Marriage Equality and the Transnational Flow of Skilled Labor: The Impact of Same-Sex Marriage Legalization on the US Inflow of Skilled Labor

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Introduction



Introduction

- In 2001, the Netherlands became the first country to legalize same-sex marriage.
- 35 countries have marriage equality.
- Most countries with marriage equality are in North America, South America, and Europe.
- The composition of a family and family ties influence skilled labor migration decisions (Borjas & Bronars, 1991; Bushin, 2009).
- Foreign skilled labor contributes to the US comparative advantageous sectors, (Gunadi, 2019).

Related Literature

In opposite-sex couples:

- Migration and the family (Borjas & Bronars, 1991).
- Marriage as a migration tool (Charsley et al., 2012; Fan & Li, 2002).

In same-sex couples:

- Marriage equality and household's interstate migration (Beaudin, 2017).
- Marriage equality and individual's interstate migration (Marcén & Morales, 2022).

Research Question

How does access to legal same-sex marriage affect the international skilled labor movement?

The effect of marriage equality policies in Europe on the inflow of European Skilled labor to the US.

EU countries

- Europe is the geographical location with the highest density of countries with marriage equality.
- The implementation of marriage equality varied time.
- Limiting our analysis to EU member countries lowers unobservable variations.
- 27 member countries in the EU.
- 13 has enacted marriage equality.

Skilled Labor Inflow

Homeland Security points of entry admissions 2000-2019. H1B visa admissions

- Requires a bachelor's degree and highly specialized knowledge.
- The number of visas issued is limited.
- Holders of masters degrees and higher have higher odds.

Why European Skilled Labor?

- In the US same-sex couples are more likely to have a masters degree or higher.
- Male same-sex couples are more likely to live in a state different from their birthplace (Badgett et al., 2021)

H1B visa holders:

- 73.7% are male.
- **54.2** % are masters degree holders or higher.

Methodology

Using the difference-in-differences approach developed by Callaway and Sant'Anna (2021) where the outcomes are defined as:

$$Y_{i,t} = Y_{i,t}(0) + \sum_{g=2}^{\tau} (Y_{i,t}(g) - Y_{i,t}(0)) * G_{i,g}$$

Group treatment effect parameter :

$$ATT_t = [Y_t - Y_{g-1} \mid G_g = 1] - [Y_t - Y_{g-1} \mid C = 1]$$

where Y is H1B visa admission per 1000 of the labor force

ATT is the average treatment effect at year t, which starting treatment at time g. G is the time period when a unit first becomes treated.

 G_q is a binary variable that is equal to 1 if a unit is first treated in period g.

C is a binary variable that is equal to 1 for units that are never treated.

Identification

- Limited treatment anticipation.
- Pre-treatment parallel trends based on the never-treated group.
- Pre-treatment parallel trends based on the not-yet-treated groups.

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Event Study

An average decrease of 0.155*** admissions per 1000 of the labor force. A 41% decrease from the average.



Group Treatment Effect



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Group Treatment Effect



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Extensions and Robustness

Robustness checks.

- Placebo tests using visitor visa admissions.
- Using not yet treated as the control group.
- Using the total number of admissions and controlling of population.
- Using a two-way fixed effects model, based on Wolfers' (2006).
 - 2013 U.S. v. Windsor The federal recognition of same-sex marriages.
 - 2015 Obergefell v. Hodges Federal legalization of same-sex marriages.

 $\begin{array}{l} US \ Admission_{c,t} = \\ \beta_0 + \sum_j \beta_{j1} \ Legalization_{c,t,j} \ + \sum_j \beta_{j2} \ Legalization 2013_{c,t,j} \ + \sum_t Time \ FEs_t \ + \\ \sum_c Country \ FEs_c \ + \sum_c Country_c * Time + [\sum_c Country_c * Time^2 + Controls_{c,t}] + \epsilon_{it} \end{array}$

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US Policies

	(1)	(2)
Year1-2	-197.622^{*}	-209.632
	(119.113)	(134.432)
Year 3-4	-300.829^{**}	-304.172^{*}
	(143.288)	(179.349)
Year 5-6	-591.303^{***}	-627.729^{***}
	(173.096)	(241.145)
Year 7+	-475.981^{***}	-511.127^{*}
	(170.595)	(290.613)
Year 1-2 after 2013	597.400***	585.315***
	(155.047)	(162.321)
Year 3-4 after 2013	655.180***	634.352***
	(176.197)	(188.065)
Year 5-6 after 2013	549.443***	558.873**
	(205.200)	(222.416)
Year 7 $+$ after 2013	321.617**	222.328
real i - alter 2015	(148.667)	(182.965)
Observations	540	540
$year^2$		1

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US Policies



Marriage equality lead to a decrease in the number of admissions before 2013.

US Policies



After 2013 there was a positive effect on the number of admissions.

Conclusions

- The results show an average decrease of -0.155 in admission per 1000 of the home country's labor force. An average of 1459 admissions.
- Access to same-sex marriage influences not only on prospective new skilled labor but also extends to the existing H1B holders.
- Based on H1B holders' average spending, the decline equates to a \$27 million spent in the US economy, and \$41 million in taxes each year (Gogol, 2023).
- The U.S. federal recognition of same-sex marriages helped lower the decline in admission.
- Marriage equality can help attract and retain skilled labor.

Thank you!

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References I

- Badgett, M., Carpenter, C. S., & Sansone, D. (2021). Lgbtq economics. *Journal* of *Economic Perspectives*, 35(2), 141–70.
- Beaudin, L. (2017). Marriage equality and interstate migration. *Applied Economics*, *49*(30), 2956–2973.
- Borjas, G. J., & Bronars, S. G. (1991). Immigration and the family. *Journal of Labor Economics*, 9(2), 123–148.
- Bushin, N. (2009). Researching family migration decision-making: A children-in-families approach. *Population, space and place, 15*(5), 429–443.
- Callaway, B., & Sant'Anna, P. H. (2021). Difference-in-differences with multiple time periods. *Journal of econometrics*, 225(2), 200–230.

References II

- Charsley, K., Storer-Church, B., Benson, M., & Van Hear, N. (2012). Marriage-related migration to the uk. *International Migration Review*, *46*(4), 861–890.
- Fan, C. C., & Li, L. (2002). Marriage and migration in transitional china: a field study of gaozhou, western guangdong. *Environment and Planning A*, 34(4), 619–638.
- Gogol, F. (2023, June). The true economic impact of h1b visa holders. *still.com*. Retrieved from https://www.stilt.com/blog/2020/06/

the-true-economic-impact-of-h1b-visa-holders/

Gunadi, C. (2019). An inquiry on the impact of highly-skilled stem immigration on the us economy. *Labour Economics*, *61*, 101751.

References III

- Marcén, M., & Morales, M. (2022). The effect of same-sex marriage legalization on interstate migration in the usa. *Journal of Population Economics*, 35(2), 441–469.
 Wolfers, J. (2006). Did unilateral divorce laws raise divorce rates? a
- reconciliation and new results. *American Economic Review*, *96*(5), 1802–1820.