complete union history and who missed two consecutive interviews during the study period and experienced a union transition were removed, eliminating an additional 548 young adults. The final sample is more proportionally male; is more likely to come from two-parent households with parents who have, on average, one full year more of schooling than the omitted sample; and has wealthier parents. Compared with the omitted group, the final sample contains fewer Hispanics but more blacks, which is consistent with previous research indicating ethnoracial differences in the timing to first coresidential union (Addo 2012).[3] Finally, although the dropped sample reported higher rates of full-time employment, they were less likely, on average, to have completed college, to hold advanced degrees, or to be currently enrolled in a postsecondary program.

Multiple imputation using the chained equations method in STATA is applied to maintain maximum sample size for those missing information on independent variables. The variables, described in detail in the next section, include residence in rural region in childhood (15.3 % missing person-years), grew up with both parents in household (10.7 %), paternal education (19.3 %), current region of residence (3.6 %), and total value of all assets (9.0 %). The estimation method works well with categorical and binary variables (White et al. 2011). The final analytic sample follows 3,025 women and 3,744 men who contributed 14,681 and 19,373 person-years, respectively, to the analysis.

Cohabitation and Marriage

The main dependent variables are union transitions. Young adults can transition from a single state into first cohabitation or first marriage. Cohabitation is defined in the NLSY97 as a sexual relationship in which a respondent resides with a person of the opposite sex for a minimum of one month. In each survey round, respondents are asked their current marital status as well as month and year of first cohabitation and first marriage.

Debt Measures

The variable capturing credit card debt is coded based on responses to the following question: "Do you have any other debts that you currently owe money on that we have not already talked about? (Examples include store bills, credit cards, loans obtained through a bank or credit union, margin loans through a stockbroker, and other installment loans. Include credit cards only if the respondent carries a balance.)" Two questions related to government and private educational loans were asked every survey year (by semester) for youth currently enrolled in any type of postsecondary or advanced degree program after high school: "Other than assistance you received from relatives and friends, how much did you borrow in government subsidized loans or other types of loans while you attended this school/institution?," and "How much is still

[3] The majority of the excluded women (88 %) and men (90 %) were cohabitors, increasing the average age of first cohabitation from 20.89 to 22.65 for women and from 21.93 to 23.02 for men, and increasing first marriage from 22.49 to 23.61 for women and from 23.42 to 23.96 for men.

owed on (this/these) loan(s)?" The variable is created by using a summated yearly figure of all outstanding government and private loans taken out by the respondent for educational study. The median value is assigned to youth who entered in a range (i.e., $0–$1000 was assigned a value of $500). The continuous debt measures were logged, lagged by one period, and included along with an indicator variable equal to 1 if the respondent had no debt, credit card debt, or education loan debt in the respective models. This is done to distinguish both qualitatively and quantitatively between those with no debt and those with some nonzero amount (see Sweeney 2002).[4]

Education, Labor Market, and Financial Characteristics

Current educational attainment is categorized into less than a high school diploma, high school diploma, some college, and bachelor's degree or more. Enrollment status captures whether the respondent was enrolled in a degree program in any month during the calendar year. The variable is disaggregated into the unenrolled and those attending two- and four-year programs; those enrolled in K–12 are grouped with the unenrolled, but professional degree or postsecondary enrollees are included with those attending four-year programs because of small cell size. Including those with less than a high school diploma and the unenrolled population along with the college-goers and the graduates is important given that they are also accessing credit markets and making decisions related to relationship formation.

Labor market controls include a measure of the youth's logged predicted annual earnings, lagged one year. This was estimated from the young adults' hourly wage earnings if they worked full-time year-round, using all available waves of the young adult pre- and post-transition, and was estimated separately by gender (Haurin et al. 1997; Whittington and Peters 1996). Measures of current employment status include indicators for full-time work, having worked 30 or more weeks, and at least 30 hours per week in the previous year. All education and labor market explanatory variables are time-varying.

The total value of all financial and nonfinancial assets at the start of the study period, except the value of primary residence, is included as a proxy of wealth (Schneider 2011). Also included is an indicator for bank account ownership, which captures respondents' connectedness to formal bank institutions or reveals economic disadvantage (Garasky et al. 2008). A dummy variable equal to 1 indicates those who are "unbanked" (lacking a checking or savings account). Young adult households younger than age 24 have the highest rates of unbanked persons, with percentages declining with age (FDIC 2012).

Additional Controls

Factors expected to impact union formation and timing and considered exogenous to the youth's relationship type and timing decision are also included. Time-invariant

[4] Aggregating the education loan debt to the same level as the credit card debt or filling in missing years for credit card debt measure are qualitatively similar to the yearly measures and are available from the author upon request.

controls for family background are the mother's and father's educational attainment as of 1997, whether the youth resided in a rural area at age 12, a variable equal to 1 if the youth lived with both biological parents from birth through age 14, and an indicator equal to 1 if the parental respondent reported negative net wealth in the 1997 survey. Given racial and ethnic differences in young adult cohabitation and marital rates (Addo 2012; Amato et al. 2008), the sample is categorized into four ethnoracial categories: non-Hispanic white (reference group), non-Hispanic black, Hispanic, and mixed race. In addition, all models control for whether the youth currently resides in a rural area, as well as her/his birth year, age, and age squared.

Analysis Plan

To estimate the role of early debt holdings while controlling for the other covariates on transitioning to cohabitation and marriage in early adulthood, I generate hazard function estimates using maximum likelihood (Allison 1984). This modeling technique allows for the inclusion of both time-varying and invariant regressors in the estimation. Respondents are followed for every year they are at risk of transitioning from single status into a union type. For the competing risks (hazard) models, when the decision to cohabit or marry is jointly determined, multinomial logistic regressions are estimated. Given that the outcome can be one of two events—cohabitation or marriage—the hazard rates estimated here represent the conditional probability that a youth will transition out of singlehood into a coresidential union given the other event has not occurred.

Standard errors are clustered at the individual level using the Huber/White procedure, which assumes that observations are independent across and not within respondents. The final data set is arranged in a person-year format, with each young adult contributing an observation for every survey year they remain single from age 20 until they transition to their first union. All observations after transitioning are censored. This is important both to avoid reverse causation, given that prior union history can influence current debt levels, and to permit modeling the importance of financial health in the relationship market during this transitional phase in the life course. All tables list the relative risk ratios, the antilog of the estimated coefficients. A likelihood ratio test comparing a pooled model of both gender and distinct models rejected the null hypothesis at $p < .000$; therefore, all models were run separately for women and men.

Results

Descriptive Statistics

Figure 1 plots the unconditional hazard rates of transitioning to cohabitation and marriage by gender over the study period. At every age, both men and women have a greater hazard of cohabiting than marrying. Women transition to cohabitation at earlier ages than men and at greater rates across the study period. The hazard of a first union increases with age for both women and men. By contrast, the hazard rates for marriage are low and exhibit a slow and steady increase, peaking at age 29 (the oldest age by the end of the study period) for both women and men. The majority of the

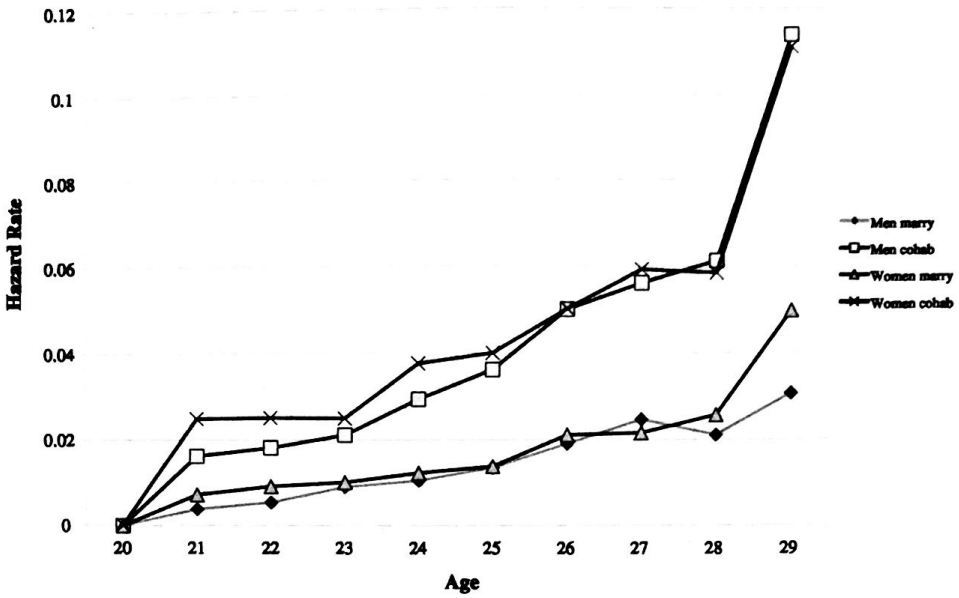

Fig. 1 Hazard rates of transitioning to first cohabitation and first marriage, by age. Sample data are from NLSY97

sample remained single over the study period: 52 % of women and 62 % of men. Women were nearly twice as likely to transition to cohabitation (31 %) as to directly marry (16.9 %), compared with 24.9 % of men who cohabited and only 13 % who married. These transition rates are in line with current research showing cohabitation as the modal pathway to coresidential relationships in young adulthood (Sassler 2010).

Table 1 compares the rates of indebtedness and average debt for young women and men by first union status. More than 34 % of the young women held credit card debt (averaging $2,582), compared with 29 % of the men (averaging $3,057). Although women were more likely than men to hold any debt, a closer look reveals that such differences are concentrated among women who remained single and those who cohabited; there are no significant differences in the proportion of women and men who held debt and married.

Women and men were considerably more likely to hold credit card debt than education debt. Cohabiting women and men held more credit card debt than did single women. Married men were also more likely than single men to have credit card debt, and in larger amounts. Men who remained single had greater amounts of credit card debt than did women who remained single—the one category where men's debt levels exceeded women's. Single women and men are more likely than their cohabiting and married counterparts to have education debt, and both single and cohabiting women are more likely to have education debt than their male counterparts. Of note, however, is that the amount of education debt does not differ significantly by sex.

Close to 7 % of the women in the sample reported holding both credit card and education loan debt, compared with only 3 % of the men. A little more than one-half of the women in the sample reported not having either type of debt, compared with more than 60 % of the men. Women held debt at higher rates in every union category. These results support Chiteji's (2007) findings that the majority of young adults do not have