

**Of Sex and Romance:
Adolescent relationships in the transition to adulthood**

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Abstract

To better understand the social factors that impact the diverse pathways to family formation young adults experience today, this research investigates the association between individuals' experiences with the opposite sex during adolescence and the timing and type of union formation in early adulthood. Using data from the first and third waves of the Add Health we show that adolescent romantic involvement accelerates union formation, especially marriage. However, sexual involvement accelerates cohabitation but not marriage once academic experiences as well as premarital fertility are controlled. These results support our argument that adolescent relationships tap developmental factors as well as aspects of the local climate that influence union formation. They also support views of cohabitation as an alternative to being single instead of as a precursor to marriage.

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Although some Americans still marry in their teens, over the past 40 years the median age at first marriage has steadily increased. At the same time, a growing proportion of couples are cohabiting without marriage. As a consequence there is increasing variability in the timing and characteristics of relationship formation during the transition to adulthood (Rindfuss 1991). To date the most powerful theories for understanding this variation are based in economic frameworks. For example, Gary Becker (1981) explains how growth in women's labor force participation and consequent reduced specialization in gender roles leads to reduced gains to marriage for both men and women. Oppenheimer adapts job search theory to the problem of mate selection to arrive at different conclusions (Oppenheimer 1988). She argues that women's labor force participation does not reduce the incentives to marry, but it does encourage delayed marriage, in part because both men and women now spend their early adult years accumulating human capital. Increased college enrollment has contributed to delayed marriage among the middle and upper classes. Shifts in the labor market away from manufacturing means the lower classes also take longer to accumulate enough resources to marry (Oppenheimer, Kalmijn, and Lim 1997; Mare and Winship 1991; Wilson 1987).

Although economic theories have been enormously fruitful, they provide an incomplete understanding about the motivations for and meanings of marriage and cohabitation. In particular, they do not incorporate social and developmental influences. Broad social changes in the family over the past 50 years provide an opportunity for wide variation in the meaning and motivations for marriage and cohabitation. Historically marriage was fundamental to economic production, sexual gratification, and human reproduction. Today marriage still performs these functions, but they are less central to the institution. Men and women can function economically

outside of marriage and marriage is no longer the exclusive domain for sexual relationships or for child bearing. These changes have not lead Americans to value marriage any less. Most teens express a strong desire to marry eventually and unmarried adults usually report that their lives would be better if they were married. However, these rapid social changes do provide an opportunity for localized norms and beliefs about adult relationships to develop.

To identify possible social and developmental factors that contribute to variation in the timing and type of adult union formation, this paper examines the association between adolescent experiences with the opposite sex and adult union formation. Adolescent relationships provide useful insight into the social meanings of adult relationships because, unlike marriage, adolescent romance is not motivated by economic factors. Instead social and sexual motivations predominate. Adolescents' experiences with the opposite sex could impact the likelihood of early marriage for a variety of reasons. On an individual level, they are a venue for learning about the social benefits (and costs) of romance. These relationships may also be an indicator of localized understanding of the importance and meaning of romantic relationships that arises from observing others' romantic interactions. The newly released third wave of the National Longitudinal Survey of Adolescent Health makes possible for the first time the examination of how experiences with the opposite sex during adolescences impact adult relationship formation.

BACKGROUND

Life course researchers argue that experiences accumulate as one ages so that each stage is conditioned by earlier experiences. Applying this wisdom to the formation of adult relationships calls for the examination of adolescent relationships

with the opposite sex. During adolescence individuals learn skills that enable them to maintain relationships as well as establish styles and expectations for behavior (Gaber, Britton, Brooks-Gunn 1999). Romantic relationships allow adolescents to play a new adult role, one that can provide adolescents with emotional rewards associated with intimacy and commitment, provided those involved are emotionally and socially mature. Moreover they can help adolescents learn skills that will facilitate the maintenance of stable committed relationships in adulthood. Even though adolescent romantic relationships involve some risk, sometimes generating emotions such as jealousy, anger, and depression (Larson, Clore, and Wood 1999; Joyner and Udry 2000), these negative outcomes of these relationships are a normative and functional aspect of the transition from adolescence to adulthood.

Adolescent relationships not only play a developmental role, they also reflect and reinforce local norms and beliefs about romance as well as the structural conditions within which they form. Research on marriage and the reasons why black women marry at older ages than white women clearly demonstrates the importance of structural constraints. In *The Truly Disadvantaged* Wilson argues the prevalence of single parent families among blacks arises in part because of the demographic and economic conditions that hinder marriage. Black men have high mortality rates as well as high rates of institutionalization. Moreover the employment opportunities of minority men are poor, further decreasing the ratio of “marriageable” men to women. Controlling for race differences in local demographic and economic characteristics accounts for around a fifth of the race gap in marriage rates (Lichter et al 1991). Thus, clearly marriage patterns reflect the structural conditions that favor or discourage the formation of relationships. They also might indicate something about

the social environment as well, especially as rapid changes in the family allow for variation in the social meanings and motivations for romantic involvement.

We know less about the relationship between social climate and relationship formation, despite the fact that Wilson's exposition involves normative elements. Wilson (1987) argues that high levels of economic segregation reinforce the negative effects of poverty, as segregation reduces the visibility of employed people, helpful for the maintenance of norms that support gainful employment. South and Crowder (2000) extend Wilson's arguments about neighborhood disadvantage to norms about family, positing "disadvantaged neighborhoods lack successful marital role models that signal the benefits of marriage and provide the normative expectations to marry. High rates of nonmarital fertility and divorce leave relatively few examples of working marriages and the behaviors that support them" (p. 1069). This extension moves us beyond economic frameworks for understanding marriage to recognize the importance of normative context. Yet, it assumes that social norms vary in lock-step with neighborhood disadvantage. Some communities may have the social resources to respond to economic hardship by supporting cooperative relationships. Others may lack the stability and social capital to encourage trust and mutual respect. We may be able to observe these distinctions at earlier stages in the life course and in the characteristics of the relationships that precede marriage. In short, adolescent relationships with the opposite sex can provide insight into the social and developmental influences on union formation. In particular, it can provide some leverage on understanding the factors that distinguish the decision to cohabit from that to marry.

The meanings and motivations of cohabitation and how this arrangement compares to marriage is not clear. The fact that cohabitation is not "institutionalized,"

allowing its meaning to vary from couple to couple and community to community partly explains our difficulty in establishing how cohabitation fits in our family system (Casper and Sayer 2000). In most cohabiting unions at least one of the partners expects to marry the other, suggesting that for many cohabitation is a precursor to marriage (Bumpass, Sweet, and Cherlin 1991). Others, who are less sure they want to commit to a relationship permanently, use cohabitation as a trial period to establish whether they are compatible or perhaps to ride out a period of economic uncertainty (Oppenheimer 2003). Another set of cohabiters may live together for the convenience of sharing living expenses and having easy access to a sexual partner rather than as a symbol of commitment to each other or the institution of marriage (Rindfuss and VandenHeuvel 1990).

The theoretical work on the different potential roles of cohabitation not only makes clear that cohabitation serves a diverse array of needs and interests, but it also suggests that some arrangements are more deeply differentiated from marriage than others (Bianchi and Casper, 2000). On one hand, if the predominant form of cohabitation is as a precursor to or a trial marriage, the difference between marriage and cohabitation is simply the degree of commitment to a relationship as well as the level of confidence in one's future circumstances. On the other, if the primary motivations for cohabitation are physical pleasure and convenience without incurring social obligations, then the cohabitation is qualitatively distinct from marriage in that it is absent the values marriage represents (e.g., respect, love, support, and loyalty that extend to an integrated kinship group). A key question then is whether a motivation for cohabitation over marriage is to avoid the social obligations marriage represents.

CONCEPTUAL MODEL

This study uses adolescent romantic relationships as a way of identifying social factors that impact the timing and type of adult union formation. Departing from the majority of prior studies that focus on the sexual aspects of adolescent relationships, we examine both the “romantic” and sexual dimensions of adolescent relationships with the opposite sex, characterizing the “romantic” dimension as the degree to which the adolescents express affection to each other and present themselves socially as a couple. As we argued above, an examination of adolescent relationships allows us to better identify the developmental and normative influences on adult relationship formation. Focusing first on the developmental role these relationships play, we argue that the skills and styles for managing relationships with the opposite sex vary by these two dimensions. Generally, the skills developed along the romantic dimension are more important than those along the sexual dimension for the maintenance of long-term relationships. Sexual relationships without romantic involvement do little to enhance the development of skills that will eventually be useful for the maintenance of long-term commitments. For this reason and because they may often involve miscommunication regarding the nature of the relationship, sexual nonromantic relationships may also undermine the development of trust of the opposite sex. In contrast, romantic experiences may allow adolescents to develop relationship skills important for handling situations when the needs of couples conflict. They may enable the development of a personal identity that involves the couple role and provide an opportunity to experience the social rewards couples enjoy, including enhanced social status.

In addition to their potential developmental role, adolescent relationships may also signal local norms about sex and romance. Whether as a result of economic

disadvantage or other aspects of the social organization, the potential for variation in the expectations surrounding couple relationships is great given the enormous social change in the family over the past 40 years. That is, some communities may hold strong expectations about the formation of stable romantic relationships (eventually marriage) as an integral part of the transition to adulthood. Others may place less importance on this aspect of the life course. For example, in the south as well as in rural areas, the mean age at marriage tends to be younger than in other contexts, even net of a variety of economic factors that also influence marriage timing. Adolescent experiences may serve as a signal for these influences.

Figure 1 shows the expected relationships between adolescent romantic and sexual relationships and union formation in adulthood. The gray box on the left side of the diagram depicts the two dimensions of adolescent relationships, romantic and sexual. The curved arrow between these two dimensions indicates that they are correlated. Those who are romantically involved are more likely to be sexually involved and vice versa. The line from the romantic dimension to marriage, on the right, depicts our expectation that the romantic dimension of adolescent relationships should accelerate marriage formation. The dotted line between the romantic dimension and cohabitation depicts our uncertain prediction as to the effect of romantic involvement on cohabitation. If cohabitation serves primarily as a stepping stone to marriage, then romantic involvement should increase the chances of either cohabitation or marriage. If cohabitation serves primarily as a convenient dating arrangement with a weak “romantic” component, then we should expect that romantic experiences enhance marriage formation, but have little direct effect on cohabitation.

Note that we do not expect that sexual involvement, net of romantic involvement, will have a direct impact on marriage or cohabitation. In contrast to the

1960's, today sex is not a motivation for marriage. Sexual involvement might exert an influence thru pregnancy however. Certainly a pregnancy does not precipitate marriage to the same degree as it once did, but it does accelerate marriage rates to some extent.

Finally, our conceptual model acknowledges that adolescent romance is strongly associated with other aspects of the life course, particularly the accumulation of human capital. Numerous previous studies demonstrate a correlation between sexual involvement and academic performance. Moreover, sexual involvement is associated with a decreased likelihood of college-going both because it is correlated with academic performance and perhaps because it exerts a direct effect. College enrollment delays union formation. Thus, both because of its effect on pregnancy and on human capital accumulation, we expect sexual involvement to accelerate union formation. In sum, we expect that both aspects of adolescent relationships accelerate union formation, but for different reasons. Our analytical models operationalize both dimensions of adolescent relationships separately to enable us to discern these separate pathways of influence.

DATA AND METHOD

Data. This study uses data from multiple waves of the National Longitudinal Survey of Adolescent Health (Add Health). The complex longitudinal design of the Add Health includes a 1994-95 in-school interview, a 1995 Wave I in-home interview, a 1996 Wave II in-home interview, and a Wave III in-home interview collected 2001-2002. Our analyses employ data primarily from the Wave I and III in-home interviews. The 1995 Wave I in-home sample was drawn from those eligible to respond to the in-school survey (on the school roster). Respondents to the first in-home interview comprise a national sample of adolescents in grades 7 to 12 in the US. Ethnic

minorities, siblings, and disabled students were selected as over-samples. Recently, Add Health researchers have completed the third wave of data collection from all Wave I respondents. The focus of Wave III, collected between August 2001 and April 2002 when respondents were between 18 and 26 years old, is on the transition between adolescence and young adulthood. The Wave III interview was completed for 15,235 respondents or 73% of the original Wave I sample.

Using data from the third wave, we construct measures of the timing and type of first union. That is, the timing of marriage and cohabitation. Because not all of the Add Health respondents have married by the Wave III, we use an event-history approach to modeling. We estimate discrete-time Cox proportional hazard models predicting first marriage and first union. We also estimate competing risk models to estimate the factors that predict cohabitation over marriage.

Variables. Our goal is to investigate the association between adolescent experiences with the opposite sex and the timing and type of adult union formation. Five variables characterize adolescents' experiences with the opposite sex in the 1994-95 school year. Four are dummy indicators of whether the respondent had any opposite sex friends, was currently or recently involved in a romantic but not sexually intimate relationship, was currently or recently involved in a sexually active romantic relationship and/or was recently in a non-romantic sexual relationship at the time of the wave I interview. These variables are not mutually exclusive so that a person might have opposite sex friends as well as be in a sexual romantic relationship. However, because we create these variables using information on the current or most recent romantic relationship, it is impossible to be in both a sexually active and a non-sexual romantic relationship. A fifth variable characterizes the level of "romantic" involvement for those in a romantic relationship. Respondents who reported being in

a romantic relationship were asked about a wide range of activities, including whether they met their partners parents, went out alone on a date, kissed, or held hands. We choose 6 characteristics we believe to represent the level of social involvement, 1) whether they met parents, 2) said that they were a couple, 3) gave or received a present, 4) thought of themselves as a couple, 5) said that they loved their partner, or 6) saw less of their friends to go out alone. Separate analysis suggests that these activities distinguish relationships that are more physically oriented from those that are more romantic (Crissey 2003). Answers to questions about each of these activities generate 6 dummy variables, which we average to construct an index “level of involvement.”

Multivariate models control for a number of factors that might be associated with both adolescent experiences and union formation. These include family background factors such as parental divorce, remarriage, and cohabitation while growing up, religious affiliation, religiosity, and parent’s education. Additionally, pubertal development, closeness to parents, physical attractiveness, BMI, popularity, and self esteem might be associated with adolescent relationships with the opposite sex and union formation. With the exception of popularity, these characteristics are all measured in the wave I in-home survey. Popularity is measured as the number of friendship nominations the respondent received in the in-school survey.

We also control for academic ability and performance in adolescence because these characteristics are strongly associated with adolescent sexual activity and, as our conceptual model presents, it is associated with college going, which delays union formation. The respondent’s score on the Peabody picture vocabulary is used as a measure of ability. Academic performance is measured using the respondent’s high-school transcripts, which were collected by the Adolescent Health and Academic

Achievement Study (AHAA), a supplement to Wave III. Two variables describe the adolescents' academic performance, cumulative GPA and highest math course taken. Adolescents with a 3.0 or better GPA and who take at least algebra II by the end of high school are considered "college bound." Respondents with missing data are coded at the mean or modal category and a missing dummy is included in the model.

Finally, we control for other experiences in the transition to adulthood that might impact union formation including pregnancy and childbirth as well as whether the adolescent actually went to college. Our conceptual model posits that sexual activity in adolescence has no direct effect on union formation, but it may exert an influence through pregnancy. The Add Health data include information that allows us to construct time-varying variables indicating whether the respondent, if female, is pregnant or has given birth.

RESULTS

Table 1 presents the characteristics of adolescent relationships with the opposite sex and their relationship to union formation. The majority of adolescents report having an opposite sex friend, and the proportion is especially high for girls. There is more variation in the proportion in romantic and sexual relationships. About 37 percent were currently or recently in a nonsexual romantic relationships at the time of the first interview. A slightly smaller proportion was in sexually active romantic relationships, 27 percent of males and 29 percent of females. Only a small proportion of boys and girls were had a recent sexual relationship with someone who was not a romantic partner.

The right side of Table 1 shows the relationship between adolescent experiences and union formation in early adulthood, estimated using life-table techniques. The

columns labeled “Any Union” indicate the percentage of males and females who had formed any union. The bottom row indicates that 35 percent of men and 49 percent of women had formed a union by age 22. Under the marriage heading, we present the percentages of men and women who have married, regardless of whether they had cohabited. Only a small proportion of the respondents had married by age 22, 9 percent of men and 17 percent of women. Analogously, the column labeled “Cohabit” indicates the proportion who had formed a first union through cohabitation. The difference between the “Cohabit” column and the “Any Union” column gives the percentage of unions began with marriage.

For both males and females, opposite sex friendships and nonsexual romantic relationships have little association with union formation by age 22. Being involved in a sexually active romantic relationship has a strong positive association with union formation and marriage. For boys, nonromantic sexual relationships have a smaller positive association with union formation and no association with marriage, but for girls nonromantic sexual relationships are as strongly associated with union formation as romantic sexual relationships.

Our conceptual model posits that romantic involvement predicts marriage, and perhaps cohabitation, but sexual involvement has no direct effect on union formation. The results in Table 1 provide, at best, mixed support for this model. Boys involved in sexual relationships are more likely to form unions, but especially if these relationships are romantic. However, non-sexual romantic relationships do not increase union formation. There are two possible factors, consistent with our conceptual model, that might explain this pattern of results. First, sexual involvement is highly correlated with romantic involvement so that the apparent effect of sex is truly the effect of romance. This suggests that our multivariate models should

introduce an independent measure of romantic involvement to separate the sexual and romantic dimensions of these relationships. Second, non-sexual romantic relationships would lead to higher rates of union formation if it were not for the fact that involvement in these relationships is positively associated with college going. The relationship between sexual involvement and college going as well as its positive effects on becoming premarital pregnant might also help to explain why nonromantic sexual relationships have a positive association with union formation, especially among females.

To examine these two possible explanations we first verify that there is no relationship between romantic relationships per se and academic performance, but sexual relationships are negatively associated with achievement. Table 2 shows the relationship between adolescent relationships and other aspects of the life course that influence marriage, academic performance and pregnancy. The first pair of columns presents the percentage of respondents who were college bound upon leaving high school. That is, they had a 3.0 or higher GPA and had completed at least algebra II by high school graduation.

The percentages in the top rows suggest that there is a weak association with academic performance and having opposite sex friends. Those who had no opposite sex friends were slightly more likely to be college bound. Those who had only nonsexual romantic relationships were more likely to be college bound, while those with at least one sexually active relationship (romantic or not) were less likely to be college bound. The pattern of results for pregnancy also follows the expected pattern. Romantic relationships are not associated with an increase in premarital pregnancy unless the relationship was sexually active. For girls nonromantic sexual relationships are also positively associated with having a premarital pregnancy. The

low percentage of premarital pregnancies for boys who have nonromantic sexual relationships probably reflects their poor reporting of pregnancies where they no longer have a connection with the mother.

Next we examine the relationship between adolescent experiences in a multivariate framework. Doing so enables us to see the effects of each relationship type independent of the others. Then adding variables in successive models shows us whether independent variables measuring level of romantic involvement, college going, and pregnancy “explain” the positive effect of being in a sexual romantic relationship on marriage. Table 3 shows the proportional hazard estimates of the effects of adolescent experiences with the opposite sex on union formation. The model treats marriage and cohabitation separately, allowing us to see the impact on each. Model 1 includes controls for age, race, parent’s education, and family structure while growing up. The leftmost two columns of numbers show the influence of adolescent relationships on the “risk” of cohabitation. The next pair shows the impact on marriage. For both females (top panel) and males (bottom panel), having had an opposite sex friend exerts a positive influence as indicated by the odds ratios greater than 1.0. However, this impact is not statistically significant. Having a romantic relationship has a positive effect on both marriage and cohabitation, especially if the relationship is sexually active. However, having a nonromantic sexual relationship is not associated with the formation of both types of unions. This suggests that the positive effects of sexual nonromantic relationships in Table 1 were spurious either due to ascribed characteristics such as age, race, parent’s education and family structure while growing up or to the fact that many who had nonromantic sexual relationships were also in romantic relationships.

Model 2 adds a control for level of romantic involvement for those who are in a romantic relationship. This measure equals 0 for those who are not in a romantic relationship or for those who did none of the six activities we argued above indicate level of romantic involvement. Because one can only have a non-zero value on this variable if they have a 1 on either of the two dummy indicators of romantic relationships, this variable works somewhat like an interaction term. The main effects of the romantic relationship variables indicate their impact at the lowest level of romantic involvement. Looking first at the effects of this variable for females, we see that level of romantic involvement has a strong positive effect on marriage, but not cohabitation. In addition, once we control for level of romantic involvement, having a romantic relationship has a much smaller effect on marriage. However, having a romantic relationship continues to increase the rate of cohabitation. We interpret this pattern of effects in the discussion. Model 3 adds controls for other factors in adolescence, including academic performance, which has a strong negative impact on marriage and cohabitation. With this control included, the estimated impact of being in a romantic relationship on marriage is reduced to insignificance, but the impact on cohabitation persists. Finally, Model 4 adds other experiences in the transition to adulthood that might mediate the influence of sexual relationships on marriage and cohabitation. As expected, going to college delays both marriage and cohabitation while a pregnancy accelerates union formation. Once these variables are controlled the size of the coefficient describing the impact of sexual romantic relationships on marriage is further reduced, but there continues to be a significant effect of this variable on cohabitation. The pattern of effects is similar for males, with one possibly important variation. Unlike for females, level of involvement has a much smaller and insignificant impact on marriage for males.

DISCUSSION AND CONCLUSION

These analyses suggest that there is an association between adolescent experiences with the opposite sex and relationship formation in adulthood. In particular, romantic involvement increases the likelihood of marriage, at least for women. That these effects persist net of controls for family background characteristics and the accumulation of human capital, combined with the assumption that during adolescence romantic involvements are motivated more by social than economic factors, suggests that adolescent experiences enable us to tap social factors that shape adult relationship formation. Whether these social factors are developmental or normative we cannot tell. It may be that the relationships enable the development of trust in the opposite sex as well as skills for managing couple relationships. These relationships might also signal aspects of local norms that encourage or discourage marriage in early adulthood.

These local norms might not only influence union formation, but also union type. When building our conceptual model we were unsure whether romantic relationships would encourage cohabitation. If we viewed cohabitation as a precursor to marriage, then we expected the same factors that accelerate marriage would also facilitate cohabitation. On the other hand, if we viewed cohabitation as being a convenient arrangement for a sexually involved couple, one that involved low levels of social obligation, then there was no reason to think that romantic involvement would encourage cohabitation. The fact that romantic involvement does not impact cohabitation supports for the second view, that cohabitation is a convenient arrangement. This depiction is also supported by qualitative research, which shows

that young couples typically “drift” into cohabitation and their decision to cohabit is usually in contrast to remaining single rather than marriage (Manning and Smock 2003).¹

Recent years have brought growing diversity in the timing and types of family transitions young adults experience. This diversity emerges in part because of changes in the labor force and other shifts that alters the economic cost-benefit analysis of marriage. However, economic theories are incomplete and if we wish to understand this diversity we need to develop new theories and methods to capture the social influences that act independently from economic variables. Examining adolescent relationships brings us one step closer, but these results are only suggestive. Moreover, this work tells us nothing about the social forces that encourage norms favoring romantic involvement. Future work should investigate whether adolescent experiences are similar for those who live in the same community and if so, how other community characteristics shape developing norms about sex and romance.

¹ This characterization of cohabitation is depicted well by a number of Manning and Smocks’ subjects, including a 29 year old white male stock worker. When discussing his decision to move in with his girlfriend he says “I wasn’t ready, I mean to get like, I mean, that close to somebody and I mean I lived with her but we still had our freedom we still let each other do what we wanted to do so I had my space and she had her space.”

References

- Becker, G. 1981. A Treatise on the Family. Cambridge: Harvard U Press.
- Bianchi, Suzanne M. and Lynne M. Casper. American Families. Population Bulletin, Vol. 55, No. 4, December 2000
- Bumpass, Larry L., James A. Sweet, and Andrew Cherlin. "The Role of Cohabitation in Declining Rates of Marriage." Journal of Marriage and the Family. 53:913-927.
- Casper, L.M. and L.C. Sayer, 2000. "Cohabitation Transitions: Different Attitudes and Purposes, Different Paths." Paper presented at the annual meeting of the Population Association of America, Los Angeles, March 2000.
- Crissey, Sarah and R. Kelly Raley. 2002. "The Social Context of Adolescent Romantic Relationships and the Timing of First Intercourse" Paper presented at the 2002 Add Health Users Conference.
- Ford, Kathleen, Woosung Sohn, & James Lepkowski 2001. Characteristics of Adolescents' Sexual Partners and their Association with Use of Condoms and Other Contraceptive Methods. Family Planning Perspectives. 33(3): 100-105-132.
- Graber, Julia A, Pia R. Britto, and Jeanne Brooks-Gunn. 1999. "What's Love Got to Do with It? Adolescents' and Young Adults' Beliefs About Sexual and Romantic Relationships. In Furman, Brown, & Feiring (Eds). The Development of Romantic Relationships in Adolescence. Cambridge: Cambridge University Press.
- Joyner, Kara and J. Richard Udry. 2000. You Don't Bring Me Anything but Down: Adolescent Romance and Depression. Journal of Health and Social Behavior. 41: 369-391.
- Larson, Reed W., Gerald L. Clore, and Gretchen A. Wood. 1999. The Emotions of Romantic Relationships: Do the Wreak Havoc. On Adolescents? In Furman, Brown, & Feiring (Eds). The Development of Romantic Relationships in Adolescence. Cambridge: Cambridge University Press.
- Lichter, Daniel T., Felicia B. LeClere, and Diane K. McLaughlin. 1991. "Local Marriage Markets and the Marital Behavior of Black and White Women." American Journal of Sociology. 96(4):843-67.
- Manning, Wendy D. and Pamela J. Smock. 2003. "Measuring and Modeling Cohabitation: New Perspective From Qualitative Data" Paper presented at the annual meetings of the Population Association of America, May 1-3 2003.
- Mare, Robert D. and Christopher Winship. 1991. "Socioeconomic Change and the Decline of Marriage for Blacks and Whites. in Christopher Jencks

and Paul E. Peterson (Eds) The Urban Underclass. Washington DC: The Brookings Institution

Oppenheimer, Valerie K. 1988. "A Theory of Marriage Timing." American Journal of Sociology 3: 563-591.

Oppenheimer, V. K., M. Kalmijn, and N. Lim. 1997. "Men's Career Development and Marriage Timing During a Period of Rising Inequality." Demography 34(3): 311-330.

Oppenheimer, V.K. 2003. Cohabiting and Marriage During Young Men's Career-Development Process. Demography 40,127-149

Rindfuss, Ronald R. 1991. The young-adult years - diversity, structural-change, and fertility - population-association-of-america, Demography 28, 493-512.

Rindfuss, Ronald R. and Audrey Vandenheuvel. 1990. "Cohabitation: A Precursor to Marriage or an Alternative to Being Single?" Population and Development Review. 16(4): 703-726.

South, Scott J. and Kyle D. Crowder. 2000. "The Declining Significance of Neighborhoods? Marital Transitions in Community Context." Social Forces 78(3): 1067-1099.

Wilson, William J. The Truly Disadvantaged. Chicago: University of Chicago Press.

Table 1. Characteristics of Adolescent Experiences and their Relationship to Adult Union Formation

	Life-table estimates of union formation by age 22											
	Adolescent Experience				Males				Females			
	Males	Females	Any Union	Union Type	Any Union	Marriage	Cohabit	Union Type	Any Union	Marriage	Cohabit	Union Type
Had Opposite Sex Friend	73	84	34	9	30	49	17	41	49	17	41	41
Had No Opposite Sex Friend	27	16	33	8	29	43	15	36	43	15	36	36
Had Non-Sexual Romantic Relationship	37	37	34	9	29	48	19	38	48	19	38	38
Had No Non-Sexual Romantic Relationship	63	63	35	9	30	49	16	42	49	16	42	42
Had Sexual Romantic Relationship	27	29	44	11	38	61	20	53	61	20	53	53
Had No Sexual Romantic Relationship	73	71	31	8	27	43	16	35	43	16	35	35
Had Non-Romantic Sexual Relationship	13	8	40	8	35	63	17	58	63	17	58	58
Had No Non-Romantic Sexual Relationship	86	91	34	9	29	47	17	39	47	17	39	39
Missing Sexual Relationship Information	2	1	33	6	31	51	10	46	51	10	46	46
Total	100	100	35	9	30	49	17	40	49	17	40	40

Table 2. The Association between Adolescent Experiences and Other Factors Impacting Union Formation

	% College Bound		% Had Premarital Pregnancy	
	Male	Female	Male	Female
Had Opposite Sex Friend	19	31	9	18
Had No Opposite Sex Friend	22	35	10	17
Had Non-Sexual Romantic Relationship	25	37	8	14
Had No Non-Sexual Romantic Relationship	18	31	11	21
Had Sexual Romantic Relationship	11	21	18	35
Had No Sexual Romantic Relationship	24	37	7	12
Had Non-Romantic Sexual Relationship	8	12	9	41
Had No Non-Romantic Sexual Relationship	22	35	17	16
Missing Sexual Relationship Information	9	13	4	36

Table 3. Proportional Hazard Estimates of the impact of Adolescent Experiences on Union Formation

	Model 1			Model 2			Model 3			Model 4						
	Cohabitation	Marriage	Odds Ratio	Cohabitation	Marriage	Odds Ratio	Cohabitation	Marriage	Odds Ratio	Cohabitation	Marriage	Odds Ratio				
	B/s.e.	B/s.e.	B/s.e.	B/s.e.	B/s.e.	B/s.e.	B/s.e.	B/s.e.	B/s.e.	B/s.e.	B/s.e.	B/s.e.				
Females																
Opposite Sex Friends	1.12	1.38	1.07	0.46	1.12	1.34	1.05	0.39	1.14	1.63	1.16	1.03	1.15	1.73	1.17	0.98
Non-Sexual Romantic Relationship	1.59	5.85	1.86	5.57	1.49	2.94	1.13	0.56	1.34	2.11	1.11	0.46	1.23	1.51	1.00	0.01
Sexual Romantic Relationship	2.50	11.03	2.96	8.45	2.31	5.73	1.68	1.99	1.85	3.94	1.54	1.59	1.64	3.28	1.25	0.86
Sexual Relationship	1.22	1.74	1.01	0.06	1.22	1.73	1.03	0.18	1.07	0.52	0.96	-0.19	1.08	0.19	0.87	-0.64
Level of Involvement					1.01	0.63	1.11	2.64	1.02	0.85	1.11	2.66	1.03	1.18	1.12	2.80
Academic Performance									0.57	-6.29	0.65	-3.91	0.73	-3.41	0.92	-0.65
Went to College													0.42	-11.32	0.34	-9.86
Pregnancy													3.13	6.96	7.33	9.30
Child													0.48	-3.70	0.41	-3.95
Males																
Opposite Sex Friends	1.16	1.72	1.25	1.74	1.16	1.70	1.24	1.70	1.20	2.11	1.29	1.92	1.27	2.81	1.35	2.14
Non-Sexual Romantic Relationship	1.32	2.36	1.63	3.61	1.45	2.51	1.32	0.97	1.42	2.35	1.28	0.89	1.37	2.11	1.32	1.00
Sexual Romantic Relationship	1.95	6.54	2.44	5.33	2.15	4.79	1.92	2.13	1.88	3.92	1.73	1.78	1.77	3.51	1.64	1.58
Sexual Relationship	1.20	2.40	0.87	-1.00	1.20	2.36	0.88	-0.94	1.11	1.31	0.86	-1.04	1.15	1.82	0.91	-0.62
Level of Involvement					0.98	-0.72	1.05	0.86	0.99	-0.43	1.05	0.99	0.99	-0.30	1.04	0.82
Academic Performance									0.56	-5.61	0.57	-3.60	0.70	-3.32	0.79	-1.47
Went to College													0.48	-9.50	0.40	-7.75
Pregnancy													7.04	7.15	15.90	10.61
Child													0.33	-3.42	0.43	-2.94

Model 1 controls for age, race, parent's education, and family structure while growing up. Model 2 adds level of involvement to Model 1. Model 3 adds controls for BMI, pubertal development, closeness to parents, physical attractiveness, popularity, self esteem, religiosity, religious affiliation, picture vocabulary score, and academic performance.

Figure 1: Conceptual Model

