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PARTNERSHIP TRANSITIONS AND ANTISOCIAL BEHAVIOR IN YOUNG ADULTHOOD: A WITHIN-PERSON, MULTI-COHORT ANALYSIS*

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Abstract

Objectives—This study examines the effects of young adult transitions into marriage and cohabitation on criminal offending and substance use, and whether those effects changed since the 1970s as marriage rates declined and cohabitation rates rose dramatically. It also examines whether any beneficial effects of cohabitation depend on marriage intentions.

Methods—Using multi-cohort national panel data from Monitoring the Future ($N = 15,875$), the authors estimated fixed effects models relating within-person changes in marriage and cohabitation to changes in criminal offending and substance use.

Results—Marriage predicts lower levels of criminal offending and substance use, but the effects of cohabitation are limited to substance use outcomes and to engaged cohabiters. There are no cohort differences in the associations of marriage and cohabitation with criminal offending, and no consistent cohort differences in their associations with substance use. There is little evidence of differences in effects by gender or parenthood.

Conclusions—Young adults are increasingly likely to enter romantic partnership statuses that do not appear as effective in reducing antisocial behavior. Although cohabitation itself does not

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reduce antisocial behavior, engagement might. Future research should examine the mechanisms behind these effects, and why non-marital partnerships reduce substance use and not crime.

Antisocial behavior declines dramatically across the transition to adulthood (Loeber 2012; Schulenberg and Zarrett 2006). During the same age range, many young people form families of their own. Previous studies have linked these two developmental trajectories by demonstrating that marriage predicts reductions in several types of crime (Blokland and Nieuwbeerta 2005; King, Massoglia, and MacMillan 2007; Sampson, Laub, and Wimer 2006) and in substance use (Bachman et al. 2002; Bachman et al. 1997; Leonard and Homish 2005; Staff et al. 2010). Yet recent decades have seen a major shift in the patterns of family formation that characterize this age range. Most notably, since the 1970s, young adults have increasingly postponed marriage and their rates of cohabitation have more than doubled (Zeng et al. 2012). If marriage historically was partly responsible for young adult declines in crime and substance use, and cohabitation does not produce such declines, then these family changes could have broader implications for the persistence of antisocial behavior well into early adulthood.

Despite these potential implications for adult development, few studies have examined the effects of transitions into cohabitation on antisocial behavior. In addition, when compared to the consistency of the marriage effect across different samples from different historical eras, the variability in the limited findings on cohabitation is striking. The few studies of criminal offending alternately show modest beneficial effects of cohabitation (Sampson et al. 2006; see Savolainen 2009 for an example of stronger effects in a European context), no effect of cohabitation (Lonardo et al. 2010), and even harmful effects of cohabitation (Horney, Osgood, and Marshall 1995; Piquero, MacDonald, and Parker 2002). Studies of substance use also show inconsistent effects of cohabitation, and when effects are found they often are weaker than those of marriage or found by studies using more recent data (Bachman et al. 2002; Duncan, Wilkerson, and England 2006; Fleming, White, and Catalano 2010; Lonardo et al. 2010).

These inconsistent findings could mean that unlike marriage, cohabitation does not play a beneficial role in young adults' antisocial behavior trajectories. Alternatively, they could mean that only some cohabiting partnerships play such a role in those trajectories. Drawing on theories of the marriage effect and on family scholarship comparing marriage and cohabitation, we propose that the relative effects of cohabitation and marriage depend on the extent to which the mechanisms behind the marriage effect apply to cohabitation. We suggest that if these mechanisms do apply to cohabitation, they may be most likely to apply under two circumstances: when the cohabiters are engaged or among recent cohorts for whom cohabitation is normative. In this paper we test the associations between antisocial behavior and marriage and cohabitation among thirty cohorts of young adults from the Monitoring the Future (MTF) study. Like many past studies, we capitalize on the longitudinal nature of our data to relate changes in partnership statuses to changes in antisocial behavior (Duncan et al. 2006; Horney et al. 1995; Piquero et al. 2002). Unlike most past studies, we are able to test the robustness of partnership effects across crime and substance use outcomes, to compare engaged and non-engaged cohabiting couples, and to

test directly for changes in the relative effects of marriage and cohabitation from the 1970s to the present.

Mechanisms of the Marriage Effect and Applications to Cohabitation

Social scientists have proposed that marriage reduces a wide range of antisocial behavior through three main mechanisms. First, marriage creates commitments, responsibilities, and obligations that increase the costs of engaging in antisocial behavior (Sampson and Laub 1993). Second, marriage restricts daily activities and reduces time spent socializing and partying, which reduces opportunities for antisocial behavior and exposure to antisocial influences (Bachman et al. 2002; Osgood et al. 1996; Warr 1998). Third, marriage supports cognitive and identity changes by providing clear prosocial behavioral expectations, encouraging future-oriented behavior, and indicating it is time to get “serious” (Laub and Sampson 2003:43; Giordano, Cernkovich, and Rudolph 2002). It is likely that the total marriage effect stems from a combination of all of these mechanisms (Laub and Sampson 2003). These also are general theories of antisocial behavior, meaning that these mechanisms should lead to reductions in a wide range of antisocial behavior (Laub and Sampson 2001; Maume, Ousey, and Beaver 2005; Osgood et al. 1996). If cohabitation similarly changes priorities, activities, and the potential costs of antisocial behavior, then it should produce similar reductions in several types of antisocial behavior.

Some evidence suggests that cohabitation differs from marriage in ways that would prevent it from having marriage-like effects on antisocial behavior. Marriage has a dramatic impact on lifestyles and orientations not only because it is our culture’s most institutionalized family status, but also because it tends to be a high-quality primary social tie (Cherlin 2004; Waite and Gallagher 2000). Indeed, low quality marriages do not have the same beneficial effect on criminal offending (Laub, Nagin, and Sampson 1998). Some scholars have found that cohabiting relationships on average are of lower quality than are marriages, across a range of dimensions such as relationship satisfaction, commitment, and equity (Nock 1995; Skinner et al. 2002). In addition, cohabiting partners have less authority to restrict each other’s activities and behavior, and receive less support for doing so from extended networks and the community (Cherlin 2004; Stanley, Rhoades, and Whitton 2010; Waite and Gallagher 2000). If cohabiting couples are less committed, or cohabitation is less institutionalized, then the benefits of marriage for antisocial behavior may not extend to cohabitation (Laub and Sampson 2003).

Any null average effect of cohabitation, however, could mask underlying variability in cohabitation, either between couples or across time. Family scholarship suggests that cohabitation most resembles marriage in relationship satisfaction and commitment when the couple plans to marry (Brown 2004; Brown and Booth 1996). Marriage plans may indicate not only the marriage-like quality of a cohabiting partnership, but also a commitment to adhering to the behavioral expectations of marriage (Thornton and Axinn 2007). Engaged cohabiters thus could experience the changes in commitment, lifestyle, and identity needed to reduce antisocial behavior. One criminological study indirectly addressed this possibility but found no decline in crime in the time leading up to marriage (Laub et al. 1998). However, studies of substance use that directly examined marriage plans found less

substance use among engaged cohabiters than among non-engaged cohabiters (Bachman et al. 2002; Staff et al. 2010). The association of cohabitation with substance use thus may depend on engagement.

Of especially great interest to scholars of family formation is the possibility that the meanings and impact of marriage and cohabitation have changed along with the prevalence of those roles. Theorists suggest that as cohabitation has become more common and accepted, its associated roles and behavioral norms may have grown stronger (Cherlin 2004). It also might have become less selective of low quality relationships, if contemporary committed couples feel less pressure or need to marry. This could mean that cohabitation among recent cohorts is more functionally analogous to marriage and has more marriage-like effects on behavior. Consistent with this, some evidence suggests that the marriage advantage in health behaviors and outcomes and related aspects of well-being has declined over recent decades (Liu and Umberson 2008; Musick and Bumpass 2012). Such changes also could explain why findings of a beneficial cohabitation effect on substance use are more common in studies using recent data (Fleming et al. 2010).

The main aim of this study thus was to compare the effects of marriage and cohabitation on antisocial behavior with special attention to factors that may change cohabitation's meaning, namely marriage plans and historical time. This answers social scientists' calls for further research on this topic (Laub and Sampson 2003; Sampson et al. 2006; Theobald and Farrington 2010) and provides new information about the uniqueness of marriage as an institution (Musick and Bumpass 2012). We also bridge the largely separate literatures relating crime and substance use to family formation by examining the consistency of findings across both types of outcome.

The Roles of Parenthood and Gender in Partnership Effects

This study also addressed two potential contingencies in the effects of romantic partnership, specifically parental status and gender. Although partnership and parenthood historically were confounded, making it difficult to disentangle their unique effects, this is no longer the case (Musick and Bumpass 2012). Findings on the main effects of parenthood on antisocial behavior are mixed; theoretically it either could reduce it by increasing responsibilities and curtailing activities or increase income-generating antisocial behavior by increasing economic need (Massoglia and Uggen 2007; Siennick and Osgood 2008). Our interest is in whether parenthood moderates the effect of partnership on antisocial behavior. Scholars have suggested that on average parenthood might enhance the effects of partnership, and especially of cohabitation, by further increasing family commitment and by indicating marriage-like relationships and roles (Brown and Booth 1996; Giordano et al. 2011; Kerr et al. 2011). To date, there is only suggestive evidence that living simultaneously with children and partners leads to greater reductions in antisocial behavior (Giordano et al. 2011).

Finally, different partnership transitions could have different effects on men's and women's antisocial behavior (Giordano et al. 2002; Laub and Sampson 2003). Theoretically, gender differences in the marriage effect could stem from gender differences in family roles, the tendency to monitor partners' behavior, and partners' prosociality (Laub and Sampson

2003). For example, since on average women engage in less antisocial behavior than do men, men may more often marry “up” in terms of expectations for, encouragement of, and modeling of prosocial behavior, resulting in larger marriage-linked reductions in men’s versus women’s antisocial behavior (Sampson et al. 2006: 470). Consistent with this, some studies of marriage have found smaller beneficial effects of marriage for women’s crime and substance use (Duncan et al. 2006; King et al. 2007; but see Fleming et al. 2010). Studies of gendered effects of cohabitation have yielded less consistent results (Duncan et al. 2006; Fleming et al. 2010; Lonardo et al. 2010). It thus is important to continue to examine whether the relative effects of cohabitation and marriage differ for men and women. This study therefore examines the consistency of findings across parental status and gender.

METHOD

Participants

Our data come from the follow-up portion of Monitoring the Future (MTF; Johnston et al. 2010), an ongoing study that annually surveys a nationally representative sample of high school seniors and then longitudinally follows a subset of each cohort into adulthood using mailed questionnaires. Targeted respondents are students in classes sampled randomly from approximately 135 high schools a year, which themselves are selected with probability proportionate to their size from a sample of geographic areas. A random subset of each cohort answers the version of the survey that features the items we use here. High school seniors who reported previous heavy drug use were oversampled for the follow-up, so we present weighted results. The biennial follow-up surveys begin one year after high school for one random half of each cohort and two years after high school for the other half. For the purposes of these analyses, the two halves were combined. We use the first five (ages 19–28) follow-ups from 30 consecutive cohorts (the 1976 through 2005 cohorts), from 1976 to 2010. In the first follow-up, 43% percent of respondents were male; 78% were Caucasian, 9% were African American, 6% were Hispanic, and 6% were of another race or ethnicity; and 66% had a parent who had completed at least some college.

Like any longitudinal study, MTF has panel attrition. Across the cohorts and follow-ups used here, approximately 60% to 80% of the originally targeted high school seniors typically complete the first follow-up, and approximately 50% to 70% complete subsequent follow-ups (Bachman et al. 2006). Attrition analyses have indicated that compared to participants who dropped out of the study, those who remained through early adulthood were more likely to be Caucasian; be female; have higher high school grade point averages, college plans, and parental education levels; and have lower high school truancy and senior-year substance use (Bachman et al. 2006). MTF investigators found that this attrition has modest effects on point estimates and minor if any effects on estimates of relationships, and the follow-up data do not dramatically underestimate the prevalence of problem behaviors such as illicit drug use (Bachman et al., 2006). Our analytical strategy accommodates unbalanced designs, which lets us retain respondents who missed isolated waves of data collection. We used listwise deletion of item-missing data, which reduced the number of respondents by 3% and the number of observations by 10% (from 58,257 observations on 16,292 respondents to 52,572 observations on 15,875 respondents). The largest source of item-missing data was a

variable on the professionalism of respondents' jobs (missing 4%). Additional information about the MTF study is available in Johnston et al. (2010) and at www.monitoringthefuture.org.

Measures

Antisocial behavior—We used three outcome variables to assess the robustness of partnership effects on antisocial behavior. First, *criminal offending* was a count of the number of types of criminal behavior the respondent had participated in during the past year (α ranged from .68 to .74). To create this measure, we dichotomized and then summed respondents' reports of the frequency with which they had taken part in group fights, hurt someone badly enough to need bandages or a doctor, used a weapon to get something from someone, stolen something, stolen from a store, taken a non-family car without permission, stolen car parts, entered a house or building without permission, and purposefully set fire to someone's property (for each, 0 = *not at all*, 4 = *five or more times*). We topcoded the measure at the 99th percentile. This means that the maximum variety score, or maximum number of types of criminal behavior counted, was set at the 99th percentile (i.e. a score of 5); the 1% of respondents with higher scores had their scores reassigned to that value. This method is one of the best ways to scale offending items, which usually vary in frequency and in seriousness (Sweeten 2012). The resulting scores are not dominated by the most commonly endorsed items (i.e. high scores require participation in less common forms of crime) and are less skewed than counts of the total number of acts committed (Sweeten 2012). Second, *frequent binge drinking* was a dichotomous indicator of whether respondents had had five or more alcoholic drinks in a row six or more times in the past two weeks. Third, *marijuana use* captured the number of times respondents had used marijuana or hashish in the past year (0 = 0, 9 = 40 or more).

Romantic partnership—At each wave, respondents reported whether or not they were married, engaged, and living with an intimate partner. We combined these responses to create a set of dummy variables indicating whether respondents were *single* (i.e. not cohabiting, engaged, or married), *engaged but not cohabiting*, *cohabiting and engaged*, *cohabiting but not engaged*, or *married*.

Moderating variables—We grouped respondents into three *cohorts* based on whether they were seniors in high school between 1976 and 1985, 1986 and 1995, or 1996 and 2005. Respondents reported whether or not they had any children (were *parents*). They also reported their *gender* (male or female).

Covariates—We controlled for several time-varying correlates of family statuses and antisocial behavior. Work professionalism and intensity was measured via a set of dummy variables capturing whether respondents held a *full-time professional job* (i.e. worked full time as a registered nurse, engineer, accountant, lawyer, physician, or in another similar occupation), held a *part-time professional job*, held a *full-time non-professional job*, or held a *part-time non-professional job*; not working was the omitted reference category. We also included a dichotomous indicator of whether respondents were *enlisted in the military*. Educational attainment was a set of dummy variables capturing whether respondents had

completed a *four-year college degree*, a *two-year college degree*, or less education. *Enrolled in school* was a dichotomous indicator of current student status. *Attitudes toward risk* was a two-item scale indicating the degree to which respondents got a kick out of doing things that are dangerous and liked to test themselves by doing something risky (α ranged from .83 to .86). *Religiosity* was a two-item measure assessing the importance of religion in respondents' lives and how often they attended religious services (α ranged from .78 to .81). Finally, we controlled for *wave* of data collection, which also indicated respondents' age (wave 0 = age 19; wave 9 = age 28). Initial tests revealed a quadratic wave-crime relationship and cubic wave-substance use relationships, so we also controlled for *wave*² and *wave*³. Table 1 shows descriptive statistics for the total sample and by gender and cohort.

Analytic Strategy

Apparent effects of partnership on antisocial behavior may reflect stable preferences for certain types of family roles. To help rule out spuriousness, we estimate fixed effects negative binomial and logistic regression models in Stata using the “xtnbreg, fe” and “xtlogit, fe” procedures, respectively (StataCorp 2011). In longitudinal designs like ours, fixed effects models isolate the within-person variance in predictors and outcomes from the between-person variance, and base estimates only on the former. That is, this approach compares individuals to themselves under different conditions, thus eliminating the influence of all time-stable selection factors (Halaby 2003; Wooldridge 2002). Because of the analytical focus on within-person variance, respondents who showed no change in a given type of antisocial behavior are not included in that analysis (approximately 51%, 54%, and 75% of respondents in analyses of crime, marijuana use, and frequent binge drinking respectively). For all analyses, we estimated bootstrapped standard errors (with 100 replications for each model) to adjust for within-individual correlation in our clustered data.

RESULTS

Table 2 shows fixed effects estimates and 95% confidence intervals predicting changes in crime, frequent binge drinking, and marijuana use from changes in partnership statuses, controlling for time-varying measures of age, changes in parenthood, education, work, attitudes toward risk, and religiosity and all stable differences between respondents. Relative to waves when respondents were single, during waves when they were married (25% of respondent-waves; see Table 1), their variety of criminal offenses was reduced by 22%, their odds of frequent binge drinking were reduced by 71%, and their frequency of marijuana use was reduced by 32%. Becoming engaged without concurrent cohabitation, though a less frequently occupied status (5% of respondent-waves), was associated with a similar decline in offending (reduced by 10%; p for difference from marriage effect $> .05$), and weaker but still statistically significant declines in binge drinking (odds reduced by 45%) and marijuana use (rate reduced by 18%; p s for difference from marriage coefficient $< .05$).

In contrast, the effects of cohabitation appeared limited to substance use outcomes and depended on engagement. The combination of cohabitation and engagement (4% of respondent-waves) was associated with a marriage-like decline in frequent binge drinking (reduced by 64%), and a weaker but significant decline in marijuana use (reduced by 16%),

although it was not significantly associated with declines in criminal offending. Becoming a non-engaged cohabiter (7% of respondent-waves) did not significantly reduce offending or marijuana use. It was associated with a decline in frequent binge drinking (odds reduced by 41%), but this effect was smaller than those of both marriage and cohabitation with engagement.

Changes in attitudes toward risk and religiosity, and to a lesser extent education, employment, and parenthood, were also associated with changes in antisocial behavior. For instance, offending, frequent binge drinking, and marijuana use increased by 19%, 36%, and 11%, respectively, as attitudes favorable to risk behavior increased by one unit. In contrast, religiosity was negatively associated with all three measures of antisocial behavior. Offending and substance use also diminished when respondents were employed in full-time work (either professional or non-professional) or when they had received a four-year college degree. Substance use, but not offending, was also significantly lower when respondents were parents compared to occasions when they were not.

We examined whether the observed associations of partnership transitions with antisocial behavior varied by cohort. Compared to earlier senior class cohorts (i.e., 1976–1985), later cohorts (i.e., 1996–2005) spent fewer waves married (17% versus 32%) and more waves cohabiting (16% versus 8%; *ps* for both differences < .05). We re-estimated the models shown in Table 2 separately by cohort and used z-tests to compare the equality of coefficients across models (Clogg, Petkova, and Haritou 1995). Table 3 shows the results. Six of the 36 group differences (17%) reached statistical significance, which is more than would be expected by chance. Three of the differences suggested that the associations of marriage and of cohabitation plus engagement with binge drinking were weaker for more recent cohorts, but the other three suggested that their associations with marijuana use were stronger for those cohorts. There were no cohort differences in the associations of the partnership statuses with criminal offending. It thus is possible that some partnership effects on antisocial behavior have changed since the 1970s, but most effects appear consistent across cohorts.

We next examined whether these associations varied by parenthood or gender. A summary of the results of the six models testing these interactions is shown in Table 4. Three of the 24 differences (13%) were statistically significant; all involved the parenthood interactions, and all involved substance use. Specifically, becoming a married parent, relative to marriage without children, was associated with reduced odds of frequent binge drinking and rates of marijuana use. In addition, cohabitation without engagement was associated with less marijuana use only in conjunction with parenthood (IRR for non-engaged cohabiting parents = 0.83, *p* < .01). This reduction was smaller than the reduction associated with marriage. It thus is possible that children amplify the beneficial effects of co-resident romantic partners on substance use, although an equal number of interaction terms suggested that this was not the case.

We found no evidence of gender differences in partnership effects. Compared to men, on average during this age range women spent more waves cohabiting (13% versus 9%), engaged (10% versus 7%), and married (28% versus 21%), largely because they entered

these statuses at younger ages (descriptive statistics not shown but available upon request). Still, as indicated in Table 4, the statuses had statistically indistinguishable associations with women's and men's crime and substance use.

In sum, across 24 comparisons, only once – for binge drinking among the most recent cohorts – was the association between cohabitation without engagement and antisocial behavior statistically significant and comparable to the marriage effect. Cohabitation combined with engagement had marriage-like effects in 50% of comparisons; these effects were distributed across the three outcomes. We found no evidence of a growing cohabitation effect, and no consistent evidence of a weakening marriage effect, across recent decades.

DISCUSSION

Past theory and research suggested that developmental changes in young adults' antisocial behavior stemmed partly from their transitions into marriage (Bachman et al. 2002; Horney et al. 1995; Sampson et al. 2006). Yet contemporary young adults follow diverse and flexible patterns of family formation, raising the question of whether cohabitation has the same behavioral effects. Our results confirmed that the association of marriage with antisocial behavior has changed little since the 1970s. Yet despite having doubled in prevalence over the same time period, cohabitation does not and did not have similar beneficial effects. Of all of the examined romantic partnership transitions, the transition with the most marriage-like effects was engagement. In addition, only when cohabiters were engaged to be married did they show declines in antisocial behavior, and still those effects often were weaker than the effects of marriage.

These findings add to recent debates about the functions and meanings of cohabitation and whether the marriage advantage in well-being will persist over time. If marriage affects antisocial behavior by increasing responsibilities, decreasing leisure time and time with friends, and changing identities and priorities (Laub and Sampson 2003; Osgood et al. 1996), then our findings imply that cohabitation does not do these things, or at least does not do them to the same extent. Furthermore, because theoretically these mechanisms stem from marital quality and the institutionalization of marriage, our findings imply persisting marriage-cohabitation differentials in relationship quality and institutionalization. This runs counter to scholars' suggestions that marriage among recent cohorts is distinguished mainly by its legal status (Brown and Booth 1996; Musick and Bumpass 2012). It is possible that as cohabitation has become more common and accepted, it has not become less selective of low-quality relationships, because young people are no more motivated to thoughtfully and deliberately decide whether to cohabit (cf. Stanley et al. 2010). Although we speculate that marriage and cohabitation may still have different meanings for individuals, families, and communities, we could not directly test this possibility. Scholars should continue to examine how cohabiting partnerships, and their family and community contexts, differ from marriages, and how those differences create differing behavioral effects of partnership transitions.

Our results also confirm that marriage remains a highly institutionalized social status for young adults, despite its declining prevalence and the emergence of accepted alternative

forms of partnership. Because engagement and marriage appear to have robust effects, future research should explore the mechanisms behind these effects. Our findings suggest that they may stem less from demographic circumstances (i.e. the presence of partners and children in the household) than they do from the roles taken on by the partners. Not only might marriage and marriage intentions signal strong relationship commitment and investments, but also they might trigger higher behavioral expectations from relatives, in-laws, and community members (Bachman et al. 2002; Thornton and Axinn 2007). If these are in fact the mechanisms of the effects, then our failure to find gender differences in the effects could mean that these processes are less gendered than we might expect. Future research should examine whether, how, and for whom the role expectations of marriage affect antisocial behavior and how partners, kin, and communities shape and enforce these role expectations.

Although the patterns of results were largely consistent across outcomes, we observed some differences between criminal offending and substance use, as well as between the two examined forms of substance use. First, the results suggested convergence across cohorts in the size of partnership effects on different types of substance use, with the effects of marriage and cohabitation with engagement growing weaker for binge drinking and stronger for marijuana use. It is possible that shifts in substance-specific social norms are associated with shifts in the likelihood that partners will be interested or effective in curtailing specific types of use. This, in turn, could create temporal variation in the forms of behavior that partners influence most.

Second, relative to their associations with crime, partnership transitions' associations with substance use sometimes were larger, were less limited to marriage, and were more often amplified by parenthood. These differences are not anticipated by theories of antisocial behavior, which predict generalized effects of adult role transitions on offending and substance use (Laub and Sampson 2001; Maume et al. 2005; Osgood et al. 1996). This could mean that less dramatic personal and social changes are needed to impact substance use than to impact criminal offending, and that engagement and cohabitation sometimes cause such modest changes. Alternatively, it could mean that the mechanisms behind transitions' effects on substance use are somewhat different and are more likely to follow from engagement and cohabitation. For example, marriage-specific shifts in orientations and lifestyles may be needed for crime to decline, whereas changes in time use – which follow both cohabitation and parenthood (Musick and Bumpass 2012; Nomaguchi and Milkie 2003) – may be sufficient to reduce substance use. Or, partnership may be only one of several age-linked factors that reduce highly stigmatized and sanctioned forms of deviance such as crime, whereas less stigmatized and sanctioned forms of deviance may decline only in response to particular experiences or transitions. Future research should examine these possibilities.

We have focused on young adults' entries into marriage and cohabitation because this is the age range of the largest decline in antisocial behavior across the lifespan; by their thirties and forties, few individuals still regularly engage in crime and serious drug use (Loeber 2012; Schulenberg and Zarrett 2006). Still, this approach means that we capture relatively early marriages. It is possible that marriages occurring later in life would not be as beneficial for antisocial behavior. Later marriages would be more likely to occur among people who

already had ceased crime and substance use, and the remaining variance in antisocial behavior could be concentrated among the most seriously and persistent antisocial people. In addition, later marriages may not change responsibilities, lifestyles, and priorities as much as do earlier marriages. If these possibilities are true, then we might expect marriages and cohabitations to have more similar effects later in life, not because cohabitation's effects grow stronger with age but because the effects of marriage weaken with age. These possibilities also have implications for gender differences in the marriage effect, because relative to women men tend to marry later and to persist in antisocial behavior longer, so a gender difference in the marriage effect might emerge at later ages. We could not test these possibilities, but they are important avenues for future research.

This study's biennial data collection leaves some ambiguity about the timing and sequencing of partnership effects and behavioral changes. For instance, marriage and antisocial behavior could be associated not because marriage affects behavior, but because people who reduce their crime and substance use become more marriageable. Although Laub and colleagues (1998) found no evidence of a pre-marriage decline in crime among a 1960s U.S. sample, studies of Norwegian registry data have found declines in crime across the years leading up to transitions such as marriage and parenthood (Lyngstad and Skardhamar 2013; Monsbakken, Lyngstad, and Skardhamar 2013). Our data do not allow us to confirm the direction of causality in the observed associations. We recommend that future studies use data with more frequent intervals of measurement to examine which comes first: engagement and marriage or declines in criminal offending and substance use.

Our national multi-cohort panel data give us greater generalizability and cohort coverage than in most studies of partnership effects on antisocial behavior. However, this study has some additional limitations. First, because our samples exclude high school dropouts, our findings generalize only to high school graduates (approximately 80 percent of all cohorts). Given the overall retreat from marriage and dramatic increase in out-of-wedlock childbearing, especially at lower education levels, it is possible that the relationships we observed may be different for high school dropouts. One study found that the effects of marriage and cohabitation did not depend on educational attainment (Duncan et al. 2006), but this finding has yet to be replicated. Future research should determine whether our findings apply to high school dropouts. Second, although our fixed-effects models isolate within-individual change in family statuses and antisocial behavior and control for several time-varying covariates, we cannot rule out the possibility that the results are due to changing but unmeasured variables (e.g., changing mental health) or to time-varying effects of stable variables. Still, our approach is a more stringent test than the approaches of many previous studies.

Young adults' relationships to traditional social institutions are changing, and it is essential to understand the consequences of these changes. The family roles examined here are part of a broader pattern of increasingly varied pathways through young adulthood (Sassler 2010; Waters et al. 2011). This study shows both that new pathways are not always functionally analogous to traditional pathways, and that their prevalence is rising. If the young adult decline in antisocial behavior is partly caused by life course transitions, and newer family transitions do not cause such declines, we must determine why and develop intervention

strategies accordingly. A better understanding of relationship dynamics in different types of young adult partnerships could yield valuable information about how spouses and fiancé(e)s shape each other's behavior. Yet the richest information could come from examinations of family roles and antisocial behavior in the context of other institutions (e.g., the labor market) and transitions (e.g., in identity) that also are pillars of the transition to adulthood. Such studies will tell us much about contemporary young adulthood and the societal supports that young adults may need to successfully navigate this transitional age range.

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Table 1

Descriptive Statistics for Overall Sample and by Cohort ($N = 15,875$ Respondents with 52,572 Observations).

Variable	Min.	Max.	Overall Sample			Cohorts					
			Mean or %	SD		1976-1985		1986-1995		1996-2005	
						Mean or %	SD	Mean or %	SD	Mean or %	SD
Criminal offending	0	5	0.55	1.03		0.60	1.04	0.55	1.03	0.52	1.02
Frequent binge drinking	0	1	16%			18%		15%		17%	
Marijuana use	0	9	1.49	2.61		1.90	2.84	1.15	2.31	1.49	2.65
Married	0	1	25%			32%		26%		17%	
Cohabiting and engaged	0	1	4%			3%		5%		6%	
Cohabiting and not engaged	0	1	7%			5%		7%		10%	
Engaged and not cohabiting	0	1	5%			5%		5%		4%	
Single	0	1	59%			55%		58%		64%	
Parent	0	1	20%			22%		21%		16%	
Full time professional job	0	1	11%			10%		12%		11%	
Part time professional job	0	1	3%			2%		3%		4%	
Full time non-professional job	0	1	38%			44%		37%		32%	
Part time non-professional job	0	1	25%			20%		25%		30%	
Enlisted in the military	0	1	2%			3%		2%		1%	
Completed a four-year college degree	0	1	23%			18%		24%		26%	
Completed a two-year college degree	0	1	11%			10%		11%		11%	
Enrolled in school	0	1	41%			32%		41%		49%	
Attitudes toward risk	1	5	2.76	1.24		2.51	1.20	2.82	1.25	2.92	1.24
Religiosity	1	4	2.61	0.93		2.67	0.90	2.60	0.93	2.55	0.97
Wave of data collection	0	9	4.13	2.83		4.42	2.86	4.22	2.86	3.75	2.71

Table 2
Fixed Effects Negative Binomial and Logistic Regression Estimates of the Effects of Romantic Partnership on Antisocial Behavior.

Predictor	Criminal Offending ^a			Frequent Binge Drinking ^b			Marijuana Use ^d		
	IRR	CI	OR	OR	CI	IRR	CI		
Married	0.78 ***	(0.72, 0.84)	0.29 ***		(0.25, 0.34)	0.68 ***	(0.65, 0.72)		
Cohabiting and engaged	0.93	(0.85, 1.02)	0.36 ***		(0.29, 0.44)	0.84 ***	(0.80, 0.90)		
Cohabiting and not engaged	0.98	(0.93, 1.04)	0.59 ***		(0.51, 0.69)	0.99	(0.95, 1.04)		
Engaged and not cohabiting	0.90 *	(0.83, 0.98)	0.55 ***		(0.43, 0.70)	0.82 ***	(0.76, 0.89)		
Parent	1.04	(0.96, 1.13)	0.74 **		(0.62, 0.88)	0.84 ***	(0.79, 0.89)		
Full time professional job	0.85 ***	(0.78, 0.93)	0.76 **		(0.63, 0.92)	0.83 ***	(0.78, 0.88)		
Part time professional job	1.08	(0.94, 1.24)	0.69 *		(0.52, 0.92)	1.00	(0.92, 1.08)		
Full time non-professional job	0.92 **	(0.87, 0.98)	0.88 *		(0.78, 0.99)	0.96	(0.93, 1.00)		
Part time non-professional job	1.01	(0.96, 1.06)	0.89		(0.80, 1.00)	1.01	(0.97, 1.05)		
Enlisted in the military	0.87	(0.76, 1.00)	1.34		(0.91, 1.98)	0.50 ***	(0.41, 0.61)		
Completed a four-year college degree	0.86 ***	(0.80, 0.93)	0.70 ***		(0.62, 0.80)	0.88 ***	(0.83, 0.93)		
Completed a two-year college degree	0.97	(0.92, 1.04)	0.91		(0.76, 1.08)	0.94 *	(0.89, 1.00)		
Enrolled in school	1.01	(0.96, 1.06)	0.98		(0.87, 1.10)	0.94 **	(0.91, 0.98)		
Attitudes toward risk	1.19 ***	(1.17, 1.22)	1.36 ***		(1.30, 1.42)	1.11 ***	(1.10, 1.13)		
Religiosity	0.90 ***	(0.87, 0.94)	0.74 ***		(0.68, 0.81)	0.82 ***	(0.79, 0.84)		
Wave of data collection	0.86 ***	(0.84, 0.87)	1.32 ***		(1.19, 1.47)	1.03 *	(1.00, 1.06)		
Wave squared	1.00 ***	(1.00, 1.01)	0.95 ***		(0.92, 0.98)	0.98 ***	(0.98, 0.99)		
Wave cubed			1.00 *		(1.00, 1.00)	1.00 **	(1.00, 1.00)		
Respondent-waves	29,609			15,195			27,207		
Respondents	7,777			3,919			7,278		

Note. IRR = incidence rate ratio; CI = confidence interval; OR = odds ratio.

^a Negative binomial model

^b Logistic model

*
 $p < .05$.
**
 $p < .01$.

 $p < .001$.

Table 3

Differences in Effects of Romantic Partnership on Antisocial Behavior, by Cohort.

	Cohort					
	1976-1985		1986-1995		1996-2005	
Outcome: Criminal offending Predictor (vs. single)	IRR	CI	IRR	CI	IRR	CI
Married	.79 ***	(0.71, 0.88)	.76 ***	(0.68, 0.84)	.81 ***	(0.69, 0.95)
Cohabiting and engaged	1.07	(0.90, 1.28)	.90	(0.78, 1.04)	.87 *	(0.76, 0.99)
Cohabiting and not engaged	1.06	(0.94, 1.19)	.95	(0.85, 1.05)	.98	(0.87, 1.11)
Engaged and not cohabiting	.92	(0.81, 1.04)	.87 *	(0.76, 0.98)	.90	(0.75, 1.09)
Outcome: Frequent binge drinking Predictor (vs. single)	OR	CI	OR	CI	OR	CI
Married	.23 ***	(0.18, 0.31)	.25 ***	(0.19, 0.32)	.57 ***	(0.42, 0.77)
Cohabiting and engaged	.37 ***	(0.25, 0.55)	.27 ***	(0.19, 0.40)	.46 ***	(0.30, 0.69)
Cohabiting and not engaged	.52 ***	(0.39, 0.70)	.60 ***	(0.47, 0.77)	.62 ***	(0.49, 0.79)
Engaged and not cohabiting	.56 **	(0.39, 0.81)	.49 ***	(0.35, 0.70)	.59 *	(0.38, 0.93)
Outcome: Marijuana use Predictor (vs. single)	IRR	CI	IRR	CI	IRR	CI
Married	.77 ***	(0.71, 0.83)	.59 ***	(0.53, 0.67)	.67 ***	(0.58, 0.77)
Cohabiting and engaged	.92 ***	(0.83, 1.02)	.79 ***	(0.70, 0.90)	.82 **	(0.72, 0.93)
Cohabiting and not engaged	1.01	(0.95, 1.08)	.96	(0.88, 1.04)	1.00	(0.92, 1.09)
Engaged and not cohabiting	.84 ***	(0.77, 0.92)	.74 ***	(0.61, 0.89)	.90	(0.78, 1.03)

Note. IRR = incidence rate ratio; CI = confidence interval; OR = odds ratio. Bolded or italicized estimates differ significantly between indicated cohorts ($p < .05$) based on untabled z-tests comparing the equality of the coefficients. Control variables were parenthood, professionalism and intensity of employment, military enlistment, educational attainment, school enrollment, attitudes toward risk, religiosity, and wave.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 4

Differences in the Size of Beneficial Effects of Partnership Transitions, by Parenthood and Gender.

	Dependent Variable		
	Criminal Offending	Frequent Binge Drinking	Marijuana Use
Parenthood interactions			
Married	n.s.	parent> nonparent	parent> nonparent
Cohabiting and engaged	n.s.	n.s.	n.s.
Cohabiting and not engaged	n.s.	n.s.	parent> nonparent
Engaged and not cohabiting	n.s.	n.s.	n.s.
Gender interactions			
Married	n.s.	n.s.	n.s.
Cohabiting and engaged	n.s.	n.s.	n.s.
Cohabiting and not engaged	n.s.	n.s.	n.s.
Engaged and not cohabiting	n.s.	n.s.	n.s.

Note. Greater than signs indicate more beneficial effects for indicated group; n.s. = not statistically significant ($p > .05$).