Asset Ownership and Union Formation in Fragile Families

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ABSTRACT

I examine the relationship between asset ownership and transitions to marriage between low-income unmarried parents following the birth of a child. This work advances existing qualitative (e.g. Edin and Kefalas 2005) and quantitative work (e.g. Schneider 2011) on the topic of personal financial assets and marriage by focusing on this particular policy relevant group of young people using data from the contemporary period. Analyses of longitudinal data from the Fragile Families and Child Wellbeing Study reveal strong positive relationships between car and bank account ownership and marriage. I also attempt to empirically adjudicate between cultural, insurance value, and signaling explanations of why assets might be related to marriage entry. I do so by comparing the relationship between asset ownership and marriage with that of asset ownership and cohabitation and find evidence of a strong link for the former but not the latter.

Over the past several decades, marriage in America has undergone profound changes. For instance, women's median age at first marriage rose from 20.3 in 1960 to 26.5 in 2011 and the share of adults over the age of 18 who were unmarried rose over that same time period from 28% to 49% (Taylor et al 2009). These shifts have been most pronounced for the more disadvantaged, with widening gaps in the family formation process by race and emerging gaps by education (Stevenson and Wolfers 2007).

However, this retreat from marriage is particularly significant because it has gone hand in hand with a shift in fertility patterns. Childbearing has, for many Americans, become decoupled from marriage (Bumpass 1990; Cherlin 2010; Gibson-Davis 2011). In 1980, 18% of births occurred to unmarried parents. That share rose to 28% by 1990, 33% by 2000 and stood at 41% in 2009 (Martin et al, 2009). This shift is not simply the product of fewer births among married couples shifting the denominator. Rather, the increase in non-marital births since 1975 appears to be driven by both increases in the share of women who are not married and increases in the unmarried birth rate (Smith, Morgan, and Koropeckyj-Cox 1996).

Notably, these births have not occurred only to single mothers but also to unmarried partners (Cherlin 2010; Edin and Tach 2012). Recent data from the National Survey of Family Growth suggests that nearly 60% of non-marital births are to women living with unmarried partners (Lichter 2012). This relatively high rate of unmarried partnership at birth mirrors the well-known shift towards non-marital cohabitation in the life course (Smock 2000). For example, the share of adults age 30-44 who were cohabiting rose from 3% in 1995 to 7% in 2009 (Taylor et al, 2011) and approximately half of all women aged 15-44 in 2002 had cohabited at some point in their lives (Goodwin, Mosher, and Chandra, 2010).

One result of these demographic changes has been an increase in the number of what have been termed "fragile families." These families, composed of unmarried parents and their children, are the object of considerable policy and academic interest (Mclanahan, Haskins, and Donahue 2005) because evidence suggests that family structure has important effects on child wellbeing (see reviews by McLanahan, Tach, and Schneider 2012; Chapple 2009; Ribar 2004) and that these effects can redound across generations to perpetuate inequality and limit mobility (McLanahan and Percheski 2008). Consequently, scholars and policy makers have sought in particular to understand if, when, and why these unmarried parents enter into co-residential unions, particularly into marriage.

ASSETS AND UNION FORMATION

A large body of empirical work documents a relationship between income, education, employment and marriage entry (see reviews by Burstein 2007; Ellwood and Jencks 2004). However, recent ethnographic and qualitative research suggests that personal assets, in the form of financial savings, car ownership, and home ownership, may also have an important positive relationship with marriage entry.

The evidence for the importance of assets for marriage is presented in a series of ethnographic and qualitative studies focused on poor and working class men and women living in cities across the United States. This work reveals that these young people value marriage a great deal and see it as a "cultural ideal" (Edin, Kefalas, and Reed 2004:1008). However, to these disadvantaged young people, the barriers to marriage appear quite formidable. As Edin, England, and Linnenberg (2003) explain, "couples firmly believe that it is not respectable to marry without meeting the economic bar" (p. 13), and Gibson-Davis, Edin, and McLanahan (2005) suggest that their respondents felt that "to marry without achieving an adequate standard of living first was shameful" (p. 1308). But, this economic standard is more than simply holding a job or being able to afford to rent an apartment. Rather, these young people aspire to a "middle-class" standard of affluence as the proper antecedent to marriage (Edin and Reed 2005).

This standard includes having some financial savings, owning a car, and even owning a home (Edin et al. 2004; Gibson-Davis et al. 2005). The desire to hold these assets before marriage is not limited to the most disadvantaged. In interviews with working-class young people, Smock, Manning, and Porter (2005) find evidence of a similar set of asset-based pre-requisites to marriage, with nearly three-quarters of their sample identifying economic concerns as a key part of the standard of marriagability.

Several recent studies have sought to build on this qualitative and ethnographic evidence by using large-scale survey data to examine how the ownership of financial assets is connected to entry into marriage. There is some confirmatory evidence in those studies that financial assets are positively linked with entry into first marriage (Mamun 2005; Schneider 2011) and that car ownership and car value may also be associated with transitioning to marriage (Dew and Price 2011; Schneider 2011). There is somewhat weaker evidence that homeownership may precipitate marriage (Mamun 2005), perhaps because it is relatively rare among the young.

ASSET OWNERSHIP AND THE MEANING OF MARRIAGE

Several scholars have also sought to link the empirical evidence of a relationship between assets and marriage to a set of broader theoretical propositions about the cultural meaning of marriage in contemporary America (Cherlin, 2004; Cherlin, 2005a, 2005b; Edin and Kefalas, 2005). In particular, Cherlin argues that while marriage is now "optional," in that other socially acceptable forum exist for childbearing, co-residence, and sexual intimacy, marriage has not been devalued, but has rather been elevated. Cherlin (2004) argues that marriage "has evolved from a marker of conformity to a marker of prestige" and that it now is the culminating event that occurs after "attaining steady employment or starting a career…[and] putting away some savings" (p. 855). In this way, Cherlin (2004) argues that marriage is now the "capstone" rather than the starting point to early adulthood and that the link between assets and marriage is emblematic of this shift.

But this cultural explanation is also bound up with economic realities. The high regard in which marriage is held means that not just anyone can marry: the pre-requisite of respectable marriage is economic success or at least stability (Smock 2004). In this way, marriage entry is constrained not by a lack of interest in the institution, but by a shift towards seeing marriage as an institution of the affluent in the context of limited economic opportunity for many (Cherlin 2005a; Edin and Kefalas 2005).

While Cherlin, Edin and others argue that the relationship between assets and marriage is indicative of the special cultural meaning of marriage, other explanations are certainly possible. In particular, assets may be valued for marriage for the insurance value they provide to a new household. By this logic, any relationship between assets and marriage is not indicative of the symbolic value of marriage, but rather of the desire to have a buffer against economic shocks to a new household. Or, perhaps even more mundanely, assets may matter for marriage because they provide a signal of partner quality in that characteristics such as planfulness and cognitive ability that may be linked to asset accumulation are also desirable in a spouse.

Some of the key evidence for the cultural/symbolic proposition and against the insurance and signaling explanations comes from comparing the role of assets in marriage entry with that of assets in the formation of non-marital cohabiting unions. Though both are co-residential committed relationships, the young respondents in these qualitative studies do not see a need for assets to be in place in order to cohabit – only to marry (Gibson-Davis et al. 2005). Kefalas et al. (2011) describe similar differing orientations towards cohabitation and marriage among the young people in their qualitative study with national scope, discussing a young woman who is co-resident with the father of her child, but is unwilling to marry because she feels they have not yet "met the economic bar for marriage" (p. 865). This contrast in the role of assets for marriage and for cohabitation contains some of the richest evidence for the contention that marriage has a special symbolic value (Cherlin 2005a; Edin and Reed 2005) and complements the finding, in this same literature, that assets are seen as necessary for marriage but not for childbearing (clearly an expensive and long-term proposition).

UNANSWERED QUESTIONS

However, this prior empirical work is limited in three key respects. First, the qualitative studies that form much of the related literature are almost exclusively focused on how the unmarried parents of children think about marriage, cohabitation, and assets (the exception being Smock et al. 2005). Yet, the few quantitative studies on this topic (Schneider, 2011; Dew and Price, 2011; Mamun, 2005) instead examine transitions to marriage in the population at large. While valuable, using this broader sample comes at the cost of not honing in on the unmarried parents of children who are the sub-population of primary policy interest.

Second, while the qualitative studies described above are based on data collected in the first years of the twenty-first century, the demographic work discussed above uses data from the NLSY-79 (Schneider, 2011; Mamun, 2005) and NSFH (Dew and Price, 2011), studies that track marriages occurring mostly in the 1980s and early 1990s. While these quantitative studies may then reveal evidence for a relationship between assets and marriage in earlier decades, they cannot confirm whether this relationship is evident in the contemporary period.

Third, the existing qualitative and quantitative research has not fully articulated and shown why personal assets might matter for marriage. As discussed above, one way to test why assets might matter for marriage is to compare the role of assets in transitions to marriage versus cohabitation. A number of studies show differences in the relationship between education (Thornton, Axinn, and Teachman 1995; Sassler and Goldscheider 2004), employment (Clarkberg 1999; Oppenheimer 2003), and earnings (Clarkberg 1999; Xie et al 2003) and marriage versus cohabitation. But, only two prior studies have attempted a similar analysis for assets (Dew and Price 2011; Mamun 2005) and none have been conducted for fragile families in the contemporary period. This type of comparison is important because Cherlin (2005b) and Edin and Kefalas (2005) suggest that the relationship between assets and marriage is indicative of the unique cultural value that young people place on matrimony. This argument gains analytical leverage by comparing the relationship between assets and marriage, which they argue is strong and positive, with that of assets and cohabitation, which they suggest is null. This comparison enables these scholars to suggest that assets matter for marriage not because it matters for co-residence, but rather because marriage has unique cultural value. However, we should be careful not to oversimplify the comparison between marriage and cohabitation. Beyond the possibility of differences in cultural meaning and the similarity of co-residence, cohabitation and marriage may differ in the implied longevity of the relationship: cohabitation may still be thought of as a shorter-term arrangement than marriage and so one less in need of firm economic footing. This would suggest that assets would be positively linked to both marriage and cohabitation, but would matter more for marriage.

DATA AND METHODS:

Data

I make use of data from the Fragile Families and Child Wellbeing Study (FFCWS). The FFCWS is uniquely well suited to the inquiry described above because it was fielded in the first decade of the twenty-first century, includes a large sample of unmarried parents, and tracks multiple kinds of union transitions.

More specifically, this prospective cohort study is based on a sample of approximately 5,000 births that occurred in large cities between 1998 and 2000, with an oversample of births to unmarried parents. Both the mothers and fathers of the focal children were contacted for interviews at baseline and these adults were then contacted for re-interview after 1 year, 3 years, 5 years, and 9 years. As detailed below, the survey contains a rich set of variables including information on union formation, asset ownership, and a large number of other individual-level characteristics.

Union Formation

The FFCWS is well suited for this inquiry in part because it contains measures of union transitions for a group of parents that were unmarried at the birth of their child. The data collected at baseline and at each follow-up wave allows me to construct several measures of marital status across the five survey waves.

First, using mother's reports, I create a measure of transitions to first marriage to the focal child's father. Mothers who are never married to the focal child's father at time 1 (they may be cohabiting with him or not) enter the risk set for transition to first marriage by time 2, when the outcome is assessed and mothers who have married the focal child's father are distinguished from those who have not. For example, I use mother's reports of her relationship to the focal child's father at the year 1 survey in concert with mother's reports at the year 3 follow-up to create a measure of transitions to first marriage to the focal child's father between those two waves. Mothers who are missing at time 2 are excluded as are those mothers who have ever before been married to the focal child's father (where possible, missing information at time 1 is imputed using prior reports). Mothers who are single at time 1 but transition to being married to a person other than the focal child's father at time 2 are treated as remaining single. Mothers who are married to a person other than the focal child's father at time 1 and remain so or transition to being single are treated as remaining single across both waves and mothers who are married to a person other than the focal child's father at time 1, but are married to the focal child's father at time 2 are treated as having married. Second, I use a similar logic to create a measure of whether the mother of the focal child transitions from not being in a co-residential non-marital relationship with the father at time 1 to being in a co-residential non-marital relationship with him at time 2.

I use this information to create a combined measure that distinguishes between mothers who (1) were not married to the focal child's father at time 1 (cohabiting or not) and were married to him at time 2, (2) were unmarried and not cohabiting with the focal child's father at time 1 and were cohabiting with him at time 2, and (3) were not married to the focal child's father at time 1 and were neither married to nor cohabiting with him at time 2. Mothers who report cohabiting with the focal child's father at time 1 and are still cohabiting at time 2 are omitted. Mothers who are cohabiting with the focal child's father at time 1 and are neither cohabiting nor married at time 2 are treated as not having transitioned to cohabitation or to marriage (joining those in group (3) above), but the results are robust to omitting these mothers.

Asset Ownership

Prior work on the relationship between assets and marriage has been subject to the data constraint of only having information on the asset holdings of the respondent and not of potential partners. Thus researchers can examine how a respondents' own assets are related to a respondent's own likelihood of marriage, but not how a respondent's potential spouse's assets are related to the transition. The FFCWS design mitigates (but does not eliminate) this concern because the study's focus on unmarried parents means that each respondent has a readily identifiable likely spouse for whom asset data is collected: the focal child's other parent.

At baseline, respondents in eighteen of the twenty cities were asked if they owned a car. A comparable question was also asked in each of the follow-up surveys in which all respondents were queried about whether they owned a car, truck, or van. In these follow-up surveys, but not at baseline, respondents' partners' vehicles were included if those respondents reported being in a co-residential relationship.[1] I create a set of dichotomous measures for men and women capturing whether at each wave each respondent reported owning a vehicle, including unmarried respondents in co-residential relationships who reported that they or their partner owned a vehicle.

Some information is also available on homeownership. The baseline item asked only if respondents were living in a home that was owned or being bought by someone in the respondent's family, not, more narrowly, if the respondent or respondent's partner owned the home. However, at each follow-up, respondents were asked if they owned their own home.[2] I create a set of dichotomous measures capturing whether, from the 1-year follow-up forward, respondents reported owning their own homes.[3]

Finally, at each follow-up wave, but not at baseline, respondents were asked if they held a bank account. As with vehicle ownership, respondents in co-residential relationships were asked if they or their partners held such an account. Using this information, I create a set of dichotomous measures of men's and women's account ownership at each of the follow-up waves. Respondents' are coded as holding a bank account if they have their own account or have a joint account with a

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[1] The question wording is such that it cannot be discerned if the asset was owned by the respondent, by the partner, or was held jointly.

[2] The wave 4 survey first asked respondents if they had moved and then only asked questions about homeownership of those who answered affirmatively. Homeownership status at wave 3 is carried over for those who had not moved at wave 4.

[3] Respondents also provided limited information on the value of homes and cars and on associated debt. I do not make primary use of these measures because while the self-assessment of ownership is unlikely to suffer from significant misreporting, self-reports of the market value of assets may. Additionally, there is significantly more missing data on the measures of asset market value and associated debt than on simple ownership. To check robustness, I re-estimate the key models using a measure of the log of home market value, the log of car market value, and a dichotomous measure of bank account ownership. I also re-estimate the key models substituting measures of the log of net-value (market value – debt) of cars and homes. In each case, I find a positive relationship with entry into marriage: couples with more valuable assets have higher odds of transitioning to marriage.

partner. Respondents who report that only their partners have an account are coded as not having a bank account.

Other Variables

I control for a number of other characteristics that might be expected to confound the relationship between asset ownership and union transitions. Certain demographic characteristics of respondents are likely to be related both to asset ownership and to union transitions. Of foremost importance, minority race/ethnicity status is both negatively related to asset ownership (Conley 1999) and to marriage (Schneider 2011). I use mother's baseline reports of race/ethnicity to construct dichotomous measures of being white non-Hispanic relative to being black non-Hispanic, being Hispanic, or being of another race/ethnicity. I also create time invariant measures of the family background of respondents, coding dichotomous measures of whether female and male respondents resided with both parents when the respondents were aged 15. In addition, research by Keister (2003) suggests that religion may be linked to patterns of asset accumulation and other research in turn suggests a relationship between religion and union formation (Wilcox and Wolfinger 2007). To adjust for any such confounding relationship, I introduce measures from the baseline survey of whether mothers were Protestant as compared to Catholic, another religion, or no stated religion.

The education of the parents of the focal child can also be expected to be related to both union transitions, with the more educated more likely to marry (Harknett 2008), and to wealth, with the more educated likely to hold more assets (Bucks, Kennickell, and Moore 2006). I code education as a set of dichotomous variables, separately for mothers and fathers, in which those with less than a high school diploma are compared to those with a high school degree, those with some post secondary education, and those with a college degree or more.

Several aspects of labor market performance might also confound the relationship between asset ownership and union transitions. In the main analyses presented below, I use mothers' and fathers' reports at each wave of income earned from their all jobs in the past year, trimming the top 1% and bottom 1% of reports and taking the natural log of the reported value.[4] As described in the results section, I also test the robustness of my results to using an unlogged measure of all earned income, to using a measure of income earned in the last year at the respondent's main job (logged and unlogged), and to not trimming outliers. I also test whether introducing a separate control for having worked in the last week alters the main results as well as whether the results are changed with the inclusion of a measure of ever being out of work over the nine years of the survey.

Mother's receipt of food stamps or TANF might also confound any relationship between assets and union transitions. There is some evidence that the eligibility rules for public assistance programs suppress asset ownership (Nam 2008) and that regardless of the actual regulations, many recipients perceive that the rules prohibit the ownership of assets (O'Brien, 2012). There is also evidence that suggests that welfare receipt may be negatively related to marriage (Teitler et al. 2009). I code a dichotomous variable capturing mother's receipt of either TANF or food stamps in the past year, with this measure created from mother's reports at each wave.

Father's incarceration also has important consequences for union formation (Western, Lopoo, and McLanahan 2006) and can be expected to have negative effects on asset accumulation and economic attainment more generally (e.g. Western 2002). I use a measure of whether the father of the focal child has ever been incarcerated at the time of each follow-up interview. Using an alternative, more limited, measure of whether the father was incarcerated at the time of either the mother or the father's interview leaves the results unchanged.

[4] I tested the sensitivity of the models to using logged and non-logged versions of the measure, with and without the exclusion of outliers, and using only earnings from the respondent's main job in place of earnings from all jobs. The coefficients on the key asset variables are relatively insensitive to these different specifications of earnings, with statistical significance unvarying across the models and the direction and magnitude of the relationships unchanged.

Analytic Strategy

I construct a person-wave file in which respondents are represented for all of the paired surveys in which they were eligible for one of the transitions captured by the outcome variables described above. For example, a respondent who was not married to the father of the focal child at the 1-year follow-up and remained unmarried at the 3-year follow-up but then married the father by the 5-year follow-up would appear in the data for the first pair of surveys and would also appear in the data as a transition between the 3-year and 5-year follow-ups.

I estimate how the ownership of assets (and other covariates) as measured at time 1 is related to transitions made between time 1 and time 2 as calculated from reports at time 1 and time 2. This strategy of lagging the key time varying covariates to occur one period prior to the outcome ensures that that, in the language of causal analysis, asset ownership leads to union transitions rather than union transitions leading to asset ownership. This strategy also means that I examine transitions between baseline and 1-year, 1-year and 3-year, 3-year and 5-year, and 5-year and 9-year as a function of assets held at the earlier of each of those paired surveys, but do not use information on asset ownership as reported at the 9-year follow-up. However, because of the limited amount of data that was collected on asset ownership at baseline, I am not able to use transitions between baseline and the 1-year follow-up in the main analyses on the pooled file.[5]. Finally, for the reasons discussed above, these analyses also do not seek to explain respondents' union status at baseline.

I present a set of multinomial logistic regression models in which respondents who do not form co-residential unions are compared to those who transition to marriage and those who transition to cohabitation. I estimate separate models using father's assets and using mother's assets to assess if men's and women's assets might matter differently for marriage. In all analyses, I exclude

[5] Only information on car ownership was collected at baseline. Re-estimating the models to only include car ownership but across all available waves, I find that the relationship between men's (women's) car ownership and entry into marriage is significant and positive, but the coefficient is reduced by 17% for men (27% for women) against the estimates presented in Table 3.

person-years with missing data on any of the covariates and cases in which the respondents had been previously married.

RESULTS

Marriage Entry

While unmarried at birth, a significant share of the parents of the focal children in the Fragile Families Study transitioned into relationships over the first nine years of the children's lives. Between the first-year follow-up and the third-year follow-up, approximately 9% of never married parents entered into marriage while 13% of those not cohabiting at the one-year were co-residing by the three-year. A similar share of parents, about 9% who were never married at the three-year follow-up, married by the five-year survey while 8% of those not cohabiting at the three-year survey were living together at the five-year. Transitions into romantic residential unions were somewhat less common between the five-year and nine-year follow-up surveys with 8% transitioning to marriage and 6% to cohabitation.

Asset Ownership

Table 1 describes the low levels of asset ownership among the unmarried parents present in the analysis sample. For instance, 1 year after the birth of the focal child, at wave 2 of the survey, just 61% of fathers who remained unmarried to the focal children's mothers owned a car, as compared with 83% of the population at large in 2001 (Bucks et al, 2006). Similarly, nearly 60% of fathers reported that they did not have a bank account, far in excess of the 13% of all households nationally that were "unbanked" in 2001 (Bucks et al, 2006). Finally, just 9% of fathers reported owning their own homes at the 1-year follow-up, a fraction of the 66% homeownership rate for the US population in 2001 (Bucks et al, 2006). For men, these low rates of asset-ownership remained relatively stable across the waves of the survey.

The unmarried mothers in the sample reported similarly low levels of asset ownership. At the first follow-up, 47% of the unmarried mothers of the focal children owned vehicles, 39% held bank accounts, and 6% owned their own homes. However, for women, there is some indication of improving economic fortunes as the share that owned a vehicle increased across waves to 54%, the share that held a bank account rose to 49%, and the homeownership rate ticked up to 10%. While there appear then to be some modest gains for women, on the whole Table 3.1 portrays a very disadvantaged population, one in which the simple ownership of basic assets like a car and a bank account might well be distinguishing markers of economic success.

Asset Ownership and Union Formation: Bivariate Results

Table 2 presents data showing the bivariate relationship between asset ownership and transitions to marriage, separately for men and women's assets. The figures in the first pair of columns in compare the share of men who owned a car who transitioned to marriage with the share of men who did not own a car who transitioned to marriage. Whether examining the relationship between car ownership at wave 2 and transitions between wave 2 and 3, car ownership at wave 3 and transitions between waves 3 and 4, or car ownership at wave 4 and transitions between waves 4 and 5, there is a consistent positive relationship between owning a vehicle and transitioning to marriage. In each case, approximately 10% of those who own a car transition to marriage with the focal child's mother as compared with 4% to 5% of those who do not own a car. There is evidence of a similar positive relationship between homeownership and marriage entry. Here too, across waves, approximately twice the share of men who report owning a home transition to marriage as compared to non-homeowners. The third pair of columns reveals that larger shares of men who hold bank accounts transition to first marriage with the focal child's mother by the next wave (between 11 and 4%) than men who are unbanked.

Larger shares of women who own these key assets also appear to transition to marriage with the focal child's father as compared with women who do not. While the share varies somewhat across waves, between 13% and 10% of women who own cars marry by the next wave as compared with between 6% and 4% of those who do not. Similarly, between 20% and 15% of homeowners transition to marriage against 7-8% of non-owners. While approximately 11% of women with bank accounts marry by the next survey wave, the share is smaller (between 6% and 8%) among the unbanked.

The bottom panel of Table 2 compares the share of men and women with and without assets that transition to cohabitation. These data reveal a very different set of relationships than those discussed above. For men, there are only small differences of inconsistent direction in the shares of asset owners and non-owners that transition to cohabitation. Similarly, for women, asset ownership does not appear to confer any particular advantage for cohabitation. In sum, there is no discernable bivariate relationship between either men's or women's asset ownership and transitioning to cohabitation.

Asset Ownership and Union Formation: Multinomial Logistic Regression Results

If assets matter primarily for the security they provide to a new household then we might expect assets to be positively linked to transitions to both cohabitation and to marriage. But, if assets are part of the normative standard of respectable marriage, then we might expect assets to only be positively linked to marriage, or at least more strongly so linked.

Table 3 presents results from a pair of multinomial logistic regression models that speak to these comparisons. In these models there are three categories of outcomes: not transitioning, transitioning to cohabitation, and transitioning to marriage. Men's assets are positively and significantly related to the transition to marriage between the focal child's parents rather than not forming a union. As shown in the second column of relative risk ratios, when the father owns a car, the risk of marriage is raised by approximately 2.1 times as compared with couples in which fathers do not own a car. Father's homeownership raises the risk by 58% and account ownership by 48%. However, there is no evidence of a significant association between asset ownership and transitions to cohabitation rather than not forming a union. Point estimates are close to one or below and do not approach statistical significance.

These estimates compare the outcomes of marriage and cohabitation against the reference category of not forming a co-residential union. Adjusting the model to compare transitions to marriage against cohabitation shows that there are statistically significant differences in the relationship between men's car ownership ($p<0.01$) and homeownership ($p<0.05$) and getting married relative to transitioning to cohabitation. Bank account ownership also has a positive relationship with marriage versus cohabiting, but just fails to meet a $p<0.10$ threshold for significance (not shown in tables).

The results of the second multinomial model, with women's assets as the key predictors, show that women's car ownership and women's homeownership (versus not owning those assets) are both associated with nearly twice the risk of marriage between the focal child's parents relative to not forming a union. Women's bank account ownership is not significantly associated with marriage. But, women's car ownership is negatively related to transitions to cohabitation, with a relative risk ratio of .616. For women, the relationship between the ownership of a car and marriage relative to cohabitation is also statistically significant at the $p < .001$ level (not shown in tables).

Asset Ownership and Marriage Entry: Variation by Access to Credit

The approach detailed above provides one test of whether assets matter for marriage for their symbolic value rather than their insurance value. But, we might also reasonably expect that if assets are valued for marriage for the insurance value they provide, inuring the new household to the dangers of economic shocks, then the benefit of assets for marriage should be particularly pronounced for those men and women who would have few other resources to turn to buffer such shocks. Alternatively, by the cultural logic, assets should matter similarly for everyone regardless of access to other kinds of resources because assets are a necessary symbol of economic arrival for all.

One such resource, besides assets, that these men and women might turn to cope with such a shock is credit. While the Fragile Families Study does not include detailed data on access to consumer credit, the dataset does contain measures of respondents' self-assessed ability to borrow $1,000 from family or friends, ability to find a co-signer for a loan of $1,000, and for a loan of $5,000. These questions have the virtue of asking about respondents' perceptions of the availability of support rather than asking about realized support. This question construction effectively decouples the question of access to credit from that of the need for credit.

Access to these sources of credit is not uncommon, but it is by no means universal. 64% (51%) of fathers (mothers) reported that they believed they would be able to borrow $1,000 in the event it was necessary, 69% (59%) believe they could find a co-signer for a $1,000 loan and 51% (40%) thought they could do so for a $5,000. These men and women are distinguished from their peers by having access to a way to cope with emergency that does not rely on their own assets.

Does having access to such forms of credit then reduce the importance of assets for marriage? Figure 1 summarizes the results of a supplemental logistic regression model of entry into marriage in which measures of credit access are included and interacted with asset ownership. Figure 1 shows the average marginal effect of assets on marriage conditional on credit access. In each panel, the darker bar shows the relationship between asset ownership and marriage conditional on being able to borrow and the lighter bar shows the relationship conditional on not having access to such credit. Comparing each pair of bars shows that there is no significant variation in those relationships by respondents' access to credit.

Asset Ownership and Marriage Entry: Further Accounting for Partner Quality

The analyses discussed above are designed to distinguish between the insurance value and symbolic value explanations. It is also possible though that assets matter because they serve as useful signal of partner quality. If this were the case, then accounting for less readily observable characteristics, aspects of personality or cognitive processing, might explain away the association between assets and marriage because those characteristics would more directly capture this construct of partner quality.

The FFCWS data contains several measures that in some ways capture these characteristics. Father's impulsivity is measured using the level of respondents' agreement (on a four point scale) with the each of six statements including, "I will often say whatever comes into my head without thinking first" and "Often, I don't spend enough time thinking over a situation before I act." In creating the scale, responses are summed and then divided by the number of questions answered. Mother's and father's cognitive ability is measured using the Wechsler Adult Intelligence Scale – Revised. While potentially useful, the usability of these measures is limited in that the underlying questions were not fielded until the year-1 follow-up (for impulsivity) and the year-3 follow-up (for cognitive scores).

For that reason, I do not include these measures in the main models, but do assess the robustness of the results to there inclusion in alternative models. Re-estimating the models presented in Tables 3 with controls for impulsivity and cognitive ability reveals that the relationships between asset ownership and marriage (in both the logistic and multinomial logistic models) are not substantially affected, with the relationship between marriage and car and bank account ownership somewhat reduced and the relationship between marriage and home ownership somewhat strengthened, for men and for women (with the exception that bank account ownership is not significantly linked to marriage in any of the models for women).

Finally, I also assessed the sensitivity of the relationship between asset ownership and marriage to the inclusion of two measures of employment. The results were quite similar when adjusting for time-varying measures of whether mothers and fathers were employed in the week prior to the survey. The results were also robust to the inclusion of a measure that categorized mothers and fathers according to their employment histories over the first four waves of the survey. This variable was set equal to one for mothers and fathers who had ever been out of work over the first four waves of the survey and set equal to zero for those who were continuously employed. As would be expected, couples in which fathers were coded as ever not working had lower odds of transitioning to marriage than couples in which fathers were continually employed.

DISCUSSION

This inquiry builds on an existing body of qualitative and ethnographic research to examine how asset ownership might be importantly connected with entry into marriage and to explore what that might tell us about the cultural meaning of marriage in contemporary America. I model whether a sample of unmarried parents married between 1 year and 9 years following the birth of their child as a function of men's and women's ownership of a car, a bank account, and a home prior to marriage. This work improves upon prior demographic and quantitative work in this area by focusing on the fragile families that are the subject of the motivating ethnographic literature and are of primary policy interest and by analyzing data on this population from the contemporary period.

I find strong evidence that couples in which the man or the woman owns a car have a higher risk of marrying as compared with couples that lack these assets. It is of course possible that it is not car ownership per se that is important, but rather the access to employment and marriage markets that car ownership affords. Two aspects of the study design militate against those alternative interpretations: (1) the Fragile Families sample is constructed from a frame of births in large cities, mitigating the extent to which cars might be important for accessing jobs and (2) I study marriage between the parents of the child, mitigating the extent to which cars might enhance opportunities to meet a wider circle of potential partners.

I also find evidence of a higher risk of marriage among couples in which either the man or woman owns a home rather than not. Home value and car value (market and net) are also positively associated with entry into marriage, suggesting that more valuable assets increase the risk of marriage. The data do not allow, however, for a more fine-grained assessment of the quality of these assets and the measures of value are imprecise and missing for many respondents.

Couples in which men hold bank accounts are also at a higher risk of marriage than those in which the men are unbanked. These positive relationships are evident in simple unadjusted descriptive statistics and in adjusted estimates from a logistic regression model. Asset ownership, neither impossible nor by any means common among these young men and women, appears to be an important predictor of entry into marriage.

Cherlin and Edin, among other scholars, argue that disadvantaged young parents like those studied here fail to marry not because they do not value marriage, but rather because the social standard for respectable marriage is a level of economic achievement that is difficult to attain. These results provide support for their hypothesis in so far as I find that marriage is more likely among those unmarried parents who have attained a level of basic asset ownership than among those who have not. What this analysis does not seek to confirm are the high levels of support for marriage and aspiration to marry that is reported in the qualitative literature. These basic results also do not help us to discern why assets may matter for marriage and in particular to distinguish between a view of assets as valuable for their signaling value, their insurance value, or their ability to satisfy the normative standards of respectable marriage.

To distinguish between the insurance value and symbolic value explanations, I assess whether assets matter differently for marriage and for cohabitation. In contrast to the results for marriage, I find no evidence of a connection between asset ownership and the risk of entering into a co-residential but non-marital union. In multinomial logistic regression models, the measures of asset ownership are not significantly related to cohabitation and there is some suggestion that women's asset holdings may in fact reduce the risk of cohabitation. Comparing the relationship between asset ownership and these two outcomes more formally reveals a significant difference in the link between car and/or homeownership and marriage versus cohabitation.

The results of two supplementary analyses provide further support for the cultural/symbolic interpretation. I first assess whether assets matter less for marriage for those men and women who have access to other economic resources that could be used to buffer the household against shocks – credit. I find no evidence of such variation. Assets appear to matter similarly for marriage whether these young people have access to credit or not. Second, I examine whether adjusting for impulsivity and cognitive ability, as well as a measure of employment stability, can account for the relationship between assets and marriage. I find little evidence of such a dynamic.

These results accord with prior research contrasting the role of education, employment, and earnings in marriage and in cohabitation. As in that work, I find evidence that measures of economic success, here captured with asset ownership, matter for marriage but not for cohabitation. These results seem to reveal a real difference in how these two kinds of committed co-residential relationships are conceived of. This could be because marriage is usually a longer-term commitment than cohabitation and so the economic resources of one's partner may be of greater importance. But, this argument is at least partially belied by the reality that the romantic relationships studied here are between unmarried partners. Through parenthood, they have already entered into some kind of long-term tie.

Alternatively, as suggested by Cherlin (2005a), it could be that marriage has a unique cultural value that is quite distinct from that of cohabitation. The strong positive relationship between personal assets and marriage, but not cohabitation, is then evidence of the high economic standard for respectable marriage and so then indicative of the symbolic value of matrimony. This view accords with the qualitative and ethnographic literature that suggests that both men's and women's assets would be related to marriage among unmarried parents, but not necessarily to cohabitation (i.e. Edin and Kefalas 2005). It also aligns, to some degree, with a separate line of work that finds evidence of differences in the amount of housework done by men and women in cohabiting versus marital unions (Gupta 1999; South and Spitze 1994). This research on household labor also then suggests that marriage has a distinct social meaning, evidenced in that case by more highly gendered patterns of housework.

It is important to note however that the forgoing analysis is based on regression analysis of observational data. The nature of this approach leaves the results open to the objection that the relationships detailed here are spurious. I have endeavored to adjust for a large number of readily observable factors such as education, earnings, employment, incarceration, and welfare receipt that might confound the relationship between asset ownership and union formation. In addition, I have confirmed that the results are relatively insensitive to alternative ways of operationalizing those possibly confounding characteristics. I have also shown that adjusting for less commonly observed characteristics, such as intelligence test scores and measures of impulsivity, which might confound the relationship does not meaningfully affect the estimates. Finally, the analysis sample is composed of adults who were unmarried at the birth of their child. While there is substantial heterogeneity within that group, we might still reasonably expect that this common characteristic would minimize the extent to which the sort of unobserved characteristics that are associated with a non-marital birth might be present and so might also bias the relationship between assets and union formation.

This analysis of data from the Fragile Families Study is limited in several other key respects. First, the analysis of entry into marriage and cohabitation is based on a pooled file of couple-waves. However, the five waves of the Fragile Families Study are inconsistently spaced with one year between the baseline and wave 2, 2 years between waves 2 and 3, 2 years between waves 3 and 4, and four years between waves 4 and 5. The consequence is that the length of time between when the covariates are measured and union status is then subsequently observed, is not regular. This means that some men and women who are coded as not having assets at time 1, do in fact accumulate them before time 2 and that, conversely, some who are coded as having assets at time 1 have lost them some time in advance of observing union status at time 2. These discrepancies between the survey data and reality are likely more pronounced for the later, more widely spaced, waves. However, while less than ideal, we would expect that this would essentially increase measurement error and bias our estimates towards zero.

Second, this work is also limited in its ability to account for another means by which couples may display the markers of economic attainment that Cherlin and others hypothesize are important for respectable marriage – an expensive wedding. Such an event might well symbolize the affluence now necessary for marriage and the cost of such a wedding could either be in addition to the need to have the assets discussed in this work or could be funded out of such assets – by liquidating savings perhaps. Unfortunately, because data on weddings is lacking in the Fragile Families Study (as in most such data sets), I am not able to examine this question directly.

Finally, I have framed these analyses as, in part, adjudicating between an insurance value and a symbolic value interpretation of why assets matter for marriage. I have not engaged with, and cannot easily test, an alternative perspective: that these two explanations for why assets may matter for marriage are not mutually exclusive but rather mutually constitutive. At the core of Cherlin's and Edin's culturally-oriented arguments about assets and marriage is the contention that assets matter for marriage more now that it did before and that this shift exemplifies the changed meaning of marriage. While the rationale for a changed meaning of marriage is discussed in this work, it is less clearly articulated why assets in particular have become more important. It is possible that rising insecurity and volatility in the economy have prompted young people to want to have personal assets before marrying for "insurance" reasons and that this practical purpose underlies the "cultural" shift. This is, in some ways, a functionalist account of culture – one in which economic realities affect standards for marriage which are then interpreted by young people themselves as aspects of culture.

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Table 1. Asset Ownership of Unmarried Men and Women

	Wave 2	Wave 3	Wave 4
Men's Assets (% own)			
Car	61	61	61
Bank Account	41	41	40
Home	9	11	11
Women's Assets (% own)			
Car	47	51	54
Bank Account	39	43	49
Home	6	8	10

Table 2: Asset Ownership and Union Transitions

	Men's Assets at t_1						Women's Assets t_1					
	Own Car		Own Home		Have Bank Account		Own Car		Own Home		Have Bank Account	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
% Transitioning to Marriage between t_1 and t_2												
Wave 3	11	5	16	8	12	7	13	6	20	8	11	8
Wave 4	11	4	14	8	14	5	11	6	15	8	11	6
Wave 5	10	4	14	7	11	6	10	4	15	7	10	6
% Transitioning to Cohabitation between t_1 and t_2												
Wave 3	14	12	7	14	12	14	10	15	14	13	18	11
Wave 4	7	9	5	8	6	9	7	8	14	7	5	11
Wave 5	6	5	6	2	6	6	6	5	6	6	6	6

Table 3. Asset Ownership and Union Transitions: Relative Risk Ratios from Multinomial Logistic Regression Models

	Model 1				Model 2			
	Cohabitation/ No Transition		Marriage/No Transition		Cohabitation/ No Transition		Marriage/No Transition	
Father's Asset Ownership								
Car	1.003		2.057	***				
Home	0.554		1.582	*				
Bank Account	0.995		1.475	*				
Mother's Asset Ownership								
Car					0.616	*	1.995	***
Home					1.372		2.054	**
Bank Account					1.093		1.036	
Mother lived with parents at age 15	1.274		0.969		1.126		0.958	
Father lived with parents at age 15	1.070		1.038		1.041		1.123	
Mother's Religion								
Protestant (ref)								
Catholic	1.366		1.015		1.205		0.994	
Other Religion	0.517		1.196		0.488		1.133	
Not Religious	0.905		0.666		0.970		0.660	
Father's Religion								
Protestant (ref)								
Catholic	1.364		1.228		1.483		1.250	
Other Religion	1.251		0.998		1.200		1.001	
Not Religious	1.368		0.699		1.407		0.724	
Mother Received Public Assistance	0.938		0.558	***	0.945		0.578	***
Mother's Education								
Less than High School (ref)								
High School Diploma	0.756		1.117		0.776		1.087	
Some Post-secondary	0.952		1.089		0.841		1.015	
College	1.061		0.843		1.359		0.733	
Father's Education								
Less than High School (ref)								
High School Diploma	0.886		0.647	*	0.891		0.671	*
Some Post-secondary	0.851		0.706	+	0.747		0.834	
College	0.696		0.986		0.845		1.046	
Father Ever Been Incarcerated	1.426	+	0.809		1.488	+	0.707	*
Earnings from all Jobs in Past Year (ln)								
Mother's Earnings	0.967		0.935	***	0.994		0.930	***
Father's Earnings	0.990		1.053		0.980		1.066	+
Mother's Race								
White Non-Hispanic (ref)								
Black Non-Hispanic	1.198		0.548	**	1.069		0.651	+
Hispanic	1.029		1.206		1.362		1.325	
Not White, Black, or Hispanic	1.302		0.597		1.716		0.708	
Mother's Age	1.018		1.006		1.009		0.993	
Father's Age	1.001		0.986		1.015		0.991	
Observations	2,302				2,189			

Figure 1. Average Marginal Effect of Asset Ownership on Marriage by Availability of Credit