Descriptive Finding

Age-heterogamous partnerships: Prevalence and partner differences by marital status and gender composition

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Age-heterogamous partnerships: 
Prevalence and partner differences by marital status and gender composition

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Abstract

OBJECTIVE
We examine age heterogamy in the United States and its associations with other partnership characteristics following the nationwide legalization of same-sex marriage in 2015.

METHODS
We use American Community Survey data for 2017–2021 to examine age gaps in over 3.3 million couples, differentiating by couple gender composition (man-man, man-woman, woman-woman) and marital status (cohabiting, married). We estimate the prevalence of age heterogamy and how it correlates with education, income, and race/ethnicity differences between partners.

RESULTS
The prevalence of age heterogamy and its associations with other partner differences vary by couple gender composition and marital status. Man-man couples have higher rates of age heterogamy than man-woman and woman-woman couples; over three in ten man-man couples had age gaps of at least eight years between partners, with no difference by marital status. Age heterogamy was less common among married than cohabiting man-woman couples. For most couple types, educational and income differences between partners were more common among age-heterogamous partnerships. The prevalence of interracial/interethnic partnerships was higher among age-heterogamous married man-man and man-woman couples but not for woman-woman couples.

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CONTRIBUTION
Man-man couples have higher rates of age heterogamy, and partner differences related to education, income, and race/ethnicity are tied to age heterogamy for man-man couples more strongly than for other couple types. Partnering patterns for man-man couples are distinct from other couple types.

1. Introduction

Although storylines about ‘daddies’ and ‘cougars’ abound in popular culture, large age gaps among married different-sex couples are uncommon in the United States. The prevalence of age heterogamy among married different-sex couples declined slightly over the last half of the 20th century (Feighan 2018; Lamidi, Brown, and Manning 2015). In 2000, 9.3% of marriages were characterized by a husband who was eight or more years older than his wife, down from 12.8% in 1960. Still, only 2% of marriages had a wife who was eight or more years older than her husband, up just slightly from 1.4% in 1960 (Mansour and McKinnish 2013).

The landscape of legal marriage in the United States has changed recently, with same-sex marriage legalized nationwide in 2015 following the Obergefell v. Hodges Supreme Court decision. Alongside expansions in the legal availability of marriage, there have been declines in marriage rates and increases in cohabitation among previously married adults (Horowitz, Graf, and Livingston 2019). Historically, age heterogamy has been more common for people who remarry (England and McClintock 2009; Feighan 2018). Thus, the legalization of same-sex marriage and the rise in cohabitation among previously married adults raise new questions about age heterogamy in the United States, such as whether patterns of age heterogamy for married different-sex (man-woman) couples hold for unmarried cohabiting couples and for married same-sex couples.

Previous research on age heterogamy among same-sex couples in the United States before nationwide legal access to marriage finds that large age differences between partners are most common among man-man couples, followed by woman-woman couples, cohabiting different-sex couples, and married different-sex couples (Ciscato, Galichon, and Goussé 2019; Schwartz and Graf 2009; Jepsen and Jepsen 2002). Schwartz and Graf (2009) find a notable increase between 1990 and 2000 in the correlation between partner ages for young adult man-man couples (from 0.369 to 0.477), indicating a decline of age heterogamy and suggesting rapid change in partnering patterns. No study has yet used nationwide US data to examine patterns of age heterogamy since the 2015 legalization of same-sex marriage.
Large age gaps between partners are sometimes associated with other status differences. For instance, large age gaps are more common in interracial/interethnic partnerships, especially within same-sex unions (Joyner, Balistreri, and Kao 2018). Whether this pattern differs for married versus cohabiting same-sex couples, however, is unclear. It is also largely unknown how age heterogamy relates to educational and income differences between partners across couple types defined by both gender composition and marital status. Thus, this paper is also interested in how educational, income, and racial/ethnic differences between partners correlate with age heterogamy. We do not make causal claims about whether age differences are driving other differences; rather, we show how heterogamy on one key characteristic (age) is associated with heterogamy on other characteristics. Age heterogamy is the primary focus of this paper because there has been little analysis of it using nationwide US data for over a decade.

Theoretically, this analysis contributes to the literature about assortative mating. Previous research indicates that constrained markets are not necessarily the primary driver of greater racial/ethnic heterogamy of same-sex couples (Joyner, Balistreri, and Kao 2018; Schwartz and Graf 2010), whereas they likely are for different-sex couples (Choi and Tienda 2017). These findings suggest that other social factors shape patterns of heterogamy among same-sex versus different-sex couples. For example, there may be different logics of assortative mating (Schwartz and Graf 2010) or a greater willingness of LGBTQ+ people to challenge relational norms (Rosenfeld and Kim 2005). Whether these social factors (among others) continue to shape patterns of age heterogamy in the vastly changed legal and social landscape after Obergefell v. Hodges is thus an empirical question that contributes to theoretical knowledge.

This analysis makes several key empirical contributions. Empirically, it provides estimates using the most recent data available, and it is the first to examine age heterogamy for cohabiting and married same-sex couples following the Supreme Court decision legalizing same-sex marriage in all US states. In doing so, our analysis builds on Verbakel and Kalmijn (2014) and Lengerer and Schroedter (2022), who examine age and educational heterogamy among married and cohabiting same-sex and different-sex couples in the Netherlands and Germany, respectively. In both countries, male same-sex couples were more likely to be heterogamous on age and education than other couple types. Whether similar patterns exist in the United States is unclear. Key empirical questions this analysis addresses include (1) How prevalent is age heterogamy across man-man, woman-woman, and man-woman partnerships in the United States, (2) how do prevalence rates differ by marital status, and (3) what is the prevalence of educational, income, and racial/ethnic differences between partners by couple type and age-heterogamy status?

To answer these questions, we use five years of data from the American Community Survey (ACS) for coresidential couples in which both partners are over age 18. We
calculate the population prevalence of age-heterogamous coresidential relationships for six types of couples defined by gender identity composition and marital status: cohabiting and married man-man, woman-woman, and man-woman couples. Differentiating each couple type further by age-heterogamous status, we estimate the proportion of each couple type with differences in educational attainment, income, and racial/ethnic identity, illuminating how indicators of social status differences vary across age heterogamy by couple type.

We also investigate whether findings differ for theoretically interesting subgroups of married couples: couples in higher-order marriages, couples with an older wife (among man-woman married couples), couples that married after *Obergefell v. Hodges* (in 2015 or later), and newlyweds. (Because of data limitations, we are not able to investigate the analogous questions for cohabiting couples.) In a period of social change in which some types of couples are newly eligible to legally marry, differences between those married before and after *Obergefell* may suggest changes in the characteristics of couples that are marrying. In cross-sectional data, such as the ACS we analyze, it is important to consider newlyweds because researchers observe longer-duration married couples only if the marriage survives. If some types of couples – such as those with large age gaps between partners – have higher dissolution rates, we will be less likely to observe these marriages in cross-sectional data that include marriages of all durations.

Our findings contribute to a richer understanding of age heterogamy in the United States and highlight how age-related assortative mating patterns vary by the gender composition and marital status of coresidential couples.

### 2. Methods

#### 2.1 Data and sample

This analysis uses the 2017–2021 five-year data file from the ACS, accessed through IPUMS-USA (Ruggles et al. 2023). (The US Census Bureau modified its weighting methodology for 2020 data to account for pandemic disruptions to data collection (US Census Bureau 2022a).) We use this five-year data file because it was the most recent available at the time of analysis. The ACS, conducted by the Census Bureau, has a large representative sample and includes detailed household roster information. The large sample size and availability of information about each household member makes the ACS an ideal data source for estimates of numerically small populations, such as same-sex couples. Households are sampled only once in any given five-year period (US Census Bureau 2022b).
The couple is the unit of analysis. To more accurately identify couples, we restrict our analysis to couples in which one of the partners is the householder. We identify the partner of the householder as the individual whose relationship to the householder is characterized as ‘Unmarried Partner’ (IPUMS variable ‘related,’ value = 1,114) or ‘Spouse’ (IPUMS variable ‘related,’ value = 201). We designate the householder as Partner 1 and the partner/spouse as Partner 2.

Given known difficulties with accurately identifying same-sex couples in Census Bureau data, we impose the sample exclusions recommended by Gates and Brown (2015). Specifically, we exclude couples in which the sex or marital status of either partner is allocated. Additionally, we exclude couples in which the partner/spouse’s relationship to the householder is imputed and couples in which either of the partners’ ages are imputed. Together, these exclusions dropped 98,721 cases and result in a final sample size of 3,359,766 couples.

### 2.2 Variables

Age-heterogamous couples are couples in which the absolute age difference between partners is eight or more years (following Mansour and McKinnish 2013). In a robustness check, we altered this definition to ten or more years. Results (available upon request) show substantively similar patterns.

Partnership types are defined by couple gender composition (man-man, man-woman, woman-woman) and marital status (married or unmarried cohabiting). The ACS item on gender identity has a dichotomous response of “male” and “female.” It does not allow respondents to indicate that they are transgender or nonbinary.

Educational difference captures whether partners have different levels of educational attainment, measured as below a bachelor’s degree or a bachelor’s degree and above. In robustness tests, we measured educational attainment in four categories: (1) high school or less; (2) some college; (3) bachelor’s degree; (4) advanced degree. This expanded measure of educational attainment (and partner difference) produced substantively similar results (results available upon request).

Interracial/interethnic partnership is defined as one in which Partner 1 identified as a different race/ethnicity than Partner 2. We captured race/ethnicity in a single variable with six mutually exclusive categories: non-Hispanic White, non-Hispanic Black, non-Hispanic Asian or Pacific Islander, non-Hispanic Indigenous, Hispanic, and non-Hispanic multiracial or other race.

Income difference signifies partnerships in which Partner 1 made 60% or more or 40% or less of the total household income. Respondents with negative income are coded as having an income of zero dollars. Cases in which household income was negative and
cases in which respondents reported higher individual income than household income were coded as missing.

Year of marriage was recorded in the ACS for all married respondents. We created a dichotomous variable for whether respondents were married prior to 2015 (the year *Obergefell v. Hodges* was decided) or 2015 or later. We use this variable to examine whether respondents who married after *Obergefell* are different from couples who married before. (Although the data we analyze were collected in 2017–2021, ACS includes a question about year of marriage, so we have data on the marriage year for all currently married persons in our analytic sample.)

Newlywed status was captured in a separate item in the ACS that asks respondents whether they married in the previous year. We compare newlyweds to other married couples to determine whether recently married couples differ from couples who married more than a year ago.

### 3. Analyses

All estimates were run using Stata/SE 18.0, and Figures 2–5 were produced in R Studio version 2023.09.1 with the ggplot2 visualization package. Survey weights (the household weight ‘hhwt’ as well as strata and cluster weights) made estimates generalizable to American households with coresidential partners/spouses. This paper presents descriptive findings rather than more complex models because its goal is to provide a descriptive foundation for future research. By presenting information about the prevalence of age heterogamy by couple type and its association with other partner differences, this paper generates knowledge that can be used to motivate research that could uncover the specific mechanisms that drive the patterns we document.

### 4. Results

Figure 1 shows the distribution of age differences between partners across couple types, with the absolute age difference capped at 20 years. Man-man cohabiting couples have the largest interquartile range of age differences and the largest share of top-coded observations, whereas man-woman married couples have the smallest interquartile range and lowest share of top-coded observations.
Figure 1: Distribution of age differences between partners across couple types

Notes: M-W, M-M, and W-W refer to man-woman, man-man, and woman-woman couples, respectively. Figure 1 is sorted by median age differences between partners by couple type. Dots represent values substantially outside the interquartile range. Sample sizes are as follows: M-M, married (14,758); W-W, married (15,797); M-W, married (3,020,679); M-M, cohabiting (9,282); W-W, cohabiting (8,776); M-W, cohabiting (290,474).

Figure 2 shows that the prevalence of age heterogamy differs by couple type. Nearly one in three man-man couples had age gaps of at least eight years between partners, with no difference by marital status. In contrast, the prevalence of age heterogamy among man-woman couples varied by marital status; cohabiting man-woman couples had a substantially higher prevalence of age heterogamy (18.54% [CI: 18.34, 18.74]) than married man-woman couples (13.45% [13.40, 13.51]), the couple type with the lowest prevalence of age heterogamy. For woman-woman couples, there was no difference between the prevalence of age heterogamy between married (23.23%, [22.29, 24.18]) and cohabiting couples (22.15%, [20.96, 23.33]).

Turning to differences within the population of married couples, there are a few notable findings. First, the prevalence of age heterogamy was no different among man-man and woman-woman couples married in the last year compared to all married man-man and woman-woman couples, whereas it was slightly higher among newlywed man-woman couples compared to all married man-woman couples. Second, among married couples in which at least one partner had been previously married, the prevalence of age heterogamy for every couple type was much higher than for the total population of unions of that type. For example, 25.63% [25.51, 25.75] of man-woman marriages in which one
partner had been previously married were age heterogamous compared to 13.45% for the total population of married man-woman couples. Similarly, of higher-order man-man marriages and woman-woman marriages, 43.47% [41.35, 45.60] and 30.41% [28.78, 32.04] respectively were age heterogamous. Third, among all man-woman partnerships, age-heterogamous partnerships with older women were rare but differed in prevalence by marital status. Of all married man-woman couples, only 2.14% [2.11, 2.16] had a wife who was eight or more years older than her husband; the equivalent figure for cohabiting man-woman couples was 4.59% [4.48, 4.69]. Of age-heterogamous man-woman partnerships, 15.88% of married couples [15.71, 16.04] were woman-older, as compared to 24.74% [24.23, 25.25] of cohabiting couples.

Figure 2: Prevalence of age heterogamy by couple type

Notes: M-W, M-M, and W-W refer to man-woman, man-man, and woman-woman couples, respectively. In the legend, ‘Prev. married’ refers to previously married. Figure 2 is sorted by the prevalence of age heterogamy, defined as eight or more years age difference between partners.
In analyses not shown but available upon request, we examined whether age heterogamy differed for couples married prior to 2015 (i.e., prior to Obergefell v. Hodges) compared to 2015 and later. Among married man-man couples, 35.77% of couples [34.16, 37.37] who had married in 2015 or later were age heterogamous, compared to 30.04% [28.67, 31.42] who married prior to 2015. The CIs for married woman-woman couples overlapped for those who had married prior to 2015 (23.70%) and 2015 or later (22.77%). Although the Obergefell ruling did not directly impact man-woman marriages, it is worth noting that the prevalence of age heterogamy among man-woman marriages is slightly different for those married before and after the ruling; 13.13% [13.07, 13.19] of man-woman couples married prior to 2015 were age heterogamous, compared to 15.59% of those who married in 2015 or later [15.42, 15.77]. This could simply reflect a survival bias; for all couple types, age-heterogamous partnerships have a greater risk of relationship dissolution than age-homogamous partnerships (Andersson et al. 2006), and couples who married pre-Obergefell have simply had a longer period of exposure to relationship dissolution.

Figures 3–5 show how age heterogamy associates with educational, income, and racial/ethnic differences between partners. The relationship between age heterogamy and partner differences is similar across all subgroups of the married population: newlyweds, higher-order marriages, and man-woman marriages in which the woman is older. Thus, in the interest of parsimony, we do not further discuss these subgroups.

Figure 3 shows the prevalence of educational differences by couple type. Rates were highest among age-heterogamous man-man couples (34.60% for married, 35.99% for cohabiting; the CIs overlapped for these couple types). Age-heterogamous man-man couples had a higher prevalence of educational differences than any woman-woman or man-woman partnership. Educational differences between partners were least common among cohabiting man-woman couples (age homogamous 21.07%, age heterogamous 21.31%). Overall, the prevalence of educational differences is related most strongly to the gender composition of couples, although man-man couples were also distinguished by age-heterogamy status.

For income differences between partners (Figure 4), we see variation by age heterogamy for some couple types but not others. For different-sex couples, the prevalence of income differences was higher for age-heterogamous cohabiting couples (71.40%) than for their age-homogamous counterparts (65.47%), but the prevalence did not differ much by age homogamy for married man-woman couples (75.53% for age heterogamous and 74.11% for age homogamous).
Turning to same-sex couples, income differences were higher for age-heterogamous married couples than for age-homogamous married couples for both man-man couples and woman-woman couples. Additionally, cohabiting age-heterogamous man-man couples had a higher prevalence (70.02%) than their age-homogamous counterparts (63.74%), but the prevalence of income differences did not vary much by age heterogamy for cohabiting woman-woman couples. In summary, for four of the six couple types (married man-man, cohabiting man-man, cohabiting man-woman, and married woman-
woman), there is an association between the prevalence of income differences and age heterogamy.

**Figure 4: Prevalence of income differences between partners by couple type and age heterogamy**

Consistent with Rosenfeld’s (2007) analyses of Census Bureau data up to the year 2000, interracial/interethnic partnerships (Figure 5) were considerably more common among same-sex couples than married different-sex couples, who had the lowest prevalence of interracial/interethnic partnerships. Age heterogamy was not associated with the prevalence of interracial/interethnic partnerships for married woman-woman
couples, cohabiting man-woman couples, or cohabiting man-man couples. For married man-man couples, age heterogamy was associated with a higher prevalence of interracial/interethnic partnerships (33.85% for age-heterogamous married couples vs. 27.27% for age-homogamous married couples). Unexpectedly, interracial/interethnic partnerships were more common among age-homogamous cohabiting woman-woman couples than age-heterogamous woman-woman couples (26.47% vs. 21.41%). Age heterogamy was associated with a somewhat higher prevalence of interracial/interethnic partnerships among married man-woman couples (14.91% vs. 10.88%).

Figure 5: Prevalence of interracial/interethnic partnerships by couple type and age heterogamy

Notes: M-W, M-M, and W-W refer to man-woman, man-man, and woman-woman couples, respectively. Figure 5 is sorted by the prevalence of interracial/interethnic partnerships. Age heterogamy is defined as eight or more years age difference between partners.
5. Conclusion

Among coresidential couples in the United States, we find that partnerships with large age gaps were most prevalent among man-man couples and least common among man-woman couples with woman-woman couples in the middle. Marital status further differentiated the prevalence of age heterogamy for man-woman couples but not for man-man or woman-woman couples. Age heterogamy was more common among couples in which one partner had been previously married and among newlywed man-woman couples than among married couples of all marital durations. Age heterogamy was also more common among man-man couples who had married in 2015 or later compared to couples who married prior to 2015, although there were no differences among married woman-woman couples. This finding could indicate greater interest in or acceptance of age heterogamy among man-man couples who married after Obergefell v. Hodges. Alternatively, differences by period may reflect a survival bias. Future research will require longitudinal data on all marriages contracted (not just those that endure) to explore both possibilities.

For the prevalence of educational differences, age heterogamy differentiated man-man couples (married and cohabiting), married woman-woman couples, and married man-woman couples but not cohabiting woman-woman couples or cohabiting man-woman couples. Age heterogamy was associated with substantial income differences for four of the six couple types. And finally, age heterogamy was associated with higher rates of interracial/interethnic partnerships for married man-man couples and married man-woman couples but not for cohabiting man-man, cohabiting man-woman, or married woman-woman couples. Intriguingly, age-homogamous cohabiting woman-woman couples had a higher prevalence of interracial/interethnic partnerships than their age-heterogamous counterparts – the opposite pattern observed for other groups. Future research can explore why this unexpected pattern exists.

This analysis used the most recent data to examine age heterogamy among cohabiting and married US couples, including married same-sex couples, who have been unexamined in previous research. We find that age differences are often associated with other partner differences as well, particularly among man-man couples. Thus, we suggest that researchers should be attentive to age heterogamy when investigating other types of homogamy and differences in partner status characteristics.

Future research could fruitfully investigate why age heterogamy is associated with heterogamy along the axes of education, income, and race/ethnicity for some couple types. Individuals who accept partner differences on one dimension, such as age, may be more tolerant of differences on other dimensions.

Future research might explore why man-man couples have the highest rates of age heterogamy, as well as why age heterogamy is generally more strongly related to status
differences between partners in man-man couples than in most other couple types. The lower prevalence of age heterogamy among woman-woman couples than among man-man couples suggests that a smaller dating pool cannot be the full explanation (see also Joyner, Balistreri, and Kao 2018; Schwartz and Graf 2010).

Theoretically, the stronger association between age heterogamy and status differences among man-man couples compared to other couple types suggests that a different logic of assortative mating or valuation of individual traits may shape partnership formation in this population. Individuals typically look for similar partners on axes of age and race/ethnicity when they plan to have children (Ciscato, Galichon, and Goussé 2019). Because man-man couples are the least likely of any couple type to have children (Manning and Payne 2021), they may also have different patterns of assortative mating. Indeed, qualitative research shows that many gay and bisexual men are interested in adults much older or younger than themselves and that these pairings are an important part of the cultural fabric of their communities (Silva 2023).

Other factors related to gendered and racialized preferences play a role too. Gendered racial stereotypes of Black and Asian men (of any sexual identity) may affect partnership formation (Lundquist and Lin 2015). Related research suggests that “gay daters’ tendency toward interracial dating is often not motivated by racial openness but rather by cultural norms that position gendered aspects of Whiteness, and especially White masculinity, as most desirable” (Rafalow, Feliciano, and Robnett 2017: 316; however, see Stacey and Forbes 2022 for analysis of how some gay and bisexual men of color experience racial fetishization). Other factors may drive different patterns of assortative mating as well. For instance, on average lesbians are more interested in monogamy than gay men (Potârcă, Mills, and Neberich 2015). Indeed, gay men are more likely to be in an open relationship than any other group (Levine et al. 2018). These findings suggest that gay men are more likely to be interested in unconventional arrangements than other groups. In short, there are numerous factors that shape patterns of assortative mating.

Despite greater social and legal inclusion after Obergefell v. Hodges, man-man couples (married and cohabiting) remain distinct from woman-woman and man-woman couples in their partnering patterns. Indeed, age heterogamy among man-man couples is high even among newlyweds. We echo Schwartz’s (2013: 464) call for scholars to understand “more about the social milieus in which people search for mates and the markets in which they find their matches” and call for an extension of this line of research to same-sex couples with attention to gender-compositional differences, marital status, and age heterogamy.
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