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Becoming American: Intermarriage during the Great Migration to the United States During the “classic” period of largely unrestricted immigration between the Civil War and the introduction of stringent numerical quotas in the 1920s, the United States received more than 30 million immigrants. The foreign-born population composed between 13 and 15 percent of the overall population during this period, until recently the highest percentages in U.S. history. Much higher percentages could be found in ethnic enclaves, such as New York City’s 14th Ward in lower Manhattan, where more than 90 percent of the population in 1900 was Italian.¹

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1 Robert Barde, Susan B. Carter, and Richard Sutch, “International Migration,” in Sutch and Carter (eds.), *Historical Statistics of the United States: Earliest Times to the Present. Millennial Edition* (New York, 2006), I, 523–540, AA33; Anne M. Todd, *Italian Immigrants, 1880–1920* (Mankato, 2002).

The integration of these immigrants into American society has been an important research topic for more than a century. There is wide recognition in the literature that intermarriage is a core indicator of the integration process and that trajectories differed markedly across immigrant groups. Because marriage involves both intimacy and close connections to culture through family life, intermarriage is a kind of ultimate test of the strength of social boundaries, and thus crucial to understanding immigrant integration. Accordingly, much research has been devoted to its study in the United States, both historically and contemporaneously.²

A good deal of this research has focused on the impact of immigrant characteristics, such as social status, language proficiency, time in the United States, generation, and religion. Recently, researchers have begun to examine different forms of community impact—how the local economic, demographic, institutional, and cultural context within which immigrants lived shaped their patterns

2 For examples of early research, see Francis Amasa Walker, “Immigration and Degradation,” *Forum*, XI (1891), 634–644; Julius Drachler, *Democracy and Assimilation: The Blending of Immigrant Heritages in America* (New York, 1920); Ruby Jo Reeves Kennedy, “Single or Triple Melting Pot? Intermarriage Trends in New Haven, 1870–1940,” *American Journal of Sociology*, XLIX (1944), 331–339; Milton M. Gordon, *Assimilation in American Life: The Role of Race, Religion, and National Origins* (New York, 1964); for intermarriage as an indicator of integration and assimilation, Robert Merton, “Intermarriage and the Social Structure: Fact and Theory,” *Psychiatry*, IV (1941), 361–374; Gordon, *Assimilation in American Life*; Richard D. Alba and Reid M. Golden, “Patterns of Ethnic Marriage in the United States,” *Social Forces*, LXV (1986), 202–223; Alba and Victor Nee, *Remaking the American Mainstream: Assimilation and Contemporary Immigration* (New York, 2003); for a recent comparative contribution, Dan Rodríguez-García, “Intermarriage and Integration Revisited: International Experiences and Cross-Disciplinary Approaches,” *Annals of the American Academy of Political and Social Science*, DCLXII (2015), 8–36; for recent research about intermarriage in the United States, Alba and Golden, “Patterns of Ethnic Marriage in the United States”; Stanley Lieberson and Mary C. Waters, *From Many Strands: Ethnic and Racial Groups in Contemporary America* (New York, 1988); Deanna L. Pagnini and S. Philip Morgan, “Intermarriage and Social Distance among U.S. Immigrants at the Turn of the Century,” *American Journal of Sociology*, XCVI (1990), 405–432; Matthijs Kalmijn, “Spouse Selection among the Children of European Immigrants: A Comparison of Marriage Cohorts in the 1960 Census,” *International Migration Review*, XXVII (1993), 51–78; Robert McCaa, “Ethnic Intermarriage and Gender in New York City,” *Journal of Interdisciplinary History*, XXIV (1993), 207–231; Zhenchao Qian and Daniel T. Lichter, “Measuring Marital Assimilation: Intermarriage among Natives and Immigrants,” *Social Science Research*, XXX (2001), 289–312; Elizabeth Wildsmith, Myron P. Gutmann, and Brian Gratton, “Assimilation and Intermarriage for U.S. Immigrant Groups, 1880–1990,” *History of the Family*, VIII (2003), 563–584; Sharon Sassler, “Gender and Ethnic Differences in Marital Assimilation in the Early Twentieth Century,” *International Migration Review*, XXXIX (2005), 608–636; Lichter, Qian, and Dmitry Tumin, “Whom Do Immigrants Marry? Emerging Patterns of Intermarriage and Integration in the United States,” *Annals of the American Academy of Political and Social Science*, DCLXII (2015), 57–78.

of intermarriage. This orientation is related to earlier work by Blau and his associates, which stressed the significance of social structure in creating the opportunity to meet spouses with different characteristics. Most investigators, however, include contextual factors as simple control variables rather than trying to assess their importance. The frequent use of log-linear models in much of this research is a case in point, since they are designed to deal with these kinds of structural factors.³

The question of how context and community affected intermarriage patterns for immigrants during the great migration between 1850 and 1930 has not received as much attention. A recent exception is a study by Logan and Shin that examined the first wave of British, Irish, and German migrants in the 1880 census. Our article extends this research by studying contextual determinants of intermarriage during a later period, looking at the 1910 census. This approach enables us to capture the second wave of immigration from southern and eastern Europe, which gained momentum around the turn of the twentieth century, along with the first wave of immigration, which continued from northern Europe.⁴

Previous investigations using the early public-use sample of the 1910 census were limited by low sample density. Sessler, for example, was forced to estimate the impact of contextual effects on intermarriage at the state level. New data sources represent an excellent opportunity to re-examine intermarriage patterns at the turn of the twentieth century. Our study relies on a new,

3 See, for example, Lichter, Felicia B. LeClere, and Diane K. McLaughlin, "Local Marriage Markets and the Marital Behavior of Black and White Women," *American Journal of Sociology*, XCVI (1991), 843–867; David R. Harris and Hiromi Ono, "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*, XXIV (2005), 236–251; Dina G. Okamoto, "Marrying Out: A Boundary Approach to Understanding the Marital Integration of Asian Americans," *ibid.*, XXXVI (2007), 1391–1414; Kalmijn and Frank Van Tubergen, "A Comparative Perspective on Intermarriage: Explaining Differences among National-Origin Groups in the United States," *Demography*, XLVII (2010), 459–479. For the work of Peter Blau and his associates, see Blau, *Inequality and Heterogeneity: A Primitive Theory of Social Structure* (New York, 1977); *idem*, Terry C. Blum, and Joseph E. Schwartz, "Heterogeneity and Intermarriage," *American Sociological Review*, XLVII (1982), 45–62; *idem*, Carolyn Becker, and Kevin M. Fitzpatrick, "Intersecting Social Affiliations and Intermarriage," *Social Forces*, XLII (1984), 585–606.

4 John Logan and Hyoung-jin Shin, "Immigrant Incorporation in American Cities: Contextual Determinants of Irish, German, and British Intermarriage in 1880," *International Migration Review*, XLVI (2012), 710–739.

high-density IPUMS (Integrated Public Use Microdata Series) sample of the 1910 census. Our 1.4 percent 1910 IPUMS sample is nearly four-times larger than the original 1910 PUS (Public Use Sample). With these data, we can take a closer look at differentials in intermarriage by nativity and generation in eleven different European countries of origin. Moreover, newly available complete-count data sets collected by Ancestry.com and the Minnesota Population Center allow us to construct contextual measures at a lower level of aggregation than did previous studies, thus providing a more accurate picture of actual marriage-market conditions.⁵

IMMIGRANT INTERMARRIAGE IN THE UNITED STATES Social scientists have long used intermarriage as an indicator of adaptation and assimilation. In his study of intermarriage in New York City, for example, Drachler found low rates of exogamous marriage among first-generation immigrants, but higher rates among their U.S.-born children, which he interpreted as the weakening of cultural or ethnic ties and declining group cohesion among the second generation. More recent research based on public-use census microdata samples has confirmed low levels of intermarriage among first generation immigrants, particularly Jews and the “new” immigrants from southern and eastern Europe, whose religion added an additional dimension of social distance that most other groups did not necessarily share.⁶

In their study of long-run patterns of assimilation and intermarriage, Wildsmith et al. reported striking parallels between historical patterns of intermarriage among Italians and Mexicans, two

5 Pagnini and Morgan and Sassler relied on 1-in-250 density samples of the 1910 census: Pagnini and Morgan, “Intermarriage and Social Distance”; Sassler, “Gender and Ethnic Differences in Marital Assimilation.” The 1.4 percent 1910 IPUMS sample is available for downloading at the University of Minnesota website, www.ipums.org. Steven Ruggles et al., “Integrated Public Use Microdata Series: Version 6.0 [Machine-readable database],” (University of Minnesota, 2015). For geographical constraints on intermarriage and the need for lower levels of aggregation, see Harris and Ono, “How Many Interracial Marriages Would There Be?”

6 Drachler, *Democracy and Assimilation*; James W. Oberly, “Julius Drachler’s Intermarriage in New York City: A Study in Historical Replication,” *Historical Methods*, XLVII (2014), 95–111; Pagnini and Morgan, “Intermarriage and Social Distance”; McCaa, “Ethnic Intermarriage and Gender in New York City”; Sassler and Qian, “Marital Timing and Marital Assimilation Variation and Change among European Americans Between 1910 and 1980,” *Historical Methods*, XXXVI (2003), 608–634; Sassler, “Gender and Ethnic Differences in Marital Assimilation.”

“new” immigrant groups noted for high rates of endogamy and close family relationships. Critics attributed similar characteristics to these groups. In contrast, groups with a longer history of immigration to the United States, such as the Irish and the Swedes, had lower rates of endogamy. Alba and Golden found similar results in their analysis of the 1979 Current Population Survey. Most groups of European origin showed high rates of intermarriage with the native-born population and a clear trend over time to more intermarriage and less endogamy. There was little intermarriage, however, between immigrant groups of European and non-European origin.⁷

Looking specifically at interracial marriages, Qian and Lichter found clear trends toward more intermarriage, although rates remained low at the end of the twentieth century. But they also noted declining intermarriage rates between the foreign-born and native-born populations during the 1990s, suggesting a complex integration process whereby race, ethnicity (country of origin), and education interacted.⁸

Not all origins are the same when it comes to intermarriage. Prior research has indicated dramatic differences in intermarriage propensities across groups of different origin. Immigrants from southern and eastern Europe, for example, were much more endogamous than immigrants from northern and western Europe, paralleling the geography of “strong” and “weak” family systems. Similar differences are still visible today, though much less pronounced than at the turn of the twentieth century.⁹

7 Wildsmith, Gutmann, and Gratton, “Assimilation and Intermarriage for U.S. Immigrant Groups”; Alba and Golden, “Patterns of Ethnic Marriage”; Lieberman and Waters, *From Many Strands*; Kalmijn, “Spouse Selection among the Children of European Immigrants.”

8 Qian and Lichter, “Social Boundaries and Marital Assimilation: Interpreting Trends in Racial and Ethnic Intermarriage,” *American Sociological Review*, LXXII (2007), 68–94; Qian, “Breaking the Racial Barriers: Variations in Interracial Marriage Between 1980 and 1990,” *Demography*, XXXIV (1997), 263–276. For more information about contemporary integration processes and the relationship between race, ethnicity, and education, see Alba and Nee, *Remaking the American Mainstream*; Alba and Nancy Foner, “Mixed Unions and Immigrant-Group Integration in North America and Western Europe,” *Annals of the American Academy of Political and Social Science*, DCLXII (2015), 38–56; Lichter, Qian, and Tumin, “Whom do Immigrants Marry?”

9 Pagnini and Morgan, “Intermarriage and Social Distance”; David S. Reher, “Family Ties in Western Europe: Persistent Contrasts,” *Population and Development Review*, XXIV (1998), 203–234. For current patterns, see Alba and Golden, “Patterns of Ethnic Marriage”; Lieberman and Waters, *From Many Strands*; Alba and Foner, “Mixed Unions and Immigrant-Group Integration”; Lichter, Qian, and Tumin, “Whom do Immigrants Marry?”

Previous research has also identified significant similarities and differences across immigrant generations. Pagnini and Morgan found strong generational endogamy. The first immigrant generation (foreign-born) tended to marry other first-generation immigrants, and the second immigrant generation married each other. The second generation was also more likely to intermarry with natives than was the first immigrant generation, however, becoming increasingly more likely to do so over time. There was a concomitant trend toward more exogamy and intermarriage; the second generation was more exogamous than the first. Some studies have shown that those who arrived in the United States as children—sometimes termed the “1.5 generation”—were more exogamous than the first generation (those who came in their teens or as adults). In most cases, the third generation (whose grandparents were foreign-born) were treated as natives (hence the commonly used term “native born of native parentage”), but in a study of a sample linked between the 1880 and 1910 censuses, Logan and Shin found a strong tendency toward endogamy among the third generation as well. Related to this point, mixed ancestry has often been connected to the lowering of social boundaries between origin groups and exogamy. Given that mixed ancestry is itself the result of parental intermarriage, the relationship between mixed ancestry and intermarriage in historical studies is hardly surprising.¹⁰

Age at marriage is also an important predictor of heterogamy more generally. People who delay marriage may have to search more widely to find a spouse. We would then expect older migrants to have been increasingly willing to marry outside their group of origin. The extent to which they found success would have depended on the willingness of the majority population (or a different immigrant group) to marry an older immigrant. In her analysis of the 1910

10 Pagnini and Morgan, “Intermarriage and Social Distance.” For differences among first- and second-generation immigrants, see Kalmijn, “Spouse Selection among the Children of European Immigrants”; Wildsmith, Gutmann, and Gratton, “Assimilation and Intermarriage for U.S. Immigrant Groups”; for the “1.5 generation,” Sessler, “Gender and Ethnic Differences in Marital Assimilation”; for the impact of mixed ancestry on exogamy, Alba and Golden, “Patterns of Ethnic Marriage in the United States”; for the third generation, and confirmation of the effect of mixed ancestry in historical context, Logan and Shin, “Assimilation by the Third Generation? Marital Choices of White Ethnics at the Dawn of the Twentieth Century,” *Social Science Research*, XLI (2012), 1116–1125.

census, Sassler found older ages at marriage to be associated with higher chances of marrying a native.¹¹

The likelihood of intermarriage also varied by the size and diversity of the local marriage market. Interaction between individuals in different groups required a certain familiarity, dependent on the group structure within their communities. Hence, greater heterogeneity in the marriage market was related to more exogamy. The larger the group, the lower was the likelihood of marrying outside it. Moreover, group size was also connected to the influence of third parties, such as parents, churches, and community leaders, which could be decisive for marital outcomes. Overall, stronger third-party influence or pressure from the local community resulted in more endogamy and less intermarriage. Contexts with a strong presence of co-ethnics supported the authority of these kinds of third parties. Hence, the size of different immigrant groups in the marriage market had a strong impact on intermarriage frequencies.¹²

A related aspect of the marriage market is the gender distribution in the population, which determines the availability of potential spouses of the opposite sex. Due mainly to selective migration, the sex ratio in a given locality can vary dramatically, creating an over-supply or shortage of potential spouses. In turn, such imbalances can affect both the timing of marriage and the likelihood of intermarriage. Wilson argued that a shortage of black men with sufficient economic means to marry was the main explanation for the delayed marriage among black women in the 1970s and 1980s. Moreover, empirical evidence suggests that the group-specific sex

11 Lichter, "Delayed Marriage, Marital Homogamy, and the Mate Selection Process among White Women," *Social Science Quarterly*, LXXI (1990), 802–811; Barry R. Chiswick and Christina Houseworth, "Ethnic Intermarriage among Immigrants: Human Capital and Assortative Mating," *Review of Economics of the Household*, IX (2011), 149–180; Sassler, "Gender and Ethnic Differences in Marital Assimilation."

12 Blau, *Inequality and Heterogeneity*; *idem*, Blum, and Schwartz, "Heterogeneity and Intermarriage"; *idem*, Becker, and Fitzpatrick, "Intersecting Social Affiliations and Intermarriage." For the influence of third parties, see Kalmijn, "Intermarriage and Homogamy: Causes, Patterns, Trends," *Annual Review of Sociology*, XXIV (1998), 395–421; for the role of the size of immigrant groups in the marriage market, Pagnini and Morgan, "Intermarriage and Social Distance"; Lichter, LeClere, and McLaughlin, "Local Marriage Markets and the Marital Behavior"; Sean-Shong Hwang, Rogelio Saenz, and Benigno E. Aguirre, "Structural and Assimilationist Explanations of Asian-American Intermarriage," *Journal of Marriage and Family*, LIX (1997), 758–772; Wildsmith, Gutmann, and Gratton, "Assimilation and Intermarriage for U.S. Immigrant Groups"; Okamoto, "Marrying Out"; Kalmijn and Tubergen, "Comparative Perspective on Intermarriage"; Logan and Shin, "Immigrant Incorporation in American Cities."

ratio affected the likelihood of intermarriage in the United States in different historical periods, though some counter-evidence suggests that the impact may have been modest. The problem is that few historical studies have been able to measure these structural factors at a level of aggregation that is low enough.¹³

An additional factor that has received relatively little attention from investigators is the potential influence of the native-born population on immigrant assimilation. All else being equal, immigrants living in areas with a higher proportion of native-born whites of native parentage (NWNP) probably learned English faster and were more likely to intermarry than were immigrants living among their fellow countrymen in segregated neighborhoods. Clearly, different groups experienced different levels of exposure to the NWNP population in 1910. White et al. found that, on average, the British and Irish experienced relatively low levels of segregation from the NWNP population, the Germans moderate levels, and the new immigrant groups—like the Italians and Poles—maximum levels of isolation and residential segregation. Operationalizing one aspect of residential segregation, ethnic-group percentage, at the level of state economic area (SEA), Wildsmith et al. reported that ethnic groups' relative size was positively correlated with endogamous marriage for both sexes, even after controlling for ethnic sex ratios.¹⁴

Finally, intermarriage patterns often reveal important gender differences. In the contemporary United States, for example, Asian-American women marry white men more often than Asian-American men marry white women. The opposite seems to

13 Nancy S. Landale and Stuart E. Tolnay, "Generation, Ethnicity, and Marriage: Historical Patterns in the Northern United States," *Demography*, XXX (1993), 103–126; Joshua Angrist, "How Do Sex Ratios Affect Marriage and Labor Markets? Evidence from America's Second Generation," *Quarterly Journal of Economics*, CXVII (2012), 997–1038; Hacker, "Economic, Demographic, and Anthropometric Correlates of First Marriage in the Mid-Nineteenth-Century United States," *Social Science History*, XXXII (2008), 307–345; William Julius Wilson, *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy* (Chicago, 1987); Lichter et al., "Race and the Retreat from Marriage: A Shortage of Marriageable Men?" *American Sociological Review*, LVII (1992), 781–799; Hwang et al., "Structural and Assimilationist Explanations"; Wildsmith, Gutmann, and Gratton, "Assimilation and Intermarriage for U.S. Immigrant Groups"; Okamoto, "Marrying Out"; Kalmijn and Tubergen, "Comparative Perspective on Intermarriage"; Logan and Shin, "Immigrant Incorporation in American Cities."

14 Michael J. White, Robert F. Dymowski, and Shilian Wang, "Ethnic Neighbors and Ethnic Myths: An Examination of Residential Segregation in 1910," in Susan Cotts Watkins (ed.), *After Ellis Island: Newcomers and Natives in the 1910 Census* (New York, 1994), 175–208; Wildsmith, Gutmann, and Gratton, "Assimilation and Intermarriage for U.S. Immigrant Groups."

be true for black–white intermarriage; black man–white woman couples are more common than black woman–white man couples. Gender differences are also evident in the determinants of intermarriage, but the gender patterns differ across origins, making a simple interpretation difficult.¹⁵

In this study, most of our attention is devoted to the importance of community-level factors to the likelihood of intermarriage. In other words, we examine how conditions in immigrant communities shaped marriage outcomes. We expect both relative group size and sex ratio of origin groups to be serious constraints on the opportunities for endogamy. We also expect that time spent in the United States by groups of foreign origin to be positively associated with the likelihood of exogamy, and, in particular, with the chances of obtaining a spouse from the native population. Finally, a diversity of immigrant origins in the community is expected to promote exogamy with other immigrants, and a sizable proportion of native-born whites to promote intermarriage between them and immigrants.

DATA AND METHODS Our data sources include the 1910 IPUMS census sample and the 1910 complete-count microdata collected by Ancestry.com, recently made available by the Minnesota Population Center. Conducted during the high point of European immigration, the 1910 census included information about the birthplace of immigrants and their parents, duration of marriage, ability to speak English, year of immigration, and citizenship status. It also included questions on the number of times married, language spoken, mother tongue, and mothers' and fathers' mother tongue.¹⁶

15 See, for example, Qian, "Breaking the Racial Barriers: Variations in Interracial Marriage Between 1980 and 1990"; Jerry A. Jacobs and Teresa G. Labov, "Gender Differentials in Intermarriage among Sixteen Race and Ethnic Groups," *Sociological Forum*, XVII (2002), 621–646. For differences in gender patterns of intermarriage by origin, see Sassler, "Gender and Ethnic Differences in Marital Assimilation"; for other research about Asian–American intermarriage, Sharon M. Lee and Keiko Yamanaka, "Patterns of Asian American Intermarriage and Marital Assimilation," *Journal of Comparative Family Studies*, XXI (1990), 287–305; Lee and Marilyn Fernandez, "Trends in Asian American Racial/Ethnic Intermarriage: A Comparison of 1980 and 1990 Census Data," *Sociological Perspectives*, XLI (1998), 323–342; Lee and Barry Edmonston, "New Marriages, New Families: U.S. Racial and Hispanic Intermarriage," *Population Bulletin*, LX (2005), 1–36.

16 Ruggles et al., "Integrated Public Use Microdata Series: Version 6.0."

We relied on the complete-count data to investigate the influence of contextual characteristics on immigrant behavior. Prior studies based on low-density samples struggled to operationalize measures of such contextual effects. For example, in Wildsmith et al.'s study, low sample densities limited the estimations of contextual variables to the state level or to the SEA level (an aggregation of two or more contiguous counties with similar economic orientations). Logan and Shin's study of the 1880 census instead covered contextual effects in sixty-six cities with populations greater than 25,000. The complete-count data set allowed us to estimate contextual variables at a more magnified geographical focus than either of these prior studies. Although the 1910 complete-count data contain a limited number of variables and do not identify neighborhood or census tract, they do identify individuals' birthplace, parental birthplaces, and residence location by census enumeration district and county. The 1910 census included about 70,000 unique census-enumeration districts containing an average of 1,300 inhabitants or so.¹⁷

Although states or SEAs are too large to constitute a marriage market, our exploratory analysis suggested that most enumeration districts were too small to constitute a local marriage market. We instead used county as the main geographical level. A major advantage of using the complete-count data is the ability to calculate contextual variables based on the total population, which avoids problems of small numbers. These contextual variables at the county level in the 1910 complete-count file were matched to the 1910 IPUMS sample, resulting in a data set with about 70,000 individuals aged twenty to twenty-nine in 1,837 counties (see Table 1). The county populations ranged from about 800 to 3.8 million, with a mean of slightly greater than 50,000. In contrast, the average population of an SEA was more than 184,000.

We constructed several contextual variables for each county. Relative *group size* is defined as the proportion of foreign-born from the country group of origin in relation to the total population

17 Wildsmith, Gutmann, and Gratton, "Assimilation and Intern marriage for U.S. Immigrant Groups"; Sessler, "Gender and Ethnic Differences in Marital Assimilation"; Logan and Shin, "Immigrant Incorporation in American Cities." Unfortunately, the current version of the 1910 complete-count data set lacks several variables needed for the marriage models, including coded occupations and ability to speak English. The complete-count data set also lacks information about mother tongue, mother's mother tongue, and father's mother tongue.

Table 1 Descriptive Statistics of the Analytical Sample (First and Second Generation, Aged Twenty to Twenty-Nine in 1910)

| | MEN | WOMEN |
|-------------------------|------|-------|
| MARITAL STATUS (%) | | |
| Never married | 72.6 | 48.6 |
| Endogamy | 16.3 | 30.3 |
| NWNP Exogamy | 6.2 | 11.4 |
| Other Exogamy | 4.8 | 9.7 |
| ORIGIN (%) | | |
| Denmark | 1.9 | 1.6 |
| Norway | 4.7 | 4.2 |
| Sweden | 5.8 | 5.5 |
| Great Britain | 11.6 | 12.8 |
| Ireland | 13.6 | 18.9 |
| France | 1.2 | 1.3 |
| Switzerland | 1.1 | 1.2 |
| Italy | 10.8 | 5.8 |
| Austria | 10.0 | 7.5 |
| Germany | 27.8 | 32.3 |
| Russian Empire | 11.7 | 9.0 |
| GENERATION (%) | | |
| 1G | 37.8 | 26.1 |
| 1.5G | 9.1 | 10.2 |
| 2G mixed ancestry | 20.4 | 25.2 |
| 2G single ancestry | 32.8 | 38.5 |
| Age (mean) | 24.4 | 24.3 |
| Age at marriage (mean)* | 22.9 | 20.8 |
| RESIDENCE LOCATION (%) | | |
| Rural | 33.9 | 28.0 |
| Urban pop 2,500–9,999 | 7.4 | 6.9 |
| Urban pop 1,000–99,999 | 17.5 | 18.6 |
| Urban pop 100,000 + | 41.2 | 46.6 |
| ENGLISH SPEAKER (%) | | |
| No | 14.2 | 9.0 |
| Yes | 85.8 | 91.0 |
| LITERATE (%) | | |
| No | 7.3 | 5.6 |
| Yes | 92.7 | 94.4 |
| REGION (%) | | |
| Northeast | 41.5 | 44.9 |
| Midwest | 39.2 | 40.2 |

Table 1 (Continued)

| | MEN | WOMEN |
|----------------------------------|--------|--------|
| South | 6.0 | 6.2 |
| West | 13.4 | 8.8 |
| Occupational-income score (mean) | 22.3 | 6.8 |
| CONTEXTUAL VARIABLES (MEANS) | | |
| Diversity index | 0.81 | 0.81 |
| Group size | 0.05 | 0.04 |
| Proportion of lifetime in U.S. | 0.48 | 0.52 |
| Sex ratio | 1.94 | 1.29 |
| Proportion NWNP | 0.37 | 0.37 |
| Individuals | 38,479 | 32,358 |
| Counties | 1,837 | 1,837 |

*Only for currently married.

aged twenty to twenty-nine. The *proportion NWNP* is the share of the population in the district that was white and born in the United States with two native-born parents. The origin-specific *sex ratio* is defined as the number of foreign-born men divided by the number of foreign-born women of the same origin group in the age range twenty to twenty-nine. Because we looked at marriages in a cross-section, these measures were deemed more relevant than using only the single population of marriageable age. They served as proxies for the marriage market in the areas where people lived.¹⁸

The *diversity index* (D_i) indicates the inverse probability that two randomly chosen individuals in community i were from the same country of origin j :

$$D_i = 1 - \sum_{j=1}^k p_{ij}^2,$$

18 Several studies have relied on constructed ethnicity measures based on birthplace, language spoken, mother tongue, and parental mother tongues rather than nativity measures. In Watkins' edited collection *After Ellis Island*, for example, researchers assumed that individuals in the 1910 PUS with a Yiddish mother tongue and a birthplace in Austria, Hungary, Germany, Austria-Poland, or Romania were Central European Jews (366–371). Initially, we conducted our study using nativities and constructed ethnicities. Ultimately, however, we decided to focus on nativities because the 1910 complete-count data set, though including birthplace and parental birthplaces, did not include mother tongue, mothers' mother tongue, or fathers' mother tongue.

where p_{ij} is the proportion of origin group j in the immigrant population of community i . The diversity index ranges from 0 (no diversity) to 1 (complete diversity). It originates from Simpson's studies of habitat biodiversity, but it appears in a large number of economic studies (often under the term *fractionalization*). It was calculated based only on the foreign-born population to avoid high correlation with the proportion of the native-born population. Finally, the *proportion of life spent in the U.S.* by the country group of origin is calculated as the total person-years lived in the United States by the population (first generation) in the origin group divided by the total person-years lived by the population of the origin group (inside and outside the United States). It is based on information on age and year of immigration collected by the census.¹⁹

We analyzed the experience of eleven different groups of European origin: immigrants born in Denmark, Norway, Sweden, Britain (England, Scotland, and Wales), Ireland, France, Switzerland, Italy, Austria, Germany, and the Russian Empire (tsarist Russia). These European immigrant groups, the most numerous at the time, had the most intermarriages with NWNP. Other countries had too few people (we excluded countries with fewer than twenty-five intermarriages with NWNP among individuals aged twenty to twenty-nine in the 1910 IPUMS sample). The analytical sample included the never-married and the currently married populations, thus excluding all previously married individuals (those remarried as well as widows, widowers, and divorcees).

We categorized marital outcomes into three categories based on origin and immigrant generation: (1) endogamy—married to a spouse born in the same country of origin (first generation) or born in the United States with at least one parent born in the same country of origin (second generation); (2) NWNP exogamy—married to a U.S.-born white spouse with two U.S.-born parents; (3) other exogamy—married to any other spouse, including foreign-born, second-generation immigrants from different origins, and U.S.-born non-whites. The fact that we were not able to identify third and higher generations in the data does not imply that assimilation was necessarily complete by the third generation.²⁰

19 Edward H. Simpson, "Measurement of Diversity," *Nature*, CLXIII (1949), 688. See, for example, Alberton Alesina et al., "Fractionalization," *Journal of Economic Growth*, VIII (2003), 155–194.

20 Although Ireland did not become independent until 1922, we include it as a separate country of origin because of its distinctive cultural and religious characteristics and the large

We estimated two sets of models—a binary logit model of being married versus being never-married and a multinomial logit model of the outcomes defined above with endogamy as the base outcome. This approach allowed us to study overall marriage and different marriage outcomes using the same set of explanatory variables. To facilitate comparisons, we transformed the contextual variables to z-scores (with mean=0 and standard deviation=1).

Several individual-level variables were included to capture the factors most often shown to be important determinants of intermarriage. Country of origin measured differences across immigrant groups in intermarriage propensities. We distinguished three different immigrant generations: (1) 1G—foreign born arriving in the United States after the age of 12; (2) 1.5G—foreign-born arriving in the United States at age twelve or younger; and (3) 2G—U.S.-born with at least one foreign-born parent. We further split the second generation to distinguish mixed and single ancestry (2G mixed and 2G single). For the second generation of mixed ancestry, we based origin on father’s origin. In cases when the father was U.S.-born, however, we based it on mother’s origin. Place of residence distinguishes rural areas from urban areas of varied population sizes (2,500–9,999, 10,000–99,999, 100,000 or more). We included a variable for the ability to speak English, which is a crucial factor in meeting a potential marriage partner, especially an exogamous spouse, as well as a variable indicating literacy. We also added an occupational-income score, a measure of the median earnings of occupations in 1950 (in hundreds of dollars) and an assumed proxy for socioeconomic status in 1910. Finally, we controlled for individual age and age at marriage (linear and squared terms) in the models (age in the models of overall marriage and age at marriage in the exogamy models).²¹

DESCRIPTIVE ANALYSIS Table 1 shows the descriptive statistics of the study population, which consisted of never-married and currently

number of individuals in the sample born in Ireland. Prior studies focused on race or ethnicity instead of country of origin. See, for example, Pagnini and Morgan, “Intermarriage and Social Distance”; Kalmijn and Tubergen, “Comparative Perspective on Intermarriage.” As discussed in note 18 above, however, the complete-count data lack the required mother-tongue variables to construct ethnicity measures. Logan and Shin, “Assimilation by the Third Generation?”

21 Matthew Sobek, “The Comparability of Occupations and the Generation of Income Scores,” *Historical Methods*, XXVIII (1995), 47–51.

first-married, first- and second-generation men and women aged twenty to twenty-nine from eleven identified groups of European origin in the 1910 IPUMS samples. Only first-generation immigrants who married after their arrival to the United States were included—in total, 38,479 men and 32,358 women with full information about all variables. The most numerous immigrant groups were the German (30 percent), British, and Irish (at 10 to 20 percent each), followed by Russians, Austrians, and Italians (each at around 10 percent for men and slightly less for women); the other groups constituted 1 to 5 percent each. Jews formed a substantial part of the immigrant population from the Russian Empire.²²

The analytical sample shows 38 percent men and 26 percent women in the first-generation of immigrants (1G), 9 percent men and 10 percent women among the foreign-born who immigrated as children (1.5G), and 53 percent men and 64 percent women in the second generation (2G). The gender difference in the proportion of immigrants by generation reflected the proportional dominance of young adult males among first-generation immigrants prior to numerical restrictions in the 1920s. About two-thirds of the second generation were from single ancestry, and one-third from mixed ancestry. Immigrants from mixed ancestry comprised a large majority (about 85 percent) with a U.S.-born parent.²³

Table 2 is a cross-tabulation of origin and generation. It shows high proportions of the first-generation immigrants from Italy, Austria, and Russia; the second generation was dominated by immigrants from Britain, Ireland, and, Germany, reflecting well-known differences in immigration flows between these origin groups.

Among the men in the study population, 73 percent were never-married; among women, it was 49 percent. About 60 percent of married men and women in the sample were endogamously married (see Table 1). Slightly more than 20 percent of the currently married were intermarried with natives (NWNP)—some of them likely third-generation members of the same ethnic group—leaving about 20 percent exogamously married to other

22 Lieberman and Waters, *From Many Strands*, 25–27; Watkins, “Background: About the 1910 Census,” in *idem* (ed.), *After Ellis Island*, 11–33.

23 Barde, Carter, and Sutch, “International Migration,” 535.

Table 2 Immigrant Generation by Country of Origin (%)

| A. MEN | | | | | | |
|----------------|----|------|----------------------|-----------------------|-------|--------|
| | 1G | 1.5G | 2G MIXED ANCESTRY | 2G SINGLE ANCESTRY | TOTAL | N |
| Denmark | 35 | 10 | 17 | 38 | 100 | 730 |
| Norway | 39 | 6 | 13 | 41 | 100 | 1,792 |
| Sweden | 41 | 11 | 10 | 38 | 100 | 2,248 |
| Great Britain | 22 | 11 | 40 | 27 | 100 | 4,479 |
| Ireland | 16 | 4 | 34 | 46 | 100 | 5,216 |
| France | 30 | 11 | 41 | 18 | 100 | 455 |
| Switzerland | 25 | 9 | 35 | 30 | 100 | 404 |
| Italy | 79 | 11 | 2 | 9 | 100 | 4,137 |
| Austria | 74 | 8 | 4 | 14 | 100 | 3,839 |
| Germany | 10 | 8 | 29 | 52 | 100 | 10,678 |
| Russian Empire | 76 | 13 | 2 | 9 | 100 | 4,501 |
| Total | 38 | 9 | 20 | 33 | 100 | 38,479 |
| B. WOMEN | | | | | | |
| | 1G | 1.5G | 2G MIXED ANCESTRY | 2G SINGLE ANCESTRY | TOTAL | N |
| Denmark | 20 | 9 | 23 | 47 | 100 | 525 |
| Norway | 23 | 7 | 16 | 55 | 100 | 1,355 |
| Sweden | 33 | 11 | 11 | 45 | 100 | 1,770 |
| Great Britain | 14 | 12 | 45 | 29 | 100 | 4,127 |
| Ireland | 22 | 6 | 31 | 41 | 100 | 6,122 |
| France | 17 | 12 | 50 | 21 | 100 | 413 |
| Switzerland | 18 | 9 | 46 | 27 | 100 | 377 |
| Italy | 63 | 18 | 3 | 16 | 100 | 1,888 |
| Austria | 60 | 11 | 6 | 22 | 100 | 2,439 |
| Germany | 8 | 8 | 30 | 53 | 100 | 10,442 |
| Russian Empire | 64 | 20 | 3 | 13 | 100 | 2,900 |
| Total | 26 | 10 | 25 | 39 | 100 | 32,358 |

immigrants or to other non-white U.S.-born ethnic groups. This breakdown clearly supports the conclusions from previous research about strong endogamy among immigrants in the United States at the turn of the twentieth century.

Table 3 shows the marriage outcomes across origin groups in more detail. Male immigrants from Denmark, Sweden, Norway, France, Ireland, Italy, Austria, and Russia were more likely to be never-married. Italy, Austria, and Russia had lower than average

Table 3 Marital Outcomes by Country of Origin (%)

| A. MEN | | | | | | |
|----------------|------------------|--------------|---------------------|----------------------|-------|--------|
| | NEVER MARRIED | ENDO GAMY | NWNP EXO GAMY | OTHER EXO GAMY | TOTAL | N |
| Denmark | 76 | 10 | 6 | 8 | 100 | 730 |
| Norway | 83 | 10 | 4 | 3 | 100 | 1,792 |
| Sweden | 81 | 10 | 4 | 4 | 100 | 2,248 |
| Great Britain | 69 | 9 | 14 | 8 | 100 | 4,479 |
| Ireland | 79 | 9 | 6 | 5 | 100 | 5,216 |
| France | 76 | 5 | 9 | 10 | 100 | 455 |
| Switzerland | 70 | 6 | 11 | 13 | 100 | 404 |
| Italy | 73 | 24 | 1 | 2 | 100 | 4,137 |
| Austria | 70 | 26 | 1 | 3 | 100 | 3,839 |
| Germany | 70 | 16 | 10 | 5 | 100 | 10,678 |
| Russian Empire | 69 | 27 | 1 | 4 | 100 | 4,501 |
| Total | 73 | 16 | 6 | 5 | 100 | 38,479 |
| B. WOMEN | | | | | | |
| | NEVER MARRIED | ENDO GAMY | NWNP EXO GAMY | OTHER EXO GAMY | TOTAL | N |
| Denmark | 47 | 21 | 14 | 19 | 100 | 525 |
| Norway | 56 | 26 | 7 | 11 | 100 | 1,355 |
| Sweden | 59 | 22 | 8 | 11 | 100 | 1,770 |
| Great Britain | 49 | 14 | 23 | 14 | 100 | 4,127 |
| Ireland | 67 | 14 | 10 | 9 | 100 | 6,122 |
| France | 52 | 10 | 15 | 23 | 100 | 413 |
| Switzerland | 53 | 10 | 21 | 17 | 100 | 377 |
| Italy | 24 | 71 | 1 | 4 | 100 | 1,888 |
| Austria | 31 | 56 | 2 | 11 | 100 | 2,439 |
| Germany | 47 | 29 | 15 | 9 | 100 | 10,442 |
| Russian Empire | 36 | 58 | 1 | 5 | 100 | 2,900 |
| Total | 49 | 30 | 11 | 10 | 100 | 32,358 |

proportions of never-married women, thus indicating a male dominance among the immigrants from those countries. Immigrants from Italy, Austria, and Russia were also the most endogamous. Immigrants from Britain had the highest intermarriage rates (with NWNP). In contrast, the most endogamous immigrants from Italy, Austria, and Russia were also highly unlikely to be intermarried with natives in 1910 (only 1 to 2 percent of the whole

sample). These differences across countries of origin are well in line with the standard narrative of immigrant assimilation in the United States at the turn of the twentieth century.

About 14 percent of men and 9 percent of women in our sample did not speak English, and 6 to 7 percent of them were illiterate (Table 1). Two-thirds lived in an urban area, and more than 40 percent lived in the Northeast census region (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont); only 6 percent lived in the South. The substantial difference in occupational-income score between men and women is due to the small number of employed married women. Our analysis includes this variable mainly as a control for socioeconomic status without attaching much interpretation to it.

Finally, looking at the contextual variables in Table 1, the 0.8 mean of the diversity points to a high degree of diversity in immigrant origins in many counties. The average proportion of natives in counties where immigrants lived, 40 percent, indicates a high degree of residential segregation. About half of immigrants' lives, on average, were spent in the United States, though the differences across country groups were considerable. The male dominance of much immigration in the decades prior to 1910 among peak marriage ages is also clearly visible in the average sex ratio. Men aged twenty to twenty-nine resided in counties with an average of almost two men for each woman; women resided in counties with an average of 1.3 men for each woman.

Table 4, which contains detailed statistics of the contextual variables, shows means and standard deviations of the different variables across groups by their country of origin. Relative group size varied from less than 1 percent to about 10 percent. The county sex ratio for men varied from about 1.2 men per woman for Ireland to almost 4 men per woman for Italy. The sex ratios for women were much lower, between 0.8 for Ireland to 2.1 for Italy. The considerable variation in the proportion of aggregate time spent by first-generation immigrants in the United States reflects both differences in age at migration and the date when the majority of immigrants arrived.

REGRESSION ANALYSIS Table 5 displays exponentiated coefficients from a binary logit model and a multinomial logit model for men

Table 4 Descriptive Statistics of the Contextual Variables by Country of Origin

| | DIVERSITY INDEX | | GROUP SIZE | | PROPORTION OF LIFE IN U.S. | | SEX RATIO | | PROPORTION N/W/P | |
|----------------|-----------------|--------------------|------------|--------------------|----------------------------|--------------------|-----------|--------------------|------------------|--------------------|
| | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION |
| | | | | | | | | | | |
| Denmark | 0.81 | 0.10 | 0.01 | 0.02 | 0.50 | 0.05 | 2.23 | 2.91 | 0.39 | 0.15 |
| Norway | 0.79 | 0.11 | 0.05 | 0.05 | 0.50 | 0.07 | 2.87 | 3.51 | 0.32 | 0.13 |
| Sweden | 0.82 | 0.11 | 0.04 | 0.04 | 0.49 | 0.05 | 2.44 | 6.31 | 0.35 | 0.15 |
| Great Britain | 0.82 | 0.10 | 0.02 | 0.02 | 0.56 | 0.06 | 1.73 | 1.86 | 0.41 | 0.19 |
| Ireland | 0.83 | 0.07 | 0.03 | 0.03 | 0.60 | 0.05 | 1.18 | 3.64 | 0.36 | 0.16 |
| France | 0.82 | 0.14 | 0.00 | 0.01 | 0.50 | 0.10 | 1.87 | 3.50 | 0.39 | 0.17 |
| Switzerland | 0.81 | 0.11 | 0.01 | 0.02 | 0.55 | 0.07 | 1.86 | 1.49 | 0.45 | 0.18 |
| Italy | 0.84 | 0.07 | 0.07 | 0.04 | 0.28 | 0.06 | 3.87 | 15.45 | 0.37 | 0.18 |
| Austria | 0.83 | 0.07 | 0.07 | 0.04 | 0.33 | 0.10 | 2.56 | 5.01 | 0.35 | 0.17 |
| Germany | 0.78 | 0.13 | 0.03 | 0.02 | 0.59 | 0.04 | 1.25 | 1.10 | 0.40 | 0.18 |
| Russian Empire | 0.83 | 0.07 | 0.09 | 0.06 | 0.31 | 0.06 | 1.73 | 1.79 | 0.32 | 0.16 |
| Total | 0.81 | 0.10 | 0.05 | 0.04 | 0.48 | 0.14 | 1.94 | 5.92 | 0.37 | 0.17 |

Table 4 (Continued)

| | DIVERSITY INDEX | | GROUP SIZE | | PROPORTION OF LIFE IN U.S. | | SEX RATIO | | PROPORTION NWNP | |
|----------------|-----------------|--------------------|------------|--------------------|----------------------------|--------------------|-----------|--------------------|-----------------|--------------------|
| | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION |
| | | | | | | | | | | |
| Denmark | 0.81 | 0.10 | 0.01 | 0.02 | 0.51 | 0.05 | 1.84 | 1.88 | 0.40 | 0.15 |
| Norway | 0.77 | 0.11 | 0.05 | 0.05 | 0.52 | 0.07 | 1.76 | 1.69 | 0.31 | 0.12 |
| Sweden | 0.81 | 0.10 | 0.04 | 0.04 | 0.49 | 0.05 | 1.60 | 3.68 | 0.35 | 0.16 |
| Great Britain | 0.82 | 0.09 | 0.02 | 0.02 | 0.57 | 0.06 | 1.41 | 1.20 | 0.41 | 0.18 |
| Ireland | 0.83 | 0.07 | 0.03 | 0.03 | 0.60 | 0.05 | 0.78 | 1.44 | 0.35 | 0.16 |
| France | 0.81 | 0.14 | 0.00 | 0.00 | 0.53 | 0.09 | 1.15 | 1.28 | 0.38 | 0.17 |
| Switzerland | 0.81 | 0.09 | 0.01 | 0.02 | 0.56 | 0.07 | 1.45 | 0.97 | 0.43 | 0.17 |
| Italy | 0.83 | 0.07 | 0.07 | 0.03 | 0.30 | 0.05 | 2.05 | 2.46 | 0.32 | 0.15 |
| Austria | 0.83 | 0.07 | 0.06 | 0.04 | 0.35 | 0.09 | 1.55 | 1.05 | 0.32 | 0.16 |
| Germany | 0.78 | 0.13 | 0.03 | 0.02 | 0.59 | 0.04 | 1.15 | 0.71 | 0.40 | 0.18 |
| Russian Empire | 0.83 | 0.08 | 0.10 | 0.06 | 0.32 | 0.06 | 1.47 | 0.97 | 0.30 | 0.15 |
| Total | 0.81 | 0.10 | 0.04 | 0.04 | 0.52 | 0.12 | 1.29 | 1.53 | 0.37 | 0.17 |

Table 5 Determinants of Marital Outcomes (Exponentiated Coefficients from Binary and Multinomial Logit Models)

| A. MEN | | | | | | |
|----------------------------|-------------------|----------|-----------------------------------|----------|---------------|----------|
| | LOGIT | | MLOGIT (ENDOGENY BASE OUTCOME) | | | |
| | CURRENTLY MARRIED | | EXOGENY NWNP | | OTHER EXOGENY | |
| | OR | <i>p</i> | OR | <i>p</i> | OR | <i>p</i> |
| ORIGIN | | | | | | |
| Denmark | 0.93 | 0.47 | 0.44 | 0.00 | 1.04 | 0.86 |
| Norway | 0.59 | 0.00 | 0.44 | 0.00 | 0.61 | 0.01 |
| Sweden | 0.62 | 0.00 | 0.51 | 0.00 | 0.66 | 0.01 |
| Great Britain | 1.00 | ref | 1.00 | ref | 1.00 | ref |
| Ireland | 0.41 | 0.00 | 0.51 | 0.00 | 0.67 | 0.00 |
| France | 0.81 | 0.09 | 1.23 | 0.50 | 2.06 | 0.01 |
| Switzerland | 1.11 | 0.40 | 1.13 | 0.68 | 2.86 | 0.00 |
| Italy | 1.55 | 0.00 | 0.16 | 0.00 | 0.20 | 0.00 |
| Austria | 1.56 | 0.00 | 0.08 | 0.00 | 0.35 | 0.00 |
| Germany | 0.86 | 0.00 | 0.42 | 0.00 | 0.42 | 0.00 |
| Russian Empire | 1.36 | 0.00 | 0.09 | 0.00 | 0.49 | 0.00 |
| GENERATION | | | | | | |
| 1G | 1.00 | ref | 1.00 | ref | 1.00 | ref |
| 1.5G | 1.40 | 0.00 | 3.13 | 0.00 | 2.38 | 0.00 |
| 2G mixed ancestry | 1.06 | 0.18 | 11.78 | 0.00 | 6.27 | 0.00 |
| 2G single ancestry | 1.21 | 0.00 | 5.54 | 0.00 | 3.12 | 0.00 |
| Age/age at marriage | 6.49 | 0.00 | 1.08 | 0.42 | 0.90 | 0.29 |
| Age/age at married squared | 0.97 | 0.00 | 1.00 | 0.27 | 1.00 | 0.30 |
| RESIDENCE LOCATION | | | | | | |
| Rural | 1.00 | ref | 1.00 | ref | 1.00 | ref |
| Urban pop 2,500–9,999 | 0.96 | 0.39 | 0.97 | 0.81 | 1.12 | 0.37 |
| Urban pop 1,000–99,999 | 0.95 | 0.24 | 1.07 | 0.48 | 1.36 | 0.00 |
| Urban pop 100,000 + | 0.99 | 0.78 | 1.02 | 0.80 | 1.33 | 0.00 |
| ENGLISH SPEAKER | | | | | | |
| No | 0.57 | 0.00 | 0.15 | 0.00 | 0.57 | 0.00 |
| Yes | 1.00 | ref | 1.00 | ref | 1.00 | ref |
| LITERATE | | | | | | |
| No | 1.04 | 0.45 | 0.59 | 0.04 | 0.62 | 0.01 |
| Yes | 1.00 | ref | 1.00 | ref | 1.00 | ref |

Table 5 (Continued)

| A. MEN | | | | | | |
|--------------------------------|-------------------|----------|-----------------------------------|----------|---------------|----------|
| | LOGIT | | MLOGIT (ENDOGENY BASE OUTCOME) | | | |
| | CURRENTLY MARRIED | | EXOGENY NWNP | | OTHER EXOGENY | |
| | OR | <i>p</i> | OR | <i>p</i> | OR | <i>p</i> |
| | | | | | | |
| REGION | | | | | | |
| Northeast | 1.00 | ref | 1.00 | ref | 1.00 | ref |
| Midwest | 0.99 | 0.65 | 0.79 | 0.00 | 0.79 | 0.00 |
| South | 1.09 | 0.13 | 1.23 | 0.09 | 0.94 | 0.64 |
| West | 0.65 | 0.00 | 0.90 | 0.37 | 0.98 | 0.85 |
| Occupational-income score | 1.03 | 0.00 | 1.02 | 0.00 | 1.01 | 0.00 |
| CONTEXTUAL VARIABLES | | | | | | |
| Diversity index | 0.96 | 0.01 | 1.04 | 0.27 | 1.06 | 0.08 |
| Group size | 1.09 | 0.00 | 0.64 | 0.00 | 0.60 | 0.00 |
| Proportion of lifetime in U.S. | 1.07 | 0.04 | 0.89 | 0.16 | 0.86 | 0.06 |
| Sex ratio | 0.44 | 0.00 | 1.91 | 0.00 | 1.86 | 0.00 |
| Proportion NWNP | 1.11 | 0.00 | 1.53 | 0.00 | 0.79 | 0.00 |
| Constant | 0.00 | 0.00 | 0.11 | 0.04 | 0.59 | 0.64 |
| N | 38,479 | | | | 10,527 | |
| Overall p | 0.000 | | | | 0.000 | |
| Log likelihood | -18880 | | | | -7735 | |
| B. WOMEN | | | | | | |
| | LOGIT | | MLOGIT (ENDOGENY BASE OUTCOME) | | | |
| | CURRENTLY MARRIED | | EXOGENY NWNP | | OTHER EXOGENY | |
| | OR | <i>p</i> | OR | <i>p</i> | OR | <i>p</i> |
| | | | | | | |

| | | | | | | |
|----------------|------|------|------|------|------|------|
| ORIGIN | | | | | | |
| Denmark | 0.87 | 0.26 | 0.51 | 0.00 | 1.01 | 0.93 |
| Norway | 0.48 | 0.00 | 0.44 | 0.00 | 0.73 | 0.02 |
| Sweden | 0.41 | 0.00 | 0.44 | 0.00 | 0.77 | 0.03 |
| Great Britain | 1.00 | ref | 1.00 | ref | 1.00 | ref |
| Ireland | 0.54 | 0.00 | 0.63 | 0.00 | 0.77 | 0.00 |
| France | 0.67 | 0.00 | 0.90 | 0.64 | 2.12 | 0.00 |
| Switzerland | 0.65 | 0.00 | 1.45 | 0.10 | 1.91 | 0.01 |
| Italy | 2.53 | 0.00 | 0.05 | 0.00 | 0.16 | 0.00 |
| Austria | 1.21 | 0.06 | 0.09 | 0.00 | 0.60 | 0.00 |
| Germany | 0.99 | 0.92 | 0.42 | 0.00 | 0.43 | 0.00 |
| Russian Empire | 1.10 | 0.39 | 0.04 | 0.00 | 0.33 | 0.00 |

Table 5 (Continued)

| B. WOMEN | | | | | | |
|--------------------------------|----------------------|----------|-----------------------------------|----------|------------------|----------|
| | LOGIT | | MLOGIT (ENDOGENY BASE OUTCOME) | | | |
| | CURRENTLY MARRIED | | EXOGENY NWNP | | OTHER EXOGENY | |
| | OR | <i>p</i> | OR | <i>p</i> | OR | <i>p</i> |
| GENERATION | | | | | | |
| 1G | 1.00 | ref | 1.00 | ref | 1.00 | ref |
| 1.5G | 1.46 | 0.00 | 2.67 | 0.00 | 2.11 | 0.00 |
| 2G mixed ancestry | 1.04 | 0.43 | 8.57 | 0.00 | 4.44 | 0.00 |
| 2G single ancestry | 1.17 | 0.00 | 4.44 | 0.00 | 2.69 | 0.00 |
| Age/age at marriage | 3.76 | 0.00 | 0.91 | 0.16 | 0.97 | 0.68 |
| Age/age at married squared | 0.98 | 0.00 | 1.00 | 0.16 | 1.00 | 0.82 |
| RESIDENCE LOCATION | | | | | | |
| Rural | 1.00 | ref | 1.00 | ref | 1.00 | ref |
| Urban pop 2,500–9,999 | 1.19 | 0.01 | 1.11 | 0.27 | 1.30 | 0.01 |
| Urban pop 1,000–99,999 | 1.05 | 0.33 | 1.49 | 0.00 | 1.38 | 0.00 |
| Urban pop 100,000 + | 0.99 | 0.74 | 1.13 | 0.07 | 1.19 | 0.01 |
| ENGLISH SPEAKER | | | | | | |
| No | 2.22 | 0.00 | 0.10 | 0.00 | 0.43 | 0.00 |
| Yes | 1.00 | ref | 1.00 | ref | 1.00 | ref |
| LITERATE | | | | | | |
| No | 1.46 | 0.00 | 0.56 | 0.02 | 0.80 | 0.09 |
| Yes | 1.00 | ref | 1.00 | ref | 1.00 | ref |
| REGION | | | | | | |
| Northeast | 1.00 | ref | 1.00 | ref | 1.00 | ref |
| Midwest | 1.21 | 0.00 | 0.85 | 0.01 | 0.96 | 0.43 |
| South | 1.34 | 0.00 | 1.02 | 0.82 | 1.20 | 0.10 |
| West | 1.25 | 0.00 | 1.12 | 0.17 | 1.32 | 0.00 |
| Occupational income score | 0.81 | 0.00 | 1.00 | 0.76 | 1.01 | 0.01 |
| CONTEXTUAL VARIABLES | | | | | | |
| Diversity index | 1.00 | 0.81 | 1.10 | 0.00 | 1.17 | 0.00 |
| Group size | 1.03 | 0.22 | 0.60 | 0.00 | 0.60 | 0.00 |
| Proportion of lifetime in U.S. | 0.64 | 0.00 | 0.90 | 0.16 | 0.91 | 0.14 |
| Sex ratio | 1.09 | 0.16 | 1.07 | 0.26 | 1.02 | 0.72 |
| Proportion NWNP | 1.06 | 0.01 | 1.44 | 0.00 | 0.80 | 0.00 |
| Constant | 0.00 | 0.00 | 0.57 | 0.41 | 0.36 | 0.16 |
| N | 32,358 | | | | 16,627 | |
| Overall p | 0.000 | | | | 0.000 | |
| Log likelihood | -12988 | | | | -12574 | |

and women separately. The exponentiated coefficients can be interpreted as odds ratios of marriage outcomes relative to the base outcome of being never-married. In the binary logit model, we focus on overall chances of being married in 1910, whereas in the multinomial model, we compare different marriage outcomes. The coefficients for the contextual variables are standardized, expressing the effect of a one standard deviation change in the contextual variable on marriage outcome. Looking first at origin, with Britain as the reference category, men from Italy, Austria, and Russia were more likely to be married and more likely to be endogamously married. British, French, and Swiss men were more likely to be intermarried with native whites; other immigrant groups were less likely to be intermarried. Regarding endogamy, relative risk ratios for Scandinavian, Irish, and German immigrants were 0.4 to 0.5; compared to the British reference, those for Italian, Russian, and Austrian immigrants were 0.08 to 0.16. For women (panel B), the patterns were similar, but women from Italy (compared to the British) were much more likely to be married than men of the same origins.

First-generation immigrants aged twenty to twenty-nine were least likely to be married, and the 1.5G immigrants were most likely to be married. The 1.5G and the 2G immigrants were also more likely to intermarry both with natives and other immigrants than were the 1G immigrants. Second-generation men of mixed ancestry were relatively more likely to intermarry with natives and immigrants from different origins than were single-ancestry second generation men. These findings are in accord with expectations from basic assimilation theory. The patterns were highly similar for men and women.

In general, urban immigrants were less endogamous. For men, the most pronounced differences were found for other exogamy; women were also more likely to be married to natives. Non-English-speaking men were both less likely to be married overall and, when married, less likely to be married exogamously, as assimilation theory predicts. Non-English-speaking women, however, were more likely to be married but much less likely to be intermarried. The patterns were similar for literacy, also suggesting the importance of language proficiency in the assimilation process. A higher occupational score for men was associated with a greater likelihood of being married, as well as a slightly greater chance of being intermarried with natives and other immigrants. For women,

a higher occupational score was associated with less marriage overall, but it had no association with native intermarriage.

As for the contextual effects, a greater diversity of the immigrant population at the county level was associated with lower overall marriage chances for men and lower chances of endogamy. For women, diversity was not associated with marriage chances in general, but it was associated with more exogamy relative to endogamy, just as for men. A larger relative group size meant more marriage overall, for both men and women. As expected, group size also affected marital outcomes, but in a markedly different way. Specifically, it increased the chances of endogamy and reduced the chances of exogamy, both with natives and other immigrants. The relative risk ratio for intermarriage with native whites of native parentage versus endogamy is about 0.6, similar to the risk ratio for other exogamy, clearly indicating the kind of effect that structural marriage-market theory expects. A similar indication follows from the association between the origin-specific sex ratio and marriage outcomes. A higher sex ratio (more men relative to women) lowered overall marriage chances for men. The likelihood of intermarriage with natives, relative to endogamy, however, increased substantially (relative risk ratio of 1.9), as did that for other exogamy. For women, the pattern was reversed—a better chance of overall marriage but no statistically significant relationship with intermarriage.²⁴

We also explored whether the association between relative group size and marital outcomes differed across outcomes, using interaction models. For the most part, we did not find dramatically different patterns, but the negative relationship between group size and exogamy was strongest for countries of origin with relatively high intermarriage rates (for example, Britain) and lower for the most endogamous countries of origin such as Italy and Russia (detailed results not shown).

A greater proportion of native whites of native parentage in a county increased marriage in general for both men and women, at least partly because of marriage-market structure—the availability of more natives in the marriage market from which to find a spouse. However, this trend may also be related to assimilation; greater exposure to the native white population reduced boundaries between

24 For an example of expectations from structural marriage-market theory, see Blau, Blum, and Schwartz, “Heterogeneity and Intermarriage.”

Table 6 Impact of Contextual Variables for First (1G/1.5G) and Second (2G) Generation Immigrants (Exponentiated Coefficients from Binary and Multinomial Logit Models)

| A. MEN | | | | | | |
|--------------------------------|-------------------|----------|-----------------------------------|----------|---------------|----------|
| | LOGIT | | MLOGIT (ENDOGENY BASE OUTCOME) | | | |
| | CURRENTLY MARRIED | | EXOGENY NWNP | | OTHER EXOGENY | |
| | OR | <i>p</i> | OR | <i>p</i> | OR | <i>p</i> |
| 1G/1.5G | | | | | | |
| Diversity index | 0.93 | 0.00 | 0.98 | 0.79 | 1.11 | 0.13 |
| Group size | 1.06 | 0.01 | 0.73 | 0.00 | 0.66 | 0.00 |
| Proportion of lifetime in U.S. | 1.09 | 0.12 | 1.28 | 0.13 | 1.17 | 0.21 |
| Sex ratio | 0.31 | 0.00 | 2.13 | 0.00 | 2.01 | 0.00 |
| Proportion NWNP | 1.07 | 0.01 | 1.48 | 0.00 | 0.71 | 0.00 |
| N | 18,026 | | | | 5,086 | |
| Overall p | 0.000 | | | | 0.000 | |
| Log likelihood | -8874 | | | | -2566 | |
| 2G | | | | | | |
| Diversity index | 0.97 | 0.08 | 1.00 | 0.91 | 0.99 | 0.86 |
| Group size | 1.13 | 0.00 | 0.52 | 0.00 | 0.46 | 0.00 |
| Proportion of lifetime in U.S. | 1.03 | 0.65 | 0.72 | 0.00 | 0.61 | 0.00 |
| Sex ratio | 0.72 | 0.00 | 1.66 | 0.01 | 1.63 | 0.01 |
| Proportion NWNP | 1.15 | 0.00 | 1.60 | 0.00 | 0.85 | 0.00 |
| N | 20,453 | | | | 5,441 | |
| Overall p | 0.000 | | | | 0.000 | |
| Log likelihood | -9912 | | | | -5183 | |
| B. WOMEN | | | | | | |
| | LOGIT | | MLOGIT (ENDOGENY BASE OUTCOME) | | | |
| | CURRENTLY MARRIED | | EXOGENY NWNP | | OTHER EXOGENY | |
| | OR | <i>p</i> | OR | <i>p</i> | OR | <i>p</i> |
| 1G/1.5G | | | | | | |
| Diversity index | 0.82 | 0.00 | 1.05 | 0.47 | 1.16 | 0.01 |
| Group size | 1.05 | 0.24 | 0.66 | 0.00 | 0.69 | 0.00 |
| Proportion of lifetime in U.S. | 0.56 | 0.00 | 1.71 | 0.00 | 1.58 | 0.00 |
| Sex ratio | 1.09 | 0.40 | 0.82 | 0.46 | 0.94 | 0.50 |

Table 6 (Continued)

| | LOGIT | | MLOGIT (ENDOGENY BASE OUTCOME) | | | |
|--------------------------------|-------------------|----------|-----------------------------------|----------|---------------|----------|
| | CURRENTLY MARRIED | | EXOGENY NWNP | | OTHER EXOGENY | |
| | OR | <i>p</i> | OR | <i>p</i> | OR | <i>p</i> |
| | | | | | | |
| Proportion NWNP | 1.04 | 0.33 | 1.39 | 0.00 | 0.68 | 0.00 |
| N | 11,729 | | | | 6,997 | |
| Overall <i>p</i> | 0.000 | | | | 0.000 | |
| Log likelihood | -4367 | | | | -3371 | |
| 2G | | | | | | |
| Diversity index | 1.04 | 0.09 | 1.06 | 0.05 | 1.11 | 0.00 |
| Group size | 1.02 | 0.53 | 0.52 | 0.00 | 0.49 | 0.00 |
| Proportion of lifetime in U.S. | 0.74 | 0.00 | 0.67 | 0.00 | 0.61 | 0.00 |
| Sex ratio | 1.10 | 0.21 | 1.30 | 0.02 | 1.23 | 0.06 |
| Proportion NWNP | 1.03 | 0.18 | 1.53 | 0.00 | 0.89 | 0.00 |
| N | 20,629 | | | | 9,630 | |
| Overall <i>p</i> | 0.000 | | | | 0.000 | |
| Log likelihood | -8511 | | | | -9201 | |

groups and thus promoted intermarriage. Finally, the better the social connection that a specific immigrant group had—as measured by the proportion of life that immigrants of the same origin spent in the same U.S. county—the higher were the overall marriage chances for men, but the lower they were for women. In toto, the association with exogamy was weak.

Table 6 explores possible differences in the effect of the contextual-level variables between generations. For simplicity, we distinguish only between the foreign born (1G/1.5) and the second generation (2G). The patterns were highly similar across generations, both in terms of overall marriage and exogamy, even though the magnitudes of the associations differed in some cases. The only major exception to the similar pattern across generations was effect of the proportion of time that immigrants from the same country spent in the same U.S. county. For the foreign-born (1G/1.5G), a longer connection to the United States resulted in higher intermarriage rates (not statistically significant for men).

For the second generation, however, a longer stay had the opposite effect. The second generation's ostensibly better integration into U.S. society made them less likely to marry natives than their foreign-born predecessors were. Nonetheless, the similar ways in which context appears to have affected the marriage outcomes of both immigrant generations strongly suggests that second-generation men and women were subject to the same community factors as their first-generation counterparts. In other words, even though the second generation had a longer time in U.S. society than did the first generation, it was by no means fully assimilated.

For a long time, scholars have regarded exogamy as an important indicator of social relations. Social scientists, for example, have demonstrated that exogamy can reflect racial and ethnic stratification. Previous research in the field highlights the way in which various individual-level factors—such as age, origin, generation, socioeconomic status, and language proficiency—determine intermarriage, or exogamy more generally. Our analysis of U.S. immigrants at the turn of the twentieth century, based on the 1910 census, confirms most of these previous findings. Second-generation men and women were much more likely to intermarry. We also found foreign-born people who arrived as children (the 1.5 generation) to be more prone to intermarriage than first-generation immigrants who arrived in their teens or as adults. English-speaking ability, literacy, and elevated socioeconomic status were also linked to more intermarriage. Our results also agree with previous findings about immigrants' differences in marriage proclivity according to their country of origin; immigrants from eastern and southern Europe were the least inclined to intermarry, even after controlling for generation, socioeconomic status, and other variables.

The focus of our analysis, however, was to ascertain the effect of context on intermarriage: How did the local marriage market shape marital outcomes for immigrants from eleven large immigrant groups? Thanks to new micro-level, complete-count census data, we were able to measure these contextual associations at a low level of aggregation—the county. The results reveal that the relative size of groups within a community, according to their countries of origin, had important implications regarding intermarriage. The greater the number of fellow countrymen in a local area the greater was the opportunity to marry in general, especially

to marry endogamously. If finding a spouse was a completely random event, the chances of doing so were better if a lot of the people nearby had the same origin. A larger community of immigrants from the same country implies the survival of the original language, religion, and culture in the new destination, which could further contribute to endogamy. Because we have no direct evidence of the strength that such a national culture might have had or the extent to which it was a function of a community's size, we cannot tell how much of the pattern that we discovered is attributable to simple matching probabilities and how much to local culture and preferences to endogamy.

The supply of potential spouses with the same origin in the marriage market was also associated with partner choice in expected ways. For immigrant men, a greater abundance of women from the same country of origin increased marriage chances overall and promoted endogamy; the opposite situation lowered marriage chances overall and increased exogamy. For immigrant women, the availability of men of the same origin in their county of residence did not affect their marriage choices as it did for men, possibly because of the abundance of men among the immigrants.

The diversity of a community was related to the tendency toward exogamy. The increased likelihood of immigrants in more diverse communities to marry natives and immigrants with different origins was probably a result of greater exposure. Similarly, immigrants living in areas with a higher proportion of natives were more likely to intermarry and less likely to marry other immigrants.

The history of an origin group in the United States also mattered, depending on generation. The foreign born (IG/1.5G) population living in a community in which the origin group had spent, on average, a longer time in the United States experienced higher rates of intermarriage and exogamy with other immigrants; the second generation experienced the opposite effect. Apart from this difference, contextual factors affected exogamy patterns independent of generation, thereby indicating that community characteristics had a long-lasting impact. We found little consistent evidence for large gender differences in these patterns. In general, the way in which community contexts interacted with intermarriage was remarkably similar for men and women. In addition, the similarities in the relationships between individual variables and community contexts for the eleven origin groups were more striking than the differences.

Our analysis of immigrant marriage patterns in the United States at the turn of the twentieth century reveals how individuals and their communities interacted to shape marital opportunities. Even if intermarriage remains an important indicator of immigrant social integration, it was by no means an easy and uncomplicated process. Historically, it had systematic links with birth generation, language proficiency, and demographic characteristics consistent with simple assimilation theory. But different immigrant groups also had differences in the strength of their cultural ties and their boundaries with surrounding society, as well as in the local influences that hindered or accelerated the process of marital assimilation. A better knowledge of these contextual patterns contributes to a better understanding of how immigrants integrate into host societies.