Political Dimensions of Entry into Mixed-Citizenship, Same-Sex Couples: A DDD Analysis

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Introduction

The policy environment for Lesbian, Gay, and Bisexual (LGB) couples around the world has changed rapidly in recent years. One notable shift is the 2013 U.S. Supreme Court decision ruling the Defense of Marriage Act (DOMA) unconstitutional. While For the first time, U.S. citizens could sponsor the visa of their same-sex spouse. Redpath (2021) demonstrates that end of DOMA resulted in a significant increase in unions between mixed-citizenship, same-sex couples. However, as show in Figure 1, this rapid increase after 2013 was not uniform across immigrants from all countries. For those hailing from countries with progressive LGB policies, the increase was indeed rapid after 2013. However, from those with repressive LGB policies, no increase occurred.

Using waves 2008 to 2019 of the American Community Survey, this study employs a differences-in-differences-in-differences (DDD) design to examine how the policy environment of the origin country moderates the effect of the end of DOMA on the entry of same-sex, mixed-citizenship couples into unions.

Research Questions

1. How does LGB policy at country of origin moderate the effect of the repeal of DOMA on union formation of same-sex, mixed-citizenship couples in the U.S.?

2. Which specific LGB policies of country of origin are most relevant in shaping entry into same-sex unions?
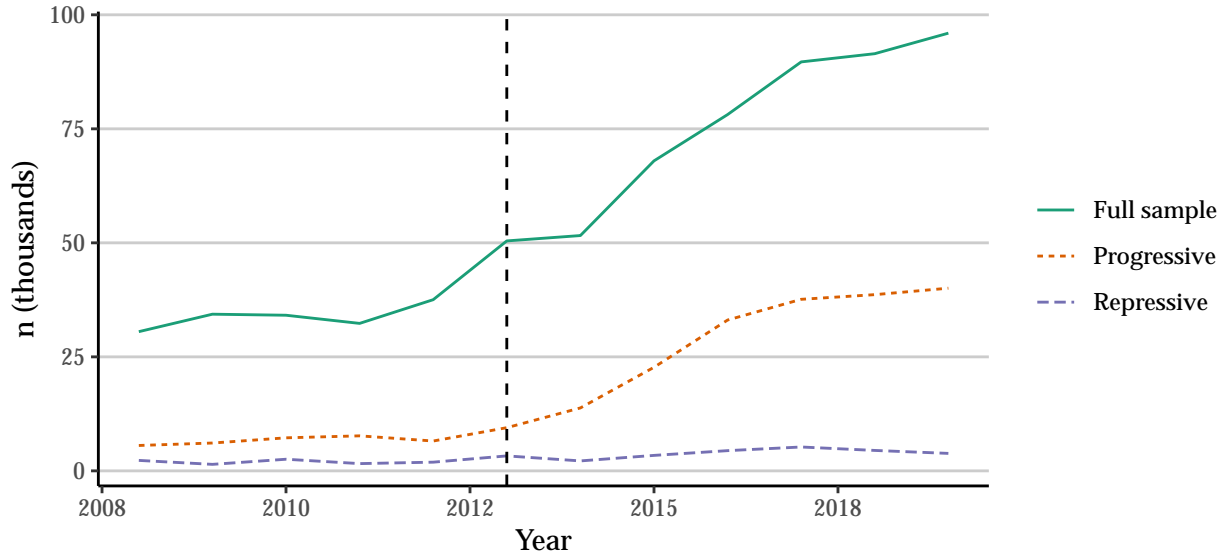
Background

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Figure 1: Estimated counts of individuals in mixed-citizenship, same-same couples from the American Community Survey. The "Repressive" sample includes only countries with a LGB policy score less than 0, and the "Progressive" sample includes only those with a score greater than 3.

Data and Methods

We employ data from the 2008 to 2019 ACS (Ruggles et al. 2021). Each year, the ACS surveys a 1-percent representative sample of the U.S. population about a variety of other individual and household attributes. We focus on counts of individuals in mixed-citizenship same-sex couples, comparing to those in same-citizenship or different-sex couples. Our counts include only cohabiting individuals who identify themselves as spouses or unmarried partners, since the ACS does not allow identification of same-sex couples that do not reside together. "Mixed-citizenship" couples include either two citizens or two non-citizens, and "same-sex" couples include two individuals who report the same sex and are related as either. We exclude individuals who immigrated before the age of 18 as well as those younger than 18 or older than 64 in each survey year.

Beginning in 2008 the Census Bureau made changes to ACS gender and partnership questions in order to prevent such errors (U.S. Census Bureau 2013), so we rely on data only from 2008 onward. In addition, following Gates and Steinberger (2009), we remove all respondents that had either their relationship or sex variable imputed by the Census Bureau. See Table 1 for sample sizes.

Table 1: Unweighted and weighted sample sizes from American Community Survey (ACS) data, 2008-2019

Same-sex	Mixed-citizenship	n (un-weighted)	n (weighted)
FALSE	FALSE	11,103,024	1,046,422,984
FALSE	TRUE	467,611	50,313,621

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Same-sex	Mixed-citizenship	n (un-weighted)	n (weighted)
TRUE	FALSE	147,459	13,630,989
TRUE	TRUE	7,305	694,122

To isolate the effect of the 2013 DOMA repeal, we employ a difference-in-differences-in-differences (DDD) Poisson design (Hausman, Hall, and Griliches 1984). We model counts as coming from a Poisson distribution, but estimate our model more flexibly by using quasi-maximum likelihood estimation (QMLE). Unlike Poisson estimated by Maximum Likelihood Estimation (MLE), this estimation method does not assume the mean and variance of the distribution are equal, adjusting standard errors accordingly (Cameron and Trivedi 2005). We include two-way fixed effects, with indicators for survey year and state-group, and cluster standard errors at the state-group level.

Our estimand is the relative change in incidence of individual in mixed-citizenship, same-sex couples following the repeal of DOMA in 2013. We focus on heterogeneity of this effect: how it varies by the LGB policy context of non-citizens' country of origin. We measure the origin country policy environment using a modified LGBT Policy Index (Velasco 2018) for 1991 to 2019. The index is created by summing the net total of progressive policies (scored $+1$) over regressive policies (scored -1). The country index ranges from -3 to 10, with a mean of 1.7. Group-state-year-country cells are assigned the average score in the year of immigration for non-citizen individuals in that cell.

Preliminary Results

Table 2 presents results from our DDD specifications. For the full sample, the incidence of individuals in mixed-citizenship, same-sex couples grew by $100 \times [\exp(0.33) - 1] = 38$ percent after 2013, relative to those in couples that were not same-sex or mixed-citizenship.

References

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Table 2: Quasi-Poisson DDD regressions of counts of mixed-citizenship same-sex couples

	Full sample	Repressive	Progressive
Post-2013 × Same-sex × Mixed-citizenship	0.326 ***	0.061	0.415 ***
	(0.050)	(0.095)	(0.089)
Post-2013 × Same-sex	0.370 ***	0.374 ***	0.373 ***
	(0.017)	(0.019)	(0.018)
Post-2013 × Mixed-citizenship	0.101 ***	0.019	0.283 ***
	(0.015)	(0.049)	(0.042)
Post-2013	-0.035 **	-0.065 ***	-0.038 *
	(0.011)	(0.011)	(0.015)
Observations	2448	2267	2345

*** p < 0.001; ** p < 0.01; * p < 0.05; † p < 0.1. The "Repressive" sample includes only countries with a LGB policy score less than 0, and the "Progressive" sample includes only those with a score greater than 3. Group-clustered standard errors shown in parentheses. Source: American Community Survey 2008-2019.

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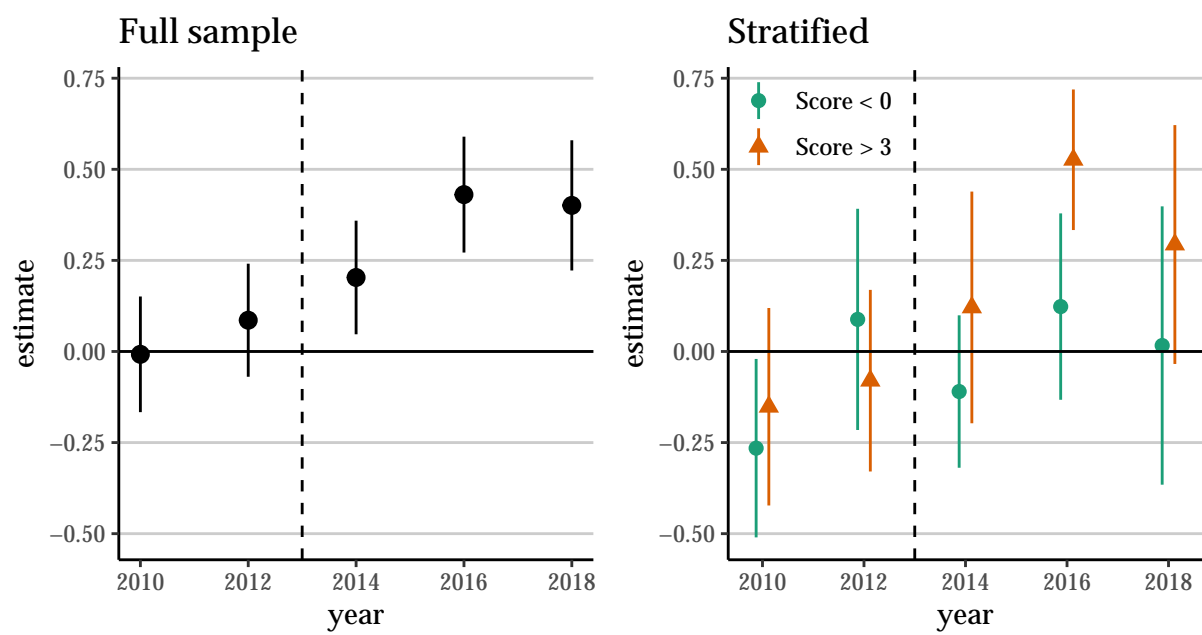
Figure 2: Lag-lead specification of quasi-poisson TWFE DDD regression