EXPLORING THE ETHNO-RACIAL BOUNDARIES OF LATINO MARRIAGE MARKETS IN THE UNITED STATES

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Data from the NLSY, PUMS, and CPS are used to empirically identify the racial and ethnic boundaries that delineate Latino marriage markets in the United States. Drawing on previous theoretical and empirical research I propose seven distinct Latino marriage markets each based on a different set of ethno-racial criteria. I then determine which, if any, marriage market indicators are empirically significant predictors of Latino men's transition to first marriage. Discrete-time event-history models reveal that U.S. Latino marriage markets are both racially and ethnically stratified. A shortage of prospective wives improves the odds of first marriage among Latino men during early adulthood and delays marriage later in the life course. The former finding is consistent with tenets put forth by imbalanced sex ratio theory, while the latter is consistent with marital search models of mate selection. Supplemental analysis of the CPS provides further support for these findings.

A central question in demography is whether population composition shapes marital behavior by influencing the timing of first marriage (Simmel 1908; Davis 1941; Merton 1941; Gordon 1964; Blau 1977). As such, demographers have sought to explain the transition to first marriage in terms of the relative availability of partners with characteristics seen as desirable in a spouse (Guttentag and Secord 1983; Wilson 1987; Oppenheimer 1988; Becker 1991). Previous research on the marital timing of non-Latino Whites and non-Latino Blacks demonstrates that the characteristics of local marriage markets play a fundamental role in shaping the marital search process of these groups (Lichter *et al.* 1992; Lloyd and South 1996; Lewis and Oppenheimer 2000). Unfavorable marriage markets both delay one's transition to first marriage and hamper the assortative mating process.

Relatively little is known about the role of marriage markets in influencing the marital timing of U.S. Latinos. Although a handful of studies examine the

impact of marriage market composition on U.S. Latino women's transition to marriage (see for example, Oropesa *et al.* 1994; Harknett and McLanahan 2004; Lloyd 2006, 2008), these studies largely take for granted the ethno-racial composition of Latino marriage markets. Specifically, previous research assumes that Latino marriage markets are somehow analogous to the relatively homogenous marriage markets of non-Latino Whites and non-Latino Blacks. This assumption has led previous studies to construct U.S. Latino marriage markets based on a rather subjective set of criteria. The result is a diverse collection of Latino marriage markets based on: (1) national origin (Oropesa *et al.* 1994), (2) pan-ethnicity (Harknett and McLanahan 2004), or (3) both race and ethnicity (Lloyd 2006). To date, no study systematically examines competing measures of U.S. Latino marriage markets nor do they examine the theoretical and empirical assumptions inherent in these measures.

The primary objective of the current analysis is to systematically examine competing ethno-racial measures of the U.S. Latino marriage market. This is accomplished by utilizing microlevel data from the National Longitudinal Survey of Youth (NLSY) and macrolevel data from the U.S. Bureau of the Census. Because the racial and ethnic boundaries of the U.S. Latino marriage market are not known, I construct 21 marriage market measures. These measures reflect three marriage market characteristics: (1) spousal availability (i.e., the sex ratio[1]), (2) prospective partners' employment status, and (3) prospective partners' school enrollment. Each of these three marriage market characteristics are constructed according to seven unique ethno-racial criteria – thereby yielding 21 separate marriage market indicators. Competing ethno-racial definitions of Latino marriage market boundaries are then empirically tested using bivariate and multivariate event-history models. These models determine which marriage market specification(s), if any, are significant predictors of Latino men's transition to first marriage. Supplemental analysis is preformed using the 2002 wave of the Current Population Survey (CPS) to ascertain whether the marital *sorting* of recent cohorts of U.S. Latino men is consistent with the findings for marital *timing* based on the NLSY.

There are several reasons why Latino men's transition to first marriage is used to ascertain the ethno-racial parameters of U.S. Latino marriage markets. First, there is no *a priori* theoretical reason to suspect that the racial and ethnic boundaries that delineate the Latino marriage market differ by gender. Second, an examination of Latino men allows for the adjudication of leading theories of marriage timing in a way that an examination of Latinas cannot (see discussion below). Furthermore, research has yet to examine the marriage market determinants of U.S. Latino men's transition to first marriage at a

national level. The few studies of the impact of marriage market composition on Latinos' transition to first marriage focus on women (Oropesa *et al.* 1994; Harknett and McLanahan 2004; Lloyd 2006, 2008). An examination of marriage market composition on Latino men's transition to first marriage therefore provides the greatest contribution to the literature. As previously noted, earlier studies of U.S. Latinas utilize a diverse assortment of subjective measures of the Latino marriage market. The findings of the current analysis can therefore be compared to previous findings based on Latinas' transition to first marriage and any gender differences that may exist can be duly noted. For parsimony, the marriage market boundaries of non-Latino Whites and non-Latino Blacks are not examined here because previous research has studied them extensively (see for example, South and Lloyd 1992; Fossett and Kiecolt 1993; Lloyd and South 1996; Crowder and Tolnay 2000).

Theories of marriage market composition and the transition to first marriage

Marriage market composition is central to leading demographic theories of marriage timing. Career-entry theory (Oppenheimer 1988, 2003), the specialization and trading model (Becker 1991), men's marriageable pool (Wilson 1987), and imbalanced sex ratio theory (Guttentag and Secord 1983) all explicitly emphasize the importance of both the quality and quantity of available partners in determining men's and women's transitions to first marriage. Broadly speaking, such theories posit that single individuals make marital decisions according to the availability of desirable spouses residing in their local marriage market. Marriage market composition thereby contributes to the ease or difficulty of the marriage process.

Importantly, theories of marriage timing predict identical marital behavior on the part of women when the sex ratio is relatively high or low. That is, each theory predicts that women are more likely to marry, albeit for different reasons, when they reside in a marriage market characterized by a high sex ratio (i.e., more available men than women).[2] Not surprisingly, the majority of previous empirical investigations find support for this prediction; namely, Anglo and African American women are more likely to marry when they reside in marriage markets characterized by a high sex ratio (Lichter *et al.* 1992; McLaughlin *et al.* 1993; South 1996; South and Lloyd 1992).

Theories of marriage timing, however, predict divergent marital behavior on the part of men when the sex ratio is relatively high or low. Career-entry theory and the specialization and trading model predict that men are *more* likely to marry when they reside in marriage markets characterized by an

abundance of female partners (i.e., a sex ratio below 1.0). This is because a surplus of women is hypothesized to improve men's marital search process (Oppenheimer 1988; Becker 1991). Under similar circumstances, imbalanced sex ratio theory predicts that men are *less* likely to marry because they use their greater dyadic and structural power to form less sexually restrictive relationships in lieu of marriage when single females are plentiful (Guttentag and Secord 1983; also see, Wilson 1987).[3]

As previously mentioned, leading marriage market theories can only be evaluated by examining the nuptial behavior of men. A search of the relevant literature reveals only two analyses of partner availability and men's marriage. Lloyd and South (1996) examine Anglo and African American men in the United States, but do not examine Latino men. They find that Anglo, but not African American, men display a greater propensity to marry when they reside in marriage markets characterized by numerous female partners. Landale and Tolnay (1991) also examine U.S. Anglo and African American, but not Latino, men. They find that the sex ratio is inversely associated with both white and black men ever having been married in the rural South at the turn of the 20th century. Both of these studies provide tentative support for career-entry theory and the specialization and trading model among Anglo men and subsequently no support for imbalanced sex ratio theory. Unfortunately neither study examines the marital behavior of Latino men.

In addition to the sheer number of available partners in the marriage market (measured in terms of the sex ratio), previous research also demonstrates that social norms influence what characteristics are deemed as desirable in a spouse (Gordon 1964; McPherson *et al*. 2001). Such characteristics include both socioeconomic and physical attributes. Race and ethnicity are physical and cultural attributes that have been shown to play a prominent role in defining the marriage market boundaries of non-Latino Whites and non-Latino Blacks (Lieberson and Waters 1988; Lloyd and South 1996). The extent to which race and ethnicity define the boundaries of U.S. Latino marriage markets is an empirical question that has yet to be rigorously investigated.

Marital sorting vs. marital timing

Research on intermarriage can be utilized to identify the strength of social ties between groups (Gordon 1964). As such, previous studies of intermarriage among Latinos may be used to inform the *possible* boundaries of Latino marriage markets in the United States (see for example, Fu 2001; Rosenfeld 2001; Qian and Cobas 2004). Nevertheless, demographers have long understood that studies of intermarriage, while important in their own right,

do not necessarily coincide with the ethno-racial parameters of the marriage market. This is because intermarriage reflects marital *sorting* as opposed to marital *timing*. Consequently, intermarriage prevalence is the end result of searching for a spouse within a given marriage market. Because marriage involves the spousal preferences of both partners, marriage markets function as a means of assortative mating (Oppenheimer 1988; Mare 1991). As such, a person not only desires a certain set of characteristics in a spouse, but also must convenience a coveted partner that they too are desirable as a marriage partner.

Marriage market theory implies that when the numerical availability of desirable spouses in a given ethno-racial group is low, people must do one of three things: (1) delay marriage until a match can eventually be found, (2) forgo marriage altogether, or (3) settle for a partner with different ethno-racial characteristics than one might ideally prefer (Guttentag and Secord 1983; Oppenheimer 1988; Becker 1991). Marriage markets thereby contribute to the ease or difficulty of forming a marital union. If the members of a minority group are denied significant marital access to the members of the majority – even if access is only somewhat limited – then changes in the numerical availability of the majority group's members will *not* significantly impact the marital *timing* of the minority group. In effect, the marriage markets of the two groups may function independently or semi-independently. In either case, the numerical availability and social characteristics of the members of one group will have little or no impact on the marital timing of the members of the other group. This is the case regardless of the fact that some minority and majority group members eventually marry one another (i.e., marital *sorting* through *intermarriage*).[4]

Exploring the ethno-racial boundaries of Latino marriage markets

The goal of the current analysis is to empirically identify the racial and ethnic boundaries of U.S. Latino marriage markets that facilitate, impede, or have no impact on the marital *timing* of Latino men. Table 1 presents seven distinct measures of the possible ethno-racial boundaries of U.S. Latino marriage markets based on both skin color (i.e., race) and ethnicity.[5] The seven ethno-racial specifications of U.S. Latino marriage markets proposed in Table 1 are not intended to represent an exhaustive account of all factors that could possibly delineate Latino marriage markets in the United States. Rather the current analysis is intended to represent an initial, and significant, step toward understanding the racial and ethnic boundaries that delineate U.S. Latino marriage markets. The conception of each of the seven measures in Table 1

Table 1

Seven measures of Latino marriage market boundaries constructed according to respondents' race and ethnicity and the ethno-racial composition of the marriage market in which the respondent resides[a]

Marriage market	Implied marriage preference	Latino respondents' race	Ethnicity & race of potential spouses in marriage market
1. Total	No racial or ethnic preference	Both White & Black	Latinos, Anglos, & African Americans
2. White	Latino endogamy & exogamy with majority group members	Both white & black	Latinos & Anglos
3. Black	Latino endogamy & exogamy with minority group members	Both White & Black	Latinos & African American
4. White-Black	Racial endogamy	White	→ White Latinos & Anglos
		Black	→ Black Latinos & African Americans
5. White-Black-Latino	Racial & ethnic endogamy	White	→ White Latinos
		Black	→ Black Latinos
6. Panethnic	Ethnic endogamy	Both White & Black	Latinos
7. National-Origin	National-origin endogamy	Both White & Black Mexicans	→ Mexicans
		Both White & Black Puerto Ricans	→ Puerto Ricans
		Both White & Black Cubans	→ Cubans
		Both White & Black Other Latinos	→ Other Latinos

[a] Race refers to the binary distinction of skin color: *White-Black* (see footnote 5). Ethnicity refers to distinctions based on culture, shared group experiences, nationality, or language. The ethnic terms *Anglo* and *African American* are applied to non-Latino Whites and non-Latino Blacks, respectively

is grounded in previous theoretical or empirical work suggesting a differential impact of race or ethnicity in defining U.S. Latino marriage market boundaries. The seven measures incorporate both broad inclusive conceptions of the Latino marriage market – for example, the *Total* marriage market based on all single women without regard to race or ethnicity. And, more narrowly defined Latino marriage markets based exclusively on a particular ethno-racial segment of the population – for example, the *National Origin* marriage market based exclusively on potential spouses who are the same national origin as the Latino respondent. Each of the seven measures is described below in conjunction with the research literature that argues for its theoretical or empirical importance.

As previously noted, studies have yet to systematically examine competing ethno-racial boundaries of the U.S. Latino marriage market. Studies have, however, examined patterns of Latino intermarriage. These studies can be used as a starting point to identify possible Latino marriage market boundaries. Unfortunately, the findings of intermarriage studies are somewhat mixed. The majority suggest that Latinos display relatively high rates of ethnic exogamy (Fu 2001; Rosenfeld 2001; Qian and Cobas 2004). High levels of exogamy imply a Latino marriage market that includes potential wives of all ethno-racial groups. This operationalization of the Latino marriage market is presented in the first row of Table 1.

The second and third marriage market boundaries presented in Table 1 suggest differential spousal selection with majority and minority group members, respectively. The *White* marriage market presented in row 2 of Table 1 suggests a Latino marriage market that is integrated with Anglos. Alternatively, some researchers argue that Latinos in the U.S. have more in common with oppressed minority groups than with the Anglo majority. Ortiz (1995), for instance, notes the similarities between Latinos and African Americans in terms of minority group status, economic oppression, and a historical legacy of discrimination. Majority exclusion could therefore result in a Latino marriage market that is socially segregated from Anglos, but integrated with African Americans. The *Black* marriage market defined in row 3 of Table 1 is consistent with the theoretical proposition of a shared experience of oppression as discussed by Ortiz (1995) and others (Steinberg 1989; Portes and Rumbaut 2001).

Other researchers argue that disparate racial characteristics, as evidenced by skin color, create divergent experiences among U.S. Latinos (Alhassan 2017, Denton and Massey 1989; Qian and Cobas 2004). For instance, Massey, Zambrana, and Bell maintain that race "is a key factor that differentiates the

experiences of Latinos in the United States" (1995: pp. 197). Bean and Tienda also assert that, "race and racial discrimination must ... be considered as a force shaping the integration experiences of Latinos" (1987: pp. 13). If race influences Latinos' social integration, it is also likely to influence Latino marriage market boundaries. Therefore, two of the seven marriage markets in Table 1 are specific to race. The *White-Black* marriage market is racially exclusive and includes Whites (both Anglos and White Latinos) in White Latino men's marriage markets; and includes Blacks (both African Americans and Black Latinos) in Black Latino men's marriage markets. In contrast, the *White-Black-Latino* marriage market in row 5 of Table 1 distinguishes ethnic as well as racial boundaries. As such, it is analogous to the racially and ethnically endogamous marriage market measures used in previous marriage market studies of Anglos and African Americans (see for example, Lichter *et al*. 1992; South and Lloyd 1995; Lloyd and South 1996). The *White-Black-Latino* marriage market is also consistent with measures employed by Lloyd (2006) when examining Latinas' transition to first marriage.

The two remaining operationalizations of Latino marriage market boundaries presented in Table 1 emphasize the importance of Latino ethnicity. Previous research on marital homogamy stress trait similarity in spousal selection (Kalmijn 1991; McPherson *et al*. 2001). Co-ethnics are more likely to speak Spanish, be raised Roman Catholic, and share a host of other common ethnic characteristics and life experiences. A shared Latino ethnicity may therefore play a pivotal role in defining the boundaries of the U.S. Latino marriage market. This conceptualization of the Latino marriage market is represented by the *Panethnic* marriage market in row 6 of Table 1. The *Panethnic* Latino marriage market is consistent with Rosenfeld's (2001) work examining marital sorting in the 1980 and 1990 decennial censuses as well as Harknett and McLanahan's (2004) conceptualization of the Latino marriage market used to predict Latinas' transition to marriage following a nonmarital birth.

Finally, some researchers argue that a Panethnic conceptualization of Latino identity in the U.S. is an artifact of mainstream American culture that has little social meaning to members of divergent national-origin groups (Olzak 1980; Bean and Tienda 1987). If U.S. Latinos view themselves primarily in terms of national origin, as opposed to a single Panethnic Latino ethnicity, then homogamy in partner selection may lead to the delineation of the Latino marriage mark *et al* ong national-origin lines. This final operationalization of Latino marriage market boundaries appears in row 7 of Table 1. The conceptualization of a *National Origin* Latino marriage market is consistent

with marriage market measures constructed for Mexican-American Latinas in work by Oropesa and colleagues (1994).

The preceding discussion identifies an inherent challenge when constructing measures of the Latino marriage market. Does race, ethnicity, or both play a prominent role in defining the boundaries of Latino marriage markets in the United States? Furthermore, does the numerical availability and social characteristics of potential wives who are Anglo or African American make any difference when predicting the marital transitions of Latinos? To answer these questions, I first construct three marriage market indicators for each of the seven ethno-racial marriage markets summarized in Table 1. Next, I identify which, if any, marriage market indicators are empirically significant predictors of Latino men's marital timing. If U.S. Latino marriage markets are delineated by race or ethnicity, then one or more of the seven ethno-racial boundaries discussed above will significantly predict Latino men's transition to first marriage. Additionally, if a substantial proportion of a particular ethnic or racial group excludes – or is excluded by – Latinos from spousal consideration, then marriage market measures that include members of these groups will not significantly predict Latino men's marital timing.

Data and methods

Data are obtained from the National Longitudinal Survey of Youth (NLSY), the PUMS-D file of the 1980 Census, the PUMS-L file of the 1990 Census, 1980 and 1990 state-level data from the Statistical Abstracts of the United States, and the 2002 wave of the Current Population Survey (CPS). The NLSY provides data on a national probability sample of 12,686 noninstitutionalized individuals who were ages 14 to 22 when they were initially interviewed in January 1979. Respondents have been re-interviewed annually through 1994 and bi-annually thereafter. The present analysis examines Latino men's transition to first marriage over a 16-year period by incorporating data from the 1979 through 1994 annual waves.

The NLSY has many advantages over competing datasets for investigating the racial and ethnic boundaries of the Latino marriage market. First, the NLSY over-sampled Latinos and has a high retention rate, thereby providing a large enough sample to support meaningful analysis. Second, male respondents in the NLSY have been given adequate time to complete mid-adulthood. Nationally representative datasets of more recent cohorts may not provide respondents with sufficient time to experience first marriage. Truncation of middle adulthood, in turn, may lead to inaccurate parameter estimates. Analysis of Latino marriage market boundaries using the NLSY

avoids this problem. Third, unlike most national surveys, the NLSY provides data on both the respondent's self-reported ethnicity and the interviewer's subjective perception of the respondent's race (i.e., skin color). Both measures are needed to construct two of the seven marriage market boundaries presented in Table 1 (specifically, the *White-Black* and the *White-Black-Latino* marriage markets). Fourth, the survey contains extensive data on marital timing, demographic and family background, labor market experience, and other socioeconomic attributes. These data allow for the examination of marriage *incidence* as opposed to marriage *prevalence*. Prevalence data make it impossible to distinguish marriages that were initiated in the United States versus those that were initiated in the respondent's sending country. The NLSY allows for this critical distinction. Finally, supplementary geocode files identify the state and county in which respondents reside at each annual interview. This information is required to merge aggregate marriage market measures constructed from census data with each respondent's individual record.

There are limitations to the NLSY as well. First, the racial and ethnic characteristics of the wives that Latino men eventually marry are not available in the NLSY. Although this is of greater concern for studies of Latino intermarriage, it may also be informative to examine whether the marital sorting of Latino men is consistent with the ethno-racial marriage market boundaries identified in the analysis. Second, the Latino population in the U.S. has grown over the last three decades. The characteristics of Latino men in the NLSY may not be representative of more recent cohorts. To help alleviate these potential limitations I conduct supplementary analysis of marital sorting in the 2002 wave of the CPS. The CPS provides information on the racial and ethnic characteristics of the wives of recent cohorts of U.S. Latino men to determine if they are consistent with the ethno-racial marriage market boundaries identified in the current NLSY analysis.

The NLSY sample is restricted in several ways. First, I focus only on the boundaries of the Latino marriage market and the marital timing of Latino men. Second, I limit the analysis to an examination of first marriages initiated in the United States. Third, I exclude 49 (4.9%) Latino men who experienced marriage prior to their initial 1979 interview because geocode information on the marriage market in which these men married is not available. Fourth, I exclude 31 (3.1%) Latino men who married before age 18 – but following their initial interview in 1979 – because male adolescents marrying prior to age 18 is generally considered nonnormative and is rare. Furthermore, labor market and other socioeconomic characteristics are not available for adolescent respondents in the NLSY. Finally, analyses focus on marital transitions up to

the 1994 wave of the NLSY. By 1994 respondents are 29-36 years of age and the vast majority (81%) has experienced first marriage.

Defining Latino marriage markets

As with previous studies exploring the effects of marriage market composition on the marital timing of Anglos and African Americans, the current analysis recognizes that U.S. Latino marriage markets are stratified according to age and geography as well as possibly race and ethnicity. The overwhelming majority of people marrying for the first time marry spouses who are roughly the same age. Grooms are on average two years older than their brides (Schoen and Weinick 1993). In addition to age, marriage markets are defined by residence. Propinquity affects marital opportunities by defining the pool of potential marriage partners and facilating social interaction. Following other studies, the current analysis uses Labor Market Areas (LMAs) to approximate the geographic borders of marriage markets. Specifically, microlevel data from the 1% PUMS-D file of the 1980 Census (Tolbert and Killian 1987) and the .45% PUMS-L file of the 1990 Census (U.S. Bureau of the Census 1992) are used to compute marriage market indicators. LMAs have several important advantages over rival marriage market operationalizations such as regions, states, MSAs, counties, or census tracts. LMAs intersect state boundaries, are not limited to the urban population, and are constructed around journey-to-work patterns that represent the spatial boundaries in which daily social interaction occurs. Although LMAs are generally considered superior to rival geographic operationalizations of marriage markets, they are still approximations of the spatial area in which individuals search for a spouse.

In order to test the seven potential ethno-racial marriage market boundaries summarized in Table 1, the analysis relies on three indicators of race and ethnicity: (1) Latino respondents' self-reported ethnicity, (2) the NLSY interviewer's subjective perception of the respondent's skin color (i.e., White or Black-other), and (3) the self-reported race and ethnicity of persons residing in the respondent's LMA and enumerated during the 1980 and 1990 decennial censuses. Self-reported racial and ethnic designations –from both the respondent and members of the respondent's LMA – are used to construct each of the seven marriage market boundaries presented in Table 1. These measures are equivalent to race and ethnicity indicators utilized in previous marriage market research. The second racial designation – interviewers' subjective perception of the Latino respondent's skin color as being either *White* or *Black-other* – is used to construct two of the seven marriage market measures: the *White-Black* and the *White-Black-Latino* marriage markets

presented in rows 4 and 5 of Table 1, respectively. This indicator serves as an unusually appropriate proxy of race in that it represents an outsider's subjective perception of the respondent's skin color. Research demonstrates that an outsider's assessment of race may be a better predictor of racial discrimination than Latinos' own racial assessment (see discussion in Denton and Massey 1989). Furthermore, to the extent that marriage is a reflection of both a Latino man's ethno-racial preferences in a spouse and his partner's preferences, appropriate proxies of *race* may rely on both the respondent's perceptions of his own race as well as outsiders' perceptions of the respondent's skin color.[6]

Three characteristics of the marriage market are constructed for each of the seven ethno-racial marriage market boundaries described in Table 1: (1) the sex ratio, (2) the proportion of single women employed, and (3) the proportion of single women enrolled in school. Each characteristic simultaneously controls for age, race-ethnicity, and geographical residence. The sex ratio is calculated as the ratio of noninstitutionalized single men divided by the number of noninstitutionalized single women residing within the same LMA as the respondent. Men are on average two years older than potential wives. Seven sex ratios are calculated per respondent according to the seven ethno-racial specifications outlined in Table 1. The sex ratio is defined by the formula:

$$Sex\ Ratio_i = \left(\frac{\sum_{i-2}^{i+7} M_i}{\sum_{i-4}^{i+5} W_i} \right)$$

where *Sex Ratio*$_i$ is the race-ethnicity-specific ratio of potential wives for each Latino male respondent age *i*; W$_i$ represents the number of single women available in the local marriage market who are five years older to four years younger than the Latino male respondent; and M$_i$ is the number of single men who are seven years older to two years younger than the Latino male respondent with whom he must "compete" for the women in the denominator. For instance, the *Panethnic Sex Ratio* (presented in row 6 of Table 1) for a 25-year-old Latino man is the number of single Latino men 23 to 32 years of age divided by the number of single Latino women 21 to 30 years of age. In this way, the sex ratio simultaneously controls for both partner availability and marriage market competition.

Two adjustments are made to the sex ratio. First, sex ratios for 18 and 19 year-old respondents are truncated slightly in order to more accurately model

the number of eligible spouses at these young ages.[7] Also, since marriage market indicators require detailed LMA cross-tabulations simultaneously by age, gender, race, and ethnicity, measures may contain an unknown degree of sampling error. Values below the 5th and above the 95th percentile are recoded to those points in the age-race-ethnicity-specific distributions in order to reduce the impact of extreme sex ratio observations that most likely occur because of sampling error.

Two additional marriage market indicators represent the aggregate socioeconomic characteristics of single women residing in Latino men's LMA and are constructed from PUMS data: the proportion of single women employed and the proportion of single women enrolled in school. These indicators provide contextual measures of women's human capital. Each is age-race-ethnicity-specific and represents the number of single women in the denominator of each Latino man's sex ratio who have the specific characteristic of interest (i.e., are employed or are enrolled in school) divided by all single women.

All marriage market characteristics are treated as time-varying covariates, measured in 1980 and 1990, and attached to each NLSY record according to the Latino male respondent's residence at each annual interview. Marriage market indicators derived from the 1980 Census are attached to 1979-1985 records and indicators derived from the 1990 Census are attached to 1986-1994 records. This strategy increases temporal accuracy and permits marriage market conditions to fluctuate over time as respondents' age and move to new geographical locations throughout the 16-year observation period.[8]

Additional controls

Appendix A provides detailed descriptions and summary statistics for variables included in the analyses as controls. Control variables represent demographic, ethnic, early formative influences, and socioeconomic characteristics obtained from the NLSY, PUMS, or Statistical Abstracts of the United States (U.S. Bureau of the Census 1986, 1997). Many appear in prior analyses of marriage (see for example, Lewis and Oppenheimer 2000; Sweeney 2002; Harknett and McLanahan 2004; Lloyd 2006). Where appropriate, control variables are treated as time-varying covariates measured at each annual interview. Models do not contain controls for cohabitation because of its inherent endogeneity (for further discussion see Brien *et al.* 1999).

Methods

The analysis employs a discrete-time event-history approach to duration data (Allison 1995). A person-year file is constructed from detailed marital histories in which each observation corresponds to a calendar year. Only observations

at risk of experiencing first marriage are included in the analysis. The final sample consists of a person-year file containing 5,304 records, representing the marital experiences of 726 Latino men residing in 102 marriage markets during the 16-year observation period. The dependent variable represents the hazard of first marriage conditional on not having married in previous years and is coded 1 if the respondent experiences first marriage during the annual interval and coded 0 otherwise.

Discrete-Time event-history models that control for clustering by LMA focus on the intersection of race and ethnicity in defining Latino marriage market boundaries. First, 21 baseline models are estimated. Baseline models sequentially examine the significance of the sex ratio, proportion of single women employed, and proportion of single women enrolled in school in predicting Latino men's marital timing across each of the seven ethno-racial marriage market boundaries described in Table 1. These models include only the marriage market measure of interest and a control for the respondent's age. I then estimate seven multivariate models that add controls for men's demographic, ethnic, early formative, and socioeconomic characteristics (see Appendix A). These multivariate models focus on which of the seven ethno-racial marriage market boundaries presented in Table 1 provide the strongest predictive power of Latino men's marital timing once respondents' individual characteristics are controlled. Finally, supplementary analyses are performed to test for age differences in the impact of mate availability over the life course and to ascertain whether the ethno-racial marriage market boundaries identified using the NLSY are consistent with the marital sorting of more recent Latino cohorts residing in the United States. The former is achieved by including an age-squared term and an age-sex ratio interaction to the multivariate analyses. The latter is achieved by utilizing data from the 2002 wave of the CPS to identify the ethno-racial characteristics of Latino men's spouses.

Latino marriage market boundaries

Three indicators of the Latino marriage market are constructed according to the seven ethno-racial boundaries identified in Table 1 using 1980 and 1990 census data: the sex ratio (SR), proportion of single women employed (SWE), and proportion of single women enrolled in school (SWS). Appendix B presents the means and standard deviations for these marriage market indicators across the seven ethno-racial marriage market boundary specifications and by Latino respondents' age. All marriage market indicators are age sensitive. Therefore indicators of the proportion of employed single women increase, whereas the sex ratio and proportion of single women

enrolled in school declines, as Latino respondents age over the 16-year observation period.

The marriage market indicators in Appendix B show substantial differences in mate availability and single women's human capital characteristics across the seven ethno-racial boundary specifications. In general, indicators comprised solely of Latinos (i.e., *Panethnic*, *White-Black-Latino*, and *National-Origin* marriage markets) tend to have intermediate values in between the higher values of marriage market indicators that contain Anglos (e.g., the *White* marriage market) and the lower values of marriage market indicators that contain African Americans (e.g., the *Black* marriage market). For example, if the Latino marriage market is isolated from other ethnic groups (reflected in *Panethnic*, *White-Black-Latino*, and *National-Origin* marriage markets), then an average 25 year-old Latino man experiences a sex ratio that is close to parity (i.e., 1.01, 0.96, and 0.99, respectively). However, if the Latino marriage market is integrated with Anglos (e.g., the *White* marriage market), then an average 25 year-old Latino man experiences a *deficit* in the number of potential partners – roughly on the order of five fewer single women per 100 single men. The situation is very different if the Latino marriage market is segregated from Anglos but integrated with African Americans. In this case (represented by the *Black* marriage market) an average 25 year-old Latino man searches for a spouse in a marriage market that contains nearly 20 percent *more* eligible women than men.

The distribution of potential wives' human capital characteristics in Appendix B is also very different depending on the ethno-racial boundaries of the Latino marriage market. These differences are consistent with previous research regarding ethnic and racial differences in socioeconomic status. Women's human capital is relatively high when marriage markets contain Anglos. Under the opposite scenario, when the marriage market excludes Anglos but includes African Americans, potential wives have comparatively low levels of human capital.

Empirical analysis of Latino marriage markets boundaries

Table 2 presents coefficients and robust standard errors that control for clustering within LMAs for baseline models that include the specific marriage market characteristic indicated in the table as well as a control for the respondent's age. At the top of the seven columns in Table 2 are the names of the race-ethnicity-specific marriage markets. The coefficients and standard errors represent 21 separate models where the effect of each of the three marriage market characteristics is estimated separately according to the seven ethno-racial boundary specifications presented in Table 1.

Table 2
Logistic coefficients with robust standard errors in parentheses for baseline event-history models predicting Latino men's transition to first marriage for 7 ethno-racial Latino marriage markets: ages 18-36, United States 1979-1994[a]

	Marriage Market Boundary						
	Total	White	Black	White-Black	White-Black-Latino	Panethnic	National-Origin
Sex ratio	-.33	-.28	-.08	.23	.29*	.29*	.36*
	(.40)	(.35)	(.15)	(.22)	(.14)	(.16)	(.18)
Single women employed	.73	.43	.45	.35	-.11	.54	.54
	(.76)	(.65)	(.34)	(.40)	(.31)	(.43)	(.38)
Single women enrolled in school	-1.33*	-1.39*	-.25	-.42	-.67*	-.17	.00
	(.73)	(.74)	(.33)	(.43)	(.37)	(.39)	(.37)

Source: NLSY 1979 – 1994.

Note: N = 5,304 person-years; 726 Latino men; 102 marriage markets.

a Baseline models include only the ethno-racial marriage market measure indicated and age.

* p ≤ .05 (1 tailed test).

An examination of Table 2 reveals that three of the seven ethno-racial boundaries of the sex ratio have a significant impact on Latino men's marital timing: the *Panethnic* sex ratio*,* the *White-Black-Latino* sex ratio*,* and the *National-Origin* sex ratio. All measures have positive coefficients, indicating that a decline in the relative availability of single women in the marriage market (i.e., a sex ratio greater than 1.0) increases the likelihood that Latino men will marry. This is consistent with imbalanced sex ratio theory which argues that men are *more* likely to marry when women are in short supply because under these circumstances men wish to ensure access to scarce intimate female relationships through marriage. When single women are abundant (i.e., a sex ratio less than 1.0) men desire sexual permissiveness and wish to postpone the long-term commitment of marriage until relatively late in the life course (also see, Wilson 1987). A positive sex ratio coefficient is contrary to hypotheses derived from career-entry theory (Oppenheimer 1988, 2003), the specialization and trading model (Becker 1991), and previous empirical findings for Anglo men (Lloyd and South 1996; Landale and Tolnay 1991).

Table 2 also presents the coefficients, estimated in separate baseline equations, for two indicators of women's human capital. These indicators represent the proportion of single women in the denominator of each Latino man's age-race-ethnicity-specific sex ratio who are either employed or enrolled in school. Consistent with previous research on Anglo men, school enrollment appears to remove potential wives from Latino men's marriage market under three of the seven ethno-racial boundary specifications – in the *Total*, *White*, and *White-Black-Latino* marriage markets – thereby suppressing marital entry among Latino men. In all baseline models women's employment is not a significant predictor of Latino men's propensity to marry.

Multivariate analysis

Table 3 presents parallel analyses of seven multivariate models that include each of the three marriage market indicators as well as additional controls for age, race, ethnic self-identification, immigrant status, mother's education, intact family of origin, number of siblings, school enrollment, weeks worked, average level of AFDC payments in respondents' state, southern residence, and the size of the LMA population. Net of controls, the *Panethnic, White-Black-Latino,* and *National-Origin* sex ratios continue to significantly predict Latino men's transition to first marriage whereas the other sex ratio measures have no predictive power of Latino men's marital timing. Again, all three sex ratio measures are positive, indicating that a decline in the relative proportion of single women in the marriage market leads to a greater probability that Latino

Table 3

Logistic coefficients and robust standard errors for multivariate event-history models predicting Latino men's transition to first marriage for 7 ethno-racial Latino marriage markets: ages 18-36, United States 1979-1994

| | | | | | | | Marriage Market Boundary | | | | | | |
| Variable | Total | | White | | Black | | White-Black | | White-Black-Latino | | Panethnic | | National-Origin | |
	β	robust se	β	robust se	β	robust se	β	robust se	β	robust se	β	robust se	β	robust se
Marriage Market														
Sex ratio	-.32	.41	-.21	.37	-.19	.16	.08	.31	.31**	.13	.38**	.15	.33*	.16
Single women employed	-.51	.83	-.38	.86	.09	.29	-.65	.43	-.66*	.30	.04	.37	.10	.30
Single women enrolled in school	-1.48	.91	-1.53	.96	-.21	.27	-.71	.58	-.74*	.33	-.28	.35	-.22	.36
Control variables														
Age	-.99**	.03	-.10**	.03	-.06**	.02	-.06**	.02	-.05**	.02	-.05*	.02	-.06**	.02
Black	-.18*	.11	-.18*	.11	-.14	.11	-.26*	.14	-.18	.13	-.19*	.11	-.20*	.11
National origin														
Mexican	—		—		—		—		—		—		—	
Puerto Rican	-.14	.15	-.11	.15	-.19	.16	-.10	.15	-.12	.15	-.03	.14	-.03	.15
Cuban	.24	.22	.27	.21	.23	.23	.30	.22	.42*	.20	.34*	.20	.33	.24
Other Latino	-.02	.14	-.00	.14	-.07	.14	.00	.15	-.01	.14	.04	.14	.11	.14
Foreign born	.30*	.14	.30*	.14	.30*	.14	.31*	.14	.37**	.14	.32*	.14	.31*	.14
Mother's education	.02*	.01	.02*	.01	.01	.01	.02*	.01	.02*	.01	.01	.01	.02*	.01
Intact family	-.02	.10	-.03	.10	.02	.11	-.01	.10	-.06	.10	-.03	.10	-.04	.10
Siblings	.04*	.02	.04*	.02	.03*	.02	.04*	.02	.05**	.02	.04*	.02	.04*	.02

	Total		White		Marriage Market Boundary Black		White-Black		White-Black-Latino		Panethnic		National-Origin	
Variable	β	robust se	β	robust se	β	robust se	β	robust se	β	robust se	β	robust se	β	robust se
School enrollment	-.80**	.16	-.80**	.16	-.75**	.16	-.83**	.16	-.90**	.17	-.83**	.16	-.78**	.16
Education	.02	.03	.02	.03	.01	.03	.02	.03	.02	.03	.03	.03	.02	.03
Weeks worked	.01**	.00	.01**	.00	.01**	.00	.01**	.00	.01**	.00	.01**	.00	.01**	.00
Average AFDC	.04	.04	.05	.05	.01	.04	.03	.05	-.00	.04	.00	.04	.01	.05
South	.39*	.20	.39*	.20	.25	.21	.35*	.20	.31	.23	.35*	.20	.36*	.22
LMA population	-.03**	.01	-.03**	.01	-.03**	.01	-.03**	.01	-.02*	.01	-.02*	.01	-.03**	.01
Constant	-.09	1.27	-.18	1.36	-1.68	.52	-1.45	.86	-1.91	.56	-2.47	.59	-2.42	.64
χ^2	136.32**		128.53**		139.64**		136.14**		158.67**		132.02**		143.32**	
df	18		18		18		18		18		18		18	

Source: NLSY 1979–1994.

Note: N = 5,304 person-years; 726 Latino men; 102 marriage markets.

* $p \leq .05$, ** $p \leq .01$ (1 tailed test).

men will marry. As noted, this supports tenets put forth by imbalanced sex ratio theory and is contrary to hypotheses derived from marital search models of mate selection (e.g., Oppenheimer's career-entry theory and Becker's specialization and trading model).

Although the influence of ethno-racial sex ratio specifications remains stable across bivariate and multivariate models, there are three important changes in the predictive power of women's aggregate human capital characteristics. First, the coefficients for women's school enrollment under the *Total* and *White* marriage market specifications decrease with the introduction of controls, and their standard errors increase, making it unrealistic to reject the null hypothesis. However, under the *White-Black-Latino* marriage market specification, the proportion of single women enrolled in school remains a significant predictor of Latino men's marital timing. Second, and consistent with theoretical predictions, Latinas' school enrollment inhibits men's transition to first marriage. Finally, single women's employment emerges as an important deterrent to Latino men's marriage once theoretically relevant controls are introduced to the *White-Black-Latino* marriage market model.

When weighing the overall findings reported in Tables 2 and 3 it becomes clear that not all specifications of the ethno-racial boundaries of Latino marriage markets are equal predictors of Latino men's transition to first marriage. Instead, modeling decisions are critical for understanding Latino men's marital timing. The analyses demonstrate that U.S. Latinos do not freely select partners from the total population nor do they fully participate in the marriage markets of either majority (i.e., Anglo) or minority (i.e., African American) members. At a minimum, Latino marriage markets appear to be ethnically segregated. *Panethnic, White-Black-Latino,* and *National-Origin* sex ratios delineate marriage market boundaries in terms of ethnicity and all are significant predictors of Latino men's marital timing. In general, these coefficients get stronger with the introduction of theoretically important controls. Furthermore, women's human capital measures reflecting additional tenets put forth by a marital search model are also significant and are in the hypothesized direction under the *White-Black-Latino* marriage market specification in both baseline and multivariate models. Based on these findings, Latino men's marital transitions appear to be the most sensitive to the numerical availability and socioeconomic characteristics of potential wives who are both of the same race and ethnicity as the respondent (i.e., to characteristics of the *White-Black-Latino* marriage market).

In short, the results presented in Tables 2 and 3 reveal that shared Latino ethnicity *and* skin color are important factors differentiating Latino marriage

market boundaries in the United States. The availability of Anglo and African American women has no predictive power in determining Latino men's marital timing. This suggests that the Latino marriage market is significantly segregated from both the Anglo and African American populations. As previously noted, this does not imply that Latinos *never* marry Anglos or African Americans (i.e., marital sorting). What it does suggest is that a substantial amount of differential ethno-racial preference for spouses occurs. Furthermore, the numerical availability and human capital characteristics of single Anglo and African American women are obsolete as predictors of Latino men's marital timing in the United States.

Additional considerations

Why are the findings for U.S. Latino men contrary to previous findings for Anglo men? Namely, previous studies of Anglo men support theories of a marital search model of mate selection (Landale and Tolnay 1991; Lloyd and South 1996). Anglo men are more likely to marry when they reside in a marriage market characterized by an abundance of potential wives (i.e., a sex ratio below 1.0). Landale and Tolnay (1991) also find that African American men residing in the rural South at the turn of the 20th century were more likely to have ever been married if they resided in a marriage market characterized by a low sex ratio (*cf.* Lloyd and South 1996).

The answer may lie in a more nuanced interpretation of marriage market theory and an examination of age restrictions placed on previous analyses of men's marriage. First, imbalanced sex ratio theory argues that when men reside in a marriage market characterized by an abundance of single women they wish to *postpone* the long-term commitment of marriage; opting for relationships that allow greater sexual permissiveness (Guttentag and Secord 1983). This implies an interaction between men's age and mate availability on men's propensity to marry. When the sex ratio is low, men may wish to delay marriage until relatively late in the life course not forgo marriage altogether.

Second, previous research is limited to an examination of *young* men. Specifically, Landale and Tolnay (1991) examine Anglo and African American men ages 20-24; while Lloyd and South (1996) examine Anglo and African American men ages 18-27. Therefore previous findings exclude Latinos altogether and are based only younger cohorts of Anglo and African American men. However, young men may not have had sufficient time to make the transition to first marriage. Truncation of the life course may, in turn, alter the parameter estimates of spousal availability on men's transition to first marriage.

To test for these possibilities I re-estimate each of the seven marriage market models presented in Table 3 and include both an age-squared term and an age-sex ratio interaction. These analyses allow for the impact of the sex ratio to change as men age over the young- to mid-adult life course. I then estimate marriage probabilities for men who reside in marriage markets characterized by a high sex ratio – defined as 1 standard deviation above the mean – and for men who reside in marriage markets characterized by a low sex ratio – defined as 1 standard deviation below the mean. Analyses of estimated marriage probabilities hold control variables constant at their age- and group-specific means.

Figure 1: Latino men's probability of first marriage over the young adult life course when the sex ratio is high (one standard deviation above the mean) and low (one standard deviation below the mean): ages 14-36, United States 1979-1994*

Source: NLSY 1979-1994 and PUMS.

* Estimated probabilities include control variables in Model 5 of Table 3. All control variables are held constant at their age- and group-specific means.

Figure 1 presents the effects of age-squared and the age-sex ratio interaction on the predicted probability of first marriage for Latino men ages 18-36 who reside in marriage markets defined by both race and ethnicity (i.e.,

the *White-Black-Latino* marriage market).[9] The solid line in Figure 1 represents the probability of marriage when the sex ratio is high (i.e., more men than women). The dashed line represents the probability of marriage when the sex ratio is low (i.e., more women than men).

The coefficients for age-squared and the age-sex ratio interaction terms are significant.[10] The probability of marriage increases during Latino men's early adulthood and declines slowly thereafter. For instance, when Latino men reside in marriage markets characterized by a dearth of desirable wives (i.e., a sex ratio of 136.3) the probability of marriage reaches its zenith at roughly age 21. When Latino men reside in marriage markets characterized by an abundance of prospective wives (i.e., a sex ratio of 58.3) the probability of first marriage reaches its peak at roughly age 25. Therefore, the relative net effect of residing in a favorable versus non-favorable marriage market (defined as 1 standard deviation above and below the mean) on Latino men's marriage timing is approximately 4 years.

The impact of mate availability on Latino men's probability of first marriage also differs by men's stage in the life course. Prior to age 27 a high sex ratio hastens Latino men's transition to first marriage; while a low sex ratio delays marriage. As noted earlier, these findings are consistent with traditional interpretations of imbalanced sex ratio theory. However, later in Latino men's life course the reverse is the case; more single women facilitate Latino men's transition to first marriage; while fewer women delay men's marital timing. This supports marital search models of mate selection (see Oppenheimer 1988; Becker 1991). Both career-entry theory and the specialization and trading model argue that a dearth of prospective wives (i.e., a high sex ratio) discourages men's transition to first marriage because it simultaneously decreases the likelihood that men will encounter a desirable opposite sex partner *and* increases the level of male competition for coveted, albeit scarce, females. This finding is also consistent with a more nuanced interpretation of imbalanced sex ratio theory; one that accounts for the differential impact of mate availability according to men's stage in the life course. Figure 1 also graphically demonstrates the overall decline in the importance of the sex ratio as a contributing factor to Latino men's marital timing as they age.

The supplementary analysis presented in Figure 1 does not explain disparities between previous findings based on Anglo, and perhaps African American, men and the current findings for Latino men. Specifically, the current analysis of Latinos demonstrates the significant positive impact of the sex ratio on young men's transition to first marriage; while previous research finds

a negative impact of the sex ratio on Anglo men's marital timing between the ages of 18-27 and no impact of the sex ratio on African American men's transition to first marriage (Lloyd and South 1996). Landale and Tolnay (1991) examine Anglo and African American men ages 20-24 who resided in the rural south at the turn of the 20th century. They find an inverse relationship between the sex ratio and young men's marriage prevalence.

Marital sorting

While the current analyses demonstrate that both race and ethnicity are important delineators of the Latino marriage market in the United States, is the *White-Black-Latino* marriage market also consistent with Latino men's marital sorting (i.e., intermarriage)? Unfortunately, the NLSY does not provide information on the racial and ethnic characteristics of respondents' wives. The NLSY is also based on a nationally representative sample of U.S. Latinos in 1979. The U.S. Latino population has changed over time. Are the current findings of a *White-Black-Latino* marriage market consistent with more recent cohorts? To inform these questions, Table 4 presents the ethnic and racial characteristics of the wives of Latino husbands in the 2002 wave of the CPS. If the *White-Black-Latino* marriage market boundary specification is consistent with observed marital sorting in 2002, we would expect to find the majority of Latino husbands married to wives who share both their race and their ethnicity.

Table 4
Race and ethnic composition of couples with a Latino husband:
United States 2002[*]

| Husband | Total | Wife | | | | | |
| | | Latino | | | Non-Latino | | |
		Total	White	Black-Other	Total	White	Black-Other
Ethnicity:							
Latino	100	82.1	78.3	3.8	17.9	16.0	1.9
	(2,104)	(1,728)	(1,648)	(80)	(376)	(337)	(39)
Race:							
White Latino	94.6	82.7	82.5	0.2	17.2	16.3	0.9
	(1,991)	(1,648)	(1,643)	(5)	(343)	(324)	(19)
Black-Other Latino	5.4	70.8	4.4	66.4	29.2	11.5	17.7
	(113)	(80)	(5)	(75)	(33)	(13)	(20)

Source: CPS 2002.
[*]Percentage with sample size in parentheses.

Table 4 documents that this is indeed the case. The majority of Latino husbands in the 2002 wave of the CPS are married to a wife that shares both their race and ethnicity. Specifically, roughly 82 percent of White Latino husbands are married to a White Latino wife, whereas approximately 66 percent of Black Latino husbands are married to a Black Latino wife. In sum, Latino men's ethno-racial marital sorting enumerated in the 2002 CPS is highly consistent with the NLSY findings that identify the importance of the *White-Black-Latino* marriage market for determining Latino men's marital timing.

Discussion

The primary goal of the present analysis is to empirically identify the ethno-racial boundaries that delineate the Latino marriage market in the United States. The analysis presented above disentangles many of the inherent complexities of the U.S. Latino marriage market by focusing on the intersection of both race and ethnicity as potential co-determinants of marriage market boundaries. This is accomplished by first constructing, and then systematically analyzing, 21 marriage market indicators based on seven unique ethno-racial definitions of the Latino marriage market. Each definition is grounded in previous empirical or theoretical research suggesting a differential impact of race or ethnicity in delineating the Latino marriage market. Indicators include broad inclusive measures as well as those based exclusively on a particular ethnic or racial segment of the population. In so doing, the analysis provides a critical test of the relative importance of potential wives' race and ethnicity in facilitating or impeding Latino men's transition to first marriage.

Results highlight the salience of both race and ethnicity in U.S. marriage markets by empirically demonstrating that Latino men do not freely select partners from the total population nor do they fully participate in the marriage markets of either the majority (i.e., Anglos) or the minority (i.e., African Americans). Latino men's racial and ethnic exclusion from Anglo and African American marriage markets are evidenced by the fact that variations in the availability of women with these ethno-racial qualities have no predictive power over when Latino men marry. This finding underscores the role of partner preference in delaying or facilitating Latino men's transition to first marriage. Social segregation, even if relatively limited, creates a structural impediment to marriage by limiting access to potential wives (Lichter, Parisi and Taquino 2015). The current research findings are therefore consistent with previous work which argues that disparate racial characteristics, as evidenced by skin

color, differentiate the experiences of U.S. Latinos in important ways (see for example, Denton and Massey 1989; Qian and Cobas 2004).

While the probability that Latino men will meet an attractive partner, develop a relationship, and make the transition to first marriage is influenced by the ethnic and racial composition of the marriage market; the impact of mate availability on men's transition to first marriage differs over Latino men's life course. A dearth of single women hastens men's marriage during young adulthood. During mid-adulthood the opposite is the case. The former supports imbalanced sex ratio theory, while the latter support marital search models of mate selection and a more nuanced interpretation of imbalance sex ratio theory – one that takes into account men's stage in the life course. These findings differ from those of previous research on young Anglo men's marital timing.

Why might the numerical availability of prospective marital partners differentially affect Latino and Anglo men's marital timing during young adulthood? While further research is needed, the answer may lie in Latino men's greater structural power. Guttentag and Secord (1983, pp. 26) define structural power loosely as dominance over society's political, economic, and legal structures. They go on to state that structural power varies over time, by degree, across groups, and by country. In Western countries women have increasingly gained access to structural power since World War II.[11] Guttentag and Secord argue that the process of partner selection changes in response to the level of female structural power. Therefore, historically mate selection may be transforming from an original system in which men possess differential leverage to define the rules of courtship (as described by imbalanced sex ratio theory) to one in which spousal selection is increasingly negotiated by both men and women through a roughly balanced process of give and take (as described by marital search models). If so, relatively recent minority groups from non-Western countries where men's greater structural power is institutionalized (e.g., Latinos in the United States) are the very groups in which a surfeit of available females would be predicted to depress men's marriage transitions. The present analysis of Latino men's marital entry is consistent with this theoretical expectation. Among Anglos, however, a marital search model of mate selection may be more relevant because U.S. Anglo women have increasingly gained access to structural power throughout the latter half of the 20th century. Of course, future research is needed before these theoretical assertions can be fully embraced. Greater inclusion of Latinos in national surveys will ensure that this and other important questions regarding the Latino population are completely addressed.

Acknowledgement

Notes

1. The sex ratio is defined as the number of available men divided by the number of available women in a given geographical area.

2. Marriage market theories argue for the *relative* desire of men and women to marry according to the availability of desirable partners in the marriage market. Not all imply a high *absolute* desire to marry. Therefore, the general desire to marry may be declining over time; while the relative impact of residing in a favorable marriage market remains constant.

3. Guttentag and Secord (1983) define dyadic power as the ability to implement personal desires within intimate relationships. The sex ratio shifts dyadic power to the gender that is in short supply. The gender that is *scarce* has greater dyadic power because they have more alternatives to their current partner in the marriage market. The gender that is in *over-supply* has less dyadic power because alternatives to their current partner are relatively limited. Structural power is defined as "dominance over the political, economic, and legal structures of society" (1983: pp. 26). Guttentag and Secord argue that men possess the majority of structural power in contemporary societies. This enhances men's ability to implement their marital desires (i.e., postponing marriage during times of female surplus and hastening the transition to marriage during times of female deficit).

4. Intermarriage most likely occurs among minority and majority group members who do not hold strong ethno-racial spousal preferences or who are willing to forgo marriage until their strong ethno-racial preferences can be achieved.

5. Table 1, and the remainder of the text, follows the U.S. census convention of treating race and ethnicity as separate domains. Race refers to distinctions based on physical appearance, skin color, or the perception of skin color. Ethnicity refers to distinctions based on culture, shared group experiences, nationality, or language. For clarity, the ethnic terms *Anglo* and *African American* are applied to non-Latino Whites and non-Latino Blacks, respectively. The current analysis also follows the lengthy, albeit questionable, American historical convention of a bipolar conceptualization of *White* and *Black race*. This bipolar conception of race is used to differentiate between light and dark skinned individuals. Latinos can, of course, be of any race. The bipolar distinction of race used in the current analysis is necessary due to data limitations inherent in the NLSY (see below for a discussion of why the NLSY remains the best source of data to perform the current analysis).

6. *Outsiders* theoretically include all members of the marriage market. The NLSY interviewer's subjective perception of the respondent's skin color is used as a proxy of outsiders' perceptions of race in two of the seven marriage market measures (i.e., *White-Black* and *White-Black-Latino* marriage markets). The remaining five marriage market measures rely solely on self-reported race and ethnicity (i.e., *Total, White, Black, Panethnic, National Origin* marriage markets).

7. Specifically, sex ratios for 18 and 19 year-old male respondents are:

$$Sex\ Ratio_{18} = \left(\sum_{17}^{24} M_i \Big/ \sum_{16}^{23} W_i\right) \text{ and } Sex\ Ratio_{19} = \left(\sum_{17}^{25} M_i \Big/ \sum_{16}^{24} W_i\right), \text{ respectively.}$$

8. There is no evidence of multicollinearity between the three marriage market characteristics. All bivariate correlation coefficients are at or below an absolute value of 0.36.

9. Predicted probabilities of Latino men's transition to first marriage for the additional six ethno-racial marriage market specifications are available upon request.

10. Specifically, discrete-time event-history coefficients for the variables of interest are as follows: *White-Black-Latino Sex Ratio* 2.07* (robust s.e. 0.93), *Age* 0.55** (robust s.e. 0.18), *Age-Squared* -0.01** (robust s.e. 0.00), *Age*Sex Ratio* -0.08* (robust s.e. 0.04); * $p \leq$ .05, ** p .01 (1 tailed test). The effects of the proportion single women employed, proportion single women enrolled in school, and additional controls remain virtually identical to those presented in Table 3. Full analysis is available upon request.

11. In fact, some theorists believe that changing marriage patterns in the U.S. and other Western countries primarily reflect women's increased participation in society's economic institutions (Becker 1991; *cf.*, Goldstein and Kenney 2001; Sweeney 2002).

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Appendix A

Descriptions, data sources, and summary statistics for control variables included in the event-history analysis of Latino marriage market boundaries: ages 18-36, United States, 1979-1994

Variable	Description	Source		s.d.
Age	Age of respondent at each annual interview (in years).	NLSY	23.57	4.29
Black	Binary variable coded 1 if respondents' skin color is viewed by NLSY interviewer as "Black-other" and 0 if "White."	NLSY	.29	.46
National Origin:	Four category dummy variable representing Latino respondents' ethnic self-identification.	NLSY		
Mexican	Reference category, includes "Chicano" and "Mexican-American."		.60	.49
Puerto Rican			.17	.38
Cuban			.07	.25
Other Latino	Includes "Other Spanish," "Spain," and all other Latin American or Caribbean countries excluding Mexico, Puerto Rico, and Cuba.		.16	.36
Foreign born	Binary variable coded 1 if respondent was born in a foreign country or Puerto Rico and 0 if born in mainland U.S.	NLSY	.26	.44
Mother's education	Years of completed education by respondent's mother.	NLSY	7.63	4.30
Intact family	Binary variable coded 1 if respondent lived with both biological parents at age 14 and 0 otherwise.	NLSY	.67	.47
Siblings	Number of siblings in family of origin.	NLSY	4.42	2.74
School enrollment	Binary variable coded 1 if respondent is enrolled in school at the time of each annual interview and 0 if not enrolled.	NLSY	.20	.40
Education	Completed years of education as of May 1st of survey year.	NLSY	11.85	2.30
Weeks worked	Weeks worked in previous calendar year.	NLSY	35.08	19.45
Average AFDC	Average monetary value of Aid to Families with Dependent Children payments in respondents' state of residence (in hundreds of dollars). US Statistical Abstracts, 1980 & 1990	3.55	1.68	
South	Binary variable coded 1 if respondent resides in state defined by the Census Bureau as south and 0 for all other regions.	NLSY	.24	.43
LMA population	Number of persons residing in respondents' Labor Market Area at time of each annual interview (in millions).	PUMS, 1980 & 1990	3.46	4.21

Note: N = 5,304 person-years; 726 Latino men; 102 marriage markets.

Appendix B

Means, with standard deviations in parentheses, for three marriage market characteristics based on seven ethno-racial Latino marriage market boundary specifications by respondents' age: United States 1980 and 1990*

Marriage market boundaries

Age	Total			White			Black			White-Black			White-Black-Latino			Panethnic			National-Origin		
	SR	SWE	SWS	SR	SWE	SWS	SR	SWE	SWS	SR	SWE	SWS	SR	SWE	SWS	SR	SWE	SWS	SR	SWE	SWS
18	1.05 (.11)	.52 (.06)	.59 (.06)	1.07 (.11)	.54 (.07)	.60 (.06)	.95 (.41)	.39 (.15)	.58 (.18)	1.04 (.21)	.50 (.13)	.58 (.09)	1.08 (.39)	.44 (.16)	.58 (.16)	1.08 (.36)	.46 (.10)	.57 (.10)	1.03 (.23)	.45 (.12)	.56 (.14)
19	1.06 (.13)	.53 (.06)	.56 (.06)	1.08 (.11)	.56 (.07)	.57 (.06)	.97 (.42)	.40 (.16)	.55 (.20)	1.05 (.24)	.51 (.14)	.55 (.11)	1.08 (.43)	.43 (.17)	.56 (.17)	1.07 (.33)	.46 (.11)	.54 (.11)	1.03 (.25)	.45 (.13)	.53 (.14)
20	.98 (.12)	.55 (.06)	.54 (.06)	.99 (.11)	.58 (.07)	.55 (.06)	.90 (.37)	.40 (.11)	.53 (.19)	.96 (.22)	.52 (.12)	.53 (.11)	.95 (.36)	.45 (.16)	.53 (.15)	.95 (.28)	.47 (.10)	.53 (.11)	.92 (.27)	.46 (.12)	.52 (.14)
21	.97 (.13)	.61 (.06)	.46 (.06)	1.00 (.12)	.64 (.07)	.47 (.06)	.90 (.30)	.49 (.18)	.45 (.21)	.97 (.20)	.59 (.13)	.45 (.12)	.94 (.37)	.51 (.17)	.45 (.18)	.93 (.26)	.54 (.11)	.44 (.13)	.93 (.30)	.53 (.13)	.44 (.15)
22	.98 (.12)	.66 (.06)	.38 (.07)	1.01 (.11)	.69 (.06)	.39 (.07)	.88 (.31)	.55 (.15)	.37 (.21)	.95 (.20)	.64 (.12)	.37 (.11)	.95 (.42)	.57 (.16)	.37 (.16)	.98 (.36)	.58 (.11)	.36 (.13)	.97 (.36)	.57 (.15)	.36 (.16)
23	.98 (.13)	.69 (.06)	.32 (.07)	1.02 (.13)	.72 (.06)	.33 (.07)	.84 (.25)	.57 (.15)	.32 (.23)	.96 (.18)	.67 (.12)	.33 (.13)	.99 (.45)	.59 (.20)	.30 (.17)	.99 (.41)	.61 (.13)	.30 (.11)	1.00 (.38)	.60 (.17)	.30 (.14)
24	.99 (.12)	.71 (.06)	.28 (.06)	1.03 (.13)	.74 (.06)	.29 (.07)	.84 (.28)	.59 (.14)	.26 (.20)	.96 (.20)	.69 (.12)	.28 (.11)	.96 (.42)	.62 (.17)	.26 (.18)	.99 (.36)	.63 (.14)	.26 (.12)	1.00 (.38)	.60 (.19)	.25 (.16)
25	1.00 (.12)	.73 (.06)	.25 (.06)	1.05 (.14)	.76 (.06)	.26 (.07)	.81 (.27)	.59 (.14)	.21 (.14)	.96 (.22)	.70 (.12)	.26 (.10)	.96 (.40)	.61 (.19)	.25 (.19)	1.01 (.37)	.65 (.15)	.24 (.14)	.99 (.37)	.61 (.20)	.24 (.16)
26	1.00 (.13)	.74 (.06)	.22 (.06)	1.05 (.15)	.77 (.07)	.23 (.06)	.82 (.28)	.61 (.15)	.18 (.10)	.96 (.21)	.71 (.13)	.23 (.08)	.93 (.37)	.64 (.17)	.23 (.19)	1.01 (.37)	.65 (.15)	.21 (.13)	1.04 (.41)	.61 (.21)	.21 (.15)
27	.99 (.14)	.75 (.06)	.20 (.05)	1.04 (.14)	.78 (.07)	.20 (.05)	.76 (.22)	.62 (.15)	.16 (.10)	.94 (.20)	.73 (.12)	.20 (.06)	.96 (.37)	.66 (.18)	.21 (.21)	1.02 (.38)	.66 (.16)	.19 (.15)	1.02 (.42)	.62 (.22)	.18 (.15)

Appendix B continued

28	.98 (.14)	.75 (.07)	.19 (.05)	1.03 (.15)	.78 (.08)	.19 (.05)	.76 (.24)	.64 (.14)	.15 (.08)	.94 (.22)	.73 (.12)	.19 (.06)	.98 (.34)	.67 (.17)	.19 (.15)	1.01 (.34)	.67 (.17)	.19 (.14)	1.02 (.43)	.64 (.22)	.17 (.14)
29	.96 (.13)	.75 (.07)	.17 (.04)	1.02 (.15)	.78 (.08)	.17 (.05)	.73 (.20)	.62 (.17)	.15 (.08)	.93 (.22)	.72 (.16)	.17 (.06)	1.01 (.32)	.66 (.19)	.19 (.13)	1.01 (.33)	.66 (.18)	.18 (.13)	1.01 (.42)	.64 (.22)	.17 (.14)
30	.96 (.14)	.76 (.06)	.17 (.04)	1.02 (.16)	.79 (.07)	.17 (.04)	.73 (.20)	.66 (.14)	.19 (.17)	.93 (.21)	.73 (.11)	.16 (.05)	.92 (.30)	.68 (.16)	.18 (.13)	.96 (.31)	.67 (.17)	.18 (.12)	.95 (.37)	.69 (.19)	.17 (.13)
31	.92 (.14)	.77 (.05)	.15 (.03)	.99 (.15)	.79 (.06)	.15 (.04)	.69 (.14)	.66 (.14)	.19 (.16)	.91 (.20)	.75 (.12)	.16 (.05)	.88 (.33)	.67 (.15)	.16 (.11)	.89 (.30)	.67 (.16)	.17 (.12)	.90 (.34)	.66 (.23)	.15 (.13)
32	.90 (.16)	.76 (.05)	.15 (.03)	.98 (.16)	.79 (.06)	.14 (.03)	.69 (.18)	.65 (.14)	.19 (.18)	.88 (.21)	.75 (.11)	.18 (.16)	.78 (.30)	.67 (.17)	.14 (.08)	.83 (.28)	.64 (.15)	.15 (.10)	.82 (.30)	.61 (.20)	.14 (.11)
33	.89 (.15)	.77 (.05)	.14 (.03)	.97 (.16)	.79 (.06)	.14 (.03)	.66 (.17)	.68 (.11)	.20 (.21)	.91 (.19)	.77 (.07)	.15 (.12)	.79 (.21)	.88 (.15)	.15 (.09)	.79 (.26)	.64 (.17)	.15 (.11)	.76 (.24)	.59 (.25)	.13 (.12)
34	.89 (.15)	.76 (.05)	.14 (.03)	.97 (.16)	.78 (.06)	.14 (.03)	.65 (.15)	.64 (.13)	.19 (.19)	.90 (.19)	.76 (.07)	.14 (.04)	.79 (.23)	.70 (.16)	.12 (.08)	.81 (.28)	.63 (.15)	.12 (.08)	.77 (.25)	.60 (.20)	.12 (.10)
35	.90 (.15)	.76 (.06)	.14 (.03)	.99 (.17)	.78 (.06)	.13 (.03)	.65 (.18)	.68 (.12)	.21 (.22)	.92 (.22)	.76 (.07)	.13 (.03)	.79 (.17)	.67 (.14)	.13 (.08)	.78 (.32)	.62 (.19)	.12 (.08)	.75 (.25)	.60 (.23)	.11 (.09)
36	.93 (.13)	.76 (.06)	.14 (.03)	1.02 (.16)	.79 (.06)	.13 (.03)	.65 (.18)	.66 (.10)	.18 (.16)	.98 (.19)	.77 (.07)	.13 (.03)	.78 (.17)	.68 (.15)	.12 (.08)	.81 (.29)	.62 (.21)	.11 (.08)	.78 (.22)	.59 (.23)	.10 (.09)

* SR = Sex Ratio, SWE = proportion of Single Women Employed, SWS = proportion of Single Women enrolled in School.