



Published in final edited form as:

Criminology. 2014 August ; 52(3): 371–398. doi:10.1111/1745-9125.12040.

EXPLAINING THE ASSOCIATION BETWEEN INCARCERATION AND DIVORCE*

Sonja E. Siennick¹, Eric A. Stewart¹, and Jeremy Staff²

¹College of Criminology and Criminal Justice, Florida State University

²Department of Criminology and Sociology, The Pennsylvania State University

Abstract

Recent studies have suggested that incarceration dramatically increases the odds of divorce, but we know little about the mechanisms that explain the association. This study uses prospective longitudinal data from a subset of married young adults in the National Longitudinal Study of Adolescent Health (N = 1,919) to examine whether incarceration is associated with divorce indirectly via low marital love, economic strain, relationship violence, and extramarital sex. The findings confirmed that incarcerations occurring during, but not before, a marriage were associated with an increased hazard of divorce. Incarcerations occurring during marriage also were associated with less marital love, more relationship violence, more economic strain, and greater odds of extramarital sex. Above-average levels of economic strain were visible among respondents observed preincarceration, but only respondents observed postincarceration showed less marital love, more relationship violence, and higher odds of extramarital sex than did respondents who were not incarcerated during marriage. These relationship problems explained approximately 40 percent of the association between incarceration and marital dissolution. These findings are consistent with theoretical predictions that a spouse's incarceration alters the rewards and costs of the marriage and the relative attractiveness of alternative partners.

Keywords

incarceration; divorce; relationship quality; marital problems

Spouses can be important sources of support for former inmates. They provide emotional and material support after incarceration, they serve as bridges to extended kinship networks, and they may play a role in preventing or reducing recidivism (Laub and Sampson, 2003; Sampson and Laub, 1993; Uggen, Manza, and Behrens, 2004). Yet former inmates' marriages seem to be quite fragile. Specifically, recent studies have suggested that incarceration dramatically increases the odds of divorce (Apel et al., 2010; Lopoo and

*Additional supporting information can be found in the listing for this article in the Wiley OnlineLibrary at <http://onlinelibrary.wiley.com/doi/10.1111/crim.2011.52.issue-3/issuetoc>.

Direct correspondence to Sonja E. Siennick, College of Criminology and Criminal Justice, Florida State University, 145 Convocation Way, Tallahassee, FL 32306, Phone: 850-645-9265, (ssiennick@fsu.edu).

Co-Author Information

Eric A. Stewart: estewart2@fsu.edu

Jeremy Staff: jus25@psu.edu

Western, 2005; Massoglia, Remster, and King, 2011). If we wish to help inmates preserve these potentially beneficial partnerships, to counteract the corrosive effects of imprisonment on family well-being (Giordano, 2010; Wildeman, 2010; Wildeman, Schnittker, and Turney, 2012), or to improve our understanding of this apparent collateral consequence of incarceration, we must first determine why incarceration and divorce are associated.

Although the studies on this topic are few in number, their findings are very consistent. First, only incarcerations occurring during, versus before, marriage lead to divorce (Lopoo and Western, 2005; Massoglia, Remster, and King, 2011). Second, inmates' marriages continue to be at risk of dissolving even after the spell of incarceration (Apel et al., 2010; Lopoo and Western, 2005; Massoglia, Remster, and King, 2011; Western, 2006). Third, the effect is large, with studies reporting up to a .20 increase in the probability of, or a doubling or more of the odds of, divorce among the formerly incarcerated (Apel et al., 2010; Massoglia, Remster, and King, 2011). Fourth, the effect increases with incarceration length, with each additional year behind bars increasing the odds of divorce by 32 percent (Massoglia, Remster, and King, 2011).

The mechanisms behind the incarceration-divorce association have remained relatively unstudied. One of the only studies to address mechanisms directly focused on which aspect of the incarceration, the stigma of being an excon or the period of separation from one's spouse, is most relevant for divorce (Massoglia, Remster, and King, 2011). Theoretically, the stigma of a prison record or—as Massoglia and colleagues (2011) found was more likely—the imposed period of separation would harm specific qualities of marriages, which in turn would raise the odds of divorce. With respect to these marital qualities, scholars have speculated that incarceration may change the way that spouses interact and reduce spouses' ability to support the shared household (Apel et al., 2010; Massoglia, Remster, and King, 2011; Wildeman, Schnittker, and Turney, 2012). Research to date has not yet tested whether such qualities do mediate the incarceration-divorce association, probably because few data sources include detailed information on both incarceration and marital quality. Such data limitations also mean that research has not tested whether inmates had more than their share of marital problems even before their incarcerations. If they did, then part of the incarceration-divorce association could be spurious to preexisting relationship risk factors for divorce.

This study contributes to this literature in two ways. First, drawing on theories of marital instability, we present a conceptualization of incarceration as an experience that alters the key factors behind marital cohesion: the rewards and costs of the marriage, the barriers to leaving the marriage, and the relative appeal of alternatives to being in the marriage. We describe how the conceptualization of these factors in the marriage literature overlaps with themes emerging from recent studies of incarceration's impact. Second, we present findings from a partial test of this perspective. To do this, we capitalize on detailed relationship information from a subset of married young adults interviewed as part of a larger national panel study. The data allow us to 1) examine the association between incarceration and the duration-dependent risk of divorce; 2) test whether incarceration is associated with lower emotional and economic rewards of the marriage, higher physical costs of being in the marriage, and increased odds that spouses will turn to alternative romantic partners; and 3)

examine whether these rewards, costs, and alternatives mediate the incarceration-divorce association. The data also allow us to compare these marital qualities among couples who have already experienced an incarceration and couples who soon will experience an incarceration. This comparison sheds light on whether incarceration precedes marital problems, which would be consistent with mediation, or whether marital problems are likely to emerge before incarceration, which would be consistent with spuriousness.

A THEORY OF MARITAL DISSOLUTION

A prominent perspective on marital dissolution focuses on how the relative attractiveness of the relationship and the extent of moral and structural commitments to the marriage combine to influence marital stability. Levinger's (1965) classic statement of this perspective drew on social exchange theory (Thibaut and Kelley, 1959) and proposed that divorce is a function of inducements to remain in the marriage, specifically the attractions of the marriage and barriers to leaving, and inducements to leave the marriage, specifically the attractiveness of the alternatives to staying. The attractions of the marriage are conceptualized as the ratio of the relationship's rewards to its costs. Rewards are positive aspects such as love, happiness, respect, trust, sex, companionship, and socioeconomic resources; costs are negative aspects such as relationship violence (Amato and Hohmann-Marriott, 2007; Previti and Amato, 2003). Barriers to leaving the marriage are personal and social commitments such as children, religious beliefs, pressure from relatives, and community stigma (Previti and Amato, 2003; White and Booth, 1991). The relative attractiveness of alternatives to the marriage is the relative appeal of alternative sources of rewards such as affection, sex, and socioeconomic resources (Udry, 1981; White and Booth, 1991). The joint influence of these factors means that unhappy marriages are not always ended (e.g., if the barriers to leaving are high) and that some happy marriages end (e.g., if the alternatives are more attractive; Lewis and Spanier, 1979).

Elements of this social exchange perspective underlie theories of various aspects of marital functioning (Collett, 2010), and research has suggested that attractions, barriers, and alternatives do influence marital dissolution. Married couples report that love, friendship, communication, commitment, respect, compatibility, trust, and children—indicators of attractions and barriers—keep them together (Previti and Amato, 2003). Unhappily married couples who hold pro-marriage values and have few alternative sources of support—both barriers to exit—report that it is unlikely they will divorce (Heaton and Albrecht, 1991). Divorced people say that factors such as extramarital affairs, incompatibility, and a lack of closeness or communication—indicating low attractions and viable alternatives—led to the divorce (Amato and Previti, 2003). Longitudinally, indicators of low attractions and favored alternatives, such as low or declining levels of closeness and relationship satisfaction, household economic hardship, high levels of relationship violence, and involvement in infidelity, predict later divorce (Amato and Rogers, 1997; Conger et al., 1990; DeMaris, 2013; Kurdek 2002; Rodrigues, Hall, and Fincham, 2006; White and Rogers, 2000).

Although this perspective is “one of the best explanations of marital stability” (White, 2013: 28), an important criticism is that it does not address the sources of changes in marriages, that is, what might cause shifts in the rewards, costs, and attractiveness of alternatives to a

relationship (Karney and Bradbury, 1995). We suggest that spouses can have life events and experiences that, by altering these factors, cause their stable marriages to become unstable. Incarceration may be one such experience that indirectly leads to divorce via its harmful effects on inducements to remain in the marriage and on inducements to leave it.

APPLYING THE THEORY TO COUPLES WHO HAVE EXPERIENCED INCARCERATION

Past works have described in detail the personal, financial, and social difficulties that individuals and their spouses experience during a spell of incarceration. Incarceration physically separates couples, curtailing their closeness and intimacy (Comfort, 2008; Harman, Smith, and Egan, 2007; Karakurt et al., 2013). The removal of a partner and earner from the household increases parenting-related stress and family economic instability (Wildeman, Schnittker, and Turney, 2012). In addition, both inmates and their spouses worry that their partners have or will cultivate relationships with other romantic interests (Comfort, 2008; Fishman, 1990). Despite these stresses, inmates report optimism about their postrelease relationships (Benson et al., 2011). Inmates and their partners often anticipate that their postrelease relationships will be similar to or better than their preincarceration relationships (Fishman, 1990; Travis and Waul, 2003).

The elevated rate of postincarceration divorce indicates that these hopes are not always realized. For instance, Massoglia and colleagues (2011) found that more than 40 percent of divorces among ever-incarcerated males from a general population sample occurred postrelease. Apel and colleagues (2010) found that the impact of incarceration on divorce among Dutch men actually grew stronger over the 10 years after release. The timing of these divorces suggests that they could be the culminating events in longer term processes of marital erosion. The timing also is consistent with scholars' suggestion that any "honeymoon" period of optimism after incarceration is likely to fade over time as families' high expectations go unfulfilled (Fishman, 1990; Nurse, 2002).

Research on families and reentry has indicated that problems consistent with the elements of social exchange theory may continue to affect couples postrelease. First, postincarceration marriages may carry relatively low rewards and high costs. One spouse has been "marked" as dishonest and unreliable, which damages both spouses' reputations and interferes with the former inmate's ability to obtain and maintain employment and contribute financially (Arditti and Parkman, 2011; Braman, 2004; Western, 2002). Consistent with this, declines in mothers' trust in previously incarcerated fathers partly explain why those fathers are less involved with their children (Turney and Wildeman, 2013). At the same time that incarceration undermines partners' respect and trust, it also creates the threat that partners will report parole violations if releasees do not contribute enough, stay out too late, or violate other domestic expectations (Goffman, 2009; Nurse, 2002). As control over money, household resources, and even freedom shifts away from the previously incarcerated spouse, power differentials are created or exacerbated (Braman, 2004; Harman, Smith, and Egan, 2007; Oliver and Hairston, 2008). These differentials may amplify the effects of already poor listening, communication, and conflict resolution skills to increase relationship violence (Harman, Smith, and Egan, 2007; White et al., 2002). It thus is possible that the

incarceration-divorce association operates in part through lower levels of love, respect, trust, and relationship satisfaction and through higher levels of shame, embarrassment, family economic hardship, and relationship violence.

Second, a spouse's "ex-con" status may lower or remove barriers to divorce, in particular, external pressures that would have been imposed by relatives, friends, and the wider community. Under average circumstances, the stigma and social disapproval of divorce might keep some unhappy marriages intact (Levinger, 1965). The incarceration of a spouse formally identifies that spouse as a criminal offender, creating its own stigma and social disapproval (Braman, 2004). Communities attach that stigma and disapproval not only to inmates but also to inmates' relatives and associates (Arditti, 2012; Comfort, 2008). These social penalties narrow social support networks, sometimes for years after the incarceration (Braman, 2004; Turanovic, Rodriguez, and Pratt, 2012; Turney, Schnittker, and Wildeman, 2012). Partners' families also may withdraw their support for the relationship in light of the criminal justice system involvement (Nurse, 2002). If kin, friends, and community members judge affiliation with a former inmate more harshly than they do divorce, or even encourage divorce from criminal spouses, then couples experiencing incarceration might be socially freed to divorce.

Third, postincarceration couples may see higher relative appeal in alternatives to remaining in the marriage, such as alternative partners. For these couples, extramarital partners may offer rewards and fulfill needs that their marriages do not. For the former inmate, additional partners provide additional sources of emotional and material support and opportunities to make up for the lack of sexual contact while incarcerated (Braman, 2004; Harman, Smith, and Egan, 2007; Thomas et al., 2008). For the nonincarcerated spouse, they provide support and serve as "backups" in case their marriages fail (Braman, 2004; Harman, Smith, and Egan, 2007; Thomas et al., 2008). The incarceration of a spouse thus could create conditions of low reward, high cost, low barriers to exit, or good alternatives to existing marriages—any one of which could prompt divorce under exchange theories of marital instability.

Proposing that marital problems and eventual divorce are collateral consequences of incarceration presupposes that the elevated marital problems follow the incarceration. Yet it also is possible that couples who go on to experience incarceration have troubled marriages to begin with. Many divorces are foreshadowed by relationship problems visible when couples are still newlyweds (Lavner, Bradbury, and Karney, 2012). On its surface, incarceration and its aftermath may provide a plausible explanation for divorce, but this could obscure the fact that preexisting weak bonds, financial problems, and violence might have increased these couples' odds of divorce apart from the incarceration (Goffman, 2009; Nurse, 2002). Most studies of this topic have been unable to examine the sequencing of incarceration and marital problems, but this sequencing is important for our understanding of divorce among former inmates.

CURRENT STUDY

This study examines the association of incarceration with marital problems and divorce over a 6-year period among a sample of married young adults interviewed as part of a larger

national panel study. These respondents were observed during the peak age span of early spells of incarceration (Bonczar, 2003). Although our data cover an important age range for criminal justice system involvement, they cover relatively early marriages. Early marriages like our respondents' are not rare—one fifth of young people marry by their early 20s (Uecker and Stokes, 2008)—but they tend to be less stable than later marriages. Our findings may not be generalizable to couples who married at older ages. We return to this issue in the discussion.

Our analyses examine whether incarceration 1) is associated with an increased risk of marital dissolution among married young adults, 2) is associated with marital problems among these young adults, and 3) is indirectly associated with marital dissolution via its associations with marital problems. The marital problems we examine are indicators of rewards of, costs of, and alternatives to respondents' marriages, specifically couples' levels of love, their ability to make ends meet, their levels of relationship violence, and their involvement in extramarital sex. As noted, these factors are associated with incarceration and are known predictors of divorce from the marriage literature. Our data do not include information on external barriers to divorce (e.g., social disapproval), but the removal of such barriers also could explain part of the incarceration-divorce association. We leave it to future studies to determine whether they do.

Examinations of this topic must account for the possibility that young adults who are incarcerated may be poor relationship partners to begin with, or that low-quality marriages led to incarceration. We address this by subdividing respondents who were incarcerated during marriage into two groups: one that completed interviews about their marital characteristics before they were incarcerated, and one that completed interviews about their marital characteristics after they were incarcerated. If incarceration leads to divorce because it triggers marital problems, then marital problems should be worse among the latter group and should explain the divorces of only that group. As an added safeguard, we include covariates that were used in past work, namely, race and ethnicity, parenthood, educational attainment, employment status, religiosity, substance use, involvement in nonfamily violence, incarceration prior to marriage, and the length of the marriage (Lopoo and Western, 2005; Massoglia, Remster, and King, 2011). We also include other known correlates of marital problems and dissolution, namely, age at marriage, gender, and whether the couple lived together before marrying (Amato, 2010), and two other potentially relevant factors, problem gambling and prior domestic violence convictions.

Couples who divorce often report that their marriage had had more than one problem (Amato and Rogers, 1997). Similarly, couples affected by imprisonment often have multiple interdependent relationship problems (Harman, Smith, and Egan, 2007). It thus is likely that the four mediators we examine will best explain the incarceration-divorce association when considered together. Still, it is important to determine whether any one marital problem in particular is an especially powerful explanation of the association because such information would be useful to families, clinicians, and interventionists. We have no a priori expectations about the relative importance of the four factors, so we examine the extent to which they jointly and individually mediate any observed effect of incarceration on marital dissolution.

METHOD

DATA

The data are from the National Longitudinal Study of Adolescent Health (Add Health). Add Health is a good source of data for this project because it features detailed longitudinal information on respondents' romantic partnerships and contacts with the criminal justice system. Add Health drew on a nationally representative sample of adolescents who were in grades 7-12 during the 1994-1995 school year. Participants were selected via a two-stage stratified sampling design. First, 132 schools were randomly selected from a national sampling frame stratified by region, urbanicity, school size, school type, and racial composition. Then, students in each school were stratified by grade and gender, and a nationally representative probability sample of nearly 19,000 adolescents was selected for the longitudinal in-home component of the study. To date, in-home respondents have completed four in-person survey interviews. The key measures for this study come from the wave 3 interviews (conducted in 2001-2002) when the now-adult (18-28 years of age) respondents were first asked detailed questions about their marriages, and from the wave 4 interviews conducted six years later (2007-2008) when respondents (now 24-34 years of age) provided information about their incarceration histories and the status of their marriages. We also include some demographic information from wave 1 (1994-1995).

At wave 3, respondents provided details about their romantic relationship histories. To create the analytical sample, from the total pool of 15,197 wave 3 respondents, we selected those who were married at the time of the wave 3 interview ($n = 2,222$). From that subset, we selected respondents who participated at wave 4 ($n = 1,930$). We omitted 11 respondents whose spouses were deceased by wave 4.

At wave 4, respondents again provided details about their romantic relationship histories. We used respondents' wave 3 and wave 4 reports of their wedding dates and the number of times they had ever married to identify the wave 4 relationship reports that corresponded to respondents' marriages at the time of the wave 3 interview. Our analyses of time to marital dissolution used data from all 1,919 respondents who participated at wave 4 and whose spouses were not deceased by wave 4. Our analyses of whether incarceration predicted relationship characteristics used data from the 1,847 (96 percent of) respondents whose longitudinal relationship reports could be matched with confidence; unlike the analyses of time to marital dissolution, these models required observed marriage end dates. Following Kreager and colleagues (2013), matches were cases where respondents' wave 3 and wave 4 reports of the marriage start month and year were identical, or where their wave 3 and wave 4 reports of their marriage start dates differed by less than 2 years and they reported only one marriage during that time span.¹ We did not count as matched 6 of the 1,853 marriages that met these criteria because these 6 respondents' wave 4 reports of both the beginning and

¹Restricting the latter criterion to a difference of less than 1 year resulted in a loss of 65 cases and did not change the study's substantive findings. Even without this time span restriction, most of the 72 unmatched cases still would have gone unmatched for reasons including wave 4 reports of wedding dates that followed the date of the wave 3 interview, and multiple wave 4 relationships that could have been matched to the wave 3 marriage.

end dates of the marriage preceded their wave 3 reports of the marriage start date; we could not be certain that these reports referred to the same marriages.

FOCAL OUTCOME VARIABLE

Our main dependent variable is a dichotomous measure of marital *relationship dissolution* by the time of the wave 4 interview (0 = *no*, 1 = *yes*). Relationships were counted as dissolved if the respondent reported an end date for the marriage, reported that the marriage was no longer ongoing, or reported that they were not currently in a relationship with their spouse from wave 3.

FOCAL PREDICTORS

At wave 4, respondents who spent time in a jail, prison, or other correctional facility reported how old they were when this first happened, as well as when this most recently happened for those with multiple incarcerations. They also reported the total amount of time they had ever spent incarcerated during adulthood (mean = 3.9 months). Approximately 63 percent of ever-incarcerated married respondents served a total of 1 month or less, 20 percent served 2 to 5 months, 8 percent served 6 to 11 months, and 9 percent served 1 year or more. These lengths of time served are lower than those in the study by Massoglia and colleagues (2011), but they are comparable with those in the study by Apel and colleagues (2011). Nationally, 80 percent of jail inmates serve less than 1 month, the average state prison inmate serves approximately 16 months, and the average federal prison inmate serves slightly less than 3 years (Bonczar, 2011; Noonan, 2010; Pew Charitable Trusts, 2012). It is likely that our findings speak mainly to the effects of jail sentences, whereas the findings of Massoglia and colleagues speak more to the effects of longer prison sentences. Given these differences in data sources and samples, it is noteworthy that the effects of incarceration on divorce are highly consistent across studies. In ancillary analyses, we observed that even lifetime incarceration stays totaling less than a month were associated with marital disruption. This association became more pronounced as total time incarcerated increased.

Using information on respondents' ages at incarceration, birthdates, wedding dates, and ages at the time of each interview, we created a dichotomous² indicator of whether respondents had been *incarcerated during marriage*. To help establish the timing of incarceration and relationship dynamics better, we also subdivided this indicator into separate dichotomous indicators of whether respondents had been *incarcerated during marriage and by wave 3* when relationship dynamics were measured, and whether respondents had been *incarcerated during marriage but only after wave 3*. These two indicators are mutually exclusive; the reference category is *never incarcerated during marriage*. We examine these indicators as part of a proposed sequence leading from incarceration to divorce via relationship dynamics. If this chain is accurate, then the indicator of incarceration during marriage but after wave 3 should not predict relationship characteristics measured at wave 3 (prior to the incarceration), and relationship characteristics thus should not mediate any association between this indicator and divorce.

²For seven respondents, our information on the timing of incarceration was not fine-grained enough for us to tell definitively whether these respondents were more accurately categorized as incarcerated before marriage or as incarcerated during marriage. Because of this uncertainty, we imputed the timing of incarceration for these cases.

RELATIONSHIP CHARACTERISTICS

We examine four marital characteristics, all measured at wave 3, that may explain the incarceration-divorce association. *Low marital love* ($\alpha = .74$) is an item response theory (IRT) scale of two items assessing how much respondents loved their spouse (0 = *a lot*, 3 = *not at all*) and how much they thought their spouse loved them (0 = *a lot*, 3 = *not at all*). Preliminary analyses revealed that 95 percent of respondents who were never incarcerated during marriage, 76 percent of respondents who were incarcerated during marriage and before wave 3, and 93 percent of respondents who were incarcerated during marriage and after wave 3 loved their partners a lot; the corresponding percentages for reports of partners' love were 93 percent, 79 percent, and 86 percent, respectively. We created this scale and the other IRT (for scales based on ordinal indicators) and Rasch (for scales based on dichotomous indicators) scales used in this study using Thissen et al.'s (2003) MULTILOG 7.0 program. IRT and Rasch scaling techniques use measurement models to estimate respondents' latent "true" scores on the construct of interest, based on the observed indicators (Raudenbush, Johnson, and Sampson, 2003). The resulting scores have desirable statistical properties: They are approximately normally distributed and, unlike summative scales, can accommodate items with different numbers of response choices, are not dominated by the most commonly endorsed items, and are not dependent on the number of items included.

Economic strain ($\alpha = .68$) is a Rasch scale of seven items assessing whether in the past 12 months respondents or their households did not pay the full amount of the rent or mortgage for lack of money; were evicted from a house or apartment for not paying the rent or mortgage; did not pay the full amount of a gas, electricity, or oil bill for lack of money; had gas, electric, or oil service turned off because payments were not made; went without telephone service; did not receive needed medical care because they could not afford it; and did not receive needed dental care because they could not afford it (0 = *no*, 1 = *yes* for each item). Thirty-six percent of respondents who were never incarcerated during marriage, 66 percent of respondents who were incarcerated during marriage and before wave 3, and 61 percent of respondents who were incarcerated during marriage and after wave 3 experienced at least one of these forms of economic strain.

The IRT scale of *relationship violence* ($\alpha = .81$) includes eight items assessing how often in the past 12 months respondents had threatened, pushed or shoved, or thrown something at their spouse; slapped, hit, or kicked their spouse; insisted on or made their spouse have sexual relations when the spouse did not want to; or injured their spouse during a fight, and how often their spouse had done each of these things to them (0 = *never*, 4 = *6 or more times*). Preliminary analyses revealed that respondents incarcerated during marriage and before wave 3 had the highest unadjusted base rates of each form of violence, with 55 percent reporting threats, shoves, or thrown objects; 48 percent reporting slaps, hits, or kicks; 26 percent reporting forced sexual relations; and 19 percent reporting injurious violence. The unadjusted base rates for respondents incarcerated during marriage and after wave 3 were lower (45 percent, 37 percent, 15 percent, and 16 percent, respectively), and those for respondents who were never incarcerated during marriage were lower still (27 percent, 21 percent, 9 percent, and 7 percent, respectively). Relationship violence was most

often bidirectional; only 18 percent, 16 percent, and 15 percent of the three groups, respectively, reported unilateral violence (committed by only one spouse) in the marriage.

Finally, *extramarital sex* is a dichotomous indicator of whether respondents reported being in a current sexual relationship with someone besides their spouse, had been married more than 1 year and reported having more than one past-year sexual partner, or reported that their spouse had had other sexual partners during their relationship (0 = *no*, 1 = *yes*). Unlike the items used to assess the other marital problems, the items assessing extramarital sex are not well suited to distinguishing among levels of intensity of this problem, so we measure it as a dichotomy.

CONTROL VARIABLES

We include measures of respondents' *male gender* (0 = *no*, 1 = *yes*) and of their race and ethnicity, measured as a set of dummy variables indicating *Black* (0 = *no*, 1 = *yes*), *Hispanic* (0 = *no*, 1 = *yes*), or *other non-White race* (0 = *no*, 1 = *yes*); *White* is the omitted reference category. *Co-resident child* indicates whether the respondent had a son or daughter who lived in the same household (0 = *no*, 1 = *yes*). *Non-co-resident child* indicates whether the respondent had a child who did not live in the same household (0 = *no*, 1 = *yes*). *Educational attainment* is measured as the highest level of education respondents had completed (1 = *eighth grade or less*, 5 = *some graduate school*). We include a dichotomous indicator of whether the respondent was *employed full-time* at wave 3 (0 = *no*, 1 = *yes*). *Religiosity* ($\alpha = .91$) is measured as the mean of the *Z* scores of 10 items assessing respondents' frequency of religious service attendance and participation in organized religious activities over the past year (for both, 0 = *never*, 6 = *more than once a week*), how important their religious faith and spiritual life were to them (for both, 0 = *not important*, 3 = *more important than anything else*), the extent to which they were religious and spiritual (for both, 0 = *not at all*, 3 = *very*), the extent of their agreement that they were being "led" spiritually and that they used their spiritual beliefs as a basis for how to act and live (for both, 1 = *strongly disagree*, 5 = *strongly agree*), how often they prayed privately (0 = *never*, 7 = *more than once a day*), and a count of the hours per week they spent in religious activities at home. *Hard drug use* indicates whether the respondent had used cocaine, crystal meth, or other hard drugs in the year prior to wave 3 (0 = *no*, 1 = *yes*). *Problem drinking* is the sum of three ordinal items assessing the number of past-year school or work, interpersonal, and health or safety problems the respondent had because of drinking (0 = *none*, 2 = *two or more*). *Problem gambling* is a dichotomous indicator of whether the respondent spent a lot of time thinking about or planning gambling, gambled to relieve uncomfortable feelings, gambled to get even after losses, or had relationship problems as a result of gambling (0 = *no*, 1 = *yes*). *Non-family violence* indicates whether the respondent had used a weapon to get something from someone, taken part in a group fight, used a weapon in a fight, or brought a gun to school or work in the year prior to wave 3 (0 = *no*, 1 = *yes*). *Prior domestic violence conviction* indicates whether the respondent reported being convicted of domestic violence before wave 3 (0 = *no*, 1 = *yes*); five respondents did. *Incarcerated before marriage* is a dichotomous indicator of whether respondents had ever been incarcerated before marrying their wave 3 spouse (0 = *no*, 1 = *yes*). Finally, important relationship covariates include the respondent's *age at marriage*, the couple's number of *years married*, and whether the couple had

cohabited before marriage (0 = no, 1 = yes). Information on race and ethnicity came from wave 1; the other covariates were measured at wave 3.

Table 1 shows descriptive statistics for the study variables among respondents with matched wave 3 and wave 4 relationship reports, separately for respondents who were never incarcerated during marriage ($n = 1,752$), those who were incarcerated during marriage and before wave 3 ($n = 33$), and those incarcerated during marriage and after wave 3 ($n = 62$). Five percent of respondents were incarcerated during marriage. Other studies on incarceration and divorce using nationally representative data have found that incarceration among married people is similarly rare. For instance, 49 men had been incarcerated during marriage in Lopoo and Western's (2005) analyses of the NLSY 1979 cohort, and our own ancillary analyses of data from the NLSY 1997 cohort revealed that 2 percent of married respondents were incarcerated during the marriage.³ As shown in table 1, a higher percentage of females, Whites, and respondents with higher levels of education were in the category of never incarcerated during marriage (i.e., column 1) compared with those incarcerated during marriage (i.e., columns 2 and 3). Respondents who were never incarcerated during a marriage, compared with those who were, also had lower levels of problem drinking, problem gambling, non-family violence, and hard drug use.

Table S.1 of the online supporting information compares the descriptive statistics of cases with and without matched longitudinal relationship reports.⁴ The 72 respondents whose marriages could not be matched with confidence were more likely to be male, non-White, and non-resident parents; had less education; married younger, had been married longer, and reported less marital love and more extramarital sex; were more likely to have histories of incarceration; and showed more hard drug use, problem gambling, problem drinking, and violence.

ANALYTIC STRATEGY

We estimate a series of models relating incarceration during marriage to relationship characteristics and to marital dissolution. First, we examine the association of incarceration with the duration-dependent risk of marital dissolution via life table analyses and a discrete time event history model. These analyses allow examinations of marital duration in the presence of censoring and require no assumptions about the shape of the baseline hazard. In the discrete time model, observations were person-years and time was specified as a set of dummy variables indicating the number of years since marriage; "married this year" was the omitted reference category. We treat respondents as at risk for divorce until they either divorced or were right-censored (i.e., still married) at the time of their wave 4 interviews. These analyses include the small number of cases ($n = 72$) whose wave 3 marriages could

³Furthermore, studies that have used nationally representative data to examine incarceration effects on other outcomes (e.g., employment) also have reported a similar percentage of incarcerated individuals. Indeed, using the NLSY 1997 data, Apel and Sweeten (2010: 456) reported that only 5 percent of the sample had been incarcerated. Despite the small number of incarcerated individuals in our data, our analysis was able to estimate strong and significant incarceration effects during marriage net of an extensive set of control variables. Still, a larger sample size of incarcerated individuals may have allowed us to detect additional effects or differences that went undetected in the current study.

⁴Additional supporting information can be found in the listing for this article in the Wiley Online Library at <http://onlinelibrary.wiley.com/doi/10.1111/crim.2011.52.issue-3/issuetoc>.

not be matched to wave 4 reports of marital outcomes; we treat these cases as right-censored at the time of their wave 3 interviews.

Second, we estimate three linear regressions and one logistic regression predicting marital characteristics at wave 3 (low marital love, economic strain, relationship violence, and extramarital sex) from incarceration during marriage and the control variables. These models will show the degree of association between these potential mediators and incarcerations that occurred during marriage and by wave 3. They also will show whether respondents who would be incarcerated during marriage, but had not yet been by wave 3, already showed marital problems at wave 3. These analyses use data from the 1,847 cases with matched longitudinal relationship reports because they require information on post-wave 3 marital incarcerations, which was not available for respondents with unknown marriage outcomes and end dates.

Third, we estimate discrete time models predicting relationship dissolution from incarceration before marriage, incarceration during marriage and by wave 3, and incarceration during marriage but only after wave 3, once without and once with the measures of relationship characteristics. These analyses include, but treat as censored, the small number of cases with unmatched marital outcomes. We compare coefficients from these two models using Karlson, Holm, and Breen's (2012) test for indirect effects to determine whether relationship characteristics are statistically significant mediators of the association between incarceration and relationship dissolution. Because the relationship characteristics were measured at wave 3, if they are mediators rather than confounds, we would expect their inclusion in the model to reduce only the coefficient for incarceration during marriage and by wave 3. The results of several robustness checks also are noted in the Results section.

Finally, we repeat our main analyses on data from the subset of our sample that was male. Males have a much higher incarceration rate than do females—11 percent of males in our sample, versus 2 percent of females, were incarcerated during marriage—and most past studies of this topic focused on males (e.g., Apel et al., 2010; Massoglia, Remster, and King, 2011). Although there were too few incarcerated females in our sample to allow tests of gender differences, the findings for males provide a closer point of comparison for the findings of past studies as well as some insight into the potential for gender differences in the observed associations.

Add Health used a stratified and clustered sampling strategy. This study focuses only on married respondents and does not aim to provide estimates for the total population, so we present unweighted analyses. Although tests revealed that in nearly all of our models the clustered nature of the sample did not violate the assumption of independence of residuals, residual levels of economic hardship did vary systematically across sampling units. To adjust for this dependence, we include a fixed effect (i.e., a set of dummy variables) for sampling unit in the model predicting economic hardship. We used multiple imputation to reduce potential bias from item-missing data (Carlin, Galati, and Royston, 2008; Royston, 2005). More specifically, we created ten complete data sets featuring imputed values for missing cases and combined estimates across the ten following Rubin's (1987) rules.

RESULTS

RELATING INCARCERATION TO MARITAL DURATION AND DISSOLUTION

The first phase of our analysis established the magnitude and the timing of the association between incarceration and marital dissolution in this sample. As an initial step, we examined survival functions for marriage among respondents who were and were not incarcerated at some point during the marriage. A plot of the survival function created via the actuarial method (see figure S.1 in the online supporting information) revealed a widening gap between these groups in the probability of remaining married, beginning between the fourth and fifth years of marriage and increasingly favoring the nonincarcerated group over time ($p < .05$ for group difference). This finding indicates that the marriages of respondents who experienced an incarceration during marriage lasted fewer months than did the marriages of other respondents. Additional exploration of the data indicated that the point of divergence of the curves approximately corresponded to the average number of years into the marriage at which the marital incarcerations occurred.

We next examined whether incarceration was associated specifically with subsequent marital dissolution net of controls for demographic, behavioral, and relationship history factors. Table 2 shows the results of a discrete time model predicting the risk of marital dissolution in a given year from a dichotomous time-varying indicator of whether the respondent had been incarcerated by that year and from the control variables. Even when factors such as religiosity, substance use, and age at marriage were accounted for, incarcerations occurring during a marriage were associated with an increased risk of that marriage dissolving ($b = .70, p < .001$). Exponentiating the coefficient to obtain the odds ratio indicated that incarceration during marriage was associated with 102 percent higher odds of marital dissolution. In contrast, incarcerations occurring before a marriage did not significantly increase the odds of that marriage dissolving ($b = .19, p > .05$).

To examine time to divorce after an incarceration, we estimated survivor and hazard functions for postincarceration marital duration among the subset of 107 respondents who were incarcerated during marriage. Figure 1 shows that the probability that such a respondent remained married declined steadily across the years after the incarceration before leveling off approximately 6 years later. The hazard function (not shown) indicated that the rate of marital dissolution among these respondents hovered around .15 for the first six time intervals, and then it declined to nearly zero. As noted earlier, some respondents experienced the incarceration by the wave 3 interview, and others after. The survival curves for these two groups were comparable. However, by design, the uncensored postincarceration observation period tended to be longer for respondents who were incarcerated by wave 3 (more than 6 years on average) than for respondents incarcerated only after wave 3 (3 years on average). The estimated survival functions imply that in the absence of censoring, we might have observed more marital dissolutions among the latter group.

RELATIONSHIP PROBLEMS AMONG RESPONDENTS INCARCERATED DURING MARRIAGE

We next examined whether incarceration during marriage predicted the hypothesized mediators of the association between incarceration and divorce. These models compared the associations of pre-versus post-wave 3 incarcerations with relationship characteristics measured at the wave 3 interview. The linear and logistic regression coefficients shown in table 3 indicate that relative to respondents who were not incarcerated during marriage, respondents who were incarcerated during marriage and by wave 3 showed less marital love ($b = .17, p < .001$), more economic strain ($b = .48, p < .001$), and more relationship violence ($b = .35, p < .001$), as well as higher log-odds of extramarital sex ($b = .83, p < .05$) at wave 3. In contrast, respondents who were incarcerated during marriage but only after wave 3 did not show less marital love ($b = .02, p > .05$), more relationship violence ($b = .10, p > .05$), or higher log-odds of extramarital sex ($b = -.17, p > .05$) at wave 3, prior to their incarcerations. For all three of these outcomes, the nonsignificant coefficients for post-wave 3 incarceration were significantly different from the significant coefficients for pre-wave 3 incarceration (all ps for differences $< .05$). Post-wave 3 incarceration was associated with wave 3 economic strain, however ($b = .26, p < .01$). Although its coefficient was 46 percent smaller than the coefficient for pre-wave 3 incarceration, the two coefficients were not statistically distinguishable (p for difference $> .05$).⁵

USING RELATIONSHIP PROBLEMS TO EXPLAIN THE INCARCERATION-DIVORCE ASSOCIATION

We next estimated two discrete time models predicting relationship dissolution from incarceration before marriage, a time-varying indicator of incarceration during marriage and by wave 3, and a time-varying indicator of incarceration during marriage and after wave 3. Model 1 estimated the effect of incarceration on the risk of divorce net of the controls; model 2 added the relationship characteristics hypothesized to mediate the association. Table 4 shows the results. Model 1 shows that incarcerations occurring during marriage and by wave 3 positively predicted marital dissolution ($b = .68, p < .001$). Exponentiating this coefficient revealed that these respondents had nearly twice the odds of marital dissolution by wave 4 as did respondents not incarcerated during marriage ($e^{.68} = 1.97$). Incarcerations occurring during marriage and after wave 3 had similar associations with marital dissolution ($b = .71, p < .001$, odds ratio [OR] = 2.03).

Model 2 of table 4 shows that as expected, relationship dissolution was significantly predicted by low marital love, economic strain, relationship violence, and extramarital sex. Our main interest is in the effect of these characteristics on the coefficients for incarceration. The significance tests for indirect effects reveal that wave 3 relationship characteristics significantly reduced the effect of prior incarceration during marriage on relationship dissolution (p for reduction in coefficient $< .05$). Specifically, the remaining direct effect was 40 percent smaller than the original coefficient; it also was no longer statistically

⁵In multiple sets of ancillary analyses, we included in these models cases with unmatched longitudinal relationship reports by making various assumptions about these cases' post-wave 3 marriage end dates, which were needed to code these cases' post-wave 3 marital incarcerations. The results of these models were similar and sometimes identical to the results presented here, although in some cases the difference in coefficients for pre- and post-wave 3 incarceration in predicting relationship violence was not statistically significant.

significant. When added individually to model 1 of table 4, each of the four characteristics produced a decline in the incarceration coefficient, but low marital love and extramarital sex produced larger declines (of 19 percent and 25 percent, respectively, p for both reductions $< .05$) than did economic strain (4 percent, $p < .05$) and relationship violence (7 percent, $p < .10$). In addition, only low marital love and extramarital sex had unique mediating effects, producing declines in the incarceration coefficient even net of the other three characteristics and the controls ($p < .05$). Because table 3 suggests that economic strain had uncertain sequencing with incarceration, we examined the joint indirect effect of love, relationship violence, and extramarital sex while accounting for economic strain and the controls. These three relationship characteristics reduced the remaining effect of prior incarceration during marriage by 37 percent (from .65 to .41; p for reduction in coefficient $< .05$). The addition of relationship characteristics to the model did not significantly change the effect of subsequent incarceration during marriage or the effect of incarceration before marriage.

RESULTS FOR THE MALE SUBSAMPLE

Finally, we examined the associations of incarceration with marital characteristics and dissolution among male respondents (see table S.2). Most of the coefficients found for this subsample were similar to those found for the whole sample, but some significance levels changed. For instance, the association between low marital love and incarceration remained positive but was not statistically significant among the male subsample. Similarly, the positive association between incarceration and economic strain among males was only significant for pre-wave 3 incarceration. The relationship characteristics explained a statistically significant 35 percent of the effect of pre-wave 3 incarceration, compared with 40 percent among the full sample. Although comparing coefficients in tables 3 and S.2 revealed some hints of potential gender differences, because we could not test them directly, we cannot draw firm conclusions about gender differences from these analyses. Nonetheless, we encourage future researchers to examine the possibilities that the incarceration of males has a weaker impact on love and a stronger impact on household economic strain than does that of females.

ROBUSTNESS CHECKS

Testing Mediation in Reduced Models—The main analyses adjust for many covariates, but the sample sizes of the key incarceration groups are modest, raising the possibility that the models are overly complex. Table S.3 illustrates the consistency of the mediation findings across different reduced form models. Regardless of whether and which control variables were included, adjusting for relationship characteristics reduced the coefficients for incarceration during marriage and by wave 3 by at least 53 percent and to statistical nonsignificance. In some models, adjusting for relationship characteristics produced modest but significant reductions in the coefficients for incarceration during marriage and after wave 3. These models all omitted the behavioral control variables. Ancillary analyses indicated that adding religiosity, hard drug use, and problem drinking, and in some cases any one of these covariates, to these models eliminated the “mediating” effect of relationship characteristics for post-wave 3 incarceration. In 16 additional reduced form models (results available on request), we confirmed the differential effects of pre- and post-wave 3 incarceration on wave 3 relationship characteristics, with one exception: In a

model with only relationship history controls, the difference in coefficients predicting extramarital sex, although large (.82 versus .15), was not statistically significant. We thus conclude that the findings presented earlier are not simply artifacts of the extensive set of control variables used in the main analyses.

Logistic Regression Models Predicting Relationship Dissolution—We also verified our results for relationship dissolution via logistic regression models predicting marital dissolution among cases with matched longitudinal relationship reports. The bottom panel of table S.3 shows results for full and reduced models. These models confirmed that incarcerations occurring during marriage and by wave 3 were associated with doubled odds of marital dissolution by wave 4 (e.g., in the full model, $e^{.85} = 2.34$). In contrast, net of the controls, incarcerations occurring during marriage but after wave 3 did not significantly predict marital dissolution, although the coefficients were in the expected direction. The survival curves presented in figure 1 suggest that a longer follow-up period might have allowed us to observe more divorces among this group, so censoring could explain the difference between these results and the discrete time results presented earlier.

Together, our findings indicate that young adults who are incarcerated while they are married remain at increased risk for divorce for several years after their release. This increased risk seems to be in large part because incarceration is associated with lower emotional and economic rewards derived from the marriage and higher physical risks of staying in the marriage, and these relationship problems in turn are associated with divorce. It is possible that these marital problems are confounders rather than mediators of the incarceration effect. Yet although preincarceration couples do show increased levels of economic strain, unlike postincarceration couples, they do not seem to love each other less, engage in more relationship violence, or have higher odds of extramarital sex than do couples who do not experience an incarceration during marriage. This finding provides suggestive evidence that marital problems follow from spells of incarceration and thus mediate the incarceration-divorce association.

DISCUSSION

This study used recent data from a contemporary national sample to confirm an important past finding: that incarceration occurring during marriage, but not before, is associated with an increased risk of marital dissolution for several years postrelease (Apel et al., 2010; Lopoo and Western, 2005; Massoglia, Remster, and King, 2011). When combined with our existing knowledge of the impacts of incarceration, social exchange perspectives suggest that incarceration disrupts marriages by reducing inducements to stay in them and raising inducements to leave them (Levinger, 1965). Our findings go beyond past work by demonstrating that incarcerations occurring during marriage are associated with less love between spouses, more marital violence, and greater odds of extramarital sex, and that these factors in turn are associated with increased odds of divorce. It is possible that the incarceration-divorce association is spurious to, rather than mediated by, these factors. Yet postincarceration couples, but not preincarceration couples, were the couples that showed elevated levels of these marital problems. Our results do suggest that preincarceration couples experience more than their share of economic strain, which also seems to play some

role in the incarceration-divorce association. Still, overall the results are consistent with the idea that some forms of marital problems are intermediate steps in a sequence leading from incarceration to marital dissolution.

These marital problems, which also are strong predictors of divorce in the family literature (Amato, 2010), explained 40 percent of the incarceration-divorce association. This finding implies that former inmates' marriages may fail for some of the same reasons that other people's marriages fail, and they may fail at a higher rate because couples that experience incarceration experience more of these marital problems. One criticism of the social exchange perspective on divorce is that the perspective is silent on why rewards, barriers, and alternatives might change during the course of a marriage (Karney and Bradbury, 1995). Our findings suggest that one source of such changes could be spouses' life events and experiences with other social institutions, such as the penal system. This possibility underscores the potential for criminological and family scholarship to inform each other.

Many scholarly predictions about the reduced respect, trust, and loyalty that may follow incarcerations were developed from research on lengthy spells of imprisonment (e.g., Braman, 2004; Harman, Smith, and Egan, 2007; Nurse, 2002). In addition, many past studies linking incarceration with divorce examined spells longer than those examined here (e.g., Lopoo and Western, 2005; Massoglia, Remster, and King, 2011). Our study found a comparably large link between incarcerations of only a few months or less and later divorce. For our interpretation of our findings to be correct, these brief spells would need to be sufficient to damage couples' love, fidelity, and conflict resolution, and possibly their financial well-being. We would need longitudinal data on pre- and postincarceration marital characteristics to test these ideas directly. In the absence of such data, the possibility remains that these couples already had marital problems before experiencing incarceration. If true, than rather than pointing to mechanisms of the incarceration effect, our results point to important relational confounds that should be accounted for in future studies of incarceration and relationship dissolution. If our results do capture mechanisms, we can say only that these mechanisms follow incarcerations of modest length; they may not explain the effects of longer prison stays.

This study thus also relates to important theoretical debates about the aspects of incarceration that undermine former inmates' social integration. Broadly, incarceration could affect the costs, rewards, and alternatives of a marriage via stigma, that is, by tarnishing inmates' reputations and causing people to want to disassociate from them. Alternatively, it could affect these things via incapacitation, that is, by making it physically difficult for inmates to participate in and contribute to their relationships (Apel et al., 2010; Massoglia, Remster, and King, 2011). Although the effects of incarceration may grow stronger as incarceration length increases (Massoglia, Remster, and King, 2011), our findings suggest that incarcerations need not be lengthy to produce divorce. The brevity of these apparently impactful incarcerations may imply that stigma does play a role in shaping marital love, conflict, openness to outside relationships, and ultimately divorce. We do not think this possibility is incompatible with the idea that longer incarcerations may be more detrimental to marital quality or that they may trigger additional destabilizing mechanisms, and indeed findings to that effect would bridge many of the differences between this study

and past works. Future research should examine whether our findings generalize to longer prison stays.

Our attempt to identify intervening processes may tell us something meaningful about incarceration's unintended consequences across a wide number of conventional domains. One of the many domains disrupted by incarceration is marriage. Although several studies have reported that incarceration increases marital instability (Lopoo and Western, 2005; Massoglia, Remster, and King, 2011; Western, 2006), the mechanisms that link incarceration to marital dissolution have remained elusive. By examining potential mechanisms, this study provides suggestive evidence on *why* incarceration might affect marital stability, namely, by adversely affecting important relationship dynamics that are strongly tied to marital cohesion. To the extent that this is the case, the patterns we observed indicate that incarceration may be implicated in the production of social inequalities (e.g., deficits in love, domestic violence, and infidelity) within marital relationships that increase the odds of marital instability.

More broadly, our results are in line with many studies that have highlighted the harmful effects of incarceration on positive life outcomes (Apel and Sweeten, 2010; Hagan and Dinovitzer, 1999; Patillo, Weiman, and Western, 2004; Petersilia, 2003; Pettit and Western, 2004; Uggen, Manza, and Thompson, 2006). This body of research has provided substantial evidence that incarceration inhibits prosocial life-course transitions that can lead to cumulative and compounded disadvantages as ex-inmates return home (Laub and Sampson, 2003; Pettit, 2012; Uggen, 2000; Wakefield and Uggen, 2010; Western, 2006). Indeed, incarceration sanctions are intended to reduce or disrupt an individual's offending trajectory and simultaneously deter crime. However, research has continued to show that incarceration has unintended consequences by disrupting conventional achievement prospects that have been shown to lower criminal offending (e.g., employment, marriage; Hagan and Dinovitzer, 1999; Huebner, 2005; Lopoo and Western, 2005; Sampson and Laub, 1993; Uggen, 2000). For example, stable employment and quality marriages have been linked to desistance by serving as a source of informal social control for criminal offenders (Sampson and Laub, 1993). On the other hand, persistent offending is more likely among those who fail to obtain prosocial stakes in conformity. Thus, this broad line of evidence suggests that incarceration and existing criminal justice penal policies have several unintended consequences that lead to future offending or other negative life outcomes (Patillo, Weiman, and Western, 2004; Petersilia, 2003).

Our findings have important implications for policy and intervention. Most directly, they indicate that efforts to build marital closeness, strengthen marital commitment, and promote nonviolent conflict resolution among couples who have experienced incarceration could help preserve current and former inmates' marriages. Efforts to improve couples' financial health could have similar effects. Multipronged interventions that address marital quality, fidelity, domestic violence, and family economic well-being together could be most effective for three reasons. First, these relationship characteristics best explained the incarceration-divorce association when considered jointly (cf. Amato and Rogers, 1997; Harman, Smith, and Egan, 2007). Second, the link between incarceration and domestic violence indicates that efforts to promote marital stability without comprehensively

addressing these couples' problems could inadvertently put some spouses at risk. Third, preserving poor quality marriages likely would do little to prevent recidivism (Sampson and Laub, 1993) and might worsen marital conflict (Levinger, 1965). We thus suggest that the goal of intervention should not be the simple preservation of all of these couples' marriages, but instead it should be the amelioration of the specific relational stresses caused by incarceration.

Our data covered people who were married before their late 20s and followed those marriages prospectively for 6 years. At wave 4, it was still too soon to know what would become of all of these marriages, especially those of respondents incarcerated after wave 3. In addition, although our sample was observed at a key age range for incarceration, studying this age range necessarily means that we were studying relatively early marriages. People who marry by their mid-20s are more likely to divorce when the marriage turns bad, suggesting that they may be subject to fewer constraints against divorce or less resilient to marital stressors (Glenn, Uecker, and Love, 2010). Yet people who are incarcerated at later ages may be more persistent or serious offenders who are at increased risk for a variety of negative outcomes. Not enough research exists on the overlap between the incarcerated and married populations for us to predict with confidence how our results might differ in an older sample. It is noteworthy that we observe the same general incarceration-divorce relationship found in data capturing a broader age range. Still, future research should examine whether our findings generalize to other marital contexts such as marriages occurring later in life, marriages of longer duration, and remarriages.

This study has some additional limitations. First, like most studies of this topic, our data only captured the incarceration experiences of one spouse (the respondent). Although only one partner's negative marital experience may be enough to end the marriage, it is possible that respondents' spouses had different views of the marriage. In addition, our reference (no incarceration) groups may have included some respondents whose spouses had been incarcerated. This possibility probably makes our estimates conservative tests of the differences between couples who are and are not affected by incarceration, but information on both partners' experiences would be desirable. In addition, despite the relative rarity of incarceration among married people, we detected strong effects of incarceration on marital processes, but our incarcerated samples were too small for us to examine variations in effects across demographic subgroups. Future studies should examine whether these processes differ across genders, racial and ethnic groups, parental status, and other important dimensions. Despite these limitations, this study offers the advantages of prospective information on marriages and incarcerations, and a rare look at the potential mechanisms behind former inmates' marital instability.

In conclusion, our study adds to a growing body of research documenting the negative impact of incarceration on family well-being (Giordano, 2010; Wildeman, 2010; Wildeman, Schnittker, and Turney, 2012). Although our findings contribute important information about why former inmates' marriages fail, there is more work to be done. We explained some of the incarceration effect using a partial list of marital costs, rewards, and alternatives, but other indicators as well as barriers to marriage dissolution are theoretically relevant (Previti and Amato, 2003). We must determine the relevance of these factors not only to

improve our understanding of inmates' marriages but also because many of these couples have children who may keep unhappy, conflict-ridden marriages intact (Previti and Amato, 2003). In addition, small-scale implementations of marital interventions in correctional facilities have reported beneficial effects on inmates' relationship skills (Einhorn et al., 2008; Shamblen et al., 2012). Our findings suggest that such interventions could have long-term benefits for marital cohesion and stability, and this possibility should be tested. Finally, although marital dissolution could be an intermediate link between incarceration and other important outcomes, we know little about the consequences of former inmates' divorces. Most of the available evidence suggests that family disruption harms inmates, spouses, and children, but some families could benefit when an offender is removed from the household (Johnson and Easterling, 2012). A better understanding of incarceration's effects on marital process could shed light not only on marital outcomes but also on broader individual and family adjustment and development.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

We thank Dan Mears for providing national statistics on sentence length, Wayne Osgood for providing statistical advice, Alex Widdowson for providing tabulations of NLSY data, and editor Rosemary Gartner and the anonymous reviewers for their thoughtful and helpful feedback on the manuscript. Funding for this research and resulting publication was provided in part by the Florida State University Council on Research & Creativity through a Committee on Faculty Research Support award (to the first author). This research uses data from Add Health, a program project directed by Kathleen Mullan Harris and designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris at the University of North Carolina at Chapel Hill, and funded by grant P01-HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 23 other federal agencies and foundations. Special acknowledgment is due Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Information on how to obtain the Add Health data files is available on the Add Health website (<http://www.cpc.unc.edu/addhealth>). No direct support was received from grant P01-HD31921 for this analysis.

Grant Number: R24 HD041025

Biographies

Sonja E. Siennick is an assistant professor in the College of Criminology and Criminal Justice at Florida State University. Her research examines the interpersonal causes and consequences of crime and deviance over the life course, with recent emphasis on family relationships and on incarceration.

Eric A. Stewart is a professor in the College of Criminology and Criminal Justice at Florida State University. He is a member of the Racial Democracy, Crime and Justice Network. His research interests include racial inequality and criminal outcomes, crime over the life course, and contextual processes and microprocesses that affect adolescent development.

Jeremy Staff is an associate professor of Criminology and Sociology at The Pennsylvania State University. His research and teaching interests include criminology, stratification, and the life course. He is currently studying how family, school, and work transitions are

associated with fluctuations in alcohol use and misuse, as well as the consequences of heavy drinking with respect to midlife socioeconomic attainment, health, and mortality.

REFERENCES

- Amato, Paul R. Research on divorce: Continuing trends and new developments. *Journal of Marriage and Family*. 2010; 72:650–66.
- Amato, Paul R.; Bryndl, Hohmann-Marriott. A comparison of high and low-distress marriages that end in divorce. *Journal of Marriage and Family*. 2007; 69:621–38.
- Amato, Paul R.; Denise, Previti. People's reasons for divorcing: Gender, social class, the life course, and adjustment. *Journal of Family Issues*. 2003; 24:602–26.
- Amato, Paul R.; Rogers, Stacy J. A longitudinal study of marital problems and subsequent divorce. *Journal of Marriage and the Family*. 1997; 59:612–24.
- Apel, Robert; Blokland, Arjan A. J.; Paul, Nieuwbeerta; Marieke van, Schellen. The impact of imprisonment on marriage and divorce: A risk set matching approach. *Journal of Quantitative Criminology*. 2010; 26:269–300.
- Apel, Robert; Gary, Sweeten. The impact of incarceration on employment during the transition to adulthood. *Social Problems*. 2010; 57:448–79.
- Arditti, Joyce A. *Parental Incarceration and the Family: Psychological and Social Effects of Imprisonment on Children, Parents, and Caregivers*. NYU Press; New York: 2012.
- Arditti, Joyce A.; Tiffany, Parkman. Young men's reentry after incarceration: A developmental paradox. *Family Relations*. 2011; 60:205–20.
- Benson, Michael L.; Leanne Fital, Alarid; Burton, Velmer S.; Cullen, Francis T. Reintegration or stigmatization? Offenders' expectations of community re-entry. *Journal of Criminal Justice*. 2011; 39:385–93.
- Bonczar, Thomas P. *Prevalence of Imprisonment in the U.S. Population, 1974-2001*. U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics; Washington, DC: 2003.
- Bonczar, Thomas P. *State Prison Releases, 2008: Time Served in Prison, by Offense and Release Type*. U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics; Washington, DC: 2011.
- Braman, Donald. *Doing Time on the Outside: Incarceration and Family Life in Urban America*. University of Michigan Press; Ann Arbor: 2004.
- Carlin, Josh B.; Galati, John C.; Patrick, Royston. A new framework for managing and analyzing multiply imputed data in Stata. *The Stata Journal*. 2008; 8:49–67.
- Collett, Jessica L. Integrating theory, enhancing understanding: The potential contributions of recent experimental research in social exchange for studying intimate relationships. *Journal of Family Theory & Review*. 2010; 2:280–98.
- Comfort, Megan. *Doing Time Together: Love and Family in the Shadow of the Prison*. University of Chicago Press; Chicago, IL: 2008.
- Conger, Rand D.; Elder, Glen H., Jr.; Lorenz, Frederick O.; Conger, Katherine J.; Simons, Ronald L.; Whitbeck, Les B.; Shirley, Huck; Melby, Janet N. Linking economic hardship to marital quality and instability. *Journal of Marriage and the Family*. 1990; 52:643–56.
- DeMaris, Al. Burning the candle at both ends: Extramarital sex as a precursor of marital disruption. *Journal of Family Issues*. 2013; 34:1474–99. [PubMed: 24634559]
- Einhorn, Lindsey; Tamra, Williams; Scott, Stanley; Nicole, Wunderlin; Howard, Markman; Joanne, Eason. PREP inside and out: Marriage education for inmates. *Family Process*. 2008; 47:341–56. [PubMed: 18831311]
- Fishman, Laura T. *Women at the Wall: A Study of Prisoners' Wives Doing Time on the Outside*. SUNY Press; Albany, NY: 1990.
- Giordano, Peggy C. *Legacies of Crime: A Follow-Up of the Children of Highly Delinquent Girls and Boys*. Cambridge University Press; New York: 2010.
- Glenn, Norval D.; Uecker, Jeremy E.; Love, Robert W. B. Later first marriage and marital success. *Social Science Research*. 2010; 39:787–800. [PubMed: 22948068]

- Goffman, Alice. On the run: Wanted men in a Philadelphia ghetto. *American Sociological Review*. 2009; 74:339–57.
- Hagan, John; Ronit, Dinovitzer. Collateral consequences of imprisonment for children, communities, and prisoners. In: Tonry, Michael H.; Joan, Petersilia, editors. *Crime and Justice: A Review of Research*. Vol. 26. University of Chicago Press; Chicago, IL: 1999.
- Harman, Jennifer J.; Smith, Vernon E.; Egan, Louisa C. The impact of incarceration on intimate relationships. *Criminal Justice and Behavior*. 2007; 34:794–815.
- Heaton, Tim B.; Albrecht, Stan L. Stable unhappy marriages. *Journal of Marriage and the Family*. 1991; 53:747–58.
- Huebner, Beth M. The effect of incarceration on marriage and work over the life course. *Justice Quarterly*. 2005; 22:281–303.
- Johnson, Elizabeth I.; Beth, Easterling. Understanding unique effects of parental incarceration on children: Challenges, progress, and recommendations. *Journal of Marriage and the Family*. 2012; 74:342–56.
- Karakurt, Gunnur; Christiansen, Abigail T.; Wadsworth, Shelley M.; Weiss, Howard M. Romantic relationships following wartime deployment. *Journal of Family Issues*. 2013; 34:1427–51.
- Karlson, Kristian B.; Anders, Holm; Richard, Breen. Comparing regression coefficients between same-sample nested models using logit and probit: A new method. *Sociological Methodology*. 2012; 42:286–313.
- Karney, Benjamin R.; Bradbury, Thomas N. The longitudinal course of marital quality and stability: A review of theory, methods, and research. *Psychological Bulletin*. 1995; 118:3–34. [PubMed: 7644604]
- Kreager, Derek A.; Felson, Richard B.; Cody, Warner; Wenger, Marin R. Women's education, marital violence, and divorce: A social exchange perspective. *Journal of Marriage and the Family*. 2013; 75:565–81. [PubMed: 24357879]
- Kurdek, Lawrence A. Predicting the timing of separation and marital satisfaction: An eight-year prospective longitudinal study. *Journal of Marriage and the Family*. 2002; 64:163–79.
- Laub, John H.; Sampson, Robert J. *Shared Beginnings, Divergent Lives: Delinquent Boys to Age 70*. Harvard University Press; Cambridge, MA: 2003.
- Lavner, Justin A.; Bradbury, Thomas N.; Karney, Benjamin R. Incremental change or initial differences? Testing two models of marital deterioration. *Journal of Family Psychology*. 2012; 26:606–16. [PubMed: 22709260]
- Levinger, George. Marital cohesiveness and dissolution: An integrative review. *Journal of Marriage and the Family*. 1965; 27:19–28.
- Lewis, Robert A.; Spanier, Graham B. Theorizing about the quality and stability of marriage. In: Burr, Wesley R.; Reuben, Hill; Nye, F. Ivan; Reiss, Ira L., editors. *Contemporary Theories about the Family*. Vol. 2. The Free Press; New York: 1979.
- Lopoo, Leonard M.; Bruce, Western. Incarceration and the formation and stability of marital unions. *Journal of Marriage and Family*. 2005; 67:721–34.
- Massoglia, Michael; Brianna, Remster; King, Ryan D. Stigma or separation? Understanding the incarceration-divorce relationship. *Social Forces*. 2011; 90:133–55.
- Noonan, Margaret. *Mortality in Local Jails, 2000-2007*. U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics; Washington, DC: 2010.
- Nurse, Anne. *Fatherhood Arrested: Parenting from Within the Juvenile Justice System*. Nashville, TN; Vanderbilt University Press: 2002.
- Oliver, William; Hairston, Creasie F. Intimate partner violence during the transition from prison to the community: Perspectives of incarcerated African American men. *Journal of Aggression, Maltreatment and Trauma*. 2008; 16:258–76.
- Patillo, Mary; David, Weiman; Bruce, Western, editors. *Imprisoning America: The Social Effects of Mass Incarceration*. Russell Sage Foundation; New York: 2004.
- Petersilia, Joan. *When Prisoners Come Home: Parole and Prisoner Reentry*. Oxford University Press; New York: 2003.

- Pettit, Becky; Bruce, Western. Mass imprisonment and the life course: Race and class inequality in U.S. incarceration. *American Sociological Review*. 2004; 69:151–69.
- Pettit, Becky. *Invisible Men: Mass Incarceration and the Myth of Black Progress*. Russell Sage Foundation; New York: 2012.
- Pew Charitable Trusts. *Time Served: The High Cost, Low Return of Longer Prison Terms*. Pew Charitable Trusts; Philadelphia, PA: 2012. http://www.pewtrusts.org/our_work_report_detail.aspx?id=85899396348
- Previti, Denise; Amato, Paul R. Why stay married? Rewards, barriers, and marital stability. *Journal of Marriage and Family*. 2003; 65:561–73.
- Raudenbush, Stephen W.; Christopher, Johnson; Sampson, Robert J. A multivariate, multilevel Rasch model with application to self-reported criminal behavior. *Sociological Methodology*. 2003; 33:169–211.
- Rodrigues, Amy E.; Hall, Julie H.; Fincham, Frank D. Divorce and relationship dissolution: Theory, research and practice. In: Fine, Mark A.; Harvey, John H., editors. *Handbook of Divorce and Relationship Dissolution*. Erlbaum; Mahwah, NJ: 2006.
- Royston, Patrick. Multiple imputation of missing values: Update. *The Stata Journal*. 2005; 5:1–14.
- Rubin, Donald B. *Multiple Imputations for Nonresponse in Surveys*. Wiley; New York: 1987.
- Sampson, Robert J.; Laub, John H. *Crime in the Making: Pathways and Turning Points Through Life*. Harvard University Press; Boston, MA: 1993.
- Shamblen, Stephen R.; Arnold, Brooke B.; Patrick, McKiernan; Collins, David A.; Strader, Ted N. Applying the Creating Lasting Family Connections Marriage Enhancement Program to marriages affected by prison reentry. *Family Process*. 2013; 52:477–98. [PubMed: 24033244]
- Thibaut, John W.; Kelley, Harold H. *The Social Psychology of Groups*. Wiley; New York: 1959.
- Thomas, James C.; Levandowski, Brooke A.; Isler, Malika R.; Elizabeth, Torrone; George, Wilson. Incarceration and sexually transmitted infections: A neighborhood perspective. *Journal of Urban Health*. 2008; 85:90–9. [PubMed: 18046653]
- Travis, Jeremy; Michelle, Waul. The children and families of prisoners. In: Jeremy, Travis; Michelle, Waul, editors. *Prisoners Once Removed: The Impact of Incarceration and Reentry on Children, Families, and Communities*. Urban Institute Press; Washington, DC: 2003.
- Turanovic, Jillian J.; Nancy, Rodriguez; Pratt, Travis C. The collateral consequences of incarceration revisited: A qualitative analysis of the effects on caregivers of children of incarcerated parents. *Criminology*. 2012; 50:913–59.
- Turney, Kristin; Jason, Schnittker; Christopher, Wildeman. Those they leave behind: Paternal incarceration and maternal instrumental support. *Journal of Marriage and Family*. 2012; 74:1149–65.
- Turney, Kristin; Christopher, Wildeman. Redefining relationships: Explaining the countervailing consequences of paternal incarceration for parenting. *American Sociological Review*. 2013; 78:949–79.
- Richard, Udry, J. Marital alternatives and marital disruption. *Journal of Marriage and the Family*. 1981; 43:889–97.
- Uecker, Jeremy E.; Stokes, Charles E. Early marriage in the United States. *Journal of Marriage and the Family*. 2008; 70:835–46. [PubMed: 20305796]
- Uggen, Christopher. Work as a turning point in the life course of criminals: A duration model of age, employment, and recidivism. *American Sociological Review*. 2000; 65:529–46.
- Uggen, Christopher; Jeff, Manza; Angela, Behrens. Less than the average citizen: Stigma, role transition, and the civic reintegration of convicted felons. In: Shadd, Maruna; Russ, Immerigeon, editors. *After Crime and Punishment: Pathways to Offender Reintegration*. Willan; Devon, U.K.: 2004.
- Uggen, Christopher; Jeff, Manza; Melissa, Thompson. Citizenship, democracy, and the civic reintegration of criminal offenders. *The ANNALS of the American Academy of Political and Social Science*. 2006; 605:281–310.
- Wakefield, Sara; Christopher, Uggen. Incarceration and stratification. *Annual Review of Sociology*. 2010; 36:387–406.

- Western, Bruce. The impact of incarceration on wage mobility and inequality. *American Sociological Review*. 2002; 67:526–46.
- Western, Bruce. *Punishment and Inequality in America*. Russell Sage Foundation; New York: 2006.
- White, James M. The current status of theorizing about families. In: Peterson, Gary W.; Bush, Kevin R., editors. *Handbook of Marriage and the Family*. Springer; New York: 2013.
- White, Lynn K.; Alan, Booth. Divorce over the life course: The role of marital happiness. *Journal of Family Issues*. 1991; 12:5–21.
- White, Lynn K.; Rogers, Stacy J. Economic circumstances and family outcomes: A review of the 1990s. *Journal of Marriage and the Family*. 2000; 62:1035–51.
- White, Robert J.; Gondolf, Edward W.; Robertson, Donald U.; Goodwin, Beverly J.; Caraveo, L. Eduardo Extent and characteristics of woman batterers among federal inmates. *International Journal of Offender Therapy and Comparative Criminology*. 2002; 46:412–26. [PubMed: 12150081]
- Wildeman, Christopher. Paternal incarceration and children's physically aggressive behaviors: Evidence from the Fragile Families and Child Wellbeing Study. *Social Forces*. 2010; 89:285–310.
- Wildeman, Christopher; Jason, Schnittker; Kristin, Turney. Despair by association? The mental health of mothers with children by recently incarcerated fathers. *American Sociological Review*. 2012; 77:216–43.

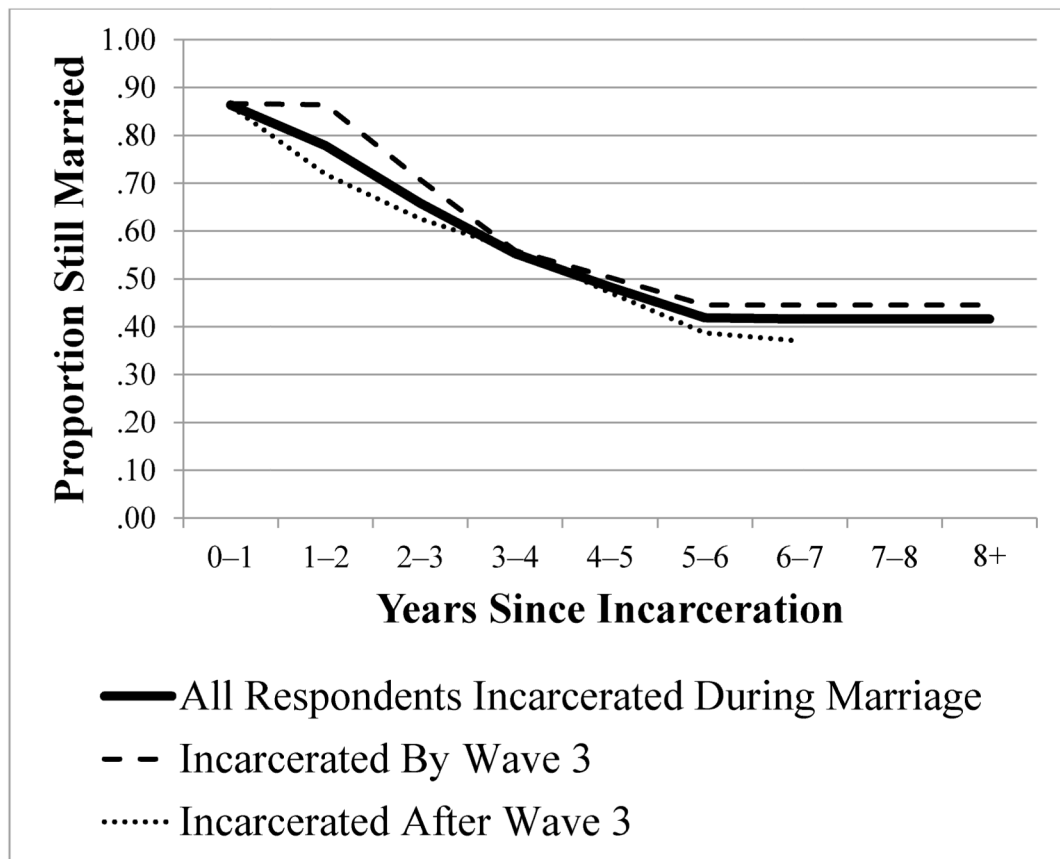


Figure 1. Proportion of Respondents Still Married at Each Year Since Incarceration
Source: National Longitudinal Study of Adolescent Health.

Table 1
Descriptive Statistics for Study Variables, by Respondent Incarceration

Variables	Timing of Incarceration						Range
	Never During Marriage		During Marriage, by Wave 3		During Marriage, after Wave 3		
	Mean	SE	Mean	SE	Mean	SE	
Focal Outcome Variable							
Relationship dissolution by wave 4	.35		.61		.48		0–1
Relationship Characteristics							
Low marital love	-.97	(.01)	-.77	(.10)	-.92	(.05)	-1.03–1.03
Economic strain	.15	(.02)	.64	(.14)	.51	(.10)	-.29–2.65
Relationship violence	-.02	(.01)	.41	(.13)	.19	(.08)	-.36–1.97
Extramarital sex	.21		.48		.29		0–1
Demographic Characteristics							
Male	.33		.73		.70		0–1
Black ^a	.11		.00		.10		0–1
Hispanic ^a	.18		.36		.24		0–1
Other non-White race/ethnicity ^a	.07		.03		.06		0–1
Co-resident child	.57		.55		.79		0–1
Non-co-resident child	.05		.15		.15		0–1
Educational attainment	2.92	(.01)	2.73	(.08)	2.77	(.06)	1–5
Employed full-time	.59		.61		.54		0–1
Behavioral Characteristics							
Religiosity	.03	(.02)	-.19	(.14)	-.15	(.08)	-1.66–2.46
Hard drug use	.05		.12		.25		0–1
Problem drinking	.18	(.02)	.64	(.20)	.62	(.16)	0–6
Problem gambling	.01		.06		.07		0–1
Non-family violence	.04		.21		.21		0–1
Prior domestic violence conviction	.00		.00		.02		0–1
Incarcerated before marriage	.04		.14		.30		0–1
Relationship History							
Age at marriage	21.06	(.04)	19.91	(.31)	20.81	(.24)	17–27
Years married at wave 3	1.69	(.04)	2.52	(.25)	1.91	(.22)	0–5
Cohabited with spouse before marriage	.59		.76		.76		0–1
<i>n</i>	1,752		33		62		

NOTE: Variables measured at wave 3 unless otherwise noted.

ABBREVIATION: SE = standard error (omitted for dichotomous variables).

Source: National Longitudinal Study of Adolescent Health.

^a Measured at wave 1.

Table 2

Discrete Time Survival Model Predicting Duration-Dependent Risk of Relationship Dissolution From Respondent Incarceration During Marriage ($N = 14,644$ observations on 1,919 respondents)

Predictors	<i>b</i>	SE	OR
Focal Predictor			
Incarcerated during marriage	.70***	(.18)	2.02
Demographic Characteristics			
Male	-.35***	(.10)	.71
Black	.61***	(.12)	1.85
Hispanic	.06	(.11)	1.06
Other non-White race/ethnicity	-.11	(.17)	.90
Co-resident child	-.12	(.09)	1.13
Non-co-resident child	.43*	(.15)	1.54
Educational attainment	-.11	(.11)	.89
Employed full-time	.07	(.09)	1.07
Behavioral Characteristics			
Religiosity	-.20**	(.06)	.82
Hard drug use	.33*	(.17)	1.39
Problem drinking	.04	(.05)	1.04
Problem gambling	.18	(.33)	1.20
Non-family violence	-.05	(.19)	.95
Prior domestic violence conviction	.42	(.59)	1.53
Incarcerated before marriage	.19	(.18)	1.21
Relationship History			
Age at marriage	-.10***	(.03)	.90
Years married at wave 3	-.19***	(.04)	.82
Cohabited with spouse before marriage	.61***	(.10)	1.83
Time			
One year since marriage	-.47*	(.19)	
Two years since marriage	-.27	(.18)	
Three years since marriage	.13	(.17)	
Four years since marriage	.42**	(.16)	
Five years since marriage	.41*	(.16)	
Six years since marriage	.30 [†]	(.17)	
Seven years since marriage	.21	(.19)	
Eight years since marriage	.80***	(.19)	
Nine years since marriage	.54*	(.25)	
Ten years since marriage	.83**	(.29)	
Eleven years since marriage	.26	(.53)	

Predictors	<i>b</i>	SE	OR
Twelve years since marriage	-.36	(1.03)	
Thirteen or more years since marriage	1.67	(1.11)	
Constant	-.95	(.68)	

NOTE: Reference category for time variables was married this year.

ABBREVIATIONS: OR = odds ratio; SE = standard error.

Source: National Longitudinal Study of Adolescent Health.

† $p < .10$;

* $p < .05$;

** $p < .01$;

*** $p < .001$ (two-tailed).

Table 3
 Linear and Logistic Regression Coefficients Predicting Relationship Characteristics at Wave 3 From Respondent Incarceration ($N = 1,847$)

Predictors	Low Marital Love ^a		Economic Strain ^a		Relationship Violence ^a		Extramarital Sex ^b	
	<i>b</i>	SE	<i>b</i>	SE	<i>b</i>	SE	<i>b</i>	SE
Focal Predictors								
Incarcerated during marriage, by wave 3	.17***	(.04)	.48***	(.12)	.35***	(.09)	.83*	(.38)
Incarcerated during marriage, after wave 3	.02 ^c	(.04)	.26**	(.09)	.10 ^c	(.07)	-.17 ^c	(.33)
Demographic Characteristics								
Male	-.03*	(.01)	-.14***	(.03)	-.11***	(.03)	-.16	(.14)
Black	.11***	(.02)	.12 [†]	(.06)	.23***	(.04)	1.02***	(.18)
Hispanic	-.00	(.01)	.07	(.06)	.10**	(.03)	.25	(.15)
Other non-White race/ethnicity	.00	(.02)	.08	(.06)	.10*	(.05)	.21	(.22)
Co-resident child	.00	(.01)	.18***	(.03)	.01	(.03)	.30*	(.13)
Non-co-resident child	.04 [†]	(.02)	.05	(.07)	.11*	(.05)	.27	(.24)
Educational attainment	-.07***	(.02)	-.22***	(.05)	-.04	(.04)	.05	(.17)
Employed full-time	.00	(.01)	-.08*	(.03)	-.01	(.03)	-.10	(.13)
Behavioral Characteristics								
Religiosity	-.02**	(.01)	.03	(.02)	-.04*	(.02)	-.19*	(.09)
Hard drug use	.02	(.03)	.22**	(.07)	.10 [†]	(.06)	.77**	(.24)
Problem drinking	.04***	(.01)	.09***	(.02)	.11***	(.02)	.28***	(.08)
Problem gambling	.04	(.05)	-.05	(.14)	-.01	(.11)	-.05	(.51)
Non-family violence	.01	(.03)	-.11	(.08)	.01	(.06)	.20	(.27)
Prior domestic violence conviction	.10	(.12)	1.16***	(.34)	.99***	(.24)	2.07 [†]	(1.15)
Incarcerated before marriage	-.01	(.03)	.12	(.07)	.01	(.06)	.34	(.28)
Relationship History								
Age at marriage	-.00	(.00)	-.01	(.01)	-.03**	(.01)	-.10*	(.04)
Years married	.01*	(.00)	.01	(.01)	.01	(.01)	.09 [†]	(.05)

Predictors	Low Marital Love ^a		Economic Strain ^a		Relationship Violence ^a		Extramarital Sex ^b	
	b	SE	b	SE	b	SE	b	SE
Cohabited with spouse before marriage	-.02	(.01)	.15***	(.03)	.07*	(.03)	.26 [†]	(.13)
Constant	-.71***	(.09)	.91**	(.32)	.54**	(.21)	-.01	(.98)

NOTE: Model predicting economic strain included fixed effects for primary sampling unit (omitted from table).

ABBREVIATION: SE = standard error.

Source: National Longitudinal Study of Adolescent Health

^a Linear coefficients shown.

^b Logistic coefficients shown.

^c $p < .05$ for difference from coefficient for incarcerated during marriage, by wave 3.

[†] $p < .10$;

* $p < .05$;

** $p < .01$;

*** $p < .001$ (two-tailed).

Table 4
Discrete Time Survival Models Predicting Duration-Dependent Risk of Relationship Dissolution From Respondent Incarceration and Relationship Characteristics (N = 14,644 observations on 1,919 respondents)

Predictors	Model 1		Model 2		KHB Test for Change in Coefficient
	b	SE	b	SE	
Focal Predictors					
Incarcerated during marriage, by wave 3	.68**	(.25)	.41	(.26)	***
Incarcerated during marriage, after wave 3	.71**	(.24)	.72**	(.24)	n.s.
Prior Incarceration					
Incarcerated before marriage	.19	(.18)	.15	(.18)	n.s.
Relationship Characteristics					
Low marital love			.88***	(.14)	
Economic strain			.13*	(.06)	
Relationship violence			.26**	(.08)	
Extramarital sex			.63***	(.09)	

NOTES: Control variables were respondent male gender, race and ethnicity, co-resident child, non-co-resident child, educational attainment, full-time employment, religiosity, hard drug use, problem drinking, problem gambling, non-family violence, prior domestic violence conviction, age at marriage, years married at wave 3, whether the couple cohabited before marriage, and dummy variables for time since marriage (omitted from table).

ABBREVIATIONS: KHB = Karlson, Holm, and Breen; n.s. = not significant; SE = standard error.

Source: National Longitudinal Study of Adolescent Health.

† p < .10;

* p < .05;

** p < .01;

*** p < .001 (two-tailed).