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Marriage Markets and Intermarriage: Exchange in First Marriages and Remarriages

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Abstract Drawing on data from the American Community Survey, we compare patterns of assortative mating in first marriages, remarriages, and mixed-order marriages. We identify a number of ascribed and achieved characteristics that are viewed as resources available for exchange, both as complements and substitutes. We apply conditional logit models to show how patterns of assortative mating among never-married and previously married persons are subject to local marriage market opportunities and constraints. The results reveal that previously married individuals "cast a wider net": spousal pairings are more heterogamous among remarriages than among first marriages. Marital heterogamy, however, is reflected in systematic evidence of trade-offs showing that marriage order (i.e., status of being never-married) is a valued trait for exchange. Never-married persons are better positioned than previously married persons to marry more attractive marital partners, variously measured (e.g., highly educated partners). Previously married persons—especially women—are disadvantaged in the marriage market, facing demographic shortages of potential partners to marry. Marriage market constraints take demographic expression in low remarriage rates and in heterogamous patterns of mate selection in which previously married partners often substitute other valued characteristics in marriage with never-married persons.

Keywords Remarriage · Assortative mating · Intermarriage · Homogamy · Marriage markets

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Introduction

Men and women are typically sorted or selected into marriages on the basis of similar social, demographic, and economic characteristics: that is to say, likes marry likes. Indeed, marital homogamy is the norm (Qian and Lichter 2011; Schwartz 2013). Positive assortative mating has always been observed on the basis of ascribed characteristics (e.g., racial endogamy and age homogamy). However, rising levels of educational attainment among women (DiPrete and Buchmann 2013), along with declining gender gaps in labor force participation rates, earnings, and socioeconomic status (SES), have also reshaped U.S. marriage market conditions and upended traditional patterns of mate selection (Goldin 2006; Oppenheimer 1997). Egalitarian gender roles in marriage are now reflected in growing educational homogamy in marriage; husbands and wives are more likely than ever to have similar education levels, especially among the college-educated (Qian and Preston 1993; Schwartz and Mare 2005). Conventional patterns of homogamy based on ascribed characteristics are reinforced today by new patterns based on achieved characteristics (Bisin et al. 2004; Lehrer 1998; Qian and Lichter 2007; Rosenfeld 2008; Sherkat 2004).

Whether this large and increasingly complex literature on assortative mating fully applies to remarriages is unclear. Nearly one-half of all U.S. marriages annually involve previously married persons (U.S. Census Bureau 2010). Remarriages involve persons who have been doubly selected—first into divorce, and then into another marriage—thus distinguishing them from persons in first marriages. Not only do couples in remarriages differ from those in first marriages on conventional risk factors for divorce (e.g., low income or education), but they also carry unique experiences from previous marriages (Choi and Tienda 2017a; Sweeney 1997), which undoubtedly influence the remarriage process. For example, many previously married people have children. Child support, visitation rights, and the complications of forming stepfamilies can pose significant barriers to remarriage for both men and women while also discouraging others from viewing them as attractive marital partners (Goldscheider and Sassler 2006). Marriage order (first marriages *vis-à-vis* remarriages) has seemingly become an increasingly salient social boundary that defines marital relations and family functioning.

For these reasons, remarriage is often called an "incomplete institution" (Cherlin 1978), one that has arguably upended conventional perspectives on assortative mating and patterns of marital homogamy. Our working assumption is that first marriages, remarriages, and mixed-order marriages (i.e., marriages between never-married and previously married persons) involve different trade-offs or exchanges of valued traits between marital partners, especially if being never-married is more highly valued in the marriage market than being divorced. That is, marital exchanges involve a trade between the marriage order of one partner and the valued resources (e.g., higher education, income, or racial status) of the other partner. We expect that never-married persons will "marry up" if they marry a partner who has been previously married. This will be revealed both in more heterogamous remarriages and expressed in patterns of marriage mobility (i.e., marrying up in SES, nativity status, or racial status).

In this article, we acknowledge that marriage market opportunities for partners in first marriages and remarriages are unequal and subject to demographic imbalances in potential partners to marry. Using annual data from 2008–2014 American Community Survey (ACS), we examine whether marriages between previously married individuals

are less homogamous on a number of ascribed and achieved traits than those between never-married partners. Unlike previous studies of intermarriage among previously married partners (e.g., Choi and Tienda 2017a), we examine whether mixed-order marriages involve exchanges between partners and whether gender plays a role in the marital exchange. We classify marriages formed in the previous year into 4 types: (1) both spouses in first marriages, (2) first-married husbands and remarried wives, (3) first-married wives and remarried husbands, and (4) both spouses remarried. We compare spouses with a random selection of eligible spouses drawn from the entire pool of eligible marital partners (variously defined) within specific metropolitan areas of residence. We estimate the likelihood of marriage relative to the opportunities and constraints in the local marriage market. Specifically, we use conditional logistic regression models to highlight assortative mating among observed couples *vis-à-vis* hypothetical marriages formed from a random draw of the local pool of eligible partners (Jepsen and Jepsen 2002). Our conceptual framework identifies patterns of marital homogamy—the exchange of complementary traits (Becker 1981; Schwartz et al. 2016)—but also status exchanges based on substitutes (i.e., trading one valued resource, such as never-married status, for another), such as differences in age, educational attainment, race/ethnicity, income, presence of children, and nativity status (Torche and Rich 2017). Unlike previous studies, our modeling approach considers these traits simultaneously rather than one at a time.

Marital Search: Preferences and Opportunities

We start with the assumption that men and women seek the best match possible among all potential partners in the marriage market. Indeed, the marital sorting process is analogous to the matching of employers and employees in the labor market (England and Farkas 1986; Oppenheimer 1988). Job searchers seek the best job possible, subject to both the jobs available and the skills and credentials that make them attractive (or not) to potential employers. Finding the best job among all possible potential offers is costly and time-consuming. In theory, job seekers must decide on a minimally acceptable match—the so-called reservation wage. They presumably reject job offers below the reservation wage and accept the first offer at or above the reservation wage. Under conditions of high unemployment, job searchers may find it necessary to lower their aspirations for an acceptable job—that is, they lower their reservation wage. Similarly, marriage seekers have in mind a "reservation quality partner" (England and Farkas 1986), which is analogous to setting the reservation wage by job seekers. This is the minimally acceptable marital partner given their own attractiveness in the marriage market, including their marital status (divorced or never married). In a slack marriage market with shortages of available partners, for example, "casting a wider net" means lowering the reservation quality partner and perhaps violating conventional cultural norms on marital homogamy.

The theoretical expectations are clear. A minimally acceptable match—a fair trade in the marriage market—implies that marriage seekers will usually be paired with someone similar to themselves (i.e., marital homogamy). Becker (1981) argued that men and women typically exchange complementary traits in marriage, such as age, race, and family background. But other traits can substitute for each other in the marital exchange. For example, couples may share common values and beliefs while also benefiting from marriage through specialization in gender roles. American marriages in the 1950s

typically involved one partner, usually the wife, taking on the homemaker role and the other partner assuming the role of breadwinner (Cherlin 1992). Perhaps not surprisingly, empirical support for Becker's sex role specialization theory has declined in recent years as women's educational attainment and labor force participation have steadily increased (Oppenheimer 1997). Educational and earnings homogamy have been on the rise in recent decades (Greenwood et al. 2014; Jepsen and Jepsen 2002; Schwartz 2010; Schwartz and Mare 2005). This shift reflects educational improvement among women but perhaps also growing preferences among highly educated men and women for marriages with educational peers. Educational hypergamy ("marrying up" among women) and hypogamy (among men) are seemingly on the decline (Schwartz and Mare 2005) as egalitarian marriages have become ascendant (Gerson 2011). Marriage is increasingly based on traits that complement rather than substitute for each other.

In the past, assortative mating on conventional demographic dimensions was often reinforced if partners formed intimate relationships or became married while attending school or shortly thereafter (Mare 1991). High schools, vocational schools, community colleges, and university settings are highly segregated by age and education as well as by race and ethnicity, family background, and even aptitude (e.g., sorting into elite universities *vis-à-vis* community colleges). Yet, with delayed marriage and increasing remarriages, educational institutions are now much less likely to serve as self-contained local marriage markets that circumscribe the daily social activities and dating habits of unmarried young adults who share similar personal traits (Shafer and Qian 2010). In contrast, divorced persons are older, on average, than their never-married counterparts. They have typically completed school, work full-time, and have children from a previous relationship or marriage. Divorced persons are likely to cast a wider net, substituting their own valued traits for traits they value most in potential marital partners. Indeed, most divorced men and women in the United States remarry—78 % of men and 69 % of women remarry—but often with partners who differ significantly from their first spouses (Choi and Tienda 2017b; Graefe and Lichter 2007; Jacobs and Furstenberg Jr 1986). The clear implication is that previously married persons face demographic deficits of potential partners that affect both marital preferences (their reservation quality partner) and outcomes (marital heterogamy).

With a useful analytical framework that neatly summarizes the remarriage process, de Graaf and Kalmijn (2003) identified 3 necessary conditions that shape decisions to remarry (or not): emotional or financial need, attractiveness in the marriage market, and opportunities to marry (availability of well-matched potential spouses). First, previously married individuals may seek to remarry in hopes of improving their emotional, financial, or social well-being. Some men and women, for example, remarry because of their desire to have (more) children (de Graaf and Kalmijn 2003). Financial reasons are likely to play a large role in the remarriage process, especially among divorced women with young children, who frequently face new economic hardship following divorce (Sweeney 1997). Financial need may be a weaker incentive to remarry among economically independent women—those with more education or earnings potential (Duncan and Hoffman 1985). Compared with women, men often report more negative emotional and physical health problems after divorce (Waite and Gallagher 2000). Men may therefore have more incentive than women to marry again, especially if remarriage alleviates stress and loneliness and promotes positive health behaviors or lifestyles (Williams and Umberson 2004).

For both men and women, a second condition necessary for remarriage is their attractiveness in the marriage market (de Graaf and Kalmijn 2003). In fact, emotional or financial need may connote less attractiveness in the remarriage market; remarriage may require bringing other compensating or valued traits to the relationship. For example, men with greater earnings presumably make more attractive partners for remarriage, which is reflected in the observed earnings gradient in remarriage (Sweeney 1997). The fact that they are better able to attract another spouse with valued traits (e.g., physical attractiveness) also may make remarriage more appealing. In contrast, women with high earnings may lack the usual economic incentives to remarry, especially if their earnings outstrip the earnings of most potential husbands (Bertrand at al. 2015). As previously mentioned, individuals with children from a prior relationship may have fewer prospects for remarriage owing to potential conflicts associated with joint custody and child-rearing arrangements, difficult interactions with ex-spouses (e.g., child support), and the complicated or ambiguous roles in stepfamilies or blended families. Women with custodial children may also face significant time constraints that effectively limit marital search activities. Unmarried men may prefer to avoid the complications of forming a stepfamily and raising another man's children (Goldscheider et al. 2009).

These 2 conditions—need and attractiveness—shape both marital aspirations and mate selection preferences (spouses with specific valued traits). Although marital search theory posits clear patterns of homogamy in most remarriages, marital sorting also reflects marriage market opportunities and constraints and, by extension, the likelihood of a fair exchange in marriage. This is a third factor that affects mate selection (de Graaf and Kalmijn 2003). Marriage market opportunities are more abundant for never-married than previously married persons. Individuals eligible for first marriage (the never-married) are demographically more numerous, share similar life course stages, and have common developmental trajectories through historical time, which similarly shape attitudes, values, and cultural preferences (e.g., music, food, and social activities). In contrast, individuals eligible for remarriage are considerably more heterogeneous from a demographic standpoint (Livingston 2015). For them, marriage market opportunities often depend on when divorce occurred: earlier or later in the marital life course. Indeed, age at first divorce is negatively associated with the likelihood of remarriage, especially among women. The supply of eligible singles is larger at younger than at older ages, and sex ratio imbalances usually become more skewed with age and favor men (Sweeney 2010). The size and composition of previously married men and women also reflect selection into divorce, which may negatively affect opportunities for remarriage, especially if divorce selects on characteristics that are negatively associated with marriage (Gelissen 2004).

Mixed-Order Marriage and Status Exchange

Marital homogamy or positive assortative mating involves an exchange of complementary ascribed and achieved characteristics. Casting a wider net, however, implies an exchange of one valued trait for another (e.g., trading higher SES with a partner higher in the racial hierarchy; see Rosenfeld 2005). We argue that marital status—distinguished as never married and previously married—is one such trait available for trade in the marriage market. Mixed-order marriages are surprisingly common: 60 % of

newly formed marriages involving previously married persons in the early 2000s also involved spouses who had never been married before (Kreider and Ellis 2011). The implication is that remarriages may involve trades between previously married and never-married partners who bring very different traits or resources to the relationship.

Our theoretical approach is drawn in part from the classical work of Merton (1941) and Davis (1941). They first introduced status exchange theory based on the caste system in India and applied it to intermarriage between whites and African Americans. Empirical evidence for or against this theory is both controversial and contested, often pivoting on questions of methodology and statistical inference (Gullickson and Fu 2010; Kalmijn 2010; Rosenfeld 2005). Scholars nevertheless agree that homogamy in terms of SES is high among black-white interracial couples. However, when the SES differs between partners, the evidence for status exchange (e.g., black husbands have higher SES than white wives) is strong (Choi and Tienda 2017b; Gullickson 2006; Gullickson and Torche 2014).

We argue here that marriage order—the valued status of being never-married—may be considered a trait that is available for exchange in the marriage market. Unlike never-married persons, previously married persons are more likely to face personally difficult or ambiguous kin relationships, including continuing interactions with ex-spouses; new family complexities associated with custody arrangements; and ambiguous or difficult physical, legal, and emotional attachments with stepchildren and new intimate partners (Goldscheider and Sassler 2006). Thus, all else being equal, previously married individuals may be considered, on average, less attractive as potential mates, especially in comparison with never-married individuals, who typically have fewer if any children, are younger, and are generally free of interpersonal entanglements with ex-partners. An exchange or trade-off would be indicated when previously married spouses with valued traits attract never-married spouses with less-valued characteristics.

Some examples illustrate this general hypothesis. In the case of interracial marriage, never-married people of "lower" racial status (typically racial/ethnic minorities in racially stratified majority white societies) may be more likely to marry previously married people of "higher" racial status (whites) compared with marriages involving both husbands and wives in first marriages. In fact, Fu (2010) showed that blacks are overrepresented among the spouses of remarried whites. In general, studies have shown that racial boundaries are generally more permeable in remarriages than first marriages, although black-white marriages are less common in women's remarriages than first marriages, in part because other types of interracial remarriages have become more commonplace (Choi and Tienda 2017a). Indeed, in another study, Choi and Tienda (2017b) found that racial exogamy is relatively high among Hispanics and Asian Americans, even after individual traits and local market conditions are controlled. Nativity is potentially another salient dimension in America's status hierarchy and an indirect indictor of cultural and economic integration into mainstream society (Qian et al. 2018). New immigrants do not enjoy the same rights that citizens often take for granted, and they often lack resources necessary to succeed in American society. One implication is that never-married immigrants—especially those with a college education or other valued traits—may be more likely than their U.S.-born counterparts to marry previously married U.S.-born persons. In this case, marriage order is exchanged for nativity status in the marital sorting and assimilation process.

Another illustration of exchange (of substitutes) is directly linked with sex role specialization, which emphasizes spousal complementarity in domestic and market

spheres (Becker 1981). Empirical evidence for sex role specialization is weakening among first marriages but may remain strong for mixed-order marriages, especially among those represented by previously married men and first-married women. Previously married men, on average, are more economically established in their careers than are their never-married competitors, who may still be in school or working at entry-level or low-paying jobs. Yet, previously married men with children of their own—coresident or not—may have financial and time constraints that affect marital prospects (Stewart et al. 2003). Less-educated never-married women may cross status boundaries by marrying previously married men with more education and earnings potential (Shafer 2013; Shafer and James 2013). These mixed-order marriages are suggestive of an exchange, expressed behaviorally in educational heterogamy.

Previously married individuals by definition are older, on average, than their never-married counterparts, which also affects the marital sorting processes of men and women. We hypothesize that age heterogamy is more likely to be observed among mixed-order marriages than among first marriages. Specifically, gaps in spousal ages are likely to be larger in mixed-order marriages than in first marriages. The demographic situation is different, however, for previously married women and men. Unlike men, women face a deficit of potential marriage partners as they age (because of growing sex differences in mortality), and the majority have sole physical custody of their children, which can be a significant impediment to remarriage. Women also are disadvantaged by prevailing cultural norms of educational and age hypergamy (i.e., women tend to "marry up" on these dimensions). Previously married women's disadvantage in the marriage market is likely to be reflected in heterogamy on other dimensions, such as age and education (i.e., marrying much older men or men with less education).

In summary, men and women who have difficulty attracting spouses at or above their reservation quality partner may choose to cast a wider net, the effects of which are revealed in heterogamous marriages of all kinds. Divorced women with children have incentives to remarry but may be less likely to do so than those without children because of serious marriage market constraints. Divorced men, on the other hand, may marry less-educated never-married women without children, or racial minorities or immigrants as an expression of status exchange. Put concretely, previously married men and women are more likely to exchange other valued resources (i.e., age, education, nativity, and income) than are the never-married entering first marriages.

Methodology

Data

The 2008–2014 annual files of the ACS include questions on marriage order and whether the current marriage occurred in the previous year. We identify couples who married in the past year and whether they represented first marriages (married once) or remarriages (married twice and married 3 times or more). Our sample is restricted to working-age married couples in which both spouses were aged 18–64. The 7-year pooled (unweighted) sample includes 115,820 couples. We classify marriages into four types: (1) both husband and wife were first married (67,965 couples); (2) husband was first married, and wife was

remarried (11,736 couples); (3) husband was remarried, and wife was first married (13,092 couples); and (4) both husband and wife were remarried (23,027 couples).

Analytical Approach: Conditional Logit Models

We apply conditional logit models to capture assortative mating patterns relative to the marriage market opportunities for each marriage type (Jepsen and Jepsen 2002; Nielsen and Svarer 2009). We compare the observed traits of marital partners (the married individual and his/her actual spouse) with randomly drawn partners (the married individual and his/her fictional or hypothetical spouse). Possible marital pairings are based on (1) nonlabor market attributes, such as race/ethnicity, nativity, age, and presence of children from previous relationships; and (2) labor market assets, such as education and income. The conditional logit model examines the likelihood of forming actual marriages rather than fictional marriages based on local marriage market conditions. The model takes the following form:

$$P(y_i = j|\mathbf{z}_i) = \frac{e^{\mathbf{z}_{ij}\boldsymbol{\gamma}}}{\sum_{j=1}^{J} e^{\mathbf{z}_{ij}\boldsymbol{\gamma}}},$$

in which $\mathbf{z}_{ij}$ is a vector of variables that varies across both observation i and choice alternative j. $\boldsymbol{\gamma}$ is a vector of coefficients to be estimated.

Patterns of marital sorting are subject to local marriage market opportunities and constraints. We therefore draw a random selection of fictional partners from the census-defined metropolitan area in which spouses reside. To capture potential changes in metropolitan marriage market conditions, we select fictional spouses for the year an actual marriage was formed. Moreover, the random selection of partners is limited to potential husbands that were no more than 5 years younger and no more than 20 years older than potential wives. This age restriction captures more than 95 % of the actual marriages in our sample, which is consistent with spousal age differences reported in previous studies (Atkinson and Glass 1985; Vera et al. 1985).

Figure 1 presents examples demonstrating how a fictional spouse within a particular age range and living in a given metropolitan area is selected. In cases involving husbands and wives who are first married, two never-married women are randomly selected to form two fictional matches with the husband, and two never-married men are randomly selected to form two fictional matches with the wife. Similarly, for couples in which the husband was remarried and the wife was first married, two never-married women are randomly selected for the husband, and two previously married men are randomly selected for the wife to form fictional matches. This method allows us to compare actual marriages with fictional marriages selected randomly either from the never-married pool or the previously married pool (based on the marital order of the actual spouse). Sorting on marital order and other individual traits occurs simultaneously. For the conditional logit model, the observed couple is the result of the choices made by each partner, while fictional couples represent rejected alternatives. The dependent variable is coded 1 for the actual couple and 0 for the fictional couples. This random selection of a small set of alternative nonchosen cases produces consistent parameter results (McFadden 1973). We also conduct sensitivity analyses in which fictional spouses are selected randomly from a combined local pool of all unmarried individuals.

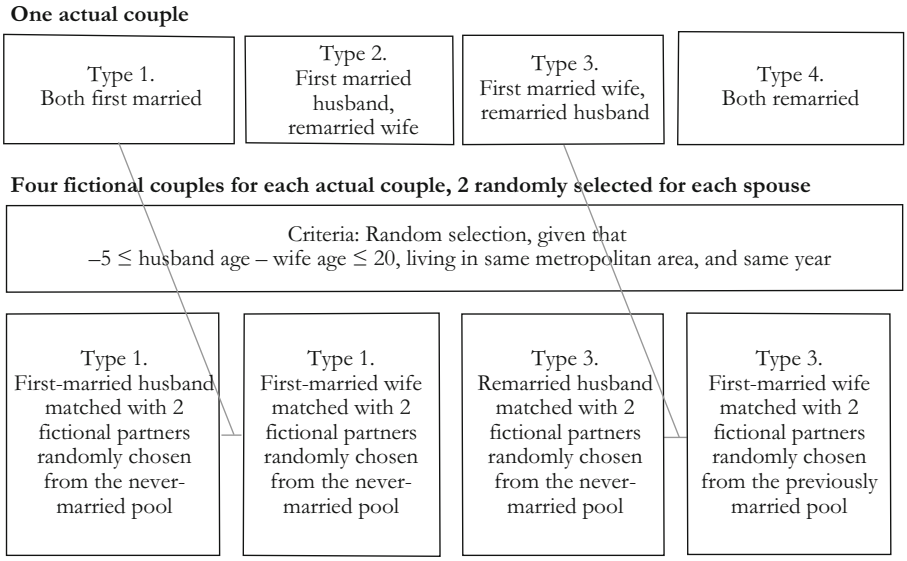

Fig. 1 Selection of fictional spouses based on marriage type

We define eligible marital partners by the attributes identified in previous studies of mate selection. For example, age at marriage is measured as a continuous variable, limited to those aged 18 to 64. Educational attainment is classified into five groups: (1) less than high school, (2) high school, (3) some college, (4) college graduate, and (5) graduate school education. Nativity status distinguishes between the U.S.-born population and foreign-born immigrants. We also distinguish among non-Hispanic whites, non-Hispanic African Americans, non-Hispanic American Indians, non-Hispanic Asian Americans, and Hispanics. Hispanics include individuals of any race but must identify themselves as someone of Hispanic, Latino, or Spanish origin. We include white-minority biracial individuals as their corresponding minority groups in our analyses (Qian and Lichter 2007). Economic attractiveness is measured by earnings, which is an individual's pretax wage and salary income for the previous 12-month period (measured in thousands of dollars), an accounting period that coincides exactly with the 12-month period in which all observed marriages were formed.

The ACS data include number of own children in the household and age of youngest own child in household. We use this information to create a new variable—presence of children from previous relationships—which are identified by removing number of children aged 0–1 from the number of own children in the household. We assume that children older than 1 were from previous relationships and that children aged 1 or 0 were from current relationships. Of course, this assumption does not hold when newly married couples have children together well before marriage (Harknett and McLanahan 2004). Yet, nonmarital conceptions or births are often an impetus to marriage, and marital and childbearing decisions can be made simultaneously (Lichter et al. 2016). These births would be correctly identified as the married couple's children.

We develop two conditional logit models to examine assortative mating patterns. In the first model, we treat each variable either as a continuous variable or a dummy

variable and derive the absolute difference for each variable between the husband and the wife for both actual and fictional marriages. Take age at marriage as an example. We create the absolute difference between husband's age and wife's age. A negative coefficient for one-unit increase in absolute difference in couples' ages indicates positive assortative mating (homogamy) because an increase in spousal age differences leads to a lower odds ratio of an actual marriage relative to a fictional marriage. In contrast, a significant positive coefficient suggests evidence of age heterogamy.

In the second model, we consider gender variation, focusing on types of pairings that are most likely to result in marriage. For example, age-at-marriage pairings are classified as (1) wife is older than husband, (2) husband is 0–2 years older than wife (the reference group), (3) husband is 3–5 years older than wife, and (4) husband is 6 or more years older than wife. This classification takes into account a normative 2-year difference in age at first marriage between men and women and allows for greater differences in age at remarriage between men and women. Educational pairings include (1) partners have the same levels of educational attainment (the reference group), (2) husband has more education than wife, and (3) wife has more education than husband. Racial/ethnic combinations are classified as (1) belong to same racial/ethnic group (both white; both African American; both American Indian; both Asian American; and both Hispanic, the reference group); (2) white husband, African American wife; (3) white husband, American Indian wife; (4) white husband, Asian American wife; (5) white husband, Hispanic wife; (6) African American husband, white wife; (7) American Indian husband, white wife; (8) Asian American husband, white wife; (9) Hispanic husband, white wife; and (10) different-race minority husband, minority wife. Nativity status pairings are (1) same nativity (the reference group); (2) native husband, immigrant wife; and (3) immigrant husband, native wife. We classify presence of children older than age 1 as (1) both husband and wife have no children over age 1; and (2) husband, wife, or both have children older than age 1 (a proxy for children from previous relationships). Finally, income pairings are (1) wife has no income, and husband has income; (2) husband has income at least $25,000 more than wife; (3) husband has income $10,000 to $24,999 dollars more than wife; (4) incomes of husband and wife are within $10,000 of each other (the reference group); (5) wife has income $10,000 to $24,999 dollars more than husband; (6) wife has income at least $25,000 more than husband; and (7) husband has no income, and wife has income.

Results

Patterns of Selection Into First Marriage and Remarriage

Table 1 highlights differences between married and unmarried persons by race/ethnicity, education, nativity, age, presence of children from previous relationships, and income. These analyses indicate that 60.6 % of the never-married men were non-Hispanic white, 15.8 % were African American, and 5.3 % were Asian American. Whites are overrepresented in first marriages and remarriages. That whites account for a disproportionate share of recently remarried persons undoubtedly reflects large observed racial differences in both rates of first marriage and remarriage.

These data similarly suggest substantial selectivity into each of the four types of marriages considered here. For example, immigrants have higher rates of marriage than their U.S.-born counterparts. Immigrant women account for 17.3 % of the marriages in which the wife was first married and the husband was remarried. This compares with 12.0 % and 15.1 %, respectively, among never-married women (column 4) and never-married women who married never-married men (column 5). And, as expected, never-married men and women who formed mixed-order marriages with previously married partners are much older than those who married other never-married partners (36.0 and 33.6, respectively, for the former vs. 29.1 and 27.3 for the latter). Only small fractions of never-married men are never-married (3 %) or previously married (18.1 %) coresidential fathers. This compares with 13.8 % among never-married women and 41.6 % among previously married women.[1] Unsurprisingly, small percentages (15 %) of the first-married women who partnered with first-married men have coresidential children. This contrasts vividly with the 35.2 % of the never-married mothers who married previously married men. Such data suggest that never-married single mothers are at a competitive disadvantage in the marriage market for never-married men.

Highly educated individuals have higher levels of recent entry into first marriages and remarriages than do their less-educated counterparts. Highly educated men and women (college and graduate school education) are overrepresented among recent marriages in which both spouses were first married. Recent remarriages also involve partners with more schooling, on average, suggesting higher rates of remarriage than their less-educated counterparts. Interestingly, men in their first marriage with first-married women have higher income than those in their first marriage with remarried women, despite younger ages of marriage for men of the former than of the latter. Divorced women are seemingly at a competitive disadvantage in attracting high-earning men. Whether this reflects women's own attractiveness or marriage market disequilibria (e.g., shortages of economically attractive men) is unclear.

Marriage Market Opportunities or Constraints?

These benchmark data highlight patterns of selection into first marriages and remarriages, but they tell us little about whether these differences reflect opportunities or constraints imposed by local marriage market conditions. To address this question, Table 2 presents descriptive results of pairings of observed spouses (a measure of marital preferences) and fictional spouses (a measure of marriage market opportunities) by marriage type. How do observed patterns of marital sorting (shown in Table 1) compare with hypothetical patterns based on random sorting of marital partners? Patterns presumably reflect the uneven distribution of marital opportunities and constraints, conditional on each person's demographic, social, and economic profile.

Among marriages in which both couples are first married, data in Table 2 show that age-homogamous marriages (the husband is 0–2 years older than the wife) are the

[1] Among children living with single parents, 86 % lived with mothers (Kreider and Ellis 2011). However, ACS data cannot distinguish whether any children older than 1 (presumably from previous relationships) are the biological child(ren) of the husband, wife, or both. For descriptive analyses, we assume that the mother and not the father is a biological parent of children from previous relationships among currently married couples. Thus, the percentage with children over age 1 is 0 among first-married and remarried men but overcounted among their female counterparts.

Table 1 Composition of first-married, remarried, never-married, and previously married individuals, by sex

	Men			Women			Men			Women		
	Never Married	Both First Married	First-Married Husband, Remarried Wife	Never Married	Both First Married	First-Married Wife, Remarried Husband	Previously Married	First-Married Wife, Remarried Husband	Both Remarried	Previously Married	First-Married Husband, Remarried Wife	Both Remarried
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Total	2,145,062	67,965	11,736	1,792,119	67,965	13,092	811,905	13,092	23,027	1,177,166	11,736	23,027
Race/Ethnicity												
White	60.6	69.7	71.5	57.7	69.7	67.0	71.7	69.6	80.6	68.0	71.6	79.7
African American	15.8	7.8	9.5	19.3	6.6	11.0	13.1	12.3	7.7	14.9	7.6	6.8
American Indian	1.6	1.1	1.4	1.7	1.1	1.2	1.2	1.3	1.4	1.2	1.7	1.6
Asian American	5.3	6.1	3.1	5.4	7.4	6.5	2.7	3.3	1.8	3.6	4.0	3.0
Hispanic	16.6	15.3	14.5	15.9	15.2	14.4	11.3	13.6	8.5	12.3	15.1	8.9
Educational Attainment												
Less than high school	17.3	8.6	11.3	12.4	6.6	8.0	15.0	9.5	9.0	12.3	8.8	7.0
High school	31.5	23.1	32.2	24.4	16.9	21.2	35.5	29.5	32.8	28.7	24.7	26.9
Some college	33.4	31.1	32.8	38.9	31.9	35.4	31.2	35.5	34.7	36.8	40.5	40.4
College graduate	13.4	26.5	16.9	17.1	30.6	23.1	12.1	16.1	14.9	14.0	17.0	16.5
Graduate school	4.5	10.7	6.9	7.2	13.9	12.3	6.3	9.4	8.6	8.3	9.0	9.2
Nativity												
% Immigrant	12.7	16.1	14.8	12.0	15.1	17.3	11.2	16.3	9.9	13.5	15.0	11.0
Age	30.8	29.1	36.0	30.4	27.3	33.6	48.7	39.6	46.6	49.1	36.5	43.7
	(12.0)	(6.6)	(9.4)	(12.2)	(6.1)	(9.1)	(10.0)	(9.6)	(9.4)	(10.4)	(9.0)	(9.3)

Table 1 (continued)

	Men			Women			Men			Women		
	Never Married	Both First Married	First-Married Husband, Remarried Wife	Never Married	Both First Married	First-Married Wife, Remarried Husband	Previously Married	First-Married Wife, Remarried Husband	Both Remarried	Previously Married	First-Married Husband, Remarried Wife	Both Remarried
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
% With Children Older Than 1	3.0	0.0	0.0	13.8	15.0	35.2	18.1	0.0	0.0	41.6	44.9	50.0
Income	18,937	39,624	38,042	18,042	26,024	27,820	31,548	46,472	48,133	25,529	27,094	29,732
	(31,523)	(42,156)	(42,353)	(28,258)	(29,653)	(33,804)	(46,711)	(53,663)	(57,414)	(34,300)	(31,840)	(35,550)

Note: Standard deviations are shown in parentheses.

Table 2 Parings of actual and fictional couples by marriage type

	Both First Married		First-Married Husband, Remarried Wife		First-Married Wife, Remarried Husband		Both Remarried	
	Actual	Fictional	Actual	Fictional	Actual	Fictional	Actual	Fictional
Total	67,965	270,289	11,736	45,261	13,092	51,847	23,027	91,534
Age Differences								
Wife older	21.1	27.0	46.2	39.6	13.1	10.2	26.9	25.2
Husband 0–2 years older	43.8	17.3	25.3	17.0	20.0	8.5	24.0	14.7
Husband 3–5 years older	21.7	16.4	14.0	13.0	20.3	10.4	18.7	13.6
Husband 6 or more years older	13.5	39.3	14.5	30.5	46.5	70.9	30.5	46.5
Education Combination								
Both less than high school	3.3	1.1	3.4	1.6	3.1	1.4	2.2	1.2
Both high school	8.6	5.7	11.9	8.7	9.9	7.7	12.8	10.0
Both some college	15.4	12.0	17.0	12.6	15.9	12.6	16.9	13.1
Both college graduate	14.9	5.4	6.1	2.9	6.6	3.3	4.7	2.2
Both graduate school	5.2	1.0	2.3	0.7	3.8	1.0	2.7	0.8
Husband more educated	19.0	32.7	23.9	32.4	22.4	30.5	26.0	31.7
Wife more educated	33.6	42.1	35.4	41.3	38.4	43.7	34.7	41.1
Racial/Ethnic Combination								
Both white	63.4	45.8	64.6	48.9	61.0	46.2	74.7	59.8
Both African American	5.8	1.9	6.8	2.0	9.8	3.2	6.1	1.6
Both American Indian	0.4	0.1	0.6	0.1	0.4	0.1	0.4	0.1
Both Asian American	4.9	0.7	1.8	0.3	2.5	0.5	1.3	0.2
Both Hispanic	11.3	4.5	10.4	4.3	9.6	3.8	5.6	2.3
White husband, African American wife	0.6	7.1	0.6	6.4	0.9	9.7	0.6	7.4
White husband, American Indian wife	0.5	0.9	0.9	0.9	0.6	1.1	1.0	1.1
White husband, Asian American wife	2.0	3.7	1.8	2.5	3.3	3.5	1.5	2.0

Table 2 (continued)

	Both First Married		First-Married Husband, Remarried Wife		First-Married Wife, Remarried Husband		Both Remarried	
	Actual	Fictional	Actual	Fictional	Actual	Fictional	Actual	Fictional
White husband, Hispanic wife	3.2	8.0	3.7	8.5	3.9	8.3	2.8	6.7
African American husband, white wife	1.3	7.4	1.9	9.1	1.6	7.5	1.1	7.5
American Indian husband, white wife	0.5	0.8	0.7	1.1	0.7	0.8	0.9	1.0
Asian American husband, white wife	1.0	3.1	1.0	1.9	0.5	1.7	0.4	1.4
Hispanic husband, white wife	3.4	8.2	3.5	7.8	3.2	6.8	2.5	5.3
Minority and minority	1.7	7.7	1.8	6.2	2.1	6.9	1.1	3.8
Nativity Combination								
Both native	78.2	75.1	79.0	75.0	76.4	73.8	84.9	81.3
Both immigrant	9.4	2.7	8.8	3.4	9.9	3.3	5.9	2.4
Native husband, immigrant wife	5.6	10.1	6.2	11.1	7.4	11.2	5.2	8.8
Immigrant husband, native wife	6.7	12.2	6.0	10.4	6.4	11.7	4.1	7.5
Presence of Children Older Than 1								
No for both	85.0	79.2	55.1	40.1	64.8	53.1	50.0	33.6
Yes for at least one spouse	15.0	20.8	44.9	59.9	35.2	46.9	50.0	66.4
Wage Difference								
Women no income	14.6	16.9	16.4	16.4	17.1	18.6	15.9	17.2
Men 25k more	19.1	20.4	17.8	16.9	23.4	24.7	23.7	20.5
Men 10k–24k more	17.4	12.6	13.9	10.5	14.1	10.8	12.5	9.6
Within 10k	29.3	20.3	26.7	20.1	24.1	17.1	23.1	17.9
Women 10k–24k more	7.9	8.0	8.2	8.4	6.3	5.8	6.7	6.5
Women 25k more	6.0	8.0	7.7	9.4	6.3	7.3	6.7	8.4
Men no income	5.8	13.8	9.4	18.4	8.8	15.7	11.3	19.9

modal pattern (43.8 % of all first marriages). Marriages involving husbands in first marriages with remarried wives have the highest percentages of wife-older marriages (46.2 %). Among marriages in which the wife is first married and the husband is remarried, the percentage of husband-older couples is very high (i.e., 20.3 % of the marriages in which the husband is 3–5 years older plus 46.5 % of the marriages in which the husband is at least 6 years older). Among marriages in which both the husband and wife are remarried, the distributions of age pairings are more evenly spread (26.9 % of the remarriages in which the wife is older, 24 % of the remarriages that the husband is 0–2 years older, 18.7 % of the remarriages in which the husband is 3–5 years older, and 30.5 % of the remarriages in which the husband is at least 6 years older). Despite spousal age differences by marriage type, age assortative mating is more strongly positive among actual than fictional marriages, a clear indication that age homogamy cannot be explained by marriage market opportunities or constraints. Preferences for similar-aged partners dominate the marital search process.

Educational assortative mating is most clearly evident among marriages in which both the husband and wife enter first marriages. One-fifth of these marriages involve partners with a college- or graduate-level education, a figure roughly 3 times the percentage among randomly selected (fictional) marriages (6.4 %). Among remarriages and mixed-order marriages, positive educational assortative mating is less evident; remarriages include disproportionately large shares of partners with unequal education levels. Relatedly, compared with counterfactual marriages, observed marriages also consist of fewer couples in which the wife earns at least $25,000 more than the husband. This reveals the large role of marital selection on the basis of men's economic attractiveness.

Racial endogamy also is observed at levels well in excess of expectations based on random marital sorting. Among first marriages, 86 % of the couples but only 53 % of the fictional couples are racially endogamous. Among marriages in which both spouses are remarried, 88 % of the actual couples and 64 % of the fictional couples are endogamous. Differences between observed and fictional percentages of endogamy are smaller in remarriage markets, which seemingly reinforce patterns of racial endogamy.

Most native- and foreign-born persons marry within their own nativity group (Lichter et al. 2015). Table 2 reveals that this pattern is most pronounced in first marriages: 9.4 % of the actual marriages consist of immigrant partners, compared with 2.7 % if selected randomly. Compared with fictional marriages, mixed-nativity marriages are more prevalent if the husband is a remarried native and the wife a first-married immigrant. These estimates suggest "trading" in the marriage market; never-married immigrants are better able than previously married immigrants to marry into the native population by marrying a previously married person.

Finally, the presence of children (as estimated from previous relationships) represents a significant barrier to marriage (Table 1). As shown in Table 2, for partners entering a first marriage, 85 % of the actual couples and 79.2 % of the randomly selected fictional couples had no children from previous relationships. This small disparity highlights the abundance of local opportunities to marry other never-married partners without children. This is not the case among previously married persons with coresidential children. For example, for two remarried partners, only 33.6 % of the fictional couples but one-half of the actual couples had no children from previous relationships. Children are an impediment to remarriage.

Conditional Logit Models of Intermarriage

Tables 3 and 4 present results from our multivariate conditional logistic regression models. The results reveal how social, demographic, and economic differences between marital partners elevate or depress the likelihood of marriage *vis-à-vis* expectations based on marriage market conditions (i.e., fictional marriages). Table 3 neatly summarizes the descriptive statistics (in Table 2), and Table 4 uncovers gender differences in trade-offs among various traits. Chi-square tests indicate whether differences between the coefficients in column 1 and each of the coefficients in columns 2, 3, and 4 are significant at the .05 level.

Age Assortative Mating

In Table 3, the odds ratio for the absolute age difference between husbands and wives is 0.82. For each 1-year age difference between partners, the odds ratio of forming an actual marriage versus a fictional marriage is reduced by 18 %. Age assortative mating is a characteristic feature of first marriages. Positive age assortative mating is significantly weaker when at least one spouse is remarried. Specifically, the odds are only 3 % lower among marriages involving husbands in first marriages with a remarried wife, 10 % lower among marriages involving first-married wives and remarried husbands, and 7 % lower when both spouses are remarried. Remarriages, on average, tend to be more age heterogamous than first marriages, independent of other differences between partners.

Table 4 sheds light on why age homogamy is less commonplace among remarriages. Among couples in which both are first married, the odds ratio of actual versus fictional marriages is 68 % lower among those in which the wife is older than the husband compared with the reference age group (husband is 0–2 years older than wife). It is 50 % lower among those in which the husband is 3–5 years older, and 88 % lower among those in which the husband is 6 or more years older. The corresponding odds ratios are significantly greater when at least one spouse is remarried. For example, in mixed-order marriages, the odds ratio is only 22 % lower among couples in which the wife is older

Table 3 Odds ratios from conditional logistic regression predicting actual versus fictional marriages

Absolute Difference in:	First-Married Husband, First-Married Wife (1)	First-Married Husband, Remarried Wife (2)	First-Married Wife, Remarried Husband (3)	Remarried Husband, Remarried Wife (4)
Age	0.82***	**0.97*** **	**0.90*** **	**0.93*** **
Education	0.50***	**0.62*** **	**0.63*** **	**0.66*** **
Race/Ethnicity	0.16***	**0.19*** **	**0.19*** **	**0.19*** **
Nativity	0.66***	0.68***	**0.71*** **	**0.70*** **
Income (in thousands)	0.98***	0.98***	0.98**	**0.99***

Note: Bold indicates significant difference from its corresponding number in column 1 at the .05 level.
*$p < .05$; **$p < .01$; *$p < .001$

Table 4 Odds ratios from the conditional logistic regression predicting actual marriages versus fictional marriages

	First-Married Husband, First-Married Wife (1)	First-Married Husband, Remarried Wife (2)	First-Married Wife, Remarried Husband (3)	Remarried Husband, Remarried Wife (4)
Age Differences				
Wife older	0.32***	**0.78***	**0.56***	**0.66***
Husband 0–2 years older				
Husband 3–5 years older	0.50***	**0.74***	**0.82***	**0.85***
Husband 6 or more years older	0.12***	**0.32***	**0.26***	**0.40***
Education Combination				
Same education				
Husband more educated	0.36***	**0.45***	**0.51***	**0.56***
Wife more educated	0.50***	**0.65***	**0.59***	**0.62***
Racial/Ethnic Combination				
Same race				
White husband, African American wife	0.04***	0.04***	0.04***	0.04***
White husband, American Indian wife	0.31***	**0.50***	0.33***	**0.54***
White husband, Asian American wife	0.26***	**0.44***	**0.56***	**0.49***
White husband, Hispanic wife	0.22***	**0.27***	**0.26***	**0.26***
African American husband, white wife	0.10***	0.12***	**0.12***	**0.08***
American Indian husband, white wife	0.37***	0.30***	0.50***	**0.59***
Asian American husband, white wife	0.17***	**0.31***	0.19***	**0.22***
Hispanic husband, white wife	0.23***	**0.27***	**0.30***	**0.33***
Minority and minority	0.09***	**0.13***	**0.13***	**0.13***
Nativity Combination				
Same nativity				
Native husband, immigrant wife	0.59***	0.59***	**0.69***	**0.65***
Immigrant husband, native wife	0.63***	0.59***	**0.54***	**0.54***
Presence of Children Older Than 1				
No for both				
Yes for at least one spouse	0.34***	**0.92***	**0.63***	**1.12***
Income Difference				
Women no income	0.78***	0.84***	0.73***	0.75***
Men 25k more	0.81***	0.88***	**0.73***	**0.96**
Men 10k–24k more	1.01	1.03	0.95	1.04
Within 10k				
Women 10k–24k more	0.63***	**0.71***	**0.76***	**0.80***
Women 25k more	0.44***	**0.55***	**0.54***	**0.61***
Men no income	0.30***	**0.35***	**0.39***	**0.43***

Note: Bold indicates significant difference from its corresponding number in column 1 at the .05 level.

***$p < .001$

compared with couples in which the husband is 0–2 years older. Wives clearly are much more likely to be older than their husbands in marriages between never-married men and previously married women. However, when both partners are remarried, husband-older marriages predominate. Age heterogamy, especially marriages involving older husbands and younger wives, is more common among remarriages than first marriages.

Educational Assortative Mating

For our purposes, educational attainment is classified into five levels: less than high school, high school, some college, college graduate, and graduate school education. As shown in columns 1–4 of Table 3, a one-level difference in educational attainment reduces the odds ratio of actual marriages versus fictional marriages by, respectively, 50 %, 38 %, 37 %, and 34 %. Educational homogamy is normative for all marriages but especially among marriages between never-married partners.

As with age homogamous marital unions, the results in Table 4 indicate why educational homogamy is weaker among remarriages. Among first marriages, the odds that the wife has more education (0.50) are 39 % greater than the odds that the husband has more education (0.36). This ratio increased to 1.44, or to 44 % (0.65/ 0.45), among marriages composed of first-married husbands and remarried wives, but it declined sharply to 16 % (0.59/ 0.51) and 11 % (0.62/0.56) among marriages in which husbands are remarried. Remarriages are substantially more likely to involve husbands with more education than wives, which gives clear empirical evidence of marital exchange in the remarriage market.

Income Assortative Mating

These data, not surprisingly, show that greater income differences between partners reduce the likelihood of marriage. Each $1,000 difference in spousal income reduces the odds ratio of actual versus fictional marriages by approximately 2 %. Yet, odds ratios are reduced by 1 % for couples involving two remarried partners. Moreover, Table 4 consistently shows a strong likelihood of marriage when husbands earned about the same as their wives (the reference groups) or more than wives. This pattern holds for all marriage types and gets stronger among remarried couples in which husbands made $25,000 more than their wives. Another notable finding is that the odds of such pairings in which wives have incomes exceeding their husbands in any type of remarriage are significantly higher than the odds observed for marriages between first-married husbands and wives. This implies a trade-off in marriages of high-income women in remarriage: more income makes divorced women more attractive in the marriage market.

Racial/Ethnic Assortative Mating

Table 3 shows that the odds ratio for couples with dissimilar racial or ethnic backgrounds is low in first marriages and remarriages. Racial homogamy is the norm, operating quite independently of the other resources brought to the marriage (e.g., education). Among marriages with two first-married partners, the odds ratio of an interracial pairing is 84 % lower than that of an endogamous pairing. Among marriages

in which at least one spouse is remarried, the odds ratio of interracial pairing remains low but is significantly higher than among first marriages. The implication is clear: racial homogamy is lower in remarriages (of all types) than in first marriages. This pattern occurs independently of local marriage market opportunities or constraints considered here.

Results in Table 4 highlight several specific pairings that seemingly contribute to weakening patterns of racial assortative mating. First, the odds of interracial marriages between white men and Asian American women are 0.26 if both partners were first married, but these odds increase to 0.44 if white husbands are first married to remarried Asian American wives, 0.56 if the Asian American wife is first married to a remarried white husband, and 0.49 if both spouses are remarried. The odds ratio of interracial marriages between previously married white wives and never-married Asian American husbands is roughly twice that of interracial marriages involving first-married white wives and Asian American husbands (0.31 vs. 0.17). This suggests an exchange between marital status (previously married or never-married) and race. The greater likelihood of intermarriage between whites and Asian Americans is at least partly due to greater opportunities for contact in remarriage markets.

Second, remarriages between whites and American Indians and between whites and Hispanics are significantly more commonplace than first marriages involving these same racial partners. Racial heterogamy is significantly more pronounced in remarriages than first marriages. The only exception to this claim is among African Americans; for them, race is not easily exchanged for other valued traits, including SES characteristics (which are controlled in these analyses). Indeed, interracial relationships between whites and African Americans are largely invariant across marriage types.

Assortative Mating by Nativity

Native-native and immigrant-immigrant marriages are more common than mixed-nativity marriages, but any barriers to crossing nativity boundaries are seemingly weak compared with other traits (e.g., education or race/ethnicity). Remarriages involving previously married husbands have higher odd ratios of cross-nativity marriages (0.71 and 0.70, respectively, in columns 3 and 4, Table 3). This general pattern, however, masks significant differences by gender. Marriages between never-married immigrant women and remarried U.S.-born men are most likely to be observed (0.69), suggesting a pattern of exchange. Never-married immigrant women are more likely than other immigrant groups to marry into the white population by marrying a previously married man. Immigrant women, especially divorced persons (who are often stigmatized in their communities), may also be largely restricted to native partners in the remarriage market. Indeed, among marriages involving remarried husbands and wives, the odds of marriage between immigrant women and native men are significantly higher than among first-married husbands and wives (0.65). These results are consistent with the exchange hypothesis: mixed-order marriages disproportionately involve immigrant and native spouses.

Assortative Mating by Presence of Children

We also consider barriers to marriage imposed by the presence of children (from a previous relationship) by creating a 0–1 dummy variable indicating that neither spouse

had coresidential children or otherwise. The presence of children aged 1 or older reduces the odds ratio of actual marriages versus fictional marriages by two-thirds *vis-à-vis* marriages involving two never-married partners with no children. Among partners with children from a previous relationship, mixed-order marriages are more common than first marriages, and the odds ratios are much higher when one spouse is remarried (columns 2 and 3 in Table 4).

The odds ratio of actual marriage relative to fictional marriage is 1.12 when both partners are remarried. Couples with children from previous relationships are actually more likely to be involved in remarriages than those with no such children (Table 4), which may reflect the influences of unobserved characteristics associated with both parenting (e.g., temperament) and attractiveness in the remarriage market. These analyses control for education and income differences between partners, which means that economic attractiveness or financial need alone cannot account for these findings. Other, less obvious explanations are required.

Sensitivity Analysis

In our analyses, fictional spouses are randomly drawn from the pool of potential partners that matched their own marital status. That is, for spouses in first marriages, fictional spouses were selected from the never-married marriage pool and, if remarried, from the previously married pool. The assumption is that marital search involves two stages: individuals first select a suitable pool of partners (never married or previously married) and then select a partner from the pool.[2] Of course, this matching process may be unrealistic and unnecessarily restrictive. Consequently, we relax this assumption in some additional analyses by selecting fictional spouses randomly from all unmarried persons (both never-married and previously married) in a given metropolitan area. These additional results are reported in Table 5.

These new results reinforce those reported in Table 4 while also yielding similar substantive conclusions. Several differences are nevertheless worth noting and require some additional discussion. Among couples involving first-married husbands and remarried wives (column 2), the odds of marriages in which the wife is older are greater in Table 5 (1.11) than in Table 4 (0.78), and the odds of marriages in which the husband is older are lower in Table 5 (0.53 and 0.14) than in Table 4 (0.74 and 0.32). The reason seems clear. The unmarried pool generates fictional wives who are, on average, younger than their counterparts making up the restricted pool of previously married individuals. Similarly, fictional husbands are much younger with the alternative selection among couples involving first-married wives and remarried husbands. Overall, our comparative analyses of two different methods of selecting the pool of potential spouses provide similar substantive conclusions. The few differences observed are attributable to compositional differences (in age, educational attainment, and income) between never-married and previously married individuals.

[2] An analogous conceptual framework is provided in the residential mobility or white flight literature: white movers identify a set of desirable neighborhoods to live and then a specific house or residence within this limited pool of neighborhoods (see Bader and Krysan 2015). Like our study, conditional logit models have been similarly employed in such studies (Quillian 2015).

Table 5 Odds ratios from the conditional logistic regression predicting actual marriages versus fictional marriages selected regardless of spouses' marital order

	First-Married Husband, First-Married Wife (1)	First-Married Husband, Remarried Wife (2)	First-Married Wife, Remarried Husband (3)	Remarried Husband, Remarried Wife (4)
Age Differences				
Wife older	0.32***	**1.11***	**0.38***	0.63***
Husband 0–2 years older				
Husband 3–5 years older	0.50***	**0.53***	**1.05**	0.81***
Husband 6 or more years older	**0.11***	**0.14***	**0.54***	**0.31***
Education Combination				
Same education				
Husband more educated	0.35***	**0.51***	**0.45***	0.55***
Wife more educated	0.49***	**0.57***	**0.66***	0.59***
Racial/Ethnic Combination				
Same race				
White husband, African American wife	0.04***	0.04***	0.05***	0.03***
White husband, American Indian wife	0.30***	0.39***	0.33***	0.47***
White husband, Asian American wife	0.27***	0.43***	0.60***	0.43***
White husband, Hispanic wife	0.21***	0.26***	0.27***	0.26***
African American husband, white wife	0.10***	0.13***	0.10***	0.08***
American Indian husband, white wife	0.34***	0.38***	0.44***	0.56***
Asian American husband, white wife	0.17***	0.31***	0.17***	0.21***
Hispanic husband, white wife	0.23***	0.31***	0.27***	0.31***
Minority and minority	0.09***	0.12***	0.13***	0.11***
Nativity Combination				
Same nativity				
Native husband, immigrant wife	0.59***	0.68***	0.69***	0.63***
Immigrant husband, native wife	0.62***	0.59***	0.59***	0.58***
Presence of Children Older Than 1				
No for both				
Yes for at least one spouse	0.33***	0.91*	0.66***	**1.05***
Income Difference				
Women no income	**0.74***	0.77***	**0.84***	0.75***
Men 25k more	**0.75***	**0.71***	**0.84***	0.99
Men 10k–24k more	0.99	**0.91**	**1.07**	1.10***
Within 10k				
Women 10k–24k more	0.65***	0.69***	0.69***	0.81***
Women 25k more	0.45***	0.56***	0.54***	0.58***
Men no income	0.30***	0.38***	0.37***	0.40***

Note: Bold indicates significant difference from its corresponding number in Table 4 at the .05 level.

*$p < .05$; ***$p < .001$

We also conduct two additional robustness checks. First, we treat census metropolitan areas as local marriage markets from which fictional spouses are selected. Because of small sample sizes, however, the residual nonmetropolitan areas are treated as a single marriage market area to ensure a nationally representative sample of all U.S. married couples. A disproportionate and significant share of all married couples (26 %) live in nonmetropolitan America. In some additional analysis, however, we exclude all nonmetropolitan couples, focusing only on marriages in metropolitan areas. These supplemental analyses yield almost identical results as those reported in Table 4.

The remarried couples in our sample consist of those who married twice (3-quarters of all remarried sample) and 3 or more times (one-quarter). We conduct additional analysis by excluding those who married 3 or more times, reducing the concern that they exhibit anomalous patterns of assortative mating. These additional results, however, yield only one significant difference from those reported earlier in Table 4. The odds that husband was 6 or more years older declined from 0.26 (column 3 in Table 4) to 0.22 and from 0.40 (column 4 in Table 4) to 0.36, and the odds that at least one has children older than 1 increased from 1.12 (column 4 in Table 4) to 1.22. Unsurprisingly, individuals who married 3 or more times are much older than their spouses and are unlikely to have minor children living with them. These differences presumably reflect differences in the age profile of remarriages of different orders. The assortative mating patterns reported in Table 4 are not driven by unconventional mate selection patterns among those who marry and divorce multiple times.

To sum up, these sensitivity analyses reinforce evidence of divergent patterns of marital sorting in first marriages and remarriages involving men and women with different traits. They highlight the influences of marriage market constraints (i.e., differences between observed and fictional marriages), which lead both to the exchange of complementary traits (i.e., age homogamy) and of substitutes. The exchange of substitutes is revealed in heterogamous marriages, including systematic exchanges between marriage order and other valued traits.

Discussion and Conclusion

The marital search and matching process is fundamentally different in first marriages and remarriages (Sweeney 2010). The changing financial and emotional needs of previously married men and women also create a much different set of incentives for remarriage, which at least partly reflect different social and personal profiles (e.g., the presence of children from a previous relationship) that arguably make them less attractive in the marriage market (de Graaf and Kalmijn 2003). Previously married persons often face demographic shortages in the supply of potential partners, which can also reduce opportunities for remarriage, especially for women. In this article, we use annual data from 2008–2014 ACS to highlight patterns of assortative mating in both recent first marriages and remarriages (including mixed-order remarriages). We examine a large number of men's and women's characteristics—both ascribed and achieved—that are often viewed as resources available for exchange in the marriage markets. Conditional logit models highlight the large role of local marriage market constraints and opportunities on observed patterns of assortative mating.

Our empirical results offer 3 general conclusions. First, statistical evidence of positive assortative mating in remarriages is much weaker than that in first marriages. More remarriages than first marriages are age heterogeneous, and spousal age differences are significantly more likely to fall outside the normative age range between spouses, defined here by husbands being 0–2 years older than their wives. Remarriages also are more likely to involve spouses with different education levels and who belong to different racial groups. Compared with first marriages, remarriages seemingly require casting a wider net or, using the language of marital search theory, may necessitate lowering the reservation quality partner. An important caveat is that assortative mating patterns between first marriages and remarriages are clearly differentiated by the income of the husband. Men and women, in seeking partners for first marriage or remarriage, apparently do not compromise on their aspirations for a spouse with high income and earnings. From a substantive standpoint, this finding is consistent with previous studies showing that men and women are increasingly being sorted into marriages on the basis of economic characteristics (e.g., the rise in dual-career couples or so-called power couples).

Our second major conclusion is that observed mate selection patterns provide clear evidence of trade-offs or exchanges in the marriage market, a hypothesis implied by weaker or more ambiguous patterns of positive assortative mating among remarriages than first marriages. Here, we argue that marriage order (never married vs. previously married) is a valued trait available for exchange in the marriage market. Never-married persons arguably are better positioned than previously married persons to marry assortatively (likes marrying likes) and to attract marital partners with similar valued traits. In general, our empirical results support this baseline hypothesis. For both never-married and previously married women, for example, we show that the presence of children is associated with a lower likelihood to either never-married or previously married partners, unless both spouses were previously married. We find that never-married persons are not only most likely to marry other never-married persons but also are better able to exchange their status (as never-marrieds) for higher-SES partners drawn from the previously married population. Marriage order and SES represent traits for exchange in the marriage market.

A third general conclusion is that local marriage markets place real demographic constraints on first marriage and remarriage. Marriage markets circumscribe the normative pool of potential partners from which partners are drawn (or not) into marriage and revealed in observed patterns of assortative marriage. In this regard, previously married persons are clearly disadvantaged in the marriage market. Indeed, our multivariate conditional logit regression analyses shows that deviations from norms of marital homogamy at least partly reflect local demographic shortages of similar potential partners, which are necessary for an equitable exchange. Moreover, local constraints on remarriage place a much larger burden on women than men. Growing sex-ratio imbalances with age, persistent male-female differences in personal income, and current child custody arrangements reduce prospects of remarriage among women.

The many benefits of the ACS data are also offset by some limitations. For example, our analyses are limited to marriages in the past year. The ACS does not identify the year in which cohabiting unions were formed, which makes it difficult (if not impossible) to link entry into cohabitation to current marriage market conditions or to consider marriages and cohabitations jointly (Choi and Tienda 2017b). This does not,

however, diminish the significance of our results for contemporary marriage patterns. Marriage imposes certain legal obligations on partners and children and suggests a level of commitment that is not fully matched in cohabiting unions. Indeed, cohabiting unions are frequently short-lived, with most transitioning into marriage or dissolving in a few years (Kuo and Raley 2016; Lichter et al. 2006). Previous research on intact cohabiting unions, for example, has suggested that they are less homogamous than existing marriages on a number of ascribed and achieved characteristics (Blackwell and Lichter 2000). In the Netherlands, de Graaf and Kalmijn (2003) suggested that cohabitation (as an alternative to marriage) makes remarriage even more selective *vis-à-vis* first marriage, especially if the previously married are overrepresented among cohabiting unions (Schwartz 2013).

In conclusion, remarriages represent a growing share of all marriages in the United States and often include partners with different (and usually more complicated) relationship and marital histories. If viewed as an incomplete institution, remarriage imposes a much different and often ambiguous set of role obligations and normative constraints on family life (Cherlin 1978), which makes previously married persons arguably less attractive in the marriage market (de Graaf and Kalmijn 2003). Moreover, the rise in women's education, employment, and earnings have upended conventional theories of assortative mating based on gender role specialization (Becker 1981; Oppenheimer 1988). Changing patterns of marital homogamy—both in first marriages and remarriages—reflect different patterns of mate selection, disparate marriage market conditions, and unequal exchanges with partners who bring complementary or substituting traits to the marital market. Growing shares of previously married persons are fundamentally changing U.S. marriage market conditions.

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