

Social Boundaries and Marital Assimilation: Interpreting Trends in Racial and Ethnic Intermarriage

Zhenchao Qian
The Ohio State University

Daniel T. Lichter
Cornell University

Interracial/interethnic marriage in America is a barometer of racial/ethnic relations and intergroup social distance. Using data from the 5-percent Public Use Microdata Sample of the 1990 and 2000 censuses, we interpret trends in intermarriage in light of new assimilation theory, recent changes in racial classification, and rapid demographic changes in American society. Our results indicate that changes in marital assimilation have taken on momentum of their own; that is, America's growing biracial population has fueled the growth of interracial marriages with whites. Analyses also shed new light on the effects of rapid immigration, rising cohabitation, and educational upgrading on intermarriage patterns, and yield both continuities and departures from the past.

Historic patterns of racial/ethnic differences in intermarriage persist—Hispanics and American Indians are most likely to marry whites, followed closely by Asian Americans. African Americans are least likely to marry whites. Yet, the 1990s brought significant increases in intermarriage between blacks and whites; large increases in cohabitation did not offset the growth of racially-mixed marriages. The past decade also ushered in unprecedented declines in intermarriage with whites and large increases in marriage between native- and foreign-born co-ethnics among Hispanics and Asian Americans. The role of educational attainment in the out-marriage patterns of Hispanics and Asian Americans was also reinforced. Any evidence of differential growth in African American-white marriages among the highly educated African American population was weak. If intermarriage is our guide, any shifting, blurring, or crossing of racial/ethnic boundaries represent uncommonly weak mechanisms for breaking down existing racial barriers to black-white union formation.

Since the 1970s, the number of racial/ethnic intermarriages has increased substantially in the United States. The implication is that group boundaries have weakened and intergroup social distance has declined. Indeed, marriages between people of different racial/ethnic backgrounds mean that barriers to social interac-

tion and intimacy have broken down and that marital partners—by definition—accept each other as social equals. The potential societal implications of intermarriage arguably are much larger. For example, intermarriage commingles, to varying degrees, the diverse family, friendship, and social networks of each spouse

Direct all correspondence to Zhenchao Qian, Department of Sociology, The Ohio State University, 300 Bricker Hall, 190 N. Oval Mall, Columbus, OH 43210 (qian.26@sociology.osu.edu). A previous version of this paper was presented at the annual meetings of the Population Association of America, Boston, MA, April 1–3, 2004. This research was

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(Romano 2003). The growing population of mixed-race children from intermarriage also blurs racial boundaries over successive generations and raises new questions about simple binary conceptions of race (Labov and Jacobs 1998). Such trends signal improving racial/ethnic relations, the incorporation of historically disadvantaged minorities into American society, and the breakdown of persistent racial/ethnic economic and cultural distinctions (Alba and Nee 2003; Bean et al. 2004).

Recent increases in intermarriage should not be overstated, however. In 2000, interracial marriages accounted for only 6 percent of all married couples (Simmons and O'Connell 2003). More importantly, intermarriage—and social distance from whites—varies widely across racial/ethnic groups (Lee and Edmonston 2005; Qian and Lichter 2001; Sandefur and Trudy 1986). In this article, we use 1990 and 2000 census data to update past studies of changes in intermarriage between non-Hispanic whites, African Americans, Asian Americans, American Indians, and Hispanics. Indeed, whether racial/ethnic intermarriage continued its upward trend over the past decade is unclear in light of rapid demographic changes in America (e.g., rising immigration, cohabitation, and education). Any interpretation of data on intermarriage trends is potentially conflated by several methodological challenges and substantive considerations.

First, changes in racial classification between 1990 and 2000 potentially distort empirical estimates of interracial marriage and make unambiguous interpretations difficult. In 1990 and earlier, multiracial Americans were required by the decennial censuses to identify themselves as belonging to only one race. In 2000, for the first time, Americans were allowed to indicate one or more racial categories—and 2.4 percent did so (Jones and Smith 2001). This change, as we show in this article, affects both the measurement and interpretation of intermarriage trends among America's racial minorities. Second, the massive influx of new immigrants, especially from Latin America and Asia, makes conventional interpretations of changing social boundaries, based on intermarriage patterns alone, increasingly problematic. A growing immigrant population replenishes the marriage pool for their native-born counterparts and may reinforce cultural and racial identities and crys-

tallize intergroup boundaries (Massey 1995; Qian and Lichter 2001). As a result, Hispanics and Asian Americans—even those born in the United States—may have experienced slower increases or even declines in intermarriage with whites in the 1990s. Third, the rise in cohabitation distorts the meaning and interpretation of conventional statistical measures of union formation, marital and nonmarital fertility, and dissolution (Bumpass and Raley 1995). It has the potential to depress intermarriage rates while the rate of intergroup unions (i.e., marriage and cohabitation combined) continues its upward trend. The rise in cohabitation may slow the marital assimilation process and reinforce group boundaries. Finally, recent changes in the educational composition of some racial/ethnic groups (e.g., due to generational succession or the influx of poorly-educated new immigrants) may change the dynamics of marriage markets, depress intermarriage rates with whites and, by extension, decelerate the process of marital assimilation.

In this article, we provide an empirical benchmark on recent trends in racial/ethnic intermarriage and present a conceptual framework for interpreting intermarriage patterns in light of new assimilation theory (Alba and Nee 2003). We begin by updating recent trend studies based on 1990 and earlier data (e.g., Harris and Ono 2004; Qian 1997). Our principal goal and analytic foci then turn to changes in racial classification and how rapid demographic changes in American society—immigration, cohabitation, and educational attainment—have influenced conventional interpretations of changing racial/ethnic relations in America.

ASSIMILATION THEORY AND INTERMARRIAGE

Classical assimilation theory provides a useful conceptual framework—a starting point—for documenting and interpreting long-term increases in racial/ethnic intermarriage in American society (Gordon 1964). In the words of Park and Burgess (1969:735), assimilation is “a process of interpenetration and fusion in which persons and groups acquire the memories, sentiments and attitudes of other persons and groups and, by sharing their experience and history, are incorporated with them in a common cultural life.” This process of interpenetration and fusion

is arguably best exemplified in intermarriage, which is often viewed as the final step in the assimilation process (Gordon 1964; Qian and Lichter 2001; Sassler 2005). Intermarriage with whites provides a clear signal that minority group members have adopted cultural patterns of the host or majority population, such as its language and customs, and that they have been absorbed, both economically and politically, into mainstream society. As a historical case in point, European immigrants at the turn of the twentieth century were highly diverse from an ethnic, cultural, and economic standpoint. After a generation or two, however, ethnic boundaries weakened and interethnic marriage became commonplace as previous conceptions of "white" shifted, group differences in education and labor market opportunities narrowed, and language and residential barriers were reduced or eliminated (Lieberson 1980; Pagnini and Morgan 1990).

Critics today often question the usefulness of classical assimilation theory for explaining contemporary racial/ethnic relations and for forecasting prospects for assimilation or economic incorporation among America's minority populations (Omi and Winant 1994; Portes and Zhou 1992). Unlike European white ethnics during the twentieth century, economic incorporation and assimilation of America's African American population and other racial/ethnic minorities have proceeded slowly and much less predictably. State anti-miscegenation laws forbidding people of different races from marrying were not abolished nationwide until 1967. Contemporary racial prejudice and discrimination limit opportunities and impede economic success and full economic incorporation into American society.

Classical assimilation theory is sometimes criticized as ethnocentric in its implications (Alba and Nee 2003); that is, it suggests a natural progression in which immigrants jettison maladaptive cultural repertoires and adopt a "better" way of life—the American way. Classical assimilation theory also implies an inevitability of outcome in the assimilation process. Yet, distinctive physical features and visibility (especially skin color) make race-based social boundaries difficult to traverse for today's minorities. Unlike the situation for white ethnics in the past, we can no longer assume a simple unilinear cultural process that ultimate-

ly melds diverse racial/ethnic minorities and immigrants with the middle-class, Anglo-American majority.

In *Remaking the American Mainstream*, Alba and Nee (2003) reformulate classical assimilation theory and reframe current debates about minority assimilation and intermarriage. They acknowledge America's new celebration of multiculturalism and the uneven incorporation of minority groups into American society. Unlike classical assimilation theory, they suggest that the erosion of social distance between racial/ethnic groups, which culminates in intermarriage, is a two-way, rather than an asymmetric, process involving majority and minority populations. Race/ethnicity is a socially constructed boundary that can be "crossed," "blurred," or "shifted" over time or across generations. Alba and Nee (2003) define boundary crossing as movement from one group to another without any real changes to the boundary (e.g., movement resulting from upward socioeconomic mobility). Blurring results from increases in a mixed-race/ethnicity population; racial/ethnic categories can no longer easily separate themselves. Shifts in boundaries occur when former outsiders are transformed into insiders or accepted as such (e.g., Irish who have been redefined as "white" over the twentieth century).

Alba and Nee's (2003) reformulated theory represents a less contentious and less ethnocentric view of the assimilation process. At the same time, they acknowledge that America's minorities and immigrants "may not intentionally seek to assimilate, [but that] the cumulative effect of pragmatic decisions aimed at successful adaptation can give rise to changes in behavior that nevertheless lead to eventual assimilation" (p. 38). For example, the quest for more education among immigrants necessarily opens opportunities for upward mobility and social interaction with potential white marital partners, regardless of whether immigrants wish to become "American" culturally or not. At a minimum, Alba and Nee imply a continuation in the upward trend of interracial marriage, albeit at a slower pace and under different circumstances than for some groups in the past. They redefine the meaning and mechanisms of assimilation that can occur on either side of the social boundary between a minority group and the majority group. As we argue in the next section, recent demographic changes have con-

tributed in clear ways to boundary crossing (e.g., educational upgrading of some minority populations), blurring (e.g., growth in America's mixed-race population from previous intermarriage), and shifts (e.g., a rise in the population of low-educated Hispanics, especially immigrants, who are less likely to self-identify as white). Indeed, recent demographic changes in American society have taken on a momentum of their own, creating both opportunities and constraints in the marriage market. Our analyses and interpretation of changing intermarriage incorporate the new assimilation theory and examine how demographic changes, including immigration, cohabitation, and educational attainment affect intermarriage with whites differently for African Americans, American Indians, Asian Americans, and Hispanics.

DEMOGRAPHIC SOURCES OF CHANGE IN INTERMARRIAGE

INCREASING SHARES OF IMMIGRANTS

Group size shapes patterns of social interaction between groups (Blau 1977). When minority populations grow in size, opportunities for intragroup contact necessarily increase and interaction with the majority population declines. For such minority groups (e.g., Hispanics and Asian Americans), assimilation processes, including intermarriage with whites, are likely to slow. Rapid increases in the foreign-born population have generated considerable public discourse about the cultural and economic incorporation of immigrants and their children into U.S. society and about their impact on social institutions and core American values (Smith and Edmonston 1997). The concern goes beyond the immigrant population; it also has become a race issue as the racial mix of immigrants has shifted over the past quarter century (Bean et al. 2004). Indeed, the pace of incorporation into society—at least with respect to intermarriage—is likely to have decelerated with the increasing racial and ethnic diversity in America.

Recent immigration has not only spurred the population growth of America's racial/ethnic minorities, but it also has fueled growing economic and cultural diversity within and between minority groups. Recent minority immigrants are disproportionately unskilled, have low socioeconomic status, and have limited English-

language proficiency (Bean et al. 2004; Chiswick and Sullivan 1995). They tend to concentrate residentially in racially and economically segregated neighborhoods with limited opportunities for interaction with mainstream (white) society (Massey 1995; Portes and Bach 1985). For new immigrants, the lack of opportunities for socioeconomic mobility, coupled with limited social contacts with mainstream society, magnifies their social distance from whites compared with their native-born counterparts. Marriages between minority immigrants and whites are less likely to occur as a result; immigrant minorities are less likely to cross the racial divide (Qian and Lichter 2001).

American society remains highly race conscious. To a large extent, adaptation depends on how well the same-race, native-born counterparts of recent immigrants have fared. Whites often perceive minority immigrants in the same stereotypical and negative ways that they perceive their native counterparts (Waters 1999). Thus, immigrants are unlikely to have many opportunities for romance and intermarriage with native-born whites. Recent immigration potentially reinforces America's racial/ethnic boundaries and, by extension, hardens marital boundaries between the races. This effect may be especially strong among Asian Americans and Hispanics for whom the immigrant population has increased most rapidly over the past decades.

As we have learned historically, the effect of immigration on intermarriage with whites can be indirect as well. Restrictive immigration laws in the 1920s stemmed the tide of immigration from Eastern and Southern Europe. This legislation also effectively cut off the influx of potential marital partners with similar ethnic backgrounds, a situation that undoubtedly hastened intermarriage with other white ethnics over successive generations (Sassler 2005). Under such conditions, cultural and ethnic identity eroded and intermarriage with other white ethnics accelerated. The lessons for today's high rates of immigration seem clear. The continuing influx of immigrants, unlike in the past, has replenished the supply of potential partners for native-born Hispanic and Asian American minorities (Alba and Nee 2003; Heaton and Jacobson 2000). This suggests there will be less intermarriage with whites and, perhaps, increas-

ing levels of intermarriage between natives and immigrants of the same racial/ethnic group.

To sum up, given that most immigrants have comparatively low socioeconomic status, the opportunities for marriage with partners with similar racial/ethnic backgrounds are likely to have grown more rapidly for less educated native-born minorities than for their highly educated counterparts. Native-born Hispanics and Asian Americans with high levels of educational attainment, on the other hand, may have continued to experience high rates of intermarriage and marital assimilation, just as white ethnic immigrants did in the past (Alba and Nee 2003; Sassler 2005). Alternatively, rates of intermarriage—even among the highly educated—may have slowed or even declined if racial/ethnic identity and cultural traditions have been reinforced by new immigration.

RISING COHABITATION

Recent attitude surveys indicate that Americans are increasingly tolerant of racial intermarriage. In 1997, for example, 67 percent of whites and 83 percent of African Americans approved of such marriages; their support of racial integration in schools, housing, and jobs, however, was even higher (Schuman et al. 1997). Americans seem comfortable supporting racial integration and equality in public arenas, but they remain comparatively uneasy with interracial sexual intimacy and marriage. Interracial couples often lack the strong social support of families and friends. For example, white and African American adolescents are more likely to introduce same-race partners than different-race partners to their families (Joyner and Kao 2005). Qualitative studies also suggest that parents often actively discourage interracial relationships among their children. Parents point to other people's prejudices and express their concerns about the well-being and social acceptance of their mixed-race grandchildren (Romano 2003; Root 2001).

One alternative to marriage, especially among mixed-race couples, is cohabitation (Blackwell and Lichter 2000; Lichter and Qian 2004). Cohabitation is typically a short-lived, marriage-like living arrangement, and it has contributed substantially to declining marriage rates in early adulthood and to increases in the average age at first marriage (Bumpass, Sweet, and

Cherlin 1991; Lichter, Qian, and Mellott 2006). Compared with marriage, cohabitation typically involves a different set of motivations, level of commitment, and interaction styles among partners, friends, and extended family members (Bumpass and Sweet 1989; Clarkberg, Stolzenberg, and Waite 1995). To be sure, interracial couples decide to cohabit rather than to marry for many different reasons. The decision to cohabit may be prompted by convenience, the benefits of economies of scale, or the desire to test for compatibility. Cohabitation also may have advantages over marriage in circumventing the usual complications associated with blending racially/ethnically dissimilar networks of families and friends (Bennett, Blanc, and Bloom 1988; Brown and Booth 1996). Interracial cohabitation may both reflect and reinforce social distance between racial groups. It reflects existing social barriers or social distance if couples choose to cohabit because they lack strong support from families and friends; in other words, their relationship is stigmatized or viewed unfavorably. Cohabitation reinforces social distance if this living arrangement is short-lived and unstable (i.e., it does not lead to marriage), involves less commingling of family and friendship networks, and does not lead to mixed-race offspring. Under these circumstances, rising cohabitation rates among interracial couples may contribute to lower rates of racial/ethnic intermarriage or, alternatively, depress the pace of marital assimilation.

At the same time, the rise in interracial cohabitation has been uneven across racial/ethnic and educational groups (Blackwell and Lichter 2004; Goldstein and Harknett 2006; Lichter and Qian 2004). Because of continuing strong proscriptions against intermarriage between whites and African Americans, cohabitation may have become a new and highly-adapted alternative to traditional marriage, one that is less highly stigmatized, more easily entered into, and perhaps more acceptable to others. If this is the case, then we can expect disproportionately larger increases over the 1990s in interracial cohabitation among historically stigmatized couples (especially African American-white couples).¹ The dampening

¹ An alternative view is that interracial cohabitation segues into interracial marriage. But it is unlikely

effect of interracial cohabitation on recent changes in intermarriage is expected to be especially large among the least educated, who are more likely than highly educated couples to cohabit at the expense of marriage and most likely to break up (Goldstein and Harknett 2006; Lichter et al. 2006). We therefore expect a disproportionate rise in interracial/interethnic cohabitation among the less educated during the 1990s.

EDUCATIONAL UPGRADING

Upward socioeconomic mobility provides minorities with new opportunities for contact with whites in work and residential settings and, as a result, promotes boundary crossing between minority and majority groups (Alba and Nee 2003). Indeed, educational attainment, a measure of socioeconomic status, is a strong predictor of minority intermarriage with whites (Batson, Qian, and Lichter 2006; Rosenfeld 2005). For Asian Americans and Hispanics, intermarriage with whites increases with levels of educational attainment (Qian 1997). Intermarriage with whites is especially pronounced among highly educated Hispanics, who typically identify as white in the censuses (Qian and Cobas 2004). Strong effects of educational attainment point to the obvious importance of educational composition in shaping intermarriage patterns between minority and white populations. In fact, among Asian Americans, high intermarriage rates with whites can be explained in part by disproportionately more Asian Americans having college degrees (Xie and Goyette 2004). In the 1990s, the association between educational attainment and intermarriage may have increased for Hispanics and Asian Americans, especially if highly-educated, native-born minorities separated themselves culturally and socially from disadvantaged and poorly-educated immigrants. Less educated native-born minorities may be more likely than in the past to marry their immigrant counterparts, who comprise a growing share of the marriage pool.

that any growth in this pathway would seriously boost intermarriage trends, especially if we assume that mixed-race cohabiting couples are at a greater risk than homogenous couples to either break up or continue with this living arrangement.

Educational attainment or other measures of socioeconomic success, however, can not fully explain existing racial or ethnic differences in intermarriage with whites. Indeed, the unique historical experiences and institutional arrangements of each racial/ethnic minority community may play a more fundamental role in shaping contemporary intermarriage patterns (Nee and Sanders 2001). African Americans and American Indians—racial minorities with long histories in America—represent specific cases in point. African Americans are least likely of all minorities to marry whites (Blackwell and Lichter 2000; Harris and Ono 2004; Qian 1997). Although the educational attainment of African Americans, particularly the middle class, has increased rapidly in recent years, for various reasons, they remain highly segregated from whites in school, neighborhoods, and the workplace. College-bound African Americans often attend historically black colleges or colleges with large and potentially supportive black student bodies, which promotes in-group solidarity but limits opportunities for interracial contact with whites or other minorities (Jacobs 1997). Similarly, while racial residential segregation has declined slowly over recent decades, it remains much higher for African Americans than for other minorities (Iceland, Weinberg, and Steinmetz 2002; Neckerman, Carter, and Lee 1999). College-educated African Americans remain significantly underrepresented in America's predominantly white neighborhoods (Pattillo 2005). The legacy of past and current racial prejudice and discrimination against African Americans is clearly revealed in continuing physical and social isolation, which has the putative effects of reinforcing racial boundaries and historically low levels of intermarriage with whites (Omi and Winant 1994; Spickard 1989). As a result, we expect that changes in educational attainment among African Americans will continue to be weakly associated with interracial marriage with whites.

For American Indians, educational attainment has played a similarly weak role in intermarriage with whites, but for much different reasons. To be sure, American Indians have suffered a long and turbulent history as targets of racial prejudice and discrimination in the United States. But unlike the situation for African Americans, for whom marriages with whites were strongly discouraged historically and sub-

ject to legal penalties (e.g., anti-miscegenation laws) and informal sanctions (e.g., racial violence), American Indian-white marriages were tolerated (or even encouraged) for political and economic reasons (Sandefur and Trudy 1986). The result is that intermarriages with whites have in the past constituted a strikingly high percentage of all American Indian couples (well over 50 percent). Boundaries between American Indians and whites today are weak, especially when contrasted with intermarriages between African Americans and whites. The racial boundary also has been blurred by the large share of mixed-race, American Indian-white individuals. The effect of educational attainment on interracial marriage is likely to be weak as a result. Or, to use the terminology of Alba and Nee (2003), the boundaries between American Indians and whites have both shifted and blurred.

THE CURRENT STUDY AND A SUMMARY OF THE HYPOTHESES

Our fundamental goal is to update our understanding of contemporary patterns and recent changes in racial/ethnic intermarriage. Increases in intermarriage across racial/ethnic groups surely signal the crossing, blurring, and shifting of group boundaries and provide indirect evidence of acculturation and assimilation among racial/ethnic groups (Alba and Nee 2003; Kalmijn 1998). But, as we have argued, answers to seemingly straightforward questions about recent trends in intermarriage do not lend themselves to simple statistical analyses, especially in light of rapid changes in America's demographic makeup. Any interpretation of contemporary intermarriage patterns must take into account the rapid immigration of racially diverse populations, upswings in cohabitation, and differential shifts in educational attainment across racial/ethnic groups during the 1990s.

Our discussion and observations suggest the following hypotheses:

Hypothesis 1: The population growth of a minority population promotes in-group solidarity and enhances the likelihood of social contact and interaction within the group (Blau 1977; Blau, Becker, and Fitzpatrick 1984). Rapid increases of Hispanic and Asian American populations through immigration during the 1990s are there-

fore expected to dampen rates of intermarriage with whites. This slowdown is likely to occur primarily through two processes:

Corollary 1a: Immigrants are much less likely to marry whites than are their native-born counterparts.

Corollary 1b: Less educated native-born minorities are likely to benefit more from the expanded marriage pools due to new immigrants' lower status and education levels. Thus, less educated native-born Hispanics and Asian Americans are more likely to experience a slowdown in intermarriage with whites than are their highly educated counterparts.

Hypothesis 2: Cohabitation affects changes in intergroup relationships differently among racial/ethnic and educational groups. The groups with the lowest levels of intermarriage are most likely to experience increases in cohabitation in the 1990s.

Corollary 2a: Cohabitation with whites for African Americans is more likely to increase than for other racial/ethnic groups.

Corollary 2b: Cohabitation with whites for less educated minorities is more likely to increase than for their highly educated counterparts.

Hypothesis 3: Because of Corollary 1b, the effect of education on intermarriage with whites is likely to increase in the 1990s for Hispanics and Asian Americans, as the social distance between the low- and high-educated minority populations increases with the new immigrant infusion. In contrast, the effect of education on intermarriage is likely to be small and to have changed little in the 1990s for African Americans and American Indians, whose populations remain predominantly native-born.

DATA AND METHODS

DATA AND MEASUREMENT

The data for this study come from the Integrated Public Use Microdata (IPUMS) 5-percent sam-

ples of the 1990 and 2000 Censuses. We distinguish among whites, African Americans, American Indians, Asian Americans, and Hispanics. Hispanics include individuals of any race who identify themselves as being of Hispanic/Spanish/Latino origin in the 1990 and 2000 census schedules. In 2000, multiracial individuals could report more than one race for the first time. The overwhelming majority of multiracial individuals report white race and a minority race, rather than two or more minority races (Tafoya, Johnson, and Hill 2004). As we describe later, we use a cohort approach to explore—at the aggregate level—how multiracial individuals in 2000 may have reported their race in the 1990 census (Mason and Fienberg 1985).

Recent censuses do not include questions about the date of one's first marriage or the order of one's current marriage. Our sample therefore contains only currently-married couples, which may yield biased results if marital disruption rates differ by marriage duration and order or if interracial marriages are less stable than endogamous marriages (Jacobs and Furstenberg 1986). To reduce this potential bias, our analyses include only married couples ages 20 to 34 at the time of each census. Unlike the situation for older couples, marriages among young adults are likely to have been formed recently and are less likely to have experienced either divorce or remarriage. Interracial marriages may nevertheless be underestimated if marriages at older ages are more likely to be interracial than those at younger ages (Porterfield 1982).

Our objective is to examine recent trends in intermarriages contracted in the United States. The censuses, however, do not allow us to distinguish marriages contracted within the United States from those contracted overseas. To reduce the number of marriages contracted in other countries, we limit the foreign-born sample to persons who immigrated to the United States before age 20 (Qian and Lichter 2001). The large majority of these immigrants are likely to have been single when they arrived. In fact, a large share came as young children and were exposed to the U.S. public school system and other American institutions. Their mate selection patterns were shaped by marriage market conditions in the United States and are comparable to their native-born minority counterparts.

The 1990 and 2000 censuses included, for the first time, information on unmarried partners in cohabiting unions. To make appropriate comparisons with our married sample, we create a sample of cohabiting couples in the same age group (i.e., 20 to 34) by linking householders with their unmarried opposite sex partners. We do not consider same-sex couples because it makes comparability with our heterosexual married sample problematic.

LOG-LINEAR MODELS

Log-linear models are the gold standard for most statistical analyses of intermarriage patterns (Harris and Ono 2004; Qian 1997; Schwartz and Mare 2005). Their chief advantage is in estimating associations between spouses' characteristics (e.g., education or race) while controlling for husband-wife differences in the marginal distributions of these characteristics. This is important if the marginal distributions for spouses are different (e.g., imbalanced sex ratios among African Americans) or if they have changed over time (e.g., women's educational upgrading).

For our purposes, we introduce two series of log-linear models. We first analyze the number of marriages by husbands' and wives' race/ethnicity (five categories each), nativity (i.e., native-born and foreign-born), and year (1990 or 2000). We combine race/ethnicity and nativity into one variable so cross-nativity marriages can be easily measured (Qian and Lichter 2001). The cross-tabulation of husbands and wives has a total of 200 cells ($10 \times 10 \times 2$). The basic log-linear model takes the following form:

$$\log F_{ijt} = \beta_0 + \beta_i^{HR} + \beta_j^{WR} + \beta_i^T + \beta_{it}^{HRT} + \beta_{jt}^{WRT}, \quad (1)$$

where F_{ijt} is the expected number of marriages between husbands in race/ethnicity/nativity i and wives in race/ethnicity/nativity j at time t ; β_0 is the constant; and $\beta_i^{HR}(\beta_j^{WR})$ denotes husbands' (wives') race/ethnicity/nativity (i or j = non-Hispanic white, African American, American Indian, Asian American, and Hispanic that are native born, and each of the five categories that are foreign-born). In addition to controlling for the marginal distributions, we also account for the two-way interactions between race/ethnicity/nativity and year for husbands

and wives, respectively ($\beta_{it}^{HRT}, \beta_{jt}^{WRT}$). Then, we replicate the analysis for cohabiting unions.

The second series of models adds educational attainment. The cross-tabulation of husbands' and wives' education totals 3,200 cells ($10 \times 10 \times 4 \times 4 \times 2$). The baseline model takes the form:

$$\log F_{ijmnt} = \beta_0 + \beta_i^{HR} + \beta_j^{WR} + \beta_m^{HE} + \beta_n^{WE} + \beta_t^T + \beta_{imt}^{HRET} + \beta_{jnt}^{WRET}, \quad (2)$$

where F_{ijmnt} is the expected number of marriages between husbands in race/ethnicity/nativity i and education m , and wives in race/ethnicity/nativity j and education n at time t . In addition to the parameters defined above, β_m^{HE} (β_n^{WE}) denotes husbands' (wives') educational attainment (m or n = no high school diploma, high school diploma, some college, and college degree and above). Our analyses also account for all two-way and three-way interactions between race/ethnicity/nativity, educational attainment, and year for husbands and wives, respectively ($\beta_{imt}^{HRET}, \beta_{jnt}^{WRET}$). Statistically significant three-way interactions indicate that racial/ethnic distributions of men and women vary across educational attainment and time.

RESULTS

CHANGING LEVELS OF INTERRACIAL/INTERETHNIC MARITAL AND COHABITING UNIONS

DESCRIPTIVE RESULTS. We begin by updating previous studies of intermarriage based on 1990 and earlier data (Fu 2001; Qian 1997; Rosenfeld 2001). Specifically, we present evidence of recent changes in intermarriage—married partners with a different race or ethnicity—between 1990 and 2000. Figure 1 reveals large differences in intermarriage across racial/ethnic groups among single-race, married individuals. Intermarriage is lowest among whites (less than 5 percent) and highest among American Indians (about 60 percent) in both 1990 and 2000. To be sure, differences in population size for each group account for part of the racial/ethnic variation in intermarriage. For example, the Asian American population is much smaller in size than the white population, which means that one Asian American-white marriage affects the percentage intermarried much more for Asian Americans than for whites. Among married individuals ages 20 to 34 in our sample, Hispanics are almost twice as numerous as

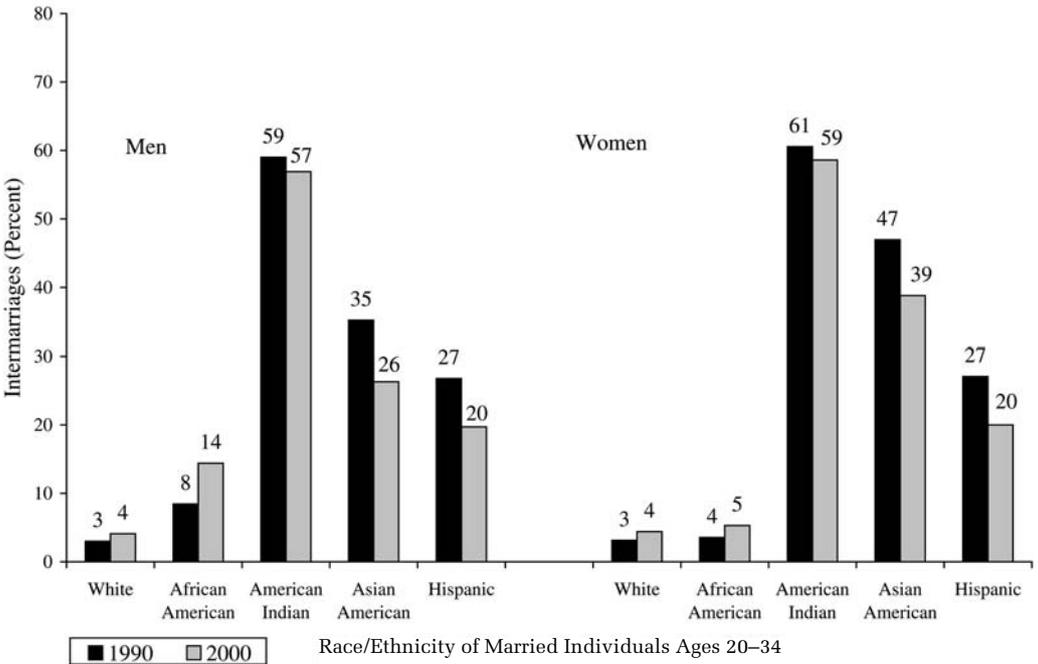


Figure 1. Percent of Intermarriages Among Married Individuals, Ages 20-34, 1990 and 2000

Table 1. Racial Classifications in 1990 and 2000 for the Cohort Born in the U.S. Between 1965 and 1980

	White	African American	American Indian	Asian American
Single Race Individuals, Ages 10–24 in 1990 (1)	36,464,740	7,234,400	484,811	555,152
Single Race Individuals, Ages 20–34 in 2000 (2)	35,222,672	6,870,468	459,721	516,698
Row (2) + Multiracials Within the Reported Race, Ages 20–34 in 2000 (3)	35,839,650	7,073,569	764,670	723,249
Row (2) + White Biracials Within the Reported Race, Ages 20–34 in 2000 (4)	35,662,679	6,964,396	681,596	640,902
Row (2) × 100 / Row (1)	96.6	95.0	94.8	93.1
Row (3) × 100 / Row (1)	98.3	97.8	157.7	130.3
Row (4) × 100 / Row (1)	97.8	96.3	140.6	115.4

Note: Sample weights are used.

African Americans, which places downward demographic pressure on rates of intermarriage. Yet, as shown in Figure 1, intermarriage is much higher for Hispanics than for African Americans (e.g., four times greater among Hispanic women than African American women in 2000). In this case, differences in group size cannot account for the lower percentage of intermarriages for African Americans than for Hispanics.

Sex differences in interracial marriage are modest among whites, Hispanics, and American Indians, but are substantial among African Americans and Asian Americans. In 2000, only 5 percent of African American women, compared with 14 percent of African American men, were in racially-mixed marriages. On a percentage point basis, the sex difference was even larger, but in the opposite direction, among Asian Americans—only 26 percent of men but 39 percent of women married interracially in 2000 (see Jacobs and Labov 2002).

As shown in Figure 1, interracial marriages increased among whites and African Americans, but declined unexpectedly during the 1990s for Hispanics, Asian Americans, and American Indians. This is a new pattern—one that poses important questions about assimilation and the inevitability of growing intermarriage among America's newly-arrived and racially-diverse immigrant population. Indeed, for Hispanics and Asian Americans, the significant upward trend in intermarriage observed over recent censuses has ended.

Before we conclude that this reversal represents a clean break from the past or that it signals a strengthening of social or cultural boundaries that separate these groups from whites, we need a better understanding of other

demographic shifts that may have confounded statistical trends in intermarriage and perhaps rendered firm conclusions ambiguous. We have identified four potential sources of recent changes in interracial marriage, which we address with our analyses below.

CHANGES IN RACIAL CLASSIFICATION. Multiracial individuals could self-identify only as a single race in the 1990 census, but as more than one racial group in the 2000 census. The lack of comparability in measurement makes observed changes in racial intermarriage over this period difficult to interpret, especially if mixed-race individuals are more likely to outmarry but are excluded from the analyses of 1990 and 2000 changes. It is unclear whether observed changes in interracial marriage are a measurement artifact or reflect true changes.

To place this measurement issue in proper context, we begin with a simple demographic exercise. Census data do not track individual interdecade changes in racial identification, but a cohort method is useful for exploring aggregate-level changes in racial identification between the two censuses. Specifically, we compare how the native population born between 1965 and 1980 reported its race in 1990 when this population cohort was ages 10 to 24 years old and in 2000 when it was ages 20 to 34. Table 1 presents the results of this comparison.² There were 36,464,740 native-born whites

² Table 1 presents weighted estimates for the birth cohort. To be sure, the native born ages 10 to 24 in 1990 may be greater than those ages 20 to 34 in

ages 10 to 24 in 1990 and 35,222,672 such individuals ages 20 to 34 in 2000. The latter accounted for 96.6 percent of the population in 1990. Including multiracial whites, the white population in 2000 accounted for 98.3 percent. In other words, 1.7 percent of the white population, or about 620,000 individuals, were single-race white in 1990 but became multiracial white in 2000. Of those, over 70 percent are African American-white, American Indian-white, and Asian American-white biracial. In contrast, the single-race populations in 2000 were about 94 percent of the 1990 populations for African Americans, American Indians, and Asian Americans. When multiracial American Indians and Asian Americans are included, their single-race populations increased by 57.7 percent and 30.3 percent, respectively, compared to the 1990 populations. Including only American Indian-white and Asian American-white biracial populations increased the single-race populations by 40.6 percent and 15.4 percent, respectively. Clearly, American Indian-white and Asian American-white individuals in 2000 were mostly identified as white in 1990. Proportionately, there were far fewer African American-white individuals. Changes in racial classification appear to have had little effect for African Americans.

We now examine how intermarriage and intergroup cohabitation respond to changes from a single-race classification system to a multiple-race system.³ Column 2 of Table 2 presents the percentage of intermarriages for the single-race, native-born population; i.e., multiracial individuals are excluded. In Column 3, we present percentages of intermarriages in which multiracial whites are counted as white, while multiracial minority individuals in Column 4 are counted as belonging to the reported minority race.⁴ As expected, the inclusion of multiracial individuals elevates the percentage of racial intermarriage. The reason is

clear: biracial individuals are more likely than single-race persons to marry across racial boundaries. From a substantive standpoint, this implies that any upward trend in interracial marriage gathers momentum on its own from generation to generation as racial categories blur (Labov and Jacobs 1998). Yet, a closer inspection of the percentages in Columns 3 and 4 also reveals that intermarriage is much lower when biracial American Indians and Asian Americans are counted as whites rather than as minorities. This pattern means that these biracial populations are more likely to marry whites than they are to marry individuals with whom they share the minority racial background.

Since American Indian-white and Asian American-white individuals identified mostly as white in 1990, and they mostly married whites, they probably would have chosen white in 2000 if the new multiracial classification had not been introduced. These results suggest that changes in intermarriage in the 1990s are more comparable when biracial American Indians and Asian Americans are classified as white. Of course, the increases in intermarriage with this classification are smaller compared to those when biracial Indian Americans and Asian Americans are classified as minorities, as shown in Columns 3 and 4 of Table 2. This suggests that the social boundaries that separate minorities from whites are blurred for these mixed-race individuals. Our analysis also shows that the common practice of simply excluding mixed-race individuals would artificially lower observed intermarriage rates and changes over the decade.

Classifying African American-white individuals as either white or African American makes little difference in measured intermarriage patterns, which is easily explained. Low levels of intermarriage between whites and African Americans in the past have meant fewer mixed-race progeny; the number of mixed-race African Americans is simply too small to significantly affect estimates of African American-white intermarriage. More importantly, mixed-race African Americans, who have historically identified themselves as black (i.e., the "one-drop" rule), have been unlikely to classify themselves as multiracial (Davis 1991; Qian 2004). Indeed, when white multiracial individuals are included in each minority group, they account for only about 3 percent of the

2000 due to emigration or mortality. This factor, nevertheless, is small. We thank Jerry Jacobs for suggesting this cohort analysis.

³ Hispanics are not a racial group and are thus unaffected by changes in racial definition.

⁴ Individuals who reported two minority races are included in each minority group but the number of these cases is too few to change the percentage values.

Table 2. Percent of Inter marriages or Intercohabitations by Race/Ethnicity and Sex, 1990–2000

Race/Ethnicity by Sex	Percent Inter marriages for the Native Born				Percent Inter marriages for Immigrants		Percent Intercohabitation for the Native Born	
	1990	2000		1990	2000	1990	2000	
	(1)	Single Race Only (2)	Multiracial White as White (3)	Multiracial Minority as Minority (4)	(5)	Multiracial White as White (6)	(7)	Multiracial White as White (8)
Men								
White	3.0	4.0	4.1	4.6	6.0	7.9	5.6	6.5
African American	8.3	14.2	14.9	15.4	14.1	19.4	14.7	21.9
American Indian	58.8	56.8	57.4	63.3	75.0	64.9	36.6	40.3
Asian American	50.2	45.8	47.3	55.4	26.1	20.6	56.4	53.7
Hispanic	35.3	31.9	31.9	31.9	14.7	8.7	45.3	38.9
Women								
White	3.1	4.3	4.5	4.9	5.2	8.7	7.2	9.5
African American	3.3	5.0	5.3	6.0	11.3	11.4	5.6	6.2
American Indian	60.3	58.5	59.2	64.7	76.7	67.5	40.2	41.5
Asian American	58.3	59.6	61.0	67.3	41.0	32.7	67.8	66.3
Hispanic	34.2	30.7	30.7	30.7	14.6	7.9	40.8	36.0

Note: Hispanics are not affected by multiple racial classification.

African American sample, but about 35 percent of the American Indian and Asian American samples.⁵ Unlike the situation for African Americans, the mixed-race American Indian-white and Asian American-white populations have played instrumental roles in blurring racial divisions. This process may accelerate with increasing shares of mixed-race individuals, which will potentially redefine the character of racial boundaries that separate whites from American Indians and Asian Americans. Mixed-race African American-white individuals, however, have played a small role in this regard, indicating the continuing salience and persistence of social boundaries between the two groups. There has been little blurring of black-white boundaries.

Because the American Indian-white and Asian American-white biracial population most-

ly identified as white in 1990, we classify white-minority individuals as white from this point on to document changes in interracial marriage in the 1990s.⁶ As shown in Table 2, changes in interracial marriage in the 1990s were modest for the native-born population. Whites and African Americans experienced some increases in intermarriage. The increase was most notable for African American men, up from 8.3 percent in 1990 to 14.9 percent in 2000. Although the percent of intermarriages among their native-born African American female counterparts nearly doubled in the 1990s, it increased only modestly, from 3.3 to 5.3 percent. Intermarriage rates were considerably higher among native-born American Indians, Asian Americans, and Hispanics but, in contrast to African Americans, they generally declined over

⁵ The results are obtained based on the information shown in the expanded Table 2, described in the Online Supplement on the *ASR* Web site: <http://www2.asanet.org/journals/asr/2007/toc055.html>. For example, the share of African American-white individuals to the African American sample is $[(25,908 - 25,080) + (23,343 - 22,696)] \times 100 / (25,908 + 23,343) = 2.8\%$.

⁶ The demographic exercise shown in Table 1 is inconclusive with regard to how multiracial African Americans identified their race in 1990. Proportionately, there are few reported multiracial African Americans. It has little effect on changes in interracial marriage whether African American-white individuals are classified as white or African American. For consistent comparisons with other multiracial individuals, we classify them as white.

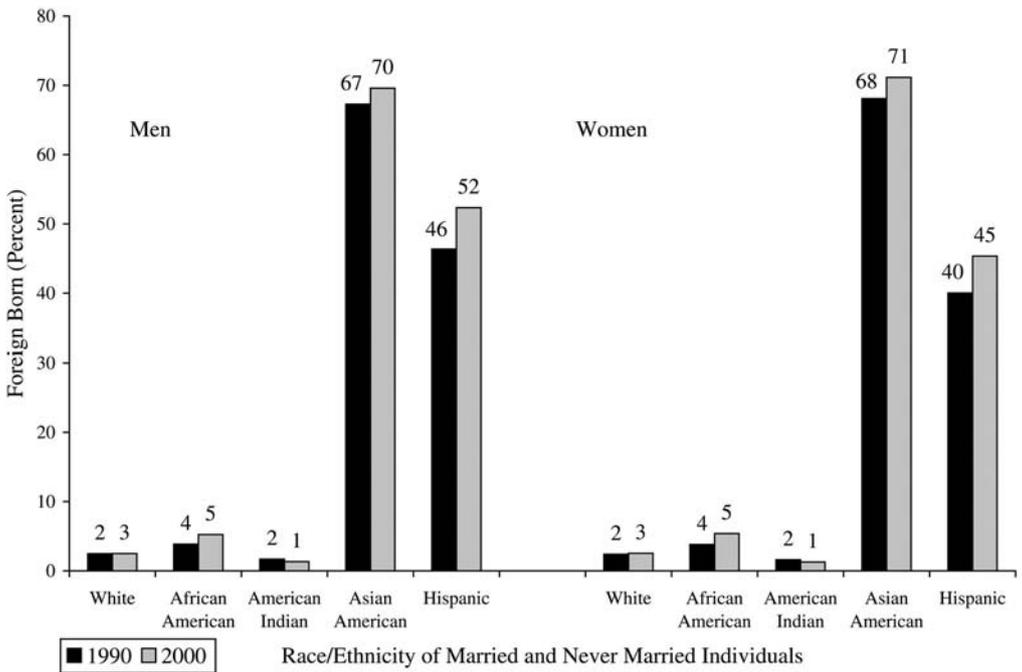


Figure 2. Percent of the Foreign Born Among Married and Never Married Individuals, Ages 20–34, 1990 and 2000

the decade. The percent of intermarriages, for example, declined by 3 percentage points during the 1990s, down from the 1990 figures of 35.3 percent and 34.2 percent among Hispanic men and women, respectively. Asian American women were the only exception to this general pattern; for them, intermarriage increased slightly, from 58.3 percent in 1990 to 61.0 percent in 2000.

CHANGES IN IMMIGRATION. The immigrants in our sample accounted for 7 percent of married and never married individuals ages 20 to 34 in 1990 but reached 12 percent in 2000 (data not shown). As shown in Figure 2, the foreign-born composed a larger share of the Hispanic and Asian American populations than they did for other racial groups.⁷ Among Asian Americans,

the immigrant share increased during the 1990s by three percentage points from 67 to 70 percent and 68 to 71 percent, respectively, for men and women. The immigrant share increased more sharply for Hispanics, from 46 to 52 percent for men and from 40 to 45 percent for women. Consequently, increasing shares of the foreign-born among Asian American and Hispanic populations are likely to slow upward trends in racially-mixed marriages.

Not only has the share of immigrants grown, but native-born/foreign-born differences in intermarriage among Asian Americans and Hispanics grew relatively more rapidly in the 1990s than for other racial groups. As shown in Columns 5 and 6 in Table 2, interracial marriage rates were higher for the foreign-born than for their native-born white, African American, and American Indian counterparts.⁸ In striking con-

⁷ As noted earlier, we excluded immigrants arriving in the United States at age 20 or older because they are likely to be married at the time of entry and faced with different marriage market conditions. We calculated the share of immigrants based on never married and married individuals ages 20 to 34 in

1990 and 2000 to capture marriage market conditions. The shares of immigrants were higher among the married than among the never married.

⁸ Very few American Indians were foreign born. However, of the foreign born, most reported their birthplaces to be Canada, Mexico, or South America.

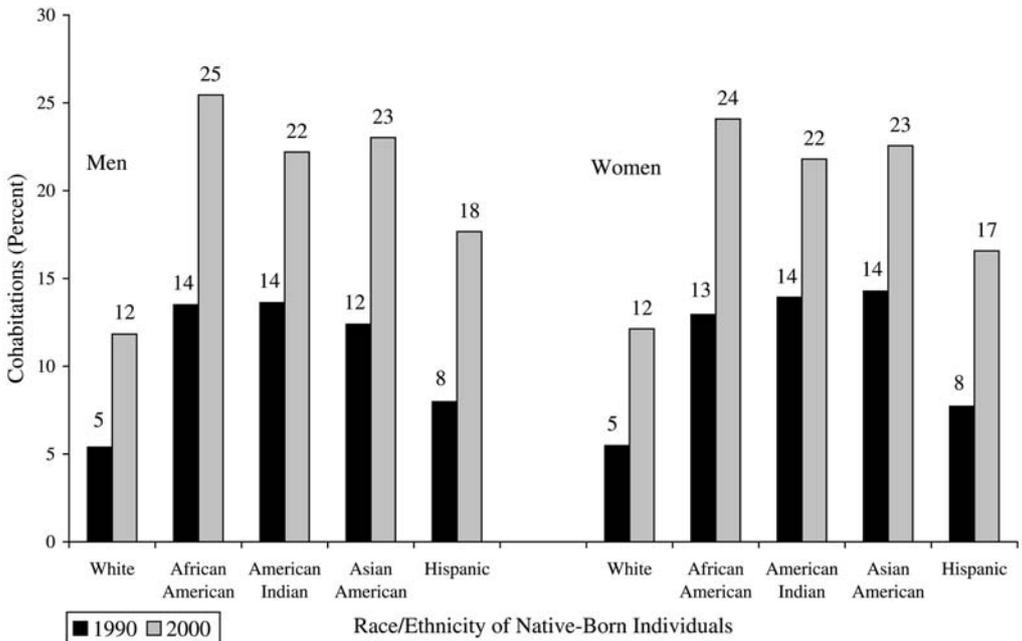


Figure 3. Percent of Cohabitations Among Native-Born, Married and Cohabiting Individuals, Ages 20–34, 1990 and 2000

trast, intermarriage rates among immigrant Asians and Hispanics were substantially lower than their native-born counterparts. They also declined significantly during the 1990s. Intermarriages accounted for only 20.6 percent and 32.7 percent of all marriages in 2000, respectively, among Asian immigrant men and women. Intermarriage rates were even lower among Hispanic immigrants (8.7 and 7.9 percent for men and women, respectively). Clearly, the growing pool of Hispanic and Asian immigrants has given demographic impetus to racially homogamous marriages among immigrants themselves, and it also has slowed the pace of intermarriage for their native-born counterparts—an issue to which we will return.

CHANGES IN COHABITATION. In our native-born sample of married and cohabiting individuals, the share of cohabiting unions shifted upward in the 1990s for all racial/ethnic groups. Figure 3 shows that the share of cohabiting couples among all white couple unions increased from 5 percent in 1990 to 12 percent in 2000. The percentage share of cohabiting unions was highest among native-born African Americans, accounting for about a quarter of all their unions

in 2000. If cohabiting couples are more likely to be racially mixed (Blackwell and Lichter 2000), then the rise in cohabitation during the 1990s may have placed downward pressure on interracial marriage rates.

However, our results do not support this hypothesis. Instead, our results indicate that recent increases in cohabitation have gone hand-in-hand with increasing shares of interracial marriages. Interracial couples choosing to cohabit have not siphoned off couples that would have otherwise married. Indeed, for African American men, as shown in Table 2, intermarriages increased from 8.3 percent to 14.9 percent over the 1990s, while intergroup cohabitation rates grew from 14.7 percent to 21.9 percent. Mixed-race relationships represent a disproportionately larger percentage among cohabiting than married couples, except in the case of American Indians. This finding confirms results from previous studies based on the 1990 census (Blackwell and Lichter 2000). More importantly, for African Americans, the upward trend in interracial unions during the 1990s was similar for marriage and cohabitation. Increases in cohabiting unions in the 1990s, especially interracial cohabitations, did not off-

set the continuing upward trend in African American-white intermarriage.⁹

CHANGES IN EDUCATIONAL ATTAINMENT. Historically, rising educational attainment among racial/ethnic minorities provides a necessary but insufficient condition for rising intermarriage rates with whites (i.e., education breaks down social, occupational, and residential barriers between groups). Table 3 presents changes in educational composition among never married and married individuals ages 20 to 34 in 1990 and 2000. For the native-born population, rising educational attainment in the 1990s was distributed unevenly across racial/ethnic groups. For example, over two-fifths of Asian Americans, but only a little over one-tenth of African Americans and Hispanics had completed a college education in 2000. For the foreign-born population, rising educational attainment was much less apparent. Foreign-born whites and blacks had higher educational attainment than their native-born counterparts. Foreign-born Asians were not as highly educated as their native-born counterparts, but they nevertheless showed declining shares with a high school degree or less during the 1990s and, like native-born Asian Americans, had higher educational levels than native-born whites. Foreign-born Hispanics, on the other hand, had lower educational attainment in 2000, with increasing shares having a high school education or less and a declining percentage having college educations. The substantive implication seems clear: for the Hispanic population, the rise in immigration is presumably associated with some erosion in economic status (or education) relative to whites and, perhaps, with declines in intermarriage rates with whites.

To address this question, Table 4 presents the percentage of intermarriages by educational attainment and nativity. Our data reveal that increases in intermarriage rates were modest for native-born whites during the 1990s—with in one to two percentage points for each edu-

cational category—but slightly larger for women than for men. In general, intermarriage increased with increasing levels of educational attainment, except among African Americans. Among native-born blacks, low intermarriage with whites reflects continuing large racial barriers, regardless of education. On the other hand, increases in intermarriage during the 1990s among African Americans were large at every educational level. They were especially pronounced among African American men (for example, 15.0 percent in 2000 among those with less than a high school education, up from 6.5 percent in 1990). For native-born American Indians and Hispanics, on the other hand, intermarriage declined at every educational level. Native-born Asian Americans exhibited a bifurcated pattern: intermarriage declined sharply for those with less education, but changed little or even increased for those with higher levels of educational attainment.

White and black immigrants had higher levels of intermarriage than their native-born counterparts and had similar increases in intermarriage in the 1990s. But, perhaps surprisingly, educational differences in intermarriage rates were small. In contrast, foreign-born Asians and Hispanics (1) had lower intermarriage rates than their native-born counterparts at every educational level, (2) experienced declines in intermarriage in the 1990s at every educational level, and (3) exhibited exceptionally large educational differences in interracial marriage. For example, intermarriages accounted for only 9.3 percent and 1.5 percent of all marriages in 2000, respectively, among foreign-born Asian and Hispanic women with less than a high school education. Intermarriages accounted for 36.4 percent and 36.0 percent, respectively, of all marriages among their counterparts with college educations or more.

In sum, our results show that recent changes in racial classification, along with demographic shifts in immigration, cohabitation, and educational attainment, are associated with changing patterns of intermarriage in the 1990s. Indeed, multiple racial classifications have made unambiguous interpretations of changing intermarriage rates difficult. By defining multiracial white individuals as white, however, we increased the comparability of the 2000 data with the 1990 racial classification system. Our results indicate that the 1990s brought increas-

⁹ One caveat is that sex differences in endogamous cohabitation were particularly large for African Americans. African American men were more likely to be in interracial marital unions, and even more likely to be in interracial cohabiting unions, than were African American women.

Table 3. Percentage Distributions of Educational Attainment by Race/Ethnicity and Nativity Among Never Married and Married Individuals, Ages 20–34, 1990 and 2000

	Less than High School		High School		Some College		College and Above	
	1990	2000	1990	2000	1990	2000	1990	2000
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Native Born								
White	8.4	7.0	35.5	30.3	34.9	37.4	21.3	25.3
Black	16.5	14.7	42.9	40.7	31.4	33.4	9.2	11.2
American Indian	21.4	17.0	43.7	42.8	29.4	33.0	5.5	7.2
Asian	2.8	3.0	18.0	14.3	40.8	39.5	38.5	43.2
Hispanic	19.7	17.9	38.2	36.4	32.8	34.7	9.3	11.0
Foreign Born								
White	8.0	6.6	28.4	25.2	36.9	37.1	26.7	31.1
Black	9.0	9.3	31.3	31.8	40.6	40.0	19.0	18.9
American Indian	15.2	20.5	37.2	29.7	33.2	33.0	14.4	16.8
Asian	8.8	6.9	23.5	20.9	40.6	36.8	27.1	35.4
Hispanic	46.8	47.8	28.2	31.0	19.3	16.3	5.8	4.8

Note: For each racial/ethnic and nativity group, columns (1) + (3) + (5) + (7) or columns (2) + (4) + (6) + (8) may not sum up to 100 percent due to rounding errors.

Table 4. Percent of Intermarriages by Educational Attainment, Race/Ethnicity, and Sex, 1990–2000

Race/Ethnicity	Less than High School		High School		Some College		College and Above	
	1990	2000	1990	2000	1990	2000	1990	2000
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Native Born								
Men								
White	2.4	3.1	2.6	3.6	3.5	4.6	3.2	4.4
Black	6.5	15.0	6.9	12.4	10.1	17.3	10.0	16.3
American Indian	52.7	49.8	55.3	51.6	64.5	63.9	76.7	73.1
Asian	73.5	44.0	57.9	57.7	54.0	55.8	43.3	41.1
Hispanic	21.3	18.4	30.6	27.5	43.4	38.0	55.9	51.5
Women								
White	4.1	5.9	3.0	4.6	3.3	4.9	2.6	3.4
Black	2.5	4.3	2.5	4.2	4.1	6.3	4.1	5.7
American Indian	52.4	50.0	58.5	53.2	63.7	63.1	77.4	74.9
Asian	66.7	41.7	68.5	64.9	56.4	61.5	55.7	60.8
Hispanic	16.4	13.7	30.1	24.6	41.9	36.1	60.1	54.3
Foreign Born								
Men								
White	3.7	9.8	5.2	7.3	7.1	8.8	6.4	7.1
Black	7.1	19.1	13.2	17.1	14.0	20.9	16.2	19.6
American Indian	—	—	—	—	—	—	—	—
Asian	15.7	8.7	25.0	16.8	29.7	24.6	25.9	21.3
Hispanic	6.9	4.3	14.8	9.3	25.2	17.0	42.6	34.0
Women								
White	5.9	12.7	5.3	9.4	5.8	9.9	4.0	6.4
Black	13.2	9.1	10.1	7.5	12.9	12.1	9.1	14.7
American Indian	—	—	—	—	—	—	—	—
Asian	32.2	9.3	43.8	25.9	43.4	36.4	39.2	36.4
Hispanic	3.1	1.5	14.9	6.9	28.1	18.7	47.0	36.0

Note: Percentages for foreign-born American Indians are not reported because the number of cases is too few for each category (fewer than 30).

es in interracial unions among whites and African Americans, but unexpected downward shifts in racial exogamy in the marital and cohabiting unions of American Indians, Asian Americans, and Hispanics. Consistent with our hypothesis, immigration appears to be strongly associated with declining levels of intermarriage, particularly among Hispanics. On the other hand, rising cohabitation among African Americans during the 1990s did not offset the continuing upward trend in intermarriage. Educational attainment has increased among the native-born population (regardless of race/ethnicity), but intermarriage among native-born Hispanics nevertheless appears to have declined over the decade.

MODELING CHANGES IN INTERACIAL/INTERETHNIC MARRIAGE AND UNIONS

Although our descriptive results are informative, they do not control for (changing) marginal distributions of variables (e.g., education or nativity) that sort men and women into marriage or cohabitation. The percentages of intergroup unions are affected by the changing size of each racial/ethnic group, sex ratios, and educational compositions (Qian 1997; Schwartz and Mare 2005). We therefore apply log-linear models to cross-classified data of partners' characteristics. The main benefit of such models is their ability to control for the changing marginal distributions of education and other variables while isolating the independent effects of education and other variables on each type of intermarriage. They also provide evidence whether recent declines in intermarriage (especially among Hispanics and Asian Americans) can be attributed to changes in the share of immigrants, cohabiting unions, and highly educated groups in the population in the 1990s.

Table 5 presents likelihood-ratio chi-square statistics for selected models of mate selection fitted to cross-classified data. Our log-linear models predict marriages or cohabiting unions that meet our selection criteria. The model series are based on racial/ethnic and nativity pairings and time (i.e., 1990 and 2000). Model A1, the independence model, is described by Equation 1. This model assumes, unrealistically, that marriages are completely random with respect to race/ethnicity and nativity. Not surprisingly, the

predicted counts for each racial/ethnic and nativity pairing cannot reproduce the observed data (i.e., the cell counts in our cross-tabulations). The poor fit of the model is indicated by a large log-likelihood ratio and BIC statistic. The results suggest that race/ethnicity and nativity are important criteria in the mate selection process.

To evaluate statistical associations, we add a set of race/ethnicity and nativity parameters in Model A2. The model includes symmetry parameters for all cells off the diagonal—white-African American, white-American Indian, white-Asian American, white-Hispanic, African American-American Indian, African American-Asian American, African American-Hispanic, American Indian-Asian American, American Indian-Hispanic, and Asian American-Hispanic cells—by nativity combination. The model fit improves significantly compared to Model A1. The BIC statistic declines from 729,430 to -247, indicating an even better fit than the saturated model (in which BIC = 0). The results suggest exceptionally strong patterns of assortative mating by race/ethnicity and nativity. When we add parameters that account for changes over time, the model fit again improves (BIC = -643). The results for cohabiting unions, as shown in the Model B series, yield patterns similar to those from the Model A series on married couples.¹⁰

The Model C series further classifies the number of marriages by educational levels of spouses. Model C1, described by Equation 2, controls for the marginal distributions of race/ethnicity, nativity, educational attainment, and time for husbands and wives. Model C2 adds race/ethnicity and nativity parameters included in the previous model series. The model fit improves significantly, as evidenced by a drop in the BIC statistic from 1,090,101 to 360,190. Model C3 adds educational parameters (both have at least a college degree, some college, high school diplomas, less than a high school education, and one level difference in educational attainment between the spouses).

¹⁰ Some of the cells by race/ethnicity and nativity pairing for the cohabiting sample are zero, so we add .5 to each cell to prevent the parameters from being underdefined. This practice produces unbiased estimates of the population parameters (Agresti 2002).

Table 5. Likelihood-Ratio Chi-Square Statistics for Selected Models of Assortative Mating, 1990–2000

	L ² (1)	df (2)	BIC (3)
Modeling Marriages by Racial/Ethnic and Nativity Combinations, 1990–2000			
A1. men's race and nativity × time + women's race and nativity × time	731,654	162	729,430
A2. A1 + symmetry parameters	1,359	117	-247
A3. A1 + symmetry × time	345	72	-643
Modeling Cohabitation by Racial/Ethnic and Nativity Combinations, 1990–2000			
B1. men's race and nativity × time + women's race and nativity × time	91,793	162	89,936
B2. B1 + symmetry parameters	213	117	-1,128
B3. B1 + symmetry parameters × time	102	72	-723
Modeling Marriages by Racial/Ethnic, Nativity, and Educational Combinations, 1990–2000			
C1. men's race and nativity × men's education × time + women's race and nativity × education × time	1,131,853	3,042	1,090,101
C2. C1 + race and nativity symmetry	401,334	2,997	360,199
C3. C2 + education parameter	24,274	2,992	-16,792
C4. C1 + race and nativity symmetry × education parameter	19,416	2,767	-18,562
C5. C4 + race and nativity symmetry × time + education parameter × time	18,333	2,717	-18,959
C6. C1 + race and nativity symmetry × education parameter × time	18,025	2,492	-16,179

This model, given its negative BIC statistic, is preferred over the saturated model. Model C4 includes the interactions of the racial/ethnic and nativity parameters and educational parameters, allowing for interracial/interethnic and internativity marriages to differ by educational parameter. We then add the interactions with time in Model C5, which has the best fit as indicated by the lowest BIC value.

In substantive terms, the preceding analyses suggest that much of the association in the cross-classified data can be attributed to the strong and perhaps growing statistical association between married couples' education, racial/ethnic, and nativity pairings. Finally, Model C6 includes the three-way interactions of race/ethnicity and nativity parameters, educational parameters, and time period. Although the model is not as parsimonious as Model C5, it allows us to examine temporal changes in intermarriage by education.

CHANGES IN INTERMARRIAGE BY RACIAL/ETHNIC AND NATIVITY PAIRING. Table 6 presents the predicted number of exogamous marriages for 1,000 endogamous marriages or cohabitations, while controlling for marginal distributions. The estimates for marriage are calculated from the parameters of Model A3 and the estimates for cohabitation are from Model B3. For

example, the predicted number of African American-white marriages is nine in 1990 and 18 in 2000 per 1,000 racially endogamous marriages. The increases in African American-white marriages in the 1990s are statistically significant at the .001 level.

The intermarriage ratios presented in Table 6 suggest several important findings. First, intermarriage and intergroup cohabitation with whites were most likely among native-born Hispanics, followed by American Indians and Asian Americans, and finally by African Americans. Clearly, persistent differences in the racial hierarchy of intermarriage are not a simple product of sex ratio imbalances or the changing native- and foreign-born mix.

Second, intermarriage with whites increased significantly among native-born Asian Americans and Hispanics, by 36 percent and 13 percent, respectively. Significantly, these multivariate results are different from the modest 1990s' declines in intermarriage reported in Table 2. Such results suggest that controlling for temporal changes in marginal distributions for these two groups has a significant impact on intermarriage patterns. The clear interpretation is that immigration (as measured by changes in the nativity composition of the population), which has expanded the pool of marriageable partners for Asian Americans and Hispanics, has slowed down the rate of increase in intermar-

Table 6. Predicted Number of Interracial/Interethnic Marriages and Cohabiting Unions Relative to 1,000 Endogamous Marriages/Cohabiting Unions

Couples	Marriage		Cohabitation	
	1990 (1)	2000 (2)	1990 (3)	2000 (4)
Native-Born White/Native-Born Black	9	18***	32	41***
Native-Born White/Native-Born American Indian	80	80	63	59
Native-Born White/Native-Born Asian	45	61***	96	96
Native-Born White/Native-Born Hispanic	97	110***	148	153
Native-Born White/Foreign-Born Black	5	7***	12	11
Native-Born White/Foreign-Born American Indian	20	12*	26	10
Native-Born White/Foreign-Born Asian	28	31**	96	64***
Native-Born White/Foreign-Born Hispanic	27	22***	35	32
Native-Born/Foreign-Born Black	128	121	122	118
Native-Born/Foreign-Born American Indian	76	53	80	90
Native-Born/Foreign-Born Asian	160	240***	264	307
Native-Born/Foreign-Born Hispanic	253	277***	233	236
Native-Born Black/Native-Born American Indian	8	8	8	13*
Native-Born Black/Native-Born Asian	4	8***	9	10
Native-Born Black/Native-Born Hispanic	15	26***	30	44***
Native-Born American Indian/Native-Born Asian	8	13	23	10
Native-Born American Indian/Native-Born Hispanic	36	35	50	45
Native-Born Asian/Native-Born Hispanic	41	35	47	69

Note: For 2000, multiracial whites are counted as white.

* $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test of change between 1990 and 2000).

riage. The fact that the intermarriage parameters increased over time suggests that "social distance" between native-born Asian American and Hispanic minorities and whites would have narrowed in the absence of growth in the immigrant population.

Third, foreign-born racial/ethnic minorities, compared with their native-born counterparts, have not experienced similar increases in intermarriage with whites. In fact, intermarriage ratios with native-born whites declined by 19 percent for foreign-born Hispanics, from 27 to 22, and increased by only 11 percent for foreign-born Asians, from 28 to 31, during the 1990s. Increases also were small among foreign-born blacks. Within-race marriages between natives and immigrants were far more common than intermarriages with whites. Indeed, marriages between foreign- and native-born persons rose in the 1990s, from 160 to 240 per 1,000 endogamous marriages among Asian Americans, and from 253 to 277 among Hispanics. This indicates that social distance declined between native- and foreign-born minorities during the 1990s as ethnic identities were reinforced with the massive new immigration.

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A fourth general finding is that intergroup cohabitation occurred more often relative to racially endogamous cohabitations than intermarriages occurred relative to endogamous marriages.¹¹ This reinforces the findings reported in Table 2; disproportionately more interracial couples are in cohabiting unions than in marriages. For African Americans, cohabitation with whites is more than twice as likely as marriage with whites relative to their respective endogamous unions. Increases in intergroup cohabitation in the 1990s were only significant among those involving native-born African Americans. As we have already noted, increases in intergroup cohabitation during the 1990s among African Americans did not usher in declines in interracial marriage. Indeed, one interpretation is that the growth in interracial cohabitation may increasingly provide a staging ground for subsequent marriage.

Fifth and finally, intermarriage ratios among different minority groups are very low. Among

¹¹ The only exception to this general pattern was among American Indian-white relationships.

the minority groups considered here, Hispanics were most likely to marry other minorities, possibly because Hispanics comprise people of all races. Nevertheless, Hispanics were less likely to be married to African Americans (26) than to American Indians and Asian Americans (35), although this racial gap in intermarriage narrowed in the 1990s. In contrast, African Americans were least likely to marry other minorities, despite the fact that intermarriage between native-born African Americans and both Hispanics and Asian Americans almost doubled in the 1990s. Racial minorities today are more likely to marry or live with whites than with other minorities, indicating segmented marital assimilation has yet to occur in the marriage markets of new immigrants (Portes and Zhou 1992). The very low African American intermarriage rates with whites and other minorities also suggest that group boundaries are weaker between whites and nonwhite non-African Americans than between whites and African Americans. A tripartite regime of white, nonwhite-nonblack, and black may be emerging, which represents an intermediary stage in the putative movement to a nonblack-black system of mate selection (Bonilla-Silva 2002, Yancey 2003).

CHANGES IN EDUCATIONAL ASSORTATIVE MATING. Table 7 presents the predicted number of intermarriages by educational pairings of men and women. These intermarriage ratios are derived from the parameters from Model C6 in Table 5. As with the bivariate results (Table 4), these estimates clearly reveal the educational gradient in intermarriage among Asian Americans and Hispanics. Among the less educated, intermarriage with whites is most likely for American Indians. This, along with a greater share of American Indians who are biracial and mostly marry whites, suggests that the boundary between American Indians and whites may be in the process of shifting. Rates of interracial marriage with whites were similar among the least educated African Americans and Asian Americans in 2000. But these rates were much lower for college educated African Americans than for college educated Asian Americans. African American-white marriages increased during the 1990s at every educational level, but the educational gradient was comparatively weak. Significantly, the increase was greatest for

those with the least education—an increase of 157 percent (from 7 to 18) among couples without a high school degree compared with 83 percent (from 12 to 22) among those who completed college. These data provide little evidence that status attainment (through education alone) is a sufficient condition for intermarriage with whites (and declining social distance). Clearly, race trumps education as a barrier to intermarriage for African Americans.

These data reveal several additional shifts in intermarriage during the 1990s. For example, the educational gradient increased among native-born Asian Americans and Hispanics. For native-born Asian Americans and Hispanics, intermarriage with whites declined or changed little during the 1990s among the least educated but continued to increase among the highly educated. Consequently, unlike African Americans, the association between educational attainment and intermarriage with whites became even stronger. The boundaries between Asian Americans and whites, as well as those between Hispanics and whites, are increasingly crossed by those with high levels of educational attainment. Although Hispanics are less well-educated on average than Asian Americans, intermarriage rates were higher for Hispanics than for Asian Americans at every educational level. Race is likely to be an important factor here. Hispanics who label themselves as racially “white” are more likely to marry non-Hispanic whites than are their nonwhite counterparts (Qian and Cobas 2004).

The educational gradient also increased among foreign-born Asians and Hispanics. But unlike their native-born counterparts, intermarriage rates declined significantly over the 1990s among the least educated, while remaining largely unchanged among those with at least a college education. The 1990s also brought corresponding increases in marriage between native- and foreign-born Hispanics and Asian Americans. For Hispanics, the increase was especially pronounced between the native- and the foreign-born with one-level difference in educational attainment, presumably between more educated foreign-born and less educated native-born Hispanics. Such findings reinforce the need for additional research on the exchange of socioeconomic status for nativity (i.e., highly educated immigrants who marry less educated natives) in the marriage market.

Table 7. Predicted Number of Interracial/Interethnic Marriages by Educational Combination Relative to 1,000 Endogamous Marriages

Couples	Both Less than High School		Both High School		Both Some College		Both College and More		One Level Different	
	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
	Native-Born White/Native-Born Black	7	18***	7	16***	10	15***	12	22***	10
Native-Born White/Native-Born American Indian	83	62*	80	75	66	67	85	97*	87	87
Native-Born White/Native-Born Asian	21	20	41	32	65	91***	46	62***	42	54***
Native-Born White/Native-Born Hispanic	51	47	78	85**	146	160*	132	143**	102	112***
Native-Born White/Foreign-Born Black	3	3	4	4	7	9	6	8	4	7**
Native-Born White/Foreign-Born American Indian	7	18	14	11	10	7	17	13	20	13
Native-Born White/Foreign-Born Asian	6	2*	18	14*	38	51***	34	34	27	27
Native-Born White/Foreign-Born Hispanic	12	9*	23	18**	73	68	43	41	31	27***
Native-Born/Foreign-Born Black	44	43	107	81*	163	170	155	139	128	122
Native-Born/Foreign-Born American Indian	59	152	92	39	57	40	124	121	83	65
Native-Born/Foreign-Born Asian	44	69	120	130	236	367***	132	243***	161	163
Native-Born/Foreign-Born Hispanic	234	222	235	263**	285	338	284	380***	272	324***
Native-Born Black/Native-Born American Indian	8	8	8	7	8	15	12	11	7	7
Native-Born Black/Native-Born Asian	6	8	2	16**	5	9	9	14	7	12*
Native-Born Black/Native-Born Hispanic	6	15**	13	20***	23	27	22	35***	16	29***
Native-Born American Indian/Native-Born Asian	17	49	20	19	6	10	10	22	18	31
Native-Born American Indian/Native-Born Hispanic	26	20	28	26	40	33	50	42	40	40
Native-Born Asian/Native-Born Hispanic	34	15	49	63	32	58*	57	41	57	38**

Note: For 2000, multiracial whites are counted as white.

* $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test of change between 1990 and 2000).

Finally, an additional analysis of intergroup cohabitation among differently-educated minorities revealed one significant finding—the group pairings that experienced increases in cohabitation in the 1990s are those that had the lowest levels of intermarriage with whites.¹² For example, cohabitation between whites and Hispanics with less than a high school education increased significantly from 69 to 93 for every 1,000 endogamous cohabiting unions. Cohabitation between whites and African Americans increased significantly when both partners had less than a high school education (20 to 34), a high school education (25 to 40), and with one-level difference in education (36 to 44). Apparently, less educated individuals have become more likely to cohabit, which is similar to the results found among endogamous relationships (Bumpass and Lu 2000; Lichter et al. 2006). Overall, we have observed that increases in cohabitation with whites are highly concentrated among less educated African Americans and Hispanics.

SUMMARY AND CONCLUSION

New assimilation theory (Alba and Nee 2003) provides a useful framework for revisiting previous studies and common assumptions about changing social boundaries and patterns of interracial marriage in the United States (Kalmijn 1998; Lamont and Molnar 2002; Qian 1997). The current celebration of multiculturalism, rapid growth of non-European immigrants, and the uneven economic trajectories of recent immigrant groups make forecasting a continuing rise in intermarriage difficult. Indeed, America's new racial/ethnic minorities have achieved varying degrees of upward socioeconomic mobility in recent decades (Bean et al. 2004; Saenz 2004; Stoll 2004). A fundamental goal of this study has been to reevaluate changing social boundaries among racial/ethnic groups in the United States over the 1990s. Specifically, we update our understanding of marital assimilation by documenting trends and patterns of recent intermarriage with whites.

As this article demonstrates, understanding marital assimilation has been made difficult by

the change from a single-race classification in the 1990 census to a multiple-race classification in the 2000 census. The recent introduction of a multiple-race classification system was a response to the growth of mixed-race persons, a product itself of accelerated intermarriage and childbearing over the last half century. The growth in the mixed-race population blurs racial boundaries and presumably promotes assimilation through greater intergroup contact and marriage. It also creates demographic momentum for additional mixing of America's diverse populations (Labov and Jacobs 1998). Indeed, our results clearly indicate that mixed-race individuals are more likely to marry whites than are single-race minority individuals.

Trends in interracial marriage rates have nevertheless been hard to gauge since multiracial persons could self-identify as having only one race in the 1990 census. Our cohort analysis reveals that the overwhelming majority of biracial American Indian-white and Asian American-white individuals in the 2000 census probably identified themselves as white in 1990. The methodological lesson is clear: intermarriage patterns in 2000, as well as other socioeconomic profiles of racial groups, are more comparable with 1990 patterns if multiracial individuals are classified as part of the white population rather than eliminated from analyses. Our results reveal that biracial American Indian-white or Asian American-white individuals were typically married to whites rather than American Indians or Asian Americans. Increasingly permeable and blurred social boundaries—and intermarriage with whites—is clearly a key dimension of the contemporary assimilation process in America (Alba and Nee 2003; Lamont and Molnar 2002). In contrast, intermarriage between African Americans and whites was largely unaffected by changes in racial classification. Biracial African American-white individuals have historically identified themselves as black and typically married other African Americans (Davis 1991; Yancey 2003). Even today, few African American-white individuals report multiple races and, among those who do, intermarriage rates with whites remain significantly lower than for other white biracial individuals.

Our updated analyses reveal both continuities and discontinuities with previous studies while providing substantial support for our hypothe-

¹² This table is included in the Online Supplement on the *ASR* Web site.

ses. For example, the 1990s generally ushered in a period of slowing rates of intermarriage and increasing rates of marriage between the native- and foreign-born, and the educational gradient in intermarriage was reinforced. But our results also highlight a singularly persistent substantive lesson: African Americans are least likely of all racial/ethnic minorities to marry whites. And, although the pace of marital assimilation among African Americans proceeded more rapidly over the 1990s than it did in earlier decades, the social boundaries between African Americans and whites nevertheless remain highly rigid and resilient to change. The “one-drop” rule apparently persists for African Americans (see Qian 2004). Increases in cohabitation with whites are also heavily concentrated among African Americans and the least educated. Cohabitation provides a poor basis for the long-term commitment and support necessary from one’s family and community to ensure stable marriages, especially among the poor, who are disproportionately comprised of African Americans (Lichter et al. 2006). Cohabitation may thus crystallize existing racial boundaries and slow the process of marital assimilation, especially if fertility rates among mixed-race cohabiting couples are low. Educational attainment among African Americans provides no assurance of crossing the racial divide through intermarriage (see Hypothesis 3). Indeed, even among well-educated African Americans, opportunities for contact with whites may be constrained by the schools they attend and the fields of study they choose or are steered toward (Jacobs 1997). Middle-class African Americans, compared to Hispanics and Asian Americans, are also less likely as children and young adults to live in predominantly white neighborhoods and attend schools with racially diverse student bodies (Iceland et al. 2002). And racial homophily in friendship groups—even in ostensibly integrated environments—remains the norm in American society (Joyner and Kao 2005; Moody 2001). Race apparently trumps educational attainment and other factors in the (marital) assimilation process among African Americans.

On the other hand, native-born Hispanics continued to have the highest intermarriage rates with whites despite levels of educational attainment that are more similar to African Americans and much lower than Asian

Americans (who have lower intermarriage rates). Moreover, compared to African Americans and Asian Americans, Hispanics have the highest levels of intermarriage with non-Hispanic whites at every educational level, and race is undoubtedly a large part of the explanation. Almost one-half of Hispanics consider themselves to be racially white. Asian Americans also have high levels of interracial marriage with whites, especially in comparison with the intermarriage rates observed among African Americans. Although interracial marriage rates with whites are very low and largely indistinguishable between less educated Asian Americans and African Americans, intermarriage rates among well-educated Asians are exceptionally high. The strong educational gradient in intermarriage among Hispanics and Asian Americans clearly indicates that their American experiences are linked to their educational attainment and the opportunities it affords them. Greater contact with whites in the workplace, school, and neighborhoods has undoubtedly opened new opportunities to cross group boundaries through marriage.

For Hispanics, and to a lesser extent Asian Americans, the 1990s brought unprecedented declines in intermarriage with whites, which is in sharp contrast to the exceptionally large increases in intermarriage observed in prior censuses (Qian 1997). This finding represents a significant departure from past trends. As we have shown, the retreat from intermarriage largely reflects the growth in the immigrant population; increasing shares of natives are marrying their foreign-born counterparts. The substantive interpretation is clear: growth in minority group size promotes in-group contact and interaction while reinforcing cultural and ethnic solidarity and marital endogamy. Immigration expands the marriage pool of the immigrants’ native-born counterparts (Massey 1995). The growing availability of marriageable mates of the same race/ethnicity during the 1990s may have reinforced distinctive cultural traditions of native-born minorities and promoted endogamous marriages. For Hispanics, immigration may also have reinforced old racial and cultural stereotypes that had previously been shed in part by substantial upward social mobility and cultural assimilation across successive generations. Whether the 1990s represented a short-term demographic pause in the

decades-long upward trend in marital assimilation or, instead, marked the beginning of a new racial divide or accelerated cultural and racial balkanization is unclear.

Corresponding increases in marriages between native- and foreign-born co-ethnic populations have presumably been fueled by the rapid immigration among less educated groups. Our results imply a new kind of segmented or downward assimilation. Indeed, it is the native-born, less educated Asian Americans and Hispanics who tend to share the same pool of marriageable partners with new immigrants. Educational differences in intermarriage and in cohabitation with whites have apparently exacerbated the educational divide in the pace of marital assimilation among native-born Asian Americans and Hispanics. At the same time, Asian and Hispanic immigrants had much lower and declining intermarriage rates with whites over the 1990s (see Corollary 1a). This finding is clearly consistent with the hypothesis that achieving high levels of educational attainment is an important aspect of the assimilation process for Hispanics and Asian Americans (see Alba and Nee 2003). Yet, as we have shown, Asian American and Hispanic immigration has slowed the marital assimilation process among the native born, lowered aggregate levels of intermarriage with whites, and elevated the socioeconomic gap in intermarriage with whites (see Corollary 1b). These results provide a vivid contrast with the marital assimilation and intermarriage patterns observed among different European immigrants over much of the early twentieth century (for discussion, see Sassler 2005). Clearly, the social boundaries that separate whites from Asian Americans and Hispanics were crossed in high percentages by those with exceptionally high levels of education, but the crossing of racial boundaries slowed among the less educated. At the same time, lower socioeconomic immigrant groups are increasingly isolated from their more highly educated co-ethnics, and, if they do out-marry, are often marrying into America's white lower-class population (at least as defined by low education). The melting pot is clearly bubbling, but largely within class-segmented marriage markets, a pattern that represents an additional dimension of the larger demographic process of rising educational homogamy over the past 25

years in the U.S. population (Schwartz and Mare 2005).

The marital assimilation story is different for American Indians. The racial boundary between American Indians and whites appears to have undergone a remarkable shift over time—not just during the 1990s. For American Indians, the long history of substantial intermarriage with whites has produced large numbers of mixed-race persons and has rendered them phenotypically indistinguishable in many cases from native-born, European-origin whites. Racial boundaries have clearly blurred (Snipp 2002). The increasing share of mixed-race, American Indian-white individuals—the group most likely to marry whites—has reinforced a social norm of tolerance or even indifference concerning intermarriage. Indeed, our results reveal a surprisingly weak effect of educational attainment on intermarriage between the two groups. The least-educated American Indians are more likely than other less educated minorities to marry whites. These results are consistent with the views of Alba and Nee (2003), who argue that social boundaries that separate whites from nonwhites can shift over time or across generations in ways that redefine minority “outsiders” as part of the white majority population. Obviously, one factor that prevents the elimination of this group boundary altogether is that single-race American Indians disproportionately live in highly-segregated and geographically-isolated reservations (e.g., in the upper Midwest or Southwest) that limit opportunities for interracial marriage with whites, impede upward socioeconomic mobility, and reinforce traditional cultural repertoires.

Assimilation and intermarriage, as articulated by Alba and Nee (2003), are ongoing cultural processes that are reshaping American society. To sum up, American Indians, with significant shares of biracial American Indian-white individuals, have proceeded rapidly along the pathway to marital assimilation, signaling the blurring and shifting of racial boundaries. For Asian Americans and Hispanics, socioeconomic mobility has provided avenues for some highly educated individuals to cross social and racial boundaries through intermarriage, but rapid immigration over the past decade has slowed the pace of marital assimilation. The future is uncertain. The continuing influx of immigrants from Asia and Latin America may slow intermar-

riage and reinforce racial/ethnic identities, especially if new groups are segregated residentially and culturally from the majority white population or from their “Americanized,” native-born co-ethnics. Indeed, this is likely to be the case if the anti-immigrant sentiment fueling today’s immigrant policy debates reinforces racial/ethnic stereotypes. Yet, perhaps paradoxically, significantly reducing the flow of new immigrants through legislation may also have the effect—at least in the short run—of marginalizing historically disadvantaged racial/ethnic groups and creating greater social distance between America’s minority and majority populations. Out-marriage may accelerate again only after several generations, much like the intermarriage patterns observed among white co-ethnics after restrictive legislation was introduced in the early twentieth century (Sassler 2005).

Racial/ethnic intermarriage among African Americans, though certainly more common than in the past, continues to lag far behind that of other minorities. Social distance and intergroup boundaries remain strong. At least in the short-term, social distance is reflected and reinforced by high levels of African American cohabitation with whites and unusually low levels of interracial marriage among highly educated African Americans. Significantly, economic incorporation (through more education) has played little role in the marital assimilation process among African Americans. These results speak clearly (and perhaps critically) to classical assimilation theory by re-emphasizing the fact that race/ethnicity and color, especially the divide between African Americans and others, represent a strong and persistent barrier to racial mixing in romance and marriage. If the evidence presented on recent intermarriage patterns is our guide, any shifting, blurring, and crossing of racial/ethnic boundaries represent uncommonly weak mechanisms for breaking down existing African American-white racial barriers and encouraging intermarriage.

Zhenchao Qian is Professor in the Department of Sociology and research associate in the Initiative in Population Research at The Ohio State University. His research focuses on family demography, race and ethnicity, and immigration. His work with Daniel T. Lichter centers on changes in mate selection patterns for married and cohabiting unions. His other research examines changing racial identification among chil-

dren born to interracial couples, education and age patterns in the assortative mating process, and shifts in the meaning of cohabitation over time. He is also studying comparative socioeconomic patterns among immigrant groups in the United States.

Daniel T. Lichter is the Ferris Family Professor in the Department of Policy Analysis and Management at Cornell University and Director of the Bronfenbrenner Life Course Center. His other research with Zhenchao Qian focuses on marriage promotion policies and union formation among low-income unmarried mothers. He also is studying trends in spatially concentrated poverty and racial inequality (with Kenneth Johnson) and new patterns of immigrant dispersal into rural America (with Martha Crowley). His paper (with Domenico Parisi, Steve Grice, and Michael Taquino), “Municipal Underbounding? Annexation and Racial Exclusion in Southern Small Towns,” appears in *Rural Sociology* (March 2007).

REFERENCES

- Agresti, Alan. 2002. *Categorical Data Analysis*. New York: John Wiley & Sons.
- Alba, Richard D. and Victor Nee. 2003. *Remaking the American Mainstream: Assimilation and Contemporary Immigration*. Cambridge, MA: Harvard University Press.
- Batson, Christie D., Zhenchao Qian, and Daniel T. Lichter. 2006. “Interracial and Intra-racial Patterns of Mate Selection Among America’s Diverse Black Populations.” *Journal of Marriage and Family* 68:658–72.
- Bean, Frank D., Jennifer Lee, Jeanne Batalova, and Mark Leach. 2004. *Immigration and Fading Color Lines in America*. New York and Washington, DC: Russell Sage Foundation and Population Reference Bureau.
- Bennett, Neil G., Ann Klimas Blanc, and David E. Bloom. 1988. “Commitment and the Modern Union: Assessing the Link between Premarital Cohabitation and Subsequent Marital Stability.” *American Sociological Review* 53:127–38.
- Blackwell, Debra L. and Daniel T. Lichter. 2000. “Mate Selection among Married and Cohabiting Couples.” *Journal of Family Issues* 21:275–302.
- . 2004. “Homogamy among Dating, Cohabiting, and Married Couples.” *The Sociological Quarterly* 45:719–37.
- Blau, Peter M. 1977. *Inequality and Heterogeneity: A Primitive Theory of Social Structure*. New York: Free Press.
- Blau, Peter M., Carolyn Becker, and Kevin M. Fitzpatrick. 1984. “Intersecting Social Affiliations and Intermarriage.” *Social Forces* 62:585–606.
- Bonilla-Silva, Eduardo. 2002. “We Are All Americans!: The Latin Americanization of Racial

- Stratification in the USA." *Race and Society* 5:3-16.
- Brown, Susan L. and Alan Booth. 1996. "Cohabitation Versus Marriage: A Comparison of Relationship Quality." *Journal of Marriage and the Family* 58:668-78.
- Bumpass, Larry L. and Hsien-Hen Lu. 2000. "Trends in Cohabitation and Implications for Children's Family Contexts." *Population Studies* 54:29-41.
- Bumpass, Larry L. and R. Kelly Raley. 1995. "Redefining Single-Parent Families: Cohabitation and Changing Family Reality." *Demography* 32:97-109.
- Bumpass, Larry L. and James A. Sweet. 1989. "National Estimates of Cohabitation." *Demography* 26:615-25.
- Bumpass, Larry L., James A. Sweet, and Andrew Cherlin. 1991. "The Role of Cohabitation in Declining Rates of Marriage." *Journal of Marriage and the Family* 53:913-27.
- Chiswick, Barry R. and Teresa A. Sullivan. 1995. "The New Immigrants." Pp. 211-270 in *State of the Union: America in the 1990s*, vol. II, *Social Trends*, edited by R. Farley. New York: Russell Sage Foundation.
- Clarkberg, Marin, Ross M. Stolzenberg, and Linda J. Waite. 1995. "Attitudes, Values, and Entrance into Cohabitation versus Marital Unions." *Social Forces* 74:609-34.
- Davis, F. James. 1991. *Who Is Black?* University Park, PA: The Pennsylvania State University Press.
- Fu, Vincent Kang. 2001. "Racial Inter-marriage Pairings." *Demography* 38:147-59.
- Goldstein, Joshua R. and Kristen Harknett. 2006. "Parenting Across Racial and Class Lines: Assortative Mating Patterns of New Parents Who Are Married, Cohabiting, Dating, and No Longer Romantically Involved." *Social Forces* 85:121-43.
- Gordon, Milton M. 1964. *Assimilation in American Life*. New York: Oxford University Press.
- Harris, David R. and Hiromi Ono. 2004. "How Many Interracial Marriages Would There Be if All Groups Were of Equal Size in All Places? A New Look at National Estimates of Interracial Marriage." *Social Science Research* 34:236-51.
- Heaton, Tim B. and Cardell K. Jacobson. 2000. "Intergroup Marriage: An Examination of Opportunities." *Sociological Inquiry* 70:34-41.
- Iceland, John, Daniel H. Weinberg, and Erika Steinmetz. 2002. *Racial and Ethnic Residential Segregation in the United States: 1980-2000*. Washington, DC: U.S. Government Printing Office.
- Jacobs, Jerry A. 1997. "Gender, Race and Ethnic Segregation Between and Within Colleges." Department of Sociology, University of Pennsylvania, Philadelphia, PA. Unpublished report to the Mellon Foundation.
- Jacobs, Jerry A. and Frank F. Furstenberg Jr. 1986. "Changing Places: Conjugal Careers and Women's Marital Mobility." *Social Forces* 64:714-32.
- Jacobs, Jerry A. and Teresa G. Labov. 2002. "Gender Differentials in Inter-marriage among Sixteen Race and Ethnic Groups." *Sociological Forum* 17:621-46.
- Jones, Nicholas and Amy Symens Smith. 2001. "The Two or More Races Population: 2000." *Census 2000 Brief*. Washington, DC: U.S. Census Bureau.
- Joyner, Kara and Grace Kao. 2005. "Interracial Relationships and the Transition to Adulthood." *American Sociological Review* 70:563-81.
- Kalmijn, Matthijs. 1998. "Inter-marriage and Homogamy: Causes, Patterns, Trends." *Annual Review of Sociology* 24:395-421.
- Labov, Teresa G. and Jerry A. Jacobs. 1998. "Preserving Multiple Ancestry: Inter-marriage and Mixed Births in Hawaii." *Journal of Comparative Family Studies* 29:481-502.
- Lamont, Michele and Virag Molnar. 2002. "The Study of Boundaries in the Social Sciences." *Annual Review of Sociology* 28:167-95.
- Lee, Sharon M. and Barry Edmonston. 2005. *New Marriages, New Families: U.S. Racial and Hispanic Inter-marriage*. Vol. 60. Washington, DC: Population Reference Bureau.
- Lichter, Daniel T. and Zhenchao Qian. 2004. *Marriage and Family in a Multiracial Society*. New York and Washington, DC: Russell Sage Foundation and Population Reference Bureau.
- Lichter, Daniel T., Zhenchao Qian, and Leanna M. Mellott. 2006. "Marriage or Dissolution? Union Transitions among Poor Cohabiting Women." *Demography* 43:223-40.
- Liebertson, Stanley. 1980. *A Piece of the Pie: Blacks and White Immigrants Since 1880*. Berkeley, CA: University of California Press.
- Mason, William M. and Stephen E. Fienberg. 1985. "Cohort Analysis in Social Research: Beyond the Identification Problem." New York: Springer-Verlag.
- Massey, Douglas S. 1995. "The New Immigration and Ethnicity in the United States." *Population and Development Review* 21:631-52.
- Moody, James. 2001. "Race, School Integration, and Friendship Segregation in America." *American Journal of Sociology* 107:679-716.
- Neckerman, Kathryn M., Prudence Carter, and Jennifer Lee. 1999. "Segmented Assimilation and Minority Cultures of Mobility." *Ethnic and Racial Studies* 22:945-65.
- Nee, Victor and Jimmy Sanders. 2001. "Understanding the Diversity of Immigrant Incorporation: A Forms-of-Capital Model." *Ethnic and Racial Studies* 24:386-411.
- Omi, Michael and Howard Winant. 1994. *Racial Formation in the United States: From the 1960s to the 1990s*. New York: Routledge.
- Pagnini, Deanna L. and S. Philip Morgan. 1990.

- "Intermarriage and Social Distance among U.S. Immigrants at the Turn of the Century." *American Journal of Sociology* 96:405-32.
- Park, Robert E. and Ernest W. Burgess. [1921] 1969. *Introduction to the Science of Sociology*. Chicago, IL: University of Chicago Press.
- Pattillo, Mary. 2005. "Black Middle-Class Neighborhoods." *Annual Review of Sociology* 31:305-29.
- Porterfield, Ernest. 1982. "Black-American Intermarriage in the United States." *Marriage and Family Review* 5:17-34.
- Portes, Alejandro and Robert Bach. 1985. *Latin Journey: Cuban and Mexican Immigrants in the United States*. Berkeley, CA: University of California Press.
- Portes, Alejandro and Min Zhou. 1992. "Gaining the Upper Hand: Economic Mobility among Immigrant and Domestic Minorities." *Ethnic and Racial Studies* 15:491-522.
- Qian, Zhenchao. 1997. "Breaking the Racial Barriers: Variations in Interracial Marriage between 1980 and 1990." *Demography* 34:478-500.
- . 2004. "Options: Racial/Ethnic Identification of Children of Intermarried Couples." *Social Science Quarterly* 85:746-66.
- Qian, Zhenchao and José A. Cobas. 2004. "Latinos' Mate Selection: Variations by National Origin, Race, and Nativity." *Social Science Research* 33:225-47.
- Qian, Zhenchao and Daniel T. Lichter. 2001. "Measuring Marital Assimilation: Intermarriage Among Natives and Immigrants." *Social Science Research* 30:289-312.
- Romano, Renee C. 2003. *Race Mixing: Black-White Marriage in Postwar America*. Cambridge, MA: Harvard University Press.
- Root, Maria P. P. 2001. *Love's Revolution: Interracial Marriage*. Philadelphia, PA: Temple University Press.
- Rosenfeld, Michael J. 2001. "The Salience of Pan-National Hispanic and Asian Identities in U.S. Marriage Markets." *Demography* 38:161-75.
- . 2005. "A Critique of Exchange Theory in Mate Selection." *American Journal of Sociology* 110:1284-1325.
- Saenz, Rogelio. 2004. *Latinos and the Changing Face of America*. New York and Washington, DC: Russell Sage Foundation and Population Reference Bureau.
- Sandefur, Gary D. and McKinnell Trudy. 1986. "American Indian Intermarriage." *Social Science Research* 15:347-71.
- Sassler, Sharon. 2005. "Gender and Ethnic Differences in Marital Assimilation in the Early Twentieth Century." *International Migration Review* 39:608-36.
- Schuman, Howard, Charlotte Steeh, Lawrence Bobo, and Maria Krysan. 1997. *Racial Attitudes in America: Trends and Interpretations*. Cambridge, MA: Harvard University Press.
- Schwartz, Christine R. and Robert D. Mare. 2005. "Trends in Educational Assortative Marriage from 1940 to 2003." *Demography* 42:621-46.
- Simmons, Tavia and Martin O'Connell. 2003. *Married-Couple and Unmarried-Partner Households: 2000*. Washington, DC: U.S. Census Bureau.
- Smith, James P. and Barry Edmonston. 1997. *The New Americans: Economic, Demographic, and Fiscal Effects of Immigration*. Washington, DC: National Academy Press.
- Snipp, C. Matthew. 2002. "American Indians: Clues to the Future of Other Racial Groups." Pp. 189-214 in *The New Race Question: How the Census Counts Multiracial Individuals*, edited by J. Perlmann and M. C. Waters. New York: Russell Sage Foundation.
- Spickard, Paul R. 1989. *Mixed Blood: Intermarriage and Ethnic Identity in Twentieth-Century America*. Madison, WI: The University of Wisconsin Press.
- Stoll, Michael A. 2004. *African Americans and the Color Line*. New York and Washington, DC: Russell Sage Foundation and Population Reference Bureau.
- Tafoya, Sonya M., Hans Johnson, and Laura Hill. 2004. *Who Chooses to Choose Two? Multiracial Identification and Census 2000*. New York and Washington, DC: Russell Sage Foundation and Population Reference Bureau.
- Waters, Mary C. 1999. *Black Identities: West Indian Immigrant Dreams and American Realities*. New York: Russell Sage Foundation.
- Xie, Yu and Kimberly A. Goyette. 2004. *A Demographic Portrait of Asian Americans*. New York and Washington DC: Russell Sage Foundation and Population Reference Bureau.
- Yancey, George. 2003. *Who Is White? Latinos, Asians, and the New Black/Nonblack Divide*. Boulder, CO: Lynne Rienner Publishers.