*** (0.0338)
No Father		-0.130*** (0.0166)	-0.149*** (0.0209)			-0.129*** (0.0241)	-0.133*** (0.0467)	-0.235*** (0.0556)
Other Father		-0.108*** (0.0195)	-0.126*** (0.0264)	-0.108*** (0.0195)	-0.127*** (0.0264)	-0.107*** (0.0333)	-0.0958 (0.0639)	-0.207*** (0.0670)
Male*No Father			0.0397 (0.0296)			0.0351 (0.0358)	-0.0212 (0.0826)	0.0691 (0.0750)
Male*Other Father			0.0365 (0.0423)		0.0364 (0.0423)	0.0229 (0.0460)	0.00945 (0.0962)	0.0800 (0.101)
No Father Recently				-0.0896*** (0.0209)	-0.106*** (0.0284)			
No Father Always				-0.175*** (0.0196)	-0.192*** (0.0235)			
Male*No Father Recently					0.0325 (0.0421)			
Male*No Father Always					0.0368 (0.0329)			
Constant	0.155 (0.217)	-0.128 (0.168)	-0.123 (0.168)	-0.109 (0.167)	-0.105 (0.167)	-0.00262 (0.204)	-0.0194 (0.299)	0.590** (0.261)
Observations	7,327	7,327	7,327	7,327	7,327	3,932	1,468	1,922
R-squared	0.006	0.170	0.171	0.172	0.172	0.037	0.038	0.063
Mother's characteristics	NO	YES	YES	YES	YES	YES	YES	YES
Mean of dependent variable	.368	.368	.368	.368	.368	.273	.362	.643

Standard errors clustered by school in parentheses.

Mother's characteristics include education and dummies for foreign-born and young mother (under 22). All models include birth cohort.

*** p<0.01, ** p<0.05, * p<0.1

Table 3: High School Graduation by Wave I Living Arrangements, Non-Hispanic White Sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Living with Bio-mom in Wave I				Mother High School	Mother Some College	Mother College Grad
Male	-0.0250*** (0.0082)	-0.0291*** (0.0079)	-0.0235*** (0.0084)	-0.0294*** (0.0079)	-0.0235*** (0.0084)	-0.0257* (0.0152)	-0.0110 (0.0130)	-0.0140** (0.0058)
No Father		-0.0493*** (0.0113)	-0.0336** (0.0129)			-0.0591*** (0.0209)	-0.0257 (0.0181)	-0.0124 (0.0010)
Other Father		-0.0293** (0.0123)	-0.0378** (0.0176)	-0.0294** (0.0123)	-0.0380*** (0.0176)	-0.0662** (0.0325)	0.00107 (0.0178)	0.0010 (0.0020)
Male*No Father			-0.0327 (0.0196)			-0.0298 (0.0291)	-0.0720* (0.0452)	-0.0024 (0.0265)
Male*Other Father			0.0170 (0.0272)		0.0170 (0.0273)	0.0433 (0.0484)	-0.0171 (0.0360)	-0.0202 (0.0309)
No Father Recently				-0.0352** (0.0139)	-0.0293* (0.0156)			
No Father Always				-0.0648*** (0.0161)	-0.0379* (0.0204)			
Male*No Father Recently					-0.0117 (0.0240)			
Male*No Father Always					-0.0597* (0.0332)			
Constant	0.796*** (0.0859)	0.610*** (0.0780)	0.607*** (0.0774)	0.616*** (0.0774)	0.612 (0.0788)	0.761*** (0.117)	0.809*** (0.126)	0.906*** (0.0496)
Observations	7,327	7,327	7,327	7,327	7,327	3,932	1,468	1,922
R-squared	0.003	0.079	0.080	0.080	0.081	0.023	0.032	0.012
Mother's characteristics	NO	YES	YES	YES	YES	YES	YES	YES
Mean of dependent variable	.935	.935	.935	.935	.935	.930	.958	.988

Standard errors clustered by school in parentheses.

Mother's characteristics include education and dummies for foreign-born and young mother (under 22). All models include birth cohort.

*** p<0.01, ** p<0.05, * p<0.1

Table 4: Educational Attainment, Non-Hispanic White Sibling Sample

	(1)		(2)		(3)		(4)	
	College Graduation		High School Graduation		Years of Education		Educational Attainment	
	OLS	Fixed effects	OLS	Fixed effects	OLS	Fixed effects	OLS	Fixed effects
Male	-0.0720 (0.0514)	-0.0814 (0.0508)	0.0300 (0.0405)	0.0258 (0.0412)	-0.454 (0.307)	-0.524** (0.261)	-0.294* (0.169)	-0.323** (0.150)
Male*No Father	0.0626 (0.145)	0.0482 (0.115)	-0.194 (0.119)	-0.224* (0.131)	-0.453 (0.861)	-0.597 (0.649)	-0.302 (0.483)	-0.391 (0.430)
Male*Other Father	-0.0150 (0.104)	-0.0155 (0.115)	0.0101 (0.0979)	0.0249 (0.117)	-0.439 (0.528)	-0.396 (0.657)	-0.167 (0.429)	-0.149 (0.424)
Constant	0.0536 (0.0613)	0.367*** (0.0253)	0.866*** (0.0678)	0.941*** (0.0247)	12.53*** (0.317)	14.07*** (0.106)	1.515*** (0.190)	2.539*** (0.0686)
Observations	430	430	430	430	430	430	430	430
R-squared	0.204	0.024	0.044	0.045	0.188	0.073	0.231	0.075
Number of families		206		206		206		206

OLS models: Standard errors clustered by school in parentheses. Sample excludes same-sex sibling pairs.

“Years of education” range from 10 to 20 years. “Educational Attainment” is a discrete measure ranging from 0=less than high school to 5=post-graduate degree.

All models control for mother’s age at birth and first-born. OLS models also include mother’s education and household type.

*** p<0.01, ** p<0.05, * p<0.1

Table 5: Wave I Outcomes, School Problems Index and Components

VARIABLES	(1) School Problems Index	(2) Absences	(3) Ever Suspended from School	(4) Trouble Getting Along with Teachers	(5) Trouble Paying Attention in School	(6) Trouble Getting Homework Done	(7) Trouble Getting Along with Students
Male	0.260*** (0.0384)	0.179 (0.230)	0.134*** (0.0137)	0.246*** (0.0378)	0.116*** (0.0370)	0.191*** (0.0448)	0.154*** (0.0341)
No Father	0.171*** (0.0570)	0.850** (0.407)	0.0947*** (0.0184)	0.0977* (0.0501)	0.107* (0.0559)	0.111** (0.0537)	0.0915 (0.0582)
Other Father	0.143** (0.0702)	0.233 (0.356)	0.0309 (0.0189)	0.0392 (0.0657)	0.0558 (0.0672)	0.189** (0.0932)	0.138** (0.0639)
Male*No Father	0.183** (0.0790)	1.047 (0.642)	0.0817** (0.0270)	0.07419 (0.0687)	0.182** (0.0796)	0.148* (0.0843)	-0.0247 (0.0651)
Male*Other Father	0.0556 (0.0892)	0.250 (0.444)	0.0790** (0.0374)	-0.0038 (0.0937)	0.156 (0.0973)	-0.0121 (0.120)	-0.144 (0.0985)
Constant	-0.994*** (0.354)	-12.85*** (2.096)	-0.488*** (0.142)	2.094*** (0.267)	-0.371 (0.327)	-0.397 (0.347)	2.404*** (0.305)
Observations	7,172	7,172	7,172	7,172	7,172	7,172	7,172
R-squared	0.051	0.049	0.115	0.034	0.030	0.029	0.022
Mother's characteristics	YES	YES	YES	YES	YES	YES	YES
Mean of dependent variable	.0004	1.686	.202	.862	1.313	1.220	.884

Standard errors clustered by school in parentheses.

“School problems” is a standardized index based on factor analysis of the other variables in this table. “Absences” is student-reported absences without excuse in past year, “trouble” variables from student-reported experiences from 0=never to 4=every day.

Mother's characteristics include education and dummies for foreign-born and young mother (under 22). All models include birth cohort.

*** p<0.01, ** p<0.05, * p<0.1

Table 6: Wave I Outcomes, Depression Index and Items

	(1) Depression Index	(2) Hopeful about Future	(3) Can't Shake Blues	(4) Depressed	(5) Happy	(6) Lonely	(7) Sad
Male	-0.237*** (0.0304)	0.0439 (0.0297)	-0.142*** (0.0198)	-0.162*** (0.0229)	-0.0258 (0.0326)	-0.128*** (0.0225)	-0.173*** (0.0216)
No Father	0.179*** (0.0486)	-0.0314 (0.0450)	0.125*** (0.0313)	0.162*** (0.0355)	-0.0687* (0.0391)	0.0615** (0.0302)	0.0709** (0.0336)
Other Father	0.259*** (0.0959)	-0.0202 (0.0702)	0.209*** (0.0714)	0.171** (0.0670)	-0.0639 (0.0648)	0.10894* (0.0508)	0.128** (0.0609)
Male*No Father	-0.0073 (0.0660)	-0.0593 (0.0719)	-0.0355 (0.0518)	-0.102** (0.0434)	-0.0026 (0.0682)	0.0100 (0.0462)	-0.0020 (0.0424)
Male*Other Father	-0.193* (0.115)	-0.0015 (0.0995)	-0.178** (0.0768)	-0.147** (0.0709)	0.0225 (0.0906)	0.0098 (0.0685)	-0.133* (0.0791)
Constant	-1.635*** (0.263)	0.908*** (0.264)	-0.603*** (0.153)	-0.585*** (0.191)	3.0540*** (0.269)	-0.805*** (0.154)	-0.179 (0.170)
Observations	7,172	7,172	7,172	7,172	7,172	7,172	7,172
R-squared	0.058	0.020	0.042	0.051	0.019	0.028	0.036
Mother's characteristics	YES	YES	YES	YES	YES	YES	YES
Mean of dependent variable	-.010	1.873	.359	.483	2.189	.418	.532

Standard errors clustered by school in parentheses.

"Depression" is the CES-D depression scale (standardized) based on 19 items, including the other variables in this table. Other variables are based on responses to "How often have you felt this way during the past week?" ranging from 0=never or rarely to 3=most/all of the time.

Mother's characteristics include education and dummies for foreign-born and young mother (under 22). All models include birth cohort.

*** p<0.01, ** p<0.05, * p<0.1

Table 7: Wave I Outcomes, Grades and Aspirations

VARIABLES	(1) English Grade	(2) Math Grade	(3) Wants to Attend College	(4) Expects to Attend College
Male	-0.366*** (0.0320)	-0.0955** (0.0388)	-0.141*** (0.0310)	-0.214*** (0.0328)
No Father	-0.253*** (0.0533)	-0.201*** (0.0521)	-0.0059 (0.0428)	-0.156*** (0.0488)
Other Father	-0.0852 (0.0641)	-0.146 (0.0883)	0.0319 (0.0606)	-0.0286 (0.07573)
Male*No Father	0.0427 (0.0774)	-0.0211 (0.07190)	-0.140** (0.0640)	-0.0975 (0.0735)
Male*Other Father	0.0181 (0.0972)	0.0923 (0.118)	-0.0762 (0.100)	-0.107 (0.107)
Constant	3.509*** (0.335)	3.986*** (0.378)	1.422*** (0.268)	0.0380 (0.2881)
Observations	7,037	6,723	7,172	7,172
R-squared	0.091	0.038	0.085	0.128
Mother's characteristics	YES	YES	YES	YES
Mean of dependent variable	2.919	2.791	.013	.012

Standard errors clustered by school in parentheses.

Grades are student-reported and range from 1=D or lower to 4=A. College desires/expectations are measured on a 0-5 scale.

Mother's characteristics include education and dummies for foreign-born and young mother (under 22).

All models include birth cohort.

*** p<0.01, ** p<0.05, * p<0.1

Table 8: Wave I Outcomes, Non-Hispanic White Sibling Sample

	(1) School Problems Index		(2) Depression Index		(3) Wants to Attend College		(4) Expects to Attend College	
	OLS	Fixed effects	OLS	Fixed effects	OLS	Fixed effects	OLS	Fixed effects
Male	0.363*** (0.128)	0.351** (0.169)	-0.243* (0.128)	-0.245 (0.154)	-0.224** (0.106)	-0.216* (0.111)	-0.191* (0.099)	-0.188 (0.122)
Male*No Father	0.263 (0.552)	0.481 (0.319)	-0.0016 (0.395)	0.163 (0.381)	-0.0177 (0.275)	-0.00840 (0.324)	-0.388* (0.207)	-0.413 (0.276)
Male*Other Father	0.587 (0.375)	0.511 (0.342)	-0.436** (0.184)	-0.494* (0.284)	0.213 (0.426)	0.245 (0.418)	-0.697* (0.394)	-0.633* (0.378)
Constant	0.130 (0.191)	-0.0663 (0.0836)	0.0823 (0.166)	-0.0581 (0.0730)	-0.143 (0.201)	0.221*** (0.0676)	-0.392*** (0.121)	0.196*** (0.0692)
Observations	420	420	430	430	429	429	429	429
R-squared	0.055	0.090	0.044	0.054	0.086	0.032	0.179	0.078
Number of families		206		206		206		206

OLS models: Standard errors clustered by school in parentheses. Sample excludes same-sex sibling pairs.

“School problems” is a standardized index from factor analysis of variables including absences, suspensions, and student reports of trouble at school.

“Depression” is the CES-D depression scale (standardized) based on 19 items. College desires/expectations are measured on a 0-5 scale.

All models control for mother’s age at birth and first-born. OLS models also include mother’s education and household type.

*** p<0.01, ** p<0.05, * p<0.1

Table 9: Educational Attainment and Wave I Outcomes—Black Sample

VARIABLES	(1) College Graduation	(2) High School Graduation	(3) School Problems Index	(4) Ever Suspended from School	(5) Depression Index	(6) Want to Attend College	(7) Expects to Attend College
Male	-0.137*** (0.0330)	-0.0495*** (0.0184)	0.195** (0.0903)	0.240*** (0.0346)	-0.325*** (0.102)	-0.0808 (0.0736)	-0.112 (0.0918)
No Father	-0.0984*** (0.0287)	-0.0677*** (0.0195)	0.162** (0.0730)	0.145*** (0.0310)	0.0430 (0.0986)	-0.0337 (0.0683)	-0.0324 (0.0841)
Other Father	-0.0976* (0.0527)	-0.0312 (0.0343)	0.185 (0.133)	0.160*** (0.0580)	0.0374 (0.131)	-0.0996 (0.136)	-0.120 (0.175)
Male*No Father	0.0396 (0.0447)	-0.0138 (0.0302)	-0.0423 (0.114)	-0.125*** (0.0463)	-0.0503 (0.128)	0.0012 (0.0976)	-0.0787 (0.114)
Male*Other Father	-0.0238 (0.0560)	-0.0364 (0.0639)	0.0200 (0.209)	-0.0829 (0.0875)	0.223 (0.203)	-0.279 (0.218)	-0.258 (0.249)
Constant	0.202 (0.244)	0.510** (0.243)	-0.863 (0.591)	0.223 (0.259)	-1.206** (0.466)	1.766*** (0.526)	1.048** (0.484)
Observations	2,634	2,634	2,634	2,634	2,634	2,634	2,634
R-squared	0.166	0.060	0.030	0.085	0.061	0.041	0.067
Mother's characteristics	YES	YES	YES	YES	YES	YES	YES
Mean of dependent variable	0.299	0.921	-0.001	0.398	-0.012	0.015	0.013

Standard errors clustered by school in parentheses.

“School problems” is a standardized index from factor analysis of variables including absences, suspensions, and student reports of trouble at school. “Depression” is the CES-D depression scale (standardized) based on 19 items. College desires/expectations are measured on a 0-5 scale. Mother's characteristics include education and dummies for foreign-born and young mother (under 22). All models include birth cohort.

*** p<0.01, ** p<0.05, * p<0.1

Table 10: School Quality Effects on Educational Attainment and Wave I Outcomes, Non-Hispanic White Sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	College Graduation	High School Graduation	School Problems Index	Ever Suspended from School	Depression Index	Wants to Attend College	Expects to Attend College
Male	-0.0766*** (0.0176)	-0.0337*** (0.0078)	0.2668*** (0.0371)	0.1766*** (0.0132)	-0.2859*** (0.0339)	-0.2441*** (0.0349)	-0.2954*** (0.0298)
School Quality Index	0.0595*** (0.0214)	0.0179*** (0.0067)	-0.0163 (0.0259)	-0.0309*** (0.0130)	-0.0161 (0.0268)	0.0557** (0.0259)	0.0936*** (0.0246)
Male*School Quality Index	0.0062 (0.0175)	0.0124 (0.0076)	-0.0246 (0.0311)	-0.0323*** (0.0161)	-0.0128 (0.0333)	0.0826** (0.0356)	0.0861*** (0.0264)
Constant	-0.1582 (0.1980)	0.5359*** (0.0987)	-0.6933** (0.441)	-0.2953* (0.1649)	-1.2361*** (0.3167)	-0.1288 (0.8935)	-1.6189** (0.7383)
Observations	5,468	5,468	5,468	5,468	5,468	5,468	5,468
R-squared	0.150	0.067	0.029	0.110	0.041	0.087	0.140
Mothers characteristics	YES	YES	YES	YES	YES	YES	YES
Mean of dependent variable	.379	.947	.000	.216	.000	.000	.000

Standard errors clustered by school in parentheses.

“School Quality” is a standardized index based on school administrator reports of average daily attendance, class size, % of new and experienced teachers, % of teachers with a Masters’ degree, grade 12 dropout rates, % of students with achievement tests below and above grade level, and % of 12th graders enrolled in college next year.

“School problems” is a standardized index from factor analysis of variables including absences, suspensions, and student reports of trouble at school. “Depression” is the CES-D depression scale (standardized) based on 19 items. College desires/expectations are measured on a 0-5 scale. Mother’s characteristics include education and dummies for foreign-born and young mother (under 22). All models include birth cohort.

*** p<0.01, ** p<0.05, * p<0.1

Table A1: Summary statistics, White Non-Hispanic sample, Add Health Wave I

	White Non-Hispanic		Different-sex siblings	
	Men	Women	Men	Women
Family Background				
No Father	0.205	0.236	0.155	0.152
No Father Recently	0.110	0.114	0.0986	0.0876
No Father Always	0.095	0.122	0.0610	0.0599
Other Father	0.103	0.100	0.0845	0.0829
Mother High School	0.438	0.433	0.404	0.426
Mother Some College	0.207	0.194	0.251	0.230
Mother College Graduate	0.260	0.264	0.232	0.230
Young Mother	0.149	0.152	0.141	0.138
Foreign Mother	0.034	0.032	0.0329	0.0369
Child Outcomes				
High School Graduate (Wave IV)	0.920	0.948	0.915	0.940
College Graduate (Wave IV)	0.326	0.405	0.305	0.401
School Problems Index	0.160	-0.142	0.301	-0.0994
Unexcused Absences	1.964	1.436	2.290	2.338
Ever Been Suspended	0.288	0.125	0.300	0.157
Trouble with Teachers	0.988	0.750	1.086	0.876
Trouble Paying Attention	1.411	1.226	1.657	1.233
Trouble Doing Homework	1.341	1.111	1.467	1.110
Trouble with Other Students	0.936	0.837	1.052	0.905
Depression Index	-0.141	0.108	-0.277	0.0259
Hopeful	1.901	1.849	1.765	1.862
Can't Shake Blues	0.269	0.440	0.305	0.456
Depressed	0.387	0.570	0.338	0.636
Happy	2.171	2.204	2.160	2.138
Lonely	0.355	0.474	0.282	0.581
English Grade	2.720	3.097	2.691	3.083
Math Grade	2.734	2.844	2.733	2.829
Expect to Attend College	-0.129	0.141	-0.181	0.137
Want to Attend College	-0.104	0.115	-0.229	0.123
Observations	3459	3868	213	217