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The Effect of Marital Status on the Relative Standard of Living of Young Men and Young Women

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Abstract

The National Longitudinal Survey of Youth data base is used to explore the effects of changes in marital status on the standard of living of a sample of young adults. OLS regression analysis indicates that changes in marital status have very different effects on young women and young men. Women receive large increases in their income-to-needs ratios when they marry, and they incur large declines in their income-to-needs ratios after experiencing a divorce or separation. Men, on the other hand, do not experience significant changes in their income-to-needs ratios when their marital status changes.

Introduction

Despite dramatic secular increases in female wages and labor force participation rates, many women continue to suffer relatively low standards of living because of divorce, separation and/or responsibility for children (Blau, 1998; Fuchs, 1989; Smith and Ward, 1989). Economic research has directed considerable attention in recent years to the economic hardships faced by families headed by divorced, separated and never married women (Bane, 1986; Blank, 1997; Kneisner, et al., 1988; McLanahan, 1988; Stevens, 1994; Wilson and Neckermann, 1986). The focus has tended to be on the effects of changes in marital status on wages rather than a more complete measure of family income (e.g., Korenman and Neumark, 1992). Also, empirical literature on the effects of marital status have tended to focus on either male or female samples and have not been directed toward making direct comparisons between male and female outcomes. Finally, relatively little appears in empirical studies in economics that directly compares the effects of *changes* in marital status on a broadly defined measure of economic well being.

This paper uses a general measure of economic well being to explore the relative impacts of changes in marital status on the standard of living of a representative sample of young men and women. It uses National Longitudinal Survey of Youth panel data to address three questions: Does the first marriage have significantly different effects on the standard of living of men and women? Is divorce or separation a significant determinant of standards of living for men and women? And, do divorced and separated women benefit significantly more than men do from entering another marriage?

Part II discusses literature on the economic effects of changes in marital status and Part III describes the representative sample of young men and women drawn from the National Longitudinal Survey of Youth (NLSY). Parts IV and V present the empirical model and results. Part VI draws conclusions regarding the effects that changes in marital status have on the standard of living of men and women.

Background

The first research question is does the first marriage have differential effects on the standard of living of men and women? Empirical literature suggests that the relationship between marriage and income might be quite strong. Cohen and Tyree (1986) use the Panel Study of Income Dynamics (PSID) data from the 1970s to estimate the

determinants of intergenerational income mobility of the sons and daughters of the poor. They find that being married is a highly significant determinant of family income.

Unfortunately, there are no controls for family size in Cohen and Tyree's family income regressions. This is an important omission because a change in family size can affect a family's standard of living and poverty status. Since marital decisions affect family size as well as income, the failure to control for family size could bias estimates of marital status's influence on living standards. Nonetheless, Cohen and Tyree's results suggest that marital status could be an important determinant of poverty status.

Other studies focus on the effects of marital status on living standards of women and their children. For example, Danziger, et al. (1982) use CPS data to estimate that the standard of living of households headed by women would increase greatly through marriage. Bane and Ellwood (1986) reach the same conclusion after examining PSID data for the 1970 to 1982 period. They find, for example, that 26 percent of all movements out of poverty for unmarried women with children came from marriage (Bane and Ellwood, 1986, p. 20).

Second, is divorce or separation a significant determinant of standards of living for men and women? Several studies attempt to measure the economic consequences of marital dissolution on women and their children (e.g., Nestel, et al., 1983; and Peters, 1994). In general, they find that divorce and separation have large negative effects on female standards of living. Peters (1993), for example, finds that divorce causes women to experience sharp increases in poverty rates. Stevens (1994) finds a disturbing upward trend in the duration of poverty for female headed households. Smock, Manning and Gupta (1999) used regression techniques to find that if divorced women were to remain married their economic well being would be much more favorable than it is.

There are several reasons to expect female divorcees to suffer more substantial adverse economic consequences from divorce than male divorcees. One explanation comes from the neoclassical theory of the family. Becker (1991) argues that husbands and wives in traditional married-couple families benefit from divisions of labor. Traditionally, the wife concentrates on household production and the husband on market activities.

The gain comes from increasing returns to investments in sector-specific human capital that raise productivity mainly in either the market or the nonmarket sectors. Therefore, even small differences between men and women--presumably related at least partially to the advantages of women in the birth and rearing of children--would cause a division of labor by gender, with wives more specialized to household activities and husbands more specialized to other work. The degree of specialization in a marriage would be less extreme if one of the sectors, perhaps housework, were considered more boring and less worthwhile, or if divorce were common. (Becker, 1991, pp. 3-4).

While specialization may benefit the family as a whole, it causes differences in human capital endowments between husband and wife. According to Becker, since women specialize relatively more in home production, they acquire more "marriage-specific human capital" which is most useful in non-market home production. Men, on the other hand, acquire more market-specific human capital because of more continuous labor market participation and job-specific training. With divorce or separation, the greater market earning power will often reside with the male. Therefore, he generally leaves the marriage in a more favorable position than his ex-wife.[1]

Another reason to expect divorced or separated women to fare poorly compared to men is cultural. Unmarried mothers traditionally assume responsibility for children. This limits their ability to participate full-time in the job market and to accept jobs with unusual working hours or lengthy commutes. Women with children are at a significant disadvantage in terms of wages relative to women without children. This “family gap” is large and seems to be increasing over time (Waldfogel, 1998). Legal institutions recognize the inherent economic inequality that often results from divorce by requiring compensation in the form of child support and alimony. However, these transfers are seldom sufficient to compensate divorced women and their children for lost family income.

Finally, the existence of labor market discrimination against women would cause gender differentials from changes in marital status. If discrimination causes unfavorable wage opportunities for women, divorce or separation

would cause sharper drops in the woman's household income. Conversely, wives' household income should increase more from marriage than husbands' household income.

Duncan and Hoffman (1985) explore the effects of divorce on men compared to women. Using PSID data from 1969 through 1975, they conclude that the immediate economic consequence of divorce on women is quite severe because of their childcare responsibilities and relatively limited human capital endowments. In addition, women receive only limited assistance from alimony and child support. Men, on the other hand, often improve their standard of living when they divorce. They retain most of their labor incomes and no longer have to provide as much support to their families (Duncan and Hoffman, 1985, p. 495). Duncan and Hoffman also find that women experience only limited increase in their own labor incomes after a divorce. However, divorced women who remarry experience significant improvements in their standard of living (p. 496).

Research that is more recent has shown that women experience much more severe economic hardship from divorce than men. For example, using a sample of couples with children, Bianchi, et. al. (1999) estimate the gender gap in economic well-being after marital separation. They find that the "income-to-needs levels of formerly married mothers are only 56% those of their former husbands." (p. 195). Studies using German data (Burkhauser, et. al., 1991) and British data (Jarvis and Jenkins, 1999) also show that women experience sharper drops in real income than men after a marital split.

Data

This study uses National Longitudinal Survey of Youth (NLSY) data. The NLSY panel members were first interviewed in 1979 and then re-interviewed annually through 1994. After the 1994 survey, interviews were conducted every other year through 2000 (Center for Human Resource Research, 1999).This study employs the NLSY representative sample as well as the supplementary samples of blacks and Hispanics. Since blacks and Hispanics are overrepresented in the sample, dummy variables are included to control for race and ethnicity in the regression analysis. All respondents were ages 14 through 21 when first surveyed in 1979. By 2000, the sample had aged to 35 through 42 years. Thus, the sample is well suited to trace early marital decisions and their economic consequences.

Using panel data to analyze the effects of changes in marital status of particular individuals over time has certain advantages over the more common use of cross-sectional data. In particular, cross-sectional data can generate biased estimates of the effect of marital status on living standards. For example, the observed high incidence of poverty among individuals in a particular marital status could be the result of systematic unobserved characteristics of members of that group. However, with panel data it is possible to observe the economic situation of individuals before and after a change in marital status. Hence, we can be more confident that the changes in economic well being that are observed in response to changes in marital status are the result of marital decisions rather than other unobserved variables.

Changes in Marital Status and Living Standards: Bivariate Analysis

The standard of living is proxied by the "income to needs ratio," and referred to as RATIO in this paper. The income to needs ratio is defined as the respondent's family income divided by the official poverty level of income for a family of that size. For example, if a family of four had an income during a particular year of $30,000 and the poverty level of income determined by the government for a family of four during that year was $15,000, RATIO would be 2. This means that the family's actual income is exactly two times the official poverty level of income and the family's income-to-needs ratio is two. A value less than one means that the family has fallen below the poverty line.

Family income includes virtually all types of income received by household members who are related by blood or marriage. A few of the major components of income include wages and salaries, child support, alimony, net business income, AFDC/ TANF payments, food stamps, interest, dividends and rent (Center for Human Resources, 1999). A shortcoming of the family income variable for the purpose of this study is that although it includes the amount of child support or alimony *received*, it does not deduct from income the amount of alimony and child support *paid.* Since the purpose is to compare male and female incomes, this omission probably results in an upward bias in family incomes for

male respondents who are more likely to pay alimony and child support relative to the family incomes of female respondents who are more likely to be receiving alimony and child support.[2] Another potential problem with the family income variable is the presence of top coding algorithms that were used to protect the confidentiality of the respondents that changed several times during the time frame of the analyses (Center for Human Resources, 1999).[3] Due to this problem, the individuals with top coded values were dropped from the analyses rather than making corrections.

The income-to-needs measure of wellbeing has advantages when compared to other measures such as poverty status, personal income or family income. It is a better measure of well being than poverty status because it provides more information of the position of the respondent's family income relative to the poverty line. For the purpose of this study it is also better than personal or family income because it automatically takes into account the effect of family size on living standards. The denominator of RATIO is the poverty level of income and larger families have larger official poverty levels of income. Therefore, given the level of family income, the income-to-needs measure falls automatically as family size increases. However, the needs standard used in RATIO assumes economies of scale in the raising of children so that the poverty level of income increases at a decreasing rate as family size increases.

Tables 1 and 2 present RATIO averages for NLSY respondents who experienced a change in marital status between two survey years. For example, Table 1 presents changes in RATIO between 1986 and 1989 for those who experienced changes in marital status between the 1987 and 1988 interviews. Similarly, Table 2 presents changes in RATIO from 1986 and 1989 for those who experienced changes in marital status between the 1996 and 1998 interviews. Appendix A presents four additional tables covering four other periods during the late 1980s and 1990s.

Table 1: Ratio of Family Income to the Poverty Level (RATIO) in 1986 and 1989 by Marital Status of Respondents in 1987 and 1988

Change in Marital Status	Sample Size	RATIO 1986	RATIO 1989	Change in RATIO	T Statistic
Never Married in 1987 & Married in 1988					
Females	141	3.17	4.69	1.51	8.23*
Males	153	3.41	4.27	0.86	4.39 *
Married in 1987 & Divorced Or Separated in 1988					
Females	35	3.37	1.92	-1.44	-4.67*
Males	30	2.94	3.58	0.64	2.14*
Divorced or Separated in 987 & Married in 1988					
Females	22	1.79	3.72	1.92	3.98*
Males	26	3.94	3.42	-0.52	-1.18

*Indicates that, according to a paired sample t test, the change in RATIO between 1986 and 1989 is significant at $\alpha = .05$

There is an additional condition for inclusion in the Table 1sample. In addition to experiencing a change in marital status between 1987 and 1988, sample members could not experience any other changes in marital status between the1986 and 1990 interviews. This condition assures that RATIO for calendar year 1986 and 1989 are accurate reflections of income received under the marital statuses shown in Table 1.

The results of Tables 1 and 2 and the four tables presented in Appendix A show that female respondents consistently benefit more than male respondents from marriage and remarriage, but incur substantial losses relative to men from divorce and separation. Both men and women seem to benefit significantly in terms of changes in their standard of living from first marriages. Table 1 shows that for the 141 women who experienced their first marriage in between the 1987 and 1988 interviews enjoyed an increase in their average RATIO from 3.17 in 1986 to 4.69 in 1989. The t statistic (8.23) in the last column is the test statistic of a paired difference test for these two values of RATIO. It shows that the change in RATIO is statistically significant and positive for women. This was also the case for men. However, the change in standard of living for women experiencing their first marriage (1.51) is greater than for men experiencing their first marriage (0.86).

Table 2: Ratio of Family Income to the Poverty Level (RATIO) in 1995 and 1999 by Marital Status of Respondents in 1996 and 1998

Change in Marital Status	Sample Size	RATIO 1996	RATIO 1999	Change in RATIO	t Statistic
Never Married in 1996 &Married in 1998					
Females	38	2.84	3.82	0.99	2.43*
Males	51	4.36	4.73	0.37	0.90
Married in 1996 & Divorced Or Separated in 1998					
Females	89	2.92	2.17	-0.76	-4.22*
Males	64	3.77	4.21	0.44	1.40
Divorced or Separated in 1996 & Married in 1998					
Females	73	2.07	4.02	1.95	8.06*
Males	57	3.51	3.97	0.46	1.64

*Indicates that, according to a paired sample t test, the change in RATIO between 1995 and 1999 is significant at $\alpha = .05$

Table 2 and the four appendix tables are structured the same as Table 1 except that they focus on the effects of marital status that occur in later years. As the NLSY ages, fewer respondents are marrying for the first time. Even so, the pattern observed in Table 1 persists. In all cases women experience a large and statistically significant increase in RATIO after they become married. Men also experience increases, but they are not as great as for women and in only two of the five cases is the increase statistically significant.

Therefore, for the sample of young adults, the first marriage has a positive effect on RATIO for both men and women, but a much larger effect for women than for men. However, these results do not generalize easily to other age groups. The NLSY sample was 22 to 29 years of age when the change in marital status was first measured in 1988 (Table 1) and 32 to 39 years of age when last measured in 1998. Most of these young adults had already set up their own household before they became married. First marriages for younger persons, especially teenagers, would likely produce very different results since many would have been living with their parents before their marriage.

Tables 1 and 2 also present the change in RATIO when the respondent experiences a divorce or separation. Divorce and separation are treated as economically equivalent events because they have very similar economic consequences for the family. Duncan and Hoffman (1985) make similar arguments in their study of the economic consequences of marital dissolution. To ease the exposition, "separation or divorce" is referred to as simply “divorce.”

While the short term economic effects of first marriage seem to benefit both male and female respondents, the economic effects of divorce are decidedly against women. Not only do they loose the wages and salary income of the husband—except for any alimony or child support payments—but they also often assume responsibility for children. Both of these developments have a more adverse effect on female standard of living than on male standard of living. Tables 1 and 2, and the four tables in Appendix A, show that in every case RATIO falls sharply for women after a divorce. This result is consistent with both theoretical expectations and the empirical results of previous research. The 35 women who experienced divorce between the 1987 and 1988 surveys had an average decrease in RATIO of 1.44 (Table 1). For women experiencing divorce, the decrease in RATIO is also statistically significant in Table 2 and in 3 out of 4 time periods examined in Appendix A

The effect of divorce on the standard of living of men is more ambiguous. In all of the time periods RATIO always *increased* after a divorce, although the increase was not always statistically significant. Perhaps possible reason for the positive effect of divorce on ex-husbands standard of living and negative effect on women’s standard of living is that children typically stay with the mother after a divorce or separation. Therefore, the relatively larger reduction of the number of dependents by the father tends to raise his standard of living relative to the mothers.

However, before drawing strong conclusions about the effect of divorce on the RATIO of men, one caveat is in order. The family income variable used to compute RATIO is not adjusted downward to reflect alimony and child support paid by respondents. This omission creates an upward bias in family income for families paying child support and alimony and hence results in an overstatement of RATIO for respondents in those families. Fortunately, it does not appear that omission of support paid data from RATIO has a very large effect on the RATIO data reported for divorced males. Estimates show that adjustment of RATIO to account for the decrease in family income caused by payment of child support and alimony would only cause a 10 percent decrease in RATIO.[3] An adjustment of this small magnitude would not affect the general conclusion that women, on average, suffer significant declines in their standard of living as a result of divorce while their male counterparts, on average, do not experience significant declines in their standard of living.

Do divorced women reverse their adverse economic situation by remarrying? The statistics presented in Tables 1, 2 and the four appendix tables suggest that they do. In all six cases, the change in RATIO for divorced women who became married is positive and statistically significant. In fact in five out of the six cases the change in RATIO for remarrying women is greater than the absolute value of the change in RATIO for those women who experienced divorce. This suggests that when divorced women remarry they often return to a standard of living that is higher than the standard of living that they possessed when they were last married. However, many divorced women do not remarry, and for them the outlook is not favorable.

Not surprisingly, changes in marital status also often affect poverty status. A person is officially classified as poor if his or her family income is less than the government defined poverty level of income. Therefore, a respondent is poor if RATIO is less than one since the numerator (family income) is less than the denominator (poverty level of income).

Table 3 reports poverty rates for respondents during the calendar year before the indicated change in marital status compared to the poverty rates for the calendar year after the change in marital status. These calculations include marital changes that took place between the 1987 and 1998 interviews. In general, the results are very consistent with the RATIO changes reported above. Changes in marital status result in large changes in the poverty rates of female respondents and relatively small changes in the poverty rates of male respondents.

For women, divorce or separation results in a sharp increase in poverty rates from 7.8 percent to 24.1 percent. However, divorced women who remarry experience an equally sharp *reduction* in their poverty rate—from 24.9 percent to 5.6 percent. Marriage and divorce have profound effects on the poverty rates of women and their dependent children in the NLSY sample used in this study.

An implication of the Table 3 poverty statistics is that divorce and remarriage affect the poverty status of children of NLSY respondents in much the same way as it affects the poverty status of their mothers. Descriptive statistics (not reported) show that in the case of divorce or separation nearly all of the children involved join the mother's household and suffer the same adverse income effects as the mother.

Table 3: Poverty Rates One Period Before and One Period after Specified Changes in Marital Status

Transition in Marital Status	Number of Respondents	Percent Poor One Period Prior to Change in Marital Status	Percent Poor One Period After Change in Marital Status
Never Married to Married			
Females	574	14.5%	4.7%
Males	656	7.6%	4.8%
Married (Spouse Present) to Separated or Divorced			
Females	543	7.8%	24.1%
Males	414	9.2%	10.4%
Divorced or Separated to Married (Spouse Present)			
Females	297	24.9%	5.6%
Males	409	7.7%	6.1%

Table 4: Variable Definitions

Variable	Definition
Dependent:	
RATIO_89	The ratio of family income to the poverty level of income for family in 1990.
ΔRATIO_86-89	The change in RATIO from 1986 to 1989.
Independent	
MARRY88	Dummy variable that equals one if the respondent transitioned from being never married to being married between the 1987 and 1988 interviews.
DIVORCE88	Dummy variable that equals one if the respondent transitioned from being married to being divorced or separated between the 1987 and 1988 interviews.
REMARRY88	Dummy variable that equals one if the respondent transitioned from being divorced to being married between the 1987 and 1988 interviews.
KIDS89	Number of children under 18 living with the respondent at the time of the 1989 interview
UNDER6_89	Dummy variable that equals one if there is at least one child under the age of 6 living with the at the time of the 1989 interview
EDUCATION_89	Years of Formal Education at the time of the 1989 interview
FEMALE	Dummy variable that equals one if the respondent is female
XMARRY88	Dummy variable that equals one if the respondent is female AND transitioned from being never married to being married between the 1987 and 1988 interviews.
XDIVORCE88	Dummy variable that equals one if the respondent is female AND transitioned from being married to being divorced or separated between the 1987 and 1988 interviews.
XREMARRY88	Dummy variable that equals one if the respondent is female AND transitioned from being divorced to being married between the 1987 and 1988 interviews.
XUNDER6_89	Dummy variable that equals one if the respondent is female AND there is at least one child under the age of 6 living with the respondent at the time of the 1989 interview.

Regression Model

This section uses OLS regression to estimate the effect of changes in marital status on the standard of living of male and female respondents after controlling for the effects of age, education, the presence of young children and race. As in the previous section, the standard of living is proxied by the ratio of family income to the government defined poverty level of income for families that are the same size as the respondent's own family. Table 4 defines the dependent

variable (RATIO) and each of the independent variables. Since the same basic model is applied to several different periods, this paper adopts the convention of indicating the year that the variable is measured as part of the variable name. Accordingly, RATIO_89 measures the income to needs ratio for 1989 and RATIO_99 measures the income to needs ratio for 1999.

Three dummy variables are included to measure changes in marital status between the year indicated and the next survey year. MARRY88 indicates whether a respondent became married for the first time between the 1987 and 1988 interviews, DIVORCE88 indicates the occurrence of a divorce (or separation) and REMARRY88 indicates whether a divorced or separated individual became married.

Changes in marital status should have larger effects on the standard of living of women than of men. As argued earlier, the main reason for this expectation is that children tend to stay with their mother during periods of divorce and separation. This limits the ability of mothers to participate fully in the labor market. It also increases their poverty level of income relative to divorced and separated fathers who have fewer dependents, thus increasing the denominator in RATIO (the income to needs ratio). To measure the interaction between marital status and gender, three interaction terms are defined (XMARRY88, XDIVORCE88 and XREMARRY88). Each of these interaction terms assumes the value of one if the indicated change in marital status occurred and if the respondent is a woman. For example, XMARRY88 would assume the value of one if the respondent was female and experienced a first time marriage between 1987 and 1988.

Table 5: Regression Results: Dependents = RATIO_89 and ΔRATIO_86-89 (t Statistics in Parentheses)

Independent Variable	RATIO_89	ΔRATIO_86-89
CONSTANT	-1.87 (-7.67)*	0.21 (0.77)
MARRY88	0.92 (6.78)*	0.50 (3.43)*
XMARRY88	0.38 (1.96)*	0.59 (2.82)*
DIVORCE88	0.29 (0.94)	0.24 (0.75)
XDIVORCE88	-1.10 (-2.70)*	-1.80 (-4.14)*
REMARRY88	0.33 (1.04)	-0.65 (-1.89)
XREMARRY88	0.59 (1.22)	2.58 (5.11)*
UNDER6_89	-0.72 (-13.81)*	-0.64 (-11.47)*
FEMALE	-0.27 (-5.18)*	-0.03 (-0.59)
BLACK	-0.58 (-7.63)*	-0.04 (-0.47)
HISPANIC	0.45 (6.54)*	-0.05) (-0.70)
AGE	0.069 (6.16)*	-0.036 (-2.99)*
EDUCATION_89	0.31 (28.68)*	0.075 (6.41)*
Number of Observations	4894	4210
Adjusted R^2	0.29	0.08

Notes: The sample includes: 1) respondents who experienced a change in marital status between the 1987 and 1988 interview and did not experience any other changes in marital status between the 1986 and 1990 interviews 2) respondents who were married during the entire period from the 1986 interview through the 1990 interview and 3) respondents who were never married.
*indicates significance at the α=.05 level.

It is hypothesized that the presence of young children, especially children under six years old, can have a significant effect on respondents' standard of living as measured by RATIO. The presence of children often reduces market participation of a parent by raising the opportunity costs of work (in terms of foregone home production). Single women with children seem to be at a significant disadvantage in the labor market, in part because child care responsibilities constrain their work hours and limit their mobility. Single men, on the other hand, are much less likely to have direct responsibility for children. Waldfogel (1998) concluded that "while childless women do very well in the labor market today, earning wages very close to men's, women with children have not fared as well, and the position of never-married mothers has actually worsened relative to men and other women over the past few decades. Single mothers now earn only 56-66 percent of what men earn, substantially less than women who are married mothers or not mothers at all…." (p. 153) In another study, Heath and Kiker (1992) found that family size was a consistent and important predictor of the length of poverty spells following divorce for women.

UNDER_6 is included in the model in order to obtain estimates of the effects of young children on RATIO. UNDER_6 is a dummy variable indicating the presence of a child under six years old in the household.

This variable is expected to have a negative effect on RATIO. First, the addition of a young child to the household increases the denominator of RATIO by increasing the officially defined poverty level of income for the now larger family. Second, the addition of a child to the household increases the value of home production relative to market work and causes respondents to allocate more time to unpaid home production. This lowers market earnings and causes RATIO to decrease. This second effect is especially likely when the child is less than six and not yet enrolled in school. Thus, for both of these reasons, a negative relationship between RATIO and UNDER6 is expected. The interaction term XUNDER6_89 is included to test the hypothesis that women suffer greater decreases in the standard of living than men when there are children less than six present.

Years of formal education (EDUCATION) and age (AGE) are included in the model as controls for the effect that the level of human capital has on the change in RATIO. Human capital theory suggests and empirical evidence consistently finds that individuals with higher levels of educational attainment have steeper age-earnings profiles. Therefore, the greater the level of education the higher is the rate of increase in family income and RATIO. Finally, two variables are included to control for race and ethnicity (BLACK and HISPANIC).

Table 6: Regression Results: Dependents = RATIO_99 and ΔRATIO_95-99 (t Statistics in Parentheses)

Independent Variable	RATIO_99	ΔRATIO_95-99
CONSTANT	-2.41 (-7.29)*	0.19 (0.66)
MARRY98	1.11 (3.67)*	0.10 (0.39)
XMARRY98	-0.85 (-1.87)	0.73 (1.82)
DIVORCE98	0.69 (2.70)*	-0.07 (-0.31)
XDIVORCE98	-1.70 (-5.07)*	-1.04 (-3.38)*
REMARRY98	0.41 (1.49)	0.27 (1.10)
XREMARRY98	0.04 (0.11)	1.50 (4.53)*
UNDER6_00	-0.42 (-5.17)*	-0.88 (-12.40)*
FEMALE	-0.24 (-3.37)*	-0.13 (-2.03)*
BLACK	-0.65 (-6.40)*	-0.10 (-1.13)
HISPANIC	0.48 (5.30)*	0.07 (0.83)
AGE	0.015 (0.96)	-0.024 (-1.76)
EDUCATION_00	0.45 (32.05)*	0.012 (4.90)*
Number of Observations	4543	3850
Adjusted R^2	0.24	0.06

Notes: The sample includes: 1) respondents who experienced a change in marital status between the 1996 and 1998 interview and did not experience any other changes in marital status between the 1996 and 2000 interviews 2) respondents who were married during the entire period from the 1996 interview through the 2000 interview and 3) respondents who were never married.
*indicates significance at the α=.05 level.

The regression results appear in Tables 5, 6 and Tables A-5 through A-8 in Appendix A. The previous section presented descriptive statistics of changes in RATIO several periods. This section conducts a multivariate analysis of changes in RATIO for the same periods. Table 5 deals with the first period and presents regression results that predict RATIO for 1989 in column 2 and the change in RATIO between 1986 and 1989 in column 3. The RATIO_89 regression (column 2) estimates how changes in marital status that occurred between the 1987 and 1988 interviews effect income to need ratios in 1989 (RATIO_89). In general, the results of these regressions indicate that marital status is an important determinant of standard of living.

However, it is the second regression model reported in the third column that receives the most attention. This is because the focus of this paper is on how changes in marital status cause *changes* in the standard of living of men and women as measured by ΔRATIO_86-89.

Included in the sample are all respondents who experienced a change in their marital status between the 1987 and 1988 interviews and respondents who had no change in marital status for the entire period from the 1986 interview through the 1990 interview. The "no change" group serves as a reference group in the analysis since dummy variables are assigned for all three changes in marital status. Therefore, the coefficients to the marital change variables are interpreted in reference to the "no change" group. The regression results presented in Tables 5, 6, and the 4 tables in Appendix A include the same independent variables, but each covers a separate time period.

The results strongly support the hypothesis that young women in the NLSY sample incur substantial declines in their income-to-needs ratio (i.e., ΔRATIO86-89) when they experience divorce or separation. For women, the total effect of a divorce on their standard of living is the sum of the coefficients to DIVORCE and the interaction term XDIVORCE. The results of the ΔRATIO86-89 regression in the last column of Table 5 show a very strong interaction between FEMALE and DIVORCE with the coefficient to XDIVORCE a very large –1.90. Women, and their dependent children, clearly incur a very substantial decrease in their standard of living when they divorce or separate from their spouses.

Men, on the other hand, do not seem to suffer significant changes in their standard of living when they divorce or separate. In the regression model, the effect of divorce on the standard of living of men is estimated by the coefficient to DIVORCE since the interaction term XDIVORCE is always zero for men. Tables 5, 6 and the four tables in Appendix A show that in five out of six cases, DIVORCE is statistically insignificant as a determinant of the change in income-to-needs ratio and in the one period when it is significant, the sign is *positive.* In sum, women, and their dependent children, bear a substantial cost from divorce and separation, but men do not.

The regression results also support the hypothesis that marriage benefits women more than it benefits men. This conclusion holds both for first marriages (MARRY) and for marriages after a divorce (REMARRY). The coefficients to the interaction terms XMERRY and XREMARRY in the ΔRATIO regressions are all positive in Tables 5, 6 and the four appendix tables, and in statistically significant in eleven out of twelve cases. Comparing the magnitude of the negative coefficients to DIVORCE to the positive coefficients to REMARRY suggest that, on average, women in the sample who remarry after divorce restore their income-to-needs ratio to approximately its pre-divorce level. Unfortunately, many women do not remarry and they, along with any dependent children, may experience long-term declines in their standard of living.

The effects of marriage on the income-to-needs ratio on men are not nearly as large as for women. This is seen in the regression tables by the small and most often statistically insignificant coefficient to MARRY and REMARRY in the ΔRATIO regression results. Other things held constant, marriage benefits women much more than men in terms of gains in the income-to-needs ratio.

The regression results show that the presence of children under six years of age (UNDER_6) has a significant negative effect on RATIO. Since young children often reside with divorced and separated women, and seldom reside with divorced and separated fathers, divorced and separated women will suffer greater declines in RATIO than men. Future research should attempt to isolate the effects that children have on the income-to-needs ratio of separated and

divorced men and women. Children, and especially children under six years of age, would likely have a much more adverse effect on single heads of household than on married couple households. This is because there are few opportunities for divisions of labor within single headed households. Consequently, the presence of children, especially very young children, will reduce the ability of the parent to devote as much time earning income in the market and, at the same time increase the "needs" of the family. Thus, the income-to-needs ratio will tend to be lower for single headed families with children.

Discussion

The regression results support the claim that changes in marital status are important determinants of the standard of living of a representative sample of young adults from the National Longitudinal Survey of Youth. In particular, the results support three general conclusions: First, the first marriage has significant positive effects on the standard of living of women and rather trivial effects on men. Second, divorce and separation have significant adverse effects on the income-to-needs ratios of women and only minor effects on men. Third, when women remarry after divorce, they increase their income-to-needs ratios significantly. All three conclusions are consistent with the expectations expressed earlier in the paper. Taken together they mean that young women in the NLSY representative sample are affected much more by changes in marital status than their male counterparts.

The results indicate that when divorce or separation occurs, women bear a disproportionate share of the economic cost with much lower living standards. After divorce or separation, both parties generally become more dependent on individual earnings and no longer benefit from divisions of labor and other economic advantages that are possible within the larger family context. However, on average, women suffer economically much more than men from divorce. Policies that may have some effect on reducing this inequality would be greater emphasis on collection of child support and alimony. In addition, the availability of affordable childcare facilities would help.

Ultimately, though, the most promising policy alternatives may be those that provide incentives for families to remain intact. For example, maintaining healthy job markets, safe neighborhoods and family support systems may be powerful tools in combating marital dissolution and poverty.

The results also suggest that the presence of young children have a negative impact on living standards. However, the study did not estimate the differential effects of young children on the standard of living of men and women. This would be an important area for future research because young children most often continue to reside with their mothers after a divorce or separation. Failure to consider this tends to create a downward bias in the estimates of the total effect that divorce has on the standard of living of women. A fruitful area of future research would be to estimate the influence of children on the income-to-needs ratio of separated and divorced men and women.

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Endnotes

1. Julia Heath (1990) explores another explanation for the division of labor within the household, preferring a more radical paradigm based on patriarchal power relationships within the home. A housewife tends to become trapped by her lack of marketable skills and does not possess the power to obtain the types of labor market skills that would raise her value in the labor market. When she does find herself separated or divorced, she has insufficient market capital to succeed in the labor market. For the purposes of this paper, though, Heath's theory of exploitation has exactly the same implications as Becker's choice theoretic framework: wives will, on average, fare worse than their husbands when a marriage ends.
2. Data from the 1998 NLSY were used to estimate the effect that the exclusion of child support paid on the RATIO of divorced men. This data were not collected from the 1988 survey through the 1994 survey, but was collected again from1996 through 2000. The average amount paid in 1997 by those respondents who experienced a divorce between the 1994 and 1996 survey was $4,243.00 which is less than ten percent of their 1997 family income. Making the adjustment in family income to account for payment of child support reduces the average 1997 RATIO of his group of divorced men from 4.55 to 4.14.
3. The various algorithms are discussed in the NLSY Handbook (Center for Human Resources, 1999). From1985 to 1988, income above $100,000 was truncated to $100,001. However, as this truncation resulted in a downward bias in the mean income, different algorithm was introduced. From 1989, values above the given threshold were replaced with the average of all outlier values. Another algorithm replaced the previous one since 1996, where the top two percent income values

Appendix A

The following tables present results for years that were not presented in the body of the paper. Tables A-1 through A-4 present descriptive statistics on mean RATIO for respondents that experienced a change in marital status between the 1989 and 1990 interviews, between the 1991 and 1992 interviews, between the 1993 and 1994 interviews, and between the 1995 and 1996 interviews. Tables A-5 through A-8 present regression results for selected years that are not presented in the body of the text. These tables are identical in form to Tables 5 and 6 in the text.

Table A-1: Ratio of Family Income to the Poverty Level (RATIO) in 1988 and 1991 by Marital Status of Respondents in 1989 and 1990

Change in Marital Status	Sample Size	RATIO 1988	RATIO 1991	Change in RATIO	t Statistic
Never Married in 1989 & Married in 1990					
Females	83	3.23	4.60	1.37	5.91*
Males	83	3.62	4.18	0.56	2.89*
Married in 1989 & Divorced Or Separated in 1990					
Females	41	2.74	1.91	-0.83	-3.35*
Males	31	3.27	3.40	0.12	0.45
Divorced or Separated in 1989 & Married in 1990					
Females	51	2.11	3.29	1.18	6.48*
Males	23	3.51	3.37	-0.13	-0.30

*Indicates that the change in RATIO between 1988 and 1991 is significant at $\alpha = .05$

Table A-2: Ratio of Family Income to the Poverty Level (RATIO) in 1990 and 1993 by Marital Status of Respondents in 1991 and 1992

Change in Marital Status	Sample Size	RATIO 1990	RATIO 1993	Change in RATIO	t Statistic
Never Married in 1991 & Married in 1992					
Females	47	3.26	4.65	1.39	5.20*
Males	50	3.49	3.62	0.14	0.56
Married in 1991 & Divorced Or Separated in 1992					
Females	46	3.27	1.75	-1.51	-6.72*
Males	28	3.26	3.66	0.52	1.24
Divorced or Separated in 1991 & Married in 1992					
Females	36	2.36	3.66	1.30	5.36*
Males	20	3.68	3.47	-0.21	-0.41

*Indicates that the change in RATIO between 1990 and 1993 is significant at $\alpha = .05$

Table A-3: Ratio of Family Income to the Poverty Level (RATIO) in 1992 and 1995 by Marital Status of Respondents in 1993 and 1994

Change in Marital Status	Sample Size	RATIO 1992	RATIO 1995	Change in RATIO	t Statistic
Never Married in 1993 & Married in 1994					
Females	42	2.44	4.12	1.68	5.09*
Males	45	3.31	4.39	1.07	3.04*
Married in 1993 & Divorced Or Separated in 1994					
Females	52	2.81	1.83	-0.98	-6.04*
Males	42	2.81	3.34	0.53	1.57
Divorced or Separated in 1993 & Married in 1994					
Females	36	1.82	3.37	1.54	6.04*
Males	28	3.54	4.54	1.00	3.05*

*Indicates that the change in RATIO between 1992 and 1995 is significant at $\alpha = .05$

Table A-4: Ratio of Family Income to the Poverty Level (RATIO) in 1993 and 1997 by Marital Status of Respondents in 1994 and 1996

Change in Marital Status	Sample Size	RATIO 1993	RATIO 1997	Change in RATIO	t Statistic
Never Married in 1994 & Married in 1996					
Females	45	2.87	5.21	2.34	7.60*
Males	65	3.92	4.28	0.36	0.97
Married in 1994 & Divorced Or Separated in 1996					
Females	84	2.75	2.65	-0.09	-0.37
Males	53	2.94	3.68	0.73	2.26*
Divorced or Separated in 1994 & Married in 1996					
Females	76	2.19	3.57	1.37	6.01*
Males	48	3.63	3.93	0.30	0.82

*Indicates that the change in RATIO between 1993 and 1997 is significant at $\alpha = .05$

Table A-5: Regression Coefficients: Dependents = RATIO_91 and ΔRATIO_88-91 (t Statistics in Parentheses)

Independent Variable	RATIO_91	ΔRATIO_88-91
CONSTANT	-1.71 (-7.28)	.337 (1.55)
MARRY90	0.58 (3.46)	0.48 (3.00)
XMARRY90	0.69 (2.82)	0.86 (3.76)
DIVORCE90	0.03 (0.11)	0.04 (0.17)
XDIVORCE90	-0.62 (-1.66)	-0.73(-2.12)
REMARRY90	0.74 (2.31)	-0.21 (-0.70)
XREMARRY90	-0.16 (-0.42)	1.49 (4.04)
UNDER6_91	-0.58 (-11.86)	-0.47 (-10.33)
FEMALE	-0.16 (-3.23)	0.03 (0.72)
BLACK	-0.68 (-9.37)	-0.15 (-2.17)
HISPANIC	0.38 (5.78)	-0.07 (-1.19)
AGE	0.04 (3.67)	-0.029 (-2.84)
EDUCATION_91	0.33 (32.27)	0.03 (3.29)
Number of Observations	4808	4161
Adjusted R^2	0.29	0.06

Notes: The sample includes: 1) respondents who experienced a change in marital status between the 1989 and 1990 interview and did not experience any other changes in marital status between the 1988 and 1992 interviews 2) respondents who were married during the entire period from the 1988 interview through the 1992 interview and 3) respondents who were never married.

Table A-6: Regression Results: Dependents = RATIO_93 and ΔRATIO_90-93 (t Statistics in Parentheses)

Independent Variable	RATIO_93	ΔRATIO_90-93
CONSTANT	-1.55 (-6.43)	-0.27 (-1.32)
MARRY92	0.14 (0.67)	0.17 (0.92)
XMARRY92	1.19 (3.85)	1.17 (4.42)
DIVORCE92	0.77 (2.66)	0.53 (2.15)
XDIVORCE92	-1.74 (-4.67)	-2.00 (-6.45)
REMARRY92	0.31 (0.88)	-0.13 (-0.43)
XREMARRY92	0.23 (0.51)	1.40 (3.90)
UNDER6_93	-0.45 (-9.07)	-0.32 (-7.78)
FEMALE	-0.13 (-2.63)	0.02 (0.45)
BLACK	-0.56 (-7.58)	-0.05 (-0.75)
HISPANIC	0.44 (6.55)	-0.11 (-1.92)
AGE	0.029 (2.60)	0.015 (1.64)
EDUCATION_93	0.32 (31.61)	0.014 (1.69)
Number of Observations	4528	4052
Adjusted R^2	0.27	0.05

Notes: The sample includes: 1) respondents who experienced a change in marital status between the 1991 and 1992 interview and did not experience any other changes in marital status between the 1990 and 1994 interviews 2) respondents who were married during the entire period from the 1990 interview through the 1994 interview and 3) respondents who were never married.

Table A-7: Regression Results: Dependents = RATIO_95 and ΔRATIO_92-95 (t Statistics in Parentheses)

Independent Variable	RATIO_95	ΔRATIO_92-95
CONSTANT	-3.07 (-6.32)	-1.24 (-2.84)
MARRY94	1.16 (4.07)	0.52 (2.06)
XMARRY94	-0.007 (-0.02)	0.80 (2.24)
DIVORCE94	0.26 (0.93)	0.12 (0.46)
XDIVORCE94	-0.55 (-1.43)	-1.23 (-3.55)
REMARRY94	1.22 (3.55)	0.61 (1.96)
XREMARRY94	-0.48 (-1.02)	0.72 (1.74)
UNDER6_96	-0.61 (-4.27)	-0.20 (-1.60)
FEMALE	-0.56 (-5.01)	-0.25 (-2.51)
BLACK	-0.45 (-3.22)	-0.09 (-0.73)
HISPANIC	0.61 (4.22)	0.02 (0.13)
AGE	0.008 (0.34)	-0.003 (-0.12)
EDUCATION_96	0.46 (21.59)	0.14 (7.37)
Number of Observations	1702	1325
Adjusted R^2	0.34	0.11

Notes: The sample includes: 1) respondents who experienced a change in marital status between the 1993 and 1994 interview and did not experience any other changes in marital status between the 1992 and 1996 interviews 2) respondents who were married during the entire period from the 1992 interview through the 1996 interview and 3) respondents who were never married.

Table A-8: Regression Results: Dependents = RATIO_97 and ΔRATIO_93-97 (t Statistics in Parentheses)

Independent Variable	RATIO_97	ΔRATIO_93-97
CONSTANT	-0.82 (-2.43)	1.43 (4.41)
MARRY96	0.09 (0.33)	-0.31 (-1.19)
XMARRY96	0.71 (1.65)	1.94 (4.77)
DIVORCE96	0.30 (1.07)	-0.06 (-0.21)
XDIVORCE96	-1.15 (-3.17)	-0.88 (-2.38)
REMARRY96	0.28 (0.85)	-0.29 (-0.97)
XREMARRY96	-0.48 (-1.08)	0.92 (2.36)
UNDER6_98	-0.34 (-4.41)	-0.60 (-8.23)
FEMALE	-0.07 (-0.93)	0.05 (0.79)
BLACK	-0.44 (-4.20)	0.12 (1.16)
HISPANIC	0.51 (5.45)	0.06 (0.65)
AGE	0.015 (0.95)	-0.03 (-2.19)
EDUCATION_98	0.33 (23.23)	-.004 (-0.29)
Number of Observations	4897	3984
Adjusted R^2	0.14	0.03

Notes: The sample includes: 1) respondents who experienced a change in marital status between the 1994 and 1996 interview and did not experience any other changes in marital status between the 1994 and 1998 interviews 2) respondents who were married during the entire period from the 1994 interview through the 1998 interview and 3) respondents who were never married.