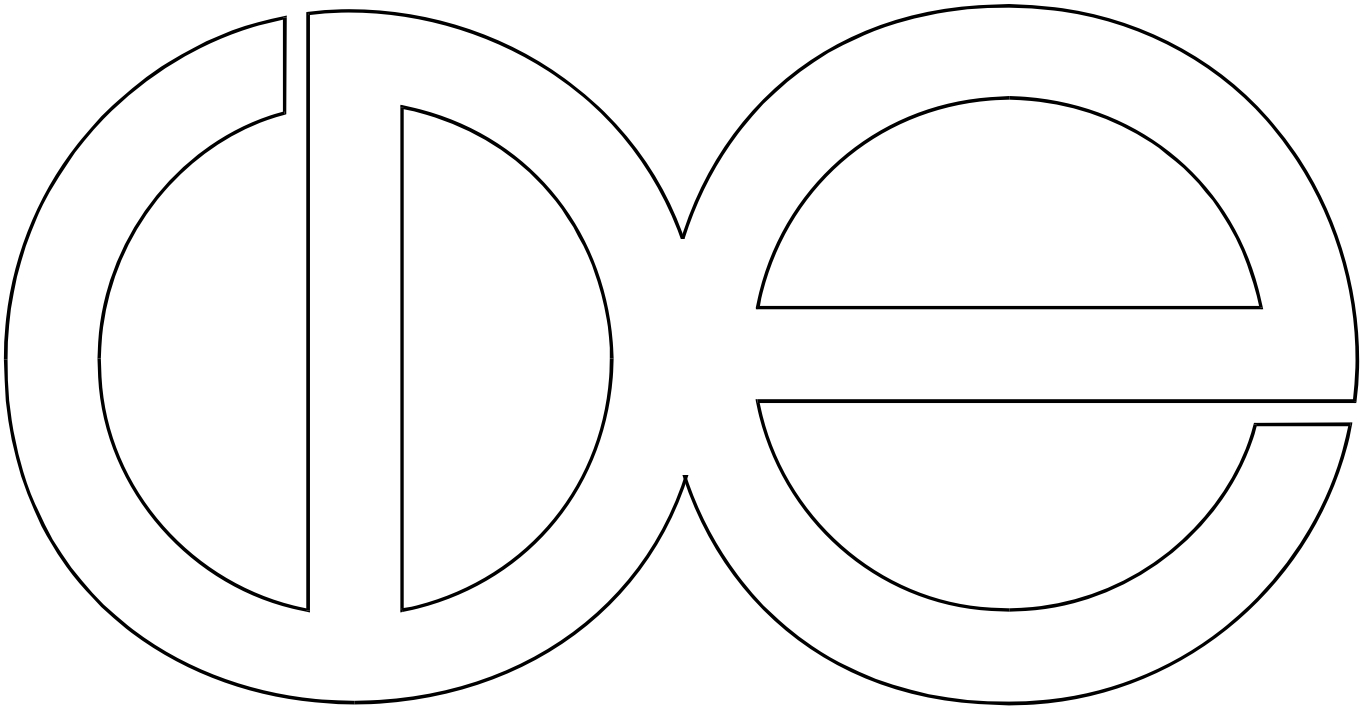
Center for Demography and Ecology

University of Wisconsin-Madison

Eight Decades of Educational Assortative Mating

Noah Hirschl, Christine R. Schwartz, and Elia Boschetti

CDE Working Paper No. 2022-01



Eight Decades of Educational Assortative Mating

Noah Hirschl, Christine R. Schwartz, and Elia Boschetti

University of Wisconsin-Madison

*Address correspondence to Noah Hirschl; e-mail: nhirschl@wisc.edu. This research was carried out using the facilities of the Center for Demography and Ecology at the University of Wisconsin-Madison R24 HD047873 and was supported in part by T32 HD007014. An earlier draft was presented at the 2022 Population Association of America meetings in Atlanta. We thank Florencia Torche for helpful comments. This article is dedicated to Robert Mare and is indebted to his intellectual legacy.

Abstract

Recent social and economic trends in the United States including increasing inequality, women's growing educational advantage, and the rise of online dating have ambiguous implications for patterns of educational homogamy. In this research note, we examine changes in educational assortative mating in the United States over the last eight decades, extending and expanding work by Schwartz and Mare (2005). We find that the rise in educational homogamy noted by Schwartz and Mare has not continued. Increases in educational homogamy stalled around 1990 and began reversing in the 2000s. We find a growing tendency to cross educational boundaries, but a college degree remains the strongest dividing line to intermarriage. A key trend explaining this new pattern is women's increasing tendency to marry men with less education than themselves. Homogamy would have continued increasing until recently if not for this trend. We also show substantial heterogeneity by race, ethnicity, and nativity, and among same- versus different-sex couples.

Introduction

The degree of educational assortative mating in societies is a key indicator of the social distance between socioeconomic groups and is a mechanism for the unequal distribution of resources across households and children. Educational assortative mating is thus one link in the chain that transmits parental characteristics to children across generations. Schwartz and Mare (2005, hereafter "SM") showed a long-run increase in the educational resemblance of spouses beginning from 1960 to 2003. They found that both the most and least educated Americans had become less likely to intermarry across educational boundaries. These findings sparked new interest in the connection between assortative mating and inequality (e.g., Boertien and Permanyer 2019; Breen and Salazar 2011; Shen 2021). In this research note, we update SM's findings with data through 2020. There has been considerable social and economic change in the United States since 2003, with many potential implications for patterns of intermarriage by education. We ask whether the last two decades have seen a continued rise in educational homogamy—thus examining eight decades of educational assortative mating in the U.S.—and expand on SM's study by examining heterogeneity by race, ethnicity, nativity, and between same- and different-sex couples.

There is reason to expect educational homogamy has continued to increase in recent decades. Economic inequality has continued to rise and this is closely linked to increased returns to educational attainment (Autor 2014). Education may therefore increasingly shape the incentives and opportunities for selecting potential partners across educational boundaries. Income segregation across neighborhoods has also increased in the last two decades (Reardon et al. 2018), which may further reduce the opportunities for matching among individuals with different levels of education.

However, other trends point to stagnation or even a potential decline in educational homogamy. First, recent increases in the age at marriage may mean a lengthening of the time between school completion and marriage, reducing the influence of education on partnership (Mare 1991; Schwartz 2013). Second, educational homogamy may be declining as higher education becomes less elite and more diverse. Nearly all adolescents now aspire to complete college, and many more successfully attend than have in the past (Goyette 2008; Radford et al. 2018). Adults have increasingly returned to college later in life (Denice 2017). This may have resulted in more individuals with college attainment but whose social ties lead them to form partnerships with less-educated individuals compared to the college-educated of earlier decades, thus increasing educational heterogamy (Armstrong and Hamilton 2021; King 2021).

Other factors have more ambiguous potential influences on patterns of educational homogamy. The continued rise in women's education relative to men's has complex implications for mating patterns (Van Bavel, Schwartz, and Esteve 2018). This trend may reduce educational homogamy and increase hypogamy mechanically, that is, without any changes in mating preferences (Grow and Van Bavel 2015; Han 2022). On the other hand, it may be that highly educated men increasingly seek to marry highly educated and high-earning women, potentially increasing educational homogamy.

Meeting patterns have also shifted dramatically, with uncertain effects. Couples increasingly meet online rather than through traditional intermediaries like family, friends, schools, or the workplace (Rosenfeld 2018; Rosenfeld and Thomas 2012). Internet dating may allow individuals to better match on observable characteristics like educational attainment but the traditional intermediaries it displaced were also strong engines of educational homogamy.

Trends in educational assortative mating also likely vary by race/ethnicity, nativity, and for same- versus different-sex couples. We expand on SM to consider this heterogeneity over the last 80 years. Racial differences in union formation at all levels of education have grown in recent decades (Raley, Sweeney, & Wondra, 2015), and this also may be the case for educational homogamy. Variation in gender gaps in education by race, ethnicity, and nativity may also produce differences in educational assortative mating (Coley 2001; McDaniel et al. 2011). The United States has become increasingly multi-racial and multi-ethnic as the post-1965 wave of immigrants expanded. The rising population of immigrants may have altered overall trends in educational homogamy if immigrants' assortative mating tendencies differ from the native-born. Same-sex couples tend to be less homogamous on a range of social and demographic characteristics, owing either to different opportunities for finding partners, or to differing partner preferences (see Reczek, 2020 for a recent review). Broad social changes such as the national legalization of same-sex marriage in 2015 may have shaped partnering patterns among same-sex couples. We also describe recent trends in educational assortative mating among same-sex couples in this context.

Data and Methods

We construct a dataset of representative cross-sections of different-sex married couples from the decennial censuses between 1940 and 2000 and the American Community Survey (ACS) from 2001 to 2020 (Ruggles et al. 2022). For same-sex couples, we rely on ACS data from 2008 to 2020, years for which issues of gender misreporting are substantially reduced and the identification of same-sex couples is more accurate (U.S. Census Bureau 2013). In our analyses of same-sex couples, we include both married and cohabiting couples given the change in the law governing same-sex marriage during this period and, for comparison, we also include both

cohabiting and married different-sex couples. We restrict our samples to couples in which women (among different-sex couples) or householders (among same-sex couples) are age 18-40.

We cross-classify couples by educational attainment in six categories that are inclusive of the changing distribution of education over time: fewer than 10 years of schooling, 10-11 years, 12 years (high school graduate), 13-15 years (some college or associate's degree), 16 years (bachelor's degree), and 17 or more years (graduate degree). SM did not separate bachelor's from graduate degrees and, given the growing proportion of the population with these degrees, this is an additional contribution of our article. Although we examine prevailing marriages in most models, in some, we restrict the sample to newlyweds (marriages occurring within two years prior to the survey date).

We examine trends in educational assortative mating using log-linear models following SM. Like SM, our baseline model takes the form

$$\log\left(\mu_{ijk}/t_{ijk}\right) = \lambda + \lambda_i^H + \lambda_j^W + \lambda_k^Y + \lambda_{ij}^{HW} + \lambda_{ik}^{WY} + \lambda_{jk}^{HY}, \quad (1)$$

where H is husband's education (i = 1, …, 6), W is wife's education (j = 1, …, 6), and Y is year (k = 1940, …, 2020). On the left-hand side, μ_{ijk} is the expected number of marriages for each combination of husband's education i, wife's education j, and year k.[1] The models are the same for same-sex couples except that they are classified by householders' and partners' characteristics. We focus on the results of log-linear models in this article but show descriptive

[1] We incorporate sampling weights with the offset t_{ijk}, equal to the inverse of the weighted frequency of each cell divided by the unweighted cell count (Schwartz and Mare 2005). We use wives' weights for different-sex couples and householder weights for same-sex couples. We adjust these weights such that they sum to the sample size in each year. t_{ijk} is equal to 1 for zero cells.

statistics like those presented by SM (trends in the percentage of marriages that are homogamous and in which wives have more education than their husbands) in the online appendix.[2]

Following SM, we add complexity to equation (1) to investigate time trends in assortative mating. We first examine changes in the odds of homogamy by adding a homogamy parameter that varies by year. We next estimate a crossings model, which parameterizes the odds of crossing each educational boundary.[3]

We also include hypogamy parameters among different-sex couples—identifying couples in which wives have a higher education category than husbands—in addition to the homogamy parameters. The inclusion of hypogamy parameters changes the interpretation of the exponentiated homogamy coefficients, such that they describe the change in the odds of homogamy relative to hypergamy (husbands have more education than their wives), rather than relative to heterogamy (spouses have different education categories).

Finally, to examine heterogeneity in assortative mating, we include interactions by wife's race/ethnicity (non-Hispanic White, non-Hispanic Black, Hispanic, non-Hispanic Asian/Pacific Islander), nativity (foreign or native born), and an indicator for same-sex male, same-sex female, and different-sex couples in our models.[4]

To address the sensitivity of our results to alternative specifications, the online appendix shows fit statistics for different models of trends, coefficients for alternative single-parameter

[2] The tabular data and command files for this article will all be made available upon publication on the second authors' website.
[3] See Schwartz and Mare (2005) for more details on these models.
[4] Note that our baseline models for subgroup analyses contain a saturated interaction term for the cross-sectional education interaction terms (HWS) where S=subgroup dummies. This means that trends in homogamy by subgroup are deviations from this the saturated cross-sectional association and that trends in the coefficients from these models for the population cannot be expressed as weighted averages of trends by subgroups. We do not present trends for individuals identifying as American Indian or Alaska Native when estimating trends by race/ethnicity because of insufficient sample sizes; we also do not present trends for those who report a not otherwise classified race/ethnic group and those who report two or more race groups. We replicated our results using husbands' race/ethnicity and nativity instead of wives' and the results are nearly identical.

trends, and trends using different classifications of husbands' and wives' education. Our broad conclusions hold across these specifications.

Results

Educational homogamy among different-sex married couples

Contrary to the expectation that educational homogamy would continue to increase with rising economic inequality, we find that the odds of educational homogamy among U.S. different-sex married couples held steady at around 4 to 1 beginning around 1990 and declined somewhat since the early 2000s (Figure 1).[5] We find further evidence that homogamy has declined from its peak when we restrict our sample to newlyweds: the odds of homogamy among the newly married fell from 3.7 to 1 in 1980 to 3.3 to 1 in 2020.

To further explore the underlying patterns of this stability and decline in educational homogamy, we estimate crossings models to examine trends in the odds of marriages across each educational boundary (Figure 2). Like SM, we observe a long-term decline in intermarriage between college graduates and those with some-college as well as among those at the bottom of the education distribution, consistent with the pulling away of the economic and social elite from the rest of the U.S. population and the falling behind of those with very little education (Keister, 2014; McLanahan, 2004). Unlike SM, we show that the odds of intermarriage between college graduates and those with advanced degrees is quite high, indicating a weak barrier, although these odds declined between 1980 and roughly 2000. Consistent with others' findings of the importance of a college degree for family and economic patterns (e.g., Lundberg, Pollak, and Stearns 2016), our results show that this is also true for assortative mating. A college degree is the dividing line across which it is most difficult to intermarry.

[5] The stability in homogamy from 1990 to 2003 is also evident in Schwartz and Mare (2005: Figure 4).

Updating trends beyond SM, intermarriage between 2000 to 2010 was relatively stable with the exception of a continuation of the decades-long weakening of the barrier to intermarriage between high school graduates and those with some college. But beginning around the 2010s, a new pattern emerged; one of increasing intermarriage across *all* educational boundaries. This is a notable and perhaps surprising finding.

The increasing tendency for women to marry less educated men (hypogamy) has occurred around the world (Esteve et al., 2016) and may be an important component of the stagnation and decline in homogamy in recent decades. Figure 3 shows evidence from our log-linear models supporting this. Both the odds of hypogamy (Panel A) and homogamy (Panel B) relative to hypergamy increased between 1970 and about 2010. Thus, if the odds of hypogamy had not increased, the odds of homogamy would have continued to increase until at least the 2010s rather than stabilizing around 1990 as observed. The decline in the odds of homogamy since the 2010s is due to both a continued increase hypogamy (Panel C) and a slight resurgence of hypergamy (Panel B) at the expense of homogamy.[6] The main finding is that trends in homogamy stopped increasing in 1990 and have declined primarily because of the increasing odds that wives have more education than their husbands.

Heterogeneity by race/ethnicity and nativity

We find that the historical trends in educational homogamy identified in the aggregate—a decline between 1940 and 1960, then an increase until about 1990, followed by stagnation and decline—holds for the most part by race/ethnicity and nativity, but the levels of homogamy between groups differ considerably. Figure 4 presents trends in the odds of homogamy by race/ethnicity, and Figure 5 by nativity. The odds of homogamy are higher among Asian/Pacific

[6] Note that Panels A to C are presented on different y-axis scales for legibility.

Islander, Hispanic, and foreign-born women compared to White, Black, and native-born women. There is a clear decline in homogamy among native-born, White, and Black women since around 1990 or 2000. These results reveal that changes in population composition due to increasing immigration since 1970 have contributed to keeping educational homogamy high and relatively stable despite larger declines in the odds of homogamy in the native-born population. Like for the broader population, the increasing odds of hypogamy are an important component of the recent stagnation and decline in homogamy among these groups (see online appendix).

Patterns among same- and different-sex married and cohabiting couples

Figure 6 shows the trends in the odds of homogamy for same- and different-sex married and cohabiting couples. First, comparing Figure 6 to Figure 1 shows that the results for different-sex couples are virtually identical when including cohabitors. Second, consistent with prior research, the odds of homogamy are lower among same- than different-sex couples and are also lower among male relative to female same-sex couples ([but see]Ciscato, Galichon, and Goussé 2020; Schwartz and Graf 2009; Verbakel and Kalmijn 2014).[7] Although educational homogamy among different-sex couples has declined since about 1990, the variability and time-span of our data are such that it is difficult to discern a clear trend for same-sex couples or any discontinuity around 2015 when same-sex marriage was legalized nationally. Future research should continue to track trends in assortative mating among same-sex couples as well as differentiate between married and cohabiting same-sex couples.

Conclusion

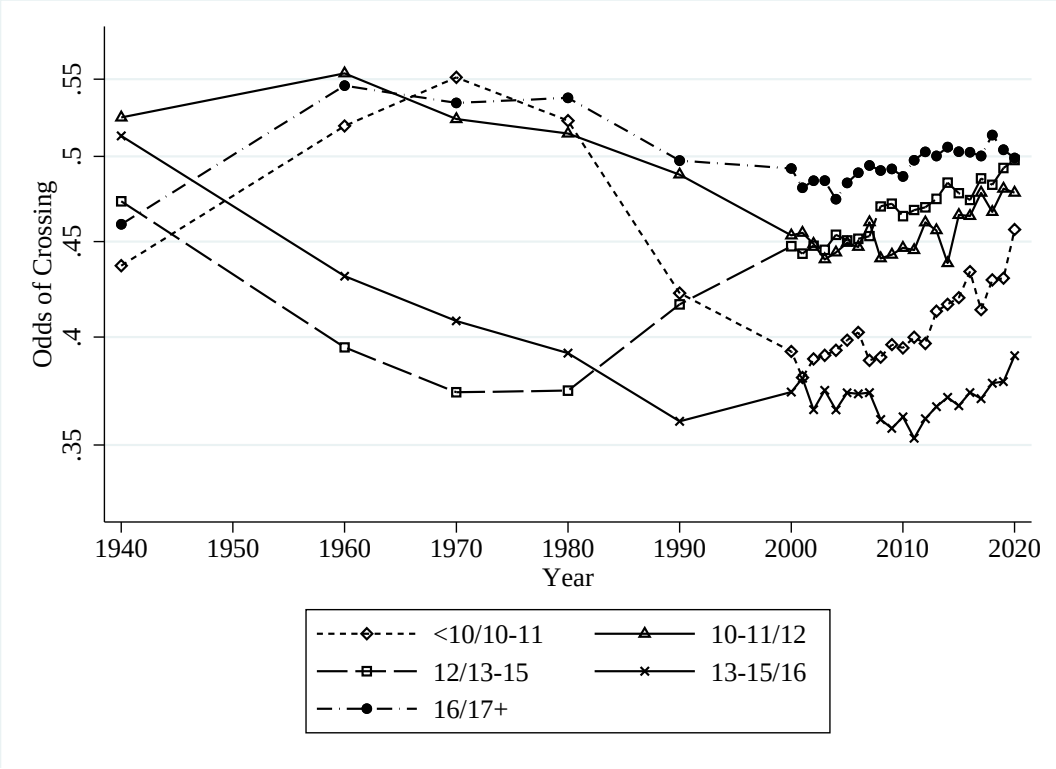
[7] To smooth year-to-year variability, we use 3-year groupings for trends in the odds among same-sex couples. Differences in trends between same-sex male and female couples are not statistically significant, although on average across this period, same-sex male couples had lower odds of educational homogamy than female couples ($p < 0.01$). See the online appendix for trends that separate married and cohabiting different-sex couples.

Despite expectations for rising educational homogamy along with continued growth in economic inequality in the new millennium, we found that the degree of educational similarity between spouses stabilized beginning around 1990 and has declined since the 2000s. Increasing intermarriage across all educational boundaries and the rising prevalence of marriages in which wives are more educated than their husbands contributed to this trend. Offsetting this trend is the growing immigrant, Hispanic, and Asian/Pacific Islander populations for whom the likelihood of educational homogamy is higher than in the native-born, White, and Black populations. Declining educational homogamy in the U.S. may also be driven by other factors, such as the rising age at marriage, the growing openness of postsecondary institutions, and new meeting patterns such as online dating. We call for new research to investigate how these factors contribute to recent developments in educational assortative mating and the mechanisms explaining differences between key population groups.

Figure 1: Odds of Homogamy, Different-Sex Prevailing Marriages and Newlyweds, 1940-2020

Notes: Wives aged 18-40. Education categories are <10, 10-11, 12, 13-15, 16, 16+.
Sources: 1940-2000 U.S. decennial census data and 2001-2020 American Community Survey data (IPUMS).

Figure 2: Odds of Crossing Educational Boundaries, Different-Sex Prevailing Marriages, 1940-2020

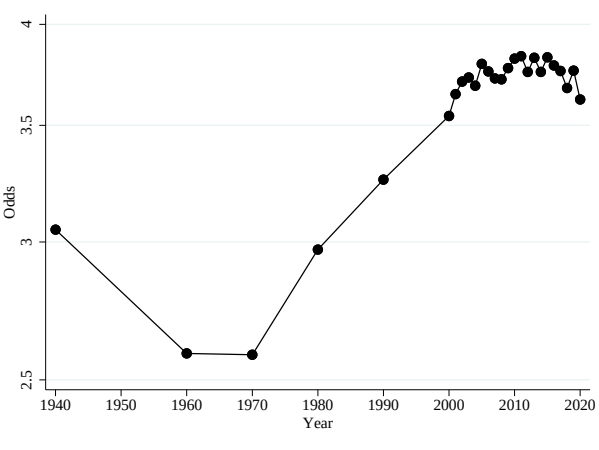


Notes: Wives aged 18-40. Odds of crossing adjacent educational boundaries relative to homogamy.
Sources: 1940-2000 U.S. decennial census data and 2001-2020 American Community Survey data (IPUMS).

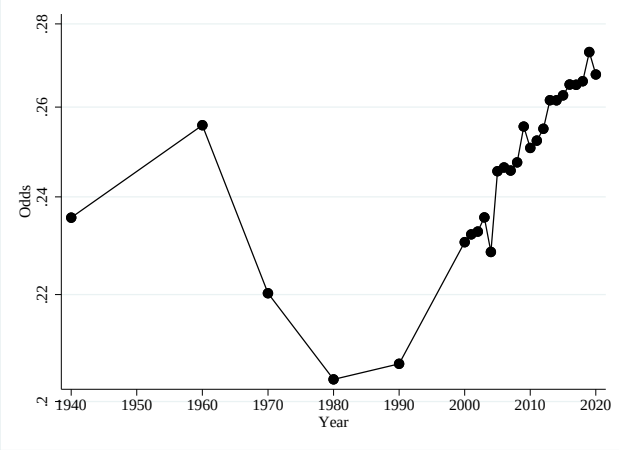
Figure 3: Odds of Homogamy (W=H), Hypogamy (W>H), and Hypergamy (W<H), Different-Sex Prevailing Marriages, 1940-2020

Panel A. Hypogamy (W>H) vs. Hypergamy (W<H)

Panel B. Homogamy (W=H) vs. Hypergamy (W<H)

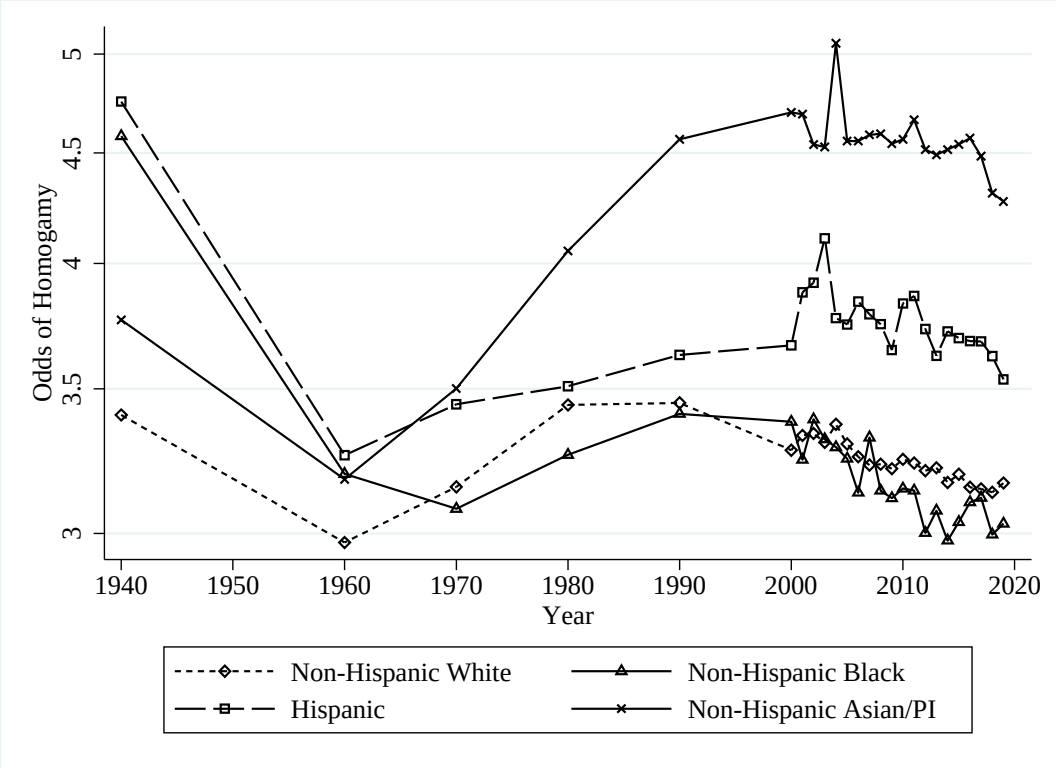


Panel C. Hypogamy (W>H) vs. Homogamy (W=H)



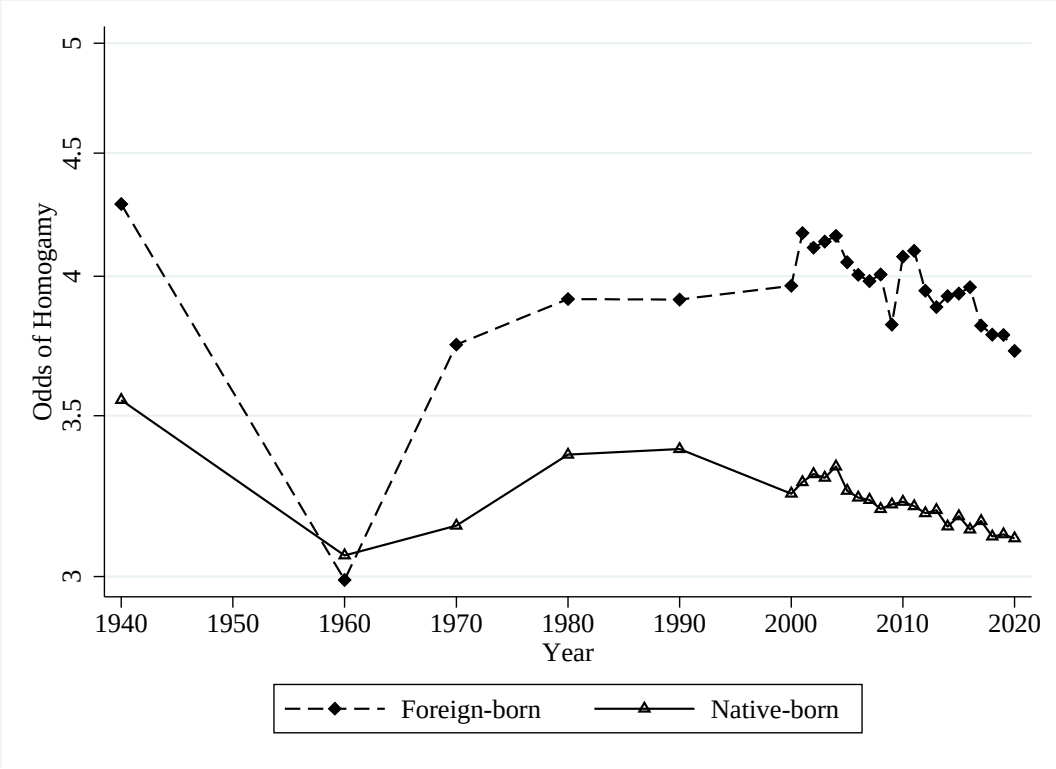
Notes: Wives aged 18-40. W=Wives' education. H=Husbands' education. Education categories are <10, 10-11, 12, 13-15, 16, 16+.
Sources: 1940-2000 U.S. decennial census data and 2001-2020 American Community Survey data (IPUMS).

Figure 4: Odds of Homogamy, Different-Sex Prevailing Marriages by Wives' Race/Ethnicity, 1940-2020.



Notes: Wives aged 18-40. Education categories are <10, 10-11, 12, 13-15, 16, 16+.
Sources: 1940-2000 U.S. decennial census data and 2001-2020 American Community Survey data (IPUMS).

Figure 5: Odds of Homogamy, Different-Sex Prevailing Marriages by Wives' Nativity, 1940-2020.



Notes: Wives aged 18-40. Education categories are <10, 10-11, 12, 13-15, 16, 16+.
Sources: 1940-2000 U.S. decennial census data and 2001-2020 American Community Survey data (IPUMS).

Figure 6: Odds of Homogamy, Same- and Different-Sex Married and Cohabiting Couples.

Notes: Women aged 18-40 in different-sex couples and household heads aged 18-40 in same-sex couples. Unmarried and married co-residential couples are included for both different- and same-sex couples. Education categories are <10, 10-11, 12, 13-15, 16, 16+. Trend coefficients for same-sex couples are grouped in three-year intervals to smooth large year-to-year variability.
Sources: 1940-2000 U.S. decennial census data and 2001-2020 American Community Survey data (IPUMS).

References

Armstrong, Elizabeth A and Laura T Hamilton. 2021. "Classed pathways to marriage: Hometown ties, college networks, and life after graduation." *Journal of Marriage and Family* 83(4):1004-1019.

Autor, David H. 2014. "Skills, Education, and the Rise of Earnings Inequality Among the "Other 99 Percent"." *Science* 344(6186):843-851.

Boertien, Diederik and Iñaki Permanyer. 2019. "Educational Assortative Mating as a Determinant of Changing Household Income Inequality: A 21-Country Study." *European Sociological Review* 35(4):522-537.

Breen, Richard and Leire Salazar. 2011. "Educational Assortative Mating and Earnings Inequality in the United States." *American Journal of Sociology* 117(3):808-843.

Ciscato, Edoardo, Alfred Galichon, and Marion Goussé. 2020. "Like attract like? A structural comparison of homogamy across same-sex and different-sex households." *Journal of Political Economy* 128(2):740-781.

Coley, Richard J. 2001. "Differences in the Gender Gap: Comparisons across Racial/Ethnic Groups in Education and Work. Policy Information Report."

Denice, Patrick. 2017. "Back to school: Racial and gender differences in adults' participation in formal schooling, 1978–2013." *Demography* 54(3):1147-1173.

Goyette, Kimberly A. 2008. "College for some to college for all: Social background, occupational expectations, and educational expectations over time." *Social science research* 37(2):461-484.

Grow, André and Jan Van Bavel. 2015. "Assortative mating and the reversal of gender inequality in education in Europe: An agent-based model." *PloS one* 10(6):e0127806.

Han, Sinn Won. 2022. "Is It Only a Numbers Game? A Macro-Level Study of Educational Hypogamy." *Demography* 59(4):1571-1593.

King, Michael D. 2021. "College as a Great Equalizer? Marriage and Assortative Mating Among First-and Continuing-Generation College Students." *Demography* 58(6):2265-2289.

Lundberg, Shelly, Robert A Pollak, and Jenna Stearns. 2016. "Family Inequality: Diverging Patterns in Marriage, Cohabitation, and Childbearing." *Journal of Economic Perspectives* 30(2):79-102.

Mare, Robert D. 1991. "Five Decades of Educational Assortative Mating." *American Sociological Review* 56(1):15-32.

McDaniel, Anne, Thomas A DiPrete, Claudia Buchmann, and Uri Shwed. 2011. "The black gender gap in educational attainment: Historical trends and racial comparisons." *Demography* 48(3):889-914.

Radford, Alexandria Walton, Laura Burns Fritch, Katherine Leu, and Michael Duprey. 2018. "High School Longitudinal Study of 2009 (HSLS: 09) Second Follow-Up: A First Look at Fall 2009 Ninth-Graders in 2016. NCES 2018-139." *National Center for Education Statistics*.

Reardon, Sean F, Kendra Bischoff, Ann Owens, and Joseph B Townsend. 2018. "Has income segregation really increased? Bias and bias correction in sample-based segregation estimates." *Demography* 55(6):2129-2160.

Rosenfeld, Michael. 2018. "Are tinder and dating apps changing dating and mating in the USA?" Pp. 103-117 in *Families and technology*: Springer.

Rosenfeld, Michael J. and Reuben J. Thomas. 2012. "Searching for a Mate: The Rise of the Internet as a Social Intermediary." *American Sociological Review* 77(4):523-547.

Ruggles, Steven, Sarah Flood, Ronald Goeken, Megan Schouweiler, and Matthew Sobek. 2022. *Integrated Public Use Microdata Series: Version 12.0*. [dataset]. Minneapolis, MN: IPUMS.

Schwartz, Christine and Nikki Graf. 2009. "Assortative Matching Among Same-Sex and Different-Sex Couples in the United States, 1990-2000." *Demographic Research* 21843-78.

Schwartz, Christine R. 2013. "Trends and Variation in Assortative Mating: Causes and Consequences." *Annual Review of Sociology* 39451-470.

Shen, Yifan. 2021. "The Nonlinear Linkage Between Earnings Homogamy and Earnings Inequality Among Married Couples." *Demography* 58(2):527-550.

U.S. Census Bureau. 2013. *Frequently Asked Questions About Same-Sex Couple Households*. Suitland, MD: U.S. Census Bureau. Retrieved from https://www2.census.gov/topics/families/same-sex-couples/faq/sscplfactsheet-final.pdf on 10/24/2022.

Van Bavel, Jan, Christine R Schwartz, and Albert Esteve. 2018. "The reversal of the gender gap in education and its consequences for family life." *Annual Review of Sociology* 44341-360.

Verbakel, Ellen and Matthijs Kalmijn. 2014. "Assortative mating among Dutch married and cohabiting same-sex and different-sex couples." *Journal of Marriage and Family* 76(1):1-12.

Appendix

Appendix Table S1. Trends in Percentage of Different-Sex Prevailing Marriages Educationally Homogamous & Hypogamous Given Heterogamy, 1940-2020

Year	Percent Homogamous (%)	Percent Hypogamous Given Heterogamy (%)
1940	58.8	54.6
1960	43.3	47.7
1970	42.5	40.9
1980	44.5	38.9
1990	45.9	44.5
2000	47.2	51.1
2001	47.6	52.2
2002	47.6	53.1
2003	47.4	53.9
2004	47.4	54.4
2005	46.8	55.3
2006	46.5	56.2
2007	46.4	56.5
2008	45.5	57.2
2009	45.3	57.8
2010	45.7	58.5
2011	45.5	58.9
2012	45.1	59.5
2013	45.1	59.6
2014	44.8	60.3
2015	45.0	60.2
2016	44.8	60.5
2017	44.7	60.8
2018	44.5	61.0
2019	44.6	61.4
2020	44.5	61.9

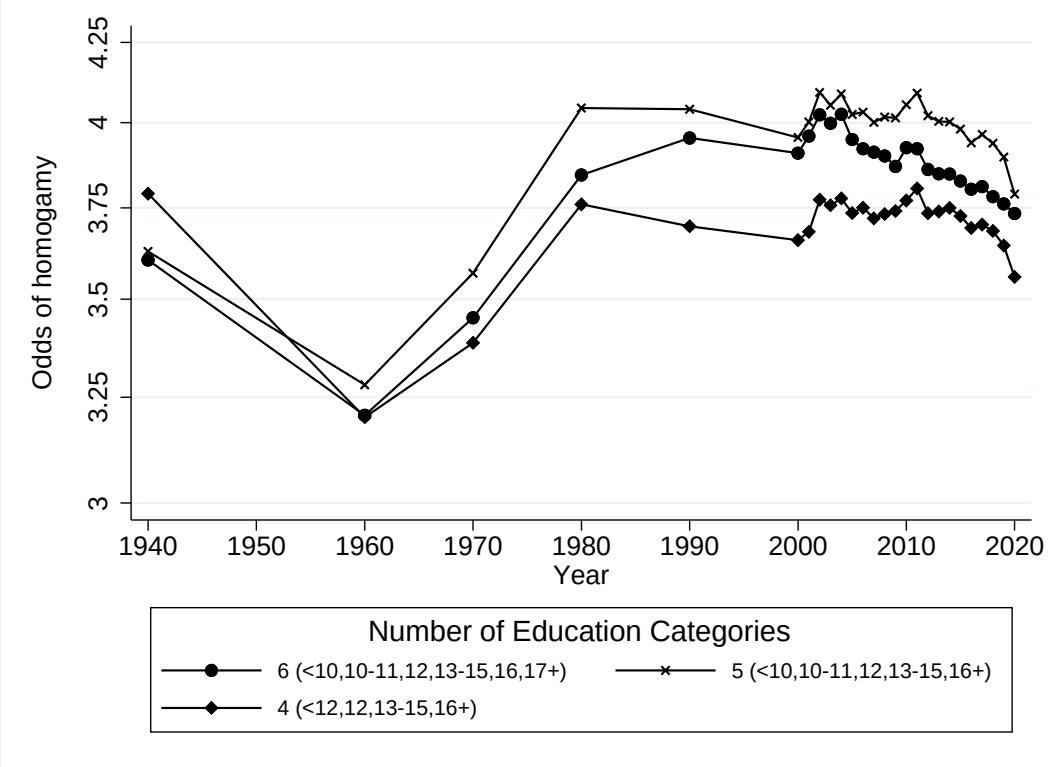
Notes: Wives aged 18-40. Education categories are <10, 10-11, 12, 13-15, 16, 16+.
Sources: 1940-2000 U.S. decennial census data and 2001-2020 American Community Survey data (IPUMS).

Appendix Table S2. Log-Linear Models of the Association Between Husband's and Wife's Education (Wives 18-40): U.S., 1940-2020

Model	df	G^2	BIC
(1) HYS, WYS, HWS	625	21784	12136
(2) Model 1 + OY	600	19667	10405
(3) Model 1 + UY	600	19430	10168
(4) Model 1 + LY	600	18943	9681
(5) Model 1 + OY + PY	575	16811	7935
(6) Model 1 + UY +PY	575	18451	9575
(7) Model 1 + LY +PY	575	17181	8305
(8) Model 1 + MY	475	11301	3969
(9) Model 1 + CY	500	10381	2663

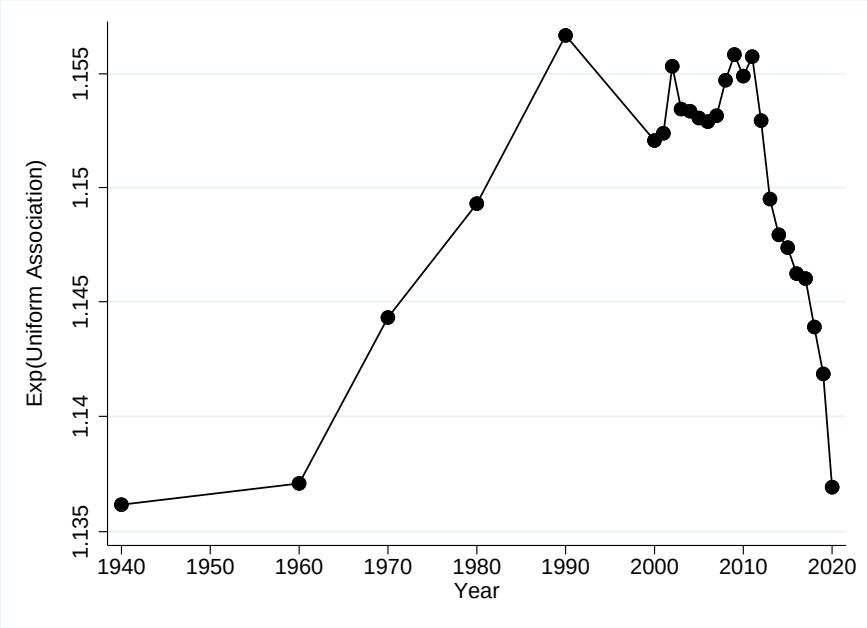
Notes: N = 5,059,000; Cells = 936. Model terms (number of parameters): Y = Year (42); H = Husband's education (5); W = Wife's education (5); O = Homogamy (1); U = Uniform association parameter (1); L = Linear distance parameter (1); P = Hypogamy (1);
M = Main diagonal (5); C = Crossings parameters (4).
Source: U.S. Census and Amrican Community Survey data (IPUMS).

Appendix Figure S1. Sensitivity of Odds of Homogamy to Education Categorization, Different-Sex Prevailing Marriages, 1940-2020



Appendix Figure S2. Alternative One-Parameter Trends in Assortative Mating: Exponentiated Uniform Association & Linear Distance Coefficients, Different-Sex Prevailing Marriages, 1940-2020

Panel A. Uniform Association



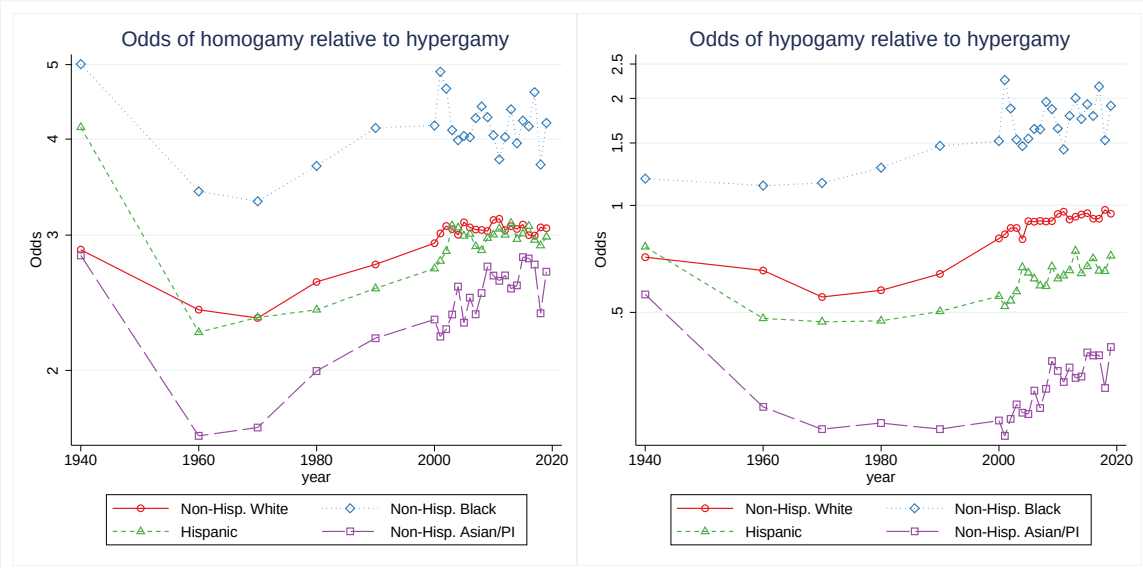
Panel B. Linear Distance

Notes: Wives aged 18-40. Education categories are <10, 10-11, 12, 13-15, 16, 16+. The uniform association variable is defined as H*W where H=husbands' education and W=wives' education and the education categories have been given roughly their median values (8, 10.5, 12, 14, 16, 18 years of schooling). The linear distance variable is defined as the absolute value of the difference between husbands' and wives' education categories.

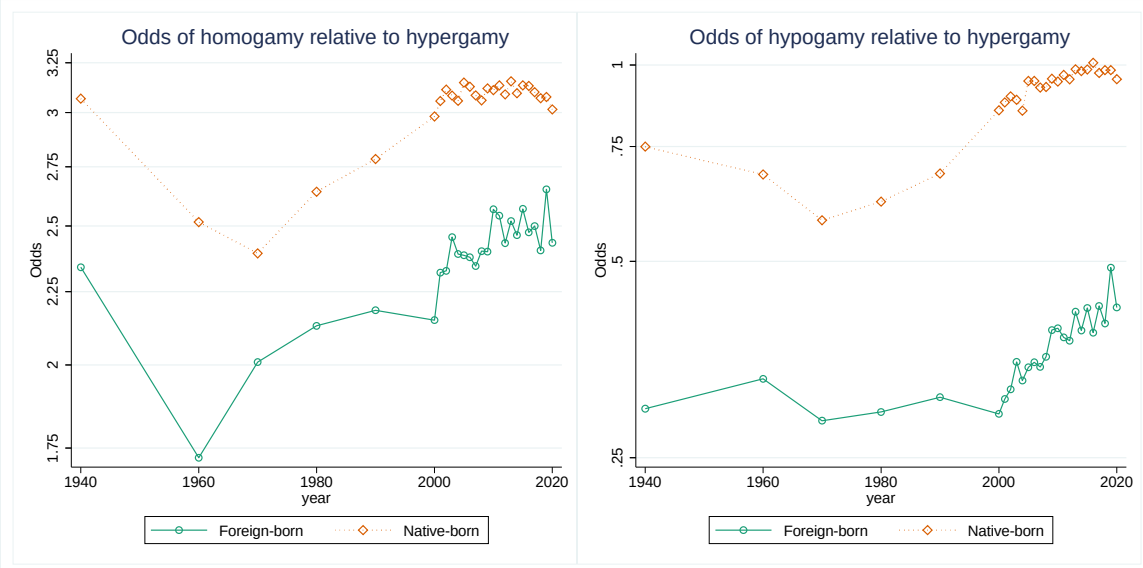
Sources: 1940-2000 U.S. decennial census data and 2001-2020 American Community Survey data (IPUMS).

Appendix Figure S3. Odds of Homogamy (W=H) & Hypogamy (W>H) Relative to Hypergamy (W<H), Different-Sex Prevailing Marriages by Race/Ethnicity, 1940-2020

Panel A. Race/Ethnicity



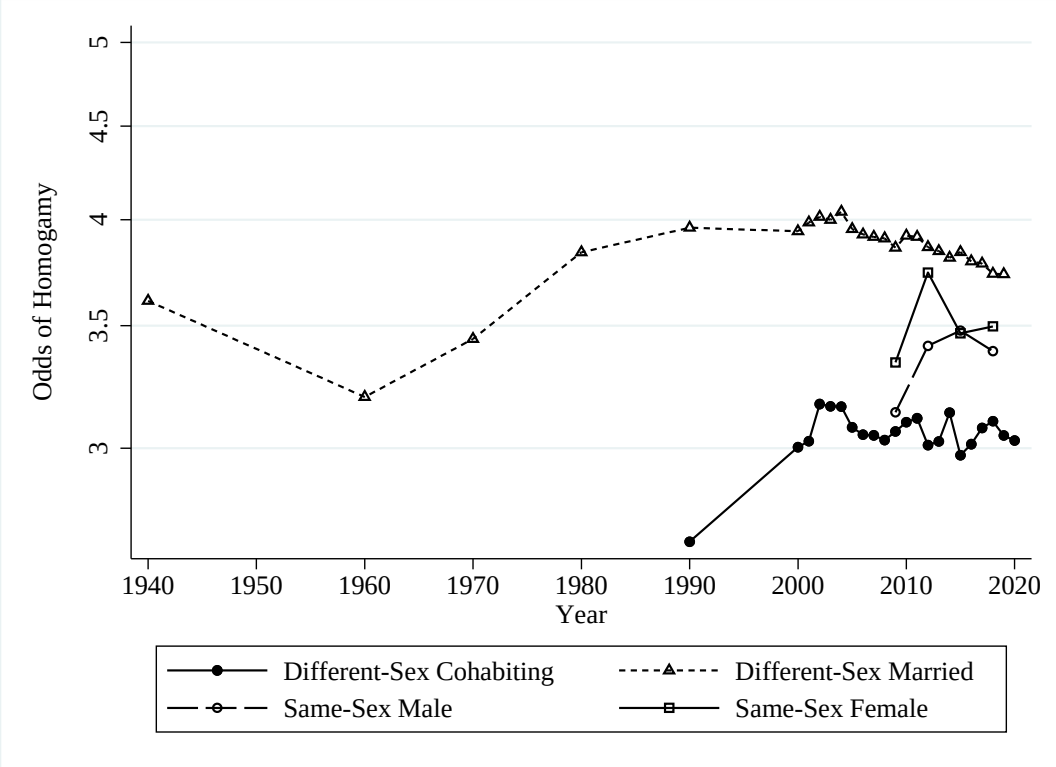
Panel B. Nativity



Notes: Wives aged 18-40. W=Wives' education. H=Husbands' education. Education categories are <10, 10-11, 12, 13-15, 16, 16+.

Sources: 1940-2000 U.S. decennial census data and 2001-2020 American Community Survey data (IPUMS).

Appendix Figure S4: Odds of Homogamy, Same-Sex Couples and Different-Sex Married and Cohabiting Couples



Notes: Women aged 18-40 in different-sex couples and household heads aged 18-40 in same-sex couples. Unmarried and married co-residential couples are included for same-sex couples and cohabiting different-sex and married different-sex are distinguished. Education categories are <10, 10-11, 12, 13-15, 16, 16+. Trend coefficients for same-sex couples are grouped in three-year intervals to smooth large year-to-year variability.

Sources: 1940-2000 U.S. decennial census data and 2001-2020 American Community Survey data (IPUMS).

Center for Demography and Ecology
University of Wisconsin–Madison
1180 Observatory Drive Rm. 4412
Madison, WI 53706-1393
U.S.A.
608/262-2182
FAX 608/262-8400