

How Internal Migration is Reshaping the Political Landscape of the United States: An Empirical Study

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Abstract

Internal migration in the United States is a large phenomenon that touches most citizens' lives. For example, in 2014 interstate migration in the United States was almost double the size of international migration. In this study, I analyze the impact of internal migration flows on the political development of counties in the United States. I show that increases in internal emigration rates result in significant increases in voter turnout and voter shares for the Republican Party, while decreasing voter shares for the Democratic Party. I find emigration also causally changes the racial diversity of counties of origin, leading to increases in county White and Black population shares, but decreasing Hispanic population shares. Furthermore, I find that counties experiencing above average net emigration will see a decrease in House of Representative election competitiveness by 20%, as well as a significant decrease in voter turnout and voter shares for the Republican Party. I further analyze the relevance of these findings in America's contemporary political landscape.

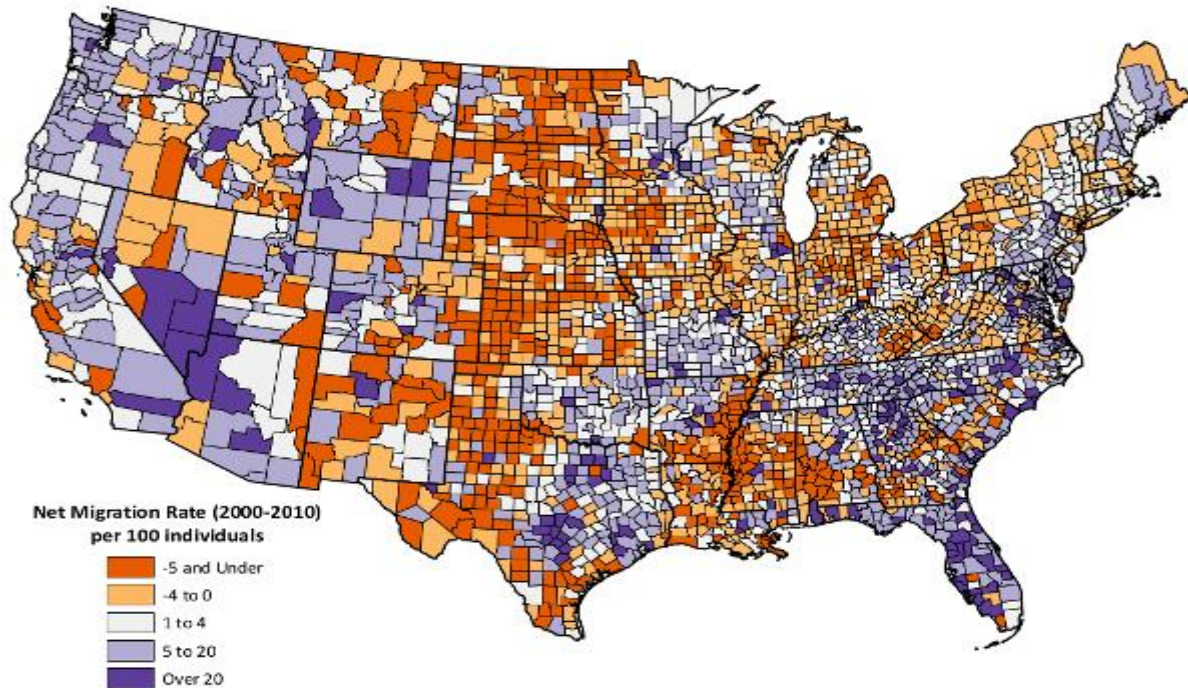
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1 Introduction

“Go West, Young Man, Go West” – Horace Greeley

Written at the time of the westward expansion and height of Manifest Destiny, this expression by Horace encapsulates the push young Americans felt to migrate to a supposed better future. This is not however a push or phenomena that we can limit to a specific time period of American history. The ability to migrate is a constant feature of the American psyche established even prior to the Articles of Confederation. The commonplace nature of migration is showcased in a study by Jaspers (2000), who finds that more than half the population of 17th century Virginia had moved within a ten-year period. Today, in a one year period about 3.2% of the population of the United States has moved residence within their state, while 2.3% have changed states entirely.¹

Figure 1 Overall Net Migration

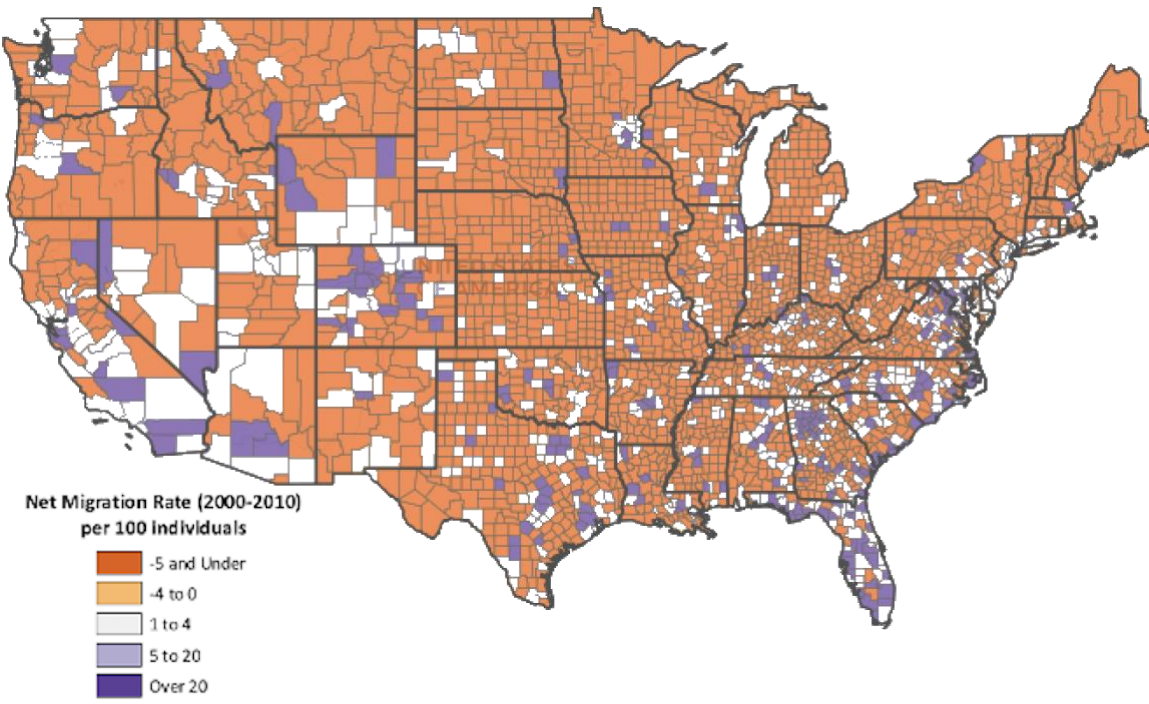


¹ World Bank. (2010). Internal Mobility: The United States. *World Bank Country Benchmarks*.

Figures from University of Wisconsin Applied Population Laboratory

Americans move eleven times in their lives on average, a figure the World Bank reports is three times higher than European counterparts. While migration is a common tool used to escape poor economic conditions, individuals differ based on personal characteristics in their likelihood to migrate and in the selection of their migration destination.

Figure 2 Net Migration Individuals Age 25-29



Figures from University of Wisconsin Applied Population Laboratory²

This difference is showcased through Figures 1 and 2 where we can see that migration patterns for individuals aged 25-29 (Figure 2) do not mirror the general United States population (Figure 1). In figure 2 we see that young Americans are largely agglomerating to certain key destinations. In addition to age, an important intersectional characteristic that determines migration decisions is an individual's education level. Particularly, individuals who expect a higher return to skill, such as those

² Winkler, Richelle, Kenneth M. Johnson, Cheng Cheng, Jim Beaudoin, Paul R. Voss, and Katherine J. Curtis. Age-Specific Net Migration Estimates for US Counties, 1950-2010. *Applied Population Laboratory, University of Wisconsin - Madison, 2013*

with higher education, are more likely to emigrate. In a study of migration flows in OECD countries, Grogger and Hanson (2010) find that emigrants have more education than comparable non-migrants and that in international migration there is a positive sorting effect based on skill-related differences in earnings. In tandem with these findings, Thurston Domina (2006) produced a study on the rising educational segregation in the United States and found that a primary mechanism reinforcing this segregation is freedom of mobility, which Domina stated is resulting in a ‘voluntary segregation’ based on one’s human capital. Post-industrialization theorists Sassen (2000) and Castells (2000) further support these findings by describing a new economic reality where modes of production are dispersed but human capital and the ‘knowledge economy’ are increasingly geographically agglomerated to select “global cities.” The presence of constant internal migration in the United States and the uneven distribution of migration patterns based on individual characteristics results in economic and social impacts for receiving and sending counties.

Labor literature poses a variety of economic impacts to the geographic agglomeration of human and social capital. A county can experience loss of local economic productivity and loss of innovation, but can also experience benefits such as remittance payments from emigrants and an increase in incentives to local schooling. Impacts on counties can also extend to their political development and create diverging political landscapes. However, with some notable exceptions, the study of the impact of internal migration flows on political development has not been at the forefront of contemporary labor economics research. This study plays a role in bridging this literature gap by analyzing the impact of migration on the political landscape of sending and receiving counties and states in the United States between 1990-2016.

This paper is organized as follows: Section II analyzes the literature surrounding internal migration flows and political development. Section III describes the data, the empirical model/methodology, and the Batik shift-share instrument utilized in this study. Section IV uncovers the main empirical findings, and section V contextualizes the results.

2 LITERATURE REVIEW

This paper is most closely associated with two separate but related veins of migration literature. Firstly, it is related to the study of internal migration flows in the United States. Economic studies of such can be broadly categorized into two branches: studies on the ‘causes’ of migration and studies on the impact of migration. These two branches have not received equal focus, as research has been concentrated on the examination of factors that influence migration.

In 1982, Sjaastad stated that “migration research has dealt mainly with the forces which affect migration and how strongly they have affected it, but little has been done to determine the influence of migration as an equilibrating mechanism in a changing economy.”³ M. Greenwood agreed with Sjaastad in a 1975 survey paper of completed research on internal migration, stating “Though a few notable exceptions exist, during the 13 years since the publication of Sjaastad’s paper relatively little has been done to rectify this imbalance in research effort”⁴. A recent paper that aids in bridging this gap is a study by Derencourt (2019), which analyzes the impact of the Great Migration on black intergenerational mobility today. The Great Migration occurred in the 1940s when four million African American’s migrated from the American South to the North. Using a shift-share approach, Derencourt finds that migration into the North led to a decrease in upward mobility, especially for black men. Derencourt finds that when communities received an influx of African American immigrants their increased presence caused a slowdown in racial integration. She also finds that the Great Migration explains 43% of the gap in upward mobility between black and white men in North today.

Today, however, the United States is not experiencing this type of concentrated migration. The Great Migration was an exogenous shock that radically changed the composition of destination cities in a short amount of time. The Great Migration was also a very large, unidirectional migration

³ Sjaastad, L. (1962). The Costs and Returns of Human Migration. *Journal of Political Economy*, 70, 80-93..

⁴ Greenwood, M. J. (1975). Research on Internal Migration in the United States: A Survey. *Journal of Economic Literature*, 13(2), 397-433

flow of one predominant demographic group. We can see from Figure 1, this type of migration is not what contemporary internal migration looks like in the US. Rather, contemporary internal migration is composed of multidirectional flows and can be more accurately understood through a study by Borjas, Bronars, and Trejo (1991).

Borjas et al broadened explanations of general internal migrations flows by embedding the Hicks-Sjaastad model within the self-selection Roy Model. Borjas et al argue that the Hicks-Sjaastad model's reasoning, that individuals migrate from low-income to high-income regions with high mobility costs as deterrence to migration, is too limited for the study of internal migration. The Roy self-selection model premise of stressing differences in returns to skill as a determinant of the skill composition of migrants allows for an expansion of the study of migration beyond a singular emphasis on size and direction of flows. With this framework and data from the National Longitudinal Survey of Youth, Borjas et al determine that the Roy Model provides a useful framework, as they find migrants are not randomly selected from their population, but rather that those most likely to migrate are persons with skills that are better rewarded in other locations. This self-selection of individuals into migration creates interstate differences in migrant flow compositions based on the comparative advantage of returns to skill.⁵

Secondly, this paper is associated with literature analyzing the impact of emigration on political outcomes, institutional quality, and democratization efforts. Several studies have analyzed the impact of emigration from countries with non-democratic regimes. Docquier et al (2010) found that in (WHEN in Eastern Germany progressive voters were more likely to emigrate and that this reduced pressure for reforms and strengthened the regime. Similarly, Anelli and Peri (2017) state "in places where institutions are inefficient, less than transparent and corrupt, it may be the case that emigration draws abroad frustrated people who would have voiced discontent and pressed for change."⁶ While

⁵ Greenwood, M. J. (1975). Research on Internal Migration in the United States: A Survey. *Journal of Economic Literature*, 13(2), 397-433

⁶ Anelli, M., & Peri, G. (July, 2017). Does Emigration Delay Political Change? Evidence from Italy during the Great Recession. *Economic Policy*, 553-596

other studies have echoed these findings (Hansen 1988, Colomer 2000), Mahmoud et al (2014) find that expatriates can still serve as a source of pressure on governments through various informational channels. However, this paper is the first to analyze the causal impact of internal migration on political outcomes and change in the United States of America, and the second to do so in a developed democracy. As such, in order to develop indicator variables of political change for a developed western democracy, we must adjust our vision of what political development entails.

Literature supports the idea of “distinctive and stable national models”⁷ for countries in a developed stage, however in a study on institutional change in advanced political economies, Streeck and Thelen (2005) state, “we lack the analytic tools necessary to capture the changes that are indisputably going on in these countries”. There are, however, several distinct approaches that can be taken to analyze the impact of migration on political development of these countries. To do so, I first looked at two main approaches taken in labor literature. One indirect approach is to link economic development to political development, an argument tied back to Seymour Martin Lipset’s (1959) paper on the role of economic development in establishing a democracy.

A second more direct approach is looking at the role migrants themselves have in shifting the balance of power between citizens and the state through emigration⁸. In Albert Hirschman’s (1970) *Exit, Voice, and Loyalty*. Hirschman finds that the relationship between the individual and the state changes when there is an opportunity to exit because it can serve as a ‘threat’ that amplifies constituent concerns. I will be taking this second more direct approach and focusing on the role of migrants themselves. However, the question remains as to how this impact can be best measured empirically, in the United States. While I believe there is room for improvement on these metrics, I have decided that to best capture the gravity and subtlety of change in American counties I will be focusing on voter turnout, election competitiveness and population characteristics.

⁷ Streeck, W., & Thelen, K. (2010). *Beyond continuity: Institutional change in advanced political economies*. Oxford: Oxford Univ. Press.

⁸ Moses, J. W. (2011). *Emigration and political development*. New York: Cambridge University Press.

3 DATA AND METHODOLOGY REVIEW

I draw on five main sources of data to construct all the variables of interest in this study. All county-to-county and state-to-state migration flows are constructed using the Internal Revenue Service (IRS) datasets. These datasets provide the number of returns filed (approximates number of households) as well as the number of exemptions filed (approximates number of people). To approximate the impact of individual migration, I use the number of exemptions filed to calculate migration flows.

Table 1 and Table 2 illustrate the rate of emigration and immigration in the US and rates by Census region, respectively. These tables showcase that both immigration and emigration rates have declined and the decline is significant. This decline is also regionally significant for both emigration and immigration in the Western and Northern United States. While the South is experiencing a significant decline in immigration, the Midwest is not experiencing a significant change in either emigration or immigration.

Table 1. Summary statistics of emigrants

	1990	1992	1996	2000	2004	2008	2012	2016	Diff. (t-stat)
Avg. Emigration Rate	6.54 (2.38)	6.42 (2.61)	6.41 (2.13)	7.62 (10.57)	6.20 (2.00)	5.99 (1.89)	20.37 (29.09)	4.67 (9.10)	-1.87* (.168)
Annual emigration rate, West USA	7.81 (2.39)	7.81 (2.39)	7.62 (2.01)	9.02 (10.67)	7.30 (1.86)	6.72 (1.80)	18.73 (26.62)	2.80 (6.30)	-5.01* (.345)
Annual emigration rate, Midwest USA	6.31 (2.03)	6.08 (2.14)	6.22 (1.70)	7.97 (12.50)	5.86 (1.41)	5.77 (1.33)	27.01 (33.71)	6.75 (10.05)	.441 (.435)
Annual emigration rate, South USA	6.42 (2.33)	6.39 (2.84)	6.41 (2.29)	7.15 (8.30)	6.33 (2.26)	6.21 (2.05)	21.83 (29.72)	5.83 (10.37)	-.589 (.306)
Annual emigration rate, North East USA	5.21 (1.21)	5.15 (1.44)	5.23 (1.14)	5.20 (1.18)	5.04 (1.09)	4.77 (1.05)	11.32 (20.79)	2.39 (6.75)	-2.82* (.268)
Observations	3128	3128	3129	3130	3027	3018	3000	2982	-

Note: Emigration rate is the number of people who leave as percentage of population of the county

Source: Regions divided using officially recognized four regions of the United States

* Indicates significant results at 5% significance level

Table 2. Summary statistics of immigrants

	1990	1992	1996	2000	2004	2008	2012	2016	Diff. (t-stat)
Avg. Immigration Rate	6.74 (2.59)	7.06 (3.01)	6.71 (2.44)	7.34 (9.72)	6.39 (2.35)	6.01 (1.89)	20.60 (30.50)	4.59 (9.17)	-2.153* (.170)
Annual immigration rate, West USA	8.97 (2.84)	9.07 (3.04)	8.12 (2.92)	8.68 (10.32)	7.63 (2.39)	6.99 (1.92)	19.64 (30.0)	3.00 (6.77)	-5.971* (.375)
Annual immigration rate, Midwest USA	6.07 (1.98)	6.39 (2.26)	6.11 (1.87)	7.34 (12.12)	5.70 (1.70)	5.50 (1.48)	26.591 (34.07)	6.67 (9.94)	.595 (.430)
Annual immigration rate, South USA	6.78 (2.60)	7.18 (3.18)	6.96 (2.37)	7.16 (8.02)	6.77 (2.54)	6.35 (2.29)	22.19 (31.30)	5.66 (10.35)	-1.117* (.307)
Annual immigration rate, North East USA	5.44 (1.57)	5.51 (1.58)	5.33 (1.60)	5.21 (1.52)	5.02 (1.41)	4.49 (1.05)	11.04 (20.51)	2.23 (6.38)	-3.19* (.257)
Observations	3128	3129	3128	3130	3027	3018	3000	2982	-

Note: Immigration rate is the number of people who enter as percentage of population of the county

Source: Regions divided using officially recognized four regions of the United States

* Indicates significant results at 5% significance level

Table 3. Summary of population statistics (values in percent of total population)

	1990	1992	1996	2000	2004	2008	2012	2016	Diff (t-stat)
Avg. Population with BA	5.76 (2.72)	6.07 (2.82)	6.65 (3.02)	7.18 (3.23)	8.18 (3.52)	8.38 (3.58)	8.37 (3.57)	9.36 (3.81)	3.59* (.08)
Avg. Per Capita Income**	11.165 (2.730)	12.557 (2.975)	15.201 (3.471)	17.818 (4.021)	19.212 (4.651)	21.968 (5.33)	23.551 (5.710)	13.428 (11.60)	2.263* (.213)
Avg. Population White	79.92 (15.31)	78.91 (15.46)	76.88 (15.82)	74.85 (16.23)	72.78 (16.10)	71.97 (16.0)	69.94 (16.11)	69.94 (16.11)	-9.98* (3.11)
Avg. Population Hispanic	5.37 (7.44)	5.85 (7.70)	6.81 (8.25)	7.76 (8.83)	9.28 (9.54)	9.88 (9.72)	11.0 (10.0)	11.0 (10.0)	5.62* (1.74)
Observations	3128	3129	3128	3130	3027	3018	3000	2982	-

Note: Immigration rate is the number of people who enter as percentage of population of the county

Source: Regions divided using officially recognized four regions of the United States

* Indicates significant results at 5% significance level

**Values in thousands, adjusted for inflation to 1990 levels.

I utilize Decennial Census Data and the American Community Survey to construct variables on county population and economic characteristics. Since 1992 and 1996 do not have a respective Census or American Community Survey, I have linearly interpolated the data for these years. Table 3 showcases several significant changes have occurred to the US population over the period of 1990-2016. There has been a significant increase in the share of the population with a Bachelor's Degree, an increase in the Hispanic population, a decrease in the White population and an increase in inflation adjusted Per Capita Income.

Table 4. Summary statistics of national electoral outcomes at county level

	1992	1996	2000	2004	2008	2012	2016	Diff. (t-test)
Avg. Turnout	43.27 (7.59)	38.79 (7.38)	39.63 (8.67)	43.70 (9.22)	44.52 (8.28)	43.49 (8.55)	44.27 (8.38)	1.00* (.207)
Avg. Share for Democratic Party	39.47 (10.76)	43.66 (10.77)	39.85 (11.81)	39.22 (12.37)	42.09 (13.70)	39.15 (14.60)	32.11 (15.09)	-7.364* (.340)
Avg. Share for Republican Party	39.83 (8.60)	44.92 (10.55)	56.91 (11.98)	59.78 (12.44)	56.26 (13.68)	59.02 (14.61)	62.51 (15.61)	22.68* (.326)
Avg. Share for Independent Party	20.06 (6.85)	10.26 (3.28)	1.97 (1.85)	.389 (.432)	.642 (.508)	0 (0)	.575 (1.95)	-19.485* (.132)
Election Race has only one major candidate**	-	-	-	-	-	72.86 (16.02)	73.74 (18.19)	-
Election has incumbent unopposed in primary**	-	-	-	-	-	37.59 (21.90)	40.22 (22.29)	-
Observations	2,978	3,003	3,113	3,000	2,994	2,977	2,961	-

Note: Values in percentages

Source: Dave Leip data on national elections

* Indicates significant results at 5% significance level

**This data is from state level House of Representative elections for all districts within a state. Data only available for 2012 and 2016

Lastly, for all my voter data I rely on Dave Leip datasets, which provide voter data for presidential elections every four years. To create variables on election competitiveness, I collected data on election results for House of Representative elections from every state from the House of Representatives Election Statistics Data Collection. Because elections for Representatives often cross

and can include several counties, I aggregated the data on the state level so the corresponding variables have been calculated as a share of total elections in their respective state. Table 4 showcases a significant increase in voter turnout, but also a significant change in share of votes received by major political parties, between 2016 and 1992. While, the voter share to the Democratic Party has declined, the voter share for the Republican Party has almost doubled. To analyze the causal link between migration and political change, I analyze this data using the following empirical models and theory.

3.2 Empirical Model

A. Basic Regression

Let $y_{i,t}$ be an outcome variable for county i in year t . In our empirical analysis, this would capture electoral outcomes of national votes on a county level, or competitiveness of congressional elections on a state level or state level government spending changes. These outcome variables depend on population characteristics as well as time-varying county economic characteristics. To control for this, I will include population characteristics that capture the education level and racial composition of county i , as well as inflation adjusted per capita income as a control for time-varying economic performance of county i . The emigration/immigration rate is calculated by taking the outflow/inflow of individuals divided by the county population. To control for non time-varying county characteristics, I include county fixed effects. I approximate the impact of emigration and immigration with the following (OLS) linear model:

$$(1) \quad y_{i,t} = a + b(\text{Erate/Irate})_{i,t} + c(\text{PopChar})_{i,t} + d(\text{PCI})_{i,t} + \Lambda_i + u_{i,t}$$

However, with this model we are concerned about omitted variable bias presence in $u_{i,t}$. This concern is further echoed by Borjas et al's findings that migrants are not randomly selected for migration. This could as well point to a reverse causality between political sentiment and migration. As such, I don't believe the results from this OLS model are causal. To solve for this I implement an Instrumental Variable approach.

B. IV Approach

The IV approach I utilize is a variation of Bartik Shift-Share instrument. This model relies on a distinction between ‘push’ and ‘pull’ factors of migration. County level economic and political conditions at the time of migration can impact migration by acting as a ‘push’ to migrate. These conditions are also correlated to political change and electoral outcomes. Therefore, I focus on the ‘pull’ migration instead: migration that is ‘pulled’ or occurs based on previous migration patterns of that county. For instance, in the case of emigration the pull is factors that are not connected to the sending county that pull individuals from that county to emigrate. This distinction was first used in a study by Lee (1966) and is now commonplace in migration literature.

The instrument must also, however, vary over time to have predictive power. Therefore, for emigration I take the top destinations (C_1, C_2, \dots) for emigrants from county i and interact that with the national inflow of immigrants into the top destinations (C_1, C_2, \dots). On top of this instrument, I include the same economic and population controls from Model (1). The instrument is therefore constructed as follows:

$$(A) \text{ Erate}(E)/\text{Irate}(I)_{i,t} = p + q(\#Migrants \text{ into Topdest } 1990(C_1, C_2, \dots))_i * (\text{National Inflow into } (C_1, C_2, \dots))_{i,t} + e_{i,t}$$

And the IV model is therefore the following:

$$(2) \quad y_{i,t} = a + \beta(\hat{E}/\hat{I})_{i,t} + c(\text{PopChar})_{i,t} + d(\text{PCI})_{i,t} + \Lambda_i + u_{i,t}$$

The key for this structure is the assumption that migration flows from 1990 do not impact political change in elections between 1992-2016 except through the effect on migration rates in this period. I limit the risk of violating the exclusion restriction even further by controlling for economic conditions and

. regress Erate ZR

Source	SS	df	MS	Number of obs	=	26,572
Model	432810.255	1	432810.255	F(1, 26570)	=	4024.03
Residual	2857776.48	26,570	107.55651	Prob > F	=	0.0000
				R-squared	=	0.1315
				Adj R-squared	=	0.1315
Total	3290586.74	26,571	123.841283	Root MSE	=	10.371

Erate	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
ZR	.0046678	.0000736	63.44	0.000	.0045236 .004812
_cons	6.910389	.0644726	107.18	0.000	6.78402 7.036759

population characteristics in 1990. I also am able to certify the relevance of the instrument through first stage tests, which find it to be highly relevant as showcased below.

Recent literature on the usage of this model, suggests the addition of a time-lagged variable to accurately capture all migration impacts. Jaeger et al. (2018) write a critique on the ability of standard Bartik-Shift Share models to encapsulate lagged impacts of migration since impacts might be seen only in future periods. The suggested solution in this study is to add lagged migrant flows, which are also instrumented by the Bartik instrument. I consider this model and believe it to be a possible extension to this study. However, I will focus on my initial IV model (model 2), because of concerns that the resulting time lagged Bartik instrument will not provide enough variation to identify dynamics separately, since the period I analyze did not witness exogenous shocks that dramatically shifted the migrant composition.

4 RESULTS

4.1 Impact of Emigration rates on outcome variables

I first consider the impact of emigration rates on the county of origin's voter turnout and party vote shares between 1992-2016. This period includes seven national election cycles. The values in the first row of both Tables 5 and 6 represent the value of β from model (2). This is the 2SLS estimate of the coefficient instrumented with the IV from model (A). The second panel in both these tables, Panel B, showcases the linear model estimates (Model 1) for each respective regression. The main difference between Table 5 and 6 is that Table 5 includes 3142 county fixed effects while Table 6 includes 51⁹ state fixed effects. Table 6 also includes the state election competitiveness outcome variable. The estimates showcase a positive and highly significant impact on voter turnout, the share of votes for the Democratic Party and the share of votes for the Republican Party.

⁹ I treat the District of Columbia as its own state in this study, resulting in 51 states.

Table 5 Effect of emigration rates on voter turnout and voter shares

Variables	(1) Voter Turnout	(2) Share Votes for Democratic Party	(3) Share Votes for Republican Party
<i>IV Estimates- Panel A</i>			
Emigration rate 1992-2016	0.0759** (.0104)	-0.0534* (.0197)	0.5061* (0.0195)
Inflation adjusted PCI	0.0001** (.00001)	-.00036** (0.000029)	0.00034** (0.000029)
Share population with BA	0.6046** (.0168)	0.5846** (0.0333)	-0.5896** (0.0330)
Constant	-0.00042 (.0546)	-0.3194 (0.1096)	0.04155 (0.1086)
Observations	27434	20994	3,113
R ²	0.103	0.019	
County Fixed Effects	X	X	X
<i>OLS Estimates- Panel B</i>			
Emigration rate 1992-2016	0.0216** (.0045)	-.09081** (0.0067)	0.0148** (0.3296)
Observations	27434	20994	

Signif. codes: 0 '***' 0.001 '**'

Figure 3 Top Five Counties with Highest Emigration Rates

	1990	1992	1996	2000	2004	2008	2012	2016
1	Aleutians West Census Area, Alaska	Chattahoochee County, Georgia	Decatur County, Georgia	Glascok County, Georgia	Chattahoochee County, Georgia	Chattahoochee County, Georgia	Walworth County, South Dakota	Ogemaw County, Michigan
2	Chattahoochee County, Georgia	Vernon Parish, Louisiana	Glascok County, Georgia	Taliaferro County, Georgia	Liberty County, Georgia	Fredericksburg city, Virginia	Kit Carson County, Colorado	Livingston County, Missouri
3	Geary County, Kansas	Geary County, Kansas	Geary County, Kansas	Webster County, Georgia	Fredericksburg city, Virginia	Coryell County, Texas	White County, Illinois	Loup County, Nebraska
4	Coryell County, Texas	Aleutians West Census Area, Alaska	Aleutians West Census Area, Alaska	Camas County, Idaho	Alexandria city, Virginia	Liberty County, Georgia	Ashley County, Arkansas	Rock County, Nebraska
5	Liberty County, Georgia	Liberty County, Georgia	Liberty County, Georgia	Clark County, Idaho	Vernon Parish, Louisiana	Manassas Park city, Virginia	Valley County, Nebraska	Perkins County, South Dakota

Variables	(1)	(2)	(3)	(4)	(5)
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	Voter Turnout	Share Votes for Democratic Party	Share Votes for Republican Party	Election Race with only one candidate ¹⁰	Election with unopposed Incumbent in primary
<i>IV Estimates- Panel A</i>					
Emigration rate 1992-2016	0.0819** (.0109)	-0.0588* (.0175)	0.1085** (0.0201)	-.9921 (24.608)	17.916 (18.288)
Inflation adjusted PCI	0.0001** (9.01e-6)	.00013** (0.000014)	.00025** (0.000016)	--	--
Share population with BA	0.4811** (.0180)	-0.0859* (0.0308)	0.2144** (0.0353)	2.086 (5.784)	4.4564 (4.5232)
Constant	35.40** (.344)	39.55** (0.5813)	49.87** (0.6663)	35.11 (178.59)	-68.6338 (134.75)
Observations	23248	20384	20384	133	115
R ²	.3561	0.2141	0.1861	0.7491	0.7198
State Fixed Effects	X	X	X	X	X
<i>OLS Estimates- Panel B</i>					
Emigration rate 1992-2016	0.0213** (.4826)	-.0482** (0.0062)	.0868** (0.0071)	-5.667 (6.805)	-4.894 (5.211)
Observations	23971	20994	20994	133	115

Signif. codes: 0 '***' 0.001 '**'

Table 6 Effect of emigration rates on voter turnout and voter shares

With respect to voter turnout, both estimates indicate that an increase in the emigration rate by 1% of the population would increase voter turnout by 0.082% and would decrease the share of votes for the Democratic Party by 0.06%. Estimates on the impact on share of votes for the Republican Party differ in magnitude, with Table 5 indicating an increase in share of votes by 0.51% and Table 6 indicating an increase of 0.11%. We also see that an increase in the emigration rate does not have a significant impact on state congressional election competitiveness. To further understand why an increase in the emigration rate would lead to these results, I run Model 2 on several population characteristics. We can see these estimates in Table 7.

¹⁰ Since these variables are aggregated on the state level, they were controlled for using county unemployment rate rather than inflation adjusted per capita income

Table 7 Effect of emigration rates on population characteristics

Variables	(1) Share Population with BA	(2) Share Population Under 25	(3) Share Population- White	(4) Share Population- Hispanic	(5) Share Population- Black
<i>IV Estimates- Panel A</i>					
Emigration rate 1992-2016	-0.0288** (0.0038)	-0.7208 (1.117)	8.973* (2.951)	-8.954** (2.38)	3.174* (1.195)
Unemployment rate	***	-0.01319 (0.2820)	0.015 (0.0087)	-.01627 ⁱ (0.0069)	0.0080 ⁱ (.0035)
Share population with BA	-	-0.0859* (0.0308)	-0.8036** (0.0795)	0.6226** (0.1736)	0.2767* (0.0872)
Constant	2.297** (0.1158)	43.049** (2.926)	64.289** (7.69)	15.053* (6.205)	17.097** (3.117)
Observations	26,606	306	408	408	408
R ²	0.4447	0.9383	0.9672	0.9333	0.9891
State Fixed Effects	X	X	X	X	X
<i>OLS Estimates- Panel B</i>					
Emigration rate 1992-2016	-0.0198 ** (0.0013)	.3388 ⁱ (0.1589)	1.400** (0.4897)	-1.293** (0.309)	.575* (.2165)
Observations	27,434	306	408	408	408

Note: *** indicates that this regression was controlled for using inflation adjusted per capita income (0.0002 [2.60e-06] **) rather than unemployment.

Signif. codes: 0 '***' 0.01 '**' 0.05 'i'

Several significant results come out of this regression. We can see that an increase in the emigration rate by 1% of the population leads to a significant decrease of 0.03% in the county of origin's share of population with a Bachelor's Degree. Considering the propensity of previous literature that has found higher mobility in individuals with more education, I am not surprised by these findings. In Table 7 we also find that emigration rates significantly impact and change the racial diversity of the county of origin. Row 1 indicates that an increase in the emigration rate by 1% leads to an increase of 8.9% in the share of the White county population, this is juxtaposed to a decrease of 8.9% in the Hispanic county population and an increase of 3.1% in the Black county population. These findings further support the theory that migrants are not randomly selected and that the likelihood of migration is aligned with race and education.

I theorize that an explanation for these empirical findings is that as the emigration rate increases, the population which exits are individuals who are less “connected” to the county of origin, and not only have lower economic costs of migration but possibly less personal attachment to the county of origin. As these individuals exit, those who remain are those who either have a higher cost to migration, have skills that are better rewarded in the county of origin, or are more attached to the community; causing an increase in political participation and investment. This higher emigration could also be causing political discontent that is voiced through higher political participation from the remaining county population. However, we also see that higher emigration rates shift voter shares from the Democratic Party to the Republican Party, which I believe is well aligned with the impacts of emigration on the population characteristics of the county of origin.

As we see the share of the population with higher education decrease and the share of the White population increase significantly, contemporaneous to a significant decrease in the Hispanic population, it leads us to believe that the population remaining in the county of origin is better aligned with beliefs and/or identities presented by the Republican Party. Before considering what we can estimate to be the overall impact of these results on political development, I consider one more model.

4.2 Impact of Net Emigration on outcome variables

I next consider the impact of net emigration, or the loss of population, on several outcome variables. The values in the first row of Table 10 represent the value of β from model (2), instrumented with the IV from model (A). The second panel in both these tables, Panel B, showcases the linear model estimates (Model 1). In this model we find seemingly opposing results to section 4.1. In counties experiencing net emigration, an increase in net emigration by 1% of the population significantly reduces voter turnout by 0.52%, increases share of votes for the Democratic Party by 0.4% and reduces the share of votes for the Republican Party by 0.7%. Interestingly, we also see that this does not significantly impact the racial diversity or education level of the remaining population in the county of origin.

Table 10 Effect of Net Emigration

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Voter Turnout	Share Votes for Democratic Party	Share Votes for Republican Party	Election Race with only one candidate**	Share Population with BA	Share Population-White	Share Population-Hispanic
<i>IV Estimates- Panel A</i>							
Net Emigration 1992-2016	-0.5179** (0.0928)	0.3987* (0.1566)	-0.6688** (0.1719)	618.68 (3408.8)	19.197 (13.756)	0.5017 (.5378)	-0.1377 (0.1667)
Inflation adjusted PCI	0.00015** (0.00001)	0.0001** (0.00002)	0.00020** (0.00002)	-	-	-	-
Unemployment rate	-	-	-	0.6712 (3.618)	-0.0113 (0.0215)	-0.0005 (0.00062)	0.00015 (.00019)
Share population with BA	0.3386** (.0275)	0.3798** (0.0497)	-0.2623** (0.0546)	43.98 (221.38)	2.086 (5.784)	-0.0284* (0.0119)	0.0136* (0.0037)
Constant	37.052** (0.501)	44.50** (0.8856)	47.624** (0.9722)	-103.89 (500.46)	10.205 (4.507)	0.9895** (0.1880)	-0.1092 (0.058)
Observations	11162	9539	9539	69	187	187	187
R ²	0.3811	0.2794	0.2200	-	-	0.6864	0.8704
<i>OLS Estimates- Panel B</i>							
Net Emigration 1992-2016	-0.1611** (0.0246)	0.2245** (0.0398)	-0.3452** (0.0439)	6.8163 (14.037)	1.044 (0.5895)	0.0231* (.0085)	0.0034 (0.0046)
Observations	11610	9934	9934	69	187	187	187
<i>IV Estimates- Panel C</i>							
High Net Emigration 1992-2016	-0.3060** (0.1030)	0.57038* (0.200)	-0.85309** (0.2163)	19.813* (8.814)	7.138* (2.955)	0.2686 (.1464)	-0.0568 (.042)
Unemployment	-	-	-	-0.1600* (0.0395)	-0.0137 (.01453)	-0.0008 (.00051)	0.0002 (0.00014)
Share population with BA	0.7266** (0.0596)	-0.2877* (0.1152)	.5229** (.1246)	4.1601* (1.597)	-	-0.032** (.0098)	0.0153** (.0028)
Constant	39.504** (1.043)	59.338** (1.997)	32.788** (2.1606)	-10.961 (17.43)	14.039** (2.036)	1.351** (0.180)	-0.1130* (.0516)
Observations	2633	2588	2588	23	72	72	72

Signif. codes: 0 '***' 0.02 '**' 0.05 '*'

While this is seemingly opposed to our previous results on the impact of emigration rates, I believe them to be complementary. Since continued population is often tied to declining economic conditions, the remaining population in the county of origin is more likely to require and/or utilize government support/public welfare programs. These programs and the general extension of government services are more likely to be supported by candidates from the Democratic Party. A study by Andrew Gelman (2011) finds that the majority of low and middle-income voters support Democrats. As such, the poor economic performance likely accompanied with consistent population loss could explain this shift in votes from the Republican to the Democratic Party.

Additionally in this model, in Panel C, we find that high net emigration has a significant impact on election competitiveness. High net emigration is a variable that was constructed by taking all locations with an above average net emigration for that respective year. What we find is that an increase in net emigration by 1% of the population increases the share of House of Representative elections with only one candidate by 19.8%, a significant decrease in election competitiveness. This increase combined with a decrease in voter turnout could be playing important roles in slowing down the political development of counties experiencing high net emigration.

Overall in this study, a causal link has been established between changes in net emigration and changes in voter participation, party vote shares and population characteristics in American counties between 1992-2016. We do not however presume that these empirical findings are the only tools needed to determine the state of political development in the United States. However, through said findings we are able to analyze a portion of this larger picture.

5 CONCLUSION

Voting represents the beginning; everything else in our democracy follows the right to vote.

Participation is more than just a value. It is a foundational virtue of our democracy. - J. Douglas¹¹

Throughout this study we have not only found that an increase in internal emigration rates by 1% significantly increases voter turnout participation by 0.08%, but also that it significantly increases voter shares for the Republican Party. We also established that emigration causally changes the population characteristics of counties of origin, as it leads to increases in county White and Black population shares, but decreases Hispanic population shares and the share of individuals with a Bachelor's Degree. These findings were then augmented with the discovery that counties with net emigration experience significant decreases in voter turnout and share of votes for the Republican Party.

In order to establish the importance of the empirical findings we have presented in this paper, I believe it necessary to analyze the role of voter participation in modern democracies. While this can be argued as a more normative question, I theorize that the preponderance of legal and political science thought on this matter supports the idea that voting is a crucial component of democracy. In this view, we can see that net emigration, or population loss, hampers political development as it decreases voter turnout and decreases our election competitiveness metric. However, we can look at the role of increased emigration rates as a potential benefit to political development as it is showcased in our research to increase voter turnout. It is possible that internal migration in the United States is serving as a tool that allows individuals to either directly or indirectly create communities with which they maintain greater political commonalities and therefore greater political investment. A question that arises from this is if county level political development coincides with national political development.

¹¹ Douglas, J. (2013) The Foundational Importance of Voting: A Response to Professor Flanders. *66 Okla. L. Rev.* 81.

If local communities are growing politically stronger in opposing ways to other local communities, this supports the idea of the formation of “two Americas”. However, this is a theory that is not to be assumed as true from these empirical findings and requires greater research. This process overall has been very rewarding for me and I hope to extend this study to further analyze the theories I have proposed herein.

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