Supplementary Material

Making Migration Sexy

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Contents

1 Additional descriptive analyses

Table 1: Top 10 sending countries of immigrants in same-sex couples in the American Community Survey 2008-2019

Birth country	n
Mexico	1170
Philippines	525
Canada	419
Brazil	321
China	311
Cuba	288
India	264
Colombia	249
United Kingdom, ns	248
Germany	176

Table 2: Top 10 sending countries of immigrants in different-sex couples in the American Community Survey 2008-2019

Birth country	n
Mexico	201087
India	100008
China	63686
Philippines	50108
Vietnam	28318
Canada	27776
Korea	24076
Cuba	23933
El Salvador	18777
Colombia	17341

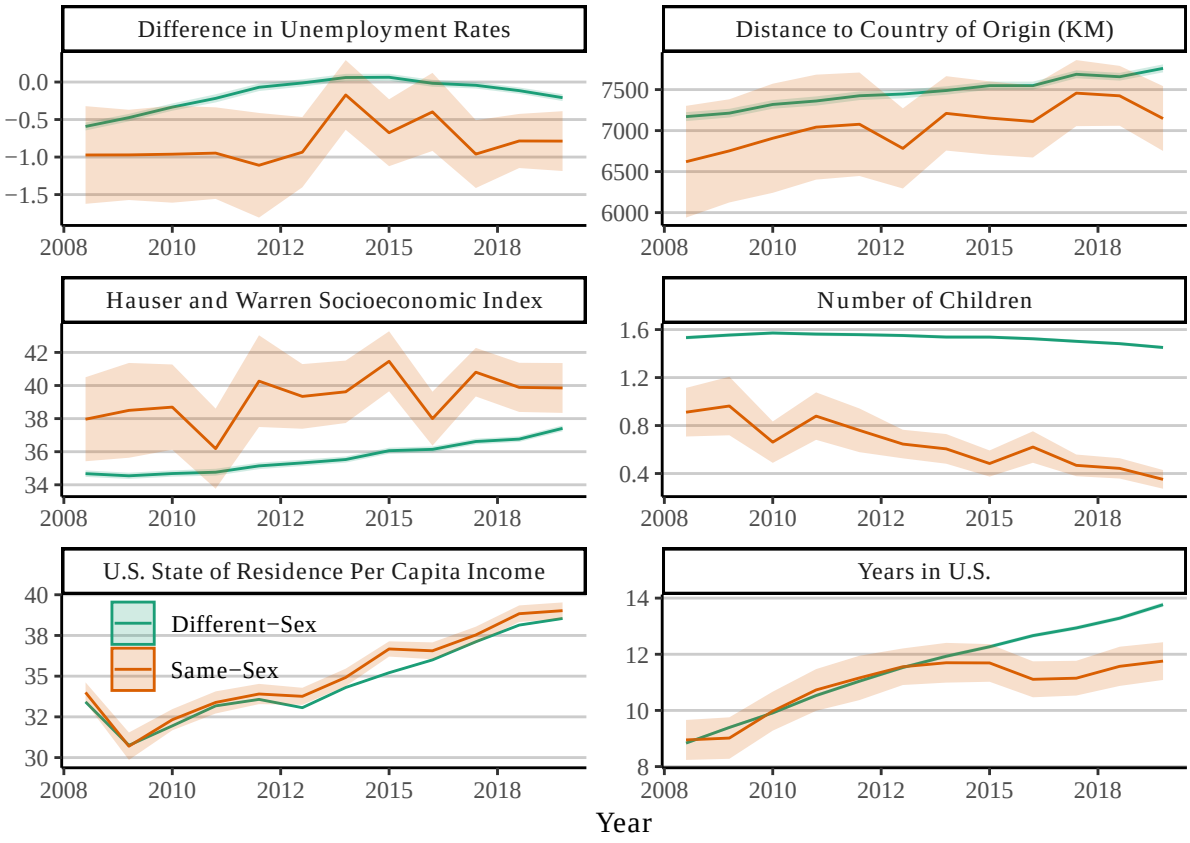

Figure 1: Additional descriptive statistics for immigrants in couples 2008-2019, with survey weights and 95% confidence intervals. All currency in 1000s of 1999 dollars.

2 Alternate specifications of country proportion models

Table 3: Alternate Specifications of OLS regressions of percent of immigrants in same-sex couples by year of immigration and country of origin, using only proportions of married couples or couples with one immigrant and one U.S.-born citizen. Country-clustered standard errors shown in parentheses. Country controls include population-weighted distance, contiguous border, common official language, common ethnic language, colonial relationship, wage differential, unemployment differential, proportion same-country stock, and Polity 5 measure of democracy.

	Dependent variable:					
	Married			One Immigrant		
	(1)	(2)	(3)	(4)	(5)	(6)
Country LGBT policy score	0.040***	0.012*	0.008	0.010**	−0.002	−0.007
	(0.005)	(0.005)	(0.006)	(0.004)	(0.004)	(0.005)
Post-2013		0.340***	0.320***		0.150***	0.130***
		(0.019)	(0.027)		(0.015)	(0.020)
Country score × Post-2013			0.012			0.012
			(0.010)			(0.007)
Country controls?	yes	yes	yes	yes	yes	yes
Country FEs?	yes	yes	yes	yes	yes	yes
Observations	30,137	30,137	30,137	30,137	30,137	30,137

Note: †p<0.1; *p<0.05; **p<0.01; ***p<0.001
Source: American Community Survey 2008-2019

3 Relative immmigrant population-weighted regressions

We perform the same regressions with proportion in same-sex couples by country or state, but weighted by the relative size of the immigrant stock.

Table 4: Weighted OLS regressions of percent of immigrants in same-sex couples by year of immigration and country of origin. Country-clustered standard errors shown in parentheses.

	Dependent variable:				
	Percent in same-sex couples by country-year				
	(1)	(2)	(3)	(4)	(5)
Country LGB policy score	0.023***	0.030***	0.009†	−0.008	−0.012*
	(0.004)	(0.005)	(0.005)	(0.005)	(0.006)
Post-2013				0.280***	0.240***
				(0.020)	(0.030)
Country score × Post-2013					0.018†
					(0.010)
Country controls?	no	yes	yes	yes	yes
Country FEs?	no	no	yes	yes	yes
Observations	30,137	30,137	30,137	30,137	30,137

Note: †p<0.1; *p<0.05; **p<0.01; ***p<0.001
Source: American Community Survey 2008-2019

Table 5: Weighted regression of percent same-sex in by country of origin, U.S. state, and survey year. Country-clustered standard errors are shown in parentheses.

	Dependent variable:					
	Percent in same-sex couples by state-country-year					
	(1)	(2)	(3)	(4)	(5)	(6)
State LGB policy score	0.050^{***}	0.048^{***}	0.027	0.018	0.005	0.006
	(0.006)	(0.006)	(0.020)	(0.021)	(0.023)	(0.024)
Country LGB policy score		0.082^{***}	0.078^{***}	0.078^{*}	0.073^{*}	0.023
		(0.009)	(0.009)	(0.031)	(0.032)	(0.043)
Post-2013					0.079	0.007
					(0.060)	(0.073)
Country score × Post-2013						$0.040^{\dagger}$
						(0.023)
State controls and FEs?	no	no	yes	yes	yes	yes
Country controls and FEs?	no	no	no	yes	yes	yes
Observations	35,868	35,868	35,868	35,868	35,868	35,868

Note: †p<0.1; *p<0.05; **p<0.01; ***p<0.001
Source: American Community Survey 2008-2019

4 OLS models of individual state of residence

Table 6: Individual OLS analysis of state policy score. Country-clustered standard errors are shown in parentheses. Individual controls include sex, age, education, number of children, log(income), indicator for no income, and year of immigration, which are all interacted with the indicator for same-sex couple.

	Dependent variable:			
	Binned state LGB policy score			
	(1)	(2)	(3)	(4)
Same-sex	0.530***	0.380***	25.000**	13.000***
	(0.029)	(0.041)	(9.600)	(3.000)
Country LGB policy score		−0.036***	−0.058***	−0.003
		(0.004)	(0.004)	(0.002)
Same-sex × country score		0.070***	0.056***	−0.005
		(0.012)	(0.013)	(0.004)
Individual controls?	no	no	yes	yes
State controls and FEs?	no	no	no	yes
Country controls and FEs?	no	no	no	yes
Observations	107,500	107,500	107,500	101,849

Note: †p<0.1; *p<0.05; **p<0.01; ***p<0.001
Source: American Community Survey 2008-2019

Table 7: Response mode proportions for different- and same-sex couples, by year. Proportions are within couple type and year.

respmode	same_sex	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
CATI/CAPI	FALSE	0.45	0.44	0.41	0.42	0.40	0.36	0.35	0.34	0.32	0.29	0.27	0.24
Internet	FALSE	0.00	0.00	0.00	0.00	0.00	0.44	0.46	0.50	0.53	0.56	0.59	0.62
Mail	FALSE	0.55	0.56	0.59	0.58	0.60	0.20	0.18	0.17	0.15	0.15	0.14	0.14
CATI/CAPI	TRUE	0.28	0.26	0.23	0.28	0.23	0.14	0.19	0.14	0.19	0.16	0.14	0.11
Internet	TRUE	0.00	0.00	0.00	0.00	0.00	0.58	0.58	0.67	0.63	0.68	0.69	0.69
Mail	TRUE	0.72	0.74	0.77	0.72	0.77	0.28	0.22	0.19	0.19	0.17	0.17	0.19

Table 8: Mismatch rates from Kreider & Lofquist (2015) and Kreider et al. (2017)

Study Year	Relationship	Mail	Internet	CAPI/CATI	Overall
2010	Married	59%	NA	46%	57.3%
2010	Unmarried Partner	7%	NA	13%	7%
2016	Married	47.4%	22.5%	Unknown	35%
2016	Unmarried Partner	5.6%	2.4%	Unknown	3.4%

Source: American Community Survey 2008-2019. Authors' calculations.

5 Adjusting proportions based on empirical mismatch rates

Published papers using the ACS to study same-sex couples overwhelmingly use the method by Gates & Steinberger (2009) employed our main paper to adjust for misreporting. However here we implement a novel method to adjust proportions of estimated immigrants in same-sex couples, based on the estimated mismatch rates from two U.S. Census Bureau studies. Beginning in 2019, the ACS provides explicit categories for "Opposite-sex husband/wife/spouse," "Opposite-sex unmarried partner," "Same-sex husband/wife/spouse," and "Same-sex unmarried partner" (Walker & Taylor, 2021), so sex misreporting in the 2019 data is unlikely. Hence in most sensitivity analyses below, 2019 estimates are not adjusted for misreporting.

In a Census Bureau working paper, Kreider & Lofquist (2015) use personal information such as names and addresses match same-sex couples from the 2010 ACS to Social Security administrative data. They find that 57 percent of married couples coded as same-sex in the ACS are coded as different-sex in the administrative data. The corresponding sex mismatch rate for unmarried same-sex couples is 7 percent. (Our data include 4,632 married and 4,428 unmarried same-sex immigrant couples.) A follow-up study (Kreider et al., 2017) shows that these mismatch rates appear to have fallen: In a 2016 ACS test module that included explicit categories for different- and same-sex spouses and partners, 31 percent of married and 3 percent of unmarried same-sex couples had inconsistent sex responses. This decreasing mismatch rate may be due to the greater numbers of same-sex couples openly identifying themselves as well as the growing popularity of responding to the ACS via Internet (see Supplementary Material), a response mode introduced in 2013 which is now the default (U.S. Census Bureau, 2017). In the 2016 test of the ACS, the mismatch rate for mail-in responses was 47 and 6 percent for married and unmarried same-sex couples, respectively, whereas for Internet responses they were only 22 and 2.4 percent (Kreider et al., 2017). A computer-assisted telephone interviewing (CATI) or computer-assisted personal interviewing (CAPI) response mode is sometimes administered as well, but the 2016 study did not assess its error rate. In the

Table 9: Adjusted by rates of empirical sex mismatch by married, unmarried, and response mode. OLS regressions of percent of immigrants in same-sex couples by year of immigration and country of origin, adjusted. Country-clustered standard errors shown in parentheses. Country controls include population-weighted distance, contiguous border, common official language, common ethnic language, colonial relationship, wage differential, unemployment differential, proportion same-country stock, and democracy.

	Dependent variable:				
	Percent in same-sex couples by country-year				
	(1)	(2)	(3)	(4)	(5)
Country LGBT policy score	0.033^{***}	0.029^{***}	0.016^{**}	$-0.008^{\dagger}$	-0.018^{**}
	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)
Post-2013				0.300^{***}	0.250^{***}
				(0.019)	(0.026)
Country score × Post-2013					0.027^{**}
					(0.010)
Country controls?	no	yes	yes	yes	yes
Country FEs?	no	no	yes	yes	yes
Observations	30,137	30,137	30,137	30,137	30,137

Note: †p<0.1; *p<0.05; **p<0.01; ***p<0.001
Source: American Community Survey 2008-2019

2010 ACS, Kreider & Lofquist (2015) find CATI/CAPI sex reporting mismatch for 46 and 13 percent for married and unmarried same-sex couples, respectively. In our sample of immigrants in same-sex couples, 2,386 responded by mail, 1,299 responded by CAPI/CATI, and 3,815 responded by Internet survey. Response mode proportions by couple type are shown in Table 7.

Table 8 shows the mismatch rates estimated by Kreider & Lofquist (2015) and Kreider & Lofquist (2015). In the supplemental analysis below (Table 9), we use these apparent mismatch rates to adjust proportions used in models in Table 3 of the main paper. Each proportion is adjusted separately by marital status and response mode. For example, all internet respondents coded as being in married same-sex couples have their final proportion reduced by 22.5%. For mail-in responses, the proportions are reduced by the average between the two studies (53 percent for married and 6.3 percent for unmarried couples).

Figure 2 takes Model 3 from the country proportions models and reduces the proportions of same-sex couples in the data for pre-2019 data. It varies the percentage of misreported same-sex married couples from 0 to 90 percent and of unmarried couples from 0 to 14 percent. Highlighted in blue bars are the empirical mismatch rates found in the two studies by Kreider & Lofquist (2015) and Kreider et al. (2017). We see that even extremely high misreporting rates in the pre-2019 ACS do not reduce our results to 0.

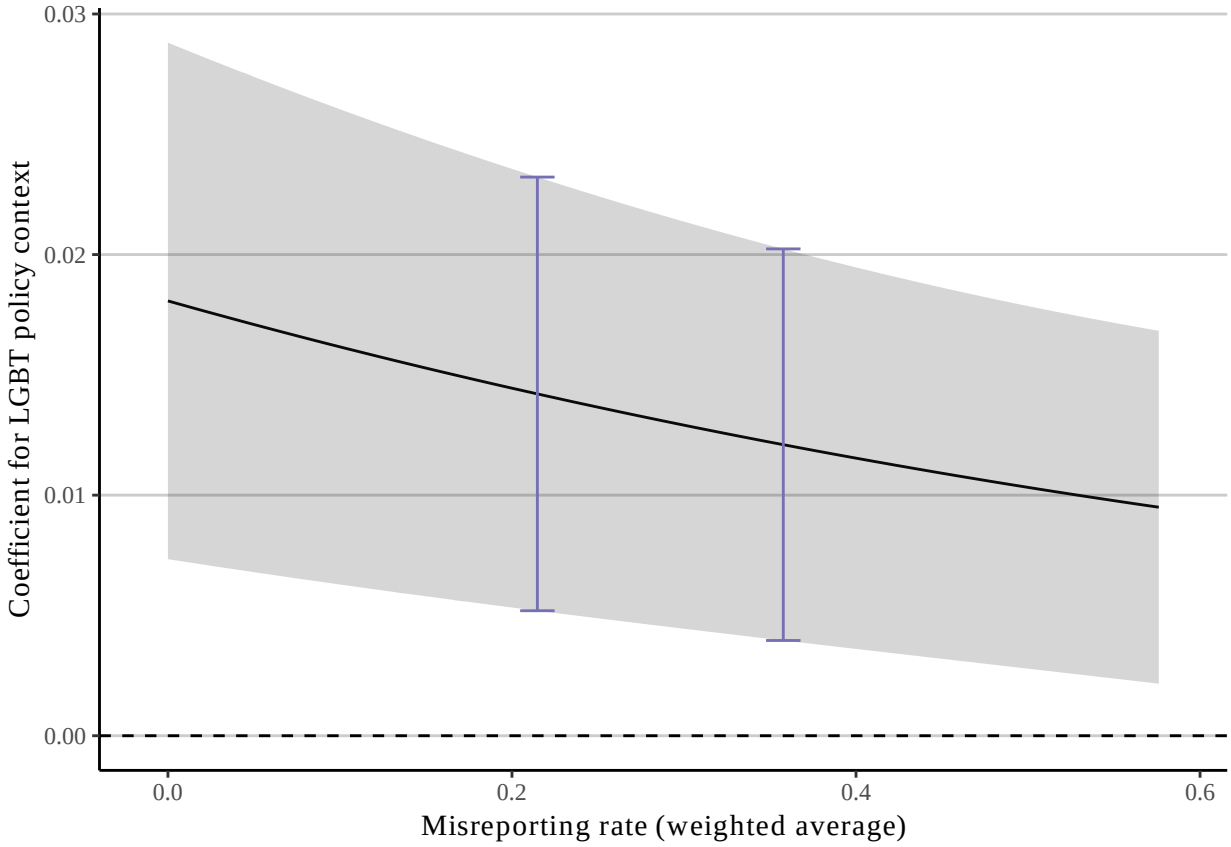

Figure 2: Coefficient for sending-country LGBT policy context for fixed effects models, adjusted for possible misreporting of same-sex couples in pre-2019 data. Ribbon shows 95 percent confidence intervals and blue bars show estimated misreporting from the 2010 and 2016 U.S. Census Bureau tests on the ACS.

6 References

Gates, G. J., & Steinberger, M. D. (2009). Same-sex unmarried partner couples in the American Community Survey: The role of misreporting, miscoding and misallocation. *Annual Meetings of the Population Association of America, Detroit, MI.*

Kreider, R. M., Bates, N., & Mayol-García, Y. (2017). Improving measurement of same-sex couple households in Census Bureau surveys: Results from recent tests. *PAA 2017 Annual Meeting.*

Kreider, R. M., & Lofquist, D. A. (2015). *Matching survey data with administrative records to evaluate reports of same-sex married couple households* (SEHSD Working Paper No. 2019-30).

U.S. Census Bureau. (2017). *American Community Survey Information Guide.* U.S. Census Bureau.

Walker, L., & Taylor, D. (2021). *Same-Sex Couple Households: 2019* (American Community Survey Briefs ACSBR-005). U.S. Census Bureau.