



California Center for Population Research
University of California - Los Angeles

Re-Examining the Case for Marriage: Variation and Change in Well-Being and Relationships

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CCPR-003-06

February 2006
Last Revised: September 19, 2007

California Center for Population Research
On-Line Working Paper Series

**RE-EXAMINING THE CASE FOR MARRIAGE:
VARIATION AND CHANGE IN WELL-BEING AND RELATIONSHIPS**

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September 19, 2007

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**RE-EXAMINING THE CASE FOR MARRIAGE:
VARIATION AND CHANGE IN WELL-BEING AND RELATIONSHIPS**

ABSTRACT. The association between marriage and well-being has been well documented in recent years. Nonetheless, there remain a number of open questions about the nature and meaning of this association, namely, the extent to which it is causal, shared with cohabitation, and stable over time. This paper addresses these issues and provides a perspective for thinking about the relative benefits of marriage. It relies on data from the 1987-1992 National Survey of Families and Households (NSFH) and is the first U.S. study to use fixed-effects models to account for unmeasured characteristics related to marriage, cohabitation, and well-being. It is also unique in examining the persistence of changes in well-being as marriages and cohabitations progress over time. Our analysis reveals many similarities in the effects of marriage and cohabitation across a range of measures tapping psychological well-being, health, social ties, and couple relationship quality. Main results show no difference in the effects of moving into marriage and cohabitation on depression, relationship with parents, or time spent with family or friends; they show some difference in happiness, health, self-esteem, and couple relationships. Where there are statistically significant differences, marriage is not always more advantageous than cohabitation. Moreover, in the case of significant differences, they tend to be small and appear to dissipate over time, even when the greater instability of cohabitation is taken into account. The authors conclude that similarities between marriage and cohabitation are more striking than differences.

Marriage has long been recognized as a fundamental social institution (Burgess and Locke 1945; Davis 1939; Goode 1963; Parsons 1949), linking individuals and the broader community and providing the context for procreation, socialization, the organization of household labor, and the allocation of family resources. But with the rise of modern economies and the associated individuation, many functions once confined to marriage now take place outside of it. Unmarried sex, cohabitation, and childbearing have increased dramatically over the past 40 years and are now common components of family life in the U.S. and other Western industrialized countries (Kiernan 2000; Heuveline and Timberlake 2004). These changes have blurred the boundaries of marriage (Cherlin 2004), leading one to ask what difference marriage makes in comparison to alternative modes of organizing its traditional functions. This is a critical question for the social sciences; at the same time, it is one that cannot be addressed without recognizing the social and political context in which it is raised.

In many industrialized societies, the place of marriage in the family system is of little interest outside academic circles. The U.S., by contrast, has long shown a strong attachment to marriage as an ideal (Cherlin 2005), and the weakening of traditional marriage has raised concerns among policy-makers, religious and professional groups, and the public alike. A “marriage movement” has emerged over the past decade seeking to rebuild a culture of marriage, in part by promoting policies that support marriage over other family forms (Cherlin 2003; Nock 2005). This movement is one piece in a growing debate over the significance of marriage in American society. Arguably, while the importance of marriage in organizing day-to-day life has declined, its religious and social symbolism remains as strong as ever.

Efforts to strengthen marriage have been supported by research linking it to the well-being of adults. In their influential review of the literature, Waite and Gallagher (2000:77)

conclude that "... science tends to confirm Grandma's wisdom: On the whole, man was not meant to live alone, and neither was woman. Marriage makes people happier." These conclusions are drawn from a vast body of work showing that married men and women are better off than their unmarried counterparts in terms of psychological well-being, health, income, and longevity (Gove 1973; Gove, Hughes, and Style 1983; Hao 1996; Horwitz, White, and Howell-White 1996; Hughes and Waite 2002; Kessler and Essex 1982; Korenman and Neumark 1991; Lillard and Waite 1995; Marks and Lambert 1998; Murray 2000; Pearlin and Johnson 1977; Umberson 1987; Simon 2002; Williams 2003). Early studies on marriage were limited by cross-sectional data and overly broad comparisons of married and unmarried individuals. In particular, snapshots of the married and unmarried provide less traction on causality than longitudinal designs, and they tell us nothing about how marriage compares to other intimate relationships or whether the benefits of marriage persist over time. Recent advances in the literature have pushed on these issues (especially Brown 2000, 2004; Horwitz and White 1998; Kim and McHenry 2002; Lamb, Lee, and DeMaris 2003; Skinner et al. 2002), yet there remain important gaps in our understanding of the nature and meaning of the association between marriage and well-being. Strong conclusions about this association, while consistent with common cultural expectations, may overstate the relative benefits of marriage.

This analysis addresses open questions regarding the extent to which the benefits of marriage are causal, shared with cohabitation, and stable over time. It is the first U.S. study (to our knowledge) to use fixed-effects models in estimating the links between marriage, cohabitation, and well-being. This method holds constant all characteristics of individuals at initial observation, measured or not, and takes a step forward in isolating the causal effects of marriage and cohabitation. Our study is also unique in examining the persistence of changes in

well-being as marriages and cohabitations progress over time. Using data from the 1987-1992 National Survey of Families and Households (NSFH), it follows individuals as they transition into marriage and cohabitation and compares outcomes for those in unions of varying duration. As the consequences of union formation may be seen as including the risk – and associated costs – of separation, we test the sensitivity of our results to taking account of union dissolution in between waves of data collection. We analyze a range of outcomes tapping important dimensions of well-being, including psychological well-being, health, social ties, and couple relationship quality. Our approach emphasizes the importance of trajectories through different stages of relationships and draws attention to variability in outcomes within and across union statuses.

In what follows, we review the literature on marriage and well-being. Next, we discuss the ways in which cohabitation may be similar to marriage in its effects on well-being, and we directly address recent longitudinal studies on the relative benefits of marriage and cohabitation. We describe our data and methods and present our results. To foreshadow, we find many similarities in the effects of marriage and cohabitation, and when mean differences are statistically significant, they tend to be small. Further, they appear to dissipate over time, even when the greater instability of cohabitation is taken into account. Similarities between marriage and cohabitation appear more striking than differences.

BACKGROUND

Marriage and Well-Being

As noted, the association between marriage and well-being holds across a range of outcomes, including happiness, health, income, and longevity; it also appears to hold over time and place (Glenn and Weaver 1988; Hu and Goldman 1990; Lee, Seccombe, and Shehan 1991;

Schoeni 1995; Stack and Eshleman 1998). Much of the early work on marriage relied on cross-sectional designs (Gove 1973; Gove, Hughes, and Style 1983; Hao 1996; Kessler and Essex 1982; Pearlin and Johnson 1977; Umberson 1987), making it difficult to parse out associations due to the causal effects of marriage and those due to self selection of the better off into marriage (or of the worse off out of marriage). More recent studies relying on longitudinal data – and providing additional leverage on causality – have similarly reported greater overall well-being among the married (Horwitz, White, and Howell-White 1996; Hughes and Waite 2002; Korenman and Neumark 1991; Lillard and Waite 1995; Marks and Lambert 1998; Murray 2000; Simon 2002; Williams 2003). These studies differ in the level of detail built into their comparisons, some contrasting ever-married and never-married individuals (e.g., Murray 2000, who uses historical records), and others incorporating many more distinctions (e.g., Marks and Lambert 1998, who construct 10 categories of marital status continuity and change). None of the work cited here, however, includes information on cohabitation or other intimate relationships outside of legal marriage, and thus does not speak to the *relative* benefits of marriage. We return to this issue below.

Above and beyond any positive selection into marriage, the literature (e.g., Nock 2005; Waite 1995) has emphasized four reasons to expect a causal effect of marriage on well-being: institutionalization, social roles, social support, and commitment. These mechanisms are not mutually exclusive; indeed, they may be overlapping and reinforcing. Marriage is an *institution* defined by a legal contract specifying rights and responsibilities and, as such, brings with it normative standards with respect to appropriate behaviors and social support (Cherlin 1978, 2004; Nock 1995). Family, friends, and the broader society reinforce the maintenance of marital relationships and sanction deviations with social disapproval. As a social institution, marriage

offers a set of relatively clearly defined *social roles*, which provide individuals with a source of meaning and purpose (Gove 1973; but see Ferree [1990] for a critical analysis of the role perspective). Marital roles facilitate interaction between spouses by offering a set of guidelines about how to be a good wife or husband, including expectations about starting a family, the sharing of financial resources, and the gendered division of household and market work. The importance of *social support* from spouses is well established (Gove et al. 1983; Ross 1995). Spouses provide intimacy, companionship, and day-to-day interaction, and they connect their partners to larger networks of friends, kin, and community that can be drawn on in times of need. Finally, the public nature of marriage – often entered into in the presence of family, friends, and religious congregants – creates what Cherlin has called “enforceable trust” (2000). The involvement of others in upholding the marriage contract strengthens *commitment* and facilitates joint long-term investments, such as financial investments in homes and relationship-specific investments of time and energy in the care of young children (England and Farkas 1986), which in turn strengthen bonds between partners and serve as barriers to exit. Interpersonal commitment may lead partners to forego self-interest for the good of the couple (Stanley, Whitton, and Markman 2004), and over time, the accumulation of a shared history may become, in itself, a source of meaning, self-definition, and well-being.

Marriage is a social institution buttressed by law, social support and expectations, as well as the potential for spousal support and relationship-specific investments – and yet, half of all marriages dissolve. Despite the potential benefits of marriage, they are clearly not experienced equally or persistently for a great many marriages. With the exception of rights and responsibilities defined by law, factors supporting marriages vary across marriages and may be absent altogether in some. This variation is reflected in remarriages being less institutionalized

than first marriages, as Cherlin noted years ago (1978). The recognition that institutionalization, social support, and commitment differ across marriages signals that these factors may also apply in varying degrees to cohabitations and the intimate relationships of partners living apart.

Relative Benefits of Marriage

To what extent do the benefits of marriage extend to cohabitation? Cohabitation and marriage are similar in key respects: Both involve sharing a household with an intimate partner who is a potential confidant, caretaker, and provider, and both involve social roles that are seen as improving health and well-being, including someone to monitor health, provide information, and “nag” (Waite and Gallagher 2000). But there are also important differences that may affect couple interaction and overall well-being. At the societal level, cohabitation lacks the legal constraints and sanctions of marriage, and norms about the social roles of cohabiting partners are less clearly defined. Cohabiting relationships likely receive less support from family, friends, and the broader community, and “enforceable trust” may be weak at best. In this context, there is less certainty around relationships and greater risk in making joint investments, pooling resources, and specializing in caretaking (Cherlin 2000, 2004; Brines and Joyner 1999). Indeed, cohabitation is less stable than marriage (Teachman, Thomas, and Paasch 1991), and nearly half of cohabitators are either uncertain about their relationships or uncommitted to staying together (Casper and Sayer 2000).

At the individual level, there are value differences that may also play a role in shaping couple interaction and well-being. Cohabitators tend to be less traditional and more individualistic than their married counterparts, reporting lower childbearing expectations, a higher value on leisure time, more acceptance of divorce, and less religious involvement (Axinn and Thornton 1992; Clarkberg, Stolzenberg, and Waite 1995; Rindfuss and Vandenheuvel 1990; Thornton,

Axinn, and Hill 1992). Many have more egalitarian attitudes about sex roles and a more equal division of household labor (South and Spitze 1994). Though the prevalence is low, cohabitators are also more likely to have another sex partner (Forste and Tanfer 1996), suggesting either a broader range of acceptable behavior or weaker mechanisms of enforcement in cohabitation than in marriage. The less structured roles and less traditional orientations of cohabitators may make it more difficult for partners to establish who does what in the relationship, increasing the potential for conflict and dissatisfaction.

Differences in social context, orientations toward the family, and gender roles suggest that cohabitation may not offer the same advantages as marriage. At the same time, cohabitation may be a way of obtaining some of marriage's benefits without the costs associated with its more structured rules, responsibilities, and expectations. For example, a lack of broad social support may undermine relationships, but it may also free partners from costly social obligations (Hughes and Gove 1981). Likewise, the negotiation of new roles may generate conflict, but it may also leave room for partners to construct more rewarding relationships (Brines and Joyner 1999; Cherlin 2004). Thus it is not entirely clear how differences between marriage and cohabitation should translate into well-being. Further, differences between marriage and cohabitation in prior research may be overstated by incomplete accounting of pre-existing individual characteristics that differentially select people into these union types. Finally, any differences must be understood as specific to the timing of their measurement, as marriage and cohabitation are institutions in flux (Cherlin 2004).

Comparing Marriage and Cohabitation

The major body of research relating cohabitation to individual outcomes has focused on the link between premarital cohabitation and marital success (Balakrishnan et al. 1987; Bennett,

Blanc, and Bloom 1988; Berrington and Diamond 1999; Brüderl, Diekmann, and Engelhardt 1999; Bumpass and Sweet 1989; DeMaris and Rao 1992; Dush, Cohan, and Amato 2003; Hall and Zhao 1995; Lillard, Brien, and Waite 1995; Teachman et al. 1991; Teachman 2003).

Research comparing the links between marriage, cohabitation, and more direct indicators of well-being is more limited, with the bulk addressing depression and couple relationship quality.

In the U.S., findings with respect to psychological health and well-being are somewhat mixed, but lean toward lower levels among cohabitators compared to married individuals (this may not

hold elsewhere, e.g., Mastekassa [1994] on happiness in Norway and Wu and Hart [2002] on

health in Canada). Two studies find no difference in depression between the married and

cohabiting. Ross (1995), based on a 1990 national probability sample of about 2000 adults,

reports no difference in depression between the two groups, even before controlling for a rich set

of factors representing social and economic support. Horwitz and White (1998), using panel data

on a sample of about 1000 unmarried young adults from New Jersey, examine how transitions

into marriage and cohabitation affect depression and alcohol problems. Accounting for earlier

levels of depression, alcohol problems, and other controls, they find that cohabitators are no more

depressed, but report more alcohol problems, than the married. Four other studies address

closely related questions, all relying on data from the NSFH, and all reporting somewhat stronger

evidence for the relative benefits of marriage. Kurdek (1991) uses the first wave of data

collection and reports that cohabitators fall in between the single and married in terms of global

happiness and depression, with the married scoring highest on happiness and lowest on

depression, controlling for sociodemographic differences between groups. Brown's analysis of

depression (2000) also relies mainly on the first wave of the NSFH, finding that cohabitators have

higher levels of depression than married individuals, and that differences can largely be

accounted for by cohabitators' higher perceived relationship instability. Brown uses both waves of data to assess selection bias and concludes that results are not due to the types of people who choose to cohabit.

Kim and McHenry (2002) and Lamb, Lee, and DeMaris (2003) focus on union status continuity and change across the two waves of the NSFH. Both examine depression at the second wave, control for initial levels of depression in their analyses, and exclude couples who form and dissolve unions between waves. Kim and McHenry construct eight union status categories and use the continuously married as the baseline comparison group. They show that singles who move into cohabitation and cohabitators who move into marriage are no different in depression than the continuously married; singles who move into marriage (pooling over those who cohabited premaritally and those who married directly) are significantly less depressed than the continuously married. Only contrasts with the continuously married are tested, however, so it is unclear whether transitions into marriage and cohabitation differ significantly from each other. Lamb et al. use a more restricted sample, limiting their investigation to young adults who had never been in a marriage or cohabitation at the first wave and focusing on the transition into first marriage without prior cohabitation, first marriage with prior cohabitation, and first cohabitation. Compared to those who are single at both waves, those who marry directly experience the largest declines in depression, followed by those who cohabit and then marry. Those who cohabit without marrying have the same levels of depression at the second wave as the continuously single. In their concluding remarks (p. 961), Lamb et al. caution that their results may overstate the benefits of marriage in two ways: by looking only at relatively young marriages (undifferentiated by duration) and by excluding all individuals who experience a union dissolution in between waves. We directly address these issues in our analysis, examining the

persistence of declines in depression with union duration, and testing the sensitivity of results to including unions that dissolve in between waves of data collection.

A handful of studies have compared the quality of cohabiting and marital relationships. At the cross-section, cohabitators report less commitment to their relationships, lower levels of happiness, less satisfaction with their sex lives, and more disagreements (Nock 1995; Brown and Booth 1996; Waite 1995); many of these differences appear to hold only for cohabitators without plans to marry (Brown and Booth 1996). Two studies use longitudinal data from the NSFH to address similar questions, offering greater leverage on causality. Skinner et al. (2002) compare couples together at both waves on their reports of relationship happiness, communication, fairness, and disagreements at the second wave, controlling for initial levels of relationship quality. They construct six union status categories, including those who transition from cohabitation at wave one to marriage at wave two and those who are cohabiting at both waves, with those in an ongoing first marriage not preceded by cohabitation serving as the comparison group. Compared to the continuously married, long-term cohabitators report lower levels of happiness and fairness, while the cohabitators who transition into marriage are similar on all four dimensions of relationship quality. This study does, however, test differences between the two groups of wave one cohabitators, and thus does not directly address how the transition into marriage affects relationship quality. Brown (2004) examines this question, limiting her analysis to couples cohabiting at wave one and still together at wave two, and focusing on the difference between long-term cohabitators and those who marry in between waves. Brown finds that cohabitators who marry experience improvements in four of six indicators of relationship quality compared to remaining in cohabitation, net of initial levels of relationship quality and other

controls. We build on this work, examining the extent to which improvements in relationship quality persist as marriages progress over time.

Very little research has addressed differences between marriage and cohabitation in another potentially important dimension of well-being: social support outside of intimate relationships. We identified a few relevant studies, all using a single wave of data from the NSFH. None (to our knowledge) has used longitudinal data to examine how social support changes when individuals move into marriage or cohabitation. Nock (1995) reports that cohabitators tend not to be as close to their parents as their married counterparts, and Eggebeen (2005) finds that they are less likely to exchange certain kinds of support with their parents. Further, Stets (1991) finds that cohabitators are less likely to participate in formal organizations, but they are more likely to interact informally with family, friends, neighbors, and co-workers. Highlighting the ways that marriage and community are potentially at odds, Gerstel and Sarkisian (2006) show that married men and women are less involved with parents, siblings, neighbors, and friends than the never married or previously married. It is difficult to reconcile these findings, as the relative influences of marriage, cohabitation, and living without a partner on ties to family and friends have not been thoroughly investigated. We examine how social ties change when single men and women enter into marriage and cohabitation.

OUR STUDY

This analysis addresses as yet unresolved questions about the benefits of marriage: the extent to which they are causal, shared with cohabitation, and stable over time. It focuses on changes in multiple domains of well-being associated with transitions into marriage and cohabitation using a fixed-effects approach that controls for pre-existing, stable individual differences. Policy and theoretical discussions often make strong assumptions about the

consequences to be realized if, for example, cohabiting couples would only marry. What difference marriage makes is hence, in part, a question about what changes for couples when they cross that boundary. Our emphasis on transitions follows most closely Lamb et al.'s (2003) study of depression and Brown's (2004) analysis of relationship quality, but we expand on this work in important ways. We examine the persistence of benefits as marriages and cohabitations progress over time, and we explore the implications of union dissolution for our understanding of marriage and cohabitation effects.

Past work on links between marriage, cohabitation, and well-being in the U.S. has not made use of fixed-effects approaches.¹ While longitudinal studies typically account for a broad array of selection factors, they are only as effective as the measured variables or selection models (for unmeasured variables) employed. A fixed-effects method requires neither the measurement of all variables relevant to selection nor statistical models that are highly dependent on specification (Allison 1990, 1994). Estimating causal effects from observational data is a challenge regardless of data and method (Moffitt 2005), and fixed-effects models do not control for unobserved factors that vary over time, but they arguably go a step further toward isolating the causal links between marriage, cohabitation, and well-being.

Literature on the benefits of marriage and cohabitation has largely ignored how well-being changes as marriages and cohabitations progress over time, despite clear evidence of relationship instability. Love and commitment may grow within marriage or cohabitation, but

¹ Gupta (1999) uses fixed-effects models to examine differences between the single, married, and cohabiting in housework hours. Wu and Hart (2002) use this approach to look at the health of married and cohabiting individuals in Canada, and Zimmermann and Easterlin (2006) apply it to happiness in Germany.

the high dissolution rates of both indisputably illustrate downward trajectories for many.

Developmental studies of marital quality find that decline is normative (Kurdek 1999; Umberson et al. 2005; VanLaningham, Johnson, and Amato 2001); change in relationship quality over time is obviously also true of cohabitators and romantic partners living apart. Thus in examining what gains individuals derive from relationships, it is important to account for trajectories both within and across union statuses. Some work has examined adaptation to divorce (Booth and Amato 1991; Johnson and Wu 2002; Lucas 2005). And a recent exchange on the validity of the “set point hypothesis” in psychology, i.e., whether individuals return to a baseline level of happiness irrespective of their life conditions, assesses change in subjective well-being with marital duration in Germany (Lucas et al. 2003; Zimmermann and Easterlin 2006). Generally, however, little attention is paid to change over time in the gains to marriage and, in particular, cohabitation. Relatedly, there has been little attempt to incorporate what we know about union dissolution into our understanding of the relative benefits of marriage. Given that dissolution is a common outcome of marriage and, especially, cohabitation, this is a critical shortcoming. Our work compares well-being of individuals in unions of varying duration, and it explores the implications of including information about individuals whose unions disrupt in between waves of data collection.

We examine a range of outcomes related to well-being, providing a multi-dimensional look at the effects of marriage and cohabitation. These include depression and various measures of relationship quality examined elsewhere, but also health, self-esteem, and measures of support from family and friends that have received little attention in the literature comparing marriage and cohabitation. Our understanding of marriage benefits may depend on the outcome examined, thus evaluating a range of outcomes offers a more complete picture of how and when

marriage matters. For example, Marks and Lambert (1998) find that marriage generally improves psychological well-being, but not across the board: they find that the single fare better in autonomy and personal growth.

We tested whether the effects of union status depend on gender. Going back to arguments by Gove (1972) and Bernard (1972), it has been assumed that marriage is more advantageous for men than women. Recent investigations show that both men and women experience gains in health and psychological well-being from marriage, although the particular emotional response may differ by sex (Simon 2002; Horwitz et al. 1996; Waite 2000; Williams 2003; see review by Waite and Gallagher 2000).² Our interactions by sex revealed few significant differences in the effects of marriage and cohabitation on men and women, and these were in magnitude only; we thus exclude gender interactions from our models and report results for men and women combined. Similarity in marriage effects by sex – irrespective of type of response – is consistent with Brown (2004), Kim and McHenry (2002), and Marks and Lambert (1998), who find no sex differences in the transition to marriage on various dimensions of psychological well-being and couple relationship quality.

We further examined the sensitivity of our results to controls for key events that might intervene in the lives of respondents between waves of data collection, namely: whether respondents obtain further education, experience a change in income, or have a child. Completed education, income, and having a child are all linked to marriage; they are also associated with health, psychological well-being, and, at least in the case of childbearing, couple

² Marriage, however, affects men and women differently in the domains of home and market work, increasing housework hours and decreasing pay for women, and decreasing housework hours and increasing pay for men (Gupta 1999; Korenman and Neumark 1991; Light 2004).

interactions (Evenson & Simon 2005; McLanahan and Adams 1987; Oppenheimer, Kalmijn, and Lim 1997; Rindfuss and Parnell 1989; Thornton, Axinn, and Teachman 1995). Accounting for changes in income, education, and children, however, did not alter our main findings. Moreover, these factors may largely be the *result* of marriage and cohabitation and, if so, including them in our models controls away part of the *effect* of union status that we are interested in estimating. We thus present our final models without these controls.

METHODS

Data, Measures, and Samples

We use data from the first two waves of the NSFH, a national sample survey focusing on family structure, process, and relationships (Sweet and Bumpass 1996; Sweet, Bumpass, and Call 1988). The first wave of the NSFH was conducted in 1987-1988 (NSFH1) and involved interviews with a main cross-section of randomly selected adults and oversamples of subgroups of interest, including cohabiting couples. Reinterviews were conducted in 1992-1994 (NSFH2). Response rates were 74% at NSFH1 and 82% (of those interviewed at time one) at NSFH2, comparing favorably to other household-level surveys. While it has now been over a decade since the last wave of data collection, the NSFH remains a key source for studying families. It is unique in providing nationally representative panel data on adult well-being, family-related transitions, and couple relationship quality.

The NSFH contains complete marriage and cohabitation histories, allowing us to follow respondents' transitions into coresidential unions. Recent qualitative and quantitative reports have highlighted problems of misreporting in retrospective data on cohabitation and difficulties in precisely dating spells of cohabitation (Knab and McLanahan 2006; Manning and Smock 2005; Teitler, Reichman, and Koball 2006). Couples often "slide" into cohabitation, spending an

increasing number of nights together without an official move-in date (Manning and Smock 2005:995). This contrasts to married couples, who have a fixed date on which they legally wed. The implications of this relative “fuzziness” for our study, however, are likely limited. We look at whether a transition into marriage or cohabitation occurred at all and, in categorizing unions by duration, we use broad groupings. As such, ambiguity at the boundaries likely affects few couples – and the construct remains meaningful for most. Here, “single” is defined simply as not married or cohabiting, which includes never-married and previously married men and women, as well as those in *noncoresidential* romantic relationships. Questions were asked at both waves about “steady” relationships with intimate, noncoresidential partners. But because histories of these relationships were not collected, it is impossible to know when these relationships started or ended. Thus, although it would be most desirable to include all romantic relationships in our analysis, we cannot follow the transitions of partners living apart at NSFH1.

We use the marriage and cohabitation histories to divide unions into those of “short” and “long” duration, applying a cut-off of three years. That is, we define short unions as those formed within the past three years, and long unions, within the past four to six years. We experimented with various cut-offs for distinguishing short and long unions, as well as different points at which to start the duration clock, including the start of coresidence, cohabitation, and marriage.³ We discuss our final strategy in greater detail below.

³ We also experimented with measuring duration from the start of a romantic relationship. The assumption underlying this strategy is that relationships begin their developmental trajectory as soon as the romance starts – perhaps well before coresidence. Although, as noted, it is not possible to precisely date the start of romantic relationships in the NSFH, we do know whether the respondent had a steady relationship at NSFH1. We differentiated between short and long

Our outcomes fall into three domains: well-being, social ties, and couple relationships. We construct a number of measures in each domain, some based on a single item and others on multiple items yielding indexes of high reliability (Appendix Table 1 provides the precise question wording, coding, and response alternatives of all items). Our measures of well-being include global happiness, depressive symptoms, global health, and self-esteem. Social ties include the quality of the respondent's relationship with parents, contact and communication with parents, and the frequency of social evenings with friends. In the domain of couple relationships, we examine overall happiness in the relationship, how life would be different if the couple separated, time spent together, the frequency of arguments, and whether partners argue or hit in response to serious disagreements. These are straightforward indicators of relationship quality, perhaps with the exception of how life would be different if the couple separated. This measure is different theoretically since the perceived benefits of separating involve more than the current relationship; they also incorporate expectations about alternatives such as the likelihood of finding a more satisfactory partner (South and Lloyd 1995; Rank and Davis 1996), issues involving children, and the costs and difficulties of divorce.

We run two sets of analyses, the first focusing on transitions into marriage and cohabitation among singles at NSFH1. We examine changes in well-being and social ties, comparing outcomes across four groups: those who remained single across waves, married by time two without first cohabiting, married by time two following cohabitation with the same

relationships based on whether those married or cohabiting at NSFH2 were already in a steady romantic relationship at NSFH1 (assuming, perhaps heroically, that the subsequent marriage or cohabitation was with the same person). Results measuring duration on the basis of a steady relationship were very similar to those based on the start of coresidence.

partner, and cohabited only by time two. In analyzing differences by union duration, we compare outcomes across three groups: those who remained single across waves, entered into any union within the past three years, and entered into any union within the past four to six years. As will become clear, there were more similarities in the effects of marriage and cohabitation than differences, and thus results were similar whether we examined duration in marriage and cohabitation separately or pooled over them.

We limit the singles sample to men and women under age 50 at NSFH1. We lose very few transitions by imposing this restriction, but avoid a comparison group (single at both waves of the NSFH) heavily weighted toward elderly widows. Our main analysis further excludes all individuals who experienced a union dissolution in between waves of data collection, leaving us to focus on the first, still intact, union formed between waves. This is a subset of all unions, namely those lasting a few years on average. Because union dissolution is reasonably common over the course of six years, particularly among cohabitators, this exclusion criterion has a significant impact on sample size and, potentially, on our understanding of the effects of marriage and cohabitation. In a supplementary analysis, we include all individuals, regardless of how their unions turned out. That is, we follow single men and women into cohabitation and marriage, and we examine their well-being and social ties at time two, irrespective of whether they remained with their partner. If well-being and social ties are affected by the dissolution of a relationship, it makes sense to include these individuals in assessing the overall implications of

union formation. Table 1 provides details of this sample, which includes 2737 men and women, 2287 of whom experience no union dissolution in between waves.⁴

-- Table 1 about here --

The second set of analyses focuses on transitions into marriage among cohabitators at NSFH1. This is a somewhat less desirable sample than our sample of singles, both in that it is much smaller, but also in that it represents a more select group of cohabitators (i.e., those that are longer term, on average). It is, however, the only sample with which to examine how the transition into marriage affects *couple* relationship quality. We compare changes in couple relationships for those who remained cohabiting with their time one partner to those who married their time one partner in between waves. When we analyze differences by union duration, we compare those who remained cohabiting, those who married within the past three years, and those who married within the past four to six years. Because we cannot assess the outcome, couple relationship quality, if the partnership dissolves between waves, our analyses focus on unions that remain intact at time two. Table 1 nonetheless includes numbers for the couples who separate in between waves to illustrate the loss to the sample: fully 61% of cohabitators who do not transition into marriage separate by time two, as well as 23% of those who do transition into marriage. Our final cohabiting sample includes 270 individuals.⁵

⁴ We start with 5452 single respondents at NSFH1; 1446 are not successfully reinterviewed, 1268 are out of our age range, and one is missing data on union transitions, leaving a total sample of 2737.

⁵ We start with 677 cohabitators at NSFH1; 167 are not reinterviewed, 16 have missing or inconsistent information on union status transitions, and 224 are not with the same partner at NSFH2, leaving a sample of 270.

Change Score Models

We use change score models, which is a fixed-effects approach, to estimate the effects of union status transitions on well-being, social ties, and couple relationships (Allison 1990, 1994). In both our samples of singles and cohabitators, some experience a union status transition over the interval, and others do not. If we assume that the effect of a union status transition adds a constant to the score of each individual who experiences it, we can express the two-period model by the following equations:

$$Y_{i1} = \mu_1 + \gamma W_{i1} + \beta Z_i + \alpha_i + \varepsilon_{i1} \quad (1)$$

$$Y_{i2} = \mu_2 + \delta X_i + \gamma W_{i2} + \beta Z_i + \alpha_i + \varepsilon_{i2}$$

where i indexes individuals in our samples, μ is the mean adjusted outcome across all sample members, X is a dummy variable or set of dummy variables equal to one for those who experience a transition and zero for those who do not, W is a vector of measured explanatory variables that vary over time, and Z is a vector of measured explanatory variables that are constant over time. The α 's represent unobserved differences across individuals that are stable over time, and the ε 's are time-specific random disturbances that are assumed to be independent of the measured explanatory variables and the α 's.

We obtain the estimated effect of a union status transition by subtracting the first equation above from the second:

$$Y_{i2} - Y_{i1} = (\mu_2 - \mu_1) + \delta X_i + \gamma(W_{i2} - W_{i1}) + (\varepsilon_{i2} - \varepsilon_{i1}) \quad (2)$$

The estimated effect of X is thus the average change in a given outcome for those experiencing a union transition, less the average change for the contrast group, controlling for any factors that vary over the interval. For example, for the analysis of singles at NSFH1, those still single at NSFH2 are the contrast group, and X is a vector of dummies representing transitions into

marriage without first cohabiting, marriage following a spell of cohabitation, and cohabitation. For the analysis of cohabitators at NSFH1, those still cohabiting at NSFH2 are the contrast group, and X is a dummy representing the transition into marriage.

The fixed-effects approach has two principal advantages (Allison 1990, 1994; Liker, Augustyniak, and Duncan 1985; Winship and Morgan 1999). First, it deals effectively with bias due to stable unobserved variables. Cohabitators tend to have less traditional orientations and lifestyles than married men and women, and these individual characteristics may influence well-being, social ties, and couple relationships; they may also influence the choice to cohabit versus marry. Change scores net out such individual selection factors (whether measured or unmeasured) and provide estimates of the consequences of entering into marriage and cohabitation. Second, by modeling changes as opposed to levels, this approach reduces bias due to persistent reporting errors. Individuals may overreport happiness and relationship quality (two positively skewed variables) relative to objective circumstances. Change scores are independent of this kind of persistent estimation bias.

Most prior work on transitions into marriage relies on the regressor variable method, i.e., regressing Y_{i2} on Y_{i1} , X_i and controls (but see Gupta 1999; Wu and Hart 2002). Liker et al. (1985:100) argue that this method is “seldom justified on statistical grounds,” and Johnson (2005) uses a simulation exercise to show that the change score method yields better estimates. The regressor method is appropriate if all unobserved differences between individuals are transitory (Allison 1990; Winship and Morgan 1999), e.g., if changes in happiness move people

into marriage, as opposed to relatively stable dispositions or orientations. It likely overstates so-called “treatment” effects by undercontrolling initial differences between groups.⁶

RESULTS

Descriptive Analyses

Table 2 provides initial (time one) mean outcomes and basic demographic characteristics for the single and cohabiting samples, separately according to union status transition by time two. We show the main samples, which exclude anyone who experienced a union dissolution in between waves and, here, we do not differentiate by union duration. Among singles, those who end up moving directly into marriage by time two start out at NSFH1 with the highest levels of happiness, self-esteem, and contact with parents. They do not, however, fare best in all areas; for example, those who transition into cohabitation report somewhat greater health, fewer depressive symptoms, and more time with friends. Overall, at NSFH1, the single sample averages 28 years old, 27% are ever-married, and 20% have children in the household. Among cohabitators, those who marry by time two report higher levels of relationship quality at NSFH1 on all measures: higher levels of global satisfaction, fewer alternatives to the relationship, more time together, fewer disagreements, and fewer fights. This sample is somewhat older and more likely to have

⁶ With only two waves of data, there is no way to test the appropriateness of assumptions about fixed versus transitory differences predominating in the move to marriage; thus, to establish the robustness of our results to changes in model specification, we compared results based on the change score method to those based on the regressor method. We found few differences in our estimated effects of union status transitions.

had prior relationships than the singles sample: on average, at NSFH1, they are 33 years old, 47% are ever-married, and 41% have children in the household.⁷

-- Table 2 about here --

Appendix Table 2 provides changes in well-being, social ties, and couple relationships for these same samples, again according to union transition by time two. The first column shows that, on average, people report higher levels of happiness and fewer depressive symptoms approximately six years after the first interview. Health and the quality of relationships with parents decline over time. Regardless of whether couples marry between waves, the relationships of couples living together at first interview deteriorate over time, as indicated by lower overall happiness with the relationship, less time together, more disagreements, and more fights.

⁷ As noted, we tested the sensitivity of our results to controls for key events in the lives of respondents between waves of data collection, most notably, changes in income and childbearing. Not surprisingly, those who ultimately married experienced the greatest gains in income and were the likeliest to have a child over the interval. In the singles sample, those who married directly experienced a gain of \$22 thousand over the interval, and those who married their cohabiting partner, \$24 thousand (compared to gains of \$12 and \$20 thousand for those who remained single and cohabited only, respectively). 41% of those who married directly had a child over the interval, as did 38% of those who married their cohabiting partner (compared to 6% and 23% for those who remained single and cohabited only, respectively). Likewise, among the cohabitators at NSFH1, those who transitioned into marriage saw greater income gains than those who remained cohabiting (\$28 thousand versus \$21 thousand) and were likelier to have a child over the interval (40% versus 28%).

Marriage, Cohabitation, and Change in Well-Being and Relationships

Tables 3-5 present results based on change score models, which address selection by comparing changes in well-being, social ties, and couple relationships across union transitions. As described earlier, these coefficients represent differences in the changes associated with a particular union transition relative to a comparison group; for example, they indicate whether marriage and cohabitation affect well-being compared to remaining single, and whether their effects are significantly different from one another. Tables 3 and 4 rely on our sample of singles. These tables have two panels, the first restricted to individuals who did not experience a union dissolution in between waves, and the second including all individuals, irrespective of union dissolution experience. Each panel presents one set of results ignoring the effects of union duration, and another combining transitions to marriage and cohabitation in order to evaluate differences between unions formed in the past three years (“short” unions) and those formed within four to six years (“long” unions).

We look first at measures of well-being reported in Table 3: global happiness, depressive symptoms, health, and self-esteem. Starting with the first set of rows (“contrasting union transitions”) in the first panel (“excluding union dissolutions”) and taking those who remained single as the baseline comparison group, results show that moving into any union by NSFH2 increases happiness and reduces depressive symptoms (although the coefficient on cohabitation just misses statistical significance in the case of depression, at $P=.12$). The only statistically significant difference between marriage and cohabitation is in happiness, and here, those that enter directly into marriage report *smaller* gains in happiness than those who cohabit. None of the union transitions has a significant effect on health relative to remaining single, but entering into marriage (both direct marriage and marriage preceded by cohabitation) increases perceptions

of health relative to entering into cohabitation. Only cohabitation has a statistically significant effect on self-esteem relative to remaining single, increasing levels. Cohabitation also increases self-esteem compared to marriage (again, both direct marriage and marriage preceded by cohabitation). In sum, while marriage appears to confer advantages in health relative to cohabitation, the opposite is true of self-esteem, and entering into any union appears to improve happiness and depressive symptoms.

-- Table 3 about here --

The next few rows of Table 3 (“contrasting time since start of union”) collapse over union type and focus on differences between unions of short and long duration. Data provide suggestive evidence that improvements in happiness and depressive symptoms following union formation are potentially short-lived. Individuals in unions of three years or less report larger increases in happiness and declines in depressive symptoms than those in unions of four to six years, although these differences just miss statistical significance (e.g., $P=.10$ in the case of happiness). There seem to be no important differences by union duration in self-esteem or health.

How does our understanding of the benefits of marriage and cohabitation change if we take into account union dissolution in between waves? The second panel of Table 3 (“including union dissolutions”) addresses this question. Results look similar to the first panel, although differences between entering into a union and remaining single are generally smaller. For example, in happiness, coefficients on marriage and cohabitation are smaller, and only marriage preceded by cohabitation has a statistically significant effect, whereas above, entering into any union had statistically significant effects. Differences between marriage and cohabitation are larger in depression, with marriage (preceded by cohabitation) lowering symptoms significantly

more than cohabitation. As above, marriage improves health relative to cohabitation, and cohabitation improves self-esteem relative to marriage. Differences by union duration are in the same direction as in the first panel, and coefficients are of a similar magnitude, but effects are statistically significant for three of four outcomes. Unions formed within three years increase happiness, reduce depressive symptoms, and improve health to a greater extent than those formed further in the past. When we factor in the instability of unions, evidence is stronger that recently formed unions provide a greater boost to well-being than those formed further in the past (and which are likelier to have dissolved).

Table 4 shows change scores relating to social ties: the quality of relationships with parents, contact with parents, and social outings with friends, coworkers, and neighbors. The effects of union transitions on social ties are very similar, and this holds in both panels one and two, whether or not we include individuals who experienced a union dissolution between waves. The quality of parent-child relationships seems robust to children's experiences with marriage and cohabitation: relative to remaining single, none of the union transitions has significant effects on the quality of parent-child relationships, and differences between marriage and cohabitation are also statistically insignificant. Compared to remaining single, cohabitation, direct marriage, and marriage preceded by cohabitation all reduce contact with parents and outings with friends – and all to a similar extent. The only exception is in the second panel, including union dissolutions, where outings with friends appear to decrease more for those who marry following cohabitation than they do for those who cohabit only. Time since union formation seems to have no effect on social ties. That is, it appears that entering into a coresidential union is a significant turning point, and that there is little rebound in the amount of

interaction with friends and family over time (final rows of each panel, contrasting short and long unions).

-- Table 4 about here --

Table 5 relies on our sample of cohabitators and shows changes in relationship quality for those who remained cohabiting compared to those who married by NSFH2. The structure of the table is similar to Tables 3 and 4, that is, in showing first contrasts between the continuously cohabiting and married and then contrasts between those who married recently and those who married longer ago. This table includes only one panel, however, as it is impossible to examine couple relationships at time two among those who separated between waves of data collection. In three of the five outcomes examined, getting married is associated with an increase in the quality of couple relationships compared to remaining in cohabitation: those who marry are less likely to say that life would be better if they separated, and they report more time with their partner and fewer fights. The marriage coefficients on global relationship quality and disagreements are not statistically significant.

-- Table 5 about here --

Transitioning into marriage appears to have stronger effects on couple relationships in the first few years of marriage than at longer durations (final three rows, Table 5). The contrast between short- and long-term marriages can be seen clearly in the final row of the table. The greater boost to relationship quality of shorter marriages is true of global relationship quality, how life would be different if separated, and time with spouse. Although the difference between short and long marriages in fights with spouse is not statistically significant, the pattern is similar, with short-term marriages experiencing a sharper drop in fights than long-term

marriages. There is no difference by marriage duration in the frequency of disagreements (there are no effects overall).

Thinking about Scale and Variation

We identified some differences (and many similarities) in the effects of marriage and cohabitation on a range of indicators tapping well-being and relationships. What should we make of these differences? Statistically significant mean differences are too often emphasized without attention to the substantive importance of their magnitude. We choose one outcome – happiness – to describe the scale of our effects, as well as the variation underlying central tendencies. Recall that happiness is measured by a single item ranging from one to seven, and that its time one mean and standard deviation are 5.21 and 1.37, respectively (for the singles sample, excluding union dissolutions; see Table 1). To standardize the effects of marriage and cohabitation on happiness, we divide the coefficients in Table 3 by the standard deviation of the initial distribution on happiness; for example, the standardized effect of direct marriage on happiness, relative to being single, is $.19/1.37=.14$. Using this method, the standardized effects of marriage preceded by cohabitation and cohabitation only, compared to remaining single, are .28 and .34, respectively, and the standardized effect of cohabitation relative to direct marriage is .20. This indicates, for example, that entering into cohabitation increases happiness by about one-third of a standard deviation, relative to being single, and one-fifth compared to direct marriage. One-third of a standard deviation is among the largest standardized effects in Tables

3-5; indeed, most are smaller. The exception is couple time together (Table 5), which increases one standard deviation with marriage, 1.87 in the short term and .87 in the longer term.⁸

Significant mean differences mask variation in outcomes. Attention to standard deviations gives us a sense of variability, and proportions moving upward versus downward on a given outcome provide another perspective. Here again, we focus on happiness, but the basic point we make – i.e., that there is no uniform response to changes in union status – holds for all outcomes examined. Overall, for the singles sample (excluding union dissolutions), the modal pattern is to improve on happiness over time: 40% report higher levels of happiness between waves, while 29% remain at stable levels, and 31% report declines. Compared to singles, a higher proportion of men and women entering into unions report gains in happiness: 41% of those marrying directly, 49% marrying following cohabitation, and 47% cohabiting only, compared to 37% remaining single. These figures show, first, that the largest difference across groups is about 10 percentage points; similar proportions of all groups experience gains in happiness. Second, they imply that, regardless of union transition, *most* people do not report gains in happiness. Rather, there is substantial variation in people's responses to union formation, with many experiencing gains, others remaining in place, and still others experiencing declines in subjective well-being.

SUMMARY AND DISCUSSION

When examined across a range of outcomes relating to well-being and social relationships, it is clear that the effects of moving into marriage and cohabitation tend to be more

⁸ It should be noted, too, that any change may be meaningful in an outcome such as couple fights. Modest declines in fights (one-third of a standard deviation following marriage) may have large benefits for the couples and children affected.

similar than different. Direct marriage and marriage preceded by cohabitation are statistically indistinguishable in all outcomes examined, providing no evidence that premarital cohabitation has negative consequences for well-being or ties to family and friends. There are no statistically significant differences (when union dissolutions are excluded from the analysis) between marriage and cohabitation in effects on depression, relationship with parents, or time spent with family or friends. Where there are statistically significant differences, marriage is not always more advantageous than cohabitation. The married fare better in health than cohabitators, but the opposite is true of happiness and self-esteem. The formal nature of marriage and the package of entitlements that go with it – including health insurance for spouses – may explain the better health of the married. Cohabitators' higher self-esteem fits with Marks and Lambert's (1998) findings on the diminished sense of autonomy and personal growth in marriage compared to being single. We find more consistent marriage effects on couple relationships. Among our sample of cohabitators at NSFH1, those who marry by NSFH2 see greater costs to separating, spend more time together, and have fewer fights than do their cohabiting counterparts. They nonetheless report similar levels of global relationship quality and disagreements.

In the case of time spent with family and friends, marriage and cohabitation appear to provide no benefits over being single; indeed, entering into a union reduces contact and communication with parents and social evenings with friends. In some ways, of course, it is not surprising that forming a coresidential relationship reduces interactions with others, as partners spend time together that previously would have gone elsewhere. These findings do not support, however, arguments in the literature (e.g., Nock 1995) that marriage expands social circles, and does so to a greater extent than cohabitation. Our results are more consistent with Gerstel and

Sarkisian's (2006) assessment of marriage as a "greedy" institution – and suggest the same of cohabitation.

Where there are gains to union formation, they tend to dissipate over time. Excluding union dissolutions, individuals in the more recently formed unions report higher levels of happiness and fewer depressive symptoms than those in the longer-term unions (although differences just miss statistical significance). When we factor in the union dissolutions that occur in between waves of data collection, these results become statistically significant, and differences emerge in health, where the benefits of union formation appear to apply only in the short term. The benefits of entering into marriage on global relationship quality, assessments of life if separated, and time spent together also fade over time. These results are consistent with Zimmermann and Easterlin (2006), who use German data to show a "honeymoon" effect in subjective well-being following marriage, that is, large gains in the first few years, followed by smaller gains in the years thereafter. We find no change over time in the effects of marriage and cohabitation on ties with family and friends. In particular, time spent with family and friends does not appear to rebound in the years following marriage or cohabitation. While it is possible that stronger marriage effects on some of our outcomes may emerge over a longer period of time – our window of observation is only six years – patterns by union duration suggest that this is unlikely. While differences between short and long unions are not always statistically significant, in no case do longer-term unions have stronger effects than shorter-term unions.

We supplement our analysis of surviving unions with one that includes all individuals, regardless of whether they experienced a union dissolution in between waves. Focusing on intact unions provides clean effects of union formation, but it also introduces a potentially serious selection issue. It limits the sample to unions that have lasted a few years, on average,

excluding a disproportionate share of cohabitations, which have higher dissolution rates than marriages. Further, the consequences of union formation on well-being may be seen as including the fallout from separation, and thus it may be important to include union dissolution in assessing the benefits of marriage and cohabitation. Results are similar when we include union dissolutions, although differences between entering into a union and remaining single are generally smaller, and evidence is stronger that more recently formed unions provide a greater boost to well-being than those formed further in the past. Recall that we focus (by necessity) on unions still intact at NSFH2 in our investigation of couple relationships. What seems likely, however, is that those who separated would fare worse on these particular measures (i.e., we would expect those who separated to have lower relationship quality than those who stayed together). If we could include the dissolutions, then, marriage would likely look better than cohabitation on measures of relationship quality, given the much higher rates of separation among cohabitators. That said, exiting a union, particularly one characterized by poor relationship quality, may not negatively affect individual well-being (indeed, it may improve well-being, see Hawkins and Booth [2005]; Williams and Umberson [2004]).

The literature tends to focus on mean differences between the married, cohabiting, and single. Significant differences in mean values are important indicators of differences between union statuses, but they should not be reified as if the statuses were monolithic. Similarity in distributions may be far more important than differences in central tendency. This is an obvious point, but one that is often overlooked in social science research. We find that the effects of moving into marriage and cohabitation are reasonably small – generally, less than a third of a standard deviation. They are also varied. For example, we show that while the modal response

to a marital transition is an increase in happiness, over half of those who marry report the same or *lower* levels of happiness at the second wave of data collection.

This study is the first of its kind to use fixed-effects models. This approach takes us a step further in addressing problems of selection – and it is clear that selection plays a substantial role in observed differences in well-being. We should emphasize, however, that change score models do not control for unobserved factors that vary over time – and do not solve the problem of reverse causation. Our estimates of union effects may be overstated if changes in our outcomes lead to changes in union status; for example, if changes in happiness lead to marriage.

Are our results plausible, given the seemingly compelling reasons why marriage should make a major difference for individual well-being? Key considerations lead us to believe that they are. First, the demographic categories of married and cohabiting imply distinct boundaries, but these classifications are not based on the nature of relationships. They rely on legal and residential criteria, as opposed to characteristics of relationships. Relationships – whether married, cohabiting, or living apart – may range from empty or hostile to deeply committed and loving. Consequently, differences across relationship categories must necessarily be a matter of degree.

Second, we must recognize that institutionalization is a continuum and not a dichotomous variable. The rigid division of labor emphasized by Parsons over 50 years ago (Parsons 1949), while argued to be advantageous by Becker (1973, 1974) and colleagues, has steadily given way to expectations that the economic support of the family is a part of a wife's as well as a husband's obligation in marriage. Indeed, women's earning potential has become an important factor in her attractiveness for marriage (Oppenheimer 1994; Sweeney 2002). Given that half of all marriages end in divorce or separation, marriage is as likely to be temporary as it is to be a

lifetime relationship. Furthermore, behaviors that were once normatively seen as unique to marriage are now much less so, including sexual relationships, unmarried coresidence, and childbearing. If institutionalization can be seen as a continuum, marriage is undergoing a process of deinstitutionalization (this argument is made convincingly by Cherlin [2004]).

Finally, cohabitation – while an “incomplete institution” (Nock 1995; Waite 1995) – is moving in the other direction (Cherlin 2004). It has become the majority experience and approved by the vast majority of younger generations. Moreover, that about half of all marriages and three-quarters of all remarriages with children begin as cohabitation (Bumpass, Raley and Sweet 1995), it is little wonder that the line between the two states is blurring. The key feature defining marriage as distinct from cohabitation is that marriage engages the legal system with respect to rights and responsibilities. The increasing pressure towards domestic partner benefits at both the corporate and state levels is further evidence of an increasing institutionalization of cohabitation.

Once selection is taken into account by capitalizing on change over time, we have found either no or small and temporary advantages associated with moving into marriage compared to cohabitation. Are we then saying that marriage is irrelevant for individual well-being? Of course not. What we have found is simply that, once individual differences are taken into account, it is far from a blanket prescription for individual well-being (and the well-being of children, by extension). To those in highly conflicted marriages or who have gone through divorce, this sociological insight is only a firm grasp of the obvious. At the same time, for many others, marriage *is* a great source of happiness and well-being that it is expected to be for a lifetime, or at least for a portion of the life course. This takes us back to the issues of dispersion around measures of central tendency. Better understanding the circumstances and individual and

couple characteristics under which this is likely to be the case is a critical interdisciplinary challenge. It is also surely the case that this more nuanced view of the relative benefits of marriage is essential to the formulation of social policy.

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Appendix Table 1. Question Wording, Response Alternatives, and Coding of Outcomes

Well-Being

Global happiness -- single item; 1=very unhappy, 7=very happy

Taking things all together, how would you say things are these days?

Global health -- single item; 1=very poor, 5=excellent

Compared with other people your age, how would you describe your health?

Depressive symptoms (CESD scale) -- average of 12 items; 0-7 days per week

On how many days during the past week did you:

Feel bothered by things that usually don't bother you?

Not feel like eating; your appetite was poor?

Feel that you could not shake off the blues even with help from your family or friends?

Have trouble keeping your mind on what you were doing?

Feel depressed?

Feel that everything you did was an effort?

Feel fearful?

Sleep restlessly?

Talk less than usual?

Feel lonely?

Feel sad?

Feel you could not get going?

Self-esteem -- average of 3 items; 1=strongly disagree, 5=strongly agree

Please indicate how much you agree or disagree with each of the following statements:

I feel that I'm a person of worth, at least on an equal plane with others.

On the whole, I am satisfied with myself.

I am able to do things as well as other people.

Social Ties

Relationship with parents^a -- higher of 2 items; 1=very poor, 7=excellent

How would you describe your relationship with your mother?

How would you describe your relationship with your father?

Contact/communication with parents^b -- highest of 4 items; 1=not at all, 6=more than once a week

During the past 12 months, about how often did you:

See your mother?

Communicate with your mother by letter or phone?

See your father?

Communicate with your father by letter or phone?

Time with friends -- average of 3 items; 0=never, 4=several times a week

About how often do you spend a social evening with:

A neighbor?

People you work with?

Friends who live outside your neighborhood?

Appendix Table 1. Question Wording, Response Alternatives, and Coding of Outcomes (Continued)

Couple Relationship Quality

Global quality -- single item; 1=very unhappy, 7=very happy

Taking things all together, how would you describe your relationship?

Life if separated -- average of 5 items; 1=much worse, 5=much better

Even though it may be very unlikely, think for a moment about how various areas of your life might be different if you separated. For each of the following areas, how do you think things would change?

Your standard of living

Your social life

Your career opportunities

Your overall happiness

Your sex life

Time together -- single item; 1=never, 6=almost every day

During the past month, about how often did you and your partner spend time alone with each other, talking, or sharing an activity?

Disagreements -- average of 5 items; 1=never, 6=almost every day

How often, if at all, in the last year have you had open disagreements about each of the following:

Household tasks

Money

Spending time together

Sex

In-laws

Fights -- average of 2 items; 1=never, 5=always

When you have a serious disagreement with your partner, how often do you:

Argue heatedly or shout at each other?

End up hitting or throwing things at each other?

Notes:

Questionnaire items from NSFH1 and NSFH2.

^a At NSFH2, response alternatives were 0 (really bad) to 10 (absolutely perfect); these were re-scaled 1-7. Coded 1 if no contact with either parent.

^b Coded 6 if respondent was living with a parent.

Appendix Table 2. Changes in Outcome Variables between NSFH1 and NSFH2, by Union Transition

		Single at NSFH1				
		All	Single-Single	Single-Married	Single-Cohabiting-Married	Single-Cohabiting
Well-Being						
Global happiness	M	0.24	0.11	0.29	0.48	0.57
	SD	1.65	1.66	1.70	1.59	1.53
	n	1682	1011	265	256	150
Depressive symptoms	M	-0.27	-0.15	-0.39	-0.57	-0.34
	SD	1.63	1.66	1.56	1.54	1.64
	n	2207	1336	342	322	207
Global health	M	-0.10	-0.12	-0.04	-0.03	-0.19
	SD	0.90	0.92	0.84	0.80	0.93
	n	2082	1262	326	304	190
Self-esteem	M	0.01	-0.01	-0.02	0.02	0.15
	SD	0.71	0.75	0.66	0.63	0.65
	n	2149	1301	337	314	197
Social Ties						
Relationship with parents	M	-0.23	-0.24	-0.13	-0.28	-0.28
	SD	1.31	1.34	1.20	1.37	1.19
	n	1754	1021	291	279	163
Contact with parents	M	-0.03	0.06	-0.17	-0.18	-0.12
	SD	0.99	0.96	0.99	1.01	1.04
	n	1756	1023	291	280	162
Time with friends	M	0.07	0.19	-0.07	-0.16	-0.13
	SD	1.05	1.05	1.00	1.03	1.03
	n	2098	1274	323	309	192
		Cohabiting at NSFH1				
		All	Cohabiting-Cohabiting	Cohabiting-Married		
Couple Relationship Quality						
Global quality	M	-0.28	-0.34	-0.24		
	SD	1.63	1.69	1.58		
	n	227	94	133		
Life if separated	M	0.02	0.18	-0.09		
	SD	0.78	0.90	0.67		
	n	235	97	138		
Time together	M	-1.36	-2.09	-0.86		
	SD	1.88	1.95	1.65		
	n	236	96	140		
Disagreements	M	0.20	0.14	0.24		
	SD	0.93	1.18	0.70		
	n	236	97	139		
Fights	M	0.16	0.28	0.08		
	SD	0.75	0.89	0.63		
	n	232	96	136		

Notes:

Data from NSFH1 and NSFH2; means (M), standard deviations (SD), and n's unweighted.

Both samples restricted to respondents with no union dissolutions between waves.

Single sample restricted to men and women under age 50.

Table 1. Sample Details

	No Union Dissolutions	Union Dissolutions	Total	% Unions Dissolving
Single at NSFH1				
Single-single	1391	0	1391	0
Single-married	349	81	430	19
Single-cohabiting-married	333	54	387	14
Single-cohabiting	214	315	529	60
Total	2287	450	2737	16
Single-single	1391	0	1391	0
Single-union formed within 3 years of NSFH2	338	116	454	26
Single-union formed within 4-6 years of NSFH2	558	334	892	37
Total	2287	450	2737	16
Cohabiting at NSFH1				
Cohabiting-cohabiting	112	176	288	61
Cohabiting-married	158	48	206	23
Total	270	224	494	45
Cohabiting-cohabiting	112	176	288	61
Cohabiting-married within 3 years of NSFH2	36	4	40	10
Cohabiting-married within 4-6 years of NSFH2	122	44	166	27
Total	270	224	494	45

Notes:

Data from NSFH1 and NSFH2.

Single sample restricted to men and women under age 50.

N's unweighted. Final *n*'s vary due to differences in item response rates.

Table 2. NSFH1 Values on Outcome Variables and Selected Demographic Characteristics, by Union Transition

		Single at NSFH1				
		All	Single-Single	Single-Married	Single-Cohabiting-Married	Single-Cohabiting
Well-Being						
Global happiness	M	5.20	5.17	5.43	5.22	4.97
	SD	1.37	1.36	1.47	1.20	1.42
Depressive symptoms	M	1.46	1.44	1.46	1.57	1.38
	SD	1.46	1.47	1.51	1.48	1.22
Global health	M	4.16	4.11	4.24	4.19	4.29
	SD	0.76	0.80	0.74	0.66	0.70
Self-esteem	M	4.13	4.08	4.23	4.17	4.16
	SD	0.61	0.63	0.58	0.54	0.59
Social Ties						
Relationship with parents	M	6.10	6.15	6.07	5.97	6.05
	SD	1.15	1.11	1.16	1.20	1.26
Contact with parents	M	5.45	5.45	5.54	5.39	5.33
	SD	0.95	0.95	0.88	0.92	1.06
Time with friends	M	1.82	1.72	1.88	1.98	2.03
	SD	0.95	0.96	0.94	0.92	0.90
Age	M	28.27	30.01	26.04	25.82	26.28
	SD	8.56	9.02	7.58	6.59	7.99
Ever married	%	27	30	20	27	25
Living with children	%	20	24	12	18	19
		Cohabiting at NSFH1				
		All	Cohabiting-Cohabiting	Cohabiting-Married		
Couple Relationship Quality						
Global quality	M	5.99	5.82	6.15		
	SD	1.28	1.44	1.09		
Life if separated	M	2.67	2.77	2.57		
	SD	0.68	0.76	0.59		
Time together	M	5.24	5.09	5.39		
	SD	1.23	1.41	1.01		
Disagreements	M	1.87	1.91	1.82		
	SD	0.79	0.87	0.70		
Fights	M	1.51	1.52	1.50		
	SD	0.59	0.61	0.58		
Age	M	32.73	35.01	30.66		
	SD	10.41	11.43	8.93		
Ever married	%	47	49	45		
Living with children	%	35	47	35		

Notes:

Descriptives from NSFH1; means (M) and standard deviations (SD) weighted.

Both samples restricted to respondents with no union dissolutions between waves.

Single sample restricted to men and women under age 50.

Table 3. Change in Well-Being Following Union Transitions, Singles at NSFH1

	Happiness	Depression	Health	Self-Esteem
<u>Excluding Union Dissolutions</u>				
Contrasting Union Transitions				
Married v. single	0.19 *	-0.24 **	0.08	-0.01
Cohabiting-married v. single	0.38 ***	-0.42 ***	0.09	0.03
Cohabiting v. single	0.47 ***	-0.19	-0.08	0.16 ***
Married v. cohabiting-married	-0.19	0.17	-0.01	-0.04
Married v. cohabiting	-0.28 *	-0.06	0.15 *	-0.17 ***
Cohabiting-married v. cohabiting	-0.09	-0.23	0.17 **	-0.14 **
Contrasting Time since Union Formation^a				
Short union v. single	0.46 ***	-0.39 ***	0.06	0.08 *
Long union v. single	0.24 **	-0.23 ***	0.04	0.03
Short union v. long union	0.22	-0.16	0.02	0.05
<u>Including Union Dissolutions</u>				
Contrasting Union Transitions				
Married v. single	0.12	-0.18 **	0.08	-0.01
Cohabiting-married v. single	0.30 ***	-0.36 ***	0.07	0.04
Cohabiting v. single	0.12	-0.02	-0.02	0.11 ***
Married v. cohabiting-married	-0.18	0.17	0.02	-0.05
Married v. cohabiting	0.00	-0.16	0.10 *	-0.12 **
Cohabiting-married v. cohabiting	0.18	-0.33 ***	0.08	-0.07
Contrasting Time since Union Formation^a				
Short union v. single	0.32 ***	-0.30 ***	0.12 **	0.08 *
Long union v. single	0.10	-0.10	0.00	0.04
Short union v. long union	0.22 **	-0.20 **	0.12 **	0.04

Notes:

Data from NSFH1 and NSFH2.

Samples restricted to men and women under age 50.

* P<.10; ** P<.05; *** P<.01 (two-tailed)

^a "Short" unions are those formed within 3 years of NSFH2; "long" unions are those formed within 4-6 years of NSFH2.

Table 4. Change in Social Ties Following Union Transitions, Singles at NSFH

	Relationship with Parents	Contact with Parents	Time with Friends
Excluding Union Dissolutions			
Contrasting Union Transitions			
Married v. single	0.11	-0.23 ***	-0.26 ***
Cohabiting-married v. single	-0.04	-0.24 ***	-0.35 ***
Cohabiting v. single	-0.04	-0.19 **	-0.32 ***
Married v. cohabiting-married	0.14	0.01	0.09
Married v. cohabiting	0.15	-0.04	0.05
Cohabiting-married v. cohabiting	0.00	-0.06	-0.04
Contrasting Time since Union Formation^a			
Short union v. single	0.01	-0.21 ***	-0.35 ***
Long union v. single	0.02	-0.23 ***	-0.28 ***
Short union v. long union	-0.01	0.02	-0.07
Including Union Dissolutions			
Contrasting Union Transitions			
Married v. single	0.09	-0.23 ***	-0.24 ***
Cohabiting-married v. single	-0.01	-0.21 ***	-0.35 ***
Cohabiting v. single	0.06	-0.18 ***	-0.21 ***
Married v. cohabiting-married	0.11	-0.02	0.11
Married v. cohabiting	0.03	-0.05	-0.03
Cohabiting-married v. cohabiting	-0.07	-0.03	-0.14 *
Contrasting Time since Union Formation^a			
Short union v. single	0.02	-0.19 ***	-0.30 ***
Long union v. single	0.07	-0.21 ***	-0.24 ***
Short union v. long union	-0.05	0.02	-0.06

Notes:

Data from NSFH1 and NSFH2.

Samples restricted to men and women under age 50.

* P<.10; ** P<.05; *** P<.01 (two-tailed)

^a "Short" unions are those formed within 3 years of NSFH2; "long" unions are those formed within 4-6 years of NSFH2.

Table 5. Change in Couple Relationships Following Marriage, Cohabitors at NSFH1

	Global Quality	Life if Separated	Time Together	Disagreements	Fights
Excluding Union Dissolutions					
Contrasting Transition to Marriage					
Married v. cohabiting	0.10	-0.27 ***	1.24 ***	0.11	-0.20 **
Contrasting Time since Marriage^a					
Short marriage v. cohabiting	0.65 *	-0.48 ***	1.81 ***	0.04	-0.29 *
Long marriage v. cohabiting	-0.05	-0.20 *	1.07 **	0.13	-0.17
Short marriage v. long marriage	0.70 **	-0.28 *	0.74 **	-0.09	-0.12

Notes:

Data from NSFH1 and NSFH2.

* P<.10; ** P<.05; *** P<.01 (two-tailed)

^a "Short" marriages are those formed within 3 years of NSFH2; "long" marriages are those formed within 4-6 years of NSFH2.