# Divergent Paths: A Life-Course Analysis of Marriage and Socioeconomic Status 

 Using the National Longitudinal Survey of YouthMargaret Frye Graduate Student University of California-Berkeley

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Over the past decade, the government has become increasingly involved in the promotion of marriage as a means of alleviating poverty in the United States. In 2001, during his self-proclaimed National Family Week, President George W. Bush announced, "My administration is committed to strengthening the American family... The government can support policies that help strengthen the institution of marriage." In 2004, he developed the Healthy Marriage Initiative, a $\$ 1.5$ billion dollar initiative to promote marriage among poor families, encouraging states to create marriage skills programs in poor neighborhoods and emphasize marriage in federally funded programs. [1] This policy, along with state programs such as the Oklahoma Marriage Initiative and Louisiana's State Healthy Marriage and Strengthening Families Initiative, has sparked widespread debate in Congress, the media, and within academia about whether promoting marriage is an effective method of lifting women out of poverty. Kim Gandy, president of the National Organization for Women, stated, "To say that the path to economic stability for poor women is marriage is an outrage." ${ }^{\prime}$ [2]

Those who support marriage promotion often point to research showing that married adults tend to accumulate wealth more quickly than their single counterparts. For example, a 2005 Journal of Sociology study by Jay Zagorsky, using the National Longitudinal Survey of Youth (NLSY79), found that married respondents experience per person net worth increases of 77 percent over single respondents.[3] This finding corroborates classic economic theories of the benefits to marriage such as risk-pooling, economies of scale, and division of labor within the household [4]. However, those who criticize the government's entry into the marriage arena argue that it is not enough to show that marriage facilitates
accumulation of wealth overall; further analysis is needed to show that marriage is advantageous specifically among those living in poverty. For example, Barb ara Ehrenreich states, "Married couples are on average more prosperous than single mothers, but that doesn't mean that marriage will lift the existing single mothers out of poverty." [5]

Kathryn Edin, who has written or co-authored several articles on the topic of marriage among poor women, highlights the mismatch between poor women's standards for potential mates and the men available to them in poor urban neighborhoods. She writes, "Overall, the interviews show that although mothers still aspire to marriage, they feel that it entails far more risks than rewards- at least marriage to the kind of men who fathered their children and live in their neighborhoods." She argues that because the prospective spouses of low-income women are themselves too poor or too limited in their earnings capacities to contribute significantly to the family's resources, many women do not believe that marriage would improve their financial situation. [6]

In addition to limited marriage markets, the salience of other familial resources differ between poor and non-poor women in the United States. Arline Geronimus argues that poor women employ an alternate optimization strategy in response to limited means; they rely on the pooling of resources on the level of the extended family rather than viewing the nuclear family as the center of the family economy. [7] If this is true, then the advantage to marriage from pooling of risks and division of labor is likely to be diminished for poor families. In a 2002 Urban Institute report on marriage and economic well-being, Robert Lerman wrote, "Low-income single parents are often able to draw on other family members for support, either formally or informally. The presence of other adults could, in principle, limit the advantages of marriage." [8]

The 2002 Lerman study addresses these concerns by using as the main outcome of analysis a complex score of material hardship and examining the effect of marital status on this outcome among poorly educated and low income women, using the Survey of Income and Program Participation (SIPP). Material hardship is defined as a composite scale including ability to meet essential expenses, housing conditions, neighborhood problems, and having enough resources to buy adequate amounts of food. The study found that nonmarried women with low educational attainment and low income scored significantly higher on this material hardship than married women, even after controlling for various demographic and socioeconomic variables. [8]

For my project, I set out to understand how patterns of marriage over the life course vary by socioeconomic status, both in terms of the timing of marriage and family transitions as well as the effect of marital status on economic outcomes. Part 1 aims to understand how the timing of marriage and family transitions is differentially spaced throughout the adult years, according to socioeconomic status. Part 2 examines the effect of both the number of adult years spent married and marital status at age 35 on total family income at age 35 .

## Overview of Data Used

I used the National Longitudinal Survey of Youth, which provides 25 years of data on a nationally representative sample of 12,686 youth ( 6,283 women) who were aged 14-22 in 1979. Because the NLSY only collects data every two years after 1996, I imputed values based on the data collected the year before for the years 1997, 1999, 2001, and 2003. After limiting the sample to women without missing values for any of the variables used in my analysis, my final sample was 1,801 . The large difference between the total study
population of women and my sample of analysis is partially due to the life course nature of my study; because I was interested in the transitions over time, my data set had to be limited to those with data on marital status for every year from age 21 to age 35. More than half of the sample $(3,167)$ had at least one missing value for marital status in this age range. Many of the remaining respondents (878) had missing values for father's education status, the variable I am using for socioeconomic status. 357 respondents had a missing value for family income at age 35 , and the remaining 80 deleted respondents had at least one missing value for the other control variables used in my study.

Table 1 gives descriptive statistics of the sample. Those whose fathers have more education are less likely to report being never married by age 35 , more likely to be married more than 5 years between age 21 and age 35 , and more likely to be currently married at age 35. Those whose fathers have more education are also less likely to be African American, more likely to be raised in an urban area, and less likely to be from the South. Looking at the net family in come variable, it is clear that the three levels of father's educational attainment correlate with family income at age 35, indicating that father's educational status can be used as a proxy for socioeconomic background. Further evidence that this variable is highly correlated with socioeconomic status is provided in the life course analysis discussed below.

## Part 1: Marital Timing and Socioeconomic Status

To better understand how the timing of marriage transitions and entry into childbearing differs by socioeconomic status, I first transformed the longitudinal data on marital status and birth history, which are coded by year, into variables by age. I then created a series of graphs showing proportions in various transitional stages by age,
stratified by father's educational status (Figures 1, 2, and 3).
Figure 1 shows the distribution of age at first marriage and age at first birth by father's educational status. It is clear that the distribution of age at first marriage (Figure 1.1) peaks at about age 20-21 for women in the lower two categories of paternal education, while the distribution of women whose fathers have completed more than high school peaks later, at about age 25-27. It is also important to note that while for women in the lower two categories of socioeconomic background, the timing of first marriage and first birth appears to be quite similar for the majority of women, for women in the third category, first birth generally occurs later than first marriage.

Figure 2 illustrates the distribution of marital status across the young adult life course, from age 21 to age 35 . Figure 2.1 shows that while in the earliest adult years, women whose fathers have more education have higher proportions reporting their marital status as "never married", by about age 26 , the three groups essentially converge, and by the mid-thirties the trend appears to go slightly in the opposite direction. Indeed, at age 35, the proportion of women whose father completed more than high school education and who report their marital status as never married is slightly lower than in the other groups, by a difference of about $2.5 \%$. Figure 2.2 shows that women in the higher socioeconomic status group are less likely to report being married at early ages, but this relationship is reversed after about age 27. This is likely to be due in large part to two well-documented differences in marital patterns between different socioeconomic groups: (1) the later age at marriage for women of higher socioeconomic status (see Figure 1.1), and (2) their lower rate of transitioning out of marriage via divorce, separation, or widowhood, as exhibited in Figure 2.3.

Figure 3 shows the difference in the timing of first birth and first marriage for the three samples studied. For women whose father has less than a high school education, the proportion that have had a first birth remains lower than the proportion ever married, though the difference between the lines decreases with increasing age (Figure 3.1). This indicates that on average, there are more women in this group who are single with children than married with no children. For women whose father has 12 years of education, the same is true for the early years, but around age 22, the relationship reverses, meaning that among those in this sample who marry at age 22 or later, there are more women who are married without children than there are who have children but are not married (Figure 3.2). For the third group, the proportion married without children is higher throughout the age range studied, but the difference between the two lines peaks at about age 26 (Figure 3.3). This peak is most easily seen in Figure 3.4, which shows the residuals between the two lines.

I then ran two regressions to understand which of the variables I am using in this project are major predictors of marital status. Model 1 used a logistic regression to predict the proportion married at age 35 . In addition to the variables describing father's educational attainment, I controlled for whether or not the woman has had at least one child at age 35, African American versus non-African American race, and two regional variables: urban versus rural upbringing and Southern versus Northern upbringing. Table 2 shows the results of this model. I found that being in the highest level of paternal education has a highly significant, positive effect on a woman's probability of being married at age 35, holding all other variables constant. As would be expected, women with children are much more likely to be married at age 35: more than four times as likely. Even after
controlling for father's educational status, African American women are much less likely to be married at age 35 , those raised in cities are significantly less likely to be married, and those raised in the South are significantly more likely to be married at age 35 . However, it is important to note that all of these variables together account for only $14 \%$ of the variation in proportion married at age 35 , so these variables should by no means be interpreted as the major predictors of marital status at age 35 .

In Model 2, I used an OLS regression to predict years married between ages 21 and 35 among a sub-sample of ever-married women ( $\mathrm{n}=1,482$ ), using the same explanatory variables I used for Model 1. Table 3 shows the results of this model. Father's educational status was not very significant in this model, although the coefficient for the highest educational category is marg inally significant, with a p-value of 0.08 , indicating that women whose fathers have more education have less years married on average but this relationship is quite unstable and likely to be affected by many variables not included in this model. By far the largest effects in this model are being African American, a large negative effect, and having at least on child by age 35 , a large positive effect. This model explains $29 \%$ of the variance in years married among ever-married women in the sample.

## Part 2: Differential effect of Marriage on Family Income at age 35

After examining how different background characteristics predict marital status, I wanted to see whether the financial impact of marriage itself might differ by socioeconomic background. For an indication of economic status in the middle of the adult life, I chose total family income at age 35 . While I had access to female-specific earnings information, I wanted to use a variable that was measured at the household level, to make the women's decision to work endogenous.

I measured marital status in three different ways (Table 4). In Model 3, I used a continuous variable for years married between ages 21 and 35 . However, I was concerned that this numerical variable masked differences between the jump, for example, from 0 (never married) to 1 (married 1 year) as compared to from being married 8 years to being married 9 years. Thus, for Model 4, I created indicator variables for 4 categories: never married, married 1-4 years, married 5-9 y ears, and married 10-15 years. Finally, in Model 5, I used marital status at age 35 .

In the Models 3 and 4, it is clear that the cumulative number of years a woman spends married is positively correlated with $\log$ of family income at age 35 . This effect is diminished, however, for those whose fathers have more education. When examining relative changes in income, however, it is important to analyze whether the larger relative change predicted for women whose fathers have lower educational attainment is due to the fact that they have much lower education to begin with. In other words, it is possible that the relative increase attributed to marriage could still be smaller for women whose father has more education, but the absolute increase could be larger, making the interpretation of the effect more ambiguous.

To help distinguish between relative and absolute differences in magnitude of the interaction effects, Table 5 gives predicted values from the model for White women, raised in a rural area in the North with at least 1 child. For example, when years married is entered as a numerical variable, the predicted family income of a woman in the lowest educational category who matches this description is $\$ 17,500$ if she has never been married, $\$ 24,835$ if she has been married for 5 years, and $\$ 35,242$ if she has been married for 10 years. This corresponds to a total increase of $\$ 17,741$, or a more than doubling of
predicted family income. On the other hand, a woman with the same background characteristics whose father has more than a high school diploma is predicted to have a family income of $\$ 33,860$ if she has never been married, $\$ 41,357$ if she has been married 5 years, and $\$ 50,514$ if she has been married for 10 years. This is an overall increase of $\$ 16,654$, or about 1.49 times the predicted family income for never married women. Thus, the predicted absolute increase and relative increase are both greater for women in the lowest educational category, indicating that marriage is more strongly correlated with family income for these women than for women whose fathers have more education.

Model 4 yields largely similar results: when examining predicted values for those women married for 10-15 years compared with those who report either being married for 14 years or never married, the absolute difference and relative difference attributed to years married are both larger for women in the lowest educational category. The interaction term for this model, however, is significant only for the variable indicating being married 10-15 years and of the highest educational group compared with the lowest.

Model 5 examines the relationship between marital status at age 35 and logged family income at age 35. As with the models examining years married, a signific ant interaction effect exists between being married and father's educational status that diminishes the positive effect of marriage for women of higher socioeconomic status. The predicted values show that on average, marriage produces a larger absolute and relative increase in family income for women whose fathers have less than 12 years education than for women whose fathers have achieved more than a high school education.

## Discussion

These show that, holding the other variables in the model constant, (1) the difference between women who spend more years married and those who are married for a smaller portion of the their young adult lives is larger for women whose fathers have lower educational attainment, and (2) the difference in family income between currently married and currently unmarried women is greater for women in this group as well. However, it is impossible to determine the causal direction of these correlations.

It could be, for example, that women with lower socioeconomic status are more heterogeneous in terms of what they bring to the marriage market, and those who are married are more hardworking, more likely to find work, or for other reasons likely to earn a higher income than those women who do not find husbands. One could argue that the difference in marital eligibility between women of low socioeconomic status is likely to be greater than that for women of higher status, because they have fewer assets that they have invested in on the market, such as education, and thus their positive attributes are more likely to be due to random variation. On the other hand, it might also be true that marriage is more of a positive outcome for poor women than for rich women, because women of low socioeconomic status have fewer of their own resources to turn to, and so have more to gain through the division of labor and economies of scale that are available to them through marriage.

Even if one were to accept that the causality flows at least partially from marriage to higher income, it would be simplistic to say that this implies that marriage improves overall standards of living more for poorer women. Indeed, even though the absolute and relative increase in family income are both larger for women whose fathers have lower levels of
education, it is probable that poorer women value increases in income more highly than wealthier women. When poorer women get married, they and their husband are more likely to both choose to enter into the labor force, if possible, whereas wealthier women may instead choose to sacrifice the additional income that could be earned if both spouses were in the labor force for the comfort and convenience gained through having one person stay home. If this is true, then what I have found is not a difference in the extent to which being married improves outcomes but rather a difference in the way in which marriage operates to improve outcomes: for poor women, it offers the possibility of an extra wage earner, while for women of higher socioeconomic status, marriage may offer instead the possibility of additional flexibility in time allocation decisions.

These limitations in the scope of my results should be kept in mind when interpreting the results presented above. This paper was not designed to answer the question of whether marriage is of more or less value to women of lower socioeconomic status. Indeed, the nature of marriage makes it difficult to assign economic effects to it: marriage is intrinsically personal, context-specific, and non-random. However, the analysis presented here demonstrates that both the timing of marriage and the relationship between marriage and family income varies by socioeconomic status. This in itself is an important matter to keep in mind when examining policies that offer marriage as a potential way out of poverty for women in the US.

## References

1. Department of Health and Human Services. Healthy Marriage Matters. 2008 Available from:
http://www.acf.hhs.gov/healthymarriage/about/factsheets hm maters.html.
2. Toner, R., Welfare Chief Is Hoping to Promote Marriage, in The New York Times. 2002: New York.
3. Zagorsky, J., Marriage and divorce's impact on wealth. Journal of Sociology, 2005. 41(4): p. 406-424.
4. Becker, G., A Theory of Marriage: Part 1. Journal of Political Economy, 1973. 84(4): p. 813-847.
5. Ehrenreich, B., Let Them Eat Wedding Cake, in The New York Times. 2004.
6. Edin, K., Few Good Men: Why Poor Mothers Don't Marry or Remarry. American Prospect, 2000. 11(4): p. 26-31.
7. Geronimus, A., Damned if you do: Culture, identity, privelage, and teenage childbearing in the United States. Social Science and Medicine, 2003. 57(5): p. 881-893.
8. Lerman, R.I., How Do Marriage, Cohabitation, and Single Parenthood Affect the Material Hardships of Families with Children? 2002, The Urban Institute: Washington, DC.
9. Edin K, Kefalas.M., Promises I Can Keep. 2005, Berkeley, CA: University of California Press.

Figure 1: Life-Course Analysis of Age at First Marriage and Age at First Birth By Father's Educational Attainment


Figure 2: Life-Course Analysis of Marital Status by Father's Educational Attainment


Figure 3: Difference in Timing Between First Marriage and First Birth Stratified by Father's Educational Attainment


Table 1
Descriptive Statistics of the Sample

|  |  | Father's Educational Attainment |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Total Sample | <12 years | 12 years | $>12$ years |
| Number of Respondents | 1,801 | 558 | 746 | 497 |
| Marital History | Percent | Percent | Percent | Percent |
| Never Married at age 35 | 17.7 | 18.1 | 19.0 | 15.3 |
| Married 1-4 years | 11.3 | 13.1 | 10.5 | 10.5 |
| Married 5-9 years | 23.5 | 21.5 | 22.6 | 27.0 |
| Married 10-15 years | 47.5 | 47.3 | 47.9 | 47.3 |
| Marital Status at 35 |  |  |  |  |
| married | 62.3 | 58.4 | 61.7 | 70.2 |
| sep/wid/div | 20.0 | 25.3 | 20.9 | 14.7 |
| never married | 17.7 | 16.3 | 17.4 | 15.3 |
| Background Variables |  |  |  |  |
| African American | 23.5 | 29.7 | 23.1 | 17.1 |
| w/ urban upbringing | 79.1 | 74.6 | 79.8 | 83.3 |
| raised in South | 34.5 | 37.6 | 33.5 | 32.4 |
| Mean family income at age 35 |  |  |  |  |
|  | \$56,942 | \$44,886 | \$50,607 | \$80,428 |
| Black | \$36,363 | -- | -- | -- |
| White | \$63,319 | -- | -- | -- |
| Urban upbringing | \$56,968 | -- | -- | -- |
| Rural upbringing | \$56,844 | -- | -- | -- |
| raised in North | \$61,068 | -- | -- | -- |
| raised in South | \$49,129 | -- | -- | -- |
| Mean Age at First Marriage | 23.23 | 22.32 | 23.06 | 24.48 |

Table 2
Results of Model 1: Logistic Regression of Proportion Married at age 35

| Intercept | Odds Ratio (SE) <br>  <br>  <br> Father's Education <br> $<\mathbf{1 2}$ years <br> 12 years |
| :--- | :--- |
| 12+ years | -- |
| Has at least 1 child | $1.15(0.18)$ |
| African American | $1.70(0.147)^{* * *}$ |
| Urban upbringing | $4.06(0.132)^{* * *}$ |
| Southern upbringing | $0.17(0.13)^{* * *}$ |
|  | $0.73(0.14)^{*}$ |
| R-Squared | $1.38(0.12)^{* *}$ |

Significance codes: ${ }^{* * *}=\mathrm{P}<.001,{ }^{* *}=\mathrm{P}<.01, *=\mathrm{P}<.05,{ }^{\wedge}=\mathrm{P}<.1$

Table 3
Results of Model 2: OLS Regression of Years Married 21-35, among women ever married

| Intercept | Coeffi cient (SE) |
| :--- | :---: |
|  | $5.52(0.56)^{* * *}$ |
| Father's Education |  |
| $\quad<\mathbf{1 2}$ years | -- |
| $\mathbf{1 2}$ years | $-0.38(0.64)$ |
| $\quad$ 12+ years | $-1.11(0.66)^{\wedge}$ |
| Has at least 1 child | $4.68(0.53)^{* * *}$ |
| African American | $-5.00(0.43)^{* * *}$ |
| Urban upbringing | $-0.40(0.26)$ |
| Southern upbringing | $0.81(0.24)^{* * *}$ |
|  |  |
| R-Squared | 0.294 |
| Significance codes: $* * *=\mathrm{P}<001, * *=\mathrm{P}<01 *=\mathrm{P}<05, \wedge=\mathrm{P}<.1$ |  |

Table 4
Regression Results: OLS on logged family income at age 35

|  | Model 3 | Model 4 | Model 5 |
| :---: | :---: | :---: | :---: |
| Intercept | $10.08(0.09){ }^{* * *}$ | 9.97 (0.10) *** | 10.20 (0.14) *** |
| Father's Educational Attainment |  |  |  |
| Less than High School | Ref. | Ref. | Ref. |
| High School | 0.25 (0.08) ** | 0.25 (0.11) * | 0.29 (0.10) ** |
| More than High School | 0.66 (0.09) *** | 0.54 (0.13) *** | 0.57 (0.12) *** |
| Marital Status Variables |  |  |  |
| Years Married (Numerical) | 0.07 (0.01) *** |  |  |
| Years Married (Categorical) |  |  |  |
| 0 |  | Ref. |  |
| 1-4 |  | 0.37 (0.12) ** |  |
| 5-9 |  | 0.72 (0.11) *** |  |
| 10-15 |  | 1.11 (0.10) *** |  |
| Marital Status Age 35 |  |  |  |
| Never Married |  |  | Ref. |
| Married |  |  | 0.86 (0.15) *** |
| Sep/Wid/Div |  |  | -0.32 (0.17) |
| Control Variables |  |  |  |
| African American | -0.22 (0.05) *** | -0.19 (0.05) *** | -0.22 (0.09) * |
| Urban upbringing | 0.02 (0.05) | 0.02 (0.04) | -0.25 (0.12) * |
| Southern upbringing | -0.10 (0.04) * | -0.10 (0.04) * | -0.10 (0.04) ** |
| At least 1 Child at age 35 | -0.31 (0.05) *** | -0.35 (0.05) *** | $-0.30(0.05){ }^{* * *}$ |
| Interaction Terms |  |  |  |
| father high school * years married | -0.01 (0.01) |  |  |
| father $>$ high school $*$ years married | -0.03 (0.01) ** |  |  |
| father high school * 10-15 yrs mar |  | -0.20 (0.12) |  |
| father $>$ high school * 10-15 yrs mar |  | -0.35 (0.15) * |  |
| father high school * married 35 |  |  | -0.24 (0.12) * |
| father $>$ high school * married35 |  |  | -0.31 (0.13) * |
| R Squared | 0.196 | 0.212 | 0.336 |

Significance codes: ${ }^{* * *}=\mathrm{P}<.001,{ }^{* *}=\mathrm{P}<.01, *=\mathrm{P}<.05,{ }^{\wedge}=\mathrm{P}<.1$

Table 5
Predicted Values of total family income at age 35 for White women with at least 1 child, raised in North, not raised in an urban area.

|  | Years Married | Father's educational attainment <br> $<12$ years <br> Model 3 |  |
| :---: | ---: | :---: | :---: |
|  | 0 years | $\$ 17,501$ |  |
|  | 5 years | $\$ 24,835$ | $\$ 33,860$ |
|  | 10 years | $\$ 35,242$ | $\$ 41,357$ |
| Model 4 |  |  | $\$ 50,514$ |
|  | 0 years | $\$ 15,063$ | $\$ 25,848$ |
|  | $1-4$ years | $\$ 21,807$ | $\$ 37,421$ |
|  | $5-9$ years | $\$ 30,946$ | $\$ 53,104$ |
|  | $10-15$ years | $\$ 45,706$ | $\$ 55,271$ |
| Model 5 |  |  |  |
| Not Married at age 35 | $\$ 19,930$ | $\$ 35,242$ |  |
| Married at age 35 | $\$ 47,099$ | $\$ 61,083$ |  |

