# Supporting Information (SI) Local demographic changes and U.S. presidential voting, 2012 to 2016 Proceedings of the National Academy of Sciences

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#### A Data set construction

For each state, we first acquired voter files from the period just after both the 2012 and 2016 elections so as to identify voters in each election registered to vote at the same address in the other election. Although our analyses are not at the individual level, voter file data provides two important advantages. For one thing, it enables us to identify which precincts had fixed boundaries over the four years, and so to avoid making comparisons between incomparable units.<sup>1</sup>

In addition, voter file data also enables us to merge precincts with tract-level demographic data from the Census Bureau. Here, we use Geocodio to identify the most likely Census tract corresponding to each registered voter in the 2016 voter files for each state. We then removed registered voters whose geo-coded address was estimated to be less than 80% accurate. From the remaining voters, we identified all Census tracts containing at least 5% of the accurately geo-coded voters in each precinct. We then generated precinct-weighted estimates of a wide variety of tract-level demographic and economic measures available from the 2000 decennial Census and the 2011 and 2016 American Community Surveys (ACS), as summarized in Table S1.

To measure our outcome—presidential voting—we separately compiled precinct-level data from the appropriate state- and county-level election authorities for 2012 and 2016. We then merged that data with precincts as identified in the voter file and applied additional filters to remove precincts where there were significant deviations between the number of votes recorded in the voter files and those recorded via the precinct-level election returns.

We used several criteria to identify the seven states studied here. In part, we emphasize swing states that were closely contested in 2012 and/or 2016. We also sought to analyze states which were diverse, both as a group and within their boundaries. While some of these states are growing states with larger minority populations (Florida, Georgia, Nevada, Washington), others have seen less growth and are home to larger non-Hispanic white populations (Michigan, Ohio, Pennsylvania). We also focus on states for which we could obtain the necessary voter files and states in which we were able to match voters to precincts.

Appendix Table S1 presents summary statistics of the data compilation.

<sup>&</sup>lt;sup>1</sup>Specifically, we use registrants whose addresses are constant during the two elections to evaluate any precinctlevel boundary changes, and remove precincts in which fewer than 85% of the fixed-address voters have the same precinct in both elections.

	FL	GA	MI	NV	OH	PA	WA
Has BA or More '00	0.22	0.23	0.22	0.21	0.22	0.20	0.31
Has BA or More '11	0.26	0.26	0.25	0.24	0.25	0.24	0.35
Has BA or More '16	0.28	0.28	0.27	0.24	0.26	0.27	0.37
Non-white, Non-Hisp. '11	0.21	0.34	0.14	0.17	0.15	0.20	0.15
Non-white, Non-Hisp. '16	0.21	0.35	0.15	0.18	0.15	0.21	0.17
Non-Hisp. Black '00	0.13	0.26	0.08	0.05	0.09	0.14	0.03
Non-Hisp. Black '11	0.15	0.30	0.09	0.06	0.11	0.15	0.03
Hispanic '00	0.14	0.04	0.02	0.14	0.02	0.03	0.07
Hispanic '11	0.19	0.07	0.03	0.22	0.03	0.05	0.10
Non-Cit. For. Born '00	0.09	0.05	0.02	0.09	0.02	0.03	0.07
Non-Cit. For. Born. '11	0.09	0.05	0.02	0.09	0.02	0.03	0.07
Pct. Under Poverty Line '00	0.11	0.11	0.08	0.08	0.09	0.11	0.10
Pct. Under Poverty Line '11	0.14	0.15	0.13	0.11	0.13	0.14	0.12
Unemployed '00	0.03	0.03	0.03	0.04	0.03	0.04	0.04
Unemployed '11	0.06	0.06	0.07	0.07	0.06	0.05	0.05
Pct. Empl. in Manufacturing '00	0.07	0.16	0.22	0.05	0.20	0.15	0.11
Pct. Empl. in Manufacturing '11	0.06	0.11	0.17	0.05	0.16	0.12	0.09
Pop. Density '00	3118.97	1093.38	2019.48	3287.90	2211.86	6357.81	3073.74
Pop. Density '11	3326.80	1204.15	1951.35	4089.28	2115.82	6267.29	3322.36
Avg. Rent (1000s) '11	1.03	0.81	0.77	1.15	0.71	0.76	1.00
Med. Grs. Rent / Hsh. Inc. '11	0.35	0.32	0.32	0.31	0.30	0.30	0.30
Pct. Homes $>$ \$150 '11	0.38	0.50	0.55	0.29	0.58	0.55	0.17

Table S1: Means for various demographic measures derived from the Census/American Community Survey. Cells present the weighted share for the precincts in the relevant state

### **B** Change moderated by economic disadvantage?

The core analyses examine all fixed-boundary precincts from the seven states we analyze. It could be, however, that the effect of changing demographics is contingent on other factors that make the threat of demographic change especially salient or meaningful. One possibility is that demographic changes are more readily identified as threatening in places where individuals are experiencing status degradation, perhaps because they evoke concerns about zero-sum resource allocation (see also Dancygier, 2010). To see if local immigrant threat uniquely benefited Trump in more economically marginalized precincts, we present regression results in Table S2 subsetting to precincts that score high on measures of relative economic decline. Both frames present the relationship between the change in the Republican share and the change in the Hispanic population.

We classify precincts as economically disadvantaged in two ways. In the top frame, we limit our analysis to precincts in the bottom quarter of the distribution of population with bachelor's degrees. These are plausibly the places most affected by the declining returns to labor for lowskilled workers. In the bottom frame we restrict our analysis to precincts that are in the top 10 percent of precincts from 2000 to 2016 on any of three measures of economic decline: (1) change in unemployment, (2) change in percent poor, or (3) proportional population decline. Rather than focusing on the characteristics of individuals, these measures plausibly capture places that have experienced economic decline. While both categorizations are imperfect, they roughly capture the possibility that disadvantaged communities with demographic changes responded to Trump's populist, anti-immigration candidacy (e.g. Eatwell and Goodwin, 2018).

Table S2 reveals the same pattern as Table 1. Even in these economically disadvantaged places, however defined, local experience with increases in the Hispanic population correspond with higher vote shares for Clinton, not Trump.

	(1)	(2)	(3)	(4)
	Low	Low	Low	Low
	education	education	education	education
Change in Prop. Hispanic, 2011 to 2016	-0.081**			
	(0.01)			
Prop. Hispanic 2011	-0.17**	-0.17**		
	(0.00)	(0.00)		
Prop. Change in Prop. Hispanic, 2011 to 2016		-0.0054**		
		(0.00)		
Change in Prop. Hispanic, 2000 to 2016			-0.086**	
			(0.01)	
Prop. Hispanic 2000			-0.16**	-0.17**
			(0.01)	(0.01)
Prop. Change in Prop. Hispanic, 2000 to 2016				-0.0064**
				(0.00)
Observations	0.165	7 700	0 101	0 100
Observations	8,165	7,799	8,191	8,189
R-squared	0.541 Vaa	0.535	0.525 Nac	0.521 Nac
Control for levels	Yes	Yes	Yes	Yes
Additional Census controls	Yes	Yes	Yes	Yes
Republicali silare 2012 Robust standard a	rears in norm	nthasas	168	105
** p<0.0	1. * p < 0.05	nuicses		
F (0)0	(1)	(2)	(3)	(4)
	Economic	Economic	Economic	Economic
	distress	distress	distress	distress
Change in Prop. Hispanic, 2011 to 2016	-0.052**			
	(0.01)			
Prop. Hispanic 2011	-0.13**	-0.13**		
	(0.00)	(0.00)		
Prop. Change in Prop. Hispanic, 2011 to 2016		-0.0018		
		(0.00)		
Change in Prop. Hispanic, 2000 to 2016			-0.099**	
			(0.01)	
Prop. Hispanic 2000			-0.11**	-0.13**
			(0.01)	(0.01)
Prop. Change in Prop. Hispanic, 2000 to 2016				-0.0071**
				(0.00)
Olympic	7 500	7 077		7 ( ) (
Ubservations Descreted	1,585	1,211	/,040	/,040
K-squared	0.303 Vac	0.303 Vac	0.327 Vac	0.322 Voc
Additional Census controls	Vec	Vac	Vac	Vec
Auditolial Cellsus colletols Republican share 2012	Vec	Vac	Vac	Vec
		105	168	105

Table S2: Change in Republican share and change in Hispanic population in precincts of economic disadvantage

Robust standard errors in parentheses \*\* p<0.01, \* p<0.05

Note: OLS coefficients with robust standard errors. Dependent variable is change in GOP vote share, 2012 to 2016. Low education precincts are bottom quartile in sample in percent with bachelor's degree or higher. Economically distressed precincts are those in the top 10 percent in change in unemployment, change in percent poverty, or proportional population decline from 2000 to 2016.

### C Change moderated by population density or trade exposure?

Table S3 estimates heterogeneous relationships by the population density of the precinct. We break our precincts into quartiles of population density. The lowest quartile includes precincts with population densities of less than 285 persons per mile and the highest quartile with more than 4,642 per mile. We find little heterogeneity by population density.

We find slightly greater heterogeneity by estimated exposure to Chinese trade (year 2000 exposure via Autor, Dorn, and Hanson, 2018) in Table S4. Higher quartiles mean greater exposure to Chinese trade. Variability, however, is all within the range of negative coefficient values. We do not see evidence that high trade exposure places react to demographic change by moving towards Trump. These places moved toward Clinton in a similar pattern as places with low trade exposure.

	(1)	(2)	(3)	(4)	(5)
	Pooled	Quartile 1	Quartile 2	Quartile 3	Quartile 4
Change in Prop. Hispanic, 2011 to 2016	-0.071**	-0.073**	-0.040*	-0.039**	-0.059**
	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)
Prop. Hispanic 2011	-0.13**	-0.13**	-0.098**	-0.11**	-0.11**
	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)
Observations	31,352	7,650	7,666	7,917	8,119
R-squared	0.658	0.585	0.684	0.687	0.598
Control for levels	Yes	Yes	Yes	Yes	Yes
County fixed effects	Yes	Yes	Yes	Yes	Yes
Additional Census controls	Yes	Yes	Yes	Yes	Yes

Table S3: Change in Republican vote share 2012 to 2016 and change in Hispanic population by quartile of 2016 population density

Robust standard errors in parentheses

Precinct-level analysis; Weighted to number of votes 2012; Full sample; Dropping proportional changes<0

Note: Dependent variable is change in GOP vote share, 2012 to 2016. Lower quartile means less density.

Table S4: Change in Republican vote share 2012 to 2016 and change in Hispanic population by quartile of Autor, Dorn, and Hanson (2018) trade exposure measure

	(1)	(2)	(3)	(4)	(5)
	Pooled	Quartile 1	Quartile 2	Quartile 3	Quartile 4
Change in Prop. Hispanic, 2011 to 2016	-0.071**	-0.042**	-0.040**	-0.091**	-0.069**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Prop. Hispanic 2011	-0.13**	-0.11**	-0.098**	-0.14**	-0.12**
	(0.00)	(0.01)	(0.01)	(0.00)	(0.01)
Observations	31,352	9,662	6,104	7,858	7,728
R-squared	0.658	0.618	0.705	0.649	0.661
Control for levels	Yes	Yes	Yes	Yes	Yes
County fixed effects	Yes	Yes	Yes	Yes	Yes
Additional Census controls	Yes	Yes	Yes	Yes	Yes

Robust standard errors in parentheses

\*\* p<0.01, \* p<0.05

Precinct-level analysis; Weighted to number of votes 2012; Full sample; Dropping proportional changes<0

Note: Dependent variable is change in GOP vote share, 2012 to 2016. Lower quartile means less exposure to trade.

# **D** County-level demographic change and precinct vote

Here we estimate whether the relevant measure of change is at the county rather than precinct/tract level. Correlations between the county- and precinct-level measures are 0.19 (change in proportion Hispanic), 0.07 (proportional change in population Hispanic), 0.73 (proportion Hispanic 2011), and 0.73 (proportion Hispanic 2000). We also include the precinct-level measures in models.

	(1)	(2)	(3)	(4)
	County	County	County	County
	nonulation	nonulation	nonulation	nonulation
	changes	changes	changes	changes
	changes	changes	changes	changes
Change in Prop. Hispanic 2011 to 2016	0.076**			
Change in 110p. Thispaine, 2011 to 2010	(0.01)			
Change in County Prop. Hispania 2010 to 2016	(0.01)			
Change in County Prop. Hispaine, 2010 to 2010	(0.008)			
Country Draw Illianania 2010	(0.23)	0.0(5**		
County Prop. Hispanic 2010	0.052**	0.065**		
D U	(0.02)	(0.02)		
Prop. Hispanic 2011	-0.14**	-0.14**		
	(0.01)	(0.01)		
Prop. Change in Prop. Hispanic, 2011 to 2016		-0.0045**		
		(0.00)		
Prop. Change in County Prop. Hispanic, 2010 to 2016		0.043*		
		(0.02)		
Change in Prop. Hispanic, 2000 to 2016			-0.073**	
			(0.02)	
Change in County Prop. Hispanic, 2000 to 2016			-0.097	
			(0.08)	
County Prop. Hispanic 2000			0.059**	0.036
			(0.02)	(0.02)
Prop. Hispanic 2000			-0 14**	-0 15**
110p. 1115puille 2000			(0.01)	(0.01)
Prop. Change in Prop. Hispanic 2000 to 2016			(0.01)	-0.0058**
1 top. Change in 1 top. Thispanie, 2000 to 2010				(0,000)
Prop. Change in County Prop. Hispania 2000 to 2016				(0.00)
Flop. Change in County Flop. Hispanic, 2000 to 2010				(0.0014)
				(0.01)
Oharmatiana	22 21 1	21.262	22.011	22,000
Descriptions	52,511	31,303	32,911	32,909
K-squared	0.041	0.045	0.020	0.624
Control for levels	Yes	Yes	Yes	Yes
Additional Census controls	Yes	Yes	Yes	Yes
Republican share 2012	Yes	Yes	Yes	Yes
Robust standard erro	rs in parenthe	eses		

Table S5: Change in Republican share and change in Hispanic population measured at the county level

\*\* p<0.01, \* p<0.05

Note: OLS coefficients with robust standard errors clustered on the county. Dependent variable is change in GOP vote share, 2012 to 2016. Controls are measured as in other models at the precinct level, but also include levels proportion Hispanic in 2010 (2000) at the county.

### E Scope of geographic context

We now consider the scope of the geographic context of local demographic changes. We do so by measuring geographic contexts at increasing distances from the precinct. Our main analysis measures context using only the Census tracts in which the precinct's voters reside. Here, we create new measures of context using Census tracts farther and farther from the precinct. We use the NBER Census Tract Distance Database to identify tracts that are within 1, 5, and 10 miles of the tracts of voters in each precinct. We aggregate demographics across all tracts at each of these distances to create three new data sets with increasingly large geographic contexts. We then run parallel statistical models to our main analysis in Table 1 using each of these new measures, which we present in the three frames of Table S6.

The first frame presents specifications where Census variables are measured by tracts within one mile of the centroid of the tracts of the precinct's voters. The second frame measures context with tracts within five miles, the third within ten miles. We estimate five of the specifications indicated by the rows from Table 1 for each geographic scope. The story across specifications varying both geographic and temporal distances is consistent: increasing Hispanic population does not benefit the anti-immigration candidate Trump but instead benefits the pro-immigration Clinton candidacy. This holds in precincts with low levels of diversity in columns three and seven in each frame.

	(1)	(2)	(3) 01 miles Low	(4)	(5)	(9)	(7) 01 miles Low		(I)	(2)	(3) 05 miles Low	(4)	(5)	(9)	(7) 35 miles Low
	01 miles	01 miles	diversity	01 miles	01 miles	01 miles	diversity		05 miles	05 miles	diversity	05 miles	05 miles	05 miles	liversity
Change in Prop. Hispanic, 2011 to 2016 Prop. Hispanic 2011 Prop. Change in Prop. Hispanic, 2011 to 2016 Change in Prop. Hispanic, 2000 to 2016	-0.050** (0.01)	-0.085** (0.01) -0.16** (0.00)	-0.12** (0.01) -0.18** (0.00)	-0.16** (0.00) -0.0047** (0.00)	-0.098** (0.01)	-0.096** (0.01)	-0.089** (0.01)	Change in Prop. Hispanic, 2011 to 2016 Prop. Hispanic 2011 Prop. Change in Prop. Hispanic, 2011 to 2016 Change in Prop. Hispanic, 2000 to 2016	-0.23** (0.03)	-0.16** (0.02) -0.18** (0.00)	-0.15** (0.02) -0.16** (0.01)	-0.19** (0.00) -0.0041** (0.00)	-0.25** (0.01)	-0.19** (0.01)	-0.11** (0.01)
Prop. Hispanic 2000						$-0.15^{**}$ (0.00)	$-0.18^{**}$ (0.01)	Prop. Hispanic 2000						$-0.14^{**}$ (0.01)	-0.15** (0.01)
Observations R-squared Control for levels County fixed effects Additional Census controls	32,802 0.001 No No No	32,344 0.714 Yes Yes Yes	18,218 0.769 Yes Yes Yes	31,705 0.712 Yes Yes Yes	32,800 0.006 No No	32,800 0.696 Yes Yes	18,569 0.761 Yes Yes Yes	Observations R-squared Control for levels County fixed effects Additional Census controls	32,858 0.003 No No No	32,835 0.682 Yes Yes Yes	18,526 0.716 Yes Yes Yes	32,602 0.680 Yes Yes Yes	32,858 0.023 No No	32,858 0.671 Yes Yes Yes	18,544 0.717 Yes Yes Yes
Republican share 2012	No	Yes	Yes	Yes	No	Yes	Yes	Republican share 2012	°N N	Yes	Yes	Yes	No	Yes	Yes
W.	bust standar ** p<0 veighted to n	1 errors in $f$ 0.01, * $p<0$ . umber of ve	of arentheses 05 otes 2012					Ko W	obust standard ** p<0 Veighted to n	1 errors in p .01, * p<0. umber of v	arentheses 05 otes 2012				
	(1) 10 miles	(2) 10 miles	(3) 10 miles Low diversity	(4) 10 miles	(5) 10 miles 1	(6) 1 0 miles d	(7) 10 miles Low liversity								
Change in Prop. Hispanic, 2011 to 2016 Prop. Hispanic 2011 Prop. Change in Prop. Hispanic, 2011 to 2016 Change in Prop. Hispanic, 2000 to 2016 Prop. Hispanic 2000	-0.42** (0.04)	-0.19** (0.03) -0.19** (0.01)	-0.15** (0.03) -0.17** (0.01)	-0.20** (0.01) -0.0027 (0.00)	-0.35** (0.01)	0.21*** . (0.02) 0.15** .	0.16** 0.15** 0.15** 0.15**								
Observations R-squared Control for levels County fixed effects Additional Census controls Republican share 2012 Ro	32,801 0.005 No No No No <u>No</u> we p<0 ** p<0	$\begin{array}{c} 32,797\\ 0.620\\ Yes\\ Yes\\ Yes\\ Yes\\ Yes\\ 1 \text{ errors in }p\\ 0.01, * p < 0.1\\ \dots \text{ mathematical function of } \end{array}$	18,502 0.647 Yes Yes Yes Yes arentheses 05	32,748 0.619 Yes Yes Yes Yes	32,801 0.035 No No No No	32,801 0.615 Yes Yes Yes Yes	18,505 0.647 Yes Yes Yes Yes								
-	VUBINU IN I														

Note: Low-diversity defined as precincts with proportion non-white non-Hispanic population less than 0.15 in both 2011 and 2015.

Table S6: Change in Republican vote share 2012 to 2016 and change in Hispanic population, increasing scope of geographic context

# **F** Alternative measure of immigrant threat: Non-citizen foreign-born population

In this section we reproduce Table 1 and Figure 2 using the population non-citizen foreign-born (NCFB) to measure the construct of immigrant threat. As before, we vary specification, time interval, and measure.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Change in Prop. Foreign Born, 2011 to 2016	0.015	-0.089** (0.01)	-0.11**					
Prop. Foreign Born, 2011	(0101)	-0.17** (0.01)	-0.21** (0.01)	-0.20** (0.01)				
Prop. Change in Prop. Foreign Born, 2011 to 2016				-0.0049** (0.00)				
Change in Prop. Foreign Born, 2000 to 2016					0.037* (0.01)	-0.084** (0.01)	-0.11** (0.01)	
Prop. Foreign Born, 2000						-0.15** (0.01)	-0.21** (0.01)	-0.19** (0.01)
Prop. Change in Prop. Foreign Born, 2000 to 2016								-0.0041** (0.00)
Observations	31,949	31,352	31,352	30,181	31,949	31,949	31,949	30,465
R-squared	0.000	0.643	0.687	0.684	0.000	0.637	0.678	0.673
Control for levels	No	Yes	Yes	Yes	No	Yes	Yes	Yes
County fixed effects	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Additional Census controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Republican share 2012	No	No	Yes	Yes	No	No	Yes	Yes

Table S7: Change in Republican vote share 2012 to 2016 and change in Non-citizen Foreign-born population, various time intervals

Robust standard errors in parentheses

\*\* p<0.01, \* p<0.05

Precinct-level analysis; Weighted to number of votes 2012; Full sample; Foreign Born; Proportional changes top and bottom coded at 1 and -1

Note: Dependent variable is change in GOP vote share, 2012 to 2016.

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Figure S1: Variation in magnitude of coefficients relating change in non-citizen foreign-born population to change in Republican vote share by model specification and time interval



Note: Each point is the coefficient estimate from that model. Lines represent 95 percent confidence intervals. Proportional changes are divided by ten to scale with to 2016 and 2000 to 2011; (17) Proportional Changes 2011 to 2016 and 2000 to 2011, Demographics, Levels 2000; (18) Proportional Changes 2011 to 2016 and 2016, Demographics, Levels 2011; (15) Proportional Change 2011 to 2016, Demographics, Levels 2011, 2012 GOP Vote Share; (16) Proportional Changes 2011 changes in levels. Model numbers on y-axis correspond to the following specifications: (1) Bivariate Change, 2000 to 2016; (2) Bivariate Change, 2011 to 2016; Demographics, Levels 2011, 2012 GOP Vote Share; (9) Changes 2011 to 2016 and 2000 to 2011; (10) Changes 2011 to 2016 and 2000 to 2011, Demographics, (3) Bivariate Proportional Change 2000 to 2016; (4) Bivariate Proportional Change 2011 to 2016; (5) Change 2000 to 2016, Demographics, Levels 2000; (6) Demographics, Levels 2000; (13) Proportional Change 2000 to 2016, Demographics, Levels 2000, 2012 GOP Vote Share; (14) Proportional Change 2011 to Change 2000 to 2016, Demographics, Levels 2000, 2012 GOP Vote Share; (7) Change 2011 to 2016, Demographics, Levels 2011; (8) Change 2011 to 2016, Levels 2000; (11) Changes 2011 to 2016 and 2000 to 2011, Demographics, Levels 2000, 2012 GOP Vote Share; (12) Proportional Change 2000 to 2016, 2000 to 2011, Demographics, Levels 2000, 2012 GOP Vote Share .

### **G** Non-diverse precincts

Table S8 explores responses to changes in Hispanic populations in precinct subsets with low levels of diversity, which we define as precincts with a proportion non-white non-Hispanic in 2011 less than 0.15. As in the full sample, in each specification low-diversity precincts see increasing Hispanic population related to decreasing vote share for the anti-immigration candidate Trump. This means that it is not that increasing diversity produces Republican shifts in places that are currently not diverse.

Table S8: Change in Republican vote share 2012 to 2016 and change in Hispanic population, various time intervals, limited to initially low-diversity precincts

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Change in Prop. Hispanic 2011 to 2016	-0 090**	-0 11**	-0 11**					
Change in Frop. Inspane, 2011 to 2010	(0.02)	(0.01)	(0.01)					
Prop. Hispanic 2011	~ /	-0.16**	-0.17**	-0.17**				
		(0.00)	(0.00)	(0.00)				
Prop. Change in Prop. Hispanic, 2011 to 2016				-0.0055**				
Classic Dec. 11: 2000 (2016				(0.00)	0 1 4 * *	0.052**	0.001**	
Change in Prop. Hispanic, 2000 to 2016					$-0.14^{**}$	-0.053**	-0.091**	
Prop Hispanic 2000					(0.01)	-0.18**	-0.18**	-0 19**
110p. 110p. 110						(0.01)	(0.01)	(0.01)
Prop. Change in Prop. Hispanic, 2000 to 2016								-0.0046**
								(0.00)
Observations	20.613	20.146	20.146	20.146	20.613	20.613	20.613	20.613
R-squared	0.002	0 720	0 767	0 767	0.010	0 705	0 755	0 754
Control for levels	No	Yes	Yes	Yes	No	Yes	Yes	Yes
County fixed effects	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Additional Census controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Republican share 2012	No	No	Yes	Yes	No	No	Yes	Yes

Robust standard errors in parentheses \*\* p<0.01, \* p<0.05

Precinct-level analysis; Weighted to number of votes 2012; Low diversity sample (non-white

non-Hispanic population 2011<.15

; Proportional changes top and bottom coded at 1 and -1

### H By 2012 Republican vote share

Table S9 evaluates omitted variable bias by breaking the analysis into deciles of 2012 Republican vote share. If Hispanics were moving exclusively to the most Democratic places and if swings towards Trump happened in the most Republican places, our main result of increasing Hispanic population and increasing Clinton share could be spurious. The evidence in Table S9 is inconsistent with such a spurious correlation. Change in the proportion Hispanic is negatively related to swings towards Trump in every decile but the first — which are the most Democratic 2012 precincts. In the most Republican precincts in our sample (decile 10), the point estimate on change in the proportion Hispanic is larger than the pooled estimate in column one.

	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)
	Pooled	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
Change in Prop. Hispanic, 2011 to 2016	-0.071**	0.0051	-0.026	-0.082**	-0.069**	-0.11**	-0.11**	-0.062*	-0.060**	-0.080**	-0.075**
	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)
Prop. Hispanic 2011	$-0.13^{**}$	-0.038**	-0.099**	-0.14**	-0.14**	-0.17**	-0.18**	-0.15**	$-0.13^{**}$	-0.13**	$-0.11^{**}$
	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)
Observations	31,352	3,155	3,231	3,220	3,177	3,136	3,139	3,121	3,087	3,060	3,026
R-squared	0.658	0.479	0.641	0.734	0.770	0.759	0.755	0.769	0.784	0.774	0.768
Control for levels	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
County fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Additional Census controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
			Robust stan	dard errors	in parenthe	ses					
	-		**	p<0.01, * p	<0.05	(	•	-	ç		
Precinct-levi	el analysis;	Weighted to	o number of	votes 2012	t; Full samp	ile; Droppii	ng proporti	onal change	es<0		
				1 1.		1 17.					
Note: Dependent variable is change in G	JUP vote sk	<i>iare, 2012 t</i>	0 ZUID. De	scile Lare	2012 precu	icts with lo	west Kepu	blican vote	, Decile It	v precincts v	vith highest.

Table S9: Change in Republican vote share 2012 to 2016 and change in Hispanic population by decile of 2012 Republican vote share

### I Non-linear version of main analysis

Here we consider whether the relationship between demographic change and electoral outcomes is nonlinear. We break each of our independent variables into quartiles and estimate regression coefficients on indicator variables for each quartile (the excluded category is the first quartile). We present these results in Table S10. While we find a positive estimate for quartile two in column one, when controlling for base rate in column two the estimate attenuates to near zero.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Change in Prop. Hispanic, 2011 to 2016, quartile 2	0.013**	-0.0013	-0.00020					
Change in Prop. Hispanic, 2011 to 2016, quartile 3	0.0013	-0.0049**	-0.0039**					
Change in Prop. Hispanic, 2011 to 2016, quartile 4	-0.0031*	-0.0062**	-0.0069**					
Prop. Hispanic 2011	(0100)	-0.13**	-0.15**	-0.15** (0.00)				
Prop. Change in Prop. Hispanic, 2011 to 2016, quartile 2		(0.00)	(0.00)	-0.0023**				
Prop. Change in Prop. Hispanic, 2011 to 2016, quartile 3				-0.0053**				
Prop. Change in Prop. Hispanic, 2011 to 2016, quartile 4				-0.0055**				
Change in Prop. Hispanic, 2000 to 2016, quartile 2				(0.00)	-0.0047** (0.00)	-0.00086 (0.00)	-0.00027	
Change in Prop. Hispanic, 2000 to 2016, quartile 3					-0.019** (0.00)	-0.0059** (0.00)	-0.0066** (0.00)	
Change in Prop. Hispanic, 2000 to 2016, quartile 4					-0.019** (0.00)	-0.0070**	-0.011**	
Prop. Hispanic 2000						-0.13** (0.00)	-0.14** (0.00)	-0.16** (0.00)
Prop. Change in Prop. Hispanic, 2000 to 2016, quartile 2							. ,	-0.0016* (0.00)
Prop. Change in Prop. Hispanic, 2000 to 2016, quartile 3								-0.0051**
Prop. Change in Prop. Hispanic, 2000 to 2016, quartile 4								-0.0087** (0.00)
Observations	31,949	31,352	31,352	30,644	31,949	31,949	31,949	31,232
R-squared	0.007	0.658	0.704	0.703	0.014	0.649	0.689	0.687
Control for levels	No	Yes	Yes	Yes	No	Yes	Yes	Yes
County fixed effects	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Additional Census controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Republican share 2012	No	No	Yes	Yes	No	No	Yes	Yes

Table S10: Change in Republican vote share 2012 to 2016 and quartiles of change in Hispanic population, various time intervals

Robust standard errors in parentheses \*\* p<0.01, \* p<0.05

Precinct-level analysis; Weighted to number of votes 2012; Full sample

Note: Dependent variable is change in GOP vote share, 2012 to 2016. Explanatory variables are indicators for quartile of change in population, with lowest quartile excluded category.

# J Results by state

In this section we present results separately by state.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Change in Prop. Hispanic, 2011 to 2016	-0.039* (0.02)	-0.023* (0.01)	-0.041**					
Prop. Hispanic 2011	(0.02)	-0.082** (0.01)	-0.10** (0.01)	-0.10** (0.01)				
Prop. Change in Prop. Hispanic, 2011 to 2016				-0.0020 (0.00)				
Change in Prop. Hispanic, 2000 to 2016					-0.017 (0.01)	0.040** (0.01)	-0.0067 (0.01)	
Prop. Hispanic 2000						-0.089** (0.01)	-0.10** (0.01)	-0.097** (0.01)
Prop. Change in Prop. Hispanic, 2000 to 2016								0.0041** (0.00)
Observations	4,923	4,923	4,923	4,923	4,923	4,923	4,923	4,923
R-squared	0.001	0.689	0.731	0.730	0.000	0.668	0.710	0.711
Control for levels	No	Yes	Yes	Yes	No	Yes	Yes	Yes
County fixed effects	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Additional Census controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Republican share 2012	No	No	Yes	Yes	No	No	Yes	Yes
	Robust sta	indard error	s in parenth	leses				

Table S11: Change in Republican vote share 2012 to 2016 and change in Hispanic population, various time intervals, Florida

\*\* p<0.01, \* p<0.05

Precinct-level analysis; Weighted to number of votes 2012; Full sample; Proportional changes top and bottom coded at 1 and -1

Table S12: Change in Republican vote share 2012 to 2016 and change in Hispanic population, various time intervals, Georgia

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Change in Prop. Hispanic, 2011 to 2016	0.025 (0.05)	-0.065** (0.02)	-0.039					
Prop. Hispanic 2011	(0100)	-0.12**	-0.12**	-0.12**				
Prop. Change in Prop. Hispanic, 2011 to 2016		(0.01)	(0.01)	-0.0014				
Change in Prop. Hispanic, 2000 to 2016				(0.00)	-0.072*	-0.051*	-0.048*	
Prop. Hispanic 2000					(0.04)	-0.12**	-0.13**	-0.15**
Prop. Change in Prop. Hispanic, 2000 to 2016						(0.02)	(0.02)	(0.02) -0.0012 (0.00)
Observations	1,427	1,362	1,362	1,362	1,427	1,427	1,427	1,427
R-squared	0.000	0.790	0.826	0.825	0.003	0.775	0.792	0.791
Control for levels	No	Yes	Yes	Yes	No	Yes	Yes	Yes
County fixed effects	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Additional Census controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Republican share 2012	No	No	Yes	Yes	No	No	Yes	Yes

Robust standard errors in parentheses \*\* p<0.01, \* p<0.05

Precinct-level analysis; Weighted to number of votes 2012; Full sample; Proportional changes top and bottom coded at 1 and -1

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Change in Prop. Hispanic, 2011 to 2016	-0.023 (0.04)	-0.17** (0.03)	-0.17** (0.03)					
Prop. Hispanic 2011	. ,	-0.29**	-0.30**	-0.29**				
Prop. Change in Prop. Hispanic, 2011 to 2016		(0.02)	(0.02)	(0.02) -0.0047** (0.00)				
Change in Prop. Hispanic, 2000 to 2016				()	-0.10*	-0.14**	-0.16**	
Prop. Hispanic 2000 Prop. Change in Prop. Hispanic 2000 to 2016					(0.04)	(0.03) -0.37** (0.03)	(0.03) -0.40** (0.03)	-0.44** (0.03)
Tiop. Change in Tiop. Thispanic, 2000 to 2010								(0.00)
Observations R-squared	3,498 0.000	3,271 0.662	3,271 0,729	3,271 0,727	3,498 0.001	3,498 0.636	3,498 0 709	3,498 0 708
Control for levels	No	Yes	Yes	Yes	No	Yes	Yes	Yes
County fixed effects	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Additional Census controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Republican share 2012	No	No	Yes	Yes	No	No	Yes	Yes
F	Robust sta	andard erro	ors in pare	ntheses				

Table S13: Change in Republican vote share 2012 to 2016 and change in Hispanic population, various time intervals, Michigan

\*\* p<0.01, \* p<0.05

Precinct-level analysis; Weighted to number of votes 2012; Full sample; Proportional changes top and bottom coded at 1 and -1

Note: Dependent variable is change in GOP vote share, 2012 to 2016.

Table S14: Change in Republican vote share 2012 to 2016 and change in Hispanic population, various time intervals, Nevada

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Change in Prop. Hispanic, 2011 to 2016	0.011 (0.02)	-0.065** (0.01)	-0.078** (0.01)					
Prop. Hispanic 2011	. ,	-0.12**	-0.14**	-0.14**				
Prop. Change in Prop. Hispanic, 2011 to 2016		(0.01)	(0.01)	(0.01) -0.011** (0.00)				
Change in Prop. Hispanic, 2000 to 2016				(0100)	0.068**	-0.038**	-0.060**	
Prop. Hispanic 2000					(0.01)	(0.01) -0.12** (0.01)	(0.01) -0.13** (0.02)	-0.14** (0.02)
Prop. Change in Prop. Hispanic, 2000 to 2016						(****)	(0.02)	-0.000051 (0.00)
Observations	1,475	1,445	1,445	1,445	1,475	1,475	1,475	1,475
R-squared	0.000	0.444	0.468	0.465	0.022	0.373	0.396	0.387
Control for levels	No	Yes	Yes	Yes	No	Yes	Yes	Yes
County fixed effects	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Additional Census controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Republican share 2012	No	No	Yes	Yes	No	No	Yes	Yes
	Robust	standard er	rrors in nare	entheses				

\*\* p<0.01, \* p<0.05

Precinct-level analysis; Weighted to number of votes 2012; Full sample; Proportional changes top and bottom coded at 1 and -1

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Change in Prop. Hispanic, 2011 to 2016	-0.076*	-0.10**	-0.17** (0.02)					
Prop. Hispanic 2011	(0.0.1)	-0.086** (0.02)	-0.23** (0.02)	-0.22** (0.02)				
Prop. Change in Prop. Hispanic, 2011 to 2016				-0.0050** (0.00)				
Change in Prop. Hispanic, 2000 to 2016					-0.11** (0.03)	-0.088** (0.03)	-0.17** (0.02)	
Prop. Hispanic 2000						-0.060* (0.02)	-0.25** (0.03)	-0.30** (0.02)
Prop. Change in Prop. Hispanic, 2000 to 2016								-0.0051** (0.00)
Observations	6,719	6,510	6,510	6,510	6,719	6,719	6,719	6,719
R-squared	0.000	0.696	0.778	0.777	0.001	0.690	0.773	0.773
Control for levels	No	Yes	Yes	Yes	No	Yes	Yes	Yes
County fixed effects	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Additional Census controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Republican share 2012	No	No	Yes	Yes	No	No	Yes	Yes
	Robust s	tandard erro	ors in pare	ntheses				

Table S15: Change in Republican vote share 2012 to 2016 and change in Hispanic population, various time intervals, Ohio

\*\* p<0.01, \* p<0.05

Precinct-level analysis; Weighted to number of votes 2012; Full sample; Proportional changes top and bottom coded at 1 and -1

Note: Dependent variable is change in GOP vote share, 2012 to 2016.

Table S16: Change in Republican vote share 2012 to 2016 and change in Hispanic population, various time intervals, Pennsylvania

		(5)	(4)	(3)	(0)	(7)	(8)
Change in Prop. Hispanic, 2011 to 2016 0.0063 - (0.02)	-0.098** (0.01)	-0.13**					
Prop. Hispanic 2011	-0.13** (0.01)	-0.17** (0.01)	-0.18** (0.01)				
Prop. Change in Prop. Hispanic, 2011 to 2016			-0.0052** (0.00)				
Change in Prop. Hispanic, 2000 to 2016				0.029* (0.01)	-0.086** (0.01)	-0.14** (0.01)	
Prop. Hispanic 2000					-0.11** (0.01)	-0.14** (0.01)	-0.16** (0.01)
Prop. Change in Prop. Hispanic, 2000 to 2016							-0.0046** (0.00)
Observations 8,026	8,026	8,026	8,026	8,026	8,026	8,026	8,026
R-squared 0.000	0.697	0.738	0.736	0.000	0.703	0.735	0.729
Control for levels No	Yes	Yes	Yes	No	Yes	Yes	Yes
County fixed effects No	Yes	Yes	Yes	No	Yes	Yes	Yes
Additional Census controls No	Yes	Yes	Yes	No	Yes	Yes	Yes
Republican share 2012 No	No	Yes	Yes	No	No	Yes	Yes

Robust standard errors in parentheses

\*\* p<0.01, \* p<0.05

Precinct-level analysis; Weighted to number of votes 2012; Full sample; Proportional changes top and bottom coded at 1 and -1

Table S17: Change in Republican vote share 2012 to 2016 and change in Hispanic population, various time intervals, Washington

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
0.093**	-0.067**	-0.063**					
(0.02)	(0.01) -0.14**	(0.01) -0.15**	-0.15**				
	(0.01)	(0.01)	-0.0052** (0.00)				
			(0.00)	0.17**	-0.056**	-0.017	
				(0.02)	(0.01) -0.13** (0.01)	(0.01) -0.14** (0.01)	-0.14**
					(0.01)	(0.01)	-0.0016 (0.00)
5 001	5 9 1 5	5 9 1 5	5 9 1 5	5 001	5 001	5 001	5 001
0.004	0.482	0.558	0.558	0.018	0.467	0.527	0.527
No	Yes	Yes	Yes	No	Yes	Yes	Yes
No	Yes	Yes	Yes	No	Yes	Yes	Yes
No	Yes	Yes	Yes	No	Yes	Yes	Yes
No	No	Yes	Yes	No	No	Yes	Yes
	(1) 0.093** (0.02) 5,881 0.004 No No No No	(1) (2) 0.093** -0.067** (0.02) (0.01) -0.14** (0.01) 5,881 5,815 0.004 0.482 No Yes No Yes No Yes No Yes No No	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

Robust standard errors in parentheses \*\* p<0.01, \* p<0.05

Precinct-level analysis; Weighted to number of votes 2012; Full sample; Proportional changes top and bottom coded at 1 and -1

# **K** Model specifications for Figure 2

The numbers along the y-axis of Figure 2 correspond to the following specifications: (1) Bivariate Change, 2000 to 2016; (2) Bivariate Change, 2011 to 2016; (3) Bivariate Proportional Change 2000 to 2016; (4) Bivariate Proportional Change 2011 to 2016; (5) Change 2000 to 2016, Demographics, Levels 2000; (6) Change 2000 to 2016, Demographics, Levels 2000, 2012 GOP Vote Share; (7) Change 2011 to 2016, Demographics, Levels 2011; (8) Change 2011 to 2016, Demographics, Levels 2011, 2012 GOP Vote Share; (9) Changes 2011 to 2016 and 2000 to 2011; (10) Changes 2011 to 2016 and 2000 to 2011, Demographics, Levels 2000; (11) Changes 2011 to 2016 and 2000 to 2011, Demographics, Levels 2000; (11) Changes 2011 to 2016 and 2000 to 2011, Demographics, Levels 2000; (12) Proportional Change 2000 to 2016, Demographics, Levels 2000, 2012 GOP Vote Share; (14) Proportional Change 2011 to 2016, Demographics, Levels 2011; (15) Proportional Change 2011 to 2016 and 2000 to 2011 to 2016 and 2000 to 2011 to 2016 and 2000 to 2011 to 2016, Demographics, Levels 2011; (15) Proportional Change 2011 to 2016 and 2000 to 2011; (16) Proportional Change 2011 to 2016 and 2000 to 2011; (17) Proportional Changes 2011 to 2016 and 2000 to 2011, Demographics, Levels 2000; (18) Proportional Changes 2011 to 2016 and 2000 to 2011, Demographics, Levels 2000; (18) Proportional Changes 2011 to 2016 and 2000 to 2011, Demographics, Levels 2000; (17) Proportional Changes 2011 to 2016 and 2000 to 2011, Demographics, Levels 2000; (18) Proportional Changes 2011 to 2016 and 2000 to 2011, Demographics, Levels 2000; (18) Proportional Changes 2011 to 2016 and 2000 to 2011, Demographics, Levels 2000; (17) Proportional Changes 2011 to 2016 and 2000 to 2011, Demographics, Levels 2000; (18) Proportional Changes 2011 to 2016 and 2000 to 2011, Demographics, Levels 2000; (18) Proportional Changes 2011 to 2016 and 2000 to 2011, Demographics, Levels 2000; (18) Proportional Changes 2011 to 2016 and 2000 to 2011, Demographics, Levels 2000; (18) Proportional Changes 2011 to 2016 an

# References

- Autor, David, David Dorn, and Gordon Hanson. 2018. "When Work Disappears: Manufacturing Decline and the Falling Marriage Market Value of Young Men." *American Economic Review: Insights* Forthcoming.
- Dancygier, Rafaela. 2010. *Immigration and Conflict in Europe*. Princeton, NJ: Princeton University Press.

Eatwell, Roger, and M Goodwin. 2018. National Populism. London: Pelican Books.