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ABSTRACT

Marriage in Old Age: What Can We Learn about Policy Impacts on Same-Sex Couples?*

Recipiency of tax or transfer benefits in the United States often depends on marital status, creating complicated incentives that reward marriage for some and penalize it for others. Same-sex couples, who only recently gained the right to marry, now face the same marriage incentives that different-sex couples faced for decades. We highlight marriage incentives affecting older couples, who have rarely been studied. Using the American Community Survey, we estimate decreases in marriage among older, previously married women, which are consistent with remarriage disincentives from Social Security and marriage disincentives from Medicaid that are more salient for women.

JEL Classification: J12, H55, I13, J16

Keywords: marriage, Social Security, Medicaid, same-sex marriage

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1 Introduction

Many government programs and policies in the United States take marital status into account, either explicitly or implicitly. Means-tested transfer programs, the personal income tax, and the Affordable Care Act, for example, are redistributive policies that seek to help those with less means, often measuring means at the household level; this can alter the magnitude of redistribution depending simply on whether partners marry or not.[1] Moreover, some social insurance programs like Social Security and Medicare give benefits to spouses who would not be entitled to them on their own.[2] To the extent that women are typically the lower earners and have lower assets within a couple, the impact of policy-based marriage incentives carries greater weight for them. The marriage distortions resulting from redistributive policies have been previously studied, though the literature has been hampered by multiple empirical challenges. Almost all of the attention in that literature has gone to prime-age couples (e.g., Rosen 1977; Alm and Whittington 1995; 1997; Dickert-Conlin 1999; Light and Omori 2008; Michelmore 2018; Barigozzi, Cremer, and Roeder 2019; Roeder and Ullmann 2019; Isaac 2020; Chatterjee 2021; Isaac and Jiang 2022, among others). While policy-based marriage incentives can be quite substantial for older couples, they differ in important ways, and some of the empirical difficulties are even greater for this group.

Recently, a new group has gained the right to marry: same-sex couples. Federal recognition, which drives much greater policy-based marriage incentives than state legalization does, began with the Supreme Court's *United States v. Windsor* decision in 2013, which struck down the federal Defense of Marriage Act; continued as some states legalized same-sex marriage in 2014 and 2015; and culminated in the *Obergefell v. Hodges* decision that required all states to allow same-sex marriage in mid-2015. This creates a new urgency in understanding the impact of policy incentives to marry, while also revealing marriage responses that may be particular to women versus men – since different-sex marriage, by definition, cannot distinguish a woman's from a man's incentive to marry. And, while older individuals may have escaped previous consideration

1. These marriage incentives interact with incentives to earn and report income as well, a margin we will not consider here, and one that is arguably minor for many couples past retirement age.

2. Premium-free coverage for hospitalization under Medicare Part A is available for individuals who have worked for ten years or are married to individuals who have worked for ten years.

in the broader literature because they marry and divorce less often than do younger individuals, recent changes in marital status at older ages – with increasing prevalence of divorce and declines in widowhood – along with the prominence of government transfers in old age make it important to understand the role of policy incentives.[3] The newly granted opportunity to marry for older same-sex couples offers new insights about that age group, although the capacity to do so remains limited by lack of information about key variables.

In related work (Friedberg and Isaac 2022), we estimated the marriage elasticity with respect to household income for prime-age same-sex partners, finding it to be significantly different than zero but quite small. That was made possible by using the American Community Survey (ACS), which not only offers very large sample sizes and reports whether couples are married or cohabiting, along with date of marriage, but also has explicitly recorded same-sex relationships since 2012.[4] The identification strategy in that paper relied on the timing of marriage recognition along with earnings differences between partners, since these are a primary driver of marriage incentives in the personal income tax code. Turning our attention to old-age programs – which are the most substantial government spending programs in the United States – we can no longer focus on heterogeneity arising from differences in partner earnings, the most common strategy in the marriage elasticity literature, since almost everyone is retired. This creates new limitations on the ability to pinpoint the role of particular policies given available data. In this paper, we outline key policy-based marriage incentives for older couples; discuss how those incentives differ by age, gender, and previous marital status; estimate how marriage rates actually change among those groups as same-sex marriage recognition occurred across states and years; and consider what we might infer about marriage responses to policy distortions.

We begin by reviewing policy incentives to marry (or not) in old age. We focus particularly on those arising from Social Security (the largest social insurance program) and Medicaid provision of long-term care (the largest means-tested transfer program in old age, involving in-kind provision

3. Between 2003 and 2022, the percentage of individuals over the age of 65 who were divorced rose by 6.1 and 4.6 percentage points for women and men, respectively, while the percentage of women who were widowed fell drastically, by 14.4 percentage points.

4. Cohabiting partners in the United States must file separate tax returns as single individuals, so administrative data are infeasible. Editing of the decennial census and pre-2012 ACS make it impossible to reliably identify same-sex married couples in earlier data because the marital status of a same-sex married couple was previously changed to "unmarried partner," sometimes without an accompanying data quality flag (Black et al. 2007; Gates and Steinberger 2009; U.S. Census Bureau 2009).

of long-term services and supports, or LTSS). The marriage implications of each are different.

A first marriage can only increase one's Social Security benefits by providing access to spouse and survivor benefits based on a partner's earnings in cases where those exceed one's own retired-worker benefits. However, access to spouse benefits from a previous marriage that ended in divorce are lost upon remarriage at any age, and access to survivor benefits from a previous marriage (whether it ended in divorce or death) are lost upon remarriage before age 60. Therefore, previously married individuals in particular situations – notably, if they were relatively low earners, if their former spouses were relatively high earners, and if their current partners are not as high earners – face penalties for remarriage if they were divorced or else if they were widowed and are below age 60. Women are more likely to be in a situation where they have lower lifetime earnings than a previous spouse (who was necessarily male) does. We present evidence from the Understanding America Survey indicating that awareness of spouse and survivor benefits and of availability of benefits based on a prior marriage following divorce is widespread among all older individuals, though especially among older women who were previously married.[5] These Social Security provisions result in differing incentives for many individuals whose own retired-worker benefits are low, depending on whether they were married previously or not.

Marriage-based means testing for Medicaid functions much differently: in this case marriage can only make couples worse off, as much of the assets and income of a spouse who is well must be spent before a spouse who is unwell can qualify for Medicaid provision of LTSS. These means tests may be consequential, as use of costly long-term care in very old age is quite high and notably higher among women (Friedberg et al. 2014). While we have no systematic evidence about awareness of Medicaid asset tests, they are reported in media guidance about paying for LTSS.[6]

In sum, marriage incentives at older ages are complicated, as partners in relatively different financial situations may benefit from marrying due to Social Security provisions (as long as spousal benefits from a divorced ex-spouse are not even higher) but may be harmed due to Medicaid LTSS

5. No information is available, however, about awareness of the impact of remarriage following divorce or following widowhood and how those differ at the age-60 threshold. Brien, Dickert-Conlin, and Weaver (2004a, 2004b) estimate a significant, moderately sized effect of increased remarriage after age 60. We find no evidence of this in our sample of same-sex couples.

6. Moreover, an online search for "Medicaid divorce" returns numerous answers from law firms discussing this option as a way to preserve assets while qualifying for Medicaid payments for LTSS.

provisions (if they envision the spouse with greater financial need also needing care). Unfortunately, it is difficult to distinguish among couples in such situations, as it requires observing current assets and lifetime earnings of both current partners and past spouses – information that is unavailable, including in the American Community Survey (ACS), which only reports current income. Therefore, rather than parameterizing incentives arising from particular policies, we take a simpler approach by observing how marriage rates in the ACS differ by gender, age, and previous marital status in response to same-sex marriage recognition. While this analysis is not definitive, it is suggestive of some marriage responses to policy distortions.

We use the 2012-2019 ACS to construct a sample of individuals in married or cohabiting same-sex relationships. The ACS is advantageous because it contains large sample sizes of same-sex couples and reports both marriage and cohabitation, allowing us to focus on a sample of individuals in relationships who are more likely to be on the margin of marrying.[7] We exploit variation in same-sex marriage recognition between 2012-2015 arising from the *Windsor* decision, subsequent state marriage legalization, and ultimately the *Obergefell* decision.

Because our context includes staggered treatment adoption and all units eventually become treated, we use the extended two-way fixed effects specification described by Wooldridge (2021). We estimate the effects of same-sex marriage recognition on marriage separately for same-sex couples as the treated group and different-sex couples as a comparison group. We estimate regressions for women and men separately to explore gendered responses to marriage incentives. Both Social Security and Medicaid LTSS marriage incentives may have a greater influence on women's marriage behavior in old age, relative to men's, because women are more likely to claim Social Security based on spousal earnings, creating stronger marriage gains for some and remarriage penalties for others (Tamborini and Whitman 2007; Tamborini, Iams, and Whitman 2009; Groneck and Wallenius 2021); and because women are more likely to use long-term care, creating stronger marriage penalties due to Medicaid LTSS asset and income tests.

Using the full sample of couples who are cohabiting or married, we find essentially no mar-

7. Other surveys, such as the Health and Retirement Survey (HRS) or the Survey of Income and Program Participation (SIPP), also report marriage and cohabitation, but both surveys have small sample sizes of same-sex couples which greatly limits statistical precision. Administrative data alone does not allow us to observe cohabiting relationships.

riage responses to federal marriage recognition among older men, but estimate significantly *higher* propensities to marry among 55-69 year-old women and significantly *lower* propensities among 70+ year-old women. To explore the connection to Social Security's marriage incentives specifically, we separate the sample into 1) a subsample that only includes individuals who were not previously married (and are now either in their 1^{st} marriage or are cohabiting and were never married); and 2) a subsample that only includes individuals who were previously married (and are now either in their 2^{nd}+ marriage or are cohabiting and previously divorced, separated, or widowed). The first subsample may gain access to spouse or widow benefits, whereas the second subsample may lose access to spouse or widow benefits upon remarriage.

We indeed find that the higher propensity to marry among 55-69 year old women is statistically significant for never-married women, while it is positive but smaller and insignificant for previously married women. On the other hand, the lower propensity to marry among 70+ year old women is significantly greater for previously-married women and is smaller and insignificant among never-married women, and especially among separate and divorced women rather than widowed women, suggesting that previously-married women may be concerned about losing Social Security benefits upon remarriage.[8] The lower marriage rates at the oldest ages for women, whether divorced, widowed, or never married, may also reflect concerns about Medicaid asset and income tests among individuals who need or expect to need long-term care. In comparison, we estimate precise null effects among individuals in different-sex couples across all samples, which supports our conclusion that our same-sex couple estimates are being driven by same-sex marriage recognition and potential policy interactions.

This paper highlights the conflicting incentives that arise when contradictory policy goals fail to be reconciled. Some policy goals that have driven historical legislation include promoting marriage, as in the case of the 2001, 2003, and 2017 tax cuts, all of which widened tax brackets in the married schedule and increased tax-based marriage subsidies; protecting vulnerable spouses who reduced their labor supply during marriage, as in the case of Social Security benefits available

8. We are unable to observe prior spouse characteristics among divorced or widowed individuals in the ACS.

to spouses and survivors, as long as they do not remarry; and targeting benefits to the neediest households by imposing means tests on transfer programs. Denying same-sex couples access to marriage involved another set of conflicting policy goals: preserving "traditional" marriage while simultaneously withholding the protections that marriage offers for a substantial segment of the population. The legalization and federal recognition of same-sex marriage offers a new opportunity for researchers to understand impacts of incentives arising from tax and transfer policy on marriage in old age.

2 Marriage Incentives Resulting from Old Age Policies

We emphasize those policies with incentives that are largest and affect the most older individuals: Social Security and Medicaid long-term services and supports (LTSS).[9]

2.1 Social Security

The United States Social Security system provides three main types of retirement benefits, with further details of spouse and survivor benefits provided in Dushi, Friedberg, and Webb 2021:

1. A retired-worker benefit. This benefit is progressive in an individual's lifetime earnings: it increases at a declining rate as lifetime earnings rise, so high lifetime earners get a higher benefit but a lower replacement rate than low lifetime earners.

2. A spousal benefit, which equals 50% of the retired-worker benefit paid to the other spouse, adjusted for the claim age of both spouses. Thus, the lower earning spouse is the one within a couple who may receive a spousal benefit, and they will do so if it exceeds their own retired-worker benefit. Because of the progressive benefit formula described above, the lifetime earnings of the lower earning spouse must be less than half the lifetime earnings of the higher earnings spouse. This is most likely to be the case when one spouse has an incomplete work history (less than 35 years of covered employment).

9. Other tax and transfer policies that generate somewhat smaller marriage incentives or disincentives in old age include progressive household-based taxation at the federal level and in many states; means-tested Medicare Part B premiums; and the provision to the destitute of health insurance through Medicaid and of cash assistance through Supplemental Security Income.

3. A survivor benefit, which equals 100% of the retired-worker benefit of the deceased spouse, again adjusted for claim ages. Lower earning individuals who outlive their spouse will always receive a survivor benefit.

Beneficiaries are entitled to the maximum of these benefits, meaning that marriage can only increase one's Social Security benefits – in the case of a first marriage. Family-based Social Security benefits were meant to counteract barriers to married women's labor supply, whether due to gendered norms or lack of labor market accommodations for child-bearing and -rearing.[10] Otherwise, many married women would receive low benefits levels in old age, whether reflecting weaker attachment to the labor force or lower wages.

However, the situation is more complicated for individuals who were previously married for more than ten years and, moreover, depends on whether their marriage ended in divorce or death. The end of an earlier such marriage does not end eligibility for spouse and survivor benefits. Rather, remarriage at any age ends access to spouse benefits, though only remarriage before age 60 ends access to survivor benefits.[11]. This leads to differing incentives, depending on an individual's marital history and relative earnings. Anyone who used to be married (for more than ten years) to someone who had higher lifetime earnings than both themselves and their current partner will lose spouse benefits from an earlier relationship if they marry, something most likely to affect individuals who have particularly low earnings of their own and whose current partner also has relatively low earnings. After age 60, survivor benefits, which depend on smaller earnings differentials than do spousal benefits, are no longer at risk due to remarriage.

2.2 Medicaid Provision of Long-Term Care

The cost of nursing home care represents a substantial financial risk for elderly Americans. Friedberg et al. (2014) estimate that 44% of men and 58% of women will enter a nursing home at some point after age 65. Among those who do, mean durations of stay are 0.85 and 1.37 years, respec-

10. In addition to the incentives we describe here, economists have generally concluded that joint taxation in the United States suppresses married women's labor supply, thereby reinforcing traditional gender norms surrounding family labor supply before retirement (Rosen 1977; Eissa and Hoynes 2004; LaLumia 2008; Isaac 2022).

11. If the later marriage ends, then individuals can once again access benefits from the earlier marriage

tively. The American Association for Long-Term Care Insurance (2015) reports that the average cost of a semi-private nursing home room in 2015 was $79,800 annually.

Notwithstanding the above risks, only about 9% of individuals aged 65 and over hold long-term care insurance. Instead, many households turn to Medicaid, the health insurance program for the indigent, either because they are indigent or because nursing home costs make them so. Medicaid paid for 62.3% of total long-term care costs of $210.9 billion in 2011 (National Health Policy Forum 2014). Medicaid pays for the nursing home care of the indigent but subjects single individuals to a stringent means test. Single nursing home residents claiming Medicaid are typically permitted to retain assets of $2,000 and an income of $30 a month, contributing any excess toward the cost of their care.

Married couples are subject to a less stringent means test, but one that nonetheless imposes a rather sharp penalty on the resources of the community spouse. The community spouse is permitted to retain income in his or her name (i.e., the "name on the check rule"), but if this falls short of the community spouse resource allowance, then income may be transferred from the institutionalized to the community spouse to raise their income to the above amount.[12] Financial asset allowances, from which a house is exempted, differ across states subject to federal limits. In some states, the community spouse is permitted to retain $119,220 of "countable assets" as of 2015. In other states, the community spouse may retain one half of the couple's countable assets, subject to a minimum of $23,844 and a maximum of $119,220. In a few states, the minimum lies between the above numbers.

All of this means that, if one partner needs care and the other is not destitute, marriage can only make couples worse off, as much of the assets and income of a spouse who is well must be spent before a spouse who is unwell can qualify for in-kind LTSS.

12. In 2015 the community spouse resource allowance varied by state from $1,991 to $2,980.

3 Empirical Strategy

We leverage variation in the timing of same-sex marriage recognition to estimate whether older couples in the American Community Survey married at differential rates by age, in ways that may be consistent with old-age policy marriage incentives. Our context exhibits both staggered treatment timing and, due to the *Obergefell v. Hodges* Supreme Court ruling, a setting in which all units are eventually treated. We are also interested in estimating treatment effects that potentially vary by age group. We therefore utilize the extended two-way fixed effects specification described by Wooldridge (2021), who shows that this specification can accomplish many of the goals of other staggered treatment difference-in-differences estimators using a simple regression framework (e.g., those described by Callaway and Sant'Anna 2021; Sun and Abraham 2021). By allowing sufficient heterogeneity in the treatment effects, this approach enables identification of treatment effects in staggered difference-in-differences specifications while avoiding critiques such as those raised by Goodman-Bacon (2021) and Chaisemartin and D'Haultfoeuille (2020).

We estimate the impact of federal same-sex marriage recognition on the binary variable Married_{ist}, indicating whether individual i, who reports being in a couple in state s in year t, is married ($\text{Married}_{ist} = 1$) or cohabiting ($\text{Married}_{ist} = 0$). We estimate this separately for women and men and for same-sex couples and, by way of comparison, different-sex couples. We specify four marriage legalization cohorts based on the combination of when the state someone lived in legalized same-sex marriage and when the federal government recognized that marriage. That results in four state-year cohorts: 1) 2012 or earlier, when the federal government did not recognize same-sex marriages, 2) 2013, when the *Windsor* ruling required federal marriage recognition, 3) 2014, as new states legalized same-sex marriage, and 4) 2015, following the *Obergefell* ruling that required all states to allow same-sex marriage.

We first lay out the most flexible specification derived from Wooldridge (2021), where r indexes

treatment cohorts and m indexes sample years, with 2012 as the base year where appropriate:[13]

$$\begin{aligned}\text{Married}_{ist} = \beta_0 + \sum_{r=2012}^{2014} \beta_{1,r}\text{SSM Recognized}_{sr} + \sum_{r=2012}^{2014} \beta_{2,r}(\text{SSM Recognized}_{sr} \times \textbf{Age Group}_{ist}) \\ + \sum_{m=2013}^{2019} \beta_{3,m}\textbf{Year}_m \times \textbf{Age Group}_{ist} + \sum_{r=2012}^{2014}\sum_{m=r}^{2019} \beta_{4,r,m}(\text{SSM Recognized}_{sr} \times \textbf{Year}_m) \\ + \sum_{r=2012}^{2014}\sum_{m=r}^{2019} \beta_{5,r,m}(\text{SSM Recognized}_{sr} \times \textbf{Year}_m \times \textbf{Age Group}_{ist}) \\ + X_{ist} + \mu_s + \sum_{m=2013}^{2019} \textbf{Year}_m + \varepsilon_{ist}\end{aligned} \tag{1}$$

The model has interactions of numerous treatment groupings. State and year fixed effects are represented by μ_s and $\textbf{Year}_m$ and state-year cohort groups by $\text{SSM Recognized}_{sr}$. We are further interested in distinguishing the impact of same-sex marriage recognition by age group, accounting for the terms associated with $\beta_{2,r}$ and $\beta_{3,m}$. The coefficients $\beta_{4,r,m}$ and $\beta_{5,r,m}$ then estimate the impact of federal same-sex marriage recognition on same-sex couples by legalization cohort and further by age group in each year. X_{ist} is a vector of additional control variables.

However, equation 1 contains many treatment parameters of possible interest, involving $\beta_{4,r,m}$ and $\beta_{5,r,m}$. With seven age group dummies, equation 1 has 147 treatment parameters. Even if we use only two age group dummies, as we do in some specifications, then equation 1 still contains 48 treatment parameters. It therefore seems unlikely that we can feasibly identify and estimate all of the treatment coefficients with the additional controls in equation 1. In this situation, Wooldridge (2021) provides guidance in restricting the treatment coefficients before estimation in order to reduce the parameter space. Of course, the more we restrict the parameter space, the closer we get to the recent criticisms of difference-in-differences with staggered treatment timing. However, given our economic context, our relatively small sample sizes of same-sex couples, and our interest in estimating heterogeneous effects by age group, we believe some simplification is unavoidable and therefore consider two restrictions of the treatment effects.

13. This specification is derived from equation 6.46. The 2015 treatment cohort is omitted from Equation 1. Wooldridge (2021) notes that in contexts where all units eventually become treated, then it is not possible to identify treatment effects for units treated in the final period, and so those units become the omitted category control group.

First, we restrict treatment effects to be constant over time within cohorts. We do this by summing the $\beta_{4,r,m}$ and $\beta_{5,r,m}$ terms across m:

$$\begin{aligned}\text{Married}_{ist} = \beta_0 &+ \sum_{r=2012}^{2014} \beta_{1,r}\text{SSM Recognized}_{sr} + \sum_{r=2012}^{2014} \beta_{2,r}(\text{SSM Recognized}_{sr} \times \textbf{Age Group}_{ist}) \\ &+ \sum_{m=2013}^{2019} \beta_{3,m}(\textbf{Year}_m \times \textbf{Age Group}_{ist}) + \sum_{r=2012}^{2014} \beta_{4,r}\text{SSM Recognized}_{sr} \times \text{Post}_{rt} \\ &+ \sum_{r=2012}^{2014} \beta_{5,r}(\text{SSM Recognized}_{sr} \times \text{Post}_{rt} \times \textbf{Age Group}_{ist}) \\ &+ X_{ist} + \mu_s + \sum_{m=2013}^{2019} \textbf{Year}_m + \varepsilon_{ist}\end{aligned}$$

Summing across m transforms the interactions with $\textbf{Year}_m$ into an interaction with Post_{rt}, which equals 1 if year t is a post-treatment year for treatment cohort r. Also, because every sample year is a post year for the 2012 cohort, the $\beta_{1,2012}$ and $\beta_{2,2012}$ terms above drop out due to collinearity with $\beta_{4,2012}$ and $\beta_{5,2012}$, respectively. In addition, because we use mutually exclusive age groups, the $\beta_{1,r}$, $\beta_{4,r}$, and $\textbf{Year}_m$ terms would also drop out due to collinearity with $\beta_{2,r}$, $\beta_{5,r}$, and $\beta_{3,m}$, respectively, leaving:

$$\begin{aligned}\text{Married}_{ist} = \beta_0 &+ \sum_{r=2013}^{2014} \beta_{2,r}(\text{SSM Recognized}_{sr} \times \textbf{Age Group}_{ist}) \\ &+ \sum_{m=2013}^{2019} \beta_{3,m}(\textbf{Year}_m \times \textbf{Age Group}_{ist}) \\ &+ \sum_{r=2012}^{2014} \beta_{5,r}(\text{SSM Recognized}_{sr} \times \text{Post}_{rt} \times \textbf{Age Group}_{ist}) + X_{ist} + \mu_s + \varepsilon_{ist}\end{aligned}$$

Second, we additionally restrict treatment effects to be constant across state-year cohorts. We do this by summing the $\beta_{5,r}$ terms above across r:

$$\begin{aligned}\text{Married}_{ist} = \beta_0 &+ \sum_{r=2013}^{2014} \beta_{2,r}(\text{SSM Recognized}_{sr} \times \textbf{Age Group}_{ist}) \\ &+ \sum_{m=2013}^{2019} \beta_{3,m}(\textbf{Year}_m \times \textbf{Age Group}_{ist}) \\ &+ \beta_5(\text{SSM Recognized}_s \times \text{Post}_t \times \textbf{Age Group}_{ist}) + X_{ist} + \mu_s + \varepsilon_{ist}\end{aligned} \tag{2}$$

SSM Recognized$_s$ equals 1 if individual i's state is part of any treatment cohort (2012 or earlier, 2013, or 2014) and Post$_t$ equals 1 if year t is a post-treatment year for individual i, but the definition of SSM Recognized$_{sr}$ remains the same as separate cohort dummies.

Equation 2 is the regression equation we estimate below, separately for same-sex and different-sex couples, with standard errors clustered at the state level. Although we restrict the treatment parameters before estimation, we still include flexible controls for cohort-by-age group and year-by-age group fixed effects that control for potential heterogeneity along these dimensions.[14]

4 Data

4.1 Sample Characteristics

We use the 2012–2019 waves of the American Community Survey (ACS) to construct samples of same- and different-sex married and cohabiting couples so as to focus on a sample of individuals in relationships who are more likely to be on the margin of marrying (Ruggles et al. 2023).[15] We are interested in couples in which both partners are at least 55 years old in order to focus on marriage incentives in old age programs, though by way of comparison we estimate equation 2 on couples of all ages.

The ACS is advantageous in our setting because of its large sample size and because it began explicitly recording whether a couple was a same-sex married couple in 2012, allowing us to credibly differentiate between married and cohabiting same-sex couples from then on. Other surveys containing older couples such as the Health and Retirement Survey (HRS) or the Survey of Income and Program Participation (SIPP), both of which report marriage and cohabitation, have small sample sizes of same-sex couples, greatly limiting statistical precision. Administrative data alone, such as data from the Social Security Administration or from tax returns, do not allow us to observe cohabiting relationships, making our current analysis infeasible.[16]

14. In some specifications we use seven age groups, which results in 63 cohort-by-age group and year-by-age group fixed effects used as controls. In other specifications we use two age groups, resulting in 18 cohort-by-age group and year-by-age group fixed effects used as controls.

15. Friedberg and Isaac (2022) show that including single individuals who are not at least in a cohabiting relationship in the sample is likely to bias marriage elasticity estimates upward, thereby motivating our focus on individuals in relationships, who are on the margin of marrying.

16. Preliminary analysis of same-sex individuals filing tax returns from the same address suggests a high prevalence of roommates.

Our main sample of older couples in the ACS includes 20,422 same-sex couples (13,851 married couples and 6,571 cohabiting couples), resulting in 40,844 individuals in same-sex relationships in our estimation samples. Table 1 presents couple-level summary statistics for same-sex married and cohabiting couples in our sample presented separately for women and men.[17] Older same-sex couples who are married are, on average, slightly older and are more likely to have children living in the household but exhibit lower labor supply relative to cohabiting couples. In addition, women are more likely to be in their 2^{nd}+ marriage (if they are married) or to be divorced, separated, or widowed (if they are cohabiting) relative to men, which suggests that women may be more likely to face remarriage incentives from old age programs.

4.2 Knowledge of Social Security Rules from the Understanding America Study

We use the second wave from the Understanding America Study's (UAS) "What Do People Know About Social Security?" survey, conducted over 2017–2020, to measure general understanding of Social Security's spouse, survivor, and ex-spouse benefits rules to motivate our analysis.[18] We limit the sample to respondents who are 55 years old or older and who are in the UAS' nationally representative sample. All statistics are weighted to be nationally representative.

Table 2 contains mean correct responses to the following questions from the UAS, broken out by gender and marital status (with the correct answer emphasized):

1. ***True*** or False: Someone who has never worked for pay may still be able to claim benefits if his or her spouse qualifies for Social Security.

2. True or ***False***: If a worker who pays Social Security taxes dies, his/her spouse may claim Social Security survivor benefits only if they have children.

3. True or ***False***: A divorced person is never entitled to receive retirement benefits on their ex-spouse's record.

Table 2 shows that differences in knowledge about spousal, survivor, and ex-spouse benefits

17. Appendix Table A1 presents couple-level summary statistics for different-sex couples, which we use as a benchmark.
18. We use the second wave, which is the UAS 94 survey, because it added a question about ex-spouse benefits specifically.

are statistically significant between women and men. Knowledge about these specific rules is also greater among those currently or previously married, which may indicate learning about the Social Security implications as individuals change marital status.

For example, married women more often correctly answered the question about spousal benefits relative to men ($p < 0.01$), perhaps because women are more likely to receive spousal benefits based on their husband's earning record. In addition, married women knew more about ex-spouse benefits than men, which may also indicate awareness of future options. However, women were less likely to correctly answer the question about survivor benefits, which is unexpected because women outlive men and men outearn women, on average, so women are considerably more likely to receive survivor benefits.

Table 2 also shows greater knowledge of Social Security benefits rules among women relative to men in the previously married sample of those who are divorced, separated, or widowed. This may indicate learning through experience, especially as the gender differences arise specifically for the survivor and ex-spouse benefits questions. Among women, the mean fraction of correct answers is higher for the survivor and ex-spouse benefits questions in this previously married sample relative to the currently married sample, which may also suggest learning. Interestingly, among men, the mean fraction of correct answers for the survivor and ex-spouse benefits are lower within the previously married than the currently married sample. These differences may reflect the higher use of survivor or ex-spouse benefits among previously married women relative to men, who are more likely to continue to claim Social Security benefits based on their own earnings record. Finally, there do not appear to be differences in knowledge between women and men in the never married sample, which is also consistent with a learning mechanism since all of these Social Security benefits rules are conditional on marriage.

Overall, the UAS data demonstrate that Social Security's spouse, survivor, and ex-spouse benefits rules are, in general, well-understood, but that the level of understanding differs by both gender and marital status. These patterns suggest that the introduction of marriage incentives from Social Security among same-sex couples, due to same-sex marriage recognition, may more strongly affect

women and/or previously married individuals, which we find in our analysis below.

5 Marriage Results

By way of comparison, we first estimate equation 2 using samples of all individuals in same- and different-sex married couples by age group. We limit the sample to couples in which both partners are between 30–89 years old and distinguish effects across 13 five-year age groups beginning with 30-34 and ending with 85–89. Figure 1 presents estimates of β_5 from equation 2. We find marriage increases among both women and men in same-sex couples at younger ages, peaking between 45-50 years old, before decreasing at older ages. However, marriage responses hover around zero for older men, while becoming negative for older women. In contrast, we obtain precisely estimated coefficients that are very close to zero among different-sex couples, which is to be expected if different-sex marriage rates do not respond to same-sex marriage legalization, as Dillender (2014) also concludes; this also indicates an absence of overall changes in marriage behavior.[19]

5.1 Baseline Estimates

Figure 2 displays coefficients and 95% confidence intervals using our main sample of older individuals who are in same- or different-sex couples where both partners are between 55-89 years old, allowing estimates to vary across seven five-year age groups. Figure 2 shows similar patterns as those in Figure 1. It is now clear that there are no statistically significant marriage differences among older men, depending on whether they experienced federal same-sex marriage recognition or not, nor are there apparent trends by age. Instead, panel 2a shows that we estimate increases in marriage among younger women in this sample (i.e., those who are 55-69 years old) and decreases in marriage among older women (i.e., those who are 70 years old or older).[20]

Decreases in marriage at older ages are consistent with both Social Security remarriage disincentives for previously married individuals and Medicaid LTSS marriage disincentives. To explore

19. We estimate equation 2 separately for individuals in same- and different-sex couples, so we do not use different-sex couples as a true control group. Different-sex couples could not have been affected by marriage legalization. Instead, different-sex couples can be viewed as a potential placebo group that my have experienced the same external factors affecting marriage.

20. The coefficients for the 55-59, 60-64, and 75-79 age groups in Figure 2a are significant at the 5% level.

whether marriage incentives from Social Security, specifically, affect marriage rates, Panels 2c–2f display estimates of β_5 in equation 2 using two subsamples: panels 2c and 2d only include married individuals in their 1^{st} marriage and cohabiting individuals who report being never married (who can only gain, not lose, access to spouse and survivor benefits), and panels 2e and 2f only include married individuals in their 2^{nd}+ marriage and cohabiting individuals who report being divorced, separated, or widowed. The latter group may face remarriage disincentives from Social Security, if their previous spouse has higher lifetime earnings than both the individual and their current partner.[21]

Panels 2d and 2f continue to show no evidence of significant marriage responses among men. Panel 2c, however, suggests that the increase in marriage rates among younger women in our sample is driven by those who were not previously married, whereas panel 2e suggests that the decrease in marriage rates among older women in this sample is driven by those who were previously married. However, small sample sizes within age groups may be reducing our power, making it difficult to draw inferences.[22]

5.2 Estimates Using Two Age Groups

To further explore these differential responses and obtain more statistical power, we condense the age ranges to a simple 55-69 group and a 70+ group. The resulting estimates of equation 2 will average the effects among the narrower age groups in Figure 2.[23] Table 3 corroborates the patterns in Figure 2. Independent of marital status, we estimate that same-sex marriage recognition causes a 4.7 percentage point increase (6.9%; $p < 0.10$) in marriage among women less than 70 in same-sex couples and a 5.8 percentage point decrease (8.5%; $p < 0.05$) in marriage among women who 70 or older. These estimates are significantly different from both zero and each other ($p < 0.01$). The second panel of Table 3 shows that the increase in marriage at younger ages is driven by women who had never been married, where we estimate that same-sex marriage recognition causes a 7.1

21. Both of these subsamples would still face overall marriage disincentives from Medicaid LTSS.
22. The coefficients for the 55-59 and 60-64 age groups in Figure 2c and for the 70-74 and 80-84 age groups in Figure 2e are significant at the 5% level.
23. We use the 55-69 vs. 70-89 threshold because the coefficients at younger ages in Figure 2a are positive, whereas the coefficients for 70+ year-olds are negative.

percentage point increase (9.6%; $p < 0.05$) in marriage among women less than 70. This effect is significantly different than both zero and the coefficient among never married women who are 70 or older ($p < 0.01$). In contrast, the third panel of Table 3 shows that the decrease in marriage at older ages appears to be driven by women who were previously married, where we estimate that same-sex marriage recognition causes a 10.6 percentage point decrease (18.4%; $p < 0.05$) in marriage among women 70 or older. This coefficient is significantly different than zero, than the coefficient among previously married women who are less than 70 ($p < 0.01$), and than the coefficient among previously married men who are also 70 or older ($p < 0.05$). These specifications also continue to show no evidence of marriage responses among men in same-sex couples or individuals in different-sex couples.[24]

The decreases in marriage rates that we estimate among older individuals in Table 3 are consistent with both Social Security remarriage disincentives for previously married individuals and Medicaid LTSS marriage disincentives. However, the Social Security incentives are complicated; divorced individuals lose access to prior spouse benefits following remarriage at any age, whereas widowed individuals only lose access to survivor benefits following remarriage before age 60.[25] To distinguish among these consequences, we estimated a specification that splits apart divorced or separated individuals from widowed individuals.

Appendix Figure A1 presents estimates using seven age groups and Appendix Table A2 presents estimates using two age groups. The estimates suggest that the decrease in marriage at older ages is driven by those who are divorced or separated, where coefficients become significant and negative beginning with 70+ year-olds. This conclusion is consistent with Social Security's remarriage disincentives. However, Appendix Figure A1 shows that there are negative coefficients for 80+ year-old cohabiting widows as well, although only one estimate is statistically significant, perhaps reflecting Medicaid LTSS incentives.[26]

24. Although some coefficients for individuals in different-sex couples in Table 3 are statistically significant, they are very close to zero. The largest of these estimates constitutes a 0.3% change relative to the mean marriage rate in the sample.

25. Brien, Dickert-Conlin, and Weaver (2004b) leverage the age 60 threshold for widows to show that it significantly affects marriage timing decisions among widows, but does not affect marriage timing among divorced individuals.

26. We also estimated a specification that uses two age groups but sets the threshold at age 60, which allows us to determine whether there is evidence of an age 60 marriage bump among widows. We do not find a statistically significant age 60 marriage bump, although the coefficient is positive, which is consistent with Brien, Dickert-Conlin, and Weaver (2004b). These results are available upon request.

6 Conclusion

This paper highlights the conflicting incentives that arise when contradictory policy goals fail to be reconciled. For example, a set of policy goals that seek to protect lower-earning spouses (in the case of Social Security spousal provisions) generate marriage incentives for some and marriage disincentives for others; and other policies that seek to protect community spouses when their elderly spouses are unwell (in the case of Medicaid LTSS spousal impoverishment rules) fail to eliminate marriage penalties. More generally, any protections for needy individuals that are implemented at the household level may generate marriage disincentives. These marriage disincentives stand in contrast to marriage incentives that have driven tax and welfare reforms in recent decades. While policy-based marriage incentives have been studied for prime-age different-sex couples, they have not been considered for couples in old age and are now relevant for a new group: same-sex couples.

Our results show that marriage responses to same-sex marriage recognition among older couples are consistent with marriage incentives from Social Security and Medicaid provision of long-term care, which are key old-age programs in the United States. Moreover, these responses differ between women and men in ways that mirror remarriage incentives from Social Security, which are more likely to matter to women, and marriage incentives involving Medicaid LTSS, which women are more likely to use. We estimate significant decreases in the propensity to marry among cohabiting women older than 70. These decreases are concentrated among women who have been previously married, and specifically those who are separated or divorced rather than widowed. These patterns are is consistent with Social Security's remarriage disincentives, which have wider scope among individuals who are divorced rather than widowed and arise if one's previous spouse had higher lifetime earnings than oneself and one's current partner (Tamborini and Whitman 2007; Tamborini, Iams, and Whitman 2009; Groneck and Wallenius 2021). We also observe lower propensities to marry among the very oldest women, whether divorced, widowed, or never married, which is consistent with consequential Medicaid asset tests that require a spouse who does not need care to spend down assets to covering the costs of a spouse who does need care.

A key limitation in the literature that we are able to overcome is that marriage responses among

different-sex couples are by definition symmetric for women and men. For example, marriage incentives from Social Security's spouse benefits that are likely more salient for women will affect marriage rates for both women and men in different-sex couples, thereby conflating any gendered aspect of marriage incentives. Our findings are notable because we are able to break this mechanical connection by exploiting a novel identification approach: legalization and recognition of same-sex marriage. This allows us to explore how gender interacts with marriage incentives that are induced by Social Security and Medicaid LTSS but that have been difficult to study since their introduction decades ago.[27] This analysis not only helps us learn what factors influenced marriage decisions among couples who became newly able to marry, but also helps us learn more about women's marriage motives while adding to the sparse literature on the impact of marriage incentives from old age policies more generally.

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27. Social Security's marriage-related rules have not varied since the introduction of spouse and survivor benefits in 1940 and their loss upon remarriage in 1979. Although asset tests in Medicaid LTSS vary to some extent across states, a limited literature studies their impact on asset accumulation and does not consider their impact on marriage and divorce.

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Table 1
Summary Statistics in the ACS, Older Individuals

	Women		Men	
	Married	Cohabiting	Married	Cohabiting
Demographic variables:				
In 1^{st} marriage or never married	0.711	0.552	0.757	0.685
	(0.453)	(0.497)	(0.429)	(0.464)
In 2^{nd}+ marriage or divorced, separated, or widowed	0.289	0.448	0.243	0.315
	(0.453)	(0.497)	(0.429)	(0.464)
Partners are the same race	0.934	0.908	0.890	0.834
	(0.249)	(0.288)	(0.313)	(0.372)
Age of older partner	69.824	67.298	69.210	67.538
	(8.440)	(7.289)	(8.206)	(7.402)
Age of younger partner	65.815	62.434	64.701	61.685
	(8.390)	(6.472)	(7.964)	(6.085)
Age difference between partners	4.010	4.864	4.509	5.853
	(4.101)	(4.377)	(4.536)	(5.282)
Education of more educated partner	14.885	15.669	15.214	15.560
	(2.989)	(2.485)	(2.849)	(2.417)
Education of less educated partner	13.071	13.793	13.201	13.449
	(3.506)	(2.912)	(3.298)	(2.777)
Education difference between partners	1.813	1.875	2.013	2.112
	(2.454)	(2.192)	(2.415)	(2.285)
Any dependent children	0.045	0.038	0.030	0.010
	(0.207)	(0.190)	(0.169)	(0.099)
Conditional number of dependent children	1.245	1.346	1.314	1.387
	(0.587)	(0.593)	(0.659)	(0.667)
Observations	7,285	3,450	6,566	3,121

Continued on next page.

Continued: Summary Statistics in the ACS, Older Individuals

	Women		Men	
	Married	Cohabiting	Married	Cohabiting
Labor and insurance variables:				
Both partners in labor force	0.241	0.317	0.273	0.310
	(0.428)	(0.465)	(0.446)	(0.463)
Only 1 partner in labor force	0.291	0.333	0.309	0.344
	(0.454)	(0.471)	(0.462)	(0.475)
Positive earnings	0.570	0.684	0.622	0.684
	(0.495)	(0.465)	(0.485)	(0.465)
Reported earnings	90,599.010	86,796.655	110,551.459	98,905.963
	(97,157.031)	(93,246.399)	(127,054.857)	(115,234.268)
Reported earnings split	0.858	0.845	0.855	0.851
	(0.180)	(0.185)	(0.181)	(0.182)
Positive Social Security income	0.684	0.620	0.658	0.638
	(0.465)	(0.485)	(0.474)	(0.481)
Conditional Social Security income	21,803.737	21,150.785	24,274.572	22,546.678
	(11,836.916)	(11,871.484)	(12,369.111)	(12,129.465)
Observations	7,285	3,450	6,566	3,121

Notes: Standard deviations in parentheses. The data come from the 2012–2019 waves of the American Community Survey and include individuals who report being in a married or cohabiting same-sex couple where both partners are between 55-89 years old. Years of education are constructed using the detailed educational codes in the ACS, which reports the individual's highest grade completed through 12^{th} grade. We assign 13 years of schooling for 1 or more years of college credit and no degree, 14 years for an associate's degree, 16 years for a bachelor's degree, and 18 years for a master's, professional, or doctoral degree.

Table 2
Social Security Knowledge in the UAS, Older Individuals

	Women	Men	Difference
***Sample**: Married*			
Correctly answered question about:			
Spousal benefits	0.878	0.812	0.066***
	[0.328]	[0.391]	(0.020)
Survivor benefits	0.700	0.755	-0.055**
	[0.459]	[0.431]	(0.024)
Ex-spouse benefits	0.769	0.725	0.044*
	[0.422]	[0.447]	(0.024)
Observations	642	877	
	Women	Men	Difference
***Sample**: Never married*			
Correctly answered question about:			
Spousal benefits	0.857	0.783	0.074
	[0.352]	[0.415]	(0.057)
Survivor benefits	0.726	0.749	-0.023
	[0.448]	[0.436]	(0.065)
Ex-spouse benefits	0.599	0.591	0.008
	[0.492]	[0.495]	(0.073)
Observations	103	82	
	Women	Men	Difference
***Sample**: Divorced, separated, or widowed*			
Correctly answered question about:			
Spousal benefits	0.861	0.822	0.038
	[0.347]	[0.383]	(0.028)
Survivor benefits	0.749	0.645	0.104***
	[0.434]	[0.479]	(0.034)
Ex-spouse benefits	0.798	0.662	0.135***
	[0.402]	[0.474]	(0.033)
Observations	522	229	

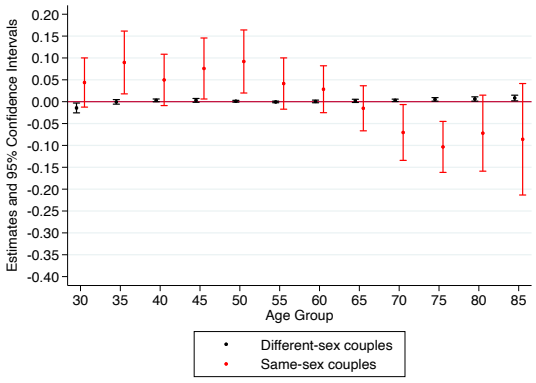
Notes: *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively. Standard deviations are in brackets and standard errors are in parentheses. The data come from the second wave of the "What Do People Know About Social Security" survey administered by the Understanding America Study and including individuals who are 55 years old or older. Panel A includes married individuals, Panel B includes individuals who have never been married, and Panel C includes individuals who are divorced, separated, or widowed. All statistics are weighted to be nationally representative using weights provided by the Understanding America Study.

Table 3
Estimates Using Two Age Groups, Older Individuals in the ACS

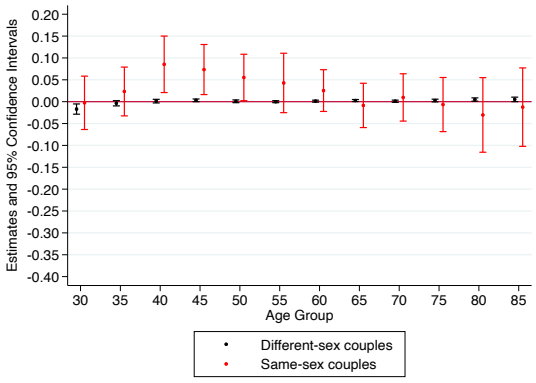
	Same-sex			Different-sex		
	Women	Men	Difference	Women	Men	Difference
***Sample**: All*						
Post-state legalization ×						
less than 70	0.047*	0.032	0.016	-0.001	-0.001	-0.001 **
	(0.025)	(0.035)	(0.034)	(0.001)	(0.001)	(0.000)
70 or older	-0.058**	0.007	-0.066	0.002***	0.000	0.002 ***
	(0.025)	(0.033)	(0.041)	(0.001)	(0.001)	(0.001)
Difference	0.106***	0.024		-0.003***	-0.001*	
	(0.020)	(0.022)		(0.001)	(0.000)	
Mean of dep var	0.679	0.678		0.966	0.966	
Observations	21,470	19,374		2,240,575	2,240,575	
	Same-sex			Different-sex		
	Women	Men	Difference	Women	Men	Difference
***Sample**: Never married*						
Post-state legalization ×						
less than 70	0.071**	0.017	0.054	-0.001**	-0.001	0.000
	(0.029)	(0.038)	(0.045)	(0.000)	(0.001)	(0.000)
70 or older	-0.032	0.004	-0.035	0.002***	0.002***	0.000
	(0.028)	(0.042)	(0.048)	(0.000)	(0.000)	(0.000)
Difference	0.102***	0.013		-0.003***	-0.003***	
	(0.018)	(0.018)		(0.001)	(0.001)	
Mean of dep var	0.736	0.700		0.993	0.992	
Observations	13,789	14,065		1,541,800	1,523,685	
	Same-sex			Different-sex		
	Women	Men	Difference	Women	Men	Difference
***Sample**: Divorced, separated, or widowed*						
Post-state legalization ×						
less than 70	0.023	0.077	-0.054	-0.003	-0.003*	0.001
	(0.034)	(0.050)	(0.053)	(0.002)	(0.002)	(0.001)
70 or older	-0.106**	0.026	-0.133 **	0.002	0.001	0.001
	(0.040)	(0.037)	(0.053)	(0.003)	(0.002)	(0.002)
Difference	0.130***	0.050		-0.004**	-0.004**	
	(0.034)	(0.040)		(0.002)	(0.002)	
Mean of dep var	0.576	0.620		0.905	0.910	
Observations	7,681	5,309		698,775	716,890	
Less than 70 diff. relative	-0.047	0.060		-0.002	-0.002	
to never married	(0.040)	(0.049)		(0.002)	(0.002)	
70 or older diff. relative	-0.075	0.023		0.000	-0.001	
to never married	(0.047)	(0.053)		(0.003)	(0.002)	

Notes: *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively. Standard errors are in parentheses. The data come from the 2012–2019 waves of the American Community Survey and include individuals in same- and different-sex married couples where both partners are between 55-89 years old. Panel A includes all individuals. Panel B restricts to married individuals in their 1^{st} marriage and cohabiting individuals who report being never married. Panel C restricts to married individuals in their 2^{nd}+ marriage and cohabiting individuals who report being divorced, separated, or widowed. All specifications include indicators for own and spouse education groups (exactly HS, some college, and college or more, with less than HS being the omitted group), own and spouse age groups (5 year intervals from 60-65 to 85-89, with 55-60 being the omitted group), and own and spouse race (white, Hispanic, Asian, and other, with Black being the omitted group), year and state fixed effects, and the additional fixed effects required for identification in equation 2.

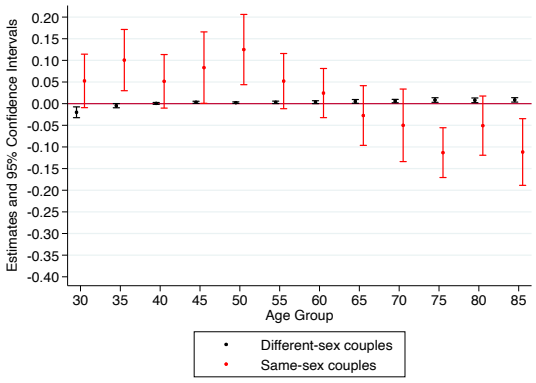
Figure 1
Effect on Marriage by Age Group Among All Couples, ACS



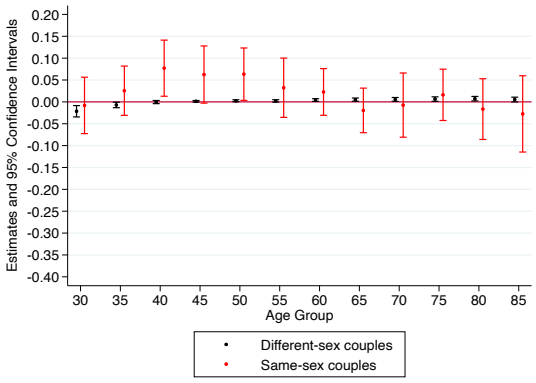
(a) All Women



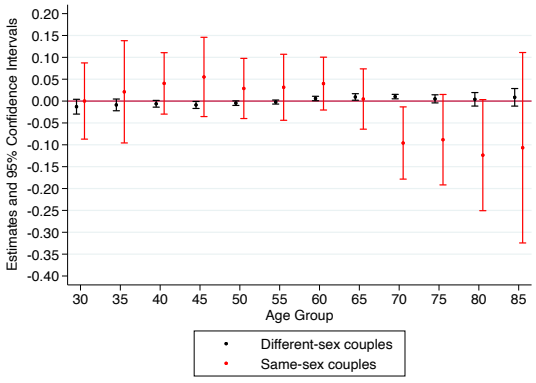
(b) All Men



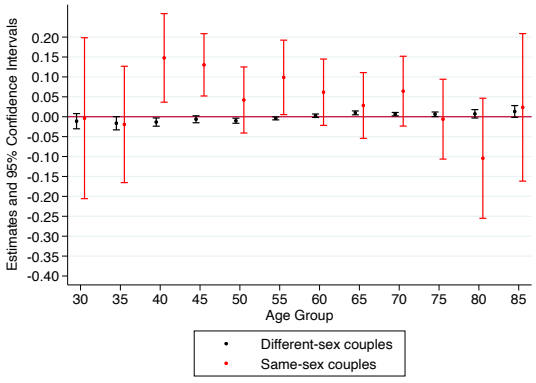
(c) Never Married Women



(d) Never Married Men



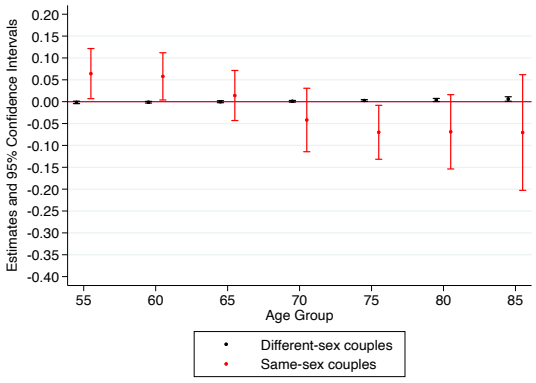
(e) Previously Divorced, Separated, or Widowed Women



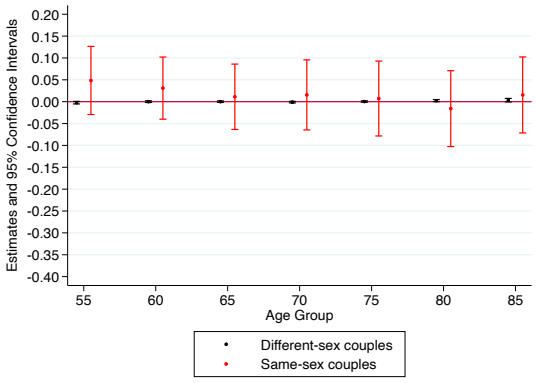
(f) Previously Divorced, Separated, or Widowed Men

Notes: The figure displays coefficient estimates and 95% confidence intervals for β_5 in equation 2 using an indicator for being married as the outcome and 13 age groups: 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, and 85-89. The data come from the 2012–2019 waves of the American Community Survey and include individuals in same- and different-sex married couples where both partners are between 55-89 years old. The equation is estimated separately depending on sex, whether the individual is in a same- or different-sex couple, and three samples. The first sample contains all individuals. The second sample contains married individuals in their 1^{st} marriage and cohabiting individuals who report being never married. The third sample contains married individuals in their 2^{nd}+ marriage and cohabiting individuals who report being divorced, separated, or widowed. All specifications include indicators for own and spouse education groups (exactly HS, some college, and college or more, with less than HS being the omitted group), own and spouse age groups (5 year intervals from 35-39 to 85-89, with 30-34 being the omitted group), and own and spouse race (white, Hispanic, Asian, and other, with Black being the omitted group), year and state fixed effects, and the additional fixed effects required for identification in equation 2.

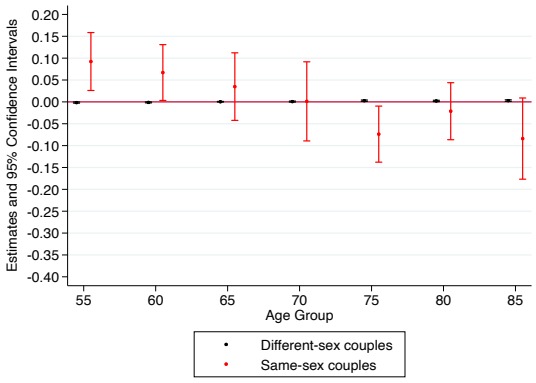
Figure 2
Effect on Marriage by Age Group Among Older Couples, ACS (7 Age Groups)



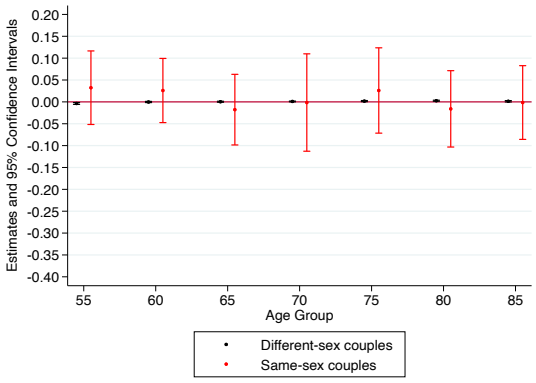
(a) All Women



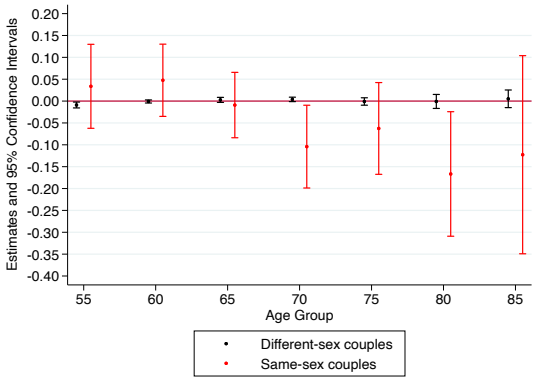
(b) All Men



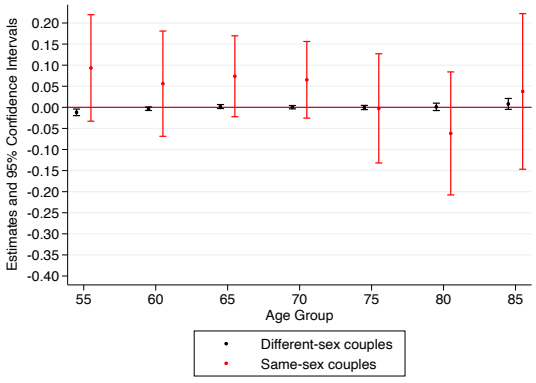
(c) Never Married Women



(d) Never Married Men



(e) Previously Divorced, Separated, or Widowed Women



(f) Previously Divorced, Separated, or Widowed Men

Notes: The figure displays coefficient estimates and 95% confidence intervals for β_5 in equation 2 using an indicator for being married as the outcome and 7 age groups: 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, and 85-89. The data come from the 2012–2019 waves of the American Community Survey and include individuals in same- and different-sex married couples where both partners are between 55-89 years old. The equation is estimated separately depending on sex, whether the individual is in a same- or different-sex couple, and three samples. The first sample contains all individuals. The second sample contains married individuals in their 1^{st} marriage and cohabiting individuals who report being never married. The third sample contains married individuals in their 2^{nd}+ marriage and cohabiting individuals who report being divorced, separated, or widowed. All specifications include indicators for own and spouse education groups (exactly HS, some college, and college or more, with less than HS being the omitted group), own and spouse age groups (5 year intervals from 60-65 to 100-105, with 55-60 being the omitted group), and own and spouse race (white, Hispanic, Asian, and other, with Black being the omitted group), year and state fixed effects, and the additional fixed effects required for identification in equation 2.

A Appendix: Additional Tables and Figures

Table A1
Summary Statistics for Different-Sex Couples in the ACS, Older Individuals

	Women		Men	
	Married	Cohabiting	Married	Cohabiting
Demographic variables:				
In 1st marriage or never married	0.683	0.150	0.727	0.173
	(0.465)	(0.357)	(0.446)	(0.379)
In 2nd+ marriage or divorced, separated, or widowed	0.317	0.850	0.273	0.827
	(0.465)	(0.357)	(0.446)	(0.379)
Partners are the same race	0.942	0.904	0.945	0.902
	(0.234)	(0.295)	(0.227)	(0.298)
Age of older partner	68.600	67.992	68.734	67.219
	(7.505)	(7.438)	(8.036)	(7.528)
Age of younger partner	64.570	62.931	65.591	62.617
	(7.023)	(6.608)	(7.708)	(6.642)
Age difference between partners	4.030	5.061	3.143	4.602
	(3.900)	(4.486)	(3.164)	(4.278)
Education of more educated partner	14.338	14.031	14.366	13.859
	(2.722)	(2.618)	(2.827)	(2.648)
Education of less educated partner	12.555	12.016	12.607	11.925
	(2.953)	(2.994)	(3.017)	(3.012)
Education difference between partners	1.783	2.015	1.759	1.933
	(2.225)	(2.476)	(2.219)	(2.450)
Any dependent children	0.050	0.044	0.052	0.045
	(0.218)	(0.204)	(0.221)	(0.207)
Conditional number of dependent children	1.291	1.316	1.318	1.303
	(0.644)	(0.672)	(0.662)	(0.644)
Observations	739,485	37,346	1,423,930	39,814

Continued on next page.

Continued: Summary Statistics for Different-Sex Couples in the ACS, Older Individuals

	Women		Men	
	Married	Cohabiting	Married	Cohabiting
Labor and insurance variables:				
Both partners in labor force	0.244	0.241	0.244	0.308
	(0.429)	(0.427)	(0.430)	(0.462)
Only 1 partner in labor force	0.365	0.372	0.288	0.320
	(0.482)	(0.483)	(0.453)	(0.466)
Positive earnings	0.660	0.645	0.570	0.658
	(0.474)	(0.479)	(0.495)	(0.474)
Reported earnings	63,976.172	60,345.958	98,649.026	77,715.457
	(78,244.415)	(71,589.270)	(108,843.685)	(91,173.833)
Reported earnings split	0.871	0.877	0.869	0.849
	(0.315)	(0.287)	(0.186)	(0.179)
Positive Social Security income	0.714	0.694	0.643	0.615
	(0.452)	(0.461)	(0.479)	(0.487)
Conditional Social Security income	22,893.433	21,793.132	24,299.138	22,266.739
	(11,399.630)	(11,828.686)	(11,906.476)	(12,117.948)
Observations	739,485	37,346	1,423,930	39,814

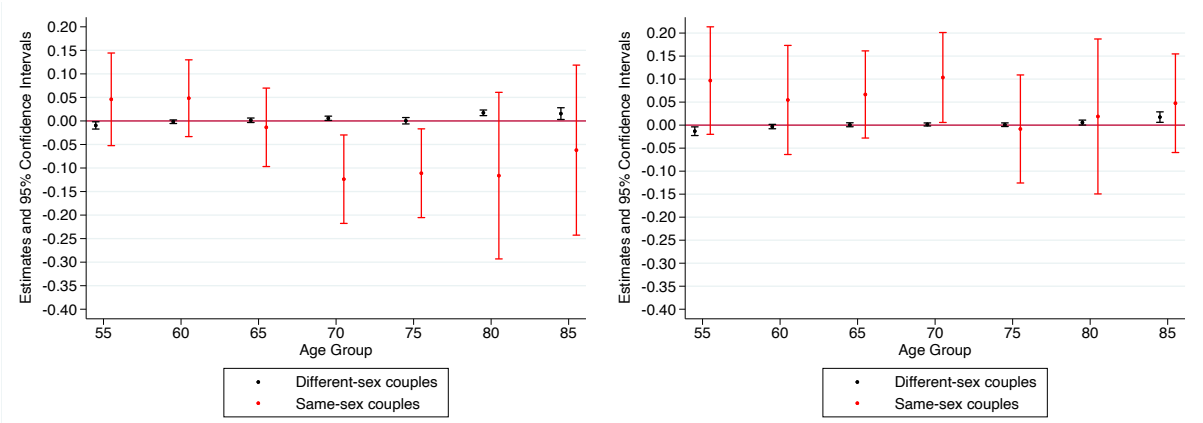
Notes: Standard deviations in parentheses. The data come from the 2012–2019 waves of the American Community Survey and include individuals who reporting being in a married or cohabiting different-sex couple where both partners are between 55-89 years old. Years of education are constructed using the detailed educational codes in the ACS, which reports the individual's highest grade completed through 12^{th} grade. We assign 13 years of schooling for 1 or more years of college credit and no degree, 14 years for an associate's degree, 16 years for a bachelor's degree, and 18 years for a master's, professional, or doctoral degree..

Table A2
Separate Estimates for Widows or Divorced or Separated Individuals, ACS (2 Age Groups)

	Same-sex			Different-sex		
	Women	Men	Difference	Women	Men	Difference
***Sample**: Divorced or separated*						
Post-state legalization ×						
less than 70	0.028	0.074	-0.045	-0.003	-0.004*	0.001
	(0.035)	(0.046)	(0.050)	(0.002)	(0.002)	(0.001)
70 or older	-0.115***	0.057	-0.172 ***	0.006***	0.003**	0.003
	(0.040)	(0.037)	(0.048)	(0.002)	(0.001)	(0.002)
Difference	0.144***	0.016		-0.009***	-0.007***	
	(0.032)	(0.042)		(0.003)	(0.002)	
Mean of dep var	0.620	0.654		0.927	0.924	
Observations	7,130	5,039		681,852	706,324	
Less than 70 diff. relative	-0.042	0.057		-0.002	-0.003	
to never married	(0.042)	(0.049)		(0.002)	(0.002)	
70 or older diff. relative	-0.083*	0.053		0.004*	0.001	
to never married	(0.046)	(0.056)		(0.002)	(0.002)	
	Same-sex			Different-sex		
	Women	Men	Difference	Women	Men	Difference
***Sample**: Widowed*						
Post-state legalization ×						
less than 70	-0.005	0.034	-0.040	0.001	0.001	-0.000
	(0.030)	(0.038)	(0.045)	(0.001)	(0.001)	(0.001)
70 or older	-0.031	-0.032	0.001	-0.005	-0.003	-0.002
	(0.038)	(0.044)	(0.058)	(0.004)	(0.002)	(0.002)
Difference	0.026	0.067*		0.006	0.004	
	(0.034)	(0.037)		(0.004)	(0.002)	
Mean of dep var	0.889	0.924		0.974	0.984	
Observations	4,975	3,563		649,291	663,081	
Less than 70 diff. relative	-0.076**	0.018		0.002	0.002	
to never married	(0.035)	(0.038)		(0.001)	(0.002)	
70 or older diff. relative	0.001	-0.036		-0.006	-0.004**	
to never married	(0.050)	(0.050)		(0.004)	(0.002)	

Notes: *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively. Standard errors are in parentheses. The data come from the 2012–2019 waves of the American Community Survey and include individuals in same- and different-sex married couples where both partners are between 55-89 years old. Panel A includes married individuals in their 2^{nd}+ marriage and cohabiting individuals who report being divorced or separated. Panel B includes to married individuals in their 2^{nd}+ marriage and cohabiting individuals who report being widowed. All specifications include indicators for own and spouse education groups (exactly HS, some college, and college or more, with less than HS being the omitted group), own and spouse age groups (5 year intervals from 60-65 to 100-105, with 55-60 being the omitted group), and own and spouse race (white, Hispanic, Asian, and other, with Black being the omitted group), year and state fixed effects, and the additional fixed effects required for identification in equation 2.

Figure A1
Separate Estimates for Widows or Divorced or Separated Individuals, ACS (7 Age Groups)



(a) Previously Divorced or Separated Women

(b) Previously Divorced or Separated Men

(c) Previously Widowed Women

(d) Previously Widowed Men

Notes: The figure displays coefficient estimates and 95% confidence intervals for β_5 in equation 2 using an indicator for being married as the outcome and seven age groups: 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, and 85-89. The data come from the 2012–2019 waves of the American Community Survey and include individuals in same- and different-sex married couples where both partners are between 55-89 years old. The equation is estimated separately depending on sex, whether the individual is in a same- or different-sex couple, and two samples. The first sample contains married individuals in their 2^{nd}+ marriage and cohabiting individuals who report being divorced or separated. The second sample contains married individuals in their 2^{nd}+ marriage and cohabiting individuals who report being widowed. All specifications include indicators for own and spouse education groups (exactly HS, some college, and college or more, with less than HS being the omitted group), own and spouse age groups (5 year intervals from 60-65 to 100-105, with 55-60 being the omitted group), and own and spouse race (white, Hispanic, Asian, and other, with Black being the omitted group), year and state fixed effects, and the additional fixed effects required for identification in equation 2.