

**LOOKING FOR MURPHY BROWN:
ARE COLLEGE-EDUCATED, SINGLE
MOTHERS UNIQUE?**

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Are College-Educated, Single Mothers Unique?**

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Abstract

In this paper, we study the 20 percent of unmarried mothers in the U.S. who have attended college. We ask whether these women constitute a distinct subgroup of unmarried mothers in terms of their attitudes toward marriage and men, the characteristics of their partners or the age at which they become mothers. We find evidence that being college educated and single is associated with holding more independent views about marriage, with having lower-quality partners and with increased odds of becoming a mother late in life—above and beyond the main effects of education and marital status. We also find variation across race-ethnic groups. White, educated single mothers most closely resemble the image of the “independent woman,” while African-American and Hispanic mothers are more likely to be partnered with less-educated men.

INTRODUCTION

Non-marital childbearing in the United States is highly stratified by education. Of the more than one million women who give birth out of wedlock annually, only one in five has attended college, and fewer than one in twenty has a college degree (National Center for Health Statistics, 2002). Following this pattern, researchers have focused on the eighty percent of single mothers with a high school education or less and have identified the lack of “marriageable men,” poor economic opportunities for women, and high welfare benefits as the critical factors behind the rise in non-marital childbearing (Wilson & Neckerman, 1986; Ellwood & Jencks, 2001; Moffitt, 2001).

While the focus on less-educated women is reasonable, the lack of information about college-educated, single mothers is potentially problematic for two reasons. First, the number of single mothers is growing due to increases in college attendance and rates of non-marital childbearing among college-educated women. The proportion of all women ages 18 to 24 enrolled in college grew from 25 percent to 38 percent between 1980 and 2000 (U.S. Bureau of the Census, 2003). Similarly, between 1985 and 1994, the rate of non-marital childbearing rose from 18.9 to 23.4 births (per 1,000) among women with one to three years of college education and from 6.1 to 12.9 births (per 1,000) among women with at least four years of college (Lewis & Ventura, 1990; Matthews & Ventura, 1997).¹ (Over this same period, rates of non-marital childbearing rate rose from 40.3 to 74.7 births per 1,000 among women with only a high school degree and from 43.5 to 63.1 among women with less than a high school degree.)

A second reason for studying college-educated mothers is that the causes of out-of-wedlock childbearing may be different for this group. Divergent causes seem likely insofar as the factors that appear to account for non-marital childbearing in general – lack of marriageable males, lack of opportunity for women, and high welfare benefits – are much less likely to affect the behavior of college-educated women. The decline in male wages is concentrated among men in the bottom half of the socio-economic spectrum, while college-educated women are concentrated in the top half of the spectrum.² While less-educated women may face a shortage of marriageable men, such a shortage is less likely to affect

¹ Vital statistics data measure years of college education, not whether the mother received a college degree, and not all women who complete four years of college complete a degree (Ventura, 2002).

² Calculations performed using published Current Population Survey data indicate that 41 percent of all U.S. women between the ages of 25 and 39—by which time most schooling has been completed—have a high school degree or less, 30 percent have some college education or an associate's degree in a technical or academic field, and 29 percent have a bachelor's degree or more (U.S. Census Bureau, 2002).

college-educated women. Similarly, the labor market opportunities of college-educated women have improved during the past few decades (Spain & Bianchi, 1996), making welfare and childbearing less attractive. These differences raise the possibility that non-marital childbearing in the U.S. context is composed of two somewhat distinct demographic groups and fueled by somewhat different forces. By ignoring college-educated mothers we may miss an important part of the process of family formation.

In this paper we focus on the 20 percent of unmarried mothers who have attended college. We use data from the Fragile Families and Child Well-being Survey, a longitudinal birth cohort study of approximately 5,000 children born between 1998 and 2000. These data are nationally representative of births to unmarried mothers in cities of 200,000 or more people. The sample contains over 3,700 unmarried mothers (including nearly 1,000 college-educated mothers) and contains extensive information on the relationships between unwed mothers and fathers.

Our analysis explores three arguments for why college-educated, single mothers might be a distinct group. First, we consider the possibility that these women are disproportionately likely to have reached their mid to late thirties without bearing a child. Worried about running out of time to bear children, they may opt to become single mothers rather than risk forgoing motherhood. Second, we consider the claim that college-educated, single mothers hold particularly negative views of marriage and men perhaps because of their exposure to feminist ideas. Third, we explore the possibility that these mothers bear children outside marriage because they have trouble finding suitable men to marry. In the next section of the paper, we review what is known about the characteristics and attitudes of mothers and how these differ by education and marital status. In section three, we describe

our data and methods. In section four, we report our results, and in section five we draw conclusions and discuss implications for future research.

PREVIOUS RESEARCH

Very little scholarly research has focused on college-educated, single mothers per se.³ The absence of such research is due in large part to data limitations. College-educated, single mothers are a relatively rare group, and therefore most household surveys do not contain large enough samples of these women to allow researchers to examine them separately. While birth record data (vital statistics) contain sufficiently large numbers of college-educated, single mothers, these data only provide information on mothers' demographic characteristics and birth outcomes. In addition, our ignorance of college-educated, single mothers reflects the relatively favorable socio-economic status of these mothers, which has made them of less concern to policy makers.

Despite the lack of data, several books and at least two articles have been written about college-educated, single mothers, and they contain several arguments for why this group of women might bear children outside marriage. One claim is that college-educated single mothers are worried about approaching the end of their childbearing years (McKaughan, 1989; Miller, 1992; Ludtke, 1997; Bock, 2000; Schmidt, 2002). Having delayed marriage and childbearing to invest in their education and careers, some highly educated women may find that they are forced to choose between having a child outside marriage and not having a child at all. Schmidt (2002) discusses this "biological clock" argument and tests it using vital statistics and census data. She finds that for white, college-educated women, the risk of having a first birth outside marriage increases with age, which is consistent with the claim that these women are opting to bear children before time runs

³ We use the term "single" to denote women who gave birth outside marriage.

out. However, her results do not hold for college-educated, African-American women, whose risk of non-marital childbearing is greatest at younger ages.

A second reason why college-educated women might choose single motherhood over marriage is that they have particularly strong preferences for independence. Vice President Dan Quayle articulated this argument in 1992 when he attacked television sit-com character Murphy Brown and the show's producers for "mocking the importance of fathers by bearing a child alone and calling it just another 'life-style choice'" (Morrow, 1992).

The argument that college-educated women prefer single motherhood to marriage seems plausible. We know that family attitudes have changed dramatically since the 1960s and that these changes include growing acceptance of untraditional behavior, such as remaining single, divorcing and bearing children outside marriage (Thornton, 1989; Lesthaeghe, 1995; Thornton & Young-DeMarco, 2002;). We would expect college-educated women to be particularly likely to embrace untraditional attitudes about family life since education is likely to promote greater tolerance for a wider variety of family behavior (Trent & South, 1992; Pagnini & Rindfuss, 1993). Growing opportunities for women in higher education as well as in the labor force have also been linked to the spread of feminist ideas about marriage and gender equality (Chafetz, 1995), which may also incline college-educated women to adopt different marriage attitudes than less-educated women. Furthermore, education and other measures of high socio-economic status are associated with more effective contraceptive practices and decreased odds of having an unwanted birth, raising the possibility that highly educated mothers who bear children out of wedlock do so intentionally (Forrest, 1994; Kost & Forrest, 1995).

Most empirical evidence supports the argument that educational attainment is related to greater acceptance of untraditional familial behavior (Thornton, 1985; Trent & South, 1992; Pagnini & Rindfuss, 1993). Pagnini and Rindfuss (1993), for example, find that men and women who have attended college are more likely to believe there is “no reason why single women shouldn’t have children and raise them if they want to.” Thornton (1985) finds that more educated women express more favorable attitudes toward divorce. We also know that single mothers hold less traditional views than married mothers (Pagnini & Rindfuss, 1993). What we do not know is whether college-educated, single mothers hold more independent views than what we might expect, given their education and marital status.

A final argument for why some educated women might become single mothers is that they have difficulty finding a suitable partner. At the beginning of the paper, we noted that finding a ‘marriageable male’ was less likely to be a problem for college-educated women since they usually partner with men who have similar backgrounds and are less likely to experience unemployment. While this statement is true if we define ‘marriageable’ as having a steady job, it may be less true if we broaden the definition to include having a partner with a job of equal or greater status. It may also be less true if we include finding a high-quality relationship in our definition of ‘marriageability.’ Indeed, because of their stronger economic position, it seems plausible that college-educated women may come to expect more from their partners than other women and that these higher expectations may lower their chances of marriage. It is also possible that the potential partners of these women are less likely to marry either because they are uncomfortable with having a wife of higher status or because they, too, can be more selective of whom they marry. Both these scenarios

would be particularly likely to affect African-American, college-educated women, who face an acute shortage of college-educated men due to the growing gender gap in college attendance coupled with high rates of racial out-marriage among men.⁴

In the analysis that follows, we examine each of the arguments outlined above to see if they are consistent with the empirical evidence. We begin by examining the proportion of new, unmarried mothers who may be concerned about running out of time to bear children. Specifically, we look at the proportion of unmarried mothers who are childless and over 34. Next we examine attitudes toward marriage and men to see if college-educated, single mothers have particularly negative views of marriage, above and beyond what we might expect given their education and marital status. Finally, we compare the partners of new mothers in terms of their economic status and social desirability to see if highly educated, single mothers have partners with less desirable characteristics.

Our analyses are based on cross-sectional data; therefore we cannot say whether observed differences in attitudes or partner capabilities are a cause or a consequence of differences in marital status and/or schooling. Indeed, we could have treated age at motherhood, attitudes and partner quality as our independent variables and marital status and education as our outcomes. Treating marital status and education as independent variables offers one important advantage, however; it allows us to gauge whether being college educated and single has an additional effect above and beyond what we would expect given the main effects of education and marital status. Although our analysis does not establish

⁴ Calculations based on published data from the U.S. Bureau of the Census show that in 2,000 women made up 54 percent of non-Hispanic white college students between the ages of 15 and 34, 55 percent of Hispanic college students in this age group and 62 percent of African-American college students (U. S. Bureau of the Census, 2003).

causality, we believe that examining the correlational evidence is an important first step in understanding whether college-educated, single mothers constitute a distinct subgroup.

DATA AND METHODS

Our data come from the Fragile Families and Child Wellbeing Study, which is following a birth cohort of approximately 5,000 children, including 3,700 children of unmarried mothers and 1,200 children of married mothers. The sample is representative of births between 1998 and 2000 in U.S. cities with populations of 200,000 or more. Baseline data were collected from the mothers via in-person interviews in hospitals within 48 hours of each child's birth. Fathers were interviewed either at the hospitals or as soon as possible after the birth. Because response rates were higher for mothers (90 percent for both married and unmarried mothers) than for fathers (85 percent for married fathers and 75 percent for unmarried fathers), we base most of our analysis on data gathered from the mothers. However, in some instances we rely on a combination of mothers' and fathers' reports, as noted below.

After excluding 74 cases because of missing data, we have a total sample size of 4,824 mothers, including 946 college-educated, single mothers, 2,696 less-educated, single mothers, 748 college-educated, married mothers, and 434 less-educated, married mothers.⁵ (Hereafter, we refer to less-educated mothers as "other married mothers" and "other single mothers.")

Dependent Variables

We use three sets of dependent variables to evaluate each of our arguments. To measure whether a mother is likely to be concerned about running out of time to bear

⁵ We exclude from our analysis 29 mothers who reported that the father of their child was unknown, five mothers who did not report their level of education, and 40 mothers for whom we were missing demographic characteristics, such as age, that we use as control variables.

children, we create a dummy variable coded one if the mother is over 34 and childless before her non-marital birth.⁶

To measure whether a mother has ‘unconventional’ attitudes toward men and marriage, we use five questions about the value of marriage, two questions about gender roles, and two questions about trust in men. We consider valuing marriage, supporting traditional gender roles and expressing trust in men to be conventional attitudes. When necessary, we reverse the question coding so that conventional responses are coded positively. The value of marriage items include questions about the relative value of being single versus being married and of cohabitation versus marriage, as well as questions about the child-rearing ability of single mothers and whether couples with children should stay together. The gender role items include questions about the whether men should make major decisions for the family and whether they should act as the main wage earners. The gender trust items ask respondents whether men are trustworthy with regard to dating and sex.⁷

⁶ We explored several possible age cut-offs and found consistent multivariate results.

⁷ Regarding marriage, respondents were asked whether they agreed with the following statements: “All in all, there are more advantages to being single than to being married” (reverse coded and hereafter referred to as “Marriage more advantageous”); “It is better for a couple to get married than to just live together” (referred to as “Marriage better for couples”); “It is better for children if their parents are married” (“Marriage better for children”); “When there are children in the family, parents should stay together even if they don’t get along” (“Parents should stay together”); and “A mother living alone can bring up her child as well as a married couple” (“Two parents better for children,” reverse coded). Regarding gender roles, respondents were asked if they agreed with the following statements: “The important decisions in the family should be made by the man of the house” (hereafter “Better if man makes important decisions”); and “It is much better for everyone if the man earns the main living and the woman takes care of the home and family” (“Better if man earns main living”). Regarding trust in men, respondents were asked whether they agreed with the following statements: “In a dating relationship, a man is largely out to take advantage of a woman” (hereafter “Men can be trusted in dating relationships,” reverse coded); and “Men cannot be trusted to be faithful” (“Men can be trusted to be faithful,” reverse coded).

The response categories for the attitudinal questions are “strongly agree,” “agree,” “disagree and “strongly disagree.” We treat these response categories as a four-way scale⁸ and use ordinary least squares regression to analyze these models.⁹

Finally, we use three indicators to measure partner ‘quality’ or ‘marriageability.’ The first indicator of quality is a dichotomous variable coded one if the partner has completed less schooling than the mother.¹⁰ For this analysis, we classified mothers and fathers into four educational groups: those who did not complete high school; those who completed high school but pursued no further education; those who attended college but did not earn a four-year degree; and those who earned a bachelor’s degree.¹¹

The second indicator of partner quality is a dichotomous variable coded one if the father had one or more of the following problems when the baby was born: not working or attending school; a physical or mental health condition that limited the kind or amount of work he could do; drug or alcohol use that interfered with work or relationships; or a history of violence toward the mother. The questions used to construct the violence measure were

⁸ A small group of respondents—between a half a percent and two percent depending on the outcome—said they did not know whether they agreed or disagreed. Since the absence of an opinion may not be synonymous with holding moderate views (see, for example, DiMaggio, Evans & Bryson, 1996: 700), we coded “don’t know” responses as missing rather than making “don’t know” the midpoint of our attitudinal scales. Sensitivity tests indicated that including the small number of respondents who answered “don’t know” did not change our findings.

⁹ Because our attitude measures are not continuous, we tested the impact of using ordered logistic regression as well as collapsing the responses into a dichotomous variable indicating agreement or disagreement. Neither re-specification led to substantive changes in our findings. We also tested the impact of controlling for partner quality in our attitude models and controlling for attitudes in our partner quality models. These alternate specifications did not have a substantive effect.

¹⁰ As noted above, we based most of our measures on mothers’ reports. However, two of the three partner quality variables—partner less educated than mother and partner has at least one major problem—use information from both mothers and fathers in some cases. To measure fathers’ education, we relied on fathers’ report, if available. To measure fathers’ employment for the major problems variable, we relied on fathers’ report if mothers’ report was missing.

¹¹ Because the Fragile Families baseline data do not allow us to distinguish between mothers and fathers who earned a two-year degree and those who attended college but did not earn any degree, both groups of mothers appear in the “some college” group. This group also includes 151 mothers and 164 fathers who reported attending technical or trade school.

not asked of married mothers in two cities in our sample – Oakland and Austin – and thus our sample size is smaller for the analysis of these outcomes.¹²

Our third partner quality variable measures how well the father treats the mother. It is based on four questions asked of the mothers regarding the frequency (never, sometimes, often) with which the father is fair and willing to compromise when the couple disagrees, how often he expresses love and affection for her, how often he insults or criticizes her and how often he encourages or helps her do things she considers important. This partner treatment measure is a dichotomous variable coded one if the mother gives the father the highest possible evaluation on all four components, that is, if she reports that the father often compromises, often expresses affection, often encourages her and never insults or criticizes her.

Independent Variables

To measure mothers' education and marital status we use three dichotomous variables: an indicator of whether the mother is college educated; an indicator of whether she is single; and an indicator of whether she is both college educated and single. College-educated mothers are defined as those with some education beyond high school. We chose this broad definition for both substantive and practical reasons. First, single mothers with at least some college education constitute one fifth of all single mothers, making them a far larger and more policy-relevant group than the roughly four percent of single mothers with a college degree. Second, focusing on this larger group of educated, single mothers increases our sample size, allowing us to examine racial and ethnic variation in our three explanations for non-marital childbearing among college-educated mothers.

¹² The number of cases in our regression analyses varies from a low of 4,141 for the analyses that exclude these two cities to a high of 4,806 for analyses that include all cities. The variation in sample size also reflects differences in the number of cases with missing data for each of our outcomes.

Using the broader definition, the majority of mothers we classify as college educated (60 percent) have attended but not completed college, while almost a third hold a college degree.¹³ We also conducted separate analyses for women with a college degree, and these results are discussed below. In all of the analyses, we are interested in testing whether college-educated, single mothers are different from other mothers, above and beyond what we might expect based on their education and marital status. In other words, we want to determine whether there is an interaction between being college educated and being single.

In addition to mothers' education and marital status, we control for the number of years parents knew each other prior to the pregnancy,¹⁴ mother's age, whether the mother was an immigrant, whether she had other children, and her race and ethnicity (coded as a set of dummy variables for non-Hispanic white, African American, Hispanic and other).¹⁵

Table 1 contains summary statistics indicating how our four groups of mothers differ along these indicators. Column 1 shows means or proportions for college-educated, single mothers. The subsequent columns contain means or proportions for other single mothers (column 2), for college-educated, married mothers (column 3) and for other married mothers (column 4). These numbers are weighted and therefore accurately describe new births to mothers in larger U.S. cities at the turn of the 21st century.

¹³ The college-educated group also includes 151 mothers—nine percent of the total—whose post-high school education occurred at technical or trade schools, rather than at colleges. We tested the sensitivity of our analyses to varying definitions of college educated by redefining mothers who had attended technical or trade schools as having only a high school degree. This re-specification did not change our results.

¹⁴ Mothers who have known the father for less than a year prior to pregnancy received a code of zero. For the 47 mothers lacking data for the relationship variable, we imputed to the mean and incorporated a flag to identify cases with missing values.

¹⁵ The Fragile Families baseline survey asks respondents separate questions about race and ethnicity. We combined responses to these questions in order to classify respondents into four exclusive and exhaustive categories: non-Hispanic white; African American, regardless of Hispanic origin; Hispanic, excluding African Americans; and "other race," a group including respondents who identified themselves as Asian or Pacific Islander, American Indian, Eskimo, Aleut or "other." Respondents who identified themselves as both "Hispanic" and members of one of the "other" races were classified as Hispanic.

The average college-educated, single mother is 26.4 years old, about three and a half years older than the typical other single mother but four years younger than the average college-educated, married mother. College-educated, single mothers are relatively unlikely to be immigrants. Fewer than eight percent of college-educated, single mothers are foreign born, compared with almost 20 percent of college-educated, married mothers and almost 40 percent of other married mothers. About half of college-educated, single mothers have prior children, fewer than other married mothers (75 percent of whom have other children) but not statistically different from other single mothers or college-educated, married mothers. On average, college-educated, single mothers knew the father of their child for three and a half years before becoming pregnant, the same length of time as the typical other single mother but three to four years less than the typical married mother. In terms of racial and ethnic make-up, about one half of college-educated, single mothers are African American. Almost one quarter are non-Hispanic white. One fifth are Hispanic, and the remaining five percent belong to other race-ethnic groups. By comparison, other single mothers and other married mothers are far more likely to be Hispanic (37 percent and 49 percent respectively), while college-educated, married mothers are more than twice as likely to be white (60 percent).

These inter-group differences highlight the need to control for mothers' demographic characteristics as we do in the multivariate analyses below. It is important to note, however, that some of these differences reflect the geography of our sample, which is limited to cities with populations of at least 200,000. A comparison of our urban sample with data from U.S. vital statistics indicates that our sample is disproportionately African American and Hispanic, as compared with the nation. African Americans (and to a lesser extent Hispanics) are more likely to live in large cities than non-Hispanic whites. The proportion of non-

marital births to college-educated, single mothers is also slightly lower in large cities than it is in the country as a whole. For example, whereas in the Fragile Families sample, 17.3 percent of births are to women with at least one year of college education, in the nation as a whole, the figure is 21.0 percent. In short, our findings can only be generalized to mothers giving birth in large cities.

RESULTS

Table 2 indicates how our four groups of mothers vary along the outcomes we use to test our three explanations of non-marital childbearing among the college educated. As in Table 1, these numbers are weighted and thus accurately describe new births to mothers in U.S. cities with populations of at least 200,000. The first column in Table 2 presents mean values or proportions for college-educated, single mothers; the second column presents the same information for other, single mothers; the third column presents statistics for college-educated, married mothers, and the fourth column presents statistics for other married mothers. Although the statistics in Table 2 are descriptive and do not take into account demographic characteristics of the mothers, they provide a starting point for evaluating whether college-educated, single mothers are unique in terms of age at motherhood, valuing marriage and men, and having desirable partners.

We begin with the biological clock explanation. Column 1 indicates that only about one in 20 college-educated, single-mothers fits the description of a woman likely to be worried about running out of time to bear children, that is, being previously childless and over age 34. In this regard, college-educated, single mothers closely resemble their married counterparts, 5.6 percent of whom are previously childless and over age 34. By contrast, less than one percent of other single mothers fall into this category. These results indicate that

while relatively few college-educated, single mothers are likely to be concerned about running out of time to bear children, educated mothers are more than 17 times as likely to fall into this category as other single mothers. However, if we restrict our definition of “college-educated” to college graduates, the percentage of college-educated mothers who might be described as “racing the biological clock” is considerably larger, although the contrast with other single mothers is similar: 15 percent versus one percent.

The marriage attitudes of college-educated, single mothers are mixed. On two of our five indicators, the typical college-educated, single mother comes down on the positive side of the ‘agree-disagree’ continuum, indicating she holds more conventional views; on two more indicators, she is on the negative side, indicating she holds less conventional views; and, in one case, she is right in the middle. College-educated, single mothers and other single mothers generally express similar marriage attitudes. However, college-educated, single mothers are somewhat more likely to view marriage as advantageous, while they are less likely to believe that parents should stay together “for the sake of their children.” By contrast, married mothers—particularly those who are college educated—express more favorable views of marriage. For example, the typical college-educated, single mother disagrees with the statement that two parents are better for children, while her typical married counterpart falls in the middle of the ‘agree-disagree’ continuum. Thus, in terms of marriage attitudes, college-educated, single mothers do not appear to constitute a unique group of unmarried mothers although they do differ from married mothers.

College-educated, single mothers also hold mixed views with regard to gender roles and trust. The average college-educated, single mother holds unconventional views about gender roles, disagreeing with the idea that men should make the major decisions or be the

major breadwinners. At the same time, her trust in men and their ability to be faithful is high. In terms of men's prerogative over decision making, college-educated, single mothers hold views similar to those of other single mothers and of college-educated, married mothers. But college-educated, single mothers are less likely to believe that men should be the major breadwinners than all three other groups of mothers, especially other married mothers, the most conventional of the four groups in terms of gender roles. While all four groups of mothers express high levels of trust in men, college-educated, single mothers are more likely than other single mothers and less likely than college-educated, married mothers to believe men can be trusted to be faithful.

Turning to partner quality, we find that the average college-educated, single mother is partnered with a less-educated man who does not always treat her very well but who has no serious drug or alcohol problems and is not jobless or physically abusive. In comparing college-educated, single mothers with other mothers, the most striking difference involves disparities in education. Almost 60 percent of college-educated, single mothers have a less-educated partner, compared with about one third of college-educated, married mothers and slightly more than one in 10 other single and married mothers. With regard to our two other measures of partner quality, college-educated, single mothers are statistically indistinguishable from other single and other married mothers. However, these three groups of mothers differ from college-educated, married mothers. For example, more than one fifth of college-educated, single mothers have a partner with a major problem, compared with less than nine percent of college-educated, married mothers. Similarly, less than one third of college-educated, single mothers report that their partner treats them very well, as compared with almost half of college-educated, married mothers.

In some respects this statistical portrait fits our stereotype of the educated, single mother. In other respects it does not. The small proportion of these mothers who appear to be racing the biological clock, their positive views of marriage and their trust in men are inconsistent with the image of a woman who prefers independence to marriage. On the other hand, strong objections to conventional gender roles, believing that a mother can successfully raise a child alone, and challenging the assumption that parents should stay together for their children's sake are all consistent with our image of Murphy Brown and the "independent woman." Similarly, these descriptive findings suggest some respects in which college-educated, single mothers appear distinct from other groups of mothers, such as their far greater odds of having a less-educated partner. However, the degree to which college-educated, single mothers differ from other mothers and which groups of mothers they differ from vary across our outcomes.

Multivariate Results

To explore some of the arguments further and to determine if college-educated, single mothers form a distinct group, we estimated a set of logistic and ordinary least squares regression models that included marital status and education as well as the interaction of these two variables. These models allow us to evaluate whether the interaction of education and single status has an additional effect on our outcomes, above and beyond the effects of education and marital status. If we find no significant interactions, we can conclude that there is nothing unique about being college-educated and single; rather the differences we observe among college-educated, single mothers simply reflect the additive effects of marital status and education.

What evidence do we have that college-educated, single mothers are especially likely to be worried about running out of time to bear children? The bivariate comparisons in Table 2 give us a good idea of the simple correlation between mothers' education and marital status and being over age 34 and previously childless. However, these comparisons do not tell us whether these correlations persist after we take account of mothers' age, race and other characteristics. Nor do they tell us whether the interaction between being college-educated and being single is significant. Table 3 presents coefficients from a logistic regression model that treats being previous childless and over age 34 (the biological clock) as a dependent variable and education and marital status and the control variables as independent variables. As noted before, this and subsequent models are intended to measure associations rather than causal relationships.

In Table 3, the education coefficient is significant and positive, indicating that college attendance is associated with an almost threefold increase in the odds of being over age 34 and previously childless. Single status works in the opposite direction and is associated with a sharp reduction in the likelihood of falling into this category (odds ratio: 0.31). But being college educated *and* single is associated with an almost three-fold increase in the odds of being over age 34 and previously childless above and beyond the main effects of education and marital status. These findings indicate that college-educated, single mothers are a unique group with respect to the importance of the biological clock.

Turning to marriage attitudes in Table 4, we consider whether college-educated, single mothers appear to be more independent and/or have more negative attitudes toward marriage and men than what we would expect, given their education and marital status. In Table 4, the education coefficient is positive and significant in four of the five models,

indicating that higher education is positively associated with more favorable views toward marriage. Compared with less-educated mothers, college-educated mothers are more likely to see marriage as preferable to remaining single and as better for couples than cohabitation. They are also less likely to believe that a single mother can raise a child as well as a married couple. Taken together, these coefficients indicate that having a college education is not associated with more negative views of marriage. The only attitude that differs in this respect is the belief that parents should stay together even if they don't get along. Here, education is associated with more unconventional views. Being single has the opposite effect of being educated. Single status is associated with less favorable attitudes toward marriage in all five models, as expected, and the size of the effect of single status tends to be larger than the size of the education effect.

Looking specifically at the interaction between college education and single motherhood, we see that being in this group is associated with less positive views of marriage, including a lower likelihood of believing that single motherhood is bad for children, a lower likelihood of believing that parents should stay together even if they don't get along, and a lower likelihood of believing that marriage is better for children. The coefficients for the interaction terms indicate that in order to fully appreciate the association between education and mothers' views about marriage, it is important to also know mothers' marital status. For married mothers, being educated is associated with an increase in conventional views of marriage. For unmarried mothers, education has a much less positive effect on conventional views.

Table 5 presents results from models predicting gender role attitudes and trust in men. For these outcomes, the direct effect of being highly educated is mixed. Being college

educated is associated with a lower likelihood of believing that men should make the important decisions or earn the main living, and a higher likelihood of believing that men can be trusted with regard to dating and sexual fidelity. These findings may reflect the favorable position of these women in the marriage market. As was the case in the marriage attitude models, being a single mother is associated with more independent attitudes about gender roles and less trust in men. However, there is little evidence that college-educated, single mothers hold distinct attitudes about gender—at least in the direction we would expect. Being both college educated and single is associated with a small increase in the likelihood of believing men should make the major decisions but does not have an additional effect on attitudes about gender trust or whether men should be the main breadwinners, above and beyond the main effects of education and marital status.

What about the partners of college-educated, single mothers? Is there merit to the argument that these women have trouble finding suitable men to marry either in terms of human capital or emotional support? Table 6 presents odds ratios for the three logistic regression models predicting partner quality. We might expect education to be positively associated with partner quality since women with more education have more bargaining power and can be more selective about the men with whom they have children. At the same time, as women move up the education ladder, the absolute number of men with similar levels of education becomes smaller. According to Table 6, having a college education is associated with a higher risk of having a less-educated partner. College-educated mothers are more than four times as likely to have a less-educated partner, reflecting these mothers' greater chance of partnering down the education "ladder."

Aside from this increased risk of having a less-educated partner, higher education is associated with greater partner quality. College-educated mothers are less likely to have partners with major problems and more likely to report that their partners treat them very well. In contrast, being single is associated with lower partner quality. Unmarried mothers are more likely to have partners with major problems and less likely to view their partners as treating them very well. Single status appears to be unrelated to having a less-educated partner. However, when we examine the interaction between college and marital status, we find that being single *and* having some college education more than doubles the odds of having a less-educated partner. Thus, one important respect in which college-educated, single mothers are distinct is in having partners whose earnings capacity and socio-economic status is lower than their own.

Specification Tests: Defining College Educated as Holding a College Degree

Thus far we have focused on mothers who have at least some college education. Using a broad definition of college education (attends college) as opposed to a narrow one (has a college degree) to classify mothers is advantageous because it allows us to examine a larger, more policy-relevant group of women and to examine racial and ethnic groups separately (see below).

To assess whether our results are robust to different definitions, we repeated the analyses described above using the more restrictive definition. We found only three instances among our 13 models in which restricting the definition changed our substantive findings. In two of these instances, the more restrictive definition re-enforces our findings, while in one instance, it makes our findings weaker. With regard to views of marriage, our previous analysis indicated that being college educated and single was associated with less

positive views of marriage, in particular with believing that parents should stay together even if they don't get along. Using the new definition, the size of the interaction term more than doubles, indicating that degree holders feel even more dubious than other mothers about parents' staying together "for the sake of the children." Similarly, when we use a more restrictive measure of education, the educational disparity between mothers and their partners grows larger. Whereas being single and having at least some college education more than doubles the odds of having a less-educated partner, being single and having a college degree is associated with a six-fold increase in these odds.¹⁶ The only variable for which the effects go in the opposite direction is beliefs about whether a single mother can raise a child alone. In this case, single mothers with a college degree are less positive than single mothers with some college education.

Race and Ethnic Differences

To see if the relationship between college-educated, single status and our outcomes varied by race and ethnicity, we performed separate analyses for each of our three main race-ethnic groups. In examining these results, we focus on the interaction terms for mothers who are both college educated and single. If the effect of being college educated and single varies by race and ethnicity, we would expect to find variation in the size and/or direction of these interaction coefficients.

Disaggregating the models by race and ethnicity changes our findings substantially with regard to marriage attitudes and partner quality but has no impact on our findings

¹⁶ This difference is partially an artifact of the way we measure mothers' and fathers' educational attainment. Mothers who hold a college degree have more opportunity to have a less-educated partner since we consider partners with some college to be less educated than mothers who hold college degrees, thus giving these mothers three groups of potential partners lower down the educational ladder. Mothers with some college education have only two such groups of potential partners: men with a high school education and men who did not complete high school.

regarding gender roles and trust in men.¹⁷ Consequently, in Table 7, we present coefficients for the interaction terms from our disaggregated models only for outcomes regarding marriage attitudes and partner quality.¹⁸ The upper panel of Table 7 presents our disaggregated findings regarding marriage attitudes. For white, non-Hispanic mothers (Columns 1 - 4), we find that being college educated and single is related to placing less value on marriage in terms of its potential benefits for both children and couples. This relationship is evident in each of our five models, although the results are not always statistically significant. The lack of statistical significance is probably due to the reduction in the size of our sample of college-educated single, mothers once we disaggregate our models by race. (Our sample contains 946 college-educated, single mothers, 175 of whom are non-Hispanic, white, 540 African American, 188 Hispanic and 143 other.)

For African-American and Hispanic mothers (Columns 5 - 8 and 9 - 12 respectively), the results are somewhat different. Four of five models show no association between being college-educated, single status and valuing marriage less.¹⁹ Moreover, in these models, the sizes of the associations are generally smaller than they were for whites. The consistency of these patterns across our three race/ethnic groups lends credence to these apparent differences although formal tests indicate we cannot reject the possibility that the marriage attitudes of whites do *not* differ from those of blacks or Hispanics in three of our five models.²⁰

¹⁷ The number of mothers who are previously childless and over age 34 is too small to allow us to disaggregate the biological clock model by race-ethnicity.

¹⁸ Once we disaggregate our models by race, the positive association we found earlier between college-educated, single status and believing men should make the major decisions becomes insignificant. Full models are available on request from the authors.

¹⁹ Among African-Americans, the exception is the model predicting that parents should stay together. Among Hispanics, it is the model predicting that two parents are better for children.

²⁰ We conducted both inter-model t-tests (Marascuilo & Levin, 1983) and intra-model tests using a three-way interaction term. The results of these tests are presented in the appendix.

The lower panel of Table 7 presents the interaction terms for our disaggregated models of partner quality. As was the case regarding the value of marriage, our story changes when we perform separate analyses for our three race/ethnic groups. While being college educated and single increases the risk of having a less-desirable partner for mothers in all three race/ethnic groups, the nature of this disadvantage varies.

For white, non-Hispanic mothers, being college educated and single is associated with a more than two-fold increase in the odds of having a partner with a major problem ($e^{.82} = 2.27$) and a more than 50 percent decrease in the odds of having a partner who treats the mother very well ($e^{-.82} = 0.44$). However, for white mothers, college-educated, single status is not associated with a greater risk of having a less-educated partner. By contrast, for African-American and Hispanic mothers, being college educated and single is associated with a doubling of the odds of having a less-educated partner ($e^{.73} = 2.08$; $e^{.71} = 2.03$). But, with regard to partner problems and treatment, there is no additional risk associated with being college educated and single after taking into account the main effects of education and marital status. With the exception of the white-black disparity in partner treatment, however, formal statistical tests indicate we cannot reject the possibility that these differences are due to chance.

CONCLUSIONS

In this paper, we focused on college-educated, single mothers to see if they form a distinct group. In doing so we explored several arguments for how college-educated, single mothers might differ from other mothers. First we looked at the argument that college-educated, single mothers bear children because they are approaching the end of their childbearing years. While fewer than one in 20 college-educated, single mothers is over age

34 and previously childless, college-educated, single mothers are more than 17 times more likely to fit this description than less-educated, single mothers, and this pattern is stronger among white women than among African American or Hispanic women. This finding suggests that there is a small group of college-educated women who may indeed choose single motherhood because they fear they are running out of time to bear children.

Furthermore, when we restrict our definition of college educated to college graduates, the group of all single mothers who appear to be running out of time to bear children triples, and race/ethnic differences sharpen. Almost 20 percent of white, single college graduates are over age 34 and previously childless, compared with 14 percent of African-American and six percent of Hispanic graduates. The relatively small proportion of highly educated, single mothers who belong to this group is not a function of the urban nature of our sample. A comparison with U.S. vital statistics indicates that the proportion of highly educated, single mothers who are over 34 and previously childless nationwide is even smaller.

Next we looked at whether college-educated, single mothers were choosing motherhood without marriage because they do not value marriage or because they hold unusually independent views. We find some support for this argument, although it seems to apply more to college-educated, single mothers who are white than to those who are African-American or Hispanic. Moreover, when we look at mothers' attitudes about gender roles and trust in men, we find no evidence that a college education increases independence or reduces trust. While we cannot be sure that the urban nature of our sample is not responsible for these findings, we believe it is unlikely since we would expect single

mothers living in large cities to be more independent minded than mothers living outside cities.

Finally, we examined whether college-educated, single mothers were having trouble finding suitable marriage partners. This argument appears to have some merit for all three race/ethnic groups, but the nature of partners' deficits varies across race/ethnic lines. African-American and Hispanic college-educated, single mothers face increased odds of having a less-educated partner, whereas their non-Hispanic, white counterparts face increased odds of having partners who treat them poorly or who have a major problem.

These results suggest that different explanations of college-educated, single motherhood may apply to different groups of women. A small proportion of older, childless, college-educated, single women—particularly if they are white college graduates—may opt to become single mothers because they fear remaining childless. This group accounts for about 5.2 percent of all college-educated, single mothers, 15 percent of all college graduate, single mothers, and 20 percent of all white, college graduate, single mothers.

Another group of college-educated, single women, especially white women, may choose single motherhood because they do not value marriage very much. And some women among all three race/ethnic groups may choose single motherhood because they have difficulty finding suitable men to marry.

It may also be the case that more than one of these three explanations applies to a given woman, since we cannot rule out the possibility that attitudes affect partner quality or that partner quality affects attitudes. Women who do not value marriage may be willing to accept less-marriageable male partners because they do not plan to marry them. Conversely, women who are partnered with less-marriageable men may come to hold less favorable

attitudes toward marriage. This question of causal order is particularly murky for college-educated, non-Hispanic white women, since, for them, we find evidence to support all three explanations of unmarried childbearing.

For African-American and Hispanic mothers, however, we do not find that being college educated and single is related to valuing marriage less. Nor do many of these mothers fit the description of women likely to be worried about running out of time to bear children. Furthermore, unlike their white, non-Hispanic counterparts, African-American and Hispanic college-educated, single mothers do not appear to face especially high odds of having partners who do not treat them very well or who have major problems, such as addiction or joblessness. However, these mothers' otherwise eligible partners are not as highly educated as the women themselves, reflecting the growing gender gap in college education, particularly among African Americans. This educational mismatch may represent a more general socio-economic gap that separates these couples and could lead them to forgo marriage.

Our research suggests that college-educated, single mothers do differ from other mothers above and beyond the differences we would expect to find given their education and marital status. But the ways they differ vary by race and ethnicity. College-educated, single, non-Hispanic, white mothers most closely fit the popular image of Murphy Brown: women who want motherhood without marriage. However, for white mothers, there is also evidence that running out of time to bear children and difficulties finding suitable partners play a role in non-marital childbearing. College-educated, single African American and Hispanic mothers bear less resemblance to Murphy Brown and appear less likely to be worried about running out of time to bear children. For both African-American and Hispanic

college-educated, single mothers, difficulties in finding an equally highly educated partner appear likely to be a potentially important factor in non-marital childbearing.

In recent decades, the proportion of American women attending college has risen, along with the chances that a college-educated woman will become a single mother. Today, one fifth of all single mothers have attended college. Our finding that these single mothers differ in important respects from less-educated mothers underscores the need for further study of this group of highly educated, single mothers.

In future research, we plan to make use of the longitudinal nature of the Fragile Families study to follow college-educated, single mothers over time. We intend to track whether mothers' attitudes and partner quality affect their odds of subsequent marriage one year and three years after giving birth outside marriage and whether this varies across race/ethnic groups. Such an analysis would better enable us to evaluate the causal direction of the findings described in this paper.

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Table 1***Mothers' Characteristics by Marital Status and Education: Weighted Descriptive Statistics ****

Variables	Single Mothers		Married Mothers	
	College Educated	Less Educated	College Educated	Less Educated
Mother's Age (mean)	26.4	23.0	30.5	<i>27.1</i>
Mother is an Immigrant (percentage)	7.6	13.3	19.6	39.1
Mother Has Prior Children (percentage)	51.7	<i>61.5</i>	<i>58.4</i>	74.5
No. of Years Mother and Father Acquainted Prior to Pregnancy (mean)	3.6	<i>3.6</i>	7.9	7.1
Mother's Race (percentages)				
Non-Hispanic White	23.8	<i>15.8</i>	59.9	<i>28.9</i>
African-American	51.2	<i>43.7</i>	14.9	13.3
Hispanic	20.2	37.3	<i>13.9</i>	48.8
Other	4.8	<i>3.2</i>	11.3	<i>9.1</i>
<i>N</i>	946	2696	748	434

** Differences between college-educated, single mothers and all other mothers are statistically significant at the .05 level unless the value for the other group appears in shaded italics.*

Table 2

*Mothers' Biological Clock, Values and Partner Quality by Marital Status and**Education: Weighted Descriptive Statistics **

Variables	<u>Unmarried Mothers</u>		<u>Married Mothers</u>	
	College Educated	Less Educated	College Educated	Less Educated
Biological Clock (percentage)				
Mother Age 35 or Above and Does Not Have Other Children	5.2	0.3	<i>5.6</i>	<i>3.1</i>
Marriage Values (means)				
Marriage More Advantageous	2.9	2.6	3.3	<i>2.9</i>
Marriage Better for Couples	2.6	<i>2.7</i>	3.0	2.9
Marriage Better for Children	2.8	<i>2.9</i>	3.2	3.2
Parents Should Stay Together	1.6	1.8	2.0	2.1
Two Parents Better for Children	1.8	<i>1.9</i>	2.6	2.2
Gender Role and Trust Values (means)				
Better if Man Makes Important Decisions	1.9	<i>1.9</i>	<i>1.9</i>	2.2
Better if Man Earns Main Living	1.8	2.2	2.2	2.5
Men Can Be Trusted In Dating	3.1	3.0	<i>3.2</i>	<i>3.0</i>
Men Can Be Trusted to Be Faithful	3.1	2.9	3.3	<i>3.0</i>
Partner Quality (percentages)				
Partner Less Educated	58.1	13.3	32.6	11.3
Partner Has At Least One Major Problem	22.0	<i>31.2</i>	8.5	<i>15.6</i>
Partner Treats Mother Very Well	30.7	<i>30.6</i>	47.9	<i>35.3</i>

* Differences between college-educated, single mothers and all other mothers are statistically significant at the .05 level unless the value for the other group appears in shaded italics. Sample sizes vary across outcomes.

Table 3

***Logistic Regression Analysis for Variables Predicting Mother
is Over Age 34 and Previously Childless (N = 4824)***

Predictor	<i>B</i>	<i>SE B</i>	e^B
College Educated	1.02 **	0.40	2.76
Single	-1.16 **	0.48	0.31
College Educated and Single	1.00 *	0.54	2.72
African American	-0.88 ***	0.29	0.42
Hispanic	-0.60 *	0.34	0.55
Other Race	-0.74	0.50	0.48
Immigrant	0.76 **	0.30	2.14
Relationship Length	0.07 ***	0.02	1.07
Constant	-4.29 ***	0.43	
x^2		123.96	
<i>df</i>		9	

Note. e^B = exponentiated *B*. Predictors coded as 1 for *yes* and 0 for *no*.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Flag for missing relationship years not shown.

Table 4

Ordinary Least Squares Regression Analyses Predicting How Highly Mothers Value Marriage

Variable	Marriage More Advantageous			Marriage Better For Couples			Marriage Better For Children			Parents Should Stay Together			Two Parents Better for Children		
	<i>B</i>	<i>SE B</i>	<i>Beta</i>	<i>B</i>	<i>SE B</i>	<i>Beta</i>	<i>B</i>	<i>SE B</i>	<i>Beta</i>	<i>B</i>	<i>SE B</i>	<i>Beta</i>	<i>B</i>	<i>SE B</i>	<i>Beta</i>
College Educated	0.23	0.04	0.15 ***	0.12	0.05	0.07 **	0.07	0.05	0.04	-0.13	0.04	-0.06 **	0.22	0.05	0.13 ***
Single	-0.31	0.04	-0.19 ***	-0.33	0.04	-0.17 ***	-0.28	0.04	-0.15 ***	-0.06	0.04	-0.03	-0.26	0.04	-0.14 ***
College Educated & Single	-0.04	0.05	-0.02	-0.08	0.06	-0.04	-0.12	0.05	-0.06 **	-0.13	0.05	-0.07 **	-0.21	0.05	-0.10 ***
African American	-0.17	0.03	-0.12 ***	0.29	0.03	0.18 ***	0.02	0.03	0.01	0.08	0.03	0.06 ***	-0.21	0.03	-0.13 ***
Hispanic	-0.20	0.03	-0.12 ***	0.12	0.04	0.06 ***	0.04	0.04	0.02	0.05	0.03	0.03	-0.13	0.04	-0.07 ***
Other Race	-0.21	0.06	-0.06 ***	0.12	0.07	0.03 *	-0.01	0.06	0.00	0.14	0.06	0.04 **	-0.04	0.06	-0.01
Age	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.03	0.01	0.00	0.07 ***
Immigrant	-0.05	0.03	-0.03 *	0.19	0.04	0.09 ***	0.25	0.03	0.12 ***	0.30	0.03	0.17 ***	0.23	0.03	0.11 ***
Prior Children	-0.07	0.02	-0.04 ***	0.07	0.03	0.04 **	0.02	0.02	0.01	0.00	0.02	0.00	-0.07	0.02	-0.04 **
Relationship Length	0.00	0.00	0.02	0.00	0.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.03 **	0.00	0.00	0.01
Constant	3.08	0.06		2.72			3.00			1.74	0.06		2.07		
R^2		0.12			0.06			0.06			0.06			0.12	
F		55.96 ***			25.55 ***			28.35 ***			25.39 ***			59.88 ***	
N		4711			4736			4741			4787			4781	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 5

Ordinary Least Squares Regression Analyses Predicting Mothers' Views About Gender Roles and Trust in Men

Variable	Better if Man Makes Important Decisions			Better if Man Earns Main Living			Men Can Be Trusted In Dating Relationships			Men Can Be Trusted To Be Faithful		
	<i>B</i>	<i>SE B</i>	<i>Beta</i>	<i>B</i>	<i>SE B</i>	<i>Beta</i>	<i>B</i>	<i>SE B</i>	<i>Beta</i>	<i>B</i>	<i>SE B</i>	<i>Beta</i>
College Educated	-0.22	0.04	-0.15 ***	-0.26	0.05	-0.16 ***	0.23	0.04	0.17 ***	0.20	0.04	0.13 ***
Single	-0.13	0.04	-0.08 ***	-0.08	0.04	-0.05 **	-0.09	0.03	-0.06 **	-0.25	0.04	-0.15 ***
College Educated & Single	0.10	0.05	0.06 **	0.00	0.05	0.00	-0.07	0.04	-0.05	0.00	0.05	0.00
African American	0.16	0.03	0.11 ***	-0.05	0.03	-0.03 *	-0.07	0.02	-0.06 **	-0.22	0.03	-0.15 ***
Hispanic	0.22	0.03	0.14 ***	0.13	0.04	0.07 ***	-0.18	0.03	-0.13 ***	-0.28	0.03	-0.17 ***
Other Race	0.11	0.06	0.03 *	-0.02	0.06	0.00	-0.15	0.05	-0.05 ***	-0.14	0.06	-0.04 **
Age	0.01	0.00	0.09 ***	0.01	0.00	0.07 ***	-0.01	0.00	-0.08 ***	-0.01	0.00	-0.05 ***
Immigrant	0.22	0.03	0.12 ***	0.44	0.03	0.21 ***	-0.08	0.03	-0.05 ***	-0.25	0.03	-0.13 ***
Prior Children	0.00	0.02	0.00	0.06	0.02	0.04 **	-0.02	0.02	-0.01	-0.02	0.02	-0.01
Relationship Length	0.00	0.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.02
Constant	1.65			1.99			3.30			3.41		
R^2		0.05			0.11			0.05			0.11	
<i>F</i>		24.96 ***			53.19 ***			24.60 ***			54.66 ***	
<i>N</i>		4806			4793			4718			4751	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 6

Logistic Regression Analysis for Variables Predicting Partner Quality

Predictor	Partner Less Educated			Partner Has At Least One Major Problem			Partner Treats Mother Very Well		
	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B
College Educated	1.51 ***	0.18	4.52	-0.75 ***	0.19	0.47	0.31 **	0.14	1.36
Single	0.07	0.17	1.07	0.67 ***	0.14	1.95	-0.49 ***	0.12	0.61
College Educated and Singl	0.81 ***	0.19	2.25	0.30	0.21	1.35	-0.20	0.16	0.82
African American	0.36 ***	0.10	1.43	0.40 ***	0.10	1.49	-0.25 ***	0.09	0.78
Hispanic	0.39 ***	0.12	1.48	-0.08	0.12	0.92	0.07	0.11	1.08
Other Race	-0.04	0.21	0.96	0.30	0.22	1.35	-0.18	0.19	0.83
Age	0.00	0.01	1.00	-0.02 ***	0.01	0.98	-0.01	0.01	0.99
Immigrant	-0.32 ***	0.12	0.72	-0.50 ***	0.12	0.61	-0.17	0.11	0.84
Prior Children	0.23 ***	0.08	1.26	0.24 ***	0.08	1.27	-0.27 ***	0.07	0.76
Relationship Length	-0.01	0.01	0.99	-0.01	0.01	0.99	0.01	0.01	1.01
Constant	-2.23			-1.14			0.03		
x^2		811.03			355.11			134.60	
<i>df</i>		11			11			11	
<i>N</i>		4652			4546			4151	

Note. e^B = exponentiated *B*. Predictors coded as 1 for *yes* and 0 for *no*.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Flag for missing relationship years not shown.

Table 7

*Summary of Racially Disaggregated Ordinary Least Squares and Logistic Regression Analyses**Predicting How Highly Mothers Value Marriage and Partner Quality: Interaction Terms (College Educated & Single)*

Dependent Variable	Non-Hispanic, White Mothers College Educated & Single				African-American Mothers College Educated & Single				Hispanic Mothers College Educated & Single			
	<i>B</i>	<i>SE B</i>	<i>P> t </i>	<i>N</i>	<i>B</i>	<i>SE B</i>	<i>P> t </i>	<i>N</i>	<i>B</i>	<i>SE B</i>	<i>P> t </i>	<i>N</i>
Value of Marriage												
Marriage More Advantageous	-0.15 *	0.09	0.098	1011	0.05	0.09	0.537	2287	0.08	0.10	0.388	1226
Marriage Better for Couples	-0.24 **	0.11	0.033	1004	-0.04	0.10	0.721	2311	-0.06	0.12	0.585	1230
Marriage Better for Children	-0.29 ***	0.11	0.007	1003	-0.06	0.10	0.523	2307	0.04	0.11	0.685	1239
Parents Should Stay Together	-0.17 *	0.10	0.086	1009	-0.16 *	0.09	0.059	2340	0.01	0.09	0.893	1248
Two Parents Better for Children	-0.14	0.11	0.228	1010	-0.01	0.09	0.893	2331	-0.34 ***	0.11	0.002	1250
Partner Quality												
Partner Less Educated than Mother	0.16	0.46	0.735	1003	0.73 **	0.31	0.021	2264	0.71 *	0.36	0.050	1195
Partner Has at Least One Major Problem	0.82 *	0.42	0.050	989	0.05	0.34	0.881	2190	0.04	0.43	0.933	1183
Partner Treats Mother Very Well	-0.82 **	0.32	0.011	923	0.15	0.27	0.576	2097	-0.15	0.34	0.658	968

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

APPENDIX

*Inter-Model and Intra-Model t-Tests for Race-Ethnic Differences in the Interaction of College Education and Single Status**in Analyses of How Highly Mothers Value Marriage and Partner Quality*

Dependent Variable	<u>Inter-Model t-Tests for Differences Between</u>				<u>Intra-Model t-Tests for Differences Between</u>					
	African-American v. Non-Hispanic, White Mothers		Hispanic v. Non-Hispanic, White Mothers		African-American v. Non-Hispanic, White Mothers			Hispanic v. Non-Hispanic, White Mothers		
	t	P> t	t	P> t	B	t	P> t	B	t	P> t
<u>Value of Marriage</u>										
Marriage More Advantageous	-1.63	0.103	-1.77	0.077	0.21	1.66	0.098	0.22	1.6	0.109
Marriage Better for Couples	-1.34	0.180	-1.11	0.267	0.21	1.39	0.166	0.20	1.22	0.221
Marriage Better for Children	-1.55	0.121	-2.21	0.027	0.24	1.64	0.101	0.37	2.37	0.018
Parents Should Stay Together	-0.05	0.960	-1.34	0.180	0.02	0.14	0.886	0.19	1.41	0.159
Two Parents Better for Children	-0.84	0.401	1.32	0.187	0.13	0.91	0.364	-0.18	-1.18	0.238
<u>Partner Quality</u>										
Partner Less Educated than Mother	-1.02	0.308	-0.94	0.347	0.64	1.15	0.250	0.64	1.09	0.276
Partner Has at Least One Major Problem	1.42	0.156	1.31	0.190	-0.77	-1.43	0.154	-0.79	-1.32	0.185
Partner Treats Mother Very Well	-2.29	0.022	-1.42	0.156	0.92	2.19	0.028	0.64	1.38	0.169