

THE MOSQUE NEARBY

VISIBLE MINORITIES AND FAR-RIGHT SUPPORT IN FRANCE

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Online Appendix

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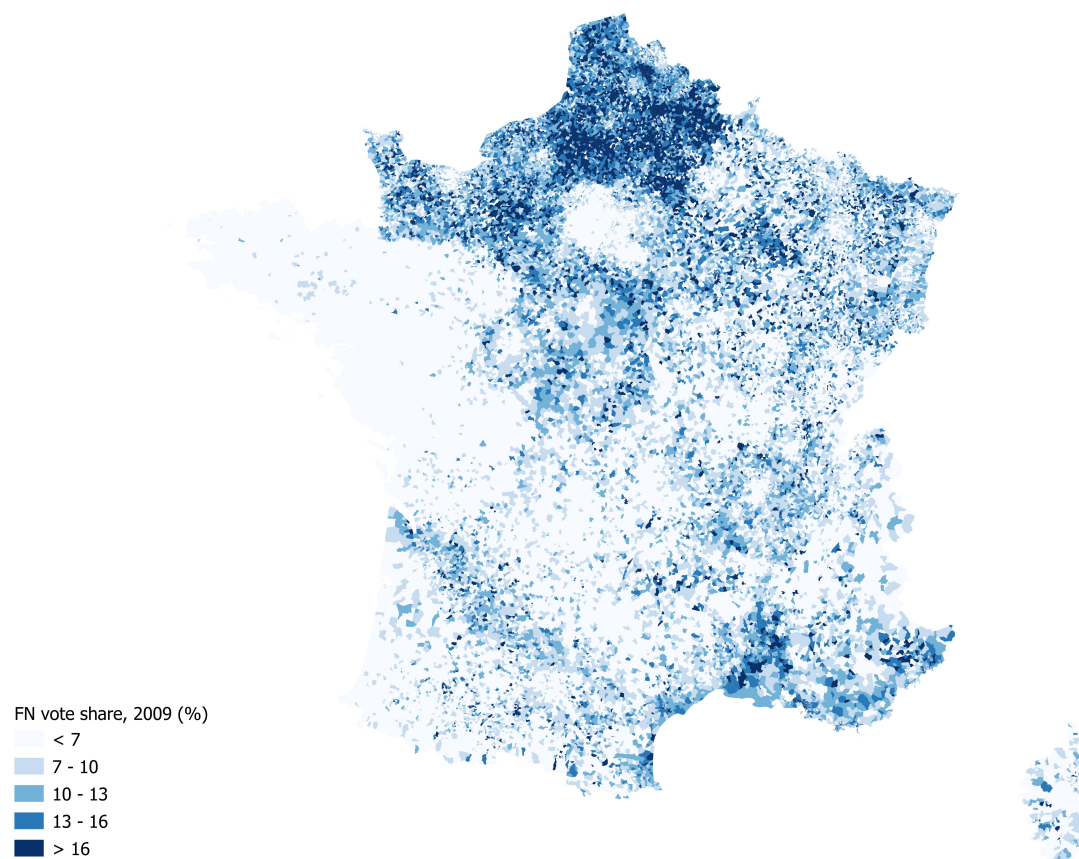


Figure A.1. Front National Vote Share, European Elections 2009 (%)

Notes. This figure displays the vote share of the Front National in the 2009 European elections at the level of the 50,397 polling stations for which this information is available in the CARTELEC database (Jadot et al., 2010; Beauguitte and Colange, 2013). Discontinuities on the map correspond to limits of electoral constituencies with different sets of candidates.

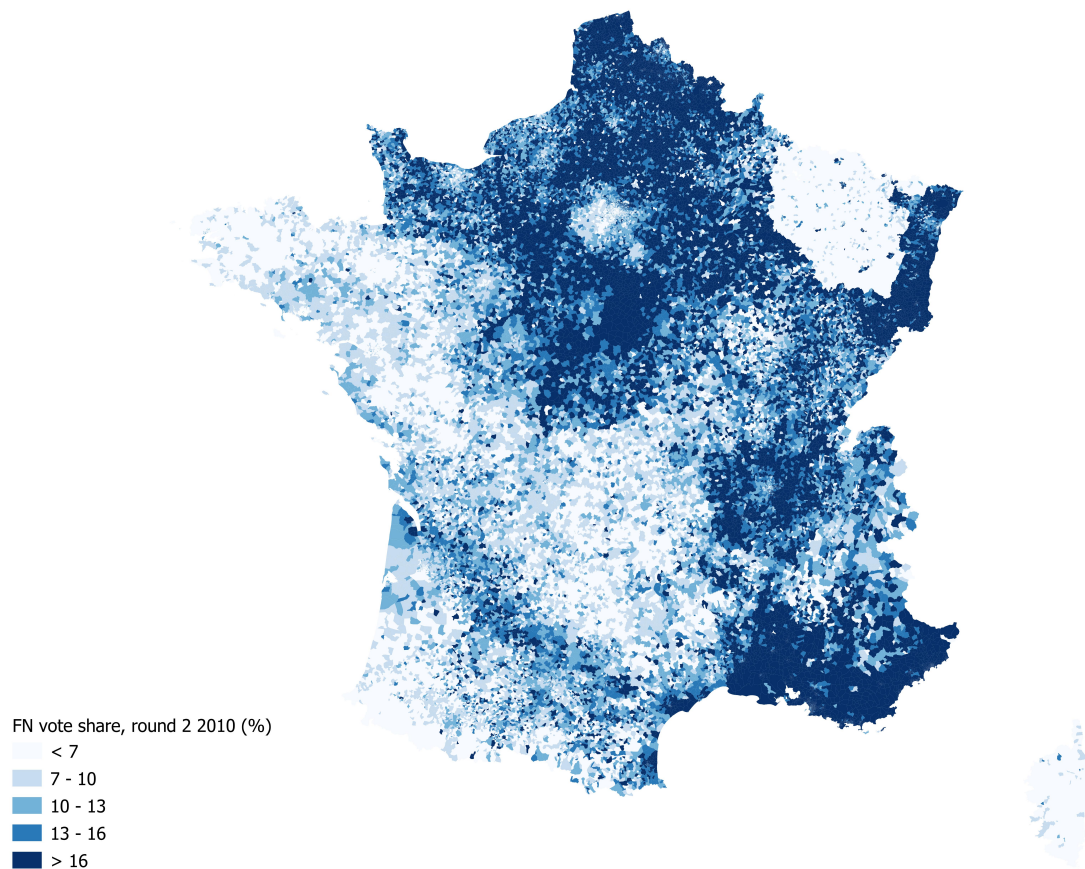


Figure A.2. Front National Vote Share, Regional Elections 2010 (%)

Notes. This figure displays the vote share of the Front National in the first round of the 2010 regional elections at the level of the 50,477 polling stations for which this information is available in the CARTELEC database (Jadot et al., 2010; Beauguitte and Colange, 2013). Discontinuities on the map correspond to limits of electoral constituencies with different sets of candidates.

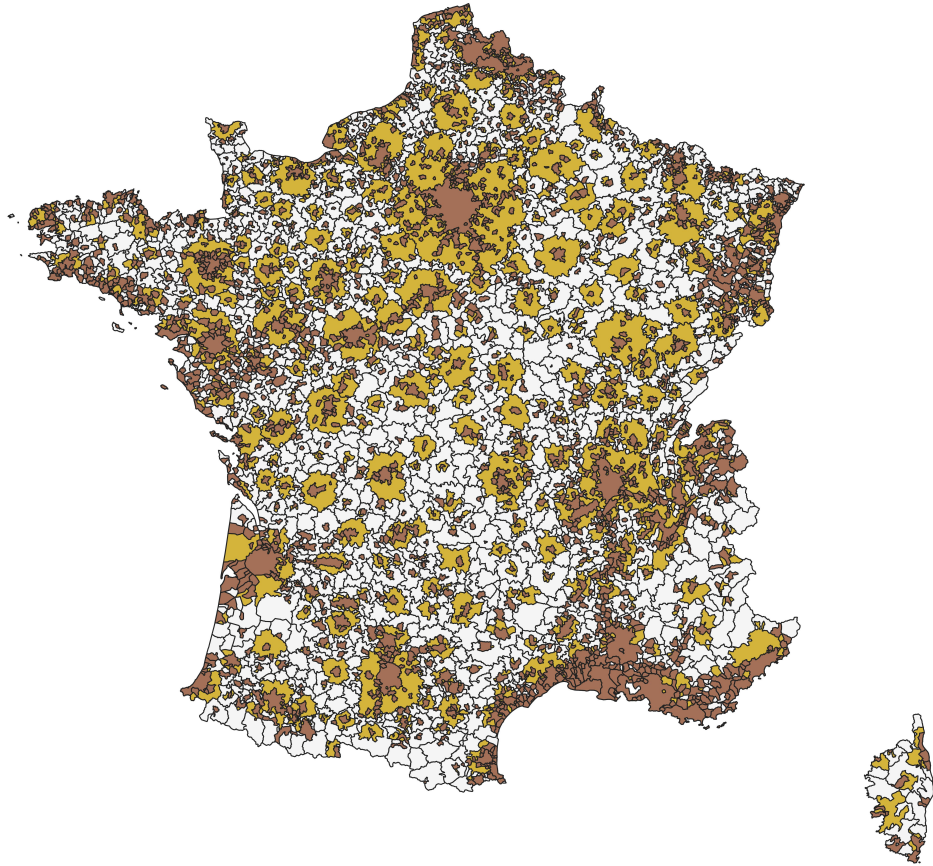
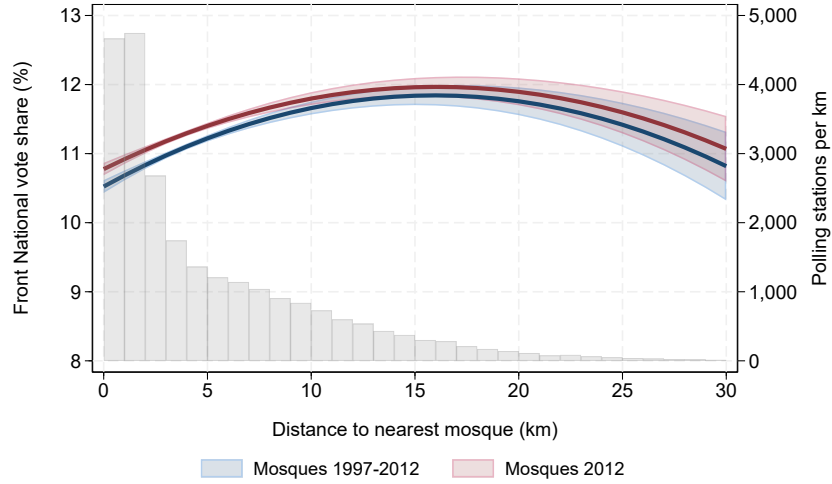
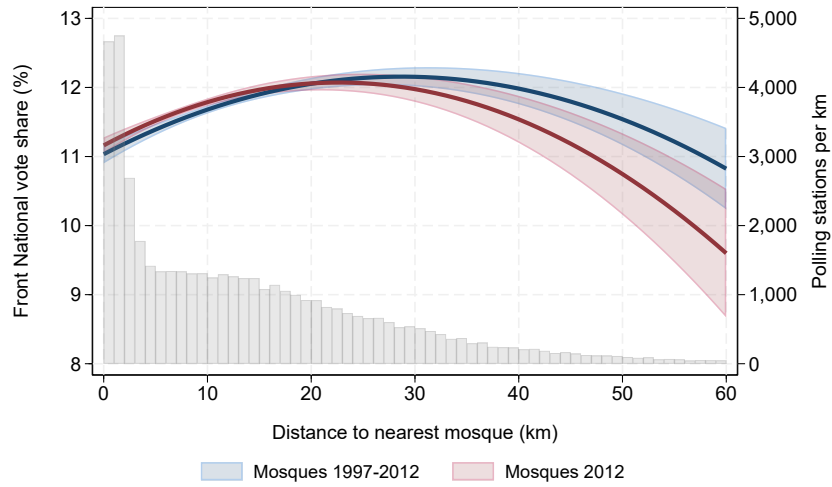


Figure A.3. Statistical Zoning into Life Basins, Urban Areas, and Urban Units

Notes. This figure displays the distribution of life basins (back lines), urban areas (yellow zones), and urban units (brown zones). Rural areas implicitly correspond to white zones. See Section III.C. for a description of data sources.



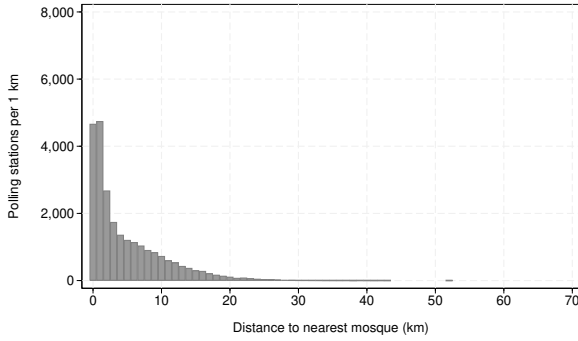
(a) Mosques in Life Basins



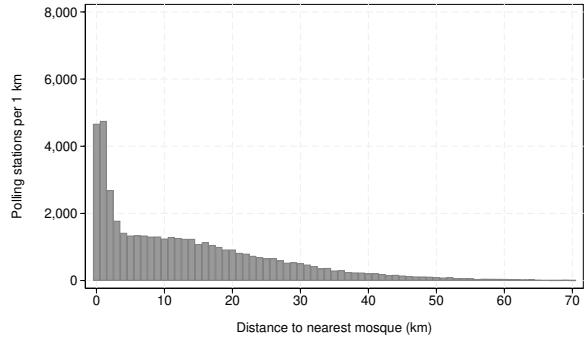
(b) All Mosques

Figure A.4. Predicted Front National Vote Shares Across Distance and Samples

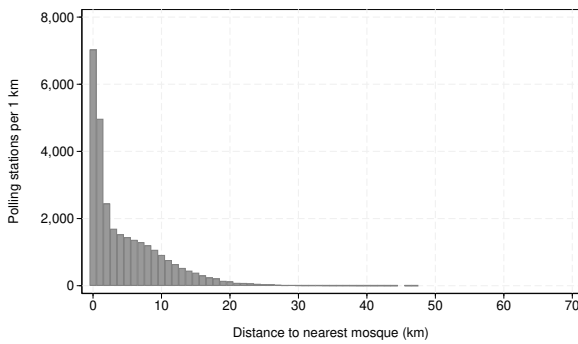
Notes. This figure displays the predicted Front National vote shares with estimates from Table A.2 across distances to the nearest mosque. Panel (a) uses estimates from Columns (1) and (3), and Panel (b), estimates from Columns (2) and (4). Polling station densities correspond to those relative to the 1997–2012 matched file. These predictions are generated using Winter’s (2021 [2014]) `combomarginsplot` Stata package.



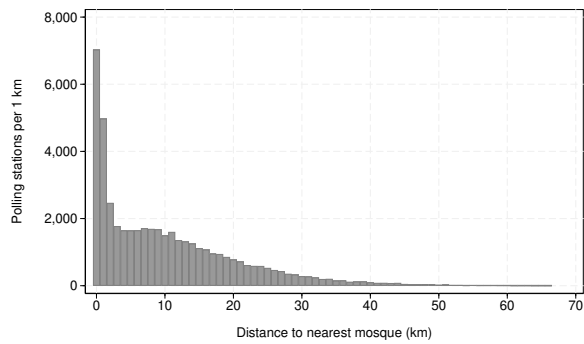
(a) Mosques 1997–2012 in Life Basins



(b) All Mosques 1997–2012



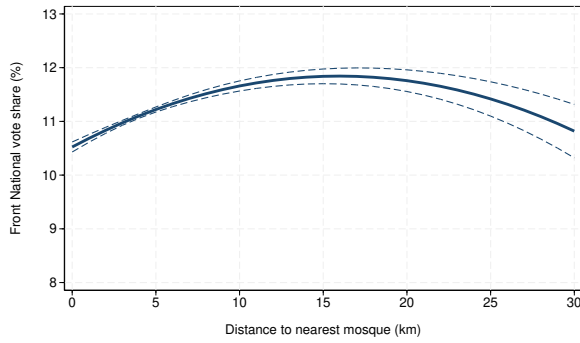
(c) Mosques 2012 in Life Basins



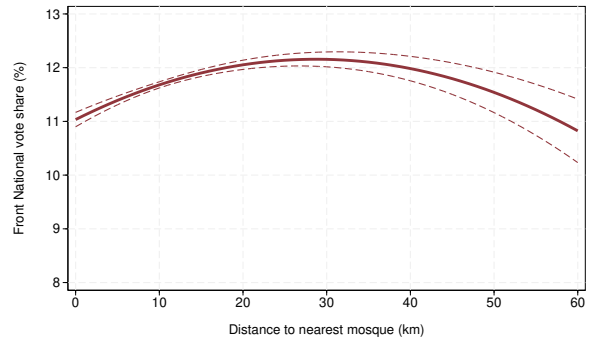
(d) All Mosques 2012

Figure A.5. Polling Station Density by Distance to Nearest Mosque

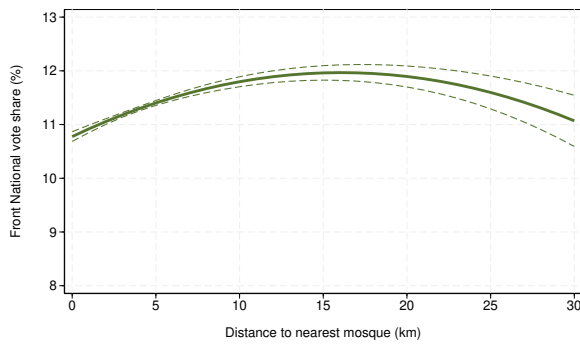
Notes. This figure displays density of polling stations across various samples by bins of distance to their nearest mosque. Panels (a) and (c) focus on the samples of polling stations located in life basins where at least one mosque is present, while Panels (b) and (d) focus on the sample of all polling stations.



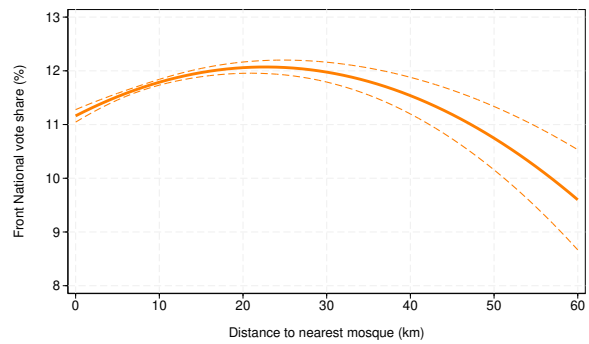
(a) Mosques 1997–2012 in Life Basins



(b) All Mosques 1997–2012



(c) Mosques 2012 in Life Basins



(d) All Mosques 2012

Figure A.6. Predicted Front National Vote Shares Across Distance and Samples

Notes. This figure displays the mean prediction of Front National vote shares using estimates from Table A.2 across distances to the nearest mosque along with 95 percent confidence intervals. These predictions are generated using Winter's (2021 [2014]) `combomarginsplot` Stata package.

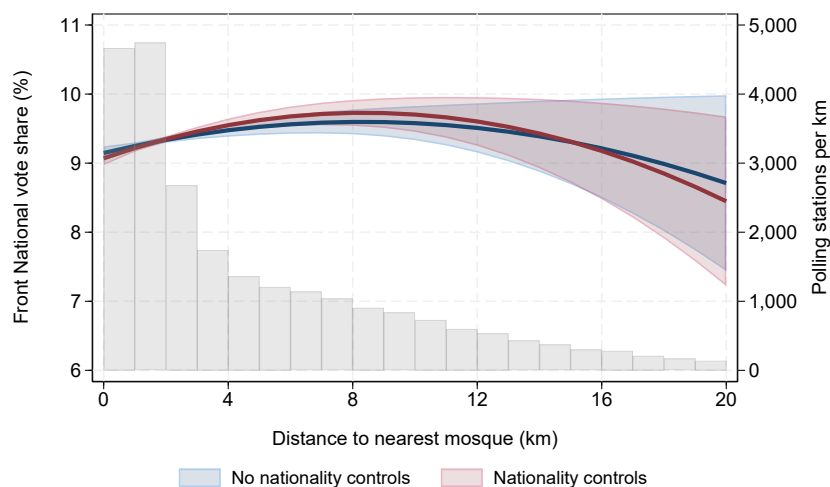


Figure A.7. Predicted Front National Vote Shares Across Distance Nationality Controls

Notes. This figure displays the mean prediction of Front National vote shares using estimates from Table A.4 across distances to the nearest mosque along with 95 percent confidence intervals. The blue curve uses estimates from Column (2) and the red curve uses estimates from Column (4). These predictions are generated using Winter’s (2021 [2014]) `combomarginsplot` Stata package.

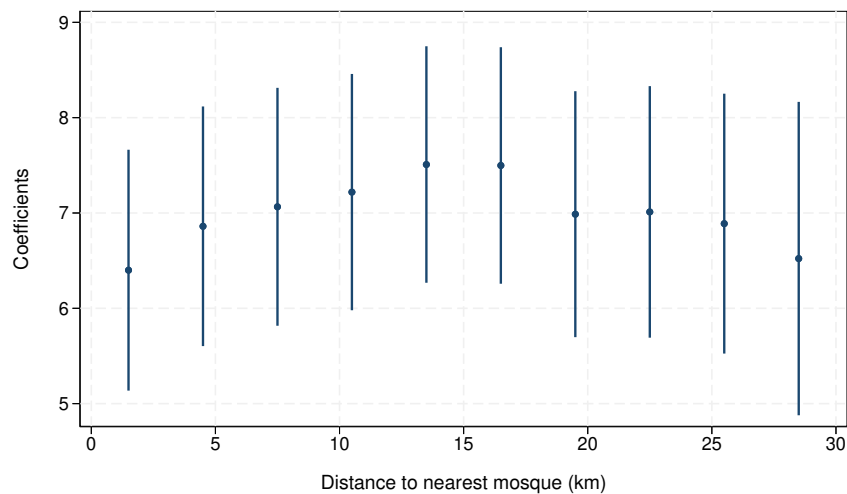


Figure A.8. Distance-Specific Coefficients of the Relationship between Front National Vote Shares and Distance to Nearest Mosque

Notes. This figure displays the bin-specific coefficients from estimating Equation 3 along with 95 percent confidence intervals. Estimates are calculated using Correia’s (2023 [2014]) `reghdfe` Stata package.

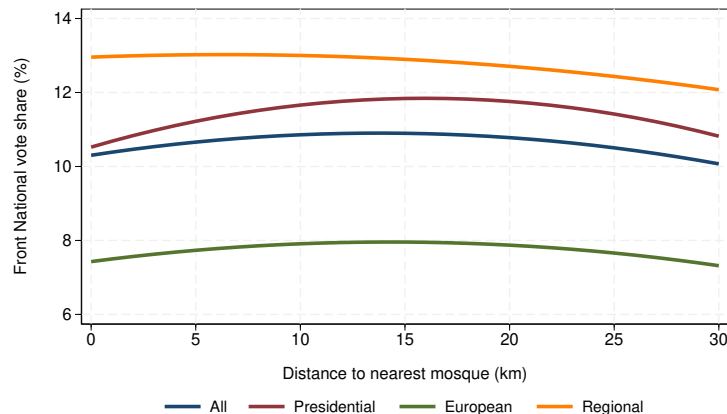
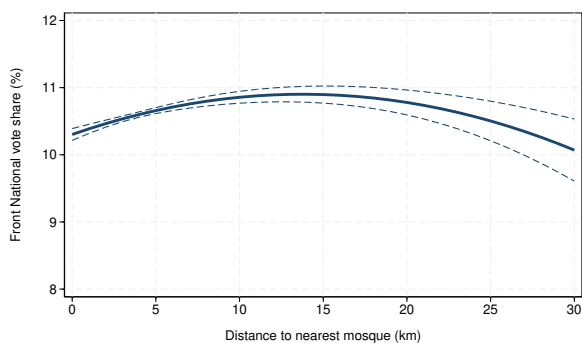
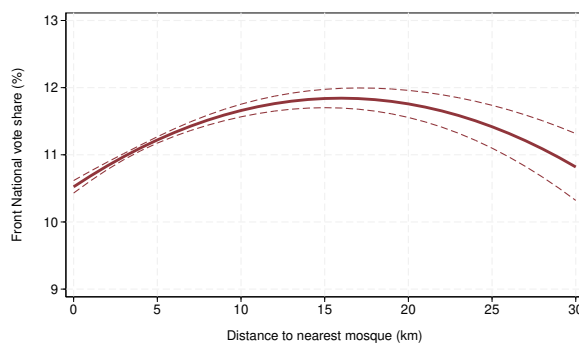


Figure A.9. Predicted Front National Vote Shares Across Distance and Elections

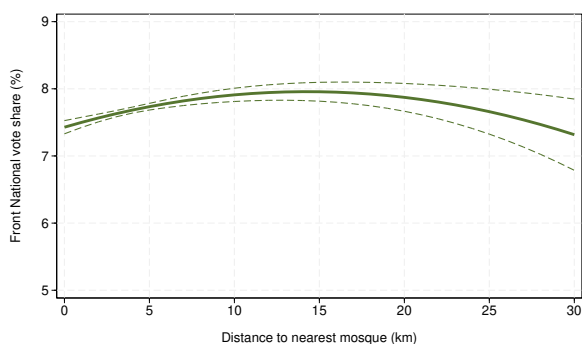
Notes. This figure displays the mean prediction of Front National vote shares using estimates from Table 5 across distances to the nearest mosque. These predictions are generated using Winter's (2021 [2014]) `combomarginsplot` Stata package.



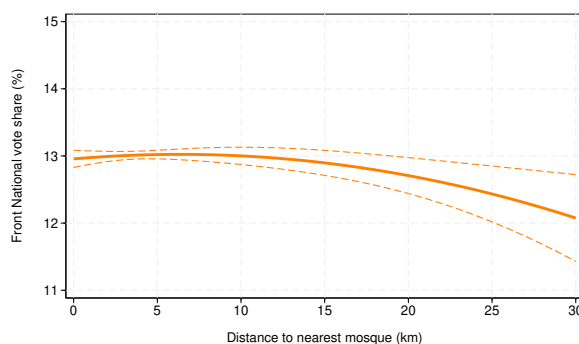
(a) All Elections



(b) Presidential Election 2007



(c) European Elections 2009



(d) Regional Elections 2010

Figure A.10. Predicted Front National Vote Shares Across Distance and Elections

Notes. This figure displays the mean prediction of Front National vote shares using estimates from Table 5 across distances to the nearest mosque along with 95 percent confidence intervals. These predictions are generated using Winter's (2021 [2014]) `combomarginsplot` Stata package.

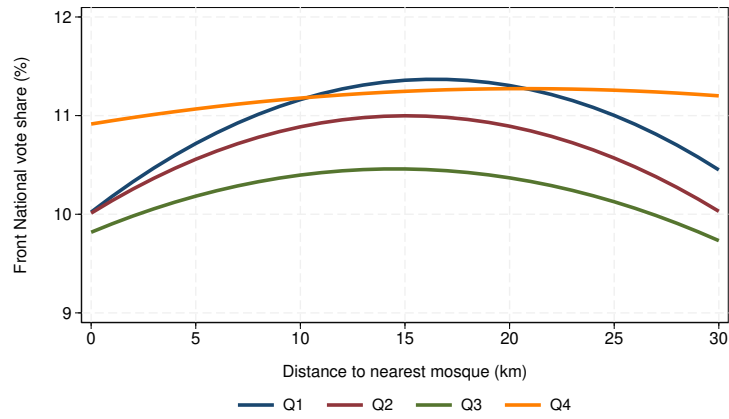


Figure A.11. Predicted Front National Vote Shares Across Distance and Quartiles of Abstention Rates

Notes. This figure displays the mean prediction of Front National vote shares using estimates from Table A.5 across distances to the nearest mosque. These predictions are generated using Winter's (2021 [2014]) `combomarginsplot` Stata package.

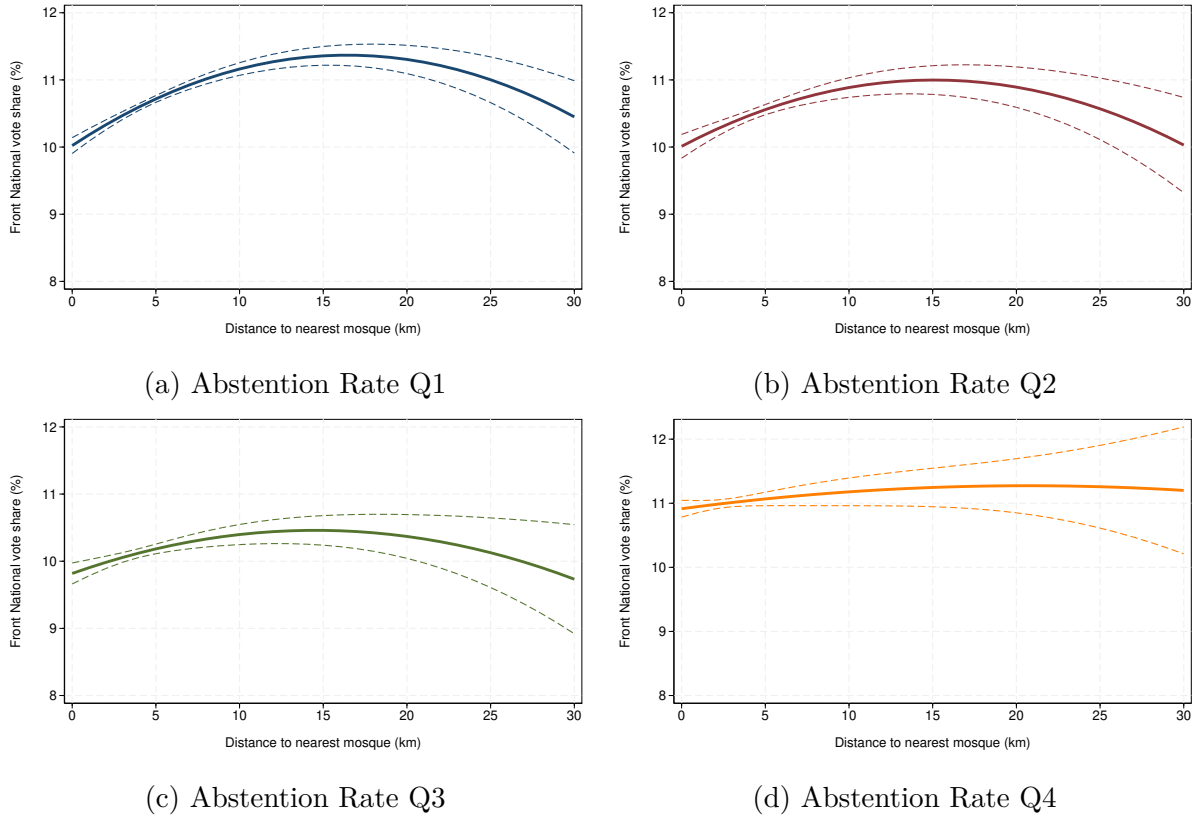


Figure A.12. Predicted Front National Vote Shares Across Distance and Quartiles of Abstention Rates

Notes. This figure displays the mean prediction of Front National vote shares using estimates from Table A.5 across distances to the nearest mosque along with 95 percent confidence intervals. These predictions are generated using Winter's (2021 [2014]) `combomarginsplot` Stata package.

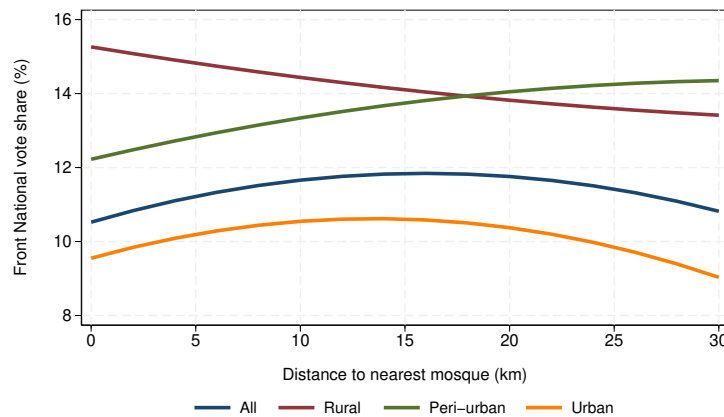


Figure A.13. Predicted Front National Vote Shares Across Distance and Zoning

Notes. This figure displays the mean prediction of Front National vote shares using estimates from Table 6 across distances to the nearest mosque. These predictions are generated using Winter's (2021 [2014]) `combomarginsplot` Stata package.

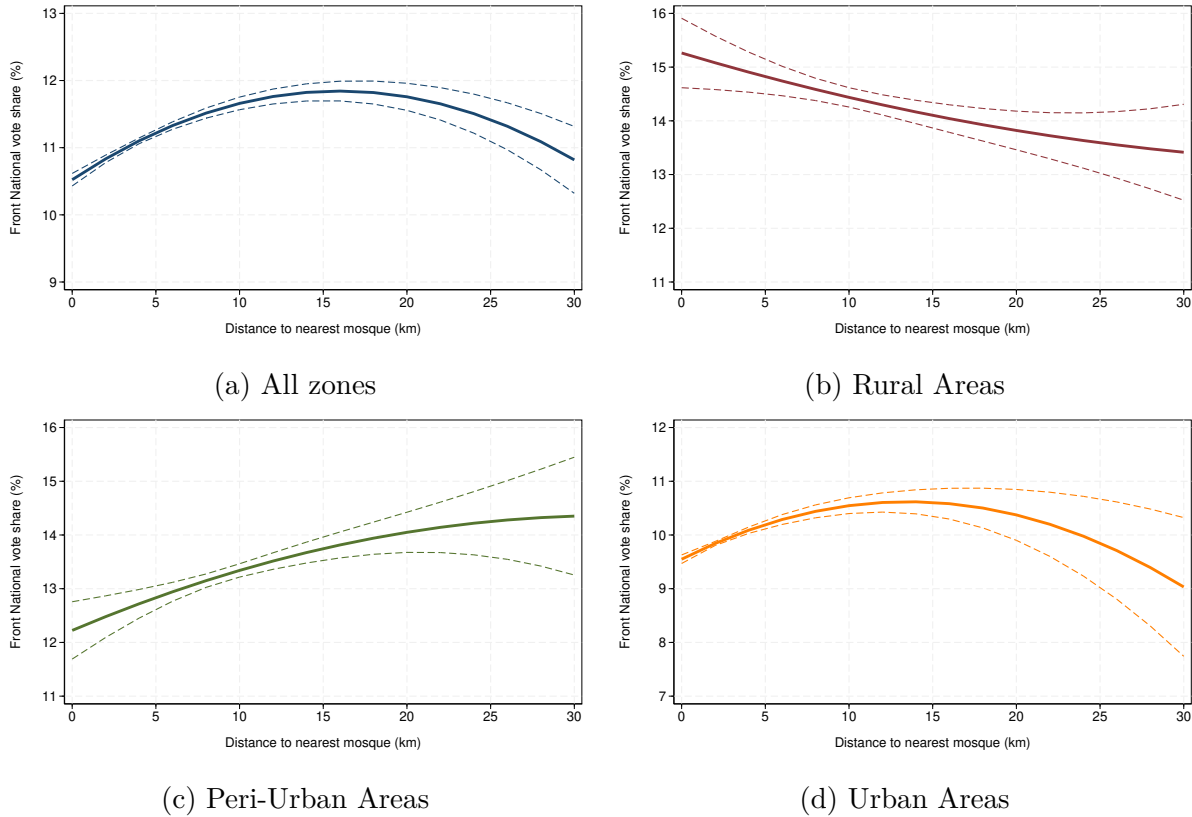


Figure A.14. Predicted Front National Vote Shares Across Distance and Zoning

Notes. This figure displays the mean prediction of Front National vote shares using estimates from Table 6 across distances to the nearest mosque along with 95 percent confidence intervals. These predictions are generated using Winter’s (2021 [2014]) `combomarginsplot` Stata package.

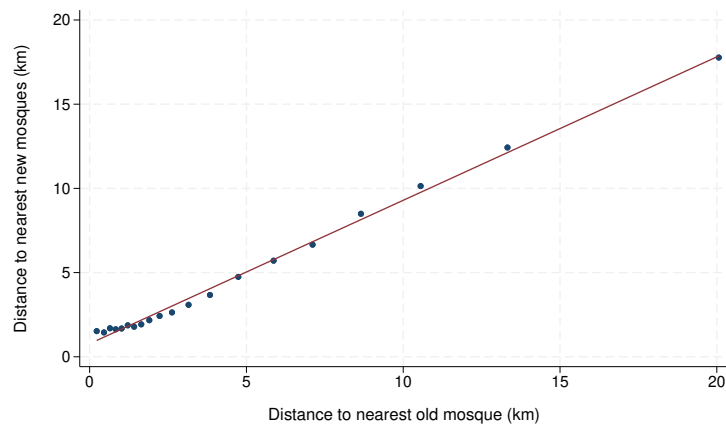


Figure A.15. Distance to Old versus New Mosques

Notes. This figure plots the distance to the nearest old mosque versus the distance to the nearest new mosque by bins of distance using Pinna’s (2021) Stata `binscatterhist` package (Pinna, 2022). The coefficient of the linear fit is 0.85.

Table A.1. Vote Share for the Front National and Distance to Nearest Mosque
Robustness of Standard Errors

Dependent variable:	Front National vote share (%)					
	A. Clustering			B. Spatial correlation		
	Polling station	Nearest mosque	Life basin	30 km	4 years	30 km & 4 years
	(1)	(2)	(3)	(4)	(5)	(6)
Distance to nearest mosque (km) ($\hat{\beta}_1 = 0.166$)	0.013	0.019	0.021	0.019	0.013	0.019
Distance to nearest mosque (km) ($\hat{\beta}_2 = -0.005$)	0.001	0.001	0.001	0.001	0.001	0.001
Controls	Yes	Yes	Yes	Yes	Yes	Yes
<u>Fixed effects</u>						
Life basins	337	337	337	337	337	337
Nearest mosque	1,037	1,037	1,037	1,037	1,037	1,037
Clusters	24,698	1,037	337			
Polling stations	24,698	24,698	24,698	24,698	24,698	24,698

Notes. This table reports standard errors associated with OLS coefficients from estimating Specification 2. The dependent variable is the vote share of the Front national in percent. The unit of observation is the polling station. The distance measure is with respect to the nearest mosque located in the same life basin as the polling station. Controls include the polling station's share of foreign population, log population, area, average age, unemployment rate, the share of population with no diploma, and the share of population living in HLM. *Clustering* corresponds to standard errors being clustered at the levels of polling stations (Column 1), nearest mosque (Column 2), or life basin (Column 3). *Spatial correlation* corresponds to standard errors being corrected for spatial correlation up to 30 kilometers (Column 4), 4 lags (Column 5), or both (Column 6). These standard errors are calculated using weights in the variance covariance matrix that are linearly decreasing in distance and time. Estimates are calculated using Correia's (2023 [2014]) `reghdfe` Stata package. Standard error calculations in Panel B are made using Colella et al.'s (2021) `acreg` Stata package (Colella et al., 2023).

Table A.2. Vote Share for the Front National and Distance to Nearest Mosque
Robustness Across Samples

Dependent variable:	Front National vote share (%)			
	1997–2012		2012	
Mosques file:				
Restriction:	Life basin	None	Life basin	None
	(1)	(2)	(3)	(4)
Distance to nearest mosque (km)	0.166*** [0.013]	0.078*** [0.008]	0.148*** [0.013]	0.080*** [0.009]
Distance to nearest mosque, squared (km)	-0.005*** [0.001]	-0.001*** [0.000]	-0.005*** [0.001]	-0.002*** [0.000]
Share foreign population (%)	-0.230*** [0.008]	-0.171*** [0.007]	-0.197*** [0.008]	-0.153*** [0.007]
Controls	Yes	Yes	Yes	Yes
<u>Fixed effects</u>				
Life basins	333	1,613	524	1,612
Nearest mosque	1,010	1,019	1,905	1,928
Polling stations	24,671	46,254	29,045	46,161
Within R ²	0.130	0.077	0.106	0.072
Front National vote share mean (%)	11.63	11.63	11.63	11.63
Halo apex (km)	15.95	28.72	16.06	22.66

Notes. This table reports OLS coefficients from estimating Specification 2 across samples. The dependent variable is the vote share of the Front national in percent. The unit of observation is the polling station. The distance measure is with respect to the nearest mosque located in the same life basin as the polling station. Controls include the polling station's share of foreign population, log population, area, average age, unemployment rate, the share of population with no diploma, and the share of population living in HLM. Standard errors are in brackets and are clustered at the level of polling stations. Estimates are calculated using Correia's (2023 [2014]) `reghdfe` Stata package.

*** Significant at the 1 percent level.

Table A.3. Summary Statistics of Population by Nationality

Baseline sample					
	Mean	S.d.	Min.	Max.	Stations
Share foreign (CARTELEC 2007)	5.69	6.03	0.00	54.53	24,698
Restricted sample					
	Mean	S.d.	Min.	Max.	Stations
<u>Among total population</u>					
Share foreign (CARTELEC 2007)	8.19	6.57	0.00	54.53	13,933
Share foreign (TRIRIS 1999)	7.71	5.73	0.21	48.99	13,933
Share naturalized	5.90	3.29	0.45	25.35	13,933
<u>Among foreign population</u>					
Share Algerian	15.94	10.34	0.00	68.31	13,933
Share Moroccan	14.01	11.85	0.00	76.24	13,933
Share Tunisian	5.06	6.00	0.00	57.16	13,933
Share Turkish	4.55	7.24	0.00	79.32	13,933
Share EU	37.00	16.80	1.89	92.75	13,933
Share other nationalities	23.44	12.66	0.00	87.64	13,933

Notes. This table reports summary statistics for the share of the foreign population at the polling station level in percent. *Baseline sample* corresponds to the full sample of polling station used in baseline analyses. *Restricted sample* corresponds to the sample of polling stations for which overlapping TRIRIS data from the 1999 census are available, with an overlap threshold of 80 percent. All data refer to those from the 1999 census except when otherwise indicated.

Table A.4. Vote Share for the Front National and Distance to Nearest Mosque
Nationality Controls

Dependent variable:	Front National vote share (%)			
	(1)	(2)	(3)	(4)
Distance to nearest mosque (km)	0.166*** [0.013]	0.108*** [0.031]	0.122*** [0.036]	0.158*** [0.032]
Distance to nearest mosque, squared (km)	-0.005*** [0.001]	-0.007** [0.003]	-0.007** [0.003]	-0.009*** [0.003]
Share foreign population (% , CARTELEC 2007)	-0.230*** [0.008]	-0.191*** [0.010]		
Share foreign population (% , TRIRIS 1999)			-0.107*** [0.009]	
Share naturalized population (% , TRIRIS 1999)				-0.205*** [0.019]
Share Algerian population (% , TRIRIS 1999)				0.014*** [0.004]
Share Moroccan population (% , TRIRIS 1999)				0.025*** [0.004]
Share Tunisian population (% , TRIRIS 1999)				0.017** [0.008]
Share Turkish population (% , TRIRIS 1999)				0.018*** [0.005]
Share other foreign population (% , TRIRIS 1999)				-0.031*** [0.003]
Share EU population (% , TRIRIS 1999, excluded)				
Controls	Yes	Yes	Yes	Yes
<u>Fixed effects</u>				
Life basins	333	154	154	154
Nearest mosque	1,010	719	719	719
Polling stations	24,671	13,735	13,735	13,735
Within R ²	0.130	0.143	0.114	0.133
Front National vote share mean (%)	11.10	9.37	9.37	9.37
Halo apex (km)	15.95	8.32	8.48	8.35

Notes. This table reports OLS coefficients from estimating Specification 2. The dependent variable is the vote share of the Front national in percent. The unit of observation is the polling station. The distance measure is with respect to the nearest mosque located in the same life basin as the polling station. Controls include the polling station's log population, area, average age, unemployment rate, the share of population with no diploma, and the share of population living in HLM. *TRIRIS 1999* indicates that the foreign population controls are from the 1999 census. Standard errors are in brackets and are clustered at the level of polling stations. Estimates are calculated using Correia's (2023 [2014]) `reghdfe` Stata package.
*** Significant at the 1 percent level. ** Significant at the 5 percent level.

Table A.5. Vote Share for the Front National and Distance to Nearest Mosque by Abstention Rate

Dependent variable: Quartile of abstention:	Front National vote share (%)			
	Q1	Q2	Q3	Q4
	(1)	(2)	(3)	(4)
Distance to nearest mosque (km)	0.164*** [0.015]	0.131*** [0.022]	0.088*** [0.022]	0.035 [0.025]
Distance to nearest mosque, squared (km)	-0.005*** [0.001]	-0.004*** [0.001]	-0.003*** [0.001]	-0.001 [0.001]
Share foreign population (%)	-0.209*** [0.010]	-0.210*** [0.013]	-0.136*** [0.014]	-0.142*** [0.012]
Controls	Yes	Yes	Yes	Yes
<u>Fixed effects</u>				
Elections	3	3	3	3
Life basins	330	321	329	313
Nearest mosque	932	927	901	968
Polling stations	18,459	14,518	14,114	12,291
Within R ²	0.129	0.049	0.049	0.044
Front National vote share mean (%)	10.69	10.50	10.14	11.01
Abstention rate mean (%)	12.68	37.18	54.24	64.46
Halo apex (km)	16.43	15.07	14.53	20.67

Notes. This table reports OLS coefficients from estimating Specification 2, separately across all four quartiles in abstention rates. The dependent variable is the vote share of the Front national in percent. The unit of observation is the polling station. The distance measure is with respect to the nearest mosque located in the same life basin as the polling station. Controls include the polling station's share of foreign population, log population, area, average age, unemployment rate, the share of population with no diploma, and the share of population living in HLM. Standard errors are in brackets and are clustered at the level of polling stations. Estimates are calculated using Correia's (2023 [2014]) `reghdfe` Stata package.

*** Significant at the 1 percent level.

Table A.6. Vote Share for the Front National and Distance to Nearest Mosque
Old versus New Mosques

Dependent variable:	Front National vote share (%)			
	(1)	(2)	(3)	(4)
Distance to nearest pre-1997 mosque (km)	0.193*** [0.014]		0.187*** [0.018]	0.190*** [0.024]
Distance to nearest pre-1997 mosque, squared (km)	-0.008*** [0.001]		-0.009*** [0.001]	-0.008*** [0.001]
Distance to nearest post-1997 mosque (km)		0.156*** [0.015]	0.008 [0.018]	-0.017 [0.024]
Distance to nearest post-1997 mosque, squared (km)		-0.005*** [0.001]	0.002** [0.001]	0.003*** [0.001]
Controls	Yes	Yes	Yes	Yes
Nearest pre-1997 mosque's station controls	Yes	No	Yes	No
Nearest post-1997 mosque's station controls	No	Yes	Yes	No
<u>Fixed effects</u>				
Life basins	184	184	184	184
Nearest mosque pre-1997 × post-1997	0	0	0	1,591
Polling stations	19,534	19,534	19,534	19,194
Within R ²	0.267	0.255	0.271	0.131
Front National vote share mean (%)	10.65	10.65	10.65	10.65

Notes. This table reports OLS coefficients from estimating Specification 1 in Columns (1)–(3), and Specification 2 in Column (4), augmented with distances to the nearest mosque built after 1997. The dependent variable is the vote share of the Front national in percent. The unit of observation is the polling station. The distance measure is with respect to the nearest mosque located in the same life basin as the polling station. Controls include the polling station's share of foreign population, log population, area, average age, unemployment rate, the share of population with no diploma, and the share of population living in HLM. Standard errors are in brackets and are clustered at the level of polling stations. Estimates are calculated using Correia's (2023 [2014]) `reghdfe` Stata package.

*** Significant at the 1 percent level. ** Significant at the 5 percent level.

Polling Booth Locations To determine the exact location of polling booths associated with each polling station, we use the following six-step procedure. First, we overlay the 2007 polling station shapefile with the geocoded addresses of the 2017 polling booths (the earliest dataset available), relying on the fact that the location of polling booths is relatively stable over time.¹ If the 2007 polling station polygon contains a unique 2017 polling booth address, we attribute it to the 2007 polling station—this enables us to geocode 29,261 polling booths. Second, we repeat the operation on the missing polling stations with the geocoded 2020 polling booth addresses—this gives us an additional 7,852 polling booths.² Third, we overlay the shapefile of the remaining ungeocoded 2007 polling stations with the locations of the 2011 town halls, since they always contain polling booths—2011 is the earliest year for which a town hall shapefile is publicly available.³ If the 2007 polling station polygon contains a city hall, we attribute it to the 2007 polling station—this gives us 5,258 additional polling booths. Fourth, we consider the remaining 2007 polling stations that contain multiple 2017 polling booths, and take their centroid as long as it falls within the polling station polygon—this gives us another 1,177 polling booths. For the remaining 6,758 polling stations, we assign their centroid. For the 270 polling stations whose centroid falls outside their (non-convex) polygon, we assign a random point.

References

- Beauguitte, Laurent, and Céline Colange.** 2013. “Analyser les comportements électoraux à l’échelle du bureau de vote.” Agence Nationale de la Recherche. Compte-rendu de fin de projet ANR-FORM-090601-01-01. <https://shs.hal.science/halshs-00839899>.
- Colella, Fabrizio, Rafael Lalive, Seyhun Sakalli, and Mathias Thoenig.** 2021. *acreg: Stata Module to Perform Arbitrary Correlation Regression*. Boston, MA: Statistical Software Components, Boston College Department of Economics. <https://ideas.repec.org/c/boc/bocode/s458889.html>.
- Colella, Fabrizio, Rafael Lalive, Seyhun Sakalli, and Mathias Thoenig.** 2023. “acreg: Arbitrary correlation regression.” *The Stata Journal*, 23(1): 119–47.

¹This dataset is available at <https://public.opendatasoft.com/explore/dataset/bureaux-vote-france-2017/information> (accessed in July 2024). Because the addresses provided by the Ministry of the Interior are sometimes inaccurate, only 57,663 of the 63,548 polling booths are properly geocoded in this file.

²This dataset is available at <https://www.data.gouv.fr/fr/datasets/geolocalisation-des-bureaux-de-vote> (accessed in July 2024). Again, because the addresses provided by the Ministry of the Interior are sometimes inaccurate, only 59,131 of the 67,797 polling booths are properly geocoded in this file.

³This dataset is available at <https://geoservices.ign.fr/geofla> (accessed in July 2024).

- Correia, Sergio.** 2023 [2014]. *reghdfe: Stata Module to Perform Linear or Instrumental-Variable Regression Absorbing Any Number of High-Dimensional Fixed Effects*. Boston, MA: Statistical Software Components, Boston College Department of Economics. <https://ideas.repec.org/c/boc/bocode/s457874.html>.
- Jadot, Anne, Michel Bussi, Céline Colange, and Sylvano Freire-Diaz.** 2010. “Un outil d’analyse électorale en cours de création. CARTELEC, un SIG au niveau des bureaux de vote français.” *Revue du comité français de cartographie*, 205: 81–98.
- Pinna, Matteo.** 2021. *binscatterhist: Stata Module to Produce Binned Scatterplot with Marginal Histograms*. Boston, MA: Statistical Software Components, Boston College Department of Economics. <https://ideas.repec.org/c/boc/bocode/s458855.html>.
- Pinna, Matteo.** 2022. “Binned Scatterplots with Marginal Histograms: binscatterhist.” *The Stata Journal*, 22(2): 430–45.
- Winter, Nick.** 2021 [2014]. *combomarginsplot: Stata Module to Combine the Saved Results from Multiple Calls to margins into one marginsplot*. Boston, MA: Statistical Software Components, Boston College Department of Economics. <https://ideas.repec.org/c/boc/bocode/s457804.html>.