

Supplement to:

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Online Supplement

The Effect of the Texas Migrant Busing Program on the 2024 U.S. Presidential Election

William Scarborough¹, Ronald Kwon¹, David Brady²

Corresponding Author: William Scarborough
Email: William.Scarborough@unt.edu

Reproducibility Package: Replication code for this article can be accessed here:
https://osf.io/xfsk6/overview?view_only=bfada169cd534edebc22fea0edb56064

This file includes the following sections:

- A. Robustness Tests
- B. Plausibility of the Parallel Trends Assumption
- C. Tests of Mediation, Migrant Busing Destination Status and Political Concerns

¹University of North Texas, Department of Sociology

²Department of Public Policy and Management, University of Southern California

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A. Robustness Tests

Our results reported in the main text show that Trump's share of the 2024 vote increased by more than three percentage points in counties that received migrant buses chartered by the state of Texas. Here, we test the robustness of these findings across different model specifications. Table A1 reports the results of seven models with different robustness tests. Each coefficient in the table was derived from an independent model with the sample indicated in the row and the model indicated by the column.

The first two models apply a traditional difference-in-difference model, one unconditional and the other with controls. In these relaxed models, treatment effects of the busing initiative on Trump's share of the vote are larger than those observed in the two-way fixed effects models presented in the main text, reporting an increase of between 3.8 and 5.7 percentage points in Trump's share of the 2024 vote ($p < 0.001$).

The third model in Table A1 tests whether our findings are consistent if we exclude Los Angeles and Philadelphia—two locations that received fewer migrant buses than other destinations. When these locations are omitted, the estimated impact of the busing program increases and suggests that counties receiving migrant buses had an increase of nearly five percentage points in Trump's share of the vote ($p < 0.001$).

The fourth model limits our samples to only 2020 and 2024 election years. Under this condition, we continue to find that the busing program predicted an increase of about 2 percentage points in Trump's share of the presidential vote across the three analytic samples ($p < 0.001$).

The fifth model uses data from Goodman and colleagues (Goodman et al. 2024) to construct a continuous treatment variable measuring the logged number of immigrants received through the busing program. Under this operationalization, we again see that places receiving migrant buses reported an increase in Trump's share of the 2024 vote ($p < 0.001$). Findings from this model further suggest that the effect was even greater in places that received a larger number of migrants.

Model 6 reports results when weights are removed. Under this condition, the treatment effect is greater than that reported in the main text and remains significant ($p < 0.001$). The seventh model tests the robustness of our findings when we add additional controls for the population and percent of residents who are immigrants. Consistent with prior research (Hill et al. 2019), the effects of these additional controls are null and suggest that demographic shifts alone do not shape voting behavior. Yet, the effect of the busing program persists in this model—places receiving migrant buses had an increase of over 3 percentage points in Trump's share of the 2024 vote ($p < 0.001$). This suggests that the effects of the busing program are driven by its media coverage and attention from politicians rather than direct demographic shifts or contact.

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Table A1. Robustness Tests: Results of Two-Way Fixed Effects Models Across Specifications.

	Percent Voting for Trump						
	1	2	3	4	5	6	7
	DiD, No Controls	DiD + Controls	Excluding Los Angeles and Philadelphia	Years 2020 and 2024 only	Continuous treatment measure	Unweighted	Added controls for population and percent immigrant
Full Sample							
Received Migrant Buses	4.650*** (0.834)	5.411*** (0.958)	4.689*** (1.037)	2.034*** (0.463)	0.396*** (0.069)	5.050*** (1.257)	3.319*** (0.681)
Urban Counties							
Received Migrant Buses	4.050*** (0.889)	3.784*** (1.115)	4.324** (1.348)	1.841*** (0.506)	0.360*** (0.091)	3.673** (1.212)	3.186*** (0.804)
Counties in States that Received Buses							
Received Migrant Buses	4.783*** (0.847)	5.638*** (1.044)	4.806*** (1.099)	2.189*** (0.445)	0.416*** (0.074)	5.055*** (1.265)	3.723*** (0.707)

Note. Coefficients derived from independent models by each sample reported in the row across specifications noted in the columns. Columns 3 through 7 include fixed effects for state-year and county. Columns 2 through 7 include time-variant controls for logged population of voting-age residents, racial composition (percent white), percent with a high school education or less, percent aged 65 or more, and the inflation-adjusted logged median household income. Results in column 7 add controls for logged population immigrant and percent immigrant. Standard errors clustered by county in all models. State-year fixed effects account for distinct time trends by state. Standard errors in parentheses. *p < 0.05; **p < 0.01; ***p < 0.001 (two-tailed tests).

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Table A2 provides another set of robustness tests that examine whether our results hold when we analyze independent samples of counties with varying populations. Model 1 reports results from the full sample for comparison. Models 2 through 6 restrict our sample to counties with populations of more than 100,000 (model 2), 250,000 (model 3), 500,000 (model 4), 750,000 (model 5), and one million (model 6). Across all models, our key findings are robust: Trump’s share of the presidential vote increased by 2.6 to 3.5 percentage points in counties that received migrant buses ($p < 0.05$).

Table A2. Robustness Tests: Results of Two-Way Fixed Effect (TWFEs) Models by County Population

	Percent Voting for Trump					
	1	2	3	4	5	6
	Full Sample	Population Greater than 100,000	Population Greater than 250,000	Population Greater than 500,000	Population Greater than 750,000	Population Greater than 1,000,000
Received Migrant Buses Leading Up to 2024 Election	3.437*** (0.661)	3.315*** (0.663)	3.246*** (0.692)	3.049*** (0.827)	3.061** (1.066)	2.659* (1.273)
Population of Voting-Age Residents (logged)	-24.951*** (2.185)	-23.512*** (3.219)	-22.331*** (4.613)	-24.259** (7.996)	-25.807* (11.545)	-43.551* (18.658)
Percent White	-0.265*** (0.040)	-0.309*** (0.040)	-0.328*** (0.044)	-0.357*** (0.057)	-0.364*** (0.074)	-0.244* (0.112)
Percent with High School or Less Education	0.015 (0.037)	0.153 (0.096)	0.265 (0.165)	0.245 (0.276)	0.115 (0.427)	0.383 (0.657)
Percent above age 65	-0.181 (0.095)	0.104 (0.182)	0.143 (0.301)	0.366 (0.586)	0.649 (0.961)	0.231 (1.659)
Median Household Income (logged)	8.841*** (1.682)	17.015*** (3.374)	22.870*** (4.569)	28.138*** (6.641)	28.909*** (8.206)	31.472 (17.311)
Constant	284.166*** (25.204)	175.127*** (41.918)	93.581 (62.025)	63.688 (102.442)	81.252 (142.044)	303.190 (246.575)
Fixed Effects	State-Year, County	State-Year, County	State-Year, County	State-Year, County	State-Year, County	State-Year, County
N, County-Years	9303	1803	828	420	258	144
R ²	0.995	0.994	0.992	0.992	0.991	0.992

Note. Standard errors clustered by county in all models. State-year fixed effects account for distinct time trends by state. Standard errors in parentheses. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (two-tailed tests).

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As a final robustness test, we explored whether our results were sensitive to the omission of any treated location. In this sensitivity check, we re-applied our model six times, omitting one of the six locations receiving migrant buses in each application. These analyses allow us to determine whether our key findings were driven by particularly strong effects of a single case.

Results of the sensitivity check are reported in Table A3. Each coefficient in the table was derived from an independent model with the sample indicated in the row and the omitted case indicated by the column. Key findings are robust. Trump received an additional 2.0 to 4.3 percentage points of the vote in counties that received migrant buses ($p < 0.001$) regardless of which treatment location was omitted from the analysis.

Table A3. Robustness Tests: Sensitivity of Two-Way Fixed Effects Models to Omission of Single Treatment Case

	Percent Voting for Trump					
	1	2	3	4	5	6
	Omitting Chicago	Omitting Denver	Omitting Los Angeles	Omitting New York City	Omitting Philadelphia	Omitting Washington, D.C.
Full Sample						
Received Migrant Buses (Treatment Effect)	3.614*** (0.825)	3.550*** (0.696)	4.259*** (0.943)	2.261*** (0.310)	3.600*** (0.728)	3.437*** (0.661)
Urban Counties						
Received Migrant Buses (Treatment Effect)	3.168** (0.946)	3.131*** (0.850)	3.851** (1.241)	2.072*** (0.604)	3.210*** (0.882)	3.049*** (0.824)
Counties in States that Received Buses						
Received Migrant Buses (Treatment Effect)	3.841*** (0.848)	3.668*** (0.716)	4.342*** (1.042)	2.586*** (0.327)	3.812*** (0.736)	3.668*** (0.714)

Note. Coefficients derived from independent models by each sample reported in the row across specifications noted in the columns. All models include fixed effects for state-year and county, as well as time-variant controls for logged population of voting-age residents, racial composition (percent white), percent with a high school education or less, percent aged 65 or more, and the inflation-adjusted logged median household income. Sample for counties in states that received buses also omit state associated with omitted treatment site. Standard errors clustered by county in all models. State-year fixed effects account for distinct time trends by state. Standard errors in parentheses. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (two-tailed tests).

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B. Plausibility of the Parallel Trends Assumption

Our two-way fixed effects models reported in Table 1 of the main text assume that treatment (busing destination) and control (non-destination) counties would have similar voting trends over time if not for the impact of the Texas busing program. We explore this parallel trends assumption in a set of models reported in Table B1.

We test whether treatment and control counties held parallel trends in the years prior to the treatment. Because the migrant busing program started in 2022, we omit the 2024 election from these models and include presidential elections from 2012 through 2020. We examine parallel trends during this period by interacting the linear year trend with treatment group. The interaction coefficient tests the null hypothesis that treatment and control counties held parallel voting trends from 2012 through 2020. We conduct three county-level fixed effects models for each analytic sample. In each model, we find that the interaction term is non-significant, indicating that trends were not significantly different between treatment and control counties in elections prior to the start of the Texas busing program. These findings support the plausibility of the parallel trends assumption.

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Table B1. Analysis of Pre-Treatment Trends to Explore Plausibility of Parallel Trends

	Percent Voting for Republican Presidential Candidate		
	1	2	3
	Full Sample	Urban Counties	Counties in States that Received Buses
Linear Year Trend, 2012-2020	-0.092 (0.092)	-1.219*** (0.282)	-0.127 (0.160)
Linear Year Trend * Treatment Group	-0.053 (0.150)	0.326 (0.167)	0.162 (0.161)
Population of Voting-Age Residents (logged)	-47.773*** (2.790)	-32.013*** (5.317)	-59.778*** (6.150)
Percent White	-0.079 (0.089)	-0.619*** (0.140)	-0.030 (0.087)
Percent with High School or Less Education	-0.442*** (0.072)	-1.298*** (0.284)	-0.333* (0.153)
Percent above age 65	0.430* (0.170)	0.311 (0.600)	0.070 (0.242)
Median Household Income (2024 USD, logged)	3.603 (2.110)	1.450 (4.022)	8.673* (4.128)
Constant	626.766*** (38.966)	554.700*** (87.301)	750.906*** (95.865)
Fixed Effects	County	County	County
N, County-Years	9308	420	1533
R ²	0.975	0.969	0.982

Note. Main effects of treatment group are not identified because fixed effects for county are included in all models. Standard errors clustered by county in all models and reported in parentheses. *p < 0.05; **p < 0.01; ***p < 0.001 (two-tailed tests).

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C. Tests of Mediation, Migrant Busing Destination Status and Political Concerns

In the main text, we focused on whether the relationship of political concerns to voting behavior was stronger among residents of places that received migrant buses. It is also possible that the busing program raised the importance of some political issues over others. Table C1 reports the percentage of respondents across our three analytic samples reporting each political concern as the most important in the 2024 election by their residence in a busing destination.

Across all three subsamples, there were no differences in the percentage of respondents who felt that economic concerns were the most important political issue. In our samples used to examine potential swing voters and Democratic turnout, residents of destination areas were more likely to express concerns toward immigration. With one exception, there were no differences in the share of respondents concerned about crime. Only in the sample of potential swing voters were respondents residing in busing destinations more likely to express concerns with crime than those in non-destination areas. There were no significant differences in the share of respondents reporting other political concerns across the samples.

Table C1. Percentage of Respondents Reporting Each Issue as the Most Important in the 2024 Election by Busing Destination Status

	Did not Receive Migrant Buses	Received Migrant Buses	Significant difference, did not receive and received buses?
<i>Potential Swing Voters: Former Biden Voters in 2020, N=14,234</i>			
Economy	31.5%	30.5%	No
Immigration	4.9%	6.5%	Yes
Crime	4.7%	6.3%	Yes
Other	58.9%	56.6%	No
<i>Republican Turnout in 2024 Among Prior Non-voters: Republican respondents not voting in 2020, N=1,927</i>			
Economy	40.2%	38.0%	No
Immigration	20.4%	22.6%	No
Crime	8.0%	10.0%	No
Other	31.3%	29.4%	No
<i>Democrat Turnout in 2024 Among Prior Voters: Democrat respondents who voted in 2020, N=11,596</i>			
Economy	31.6%	30.6%	No
Immigration	4.9%	7.2%	Yes
Crime	5.8%	6.6%	No
Other	57.7%	55.6%	No

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We tested whether these descriptive differences in political concerns accounted for the observed effects of residing in a busing destination on political behavior with a set of hierarchical regression models designed to test for mediation. We first predicted each outcome with busing destination status and controls. In a second model, we added measures for political concerns over the economy, crime, and immigration. Following best practices (Long and Mustillo 2021; Mood 2010), we tested differences in the average marginal effects of busing destination status between the two models to identify whether the increased rate of concerns over crime and immigration, observed in some of our subsamples reported in Table C1, accounted for the effects of residing in a busing destination. Results of these analyses are reported in Table C2.

Our results indicate that rates of political concerns did not account for the effects of residing in a busing destination on political behavior. Panel A in Table C2 examines our sample of potential swing voters and finds a non-significant reduction of about 25% in the marginal effects of residing in a busing destination on voting for Trump when accounting for respondents' political concerns. Panels B and C show an even smaller and non-significant reduction in the marginal effects of residing in a destination area on voting in 2024 with the addition of variables measuring respondents' political concerns.

In summary, Table C2 shows that Trump's heightened support in destination areas was not driven by more residents feeling that certain political issues were the most important in 2024. Instead, as reported in the main text (Table 2), the effect of busing destination status was driven by an intensification of the relationship between immigration, crime, and voting behavior.

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Table C2. Testing for Mediation of Busing Destination Status by Political Concerns: Marginal Effects of Busing Destination on Probability of Supporting Trump in 2024 Election

	Model 1: Busing Destination Status + Controls	Model 2: Busing Destination Status + Controls + Political Concerns	Significant difference, model 1 and model 2?
<i>A. Potential Swing Voters: Respondents Voting for Trump in 2024 after voting for Biden in 2020</i>			
Received Migrant Buses	0.012** (0.004)	0.009* (0.004)	No
Political Concerns (ref. = Other concerns)			
Economic Concerns		0.036*** (0.004)	
Immigration Concerns		0.138*** (0.013)	
Crime Concerns		0.041** (0.013)	
<i>B. Republican Turnout in 2024 Among Prior Non-voters: Republican respondents voting in 2024 after not voting in 2020</i>			
Received Migrant Buses	0.106*** (0.032)	0.100** (0.032)	No
Political Concerns (ref. = Other concerns)			
Economic Concerns		0.059* (0.030)	
Immigration Concerns		0.110** (0.040)	
Crime Concerns		-0.044 (0.039)	
<i>C. Democrat Turnout in 2024 Among Prior Voters: Democrat respondents voting in 2024 after voting in 2020</i>			
Received Migrant Buses	-0.010 (0.008)	-0.009 (0.008)	No
Political Concerns (ref. = Other concerns)			
Economic Concerns		-0.004 (0.006)	
Immigration Concerns		-0.035 (0.023)	
Crime Concerns		-0.021 (0.020)	

Note: Marginal effects calculated from hierarchical logistic regression models with random intercept by state. Controls include gender, race, education, age, income, political ideology, and religion. Standard errors in parentheses. *p < 0.05, **p < 0.01, ***p < 0.001.

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