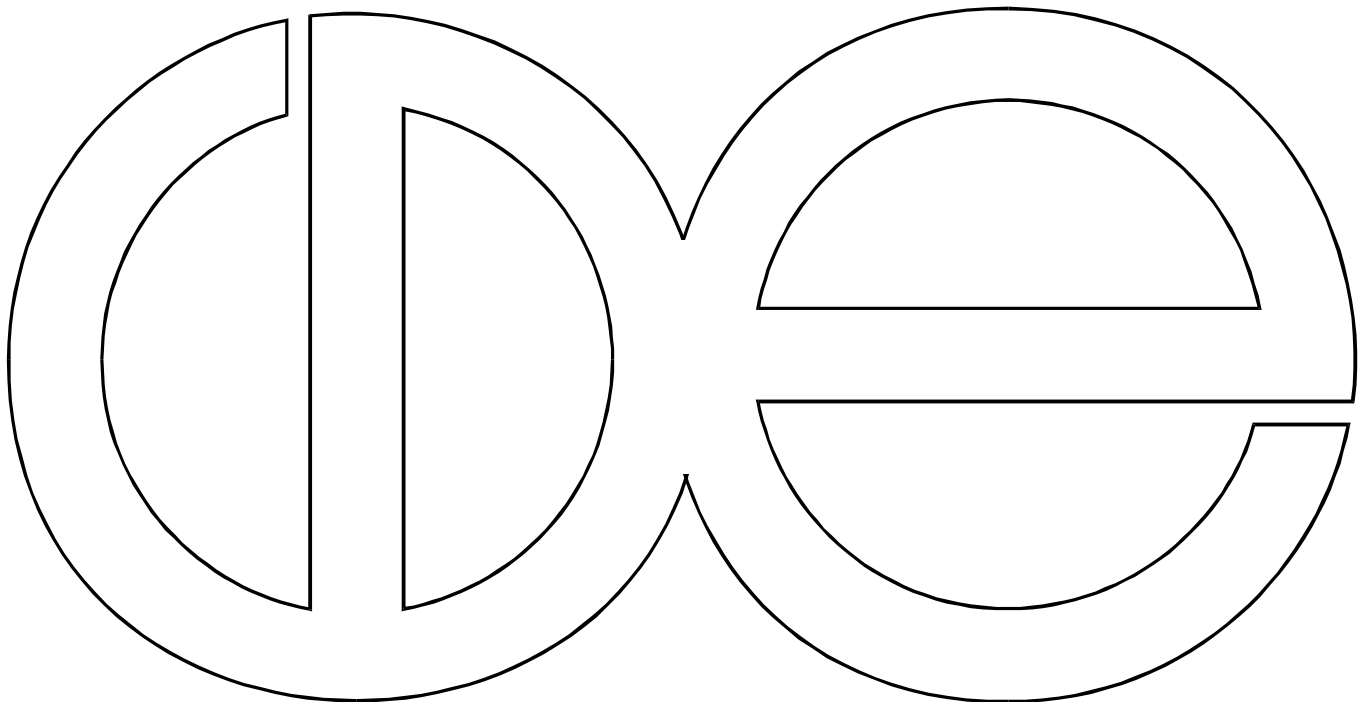


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**The Effect of Women's Economic Independence
on Union Dissolution**

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Abstract

Women's economic independence has been central to discussions surrounding the secular rise in divorce, the rapid surge of divorce in the late 1960s and 1970s, the timing of marriage, and the diverging marital patterns of African Americans and others. It is expected to increase the likelihood of union dissolution by reducing the gains from marriage and creating a practical alternative for unsatisfied spouses. Evidence of the importance of women's economic independence remains fragmentary and contradictory. This paper introduces the expected economic effect of divorce and the expected economic status outside of marriage as alternative measures of economic independence. These measures are estimated on the basis of personal and ecological characteristics and are adjusted for possible bias due to self-selection into divorce. I conduct a discrete event history analysis of the risk of divorce or separation and include the expected economic gains from remaining married and the expected economic vulnerability of women following union dissolution as explanatory variables. Data are drawn from the Panel Study of Income Dynamics (1968-87). Women's economic independence significantly increases the likelihood of divorce, but only for couples with children. Nevertheless, even for parents, economic independence does not override the importance of religious identity, marital duration, and several other individual and ecological characteristics.

INTRODUCTION

Many distinguished social scientists believe that women's economic independence has increased in the West and as a result has transformed marriage in this century, especially in the past few decades. Women's economic independence has been central to discussions surrounding the secular rise in divorce (Goode 1971, 1982; Fuchs 1983; Westoff 1986), the rapid surge of divorce in the late 1960s and 1970s (Westoff 1978, 1983, 1986; Becker 1981; Fuchs 1983; Davis 1984; Preston 1984, 1986; Furstenberg and Cherlin 1991), the timing of marriage (Preston and Richards 1975), and the diverging marital patterns of African Americans and others (Smith 1977, 1979; Becker 1981; Espenshade 1985; Wilson 1987; Farley 1988; Mare and Winship 1991; Hoffman et al. 1991). Although the aim of marriage in contemporary Western societies is personal happiness and love is thought to be the "crystallizing element in the decision to marry" (Goode 1971), the economic relationships between spouses, and wives' economic independence in particular, are among the most prominent factors in nearly all theoretical perspectives on the causes of marital dissolution. Women's economic independence is expected to increase the likelihood of separation or divorce by reducing the gains from marriage and creating a practical alternative for unsatisfied spouses.

There is great interest in explaining trends and differentials in marital dissolution; however, evidence of the importance of women's economic independence for the divorce process remains fragmentary. In the past three decades, the volume of research on the implications of women's and men's economic opportunities for the institution of marriage has increased substantially; however, most of these studies focus on the prevalence of female-headed households or on the entry into marriage or remarriage, rather than on union dissolution. Furthermore, the evidence regarding divorce has been culled from studies that define economic independence too narrowly. As a result, the role of economic independence in marital dissolution remains obscured. Overall, the empirical findings regarding the effect of women's economic independence on marital decisions are contradictory. Numerous studies find that marital transitions are influenced by women's "economic independence" (e.g., Honig 1974; Sawhill et al., 1975; Wolf 1977; Hannan, et al. 1977, 1978; Ross and Sawhill, 1975; Cherlin 1979; D'Amico 1983; Booth et al. 1984; Hoffman et al. 1991). In contrast, many

others find only a very weak relationship (e.g., Cutright and Scanzoni 1973, Minarik and Goldfarb 1976; MacDonald et al. 1977 - as reported in MacDonald and Sawhill 1978; Cain and Wissoker 1990a; Danziger et al. 1982; Ellwood and Bane, 1985; Mott and Moore 1977; Huber and Spitze 1980; Hoffman and Duncan 1990).

In this paper I try to redress the limitations of the current body of work in ascertaining the role of female economic independence in the marital dissolution process. Economic dependency is distinguished along different dimensions than in previous studies. One of these dimensions is women's economic vulnerability, measured by a woman's expected ability to maintain an acceptable economic status in the event of union dissolution. The second dimension is women's economic gains from marriage, measured by the relative economic losses expected because of separation or divorce. This reflects a woman's inability to replicate the economic status attainable through marriage, whereas the ability to meet her economic needs after union dissolution reflects her economic freedom to terminate a union. These indicators, one relative and one absolute, represent an unexplored approach to measuring wives' economic independence.

Many researchers investigating marital instability have interpreted women's economic independence very narrowly by confining financial alternatives to state transfers. These studies primarily address policy concerns over the responsiveness of divorce to the economic incentives implicit in marital status conditioned transfer programs such as Aid to Families with Dependent Children (AFDC).¹ Findings from the Negative Income Tax Experiments and the AFDC studies have been at the center of welfare reform debates; however, their implications for the general question of marital behavior and economic independence are less far-reaching. Furthermore, methodologies applied in several of the early studies are now known to be flawed. Assumptions made in later studies are the subject of debate (Groeneveld, et al. 1980; Hannan et al. 1977, 1978; Hannan and Tuma 1990; Cain and Wissoker 1990a, 1990b).

Another body of work centers on individual-level analyses of wife's income or the ratio of her income to her husband's or total family income as determinants of marital dissolution or thoughts of divorce.² Many of these studies do not adequately control for preexisting differences between the divorcing and nondivorcing

women. Furthermore, the indicators are static because the studies emphasize women's current observed earnings or current capacity for earnings while married and ignore potential adjustments to changing circumstances. The cross-sectional studies of currently married women that focus on thoughts of divorce are inadequate to study the role of female economic independence because it is expected to diminish stability at a later stage in the marital dissolution process. Economic independence provides a safety valve for those already not satisfied with their marriage and predisposed to divorce.

A literature has also evolved relating women's labor force participation activities and divorce; however, the role of female economic independence in this relationship remains obscured.³ Few studies have successfully isolated the effect of work on female economic independence from either the role of self-selection into the labor force or the effect of work on spousal interaction, solidarity, and marital strains.⁴

The union dissolution model developed here provides a convenient framework for assessing whether the likelihood of divorce or separation is affected by women's economic independence (both relative and absolute) and the importance of women's economic independence in comparison to other economic precursors of divorce and separation, and in comparison to noneconomic determinants such as religious norms, and ecological contexts. I conduct a discrete event history analysis (Allison 1982, 1984) of the risk of divorce or separation and include women's expected economic gains from remaining married and their expected economic vulnerability in the event of union dissolution as explanatory variables. The results reported here indicate that for women with children the likelihood of divorce or separation is diminished by their expected economic losses due to union dissolution. These findings suggest that female economic independence may play a role in racial differences and time trends in marital dissolution. However, the expected economic effect of union dissolution explains little variation among childless women. Furthermore, the woman's expected risk of becoming poor following divorce is not an important determinant of marital stability, controlling for the expected losses associated with divorce or separation.

Data are drawn from the Panel Study of Income Dynamics (1968-87). The discrete time analog of the hazard rate of union dissolution at a given duration of marriage is modelled as a function of duration, the

proposed measures of economic vulnerability and economic gains from marriage, as well as other individual and ecological characteristics including: prehypothetical divorce family income; region; size of largest city in area; occupational status of wife and husband; husband's race; wife's age at marriage; husband's religion; and number and age of children. Estimates of the proposed measures of economic independence (i.e., the expected economic gains to remaining married and the expected economic vulnerability of women in the event of union dissolution) are adjusted for bias due to the self-selection of women into divorce (Heckman 1979).

THEORETICAL BACKGROUND AND HYPOTHESES EXAMINED

Economic independence is presumed to increase the risk of divorce in nearly all theoretical frameworks for studying marital dissolution (e.g., sociological frameworks, social exchange theory, the new home economics, role theory, bargaining models); although, the rationale for this relationship differs. According to most sociological frameworks, marriages that are not emotionally satisfying are bound to be less stable when spouses are capable of fulfilling their instrumental needs (e.g., economic production, sexual gratification, and procreation) outside of the marriage (e.g., Goode 1963, 1971; Davis 1986). Correspondingly, spouses' expectations about their mates' economic security may affect their own willingness to withdraw from unsatisfactory unions because of genuine concerns for their spouses' welfare, or guilt, or a sense of obligation. Frameworks based on social exchange theory (Levinger 1965, 1979) view the loss of economic security associated with marriage as a cost of divorce. In rational choice models such as the new home economics (Becker 1974; 1981), the capacity for economic independence is associated with a higher risk of divorce because the comparative advantage between spouses is lower. Implicit in frameworks emphasizing individual self-interest, such as bargaining models (Scanzoni 1972, 1979; Nye and Berardo 1973; England and Kilbourne 1989; Shubik 1984; Manser and Brown 1979; McElroy and Horney 1981), is the notion that potential role performances and exchanges in alternative arrangements are compared to those in current arrangements. Game theory suggests that the threat points that determine the willingness to negotiate and the brink of quitting are lowered when the goods/alternatives outside of marriage available to both individuals are greater.

- The expected economic gains to remaining married, as measured by the relative difference between the resources available to the wife within marriage and those available to her outside, are negatively related to the risk of marital dissolution. **(H1)**
- Women are less likely to experience divorce or separation when their expected future income stream falls below their income needs in the event of marital dissolution. **(H2)**

In the various theoretical discussions regarding the relationship between economic independence and divorce, parenting status is not typically singled out as a decisive factor. However, the complexity of parent-child relationships suggests that couples with children consider the economic costs to divorce or separation more critically. After all, the survival and well-being of their children are at stake. In other words, parents have different "tastes" for a given level of economic independence and they are expected to place greater emphasis on the costs of divorce than do childless couples.

- The expected economic losses act as greater deterrents to marital dissolution for couples with dependent children in the household than couples without children. **(H3)**

Economic theory tends to portray children as a form of marital-specific capital. As such, their value is greater within marriage and they are stabilizing forces (Becker et al. 1977). Alternatively, children increase organic solidarity (Durkheim 1933), the financial, social and emotional costs of marital dissolution (Thornton 1977, Cherlin 1977), and reduce the custodial parent's opportunities for remarriage (Waite and Lillard 1991). However, in other ways children may undermine the conjugal bond. They reduce spousal interaction (Hill 1988) and require adjustments in adult roles (Udry 1971). Childrearing practices are a potential source of disagreement between spouses. The difficulty of juggling family, work obligations and economic stresses may make children a liability in the interpersonal relations between spouses (Hill 1988; White et al. 1986; Glenn and McLanahan 1982; Campbell et al. 1976), and these obstacles may be compounded when the children are conceived prior to the marriage in the same or a different relationship (Furstenberg 1976; Becker et al. 1977; Cherlin 1977; White and Booth 1985; Castro Martin and Bumpass 1989; Waite and Lillard 1991).

The age and number of children are expected to intervene in the relationship between children and marital stability (Becker et al. 1977; Cherlin 1977; Waite and Lillard 1991) because the inputs required by children depend on their ages and number. Becker et al. (1977) believe that the positive effect of more than three

children on the probability of divorce supports their theory that deviations between actual and expected values of a characteristic (i.e., contraception efficacy and ease of childbearing) decrease marital stability.

- The greater the number of children and the younger their ages the lower the risk of divorce or separation, at a given level of economic independence. However, my model is expected to exhibit an even weaker stabilizing effect of children than has been previously reported because I control for the potential economic costs of marital dissolution. (**H4** and **H5**)

As in the case of female economic independence, hypotheses regarding the risk of divorce or separation and economic well-being while married tend to be consistent across sociological frameworks, social exchange theory, the new home economics, and bargaining models, even though the rationale behind these explanations differs. Economic distress is believed to undermine the ability of marriage to fulfill its instrumental functions and weaken social integration (Aiken et al. 1968). Sociological frameworks also underscore the husband's failure to perform his role according to social expectations. Social exchange theory suggests that family income enhances marital stability because economic advantage and high social status may offset the costs of an otherwise unsatisfactory union (Levinger 1979). Alternatively, Becker's new home economics framework (1981, 1977) contends that couples with low income are more likely to have undershot their expectations and are thus more likely to be dissatisfied and seek divorce.

- Economic deprivation is associated with higher risks of divorce and separation and economic prosperity is associated with lower risks in comparison with middle-income families, independent of the role of economic gains to remaining married. (**H6**)

One explanation for the positive relationship between family income and marital stability is that high levels of earnings and assets allow couples to avoid environmental factors that contribute to marital tension. One of these factors is the quality and specifically, the density, of living quarters (Hill 1988).

- One mechanism by which low income increases marital instability is by lowering the quality of living arrangements. In particular, crowded living quarters are expected to increase conflict and tensions. (**H7**)

DATA

This research uses the Panel Study of Income Dynamics (PSID) cross-year family-individual response and nonresponse files covering annual interviews over the period from 1968 to 1987. The initial population interviewed by the PSID is characterized as "original sample members". The "original sample families"

consist of 4,802 families residing in over 40 states (Survey Research Center 1984). The poor were over sampled.⁵ The PSID continues to follow the original families sampled in 1968 by tracking those individuals who were members of these 4,802 families in 1968 or were born to original members of these families and moved out at a later date. As a result, the number and diversity of families has increased over time. The PSID is a probability sample and with the application of sampling weights the individual data are representative of the U.S. population, excluding post 1968 immigrants. Approximately 97 percent of each annual sample continue to participate from one year to the next.⁶

ANALYTICAL DESIGN (DIVORCE ANALYSIS AND ECONOMIC INDEPENDENCE MEASURES)

The union dissolution analysis is structured as a discrete-time model (See Allison 1982, 1984). Following Duncan and Hoffman (1985), no distinction is made between marriage and "long-term" cohabitation and none is made between divorce and separation (see also Weiss 1984; Mott and Moore 1978). Therefore, a marriage in this analysis is defined as the state of living with a spouse or long-term partner. A union dissolution is defined as the transition from a state of living with a husband or long-term partner to a state of not living with that same person. Individual data records from the PSID are converted into person years of observations. Women contribute multiple observations at varying durations of marriage and in some cases, are at risk of contributing multiple events (divorces). In any given wave (e.g., in a year t, prior to 1985) only original PSID sample women who are married/cohabiting at the time, living with their "husbands", continue to respond to the next four interviews and are less than age 55 are eligible to enter into the sample.⁷ The 5243 married women in this restricted sample provide a total of 30943 person years of observations for the intact subsample and a total of 1084 observations for the group of women who experience divorce.

The probit model is used to estimate the discrete-time analog of the hazard rate of divorce.⁸ The conditional probability that the i^{th} woman remains married at time t is specified as

$$P(\text{DIVORCE}_{it} = 0) = F(-\mathbf{x}_{it}'\beta) = \int_{-\infty}^{-\mathbf{x}_{it}'\beta/\sigma} \phi(\mathbf{a}) \, d\mathbf{a} \tag{1}$$

where $\Phi(\cdot)$ is the probability density function of the standard normal distribution and β is the vector including the parameters. The explanatory variables are included in \mathbf{x}_{it} . According to the probit model the marginal effect of a change in the j^{th} element of \mathbf{x}_{it} (i.e., x_{itj}) on the conditional probability of divorce is given by

$$\frac{\partial [\mathbf{P}(\mathbf{DIVORCE}_{it}=1)]}{\partial x_{itj}} = \Phi(x'_{it}\beta)\beta_j \quad (2)$$

For the purposes of constructing the economic independence measures, I estimate future income relative to needs streams for each appropriate married woman in each of the first 16 PSID waves. More specifically, I predict their log income-relative-to-needs ratios for the three years that follow ($t+1$, $t+2$ and $t+3$) in the event of a hypothetical divorce in the interval () between the interview in year t and $t+1$, as well as in the absence of a hypothetical divorce. These predictions for each of the two scenarios are used to construct the discounted sum of the income-relative-to-needs ratios in the two marital states. The expected log income relative to needs in year $t+i$ in the hypothetical event of divorce in is estimated on the basis of observations for those who actually divorce; however, the coefficients and standard errors have been adjusted for sample selection bias so that the estimates of the parameters are applicable to the entire set of married women in the year t interview. The converse is true for the estimate of the expected log income relative to needs in year $t+i$ in the absence of a hypothetical divorce in . Remarriage among the "divorce" sample (i.e., those providing observations to estimate income in the event of divorce) or subsequent divorce or widowhood among the "nondivorce" sample (i.e., those providing observations to estimate income in the absence of divorce) is not cause for deliberate right censoring in this analysis.⁹ When couples evaluate the potential impact of a hypothetical divorce in any given year, they are aware that the wife's economic status following divorce may be improved by remarriage. Alternatively, even if they do not divorce now, the wife's projected economic status could deteriorate following the spouse's death or a deferred divorce in the future.¹⁰

The log income-relative-to-needs ratios are predicted on the basis of the following two equations:

$$\ln(\text{INCNEEDS}_{i,t+j}^M) = \mathbf{z}'_{it} \gamma_{1j} + \mathbf{w}'_{it+j} \gamma_{2j} + \mathbf{u}_{i,t+j}^M \quad (3)$$

$$\ln(\text{INCNEEDS}_{i,t+j}^D) = \mathbf{z}'_{it} \delta_{1j} + \mathbf{w}'_{it+j} \delta_{2j} + \mathbf{u}_{i,t+j}^D \quad (4)$$

for $\mathbf{j}=1,2,3$ where $\text{INCNEEDS}_{i,t+j}^M$ ($\text{INCNEEDS}_{i,t+j}^D$) is the expected ratio of family income to needs for the i^{th} woman in year $t+\mathbf{j}$ if she does not (does) experience a union dissolution in the interval τ . The unknown parameters are included in the vectors $\gamma'_j = (\gamma'_{1j}, \gamma'_{2j})$ and $\delta'_j = (\delta'_{1j}, \delta'_{2j})$; and $\mathbf{u}_{i,t+j}^M$ and $\mathbf{u}_{i,t+j}^D$ are unobserved error terms. The vectors \mathbf{z}_{it} and \mathbf{w}_{it+j} include the observed values of explanatory variables. The variables in \mathbf{z}_{it} include personal characteristics of the woman and her husband prior to $t+\mathbf{j}$ and those in \mathbf{w}_{it+j} include macro-level information relevant to the woman in $t+\mathbf{j}$, the year for which the prediction is being made. The values of the variables included in \mathbf{w}_{it+j} vary across \mathbf{j} , whereas the values of the variables included in \mathbf{z}_{it} are invariant across \mathbf{j} (i.e., \mathbf{w}_{it+j} are time-varying covariates). Note that the parameter vectors $\gamma'_j = (\gamma'_{1j}, \gamma'_{2j})$ and $\delta'_j = (\delta'_{1j}, \delta'_{2j})$ are indexed by \mathbf{j} . Therefore, the marginal impact of the variables in \mathbf{z}_{it} and \mathbf{w}_{it+j} on $\ln(\text{INCNEEDS}_{i,t+j}^M)$ and $\ln(\text{INCNEEDS}_{i,t+j}^D)$ are allowed to differ across all three years (i.e. time-dependent covariates) even though the values in \mathbf{z}_{it} are constant across $\mathbf{j} = 1, 2$ and 3 . The variables included in the income equations are discussed in greater detail in the Appendix.

Because couples select themselves into divorce, the error terms in (3) and (4) have nonzero conditional means and OLS estimates of (3) and (4) are inconsistent. I adjust for this self-selection bias according to a two-stage procedure developed by Heckman (1979). This procedure is based on the fact that the error terms in (3) and (4) can be decomposed as follows:

$$\mathbf{u}_{i,t+j}^M = \lambda_{it}^M \gamma_{3j} + \mathbf{e}_{i,t+j}^M \quad (5)$$

$$\mathbf{u}_{i,t+j}^D = \lambda_{it}^D \delta_{3j} + \mathbf{e}_{i,t+j}^D \quad (6)$$

for $\mathbf{j}=1,2,3$ where $\mathbf{e}_{i,t+j}^M$ and $\mathbf{e}_{i,t+j}^D$ are random variables with a conditional mean of 0; λ_{it}^M and λ_{it}^D --the inverses of the Mill's ratios--are estimates of the means of $\mathbf{u}_{i,t+j}^M$ and $\mathbf{u}_{i,t+j}^D$, respectively; and γ_{3j} (δ_{3j}) represents the covariance of $\mathbf{u}_{i,t+j}^M$ ($\mathbf{u}_{i,t+j}^D$) and the error term in the underlying response variable in the divorce model. First, the probability of divorce is estimated with a reduced form probit function. Second, these results are used to

estimate λ_{it}^M and λ_{it}^D . Third, λ_{it}^M and λ_{it}^D are included as explicit regressors in equations (3) and (4), respectively. Heckman shows (1979) that one can test the null hypothesis of no sample selectivity using conventional t-statistics because the regression t-statistics have an asymptotic standard normal distribution under the null hypothesis.

The estimates of δ_{3j} and γ_{3j} tended to be significantly different from zero for most years and therefore the inverses of the Mill's ratios are not omitted from the income equations. The parameter estimates and standard errors from the income relative to needs equations are reported in Tables A1 and A2 in the Appendix and the predictions are compared to observed values in Table A3. The income predictions are not very sensitive to whether the models are adjusted for self-selection bias; however, they are sensitive to the application of sampling weights. Overall, the parameter estimates and standard errors in the analytical divorce model are identical within three significant digits when the economic independence measures are constructed from OLS estimates rather than the Heckman two-stage estimates.

OPERATIONALIZATION OF HYPOTHESES AND CONTROLS

Hypotheses

The family income needs measure used in this analysis is provided by the PSID and differs somewhat from the Bureau of the Census definition.¹¹ I construct family income from the following sources received by all family members: labor income; alimony and child support; annual income from assets, transfer income; pension, worker's compensation, unemployment, and social security income.¹² Income paid to dependents not living in the family unit who are not included in the needs variable is subtracted from family income. In addition, "lump sum payments", which includes gifts, inheritances, legal settlements, insurance payments, capital gains, profit from sale of property, interest earned from the sale of bonds, and other one time payments are added to total family income. All variables represented by dollars are converted into 1983-1984 dollar equivalents by the consumer price index.

The relative measure of women's economic dependence is represented by the expected economic gains to remaining married. This variable is defined as the income stream expected in the absence of divorce relative to

the stream expected in divorce. More specifically, this variable is the ratio of the discounted sum of the income-relative-to-needs ratios expected in years $t+1$, $t+2$ and $t+3$ when there is no divorce in the interval over the discounted sum of the income-relative-to-needs ratios expected in the event of divorce in . This ratio is denoted by *WIFE'SDEPR* in Table 2 where the parameter estimates are reported.

The absolute measure of women's economic dependence is represented by the ability to meet family income needs in the event of divorce averaged over the first three years following the hypothetical divorce (years $t+1$, $t+2$, and $t+3$). This variable is denoted by *WIFE'SDEPA* and takes on a value of 1 if on average the woman's predicted annual income equals or falls below her income needs.

The influence of children is manifested by the age of the youngest child and the number of children in the household. I include a variable in the model to represent the number of children in the household other than the youngest child (referred to as *#OTHERKIDS* in Table 2). Two dichotomous variables are also included, one indicates whether the youngest child in the household is less than or equal to five years old (*YOUNGKID5*) and another indicates whether the youngest child in the household is greater than five years old and less than or equal to 18 (*YOUNGKID18*). In addition, a variable is included to capture the difference in the impact of the expected economic gains from marriage on the probability of divorce for women with children. This variable equals the expected gains from marriage for women with children and the value of 0 otherwise (referred to as *MOM'SDEPR* in Table 2).

Two variables are included to test the hypothesis that low-income families are at greater risk of divorce, independently of the role of women's economic gains to remaining married. These two dichotomous variables reflect the economic status observed in the previous year of marriage (year $t-1$). One variable indicates whether the family's income relative to needs is below 1.5--roughly the bottom quartile and another variable indicates whether the family's income relative to needs is at least as high as 3.6--roughly the upper quartile (*INCOMELOW* and *INCOMEHIGH*, respectively). The middle 50 percent is the omitted category. The quality of living arrangements is expected to intervene in the effect of economic status. A variable that

represents the number of rooms in the family home that are in excess of the number *required* (SPACIOUS) is also included.¹³

Control Variables

Sociologists and economists identify marital-specific capital as a stabilizing force in marriage. However, the former argue that investing in and sharing marital-specific capital increases interdependence and solidarity between spouses, whereas the latter emphasize the contribution of marital-specific assets to the economic gains from marriage. Investments in nonliquid assets also prevent an easy division between spouses, thereby increasing the costs (constraints) of divorce (Cutright 1971). Marital-specific capital and assets are narrowly indicated in this study by whether the couple own their home. The variable takes on a value of 1 if the couple own their home and a value of 0 otherwise (HOMEOWNER).

A nonegalitarian allocation of work effort is measured by the absolute difference between the husband's and wife's total hours spent per week in the labor market and doing housework (WORKBURD).

Social norms, beliefs, and the extent to which individuals are held accountable to these norms are loosely captured by several variables. Proscriptions against divorce are relatively stronger in Catholicism than in many other religions; therefore, one variable indicates whether the spouse identifies himself as Catholic (the religious preference of the wife is not typically available). I also include measures of ecological contexts such as the size of the population in the area the woman lives in. This measure is characterized by whether the area is a Standard Metropolitan Statistical Area (SMSA), or is near a city with a population of 10,000 to 49,999 (omitted variable), or is sparsely populated with less than 10,000 residents (LOWPOP). Another set of variables indicates the region of the country the woman lives in (i.e. the Northeast, South, West, and North Central--omitted variable).

Age guides social development and birth cohort identifies an individual's exposure to particular historical events (Elder 1975). Within a life-course perspective, life stage and exposure to these events may embody a collective mentality and distinct life pattern (Elder 1975), especially in an era of rapid social change (Bumpass

and Sweet 1972). The age of the wife when she married is indicated by the variable AGEATMAR. The absolute age difference between husband and wife is indicated by the variable AGEDIFF.

Racial/ethnic background may account for a variety of features associated with distinct marital patterns. For example, cultural norms regarding the family likely vary across racial groups. Perhaps most importantly, African American women and men face different marriage pools and opportunity structures than their white counterparts, at least partially because of residential segregation, social isolation, and racism in general.¹⁴ The variable HISPANIC indicates whether the woman is of Hispanic descent; the variable BLACK indicates whether the woman is not Hispanic and is of African American ancestry; and the omitted variable includes all other non Hispanic woman.

RESULTS - DESCRIPTIVE FINDINGS

There are clear compositional differences between the divorcing and nondivorcing populations of married women. Table 1 (weighted data) shows that women who divorce in the interval are more likely to live in heavily populated areas, in the West and in counties with high levels of unemployment. Wives in the intact subgroup are much more likely to have Catholic husbands and be homeowners, not in the labor force, non-Hispanic white, and married longer. Surprisingly, there is little difference between the two subgroups in the mean age of marriage, the "fairness" of the allocation of work and housework responsibilities--on average one spouse spends 17 more hours per week on housework and labor market work in both subgroups, and the mean age gap between spouses. Furthermore, conditional on family size and state of residence in year t , there is no evidence that women who divorce encounter greater maximum allowable statewide AFDC benefits than those who remain married.

The implication of some of the economic differences is that women who experience union dissolution in the interval are more economically independent of their husbands than those who do not divorce. For example, although the mean annual total family income relative to family needs in year $t-1$ is higher for the intact subpopulation, the average income relative to family needs earned by wives in the divorce subsample is greater. While husbands of women in the nonintact subpopulation are more likely to be unemployed than those

whose wives are in the intact subpopulation, wives in the nonintact subpopulation are more likely to work than their counterparts in the intact sample. The ratio of wife's earned income over the sum of the wife's and husband's earned income in year t-1 for the divorced subpopulation is roughly 1.35 times as great as the ratio for the intact group. In absolute and to a smaller degree in relative terms, the expected economic gains from marriage are greater for those who remain married. Across the three years following a hypothetical divorce (t+1, t+2 and t+3), the married subgroup is expected to lose almost .65 income-relative-to-needs dollars above and beyond what the divorced subgroup is expected to lose in the event of divorce. The average ratio of expected income to needs in marriage over expected income to needs in divorce is roughly 1.05 times as great among the married sub-population than the divorced subpopulation. Alternatively, the difference between the ratios is .07.

RESULTS - ANALYTICAL MODEL

Statistical tests of hypotheses **H1-H7** are based on the findings reported in Table 2. The baseline model, in the first column, includes the variables reflecting wife's economic independence (WIFE'SDEPR and WIFE'SDEPR) and the interaction with parenting status (MOM'SDEPR).¹⁵ The models are not sensitive to whether the income streams used to construct the measures of economic independence have been adjusted for family-income needs.

The results suggest that the expected economic losses following divorce are important deterrents to divorce for couples with dependent children. Surprisingly, the expected economic effects of divorce do not appear to be relevant to the marital decisions of couples without children. Furthermore, the absolute measure of economic independence does not appear to be related to the likelihood of divorce or separation.¹⁶ More specifically, in models where the expected economic gains to remaining married are assumed to have the same impact on divorce for all women, the effect of the expected economic gains from marriage is negative as expected, although the chi square test statistic does not significantly change when the variable is excluded at conventional significance levels. When the model allows for a different effect for women with children (MOM'SDEPR) the coefficient associated with this interaction is negative and the explanatory power of the

model improves significantly at the 5 percent level; however, the effect for women without children (WIFE'SDEPR) becomes slightly positive and has a large standard error (cf. columns 1 and 2 of Table 2).¹⁷ The estimates provide strong evidence that, for women with children, the ratio of expected income to needs in marriage relative to the expected income to needs in divorce is an important determinant of divorce. In every model, the greater the expected drop in economic status in the event of divorce, the less likely a woman with children is to divorce, regardless of the other variables included in the model.

Table 3 presents the marginal "impact" of a change in the continuous variables on the probability of divorce and the differences in the probability of divorce across values of discrete variables, classified according to narrowly defined characteristics.¹⁸ An increase of 1 in the ratio of the expected income to needs in marriage over the expected income to needs in divorce corresponds to a reduction of .0169 in the probability of divorce for low-income African American mothers of young children, living in an SMSA in the West. The marginal change among middle-income women with the same characteristics is slightly less. Among their white counterparts, the marginal changes in the probability of divorce associated with a unit increase in the expected economic losses due to divorce are -.0135 and -.0125, for low-income and middle-income women, respectively.

While a reduction of .0169 or .0135 in the conditional probability of divorce for a given year is quite dramatic, an increase of 1 in the married to divorce ratio of expected income to needs is also very large--the weighted average ratio for all women is only 1.41.¹⁹ If the ratio is increased by .07 for example, the probability of divorce is reduced by approximately .001 for the low-income African American mothers described in Table 3.²⁰ The figures in Panels 1 and 2 plot the estimated probabilities of divorce evaluated at various levels of economic dependency for several subgroups of women. Reading across the axis representing the ratio of income-to-needs expected in marriage over divorce demonstrates how the probability of divorce is altered following specified changes in the expected economic effects of divorce. The probability decreases across the axis as the expected economic impact of divorce increases incrementally.

Children are important determinants of the likelihood of divorce. When children-related variables are removed from the baseline model, (columns 6 and 7 in comparison to column 1 in Table 2), the explanatory power of the model is significantly reduced at the $\alpha=.01$ level. However, whether the presence of children inhibits union dissolution depends on the level of economic independence.

These findings provide support for the hypothesis that children effect barriers to union dissolution by making the expected economic losses associated with divorce a constraint. However, the coefficient associated with having a youngest child over the age of 5, and even the coefficient associated with the youngest child being younger than 5, are positive and fairly large in the baseline model. The coefficient associated with having additional children (#OTHERKIDS) is negative in every model. When duration of marriage is also included in the model, the stabilizing effect of additional children is reduced by more than a factor of five and the coefficient is not significantly different from zero at all conventional levels of α (compare columns 15 and 1 in Table 2).

The net (of their role in increasing economic dependence) "effect" of children is stabilizing when the expected economic losses due to divorce are large (contrast the columns on the age of first child axis in the figures in Panels 1 and 2). When the expected economic effect of divorce is small, having a child may actually increase the likelihood of union dissolution (Panels 1 and 2). The presence of one child under the age of five has a stabilizing "impact" on marriage when the ratio of expected income relative to needs in marriage over the expected income relative to needs in divorce is roughly 1.5 or greater, according to the baseline model. That threshold value is lowered if there are siblings. For example, in a family of four children, the presence of a young child less than age of five is stabilizing if the ratio of expected income relative to needs in marriage to expected income relative to needs in divorce exceeds 1.4.²¹ The probability of divorce is greater for women with one young child than for those with no children in the household when the expected economic effect of divorce is less than 1.5. The probabilities cross at around 1.5, so that as the level of economic independence falls the probability of divorce becomes lower for couples with the young child than for those without a child.

When there are no controls for duration as in column 15 (Table 2), the threshold in which children are stabilizing is much lower.

Regarding other economic determinants of divorce, the findings in Table 2 support economic deprivation explanations for the inverse relationship between divorce and income. Low family income relative to needs is associated with greater marital instability, even after controlling for the economic gains to remaining married. In the baseline model, the parameter estimate associated with the indicator of being in the bottom quartile of income relative to needs is statistically significant at $\alpha=.1$. However, the level of significance is much higher when the race- or children-related variables are excluded from the model. Individuals with high levels of income are no more or less likely to divorce than those in the middle range. The difference between the Chi Squared Statistic in the baseline model and the model in column 7 indicates that the overall income effect is statistically significant.

When controlling for the economic independence effect, differences in the probability of divorce between low-income and middle-income women fall in the range of .006 to .007, among those whose youngest child is under 5, who live in the West in an SMSA, and are not homeowners, nor expected to become poor following divorce, nor Catholic (see Table 3). The differences are in the range of .002 to .004 among women in the Northeast. The difference in the probability of union dissolution between middle-income and low-income status is equivalent to a decrease of .464 in the expected economic impact of divorce, for white women in subgroup **a** of Table 3.

The quality of living arrangements appears to be a significant intervening variable through which economic status in time t-1 affects the likelihood of divorce. Column 8 in Table 2 shows that the explanatory power of the divorce model improves significantly with the inclusion of SPACIOUS and the coefficients associated with the indicators of high and low income decline in importance relative to the baseline model (e.g., the difference in the probability of divorce between low income and middle income is no longer significantly different from 0 at $\alpha=.1$). This evidence is consistent with the hypothesis that overcrowded living conditions is one route by which income deficits influence marital relations (Hill 1988).

DISCUSSION

The research reported here finds that economic dependence significantly reduces the likelihood of union dissolution for women with children. The decision to divorce appears to be governed in part by the expected economic losses of union dissolution, at least among parents (Panels 1 and 2). However, even among parents, women's economic independence does not override other important determinants of divorce. Racial and socioeconomic status differentials in the probability of divorce persist after controlling for the expected economic impact of divorce. Race and duration appear to be the most important factors (cf. columns 9 and 10 in Table 2 with baseline model). The expected economic gains from marriage must fall in the .88 to 1.15 range to have the same effect on the probability of divorce as racial background, for the women with children depicted in Table 3. However, the implications of religious preference, region of residence and economic status are comparable to more reasonable changes in the expected economic gains from marriage. The change in the probability of divorce following a drop in the expected economic gains from marriage in the range of .48 to .56 is as great as the difference between Catholics and others, among the subpopulations of women with children depicted in Table 3. Relative to the effect of economic deprivation, a decrease in the expected economic gains from marriage in the range of .42 to .48 has the same implication for the probability of divorce as falling from middle to low economic status in year $t-1$. A decrease in the range of .16 to .18 is as important as a five-year drop in age at marriage.

For parents, marriage seems to be responsive to economic outcomes. However, since only women with children appear to be "discouraged" by economic disincentives, it may be that couples are not responding to "economic forces" on their own behalf as much as they are for their children's economic interests.²² On the other hand, net of their role in increasing economic dependence, children increase the likelihood of union dissolution when women are economically independent and therefore, parents appear to behave altruistically in regard to their children's economic needs but not in regard to their emotional or psychological welfare. The extra time, patience, and effort demanded in childrearing appear to undermine the conjugal bond rather than reinforce solidarity and the commitment to avoid single parenting. The sociological literature on the effect of

children on marital quality finds either no relationship or a negative one between the presence of a child and marital satisfaction (Glenn and McLanahan 1982; Campbell 1981; Marini 1980). It would appear that parents' expectations and concerns regarding the noneconomic consequences of divorce for children (e.g., emotional and psychological effects) are not sufficiently powerful to counteract their children's disruptive influences on marriage.

Numerous studies that control for a variety of characteristics--most importantly marital duration, find only a weak relationship between children and divorce (Mott and Moore 1979; Cherlin 1977; Hoffman and Holmes 1976; Hannan et al. 1977; Hoffman and Duncan 1990).²³ The results reported here indicate that these findings are likely to be weaker or in the opposite direction if the analyses had adequately controlled for female economic independence. Studies that do not adequately control for economic dependence may be confounding the effect of children on the likelihood of divorce with their effect on their mothers' economic dependency.²⁴ Indeed, when the expected economic gains from marriage are no longer controlled for in the baseline model the positive coefficient associated with having a young child dramatically falls (to one tenth its value) and is no longer significantly greater than 0 at any conventional level of α .

There are other considerations. The models draw no distinction among children resulting from planned and unplanned pregnancies, premarital children, stepchildren and children born into the current marriage. Although there is empirical evidence that unwanted children, premarital pregnancies, and stepchildren increase marital instability (Coombs and Zumeta, 1970; Furstenberg, 1976; Becker et al. 1977; White and Booth 1985); others have found that the existence of prior children does not significantly increase the odds of divorce (Castro Martin and Bumpass 1989; Cherlin 1977). The coding of children in this analysis is based on their presence in the household and age at time t . The possibility remains that in some cases children residing in the house are not the offspring of the head or his wife. Little is known about the effects of other people's children (e.g., grandchild, nephew, etc.) living in the household.

The findings in this paper are also consistent with past research that has demonstrated a strong positive association between socioeconomic status and marital stability. As discussed above, justifications for this

relationship can be found in nearly all sociological perspectives, exchange theory, and in the new home economics. However, the findings presented here underscore the importance of controlling for economic independence when evaluating these hypotheses. For example, when the relative measure of economic independence is removed from the model the effect of low income increases in magnitude (compare columns 1 and 2 in Table 2). This is expected because the low-income indicator and the ratio of expected income to needs in the two marital states are determined in large part by the husband's income. Therefore, the coefficient associated with low income in the model that excludes the expected gains from marriage (column 2) appears to be picking up some of the effect of the latter. Analyses that do not adequately control for women's economic independence likely exaggerate the destabilizing effects of low income on marriage.

The model broadly controls for regional and urban/rural differences, economic status while married, and economic opportunities for women outside of marriage, yet there remains a residual difference in the probability of divorce between African Americans and whites. The significance of this may originate in cultural differences in tastes, preferences, and values; dissimilar ecological environments at lower geographic units than those captured by region or population size distinctions; and differences in prospects for intimate relationships outside of marriage, among others. In addition, the residual effect may reflect inadequacies in my measure of economic independence. The coefficients associated with racial/ethnic background may be capturing differential measurement errors in estimating the expected economic effect of divorce.

Several issues should be considered before further conclusions are drawn. First, the prediction of the economic effect of divorce for women with children may be understated, even though the age and number of children are included in the income models and the income needs are adjusted for economies of scale. The income needs may not adequately capture qualitative differences between the commodities and services required in single-headed families and intact ones. For example, the custodial parent (typically the mother) may lose the ex-spouse's income as well as his services and resources (e.g., cleaning, cooking, baby-sitting, help from his parents and family, day care facilities provided by the ex-spouse's employment, family health insurance, etc.), many of which will have to be purchased in the marketplace at a higher cost. Second, the

expected economic effects of divorce for men are not included in the divorce model. This omission, however, is unlikely to enhance the importance of parenting status for the effect of the expected economic gains from marriage.²⁵ Furthermore, the expected economic effects of divorce for men are not likely to be a decisive determinant of divorce since their economic status changes very little following divorce (Duncan and Hoffman 1985; Weitzman 1985). Third, the model presented here, like most that are introduced in the sociological and new home economics literature, emphasizes the household unit and limits the scope for asymmetries in the divorce process. For example, a wife's high expected income may increase her sense of independence and reduce her husband's sense of financial obligation or guilt, making each of them more willing to end an unhappy marriage. Alternatively, the effect of female economic independence may be both destabilizing and stabilizing by increasing an unhappy couple's willingness to divorce, while simultaneously making the wife a more attractive partner. Therefore, my findings regarding women's economic independence represent the counterbalance of the wife's and husband's willingness to end an unhappy marriage and the husband's attraction to the wife's potential income. The results represent the "net" effect of economic independence.

IX. CONCLUSION

The conceptualization of economic independence introduced in this paper represents an innovation to earlier work on divorce. As discussed above, measures of female economic independence in prior empirical studies have either tended to be only relevant to low-income families or implicitly static in nature. As expected, studies that measure economic independence according to income while married tend to find a stronger relationship with divorce than the results presented here.²⁶ The static measures from previous research focus on a woman's earnings while married and overlook a woman's capability for adjustment in the event of changing circumstances. This static element makes these studies more vulnerable to reverse causality because wives who are more secure and satisfied in their marriage may prefer to spend more time at home rather than more fully exploit their human capital in the labor market.

The effect of women's economic independence reported in this paper is consistent with Hannan et al.'s (1978) findings from the Seattle and Denver Income Maintenance Experiments but stronger than the impact

found in other analyses of the income-maintenance experiments.²⁷ It is not surprising that the effect of women's economic independence tends to be greater in my study because couples are expected to be less responsive to income transfers than to potential earned income. Both forms of income imply economic independence from the husband; however, the former signals dependence on the state. Furthermore, own earned income is potentially a permanent source of economic independence, whereas, the income-maintenance treatment group understood that the source of income would dry up after a predetermined time interval.

The findings reported in this paper underscore that female economic independence is important and its exclusion from analyses of divorce may lead to misinterpretations regarding the effects of other important determinants. I have shown that the magnitude of the effects of some other determinants declines notably with the inclusion of women's economic independence. Women's economic independence has perhaps the clearest repercussions for the role of children in union dissolution and as a result the effects of one should not be interpreted without taking full account the other. This study has also exposed a layer of the complex relationship between children and union dissolution. Clearly, the role of children in divorce should be investigated within the context of the mother's economic dependence on the marriage. My findings suggest that children act as deterrents to divorce because they prevail on couples to consider the economic consequences of their marital decisions. However, when women are economically independent the probability of divorce is greater for couples with children than those without, *ceteris paribus*.

The dramatic increase in wives' labor force participation in the 1960s and 1970s and the slow increase in women's earnings relative to those of men suggests that women did become more economically independent in the late 1960s and 1970s. Although I demonstrate that women's economic independence significantly increases the risk of union dissolution, it is unclear whether the rate of divorce skyrocketed because of these social changes. Women's economic independence does not override all other determinants of divorce in the micro-level models presented in this paper. Therefore, further investigation of the role of women's economic independence in the marital dissolution process should be undertaken to confirm whether the findings reported here are generalizable to population trends and differentials in divorce. Future work will focus on the

relationship between aggregate estimates of my economic independence measures and marital dissolution rates over time and across various populations.

ENDNOTES

1. Some of the empirical analyses of AFDC have used aggregate-level time series or cross-sectional data to relate statewide AFDC benefit levels to the prevalence of divorce or single parent households over time or across states, SMSAs and counties (e.g. Cutright and Scanzoni 1973; Honig 1974 and 1976; Minarik and Goldfarb 1976; MacDonald et al. 1977--reported in MacDonald and Sawhill 1978; Ellwood and Bane 1985; Ellwood and Summers 1986). Studies in the past fifteen years have tended to analyze individual-level panel data to relate statewide AFDC levels to individual risks of marital disruption (e.g. Bane 1975; Sawhill et al. 1975; Ross and Sawhill 1975; Hoffman and Holmes, 1976; Cherlin 1979; Wolf, 1977; Hutchens, 1979; Moore and Waite 1981). More recently, individual level cross-sectional data have been incorporated in aggregate-level analyses (e.g. Danziger et al. 1982; Ellwood and Bane 1985; Moffitt 1990). Very recently in a preliminary paper, Hoffman and Duncan (1990) improved on these analyses by including an explicit estimate of the likely welfare payments received in the event of divorce. Furthermore, their multiple choice-based model enables them to distinguish between divorces that do and do not involve welfare receipt. A related body of literature considers the responsiveness of marital behavior to income subsidies by focusing on the evidence from the Negative Income Tax (NIT) experiment (e.g. Hannan et al. 1977, 1978; Sawhill et al. 1975; Wolf 1977; Groeneveld, et. al. 1980; Cain and Wissoker 1990a, 1990b; Hannan and Tuma 1990).
2. Ross and Sawhill (1975), D'Amico (1983), Booth et al. (1984), South and Spitze (1986) and Hanson (1989) rely on observed wages. Cherlin (1979) estimated wages for those with zero wages by regressing the actual earnings of those who earned income against their relevant characteristics and then used the coefficients from this equation to predict wages for those with zero earnings. This procedure ignores the bias from self-selection into the labor force and into hours worked.
3. The positive relationship between divorce and female labor force participation has been widely documented in aggregate and individual level analyses (Spitze 1988 provides a summary of the empirical evidence).
4. Several empirical studies have supported Davis's (1984) suggestion that female employment is a response to perceptions of divorce risk rather than the cause of divorce (Greene and Quester 1982; Johnson and Skinner 1986). However, few studies have delved further into how women's labor force behavior increases the risk of divorce. Studies that have tried to separate out the effects of work on economic independence from the effects on spousal interaction and marital satisfaction have not adjusted for the reciprocal nature of work and divorce. Many of these studies rely on cross-sectional data and typically focus on the propensity to divorce as measured by thoughts and discussions regarding divorce using observations of currently married individuals (e.g. Booth et al. 1984).
5. The initial sample of the PSID consisted of about 2,000 low-income nonelderly families that had been interviewed by the U.S. Bureau of the Census for the 1966-67 Survey of Economic Opportunity (SEO) and an additional 2,930 households drawn from an equal probability sample by the Survey Research Center (1984). I use both subsamples in this study.
6. The most dramatic attrition occurred between the sample selection interviews and the first wave of the study (Survey Research Center 1984). About 57.6 percent of the original sample known to be alive in 1987 participated in the study that year. Beckett et al. (1988) and Duncan and Hill (1989) discuss the

representativeness of the recent PSID samples and the bias due to nonresponse.

7. The population of women at risk is limited to those less than age 55 so that the divorce and income prediction models represent the working age population of husbands and wives. The population is also limited to original sample individuals since the PSID does not follow nonsample women who no longer live with their sample husbands.

8. All estimation is performed using LIMDEP version 5.1 (Greene, 1990).

9. In a society where divorce is not infrequent and where widowhood is always a risk, it would be unrealistic to censor women when they experience a subsequent divorce/separation from the estimation of the income streams in the event of no divorce. Similarly, in a society where nearly 50 percent of divorced white women and 32 percent of divorced African American women remarry within five years of divorce (Duncan and Hoffman 1985), it would be unrealistic to censor divorced women upon remarriage in the estimation of the income streams in the event of divorce.

10. For example, a dissatisfied spouse may choose to postpone divorce because the expected economic consequences are worse presently than they might be in the future. Such individuals who anticipate future divorces may take the likelihood of a future divorce into account when evaluating the potential economic impact of an immediate divorce.

11. The PSID income needs standard differs from that used in the Census statistics. The food portion of the needs are based on the "low-cost" food budget rather than the more stringent "economy" or "thrifty" budget used by the Census. The PSID standard is roughly 25 percent higher than the Census budget. In addition, unlike the pre-1980 official Census figures that reduce the needs of farmers to .8 the needs standard, the PSID needs standard is not adjusted for farmers. Furthermore, the needs of single women over the age of 65 are reduced proportionately to their lower estimated food needs whereas the Bureau of the Census takes 80 percent of the two person standard for both single elderly men and women (Survey Research Center 1987).

12. Labor income includes wages and dollar amount of estimated free or reduced rent received in compensation for work. Annual income from assets includes interest from savings and dividends, a portion of income received from boarders and garden farming. Transfer income includes AFDC, ADC, ADCU, SSI, income saved from food stamps and other welfare, help from relatives, G.I. Bill money for study, fellowships, grants, scholarships, strike pay, foster child allowance, certain types of maternity or sick leave payments and value of free if received for reason other than compensation for work.

13. See Survey Research Center (1984) for the family-size-adjusted scale for measuring *required* number of rooms.

14. Sweet and Bumpass (1987) demonstrate that African American women face dramatically lower probabilities of remarriage.

15. The quality of living arrangements, **SPACIOUS**, is omitted from the baseline model. It is an intervening variable between income and divorce its effects is tested in a different model.

16. This finding is stable. Several models were estimated with the absolute measure of economic independence determined by threshold values above 1 and there was no difference in the magnitude of the coefficients or the standard errors associated with any of the variables.

17. Hannan et al. (1978) also found an insignificant reversal in the sign on the economic independence effect on divorce for white families with only one child, in their analysis of the Seattle and Denver Income Maintenance Experiments. Their analysis was restricted to families with at least one child.

18. As demonstrated by equation (2), the marginal response to a change in an explanatory variable is not captured by the coefficient in the probit model, unlike the linear model. The partial derivative of the probability of divorce with respect to the explanatory variables is not constant and depends on the values taken by the explanatory variables. The partial derivative for the dichotomous variables cannot be interpreted because the values can only be 0 or 1. To capture the magnitude of the marginal "impact" of a change in a continuous explanatory variable, the partial derivatives of divorce are evaluated at the sample means of the continuous variables, and designated values for the discrete variables. The partial derivatives represent the change in the probability of divorce associated with an increase of one unit for a woman whose value of the continuous variable is the population mean. For the discrete variables, I calculate the difference in the predicted probability of divorce following a change in the discrete variable from 1 to 0, when all other variables are held constant.

19. It is important to keep in mind when interpreting changes in the probability of divorce that the annual divorce rates in the U.S. ranged from .012 to .022 divorces per married woman over the 1968-86 period (National Center for Health Statistics, 1988).

20. The difference in the weighted averages of the ratio of income relative to needs in marriage over divorce between mothers who experience divorce and mothers who do not is .07.

21. The weighted mean ratio of expected income relative to needs in marriage over the expected ratio in divorce for the population of women with one child is 1.42.

22. Most custodial parents are mothers (U.S. Bureau of the Census 1979).

23. Mott and Moore (1979) found no relationship between children and divorce. Cherlin (1977) reported that only preschool children act as deterrents to divorce. Hoffman and Holmes (1976) found that only toddlers reduce the chances of divorce. In Hoffman and Duncan's (1990) analysis, the stabilizing effects of young children were not statistically significant and the number of children was not related to the likelihood of divorce.

24. In fact, in results not reported here children are one of the most important determinants of the expected economic consequences of divorce and therefore, young children may appear to be stabilizing forces in their parent's marriage because women with young children are more dependent on their husbands for their economic status.

25. The scenario under which this omission could inflate the importance of children for the effect of women's economic independence on divorce would be if the husbands' and wives' expected economic effects of divorce were positively correlated across parents and negatively correlated across childless couples. For the former couples, the effect of the expected economic impact of divorce on the likelihood of divorce for husbands would reinforce the wives' effects on the likelihood of divorce and for the latter couples, the expected economic impact of divorce for husbands and wives would counterbalance one another. However, the reality is more likely to be the reverse. The economic "losses" associated with divorce for men with children may be smaller than for those without children since the income needs of noncustodial fathers falls more after divorce than for men without children. For women, the economic losses associated with divorce tend to be greater for custodial mothers in comparison to women without children because of the implications of childrearing for the mother's human capital development.

26. Sawhill et al. (1975) and Ross and Sawhill (1975) estimate the parameter associated with wife's earnings to be .01 with a t-statistic of 2.9 in their regression analysis of the probability of divorce. In Cherlin's (1979) regression analysis of the probability of divorce, the parameter estimates associated with the ratio of wife's wages over husband's wages are .0239 and the t-statistic is 2.38.

27. Wolf (1977) also found marital dissolution to be positively related to income transfers in the Gary NIT experiment. However, Cain and Wissoker (1990a) reanalyzed SIME/DIME data and found no economic independence effect. Cain and Wissoker (1990a) made different attrition adjustments, excluded childless couples, and defined their treatment groups somewhat differently from Hannan et al. (1977, 1978). Differences in the risks of divorce between the experimental and control groups were not significant in the rural income-maintenance experiments; however, the low incidence of divorce in the rural areas and the small sample size combined to produce only a limited number of divorces (Bishop 1980).

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Table 1 Differences in Selected Characteristics Between the Divorced and the Intact Subpopulations (*, #)

<u>CHARACTERISTIC</u>	<u>Intact Sample (py=30943)</u>		<u>Divorce Sample (py=1084)</u>	
	<u>MEAN</u>	<u>OR VARIANCE</u>	<u>MEAN</u>	<u>OR VARIANCE</u>
	<u>PROPORTION</u>		<u>PROPORTION</u>	
Income				
Ratio of expected INC/NEEDS streams (marriage over divorce)	1.417	0.17	1.345	0.10
Difference between INC/NEEDS streams in marriage and divorce	3.158	25.40	2.533	11.93
Total family INCOME/NEEDS in year T-1	3.232	3.80	2.931	3.51
Total family income in year T-1	\$36,645	459224729	\$31,592	361159412
INCOME/NEEDS in year T-1 >=3.6	0.325	0.22	0.258	0.19
1.5<=INCOME/NEEDS in year T-1 <3.6	0.532	0.25	0.551	0.25
INCOME/NEEDS in year T-1 <1.5	0.143	0.12	0.191	0.15
Wife's Income over total family income	0.192	0.05	0.260	0.06
Occupation				
Wife is a professional or manager	0.148	0.13	0.160	0.13
Wife has another occupation	0.481	0.25	0.614	0.24
Wife has no recent occupation	0.371	0.23	0.226	0.17
Husband is a professional or manager in year T	0.345	0.23	0.253	0.19
Husband is a farmer or farm manager in year T	0.029	0.03	0.012	0.01
Husband has another occupation in year T	0.599	0.24	0.700	0.21
Husband has no recent occupation in year T	0.027	0.03	0.036	0.03
Employment Status				
Husband is employed in year T	0.933	0.06	0.877	0.11
Husband is either unemployed or student or at home in year T	0.032	0.03	0.090	0.08
Husband is retired in year T	0.034	0.03	0.033	0.03
Wife worked 36 weeks or more in year T-1	0.377	0.23	0.442	0.25
Wife worked 5-35 weeks in year T-1	0.184	0.15	0.224	0.17
Wife worked 0-4 Weeks in year T-1	0.438	0.25	0.334	0.22
Homeownership				
1-respondent owns home 0-does not own home	0.748	0.19	0.508	0.25
Duration of Marriage				
Number of years married as of year T	14.213	103.87	7.056	52.45
Race/Ethnic Background				
Hispanic	0.029	0.03	0.037	0.04
African American-not Hispanic	0.077	0.07	0.127	0.11
Other-not Hispanic	0.893	0.10	0.836	0.14

Table 1 (continued) Differences in Selected Characteristics Between the Divorced and the Intact Subpopulations (*, #)

<u>CHARACTERISTIC</u>	<u>Intact Sample (py=30943)</u>		<u>Divorce Sample (py=1084)</u>	
	MEAN OR VARIANCE PROPORTION	MEAN OR VARIANCE PROPORTION	MEAN OR VARIANCE PROPORTION	MEAN OR VARIANCE PROPORTION
Religious Preference				
Religious preference is Catholic	0.261	0.19	0.218	0.17
Other or no religious preference	0.739	0.19	0.782	0.17
Children				
The number of children under age 18	1.636	2.23	1.520	1.89
Youngest child is <= five years old	0.356	0.23	0.451	0.25
Youngest child is 6 to 18 years old	0.377	0.23	0.269	0.20
Has a child 18 years old or younger	0.733	0.20	0.720	0.20
Contextual Characteristics				
Residence is in a SMSA	0.659	0.22	0.682	0.22
Population of 10,000 to 49,999	0.189	0.15	0.176	0.14
Population of less than 10,000	0.153	0.13	0.142	0.12
Over 6% unemployment in county in year T	0.464	0.25	0.557	0.25
Under 6% unemployment in county in year T	0.536	0.25	0.443	0.25
Lives in the North Central U.S. in year T	0.300	0.21	0.227	0.18
Lives in the Northeast U.S. in year T	0.234	0.18	0.178	0.15
Lives in the West U.S. in year T	0.166	0.14	0.244	0.18
Lives in the South U.S. in year T	0.300	0.21	0.351	0.23
Maximum AFDC benefits in year T Relative to needs in year T	0.313	0.06	0.298	0.06

* Calculations are Based on Person Year Observations (py) Constructed From the Panel Study of Income Dynamics (1968-1987), data are weighted.

Dollar values are standardized in 1983-1984 dollars

Table 2 Parameter Estimates of Probit Model Estimating the Probability of Divorce Between Year t and t+1 (32027 Person Year Observations)

MODEL^a Column	BASELINE (1)	H1 (2)	H3 (3)	H5 (4)	H4 (5)	H4 & H5 (6)	H4 & H5 (7)
Chi²^b	784.33	779.26	780.40	770.49	783.86	770.40	772.33
D.F.	21	19	20	18	20	17	18
<u>VARIABLE</u>							
Intercept	-1.495 (.132)	-1.404 (.083)	-1.329 (.110)	-1.342 (.104)	-1.492 (.132)	-1.344 (.104)	-1.341 (.104)
WIFE'SDEPR	0.074 (.084)	.....	-0.062 (.059)	-0.046 (.057)	0.074 (.084)	-0.047 (.057)	-0.081 (.063)
MOM'SDEPR	-0.214 (.106)	.....	.....	.....	-0.215 (.106)	.....	0.037 (.027)
WIFE'SDEPA	0.041 (.071)	0.039 (.071)	0.039 (.071)	0.024 (.071)	0.018 (.062)	0.013 (.061)	0.005 (.062)
INCOMEHIGH	-0.002 (.041)	-0.014 (.040)	-0.003 (.041)	-0.018 (.041)	0.003 (.041)	-0.015 (.040)	-0.005 (.041)
INCOMELOW	0.062 (.038)	0.074 (.037)	0.068 (.038)	0.069 (.038)	0.058 (.038)	0.067 (.037)	0.065 (.037)
SPACIOUS	.....	.....	.....	.....	.....	.....	.....
YOUNGKID5	0.330 (.147)	0.041 (.041)	0.045 (.041)	.....	0.321 (.147)	.....	.....
YOUNGKID18	0.428 (.152)	0.132 (.045)	0.136 (.045)	.....	0.423 (.152)	.....	.....
#OTHERKIDS	-0.009 (.014)	-0.010 (.014)	-0.010 (.014)	-0.004 (.013)	.....	.....	.....
HOMEOWNER	-0.241 (.033)	-0.241 (.033)	-0.241 (.033)	-0.233 (.032)	-0.243 (.033)	-0.233 (.032)	-0.240 (.032)
WORKBURD	0.8e-3(.001)	0.9e-3 (.001)	0.9e-3(.001)	0.8e-3 (.001)	0.8e-3(.001)	0.8e-3 (.001)	0.8e-3 (.001)
CATHOLIC	-0.074 (.042)	-0.075 (.041)	-0.075 (.041)	-0.077 (.041)	-0.076 (.041)	-0.077 (.041)	-0.077 (.041)
SMSA	0.054 (.041)	0.054 (.041)	0.055 (.041)	0.056 (.041)	0.052 (.041)	0.055 (.041)	0.054 (.041)
LOWPOP	-0.072 (.054)	-0.060 (.053)	-0.066 (.054)	-0.063 (.054)	-0.072 (.054)	-0.063 (.054)	-0.064 (.054)
NORTHEAST1	-0.033 (.051)	-0.033 (.050)	-0.035 (.051)	-0.033 (.050)	-0.033 (.051)	-0.033 (.050)	-0.036 (.051)
WEST1	0.156 (.047)	0.168 (.046)	0.160 (.047)	0.164 (.047)	0.156 (.047)	0.164 (.047)	0.162 (.047)
SOUTH1	0.043 (.039)	0.046 (.039)	0.044 (.039)	0.045 (.039)	0.044 (.039)	0.046 (.039)	0.047 (.039)
AGEATMAR	-0.005 (.002)	-0.005 (.002)	-0.005 (.002)	-0.004 (.002)	-0.005 (.002)	-0.004 (.002)	-0.003 (.002)
AGEDIFF	-0.3e-3(.004)	0.5e-3 (.004)	0.5e-4(.004)	0.3e-3 (.004)	-0.4e-3(.004)	0.3e-3 (.004)	0.3e-3 (.004)
DURATION	-0.035 (.002)	-0.035 (.002)	-0.035 (.002)	-0.033 (.002)	-0.036 (.002)	-0.033 (.002)	-0.033 (.002)
BLACK	0.140 (.036)	0.137 (.036)	0.140 (.036)	0.142 (.036)	0.140 (.036)	0.141 (.036)	0.139 (.036)
HISPANIC	0.022 (.082)	0.027 (.081)	0.027 (.081)	0.034 (.081)	0.022 (.082)	0.034 (.081)	0.030 (.081)

Table 2 (continued) Parameter Estimates of Probit Model Estimating the Probability of Divorce Between Year t and t+1 (32027 Person Year Observations)

MODEL^a Column	H6 (7)	H7 (8)	(9)	(10)
Chi² ^b	781.64	787.84	499.24	769.16
D.F.	19	22	20	19
<u>VARIABLE</u>				
Intercept	-1.479 (.132)	-1.450 (.133)	-1.810 (.134)	-1.514 (.130)
WIFE'SDEPR	0.065 (.084)	0.082 (.084)	-0.127 (.085)	0.090 (.082)
MOM'SDEPR	-0.232 (.106)	-0.205 (.105)	-0.074 (.104)	-0.209 (.104)
WIFE'SDEPA	0.060 (.070)	0.034 (.071)	-0.028 (.070)	0.094 (.070)
INCOMEHIGH	.....	0.009 (.042)	-0.025 (.040)	-0.022 (.041)
INCOMELOW	.....	0.054 (.038)	0.024 (.037)	0.080 (.038)
SPACIOUS	.....	-0.021 (.011)	.....	.....
YOUNGKID5	0.354 (.148)	0.310 (.147)	0.311 (.145)	0.333 (.144)
YOUNGKID18	0.454 (.152)	0.408 (.152)	0.114 (.148)	0.427 (.149)
#OTHERKIDS	-0.005 (.013)	-0.014 (.014)	-0.048 (.013)	-0.010 (.014)
HOMEOWNER	-0.250 (.032)	-0.223 (.034)	-0.411 (.030)	-0.254 (.032)
WORKBURD	0.001 (.001)	0.8e-3 (.001)	0.1e-3(.001)	0.7e-3 (.001)
CATHOLIC	-0.075 (.041)	-0.076 (.042)	-0.080 (.041)	-0.099 (.039)
SMSA	0.051 (.041)	0.052 (.041)	0.059 (.040)	0.082 (.041)
LOWPOP	-0.070 (.054)	-0.073 (.054)	-0.075 (.053)	-0.068 (.054)
NORTHEAST1	-0.032 (.050)	-0.034 (.051)	-0.074 (.049)	-0.043 (.050)
WEST1	0.154 (.047)	0.153 (.047)	0.147 (.046)	0.148 (.046)
SOUTH1	0.046 (.039)	0.037 (.039)	0.033 (.038)	0.071 (.038)
AGEATMAR	-0.005 (.002)	-0.005 (.002)	0.012 (.002)	-0.004 (.002)
AGEDIFF	-0.2e-3(.004)	-0.2e-3 (.004)	-0.4e-3(.004)	0.3e-3 (.004)
DURATION	-0.035 (.002)	-0.036 (.002)	.....	-0.036 (.002)
BLACK	0.148 (.035)	0.129 (.036)	0.143 (.035)	.....
HISPANIC	0.031 (.081)	0.010 (.081)	0.018 (.080)	.....

Standard Errors are in parentheses

^a See text for a description of the hypotheses and their operationalization

^b Chi² is the likelihood ratio test statistic for the Null Hypothesis that all slope coefficients are zero and D.F. denotes the degrees of freedom of the test.

Table 3 Change in the Probability of Divorce With Respect to Change in Background Characteristic, for Selected Sub-populations of Women with Children. (Evaluated at Population Means)*

<u>Characteristic</u>	<u>Subpopulation A</u>				<u>Subpopulation B</u>			<u>Subpopulation C</u>
	African American		White		Catholic	Non-Catholic	White	
	Income Status in t-1:				Home Ownership:			Income in t-1:
	Low	Middle	Low	Middle	Owns	Not Own	Owns	High
Partial Derivatives with Respect to Characteristic:								
WIFE'SDEPR	-.0169	-.0153	-.0135	-.0125	-.0044	-.0074	-.0052	-.0056
Work Burden Gap	.0001	.0001	.0001	.0001	.0000	.0000	.0000	.0000
Age at Marriage	-.0006	-.0006	-.0005	-.0004	-.0002	-.0003	-.0002	-.0002
Age Difference	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Years Married	-.0043	-.0039	-.0036	-.0030	-.0011	-.0019	-.0013	-.0014
Difference in Probability Associated with Change in Characteristic:								
Low Middle Income	-.0071	.0071	-.0058	.0058	.0021	.0035	.0024	.....
Catholic Other Religion		-.0084	-.0076	-.0070	-.0062	.0025	.0042	-.0025 -
.0027								
Black White	-.0150	-.0136	.0150	.0136	.0051	.0084	.0060	.0064
Age of Youngest Child:								
>5 to 18 0 to 5 (years)	.0127	.0115	.0105	.0094	.0039	.0053	.0042	.0044

Population of women with children age 5 or less living in a SMSA and not expected to fall into poverty if divorced:

A live in the West, are not homeowners and not Catholic.

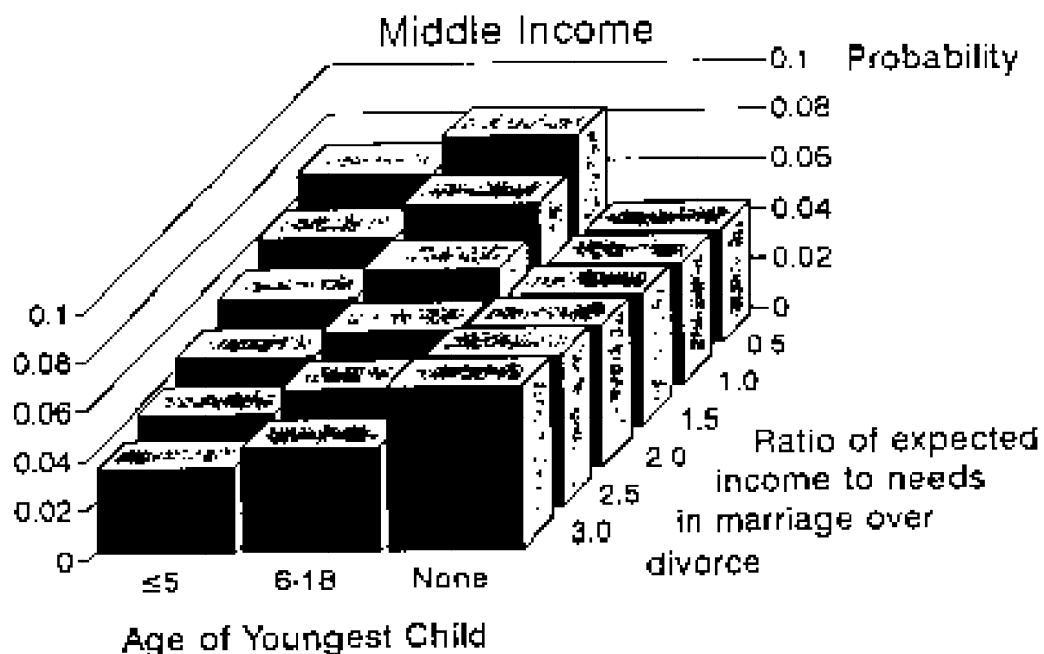
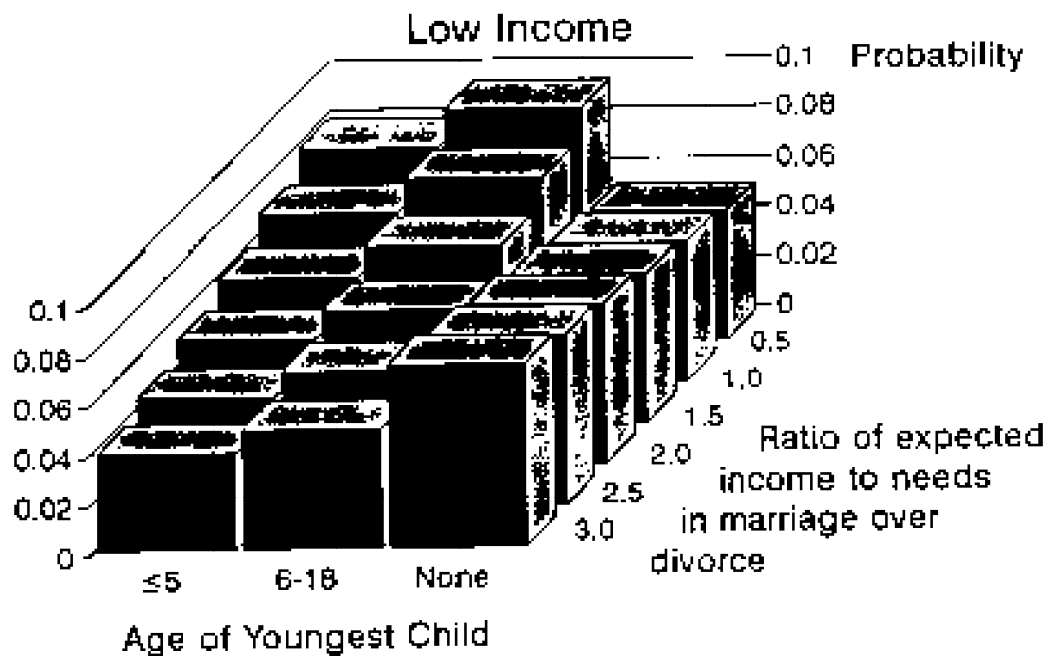
B live in the Northeast, are white and middle income.

C live in the North Central, are white and homeowners.

* Number of additional children set to mean based on all mothers.

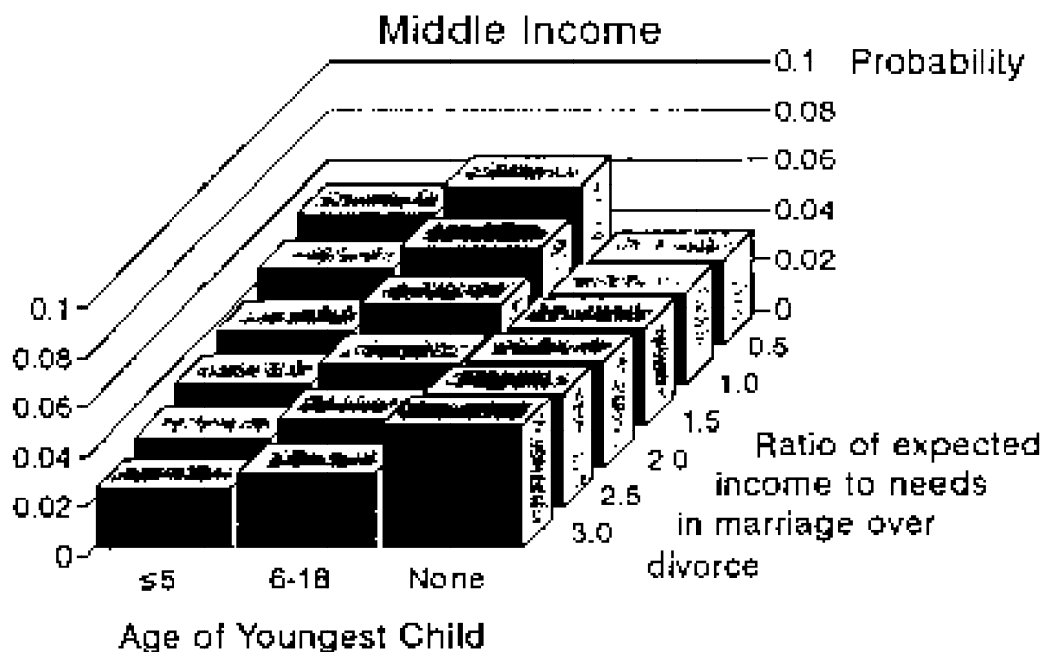
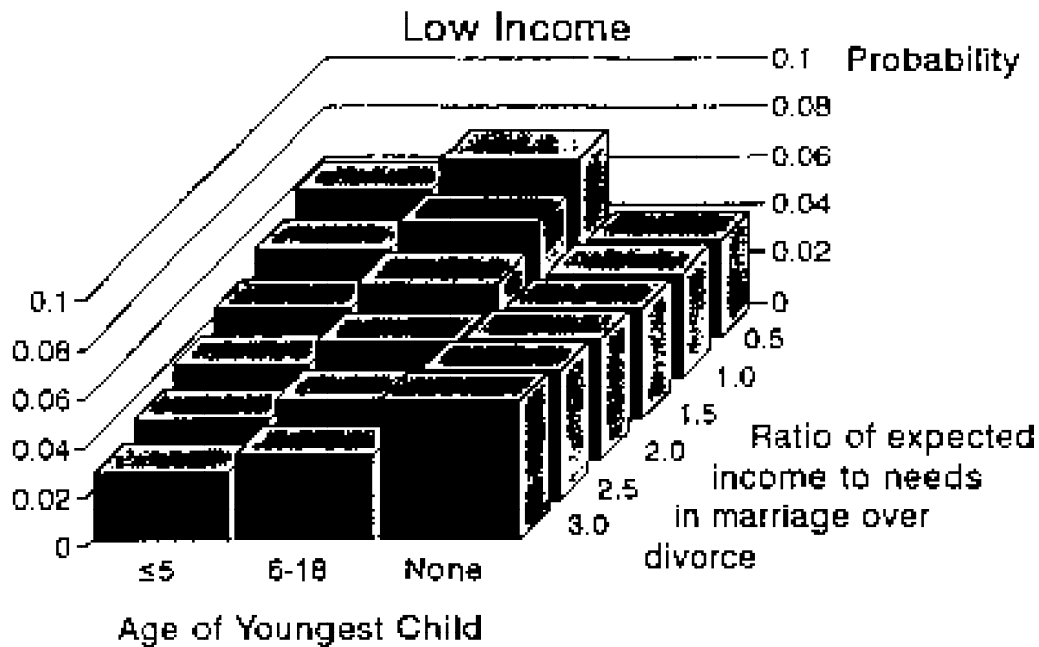
The baseline model in Table 2 is the source of estimates.

**Panel 1. Predicted Probability¹ of Dissolution by
Level of Wife's Economic Independence
African-American Women**



¹ Baseline model, evaluated at means for selected subpopulation who live in SMSA in the West, are not homeowners, not Catholic, and not expected to fall into poverty

Panel 2. Predicted Probability¹ of Dissolution by Level of Wife's Economic Independence
White Women



¹ Baseline model, evaluated at means for selected subpopulation who live in SMSA in the West, are not homeowners, not Catholic, and not expected to fall into poverty.

APPENDIX - INCOME PREDICTIONS MODELS

The regressors (defined as elements of \mathbf{z}_{it} and \mathbf{w}_{it+j}) included in the income equations (3) and (4) are discussed below. Parameter estimates and standard errors are presented in Tables A1 and A2 and the predictions are compared to the observed income streams in Table A3.

DESCRIPTION OF SELECTED VARIABLES

The characteristics included in \mathbf{z}_{it} in equations (3) and (4) are: husband's earnings in t-1; wife's earnings in t-1; all their transfer income in t-1, all their income from assets in t-1; total taxable income of other family members in t-1, total transfers of other family members in t-1; occupation of husband and wife in t; homeownership status in t; value of house after subtracting out the principal remaining on mortgage in year t; race of husband; age of each spouse; (age of each spouse)²; labor force participation status of each spouse; age and presence of children; population size. The variables in \mathbf{w}_{it+j} include: region of residence in t+j; gross national product in t+j; county level unemployment rates; the maximum level of AFDC payments, conditional on the number of children the woman has as of the interview in year t, according to state regulations in year t+j; this maximum payment if the women earned more than 1.5 times it in year t-1 and 0 otherwise (for spline adjustment).

Income from labor includes wages, labor part of asset income, and value of free rent if related to employment. The husband's (wife's) income from labor divided by family needs in year t-1 is coded as **HLABINCTND₁** (**WLABINCTND₁**). The couple's income earned on assets represents the difference between income earned from rental properties, interest, dividends, etc. and income lost from assets in calendar year t-1 divided by family income needs in year t-1 (**NETAINCTND₁**). Net transfer payments relative to family needs in year t-1 (**NETTINCTND₁**) is the sum of all income earned by family members other than the couple and transfer income received by the couple minus income provided to dependents outside of household divided by family needs in t-1. This includes unemployment payments, workers compensation, couple's AFDC, ADC, ADCU receipts, couple's other welfare receipts, value of food stamps, pension payments, couple's social security payments, lump sum payments (mostly insurance settlements), support from relatives,

alimony, child support, value of free rent if not related to work, **net** of income provided to members outside of the household in calendar year t-1.

If the most recent occupation of the husband (wife) as of year t interview is professional or managerial or proprietor, then the variable, **OCCPROFHUSB_t** (**OCCPROFWIFE_t**), is coded 1 and otherwise it is coded 0. The variable, **OCCFARMHUSB_t**, is coded 1 if the most recent occupation of the husband is farmer or farm manager and 0 otherwise. Employment status is also coded categorized. Women with husbands who are students or unemployed or minding the house and/or children, according to the interview in year t, are coded 1 for **UNEMPHUSB_t** and 0 otherwise. The variable **RETIREDHUSB_t** is coded 1 if the woman's husband is retired or disabled according to the interview in year t. The fully employed state is the omitted category. The employment status of the women is coded somewhat differently. Working 36 or more weeks in year t-1 is the omitted category. Woman who worked 5 to 35 weeks in year t-1 are coded 1 for the dichotomous variable - **UNEMPWIFE_{t-1}**. Those who worked 4 weeks or fewer in year t-1 are coded 1 for the dichotomous variable - **NOWORKWIFE_{t-1}**.

The number of children under 18 years of age in the woman's household at year t interview is coded as **NUMKID18_t**. The variable **YOUNGKID3_t** indicates whether there are any young children (i.e. less than 4 years old) in the woman's household at year t interview.

County-level unemployment rates at the time of the year t+j interview that are less than 4 percent are considered to be low and rates of 6 percent and above are considered to be high. The statewide maximum allowable AFDC benefits for the number of children reported in the year t interview are divided by the family income needs in year t and are coded as **AFDCTND_{t+j}**. A second variable is included in the model so that the effect of AFDC can vary according to the income earned by the woman while married. The variable **AFDCHCHI_{t+j}** is a spline adjustment for high earning women: state maximum allowable welfare benefit in year t+j, according to the number of children reported in interview in year t, relative to needs in year t for those women with labor income in year t which exceeds 1.5 times the maximum allowable welfare benefit. A

negative coefficient on this variable would reduce the impact a positive coefficient on $\mathbf{AFDCTND}_{t+j}$ has on the expected income.

Table A1 Coefficients and Standard Errors From Divorce Log Income Relative to Needs Models.

	<u>LOG (INCTOND)_{t+1}</u>		<u>LOG (INCTOND)_{t+2}</u>		<u>LOG (INCTOND)_{t+3}</u>	
R - squared	0.511		0.447		0.466	
Explanatory Variables*	<u>Coefficient</u>	<u>Standard Error</u>	<u>Coefficient</u>	<u>Standard Error</u>	<u>Coefficient</u>	<u>Standard Error</u>
Intercept	-0.571	0.413	0.565	0.522	-0.074	0.577
HLABINCTND1	0.083	0.015	0.068	0.017	0.062	0.017
WLABINCTND1	0.378	0.032	0.307	0.036	0.268	0.036
NETTINCTND1	0.246	0.043	0.144	0.048	0.146	0.048
NETAINCTND1	0.048	0.050	-0.032	0.056	0.079	0.056
OCCPROFWIFE	0.098	0.052	0.100	0.057	0.109	0.058
OCCPROFHUSB	0.083	0.043	0.147	0.048	0.162	0.049
OCCFARMHUSB	-0.168	0.176	-0.066	0.194	-0.102	0.196
UNEMPHUSB	-0.041	0.052	-0.067	0.057	-0.095	0.058
RETIREDHUSB	-0.083	0.087	-0.088	0.096	-0.207	0.098
UNEMPWIFE	0.011	0.043	-0.015	0.047	-0.049	0.048
NOWORKWIFE	-0.079	0.043	-0.028	0.047	-0.056	0.048
HOMEOWNER	-0.003	0.042	0.159	0.048	0.114	0.049
HOUSEVALUE1	0.5e-06	0.6e-06	-0.4e-06	0.6e-06	0.5e-07	0.6e-06
BLACK	-0.183	0.036	-0.250	0.040	-0.266	0.040
HISPANIC	-0.075	0.080	-0.073	0.088	-0.221	0.089
WIFEAGE	0.012	0.017	0.018	0.019	0.050	0.019
HUSBAGE	-0.4e-03	0.013	-0.009	0.014	-0.018	0.014
WIFEAGE (SQRD)	-0.2e-03	0.2e-03	-0.3e-03	0.3e-03	-0.8e-03	0.3e-03
HUSBAGE (SQRD)	-0.3e-04	0.2e-03	0.1e-03	0.2e-03	0.3e-03	0.2e-03
YOUNGKID3	0.028	0.038	0.017	0.041	0.011	0.042
NUMKID18	-0.099	0.013	-0.083	0.015	-0.103	0.015
NORTHEASTt+i	-0.018	0.053	0.023	0.059	0.087	0.060
WESTt+i	0.089	0.048	0.148	0.053	0.190	0.053
SOUTHt+i	0.005	0.042	-0.041	0.046	-0.020	0.046
SMSA	0.084	0.043	0.087	0.047	0.060	0.048
LOWPOP	0.043	0.056	0.017	0.061	0.039	0.062
BIGUNEMt+i	-0.042	0.032	-0.064	0.037	-0.101	0.036
AFDCTNDt+i	0.302	0.103	0.013	0.114	0.080	0.118
AFDCCHIt+i	-0.021	0.119	0.027	0.130	0.095	0.135
GNPt+i	0.2e-06	0.2e-04	-0.4e-04	0.3e-04	-0.5e-05	0.3e-04
LAMBDA	0.244	0.087	0.099	0.101	0.074	0.104

Table A2 Coefficients and Standard Errors From Married Log Income Relative to Needs Models.

	<u>LOG (INCTOND)_{t+1}</u>		<u>LOG (INCTOND)_{t+2}</u>		<u>LOG (INCTOND)_{t+3}</u>	
R - squared	0.651		0.603		0.567	
Explanatory Variables*	<u>Coefficient</u>	<u>Standard Error</u>	<u>Coefficient</u>	<u>Standard Error</u>	<u>Coefficient</u>	<u>Standard Error</u>
Intercept	-0.160	0.056	-0.164	0.061	-0.174	0.067
HLABINCTND1	0.185	0.002	0.174	0.002	0.164	0.002
WLABINCTND1	0.191	0.005	0.190	0.006	0.183	0.006
NETTINCTND1	0.162	0.005	0.155	0.005	0.136	0.006
NETAINCTND1	0.092	0.004	0.080	0.005	0.072	0.005
OCCPROFWIFE	0.035	0.008	0.037	0.009	0.047	0.009
OCCPROFHUSB	0.106	0.006	0.120	0.006	0.131	0.007
OCCFARMHUSB	-0.107	0.015	-0.067	0.016	-0.055	0.018
UNEMPHUSB	-0.182	0.013	-0.092	0.014	-0.047	0.014
RETIREDHUSB	-0.290	0.013	-0.255	0.013	-0.228	0.014
UNEMPWIFE	-0.030	0.007	-0.013	0.008	-0.013	0.008
NOWORKWIFE	-0.067	0.007	-0.056	0.007	-0.060	0.008
HOMEOWNER	0.068	0.007	0.059	0.007	0.050	0.008
HOUSEVALUE1	0.1e-05	0.9e-07	0.1e-05	0.1e-06	0.1e-05	0.102
BLACK	-0.151	0.006	-0.168	0.007	-0.184	0.007
HISPANIC	-0.112	0.013	-0.127	0.014	-0.140	0.015
WIFEAGE	0.003	0.003	-0.001	0.003	-0.001	0.003
HUSBAGE	0.009	0.002	0.013	0.002	0.016	0.003
WIFEAGE (SQRD)	-0.3e-04	0.4e-04	0.5e-04	0.4e-04	0.6e-04	0.4e-04
HUSBAGE (SQRD)	-0.2e-03	0.3e-04	-0.2e-03	0.3e-04	-0.3e-03	0.3e-04
YOUNGKID3	-0.011	0.006	-0.029	0.007	-0.048	0.007
NUMKID18	-0.095	0.002	-0.092	0.002	-0.086	0.002
NORTHEASTt+i	-0.006	0.007	-0.005	0.008	0.007	0.009
WESTt+i	0.010	0.008	0.015	0.008	0.026	0.009
SOUTHt+i	-0.052	0.006	-0.047	0.007	-0.040	0.007
SMSA	0.074	0.006	0.079	0.007	0.089	0.007
LOWPOP	-0.038	0.008	-0.037	0.009	-0.026	0.009
BIGUNEMt+i	-0.042	0.005	-0.045	0.005	-0.046	0.006
AFDCTNDt+i	0.142	0.015	0.145	0.017	0.143	0.018
AFDCCHIt+i	0.094	0.019	0.100	0.021	0.106	0.023
GNPt+i	0.4e-04	0.3e-05	0.4e-04	0.3e-05	0.4e-04	0.4e-05
LAMBDA	0.167	0.073	0.324	0.081	0.483	0.0839

Table A3 Actual and Predicted Married and Divorce Income to Needs by Marital Status

Estimation is not based on Weighted Data

Divorce Group (1084 Observations)

	Actual		Predicted with Selectivity Adjustment		Predicted OLS Estimate	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Income to Needs Stream - Divorce	5.800	4.265	5.957	3.975	5.919	3.943
- Marriage	....	....	7.944	5.873	7.921	5.838
Income to Needs in t+1 - Divorce	1.813	1.440	1.898	1.415	1.857	1.383
in t+2 - Divorce	2.018	1.550	2.067	1.319	2.067	1.319
in t+3 - Divorce	2.157	1.802	2.183	1.399	2.186	1.400
in t+1 - Marriage	....	....	2.682	2.045	2.684	2.042
in t+2 - Marriage	....	....	2.730	2.022	2.724	2.012
in t+3 - Marriage	....	....	2.779	1.992	2.757	1.969
Ratio of Married to Divorce Income to needs	....	....	1.331	0.247	1.337	0.245

Married Group (30943 Observations)

	Actual		Predicted with Selectivity Adjustment		Predicted OLS Estimate	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Income to Needs Stream - Divorce	....	....	6.472	3.640	6.338	3.550
- Marriage	8.769	5.641	9.108	6.663	9.040	6.625
Income to Needs in t+1 - Divorce	....	....	2.105	1.334	2.004	1.261
in t+2 - Divorce	....	....	2.215	1.178	2.193	1.166
in t+3 - Divorce	....	....	2.358	1.298	2.345	1.289
in t+1 - Marriage	2.963	1.985	3.065	2.363	3.060	2.362
in t+2 - Marriage	3.013	2.066	3.127	2.278	3.106	2.267
in t+3 - Marriage	3.064	2.153	3.199	2.234	3.153	2.207
Ratio of Married to Divorce Income to needs	1.389	0.359	1.407	0.362

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