

# The Long Shadow of the Spanish Civil War

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# Motivation

- **Social capital** and **trust** are key drivers of economic growth and the quality of democratic institutions (Arrow 1972, Putnam 1994, La Porta et al. 1997, Barro and McCleary 2003, Guiso et al. 2006, Knack and Keefer 1996, Tabellini 2010, Algan and Cahuc 2010)
  - ▶ What are their determinants?
  - ▶ What can explain their *destruction*?
- Long-term *cultural* and *political* consequences of conflict
- Relationship between social capital (broadly construed) and war

*En España, los muertos están más vivos que los muertos de cualquier otro país en el mundo*

*[In Spain, the dead are more alive than the dead of any other country in the world]*

Federico García Lorca, 1933  
(1898-1936)

# This Paper

- Long-term effects of the **Spanish Civil War** (1936-39)
- We use geo-located data on the intensity of conflict (*corpses in mass graves*) and survey data on contemporary *trust* and other political outcomes
- To deal with the potential endogeneity of conflict:
  - ① we use military plans of attack and the historical (1931) highway network in an IV setting
  - ② we apply a geographical RD using the Aragon front
- Empirical Results
  - ▶ no effect of general conflict on trust, but negative effects of political violence against civilians: *victimization type matters*
  - ▶ long-lasting effects of political violence on *voting* patterns and political engagement
- Mechanisms of transmission: collective memory / salience

# Literature

- Short-term effects of (civil) conflict
  - ▶ Fearon and Laitin (2003), Blattman and Miguel (2010), Bellows and Miguel (2009), Voors et al. (2012), Nunn and Qian (2014)
  - ▶ People exposed to war violence tend to behave more cooperatively / exhibit more prosocial behavior after war (Bauer et al. 2016)
- Long-term effects of war
  - ▶ Davis and Weinstein (2002) for Japan in WWII; Brakman et al. (2004) for postwar Germany; Miguel and Roland (2011) for the Vietnam War
  - ▶ Violence (slave raids) can generate culture of *mistrust* (Nunn and Wantchekon 2011, Rohner et al., 2013, Cassar et al., 2013)
  - ▶ Dell and Querubin (2017), Feigenbaum et al. (2018), Fontana et al. (2017), Chiovelli et al. (2017), Iyigun et al. (2017), Dell (2018), Arbatli et al. (2019), Chen and Yang (2019), Riaño and Caicedo (2019)
- Spanish Civil War in History and Political Science
  - ▶ Thomas (1961), Preston (1986, 1990, 1996, 2011), Balcells (2011, 2012, 2017), Oto-Peralías (2015), La-Parra and McLaughlin (2018)

# Historical Background

- Second Spanish Republic (1931-1939)
- 1936 elections won by the *Popular Front* (leftist coalition)
- Right-wing forces mounted a coup against the government
  - ▶ coup d'etat on 17th-18th July, led by military commanders in North Africa
  - ▶ divided the armed forces and the Spanish territory fairly evenly
- The armed uprising became the Spanish Civil War (1936-1939) between pro-**Republican** and **Nationalist** forces
- Stalin and Hitler turned the Spanish Civil War into a proxy battle and testing ground for WWII (1939-1945)

▶ more on War



Figure: September 1936



Figure: October 1937



Figure: July 1938



Figure: February 1939

The territory under the control of the Nationalists is shown in pink, and under the control of the Republicans in blue.

# Victims of Spanish Civil War

Repression by the <b>Nationalist</b> (“White Terror”)	141,951 130,199	Prada Rodríguez (2010) Preston (2011)
Repression by the pro- <b>Republicans</b> (“Red Terror”)	50,065 49,272	Prada Rodríguez (2010) Vera (2010)
Killed in combat	300,000	Preston (2011)
Population in 1930	23,614,418	Census

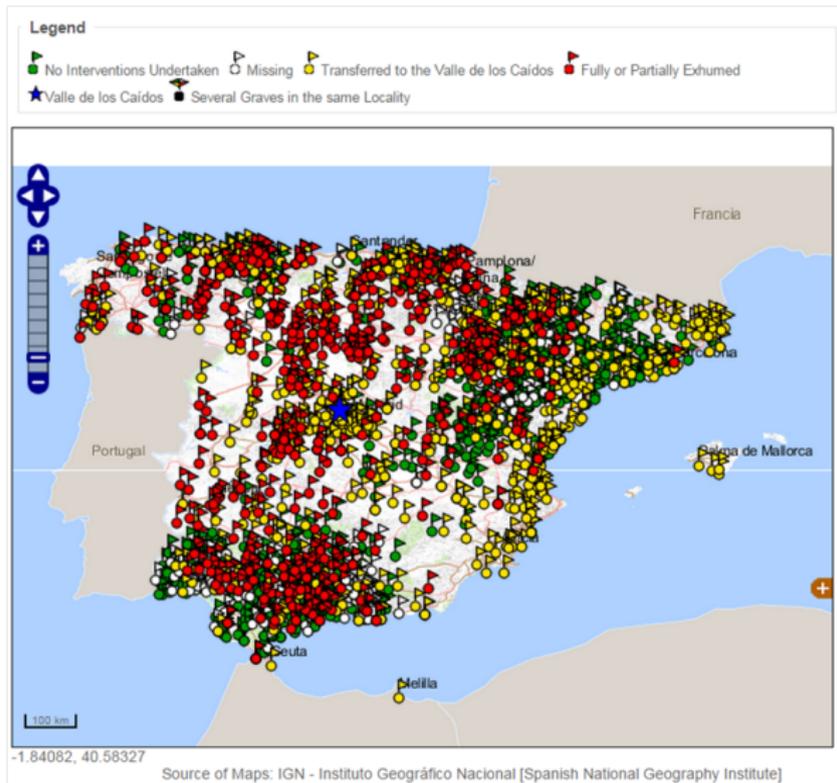
Notes: Population in 1930 includes Ceuta, Melilla and the Northern Africa territories. Data from “La España Masacrada” by Julio Prada Rodríguez, Alianza Editorial, 2010, and “The Spanish Holocaust: Inquisition and Extermination in Twentieth-Century Spain”, Paul Preston, W.W. Norton & Company, 2011.

▶ 2008 survey

# Data on Conflict and Trust

- Spanish Ministry of Justice, **map of mass graves**. Complemented and updated with regional information and the universe of exhumed mass graves
- CIS (Spain's Sociological Research Center): waves of **trust surveys**, as well as other socio-demographic information at the individual level
  - ▶ more
  - ▶ generalized trust and trust on institutions
  - ▶ partially anonymized to include information at the district level 1998-2015
- Historical maps: historical (1931) road network, military plans, troops' movements during the war
- Spanish National Institute of Statistics (INE): population, GDP, etc.
- Geographic and climatic variables

# Map of Mass Graves



Notes: Raw mass grave data from the Spanish Ministry of Justice.

[▶ more](#)

[▶ website](#)

# Types of Mass Graves and Victimization

- **Exhumed:** mainly political violence against civilians [▶ cause](#) [▶ location](#)  
[▶ burial date](#) [▶ exhumation date](#) [▶ double repression](#)
- **Transferred to Valley of the Fallen** (monument and mausoleum for the fallen, promoted by Franco), based on ongoing research: [▶ newspaper](#)
  - ▶ 2/3 violence from pro-**Republicans** against **Nationalist** soldiers (mostly) and civilians
  - ▶ 1/3 violence from **Nationalist** troops against pro-**Republican** soldiers and civilians
- **Not intervened:** mainly soldiers dead during military combat or in military hospitals
- **Missing:** combination of the above

[▶ death toll](#)

[▶ go to IV](#)

# Empirical Specification

$$y_{idy} = \alpha + \beta x_d + \delta \mathbf{z}_{idy} + \gamma_r AC_r + \lambda_y year_y + \epsilon_{idy}$$

- Trust  $y_{idy}$  on corpses in mass graves  $x_d$  (divided by 1930 district population) for individual  $i$ , in district  $d$ , in year  $y$
- Control variables  $\mathbf{z}_{idy}$ :
  - ▶ **individual-level**: FEs for age-groups, level of education and employment status, current size of the municipalities
  - ▶ **district-level**: population in 1930 and survey year, ruggedness, area, index of caloric yield of the soil and land-cover, average temperature and standard deviation, distance to river and to coast, distance to Madrid, measure of primary-roads' density as in 1931
  - ▶ **province-level**: GDP per capita
- $AC_r$  (Autonomous Community) and  $year_y$  fixed-effects

## OLS Results on Generalized Trust: All Mass Graves

	(1)	(2)	(3)	(4)
All corpses/Population	-0.002*** (0.0005)	-0.0008 (0.0005)	-0.0004 (0.0011)	-0.0004 (0.0010)
Observations	38,287	38,275	36,159	35,839
Adj- $R^2$	0.03	0.04	0.05	0.07
Region and year FE	Yes	Yes	Yes	Yes
Controls1	No	Yes	Yes	Yes
Controls2	No	No	Yes	Yes
Controls3	No	No	No	Yes
Observations	38,287	38,275	36,159	35,839
Mean dep. variable	4.86	4.86	4.85	4.85

Notes: The dependent variable takes values from 0 to 10, where 0 indicates that you need to be very careful when dealing with people and 10 that most people can be trusted. *All corpses/Population* is measured as the total number of corpses in all types of mass graves in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. All models include region (autonomous community) and survey-year fixed effects. *Controls1* includes fixed effects for age groups, for current size of the municipalities, population in 1930 as well as in the survey year, and area at the judicial district level. *Controls2* includes an index of caloric yield of the soil, ruggedness, average temperature and its standard deviation, distance to river and to coast, and landcover. *Controls3* includes level of education and employment status of the individual. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

# OLS Results on Generalized Trust: Exhumed Mass Graves

	(1)	(2)	(3)	(4)
Exhumed corpses/Population	-0.0073*** (0.0023)	-0.0068*** (0.0023)	-0.0237*** (0.0058)	-0.0225*** (0.0057)
Observations	38,287	38,275	36,159	35,839
Adj- $R^2$	0.03	0.04	0.05	0.07
AC and year FE	Yes	Yes	Yes	Yes
Controls1	No	Yes	Yes	Yes
Controls2	No	No	Yes	Yes
Controls3	No	No	No	Yes
Mean dep. variable	4.86	4.86	4.85	4.85

Notes: The dependent variable takes values from 0 to 10, where 0 indicates that you need to be very careful when dealing with people and 10 that most people can be trusted. *Exhumed/Population* is measured as the exhumed number of corpses in the exhumed mass graves in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. All models include region (autonomous community) and survey-year fixed effects. *Controls1* includes fixed effects for age groups, for current size of the municipalities, population in 1930 as well as in the survey year, and area at the judicial district level. *Controls2* includes an index of caloric yield of the soil, ruggedness, average temperature and its standard deviation, distance to river and to coast, and landcover. *Controls3* includes level of education and employment status of the individual. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

▶ not exhumed

## Effects of Exhumation on Generalized Trust

- *Diff-in-diff* exercise looking at **within district changes** in trust after exhumation

	(1)	(2)
Post-Exhumation	0.066 (0.0763)	0.051 (0.0772)
Post*Older65		0.073 (0.0653)
Observations	34,377	34,377
Adj- $R^2$	0.10	0.10
Year FE	Yes	Yes
Judicial District FE	374	374
Mean dep. variable	4.9	4.9

The dependent variable takes values from 0 to 10, where 0 indicates that you need to be very careful when dealing with people and 10 that most people can be trusted. All models include judicial district, survey-year fixed effects, fixed effects for age groups, level of education and employment status of the individual. Model (2) includes an interaction term of post with being older than 65. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

# Identification Strategy

- Potential endogeneity of conflict
  - ▶ communities might have been targeted according to their level of trust
  - ▶ unobservable factors related to conflict and trust
- We **instrument** conflict by the **distance to the main road taken by the Nationalist troops in their march to Madrid**
  - ▶ during the first months of the war, using 1931 roads network
  - ▶ but a particular route could be chosen because rebels expected more support along those villages
- We additionally **control for initial military plans of attack**
  - ▶ deviations from these plans due to unforeseen circumstances allow us to infer the *causal* impact of conflict → reference point (Card and Dahl, 2011, cf. Feigenbaum et al. 2018)
  - ▶ we further *restrict* the sample to places covered by the primary road network

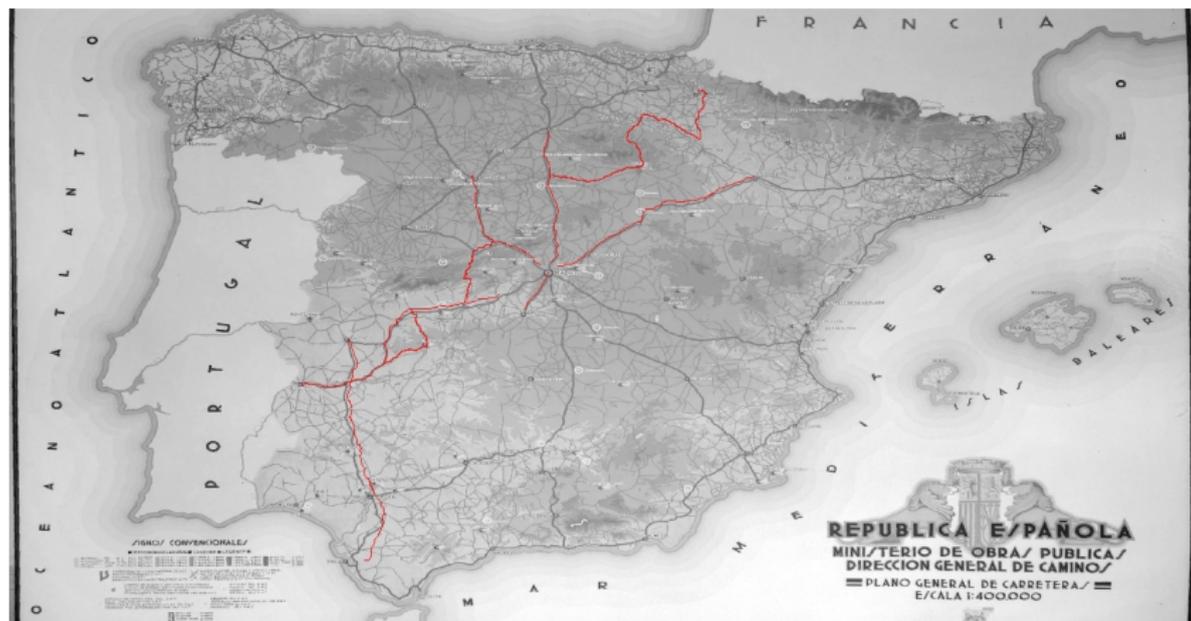


# General Mola's Plan using 1931 Roads



▶ map districts

# The Taking of Madrid using 1931 Roads



▶ map districts

# First Stage Results: Exhumed Mass Graves

	All	Primary Road	All+Mola	Prim.Road+Mola
Distance to the taking of Madrid	-0.0081*** (0.00028)	-0.0091*** (0.0003)	-0.0047*** (0.0004)	-0.0059*** (0.0004)
F-statistic	873.62	902.92	136.21	220.39
Observations	29,531	27,372	29,531	27,372
AC and Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes

Notes: *Exhumed Graves/Population* is measured as the total (and updated) number of corpses exhumed in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. The instrument is the distance (in km) to the primary road that existed in 1931 that was taken in the advancement of the Francoist troops in the taken of Madrid during the first months on the war. Controls include age-group, education and labor status of the individual fixed effects, current size of the municipality fixed effects, population in 1930 and in the survey year, area of the judicial district, primary roads in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, an index of caloric yield of the soil, a landcover index, and distance to Madrid *Mola* measures the distance (in km) to the primary road that existed in 1931 and that General Mola planned to use to take Madrid. Sample restricted to districts in the mainland, without Madrid. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

► Transferred

► Robustness

## IV Results: Exhumed Mass Graves on Trust

	All	Primary Road	All+Mola	Mola+Prim.Road
Exhumed corpses/Population	-0.098*** (0.0333)	-0.088*** (0.0318)	-0.203** (0.0863)	-0.187*** (0.0712)
Observations	29,531	27,372	29,531	27,372
Centered $R^2$	0.07	0.07	0.04	0.05
AC and Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Mean dep. variable	4.83	4.86	4.83	4.86

Notes: The dependent variable takes values from 0 to 10, where 0 indicates that you need to be very careful when dealing with people and 10 that most people can be trusted. *Exhumed Graves/Population* is measured as the total (and updated) number of corpses exhumed in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. The instrument is the distance (in km) to the primary road that existed in 1931 that was taken in the advancement of the Francoist troops in the taken of Madrid during the first months on the war. Controls include age-group, education and labor status of the individual fixed effects, current size of the municipality fixed effects, population in 1930 and in the survey year, area of the judicial district, primary roads in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, an index of caloric yield of the soil, a landcover index, and distance to Madrid. *Mola* measures the distance (in km) to the primary road that existed in 1931 and that General Mola planned to use to take Madrid. Sample restricted to districts in the mainland, without Madrid. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

[▶ Transferred](#)[▶ OLS Restricted](#)[▶ Robustness](#)

# Additional Results and Mechanisms

- Decomposing trust
  - ▶ institutions more associated with the Civil War
  - ▶ institutions associated with the Democratic period (post 1975)
- The Aragon Front
  - ▶ Information on who perpetrated the repression
  - ▶ Disaggregated data on voting
  - ▶ Historical voting data
- Mechanisms
  - ▶ Specialized survey on the Spanish Civil War (CIS, 2008)
  - ▶ Political Participation
  - ▶ Collective Memory
  - ▶ Street Names and Newsreels

# Decomposing Trust: IV Results with Trust on Institutions

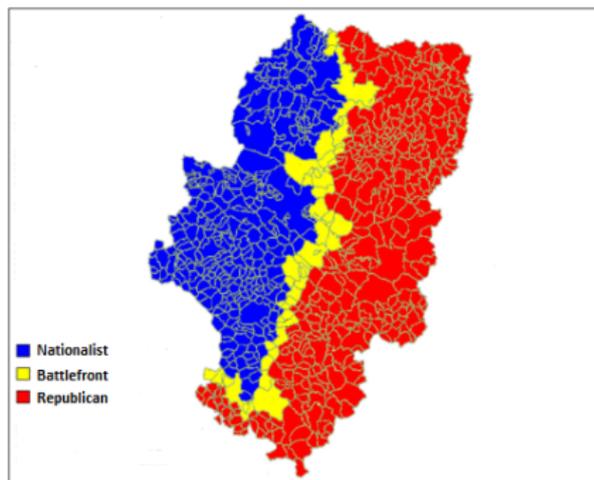
	Army	Civil Guard	Church	Constit. Court	Ombudsman	Parliament
Exhumed/Population	-0.39*** (0.15)	-0.25* (0.13)	-0.26 (0.18)	-0.02 (0.11)	0.14 (0.14)	-0.03 (0.08)
Observations	12,401	7,316	10,997	13,336	13,318	23,411
F-Stat	58.06	69.35	52.04	81.43	60.89	139.34
Region and Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. variable	5.5	5.9	3.9	4.2	4.6	4.1

[▶ return](#)

Notes: The dependent variable takes values from 0 to 10, where 0 indicates that you need to be very careful when dealing with people and 10 that most people can be trusted. *Exhumed Graves/Population* is measured as the total (and updated) number of corpses exhumed in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. The instrument is the distance (in km) to the primary road that existed in 1931 that was taken in the advancement of the Francoist troops in the taken of Madrid during the first months on the war. Controls include age-group, education and labor status of the individual fixed effects, current size of the municipality fixed effects, population in 1930 and in the survey year, area of the judicial district, a measure of density in the primary roads network in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, an index of caloric yield of the soil and a landcover index. All models use Distance to Madrid as an instrument for mass graves, and control for Distance to Mola Plan (keeping all observations, except Madrid and the islands). Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

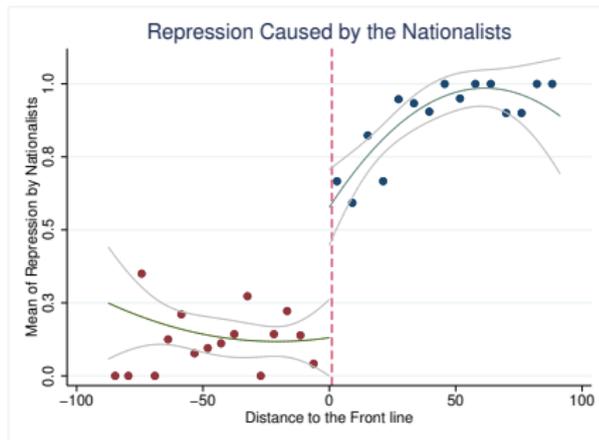
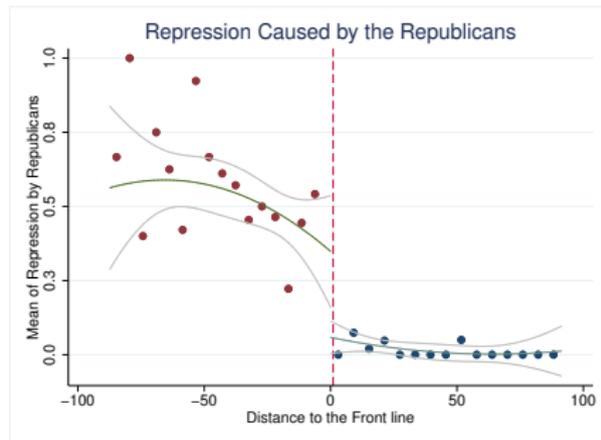
# The Aragon Front

- One of the most important battlefronts of the Civil War
- Split the Autonomous Community of Aragon into two
- Lasted for almost two years (Spring 1936-July 1938)
- In terms of military strategy, between WWI trench warfare and WWII total war
- Political repercussions? (Fontana et al., 2017; Rozenas et al., 2017; Lupu and Peisakhin, 2017), swing state



# Political Repression

- Geo-located mass graves on political repression, with information on which side was responsible for the violence (negative is **Republican**)



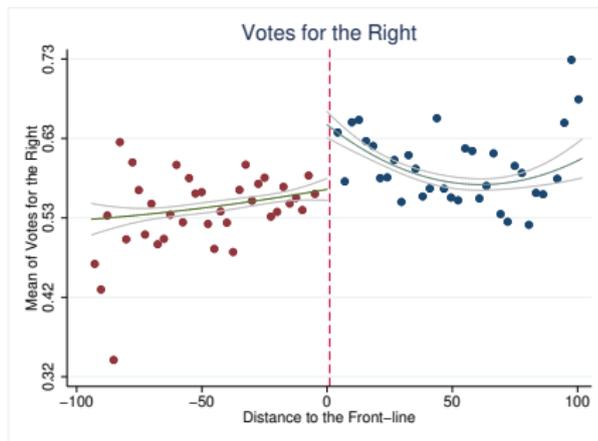
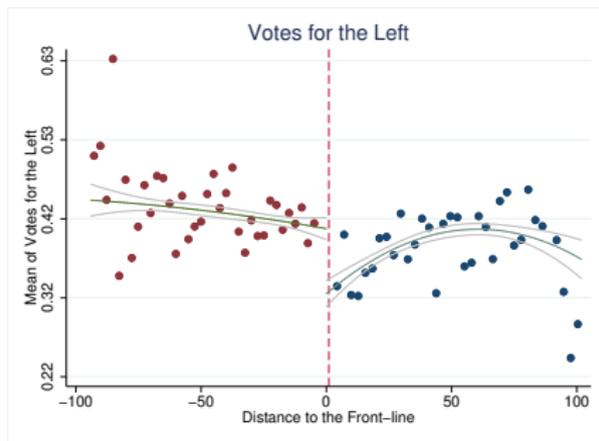
Repression is measured as the presence of mass graves that are due to repression by the Republicans (left) or Nationalists (right) at a given distance. The dots show the means of political repression conditional of the distance to the front. The lines are quadratic best fits, with confidence intervals. Mass graves located within the front are excluded. RD coefficient (st.error) is  $-0.12$  ( $0.248$ ) for left panel and  $0.26$  ( $0.320$ ) for the right panel, using `rdrobust` command.

► Trust

► Intensity

# Voting Results: Congressional 1977-2016

- Results for all democratic elections at the municipal level
- We code the political ideology (left / right) of the party



The dots show the means of votes for left-wing or right-wing parties for the Spanish Parliament elections 1977-2016, conditional of the distance to the front. The lines are quadratic best fits, with confidence intervals. Municipalities located within the front are excluded. RD coefficients (st. error) are  $-0.074^{***}$  (0.0142) for the left and  $0.077^{***}$  (0.0135) for the right, using `rdrobust` command.

► McCrary

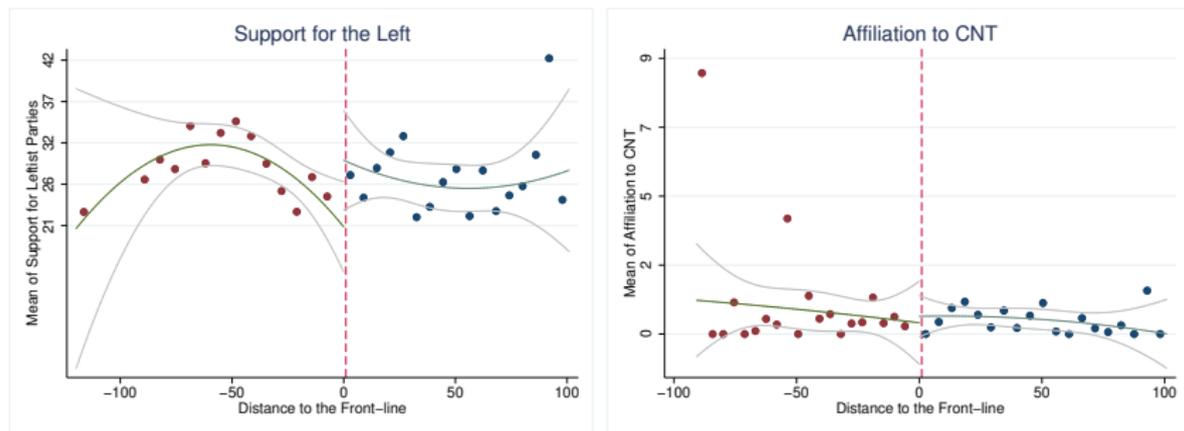
► Balancedness

► Extremes

► Moderates

## Pre-trends: 1936 Left Votes and CNT Union Membership

- Information of prewar political outcomes available at the municipal level (Balcells, 2011)
- No evidence of discontinuities in ideology (left, anarcho-sindicalist union), political competition or pre-war violence

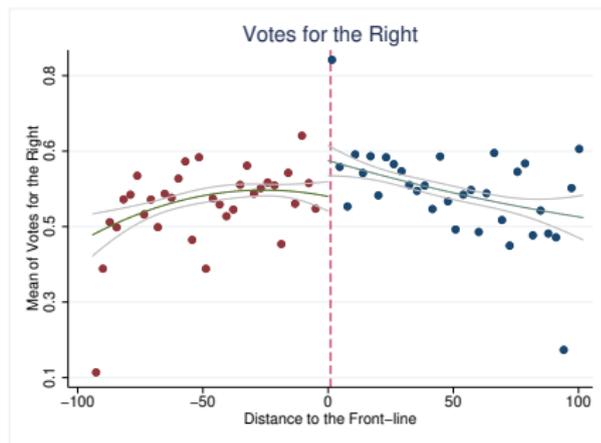
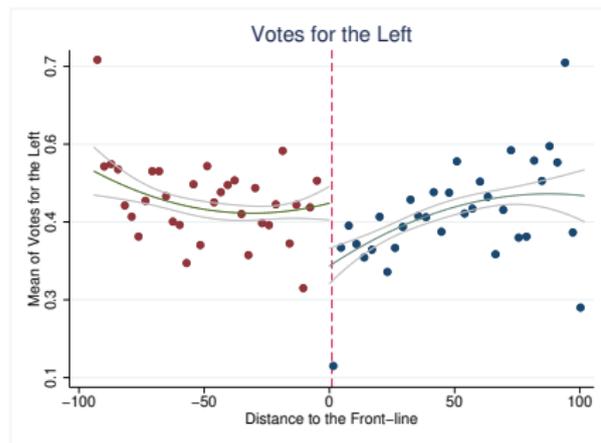


The dots show the average votes for leftist parties in the 1936 elections (left) and the average affiliation rate to the anarcho-sindicalist union (CNT, *Comite Nacional de Trabajadores*) in 1936 (right), both at the locality level and conditional of the distance to the front-line. The lines are quadratic fits, with confidence intervals. Municipalities located within the front are excluded. Negative values of distance correspond to the Republican side. RD coefficients (st.error) are -1.5 (7.76) (left) and -0.07 (0.42) (right), using `rdrobust` command.

► Additional Results

# Voting Results: Municipal 1987-2011

- Same pattern found with municipal elections



The dots show the means of votes for left-wing or right-wing parties for the municipal elections 1987-2011, conditional of the distance to the front. The lines are quadratic best fits, with confidence intervals. Municipalities located within the front are excluded. RD coefficients (st. error) are  $-0.24^{***}$  (0.055) for the left and  $0.048$  (0.038) for the right, using `rdrubust` command.  $*** p < 0.01$ .

▶ Turnout

▶ Referenda

# Additional Results and Mechanisms

- Decomposing trust
  - ▶ institutions more associated with the Civil War
  - ▶ institutions associated with the Democratic period (post 1975)
- The Aragon Front
  - ▶ Information on who perpetrated the repression
  - ▶ Disaggregated data on voting
  - ▶ Historical voting data
- Mechanisms
  - ▶ Specialized survey on the Spanish Civil War (CIS, 2008)
  - ▶ Political Participation
  - ▶ Collective Memory
  - ▶ Street Names and Newsreels

# Mechanisms: Political Participation

	Contact w/ Authorities	Participate in Strike	Attend Demonstration	Signed Petition
Exhumed/Population	-0.01** (0.004)	-0.02*** (0.005)	-0.02*** (0.005)	-0.02*** (0.006)
Observations	2,763	2,766	2,767	2,749
AC FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Mean dep. variable	2.8	2.6	2.5	2.4

Notes: The dependent variable takes values from 1 to 3 for Contact with Public Authorities and Participate in Strikes, Attend some Demonstration and Signed a Petition (in the last year, more than a year, never). A higher variable is associated with higher engagement. Controls include age-group, education and labor status of the individual fixed effects, population in 1930 and in the survey year (2008), area of the judicial district, a measure of density in the primary roads network in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, distance to Madrid, an index of caloric yield of the soil and a landcover index. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

► Judiciary

# Mechanisms: Collective Memory

	Talk about CW	Agree CW generated division	Agree memory CW alive	Leave Mass Graves
Exhumed/Population	-0.02** (0.01)	0.02* (0.009)	-0.03*** (0.009)	0.04*** (0.01)
Observations	2,694	2,582	2,642	2,501
AC FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Mean dep. variable	3.0	2.1	1.8	1.7

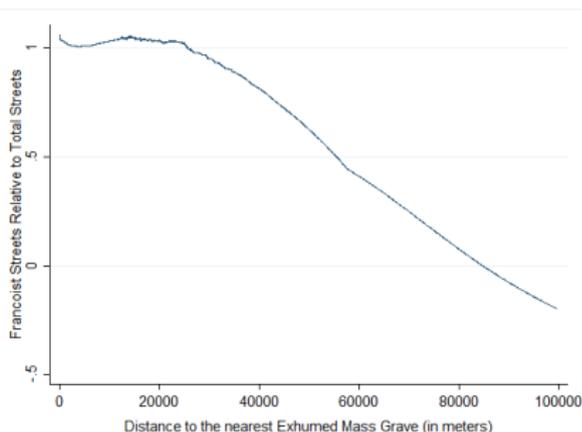
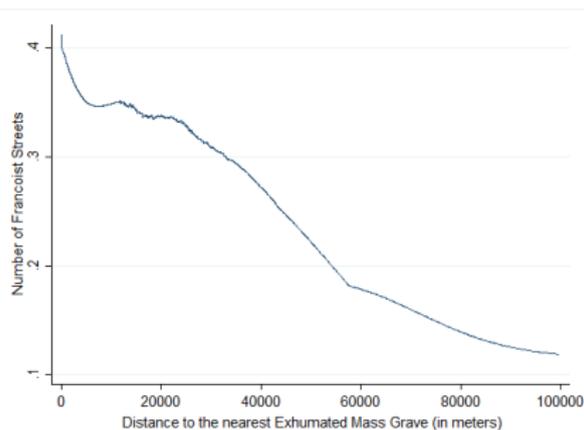
Notes: The dependent variable takes values from 0 to 4 (a lot and never - talk about CW), or from 1 to 3 (agree and disagree - CW generated division, and Memory about CW is still alive among Spaniards); from 1 to 4 in Mass Graves (they should be identified and transferred, identified but not transferred, leave them). A higher value is associated with more talking and more agreeing. Controls include age-group, education and labor status of the individual fixed effects, population in 1930 and in the survey year (2008), area of the judicial district, a measure of density in the primary roads network in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, distance to Madrid, an index of caloric yield of the soil and a landcover index. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

# Collective Memory: Streets

- Streets contain relevant cultural information (Oto-Peralias, 2018)
- Names decided by the state (municipality)
- Very disaggregated measure of religiosity
- Collective Memory and Salience (Dessi, 2008; Gennaioli and Shleifer, 2010; Ochsner and Roesel, 2017), political propaganda
- Many Franco related names still present throughout Spain



# Non-Parametric Regressions: Francoist Streets and Mass Graves



► Religion

NOTES: The figures depict a Kernel-weighted linear regression of Francoist streets (left) and Francoist streets relative to total streets (right) on distance to the nearest exhumed mass grave (in meters) at the municipality level.

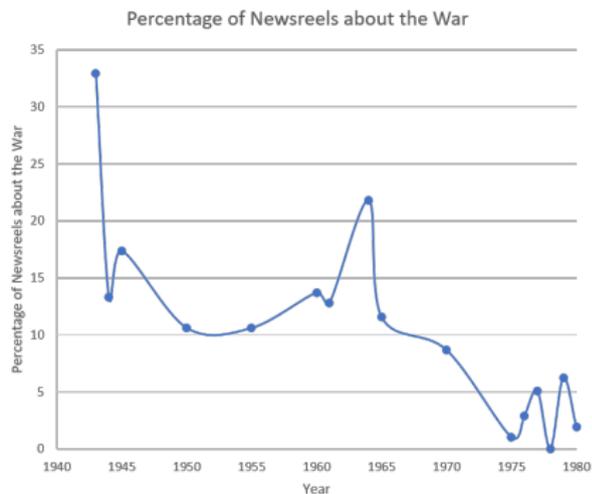
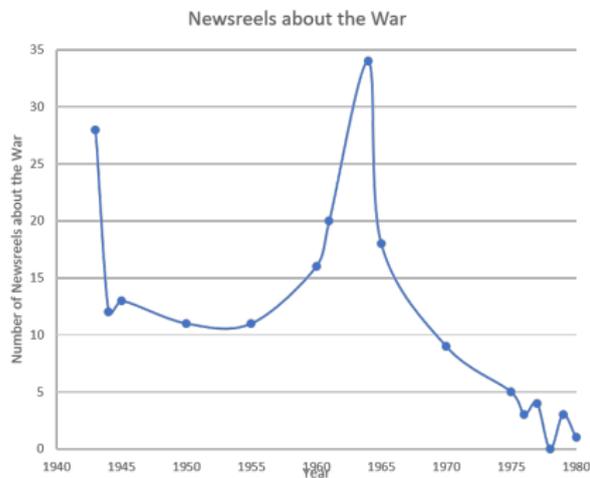
# Francoist and Religious Streets in Aragon

	(1) Francoist (Total)	(2) % Francoist	(3) Francoist (dummy)	(4) Religiosity	(5) All Streets
Nationalist side	0.20*** (0.070)	0.82*** (0.277)	0.07** (0.027)	-0.44 (0.782)	15.02 (10.46)
Observations	682	682	682	677	682
R-squared	0.07	0.04	0.07	0.03	0.48
frontline municip.	No	No	No	No	No
Geographic. controls	Yes	Yes	Yes	Yes	Yes
Mean dep. variable	0.21	0.79	0.11	14.2	34.53

*Notes:* The dependent variable is the total number of Francoist streets at the municipal level in Column 1, the total number of Francoist streets divided by the total number of streets in the municipality and multiplied by 100 in Column 2, and an indicator variable that takes the value 1 if there is at least one Francoist street in the municipality and 0 otherwise in Column 3, a religiosity index (number of religious streets over total streets, times a hundred) at the municipal level in Column 4, and the total number of streets in the municipality in Column 5. Data for all dependent variables comes from Oto-Peralías [2018].

*Nationalist side* is a dummy variable that takes the value 1 if the municipality fell under the Nationalist troops in the Aragon region and 0 otherwise. Municipalities within the frontline are excluded. Controls include ruggedness, mean elevation, distance to modern roads, distance to Roman roads, landcover, municipal area, distance to water bodies and distance to rivers. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

# Collective Memory: No-Do Newsreels about the War

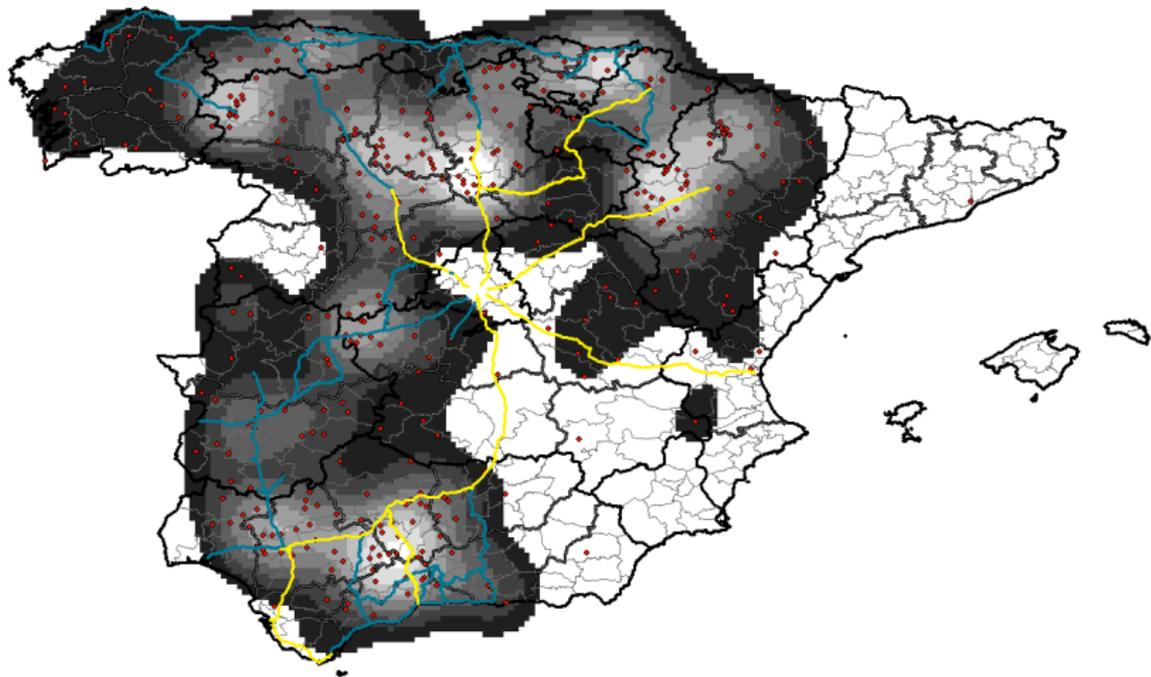


The figure in the left panel depicts the number of newsreels about the war from 1943 to 1980. The figure on the left panel depicts the same figure over the total number of newsreels over the same time period. Information comes from Aguilar [1996].

## Concluding Remarks

- We show empirically the impact of the Spanish Civil War, finding a long-lasting effect on **trust** and **political behavior**
- The effect of conflict on trust depends on the type of victimization
  - ▶ no effect of total conflict (death toll) on generalized trust
  - ▶ sizable effects on generalized trust of political violence against civilians  
→ culture of mistrust
  - ▶ negative effects on trust on institutions associated with the Civil War (Civil Guard, military)
- People vote differently and are less engaged politically today in places that experienced political repression against civilians historically
- Consistent with a collective memory / salience mechanism of transmission

# Road not Taken



▸ Correlates

▸ Deviations

▸ History

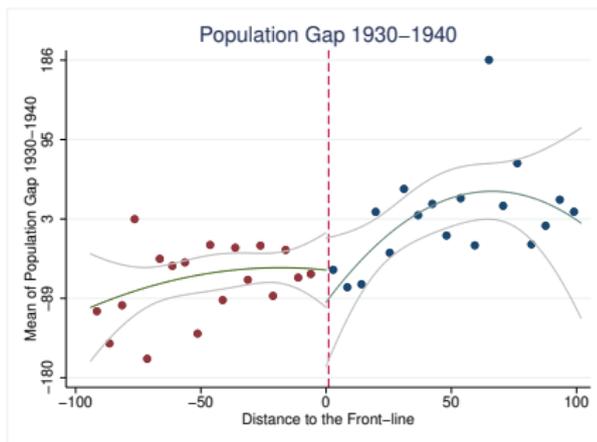
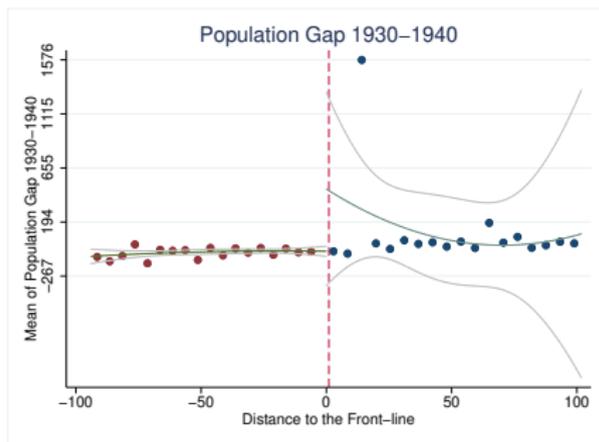
## Key Moments of the War

- **1936:** “White” and “Red Terror”, especially during the summer. In October, Francoist troops launched a major offensive toward Madrid, which resisted the siege. In November, the Republican government moved to Valencia
- **1937:** Franco’s forces took most of Spain’s northern area (April 26, bombing of Guernica) and Malaga. Aragon’s front stabilized
- **1938:** Franco’s forces divided the area under Republican control by the Ebro River mouth
- **1939:** Catalonia and Madrid fell to Franco. April 1 official ending of the war

▶ return

# Postwar Population Trends: 1930-1940

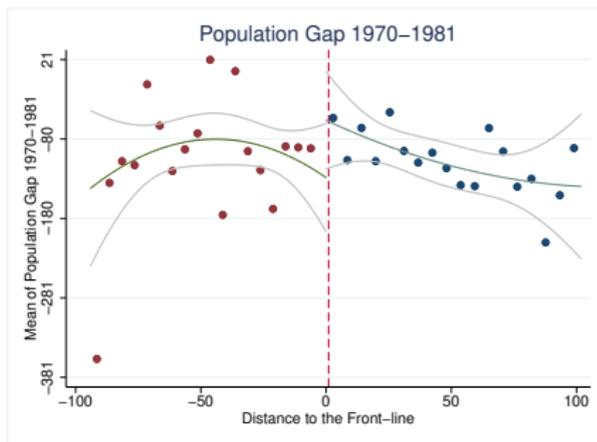
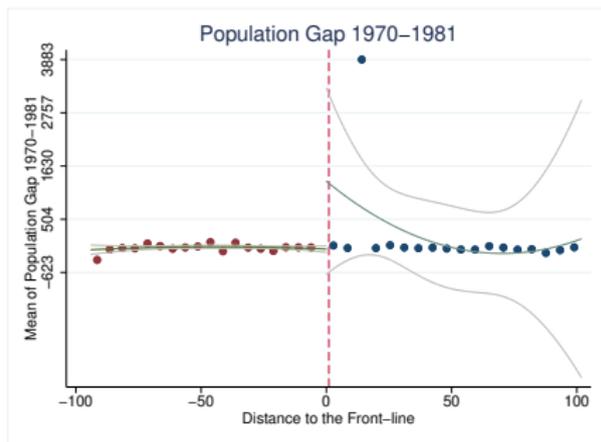
- Historical population data for Aragon at the municipal level using the 1930 and 1940 censuses
- No evidence of discontinuous changes in population at the threshold (overall and without Zaragoza, the capital)



► Democratic Transition

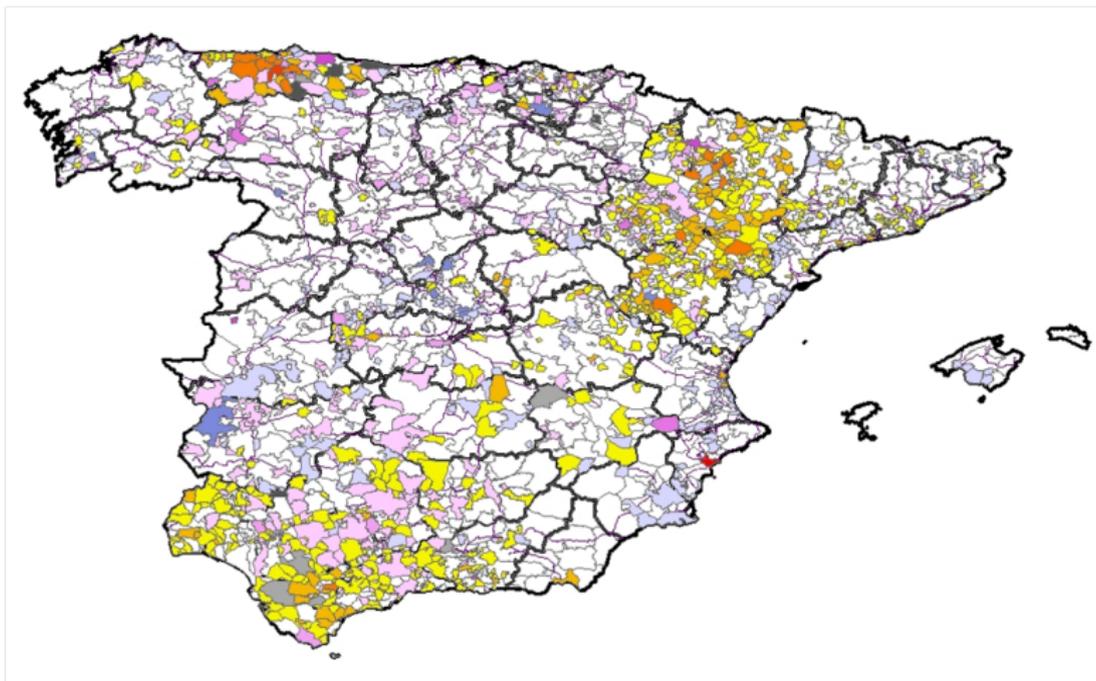
# Postwar Population Trends: 1970-1981

- Historical population data for Aragon at the municipal level using the 1970 and 1981 censuses
- No evidence of discontinuous changes in population at the threshold



▶ Back

# Map of Mass Graves



Notes: Digitized information with different mass graves at the judicial district level. Gray denotes disappeared, purple exhumed, yellow not intervened, and blue moved. Intensity is denoted by color tones in their respective spectra. [Trust](#)

## Exhumed Graves: Cause

<b>Cause</b>	<i>Number</i>	<i>%</i>
Execution by firing squad	214	63.13
Execution	43	12.68
Reprisal in the rearguard	30	8.85
Guerrilla warfare	27	7.96
Armed fight	14	4.13
Other	11	3.24
Total	339	100
No information	201	37.22

*Notes:* Additional information was extracted from the individual graves registry at the Ministry of Justice website. Execution means violent death by other than a firing squad. Guerrilla warfare also includes guerrilla helpers.

[▶ return](#)

# Exhumed Graves: Location

	<i>Number</i>	<i>%</i>
Cemetery	182	37.68
Other	301	62.32
Total	483	100
No information	57	10.56

*Notes:* Additional information was extracted from the individual graves registry at the Ministry of Justice website.

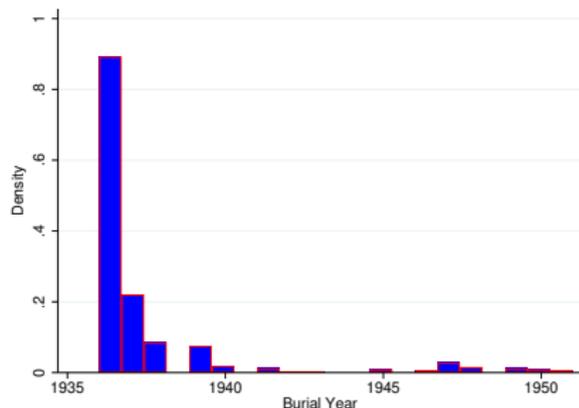
[▶ return](#)



# Exhumed Graves: Burial Year

Year	Number	%
1936	283	63.74
1937	70	15.77
1938	27	6.08
1939	24	5.41
1940	6	1.35
1941	4	0.90
1942	1	0.23
1943	1	0.23
1945	3	0.68
1946	2	0.45
1947	9	2.03
1948	5	1.13
1949	4	0.90
1950	3	0.68
1951	2	0.45
Total	444	100
No information	96	17.78

*Notes:* Additional information was extracted from the individual graves registry at the Ministry of Justice website.

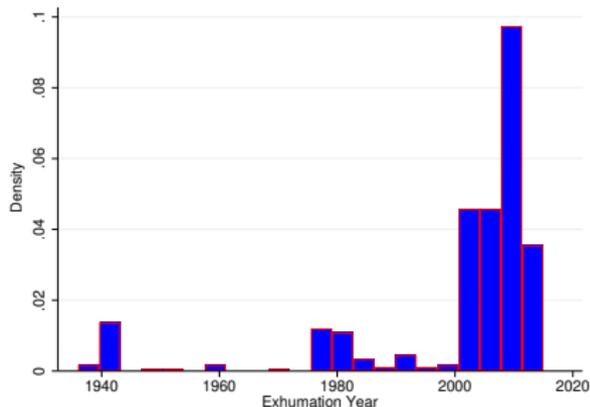


[▶ return](#)

# Exhumed Graves: Exhumation Year

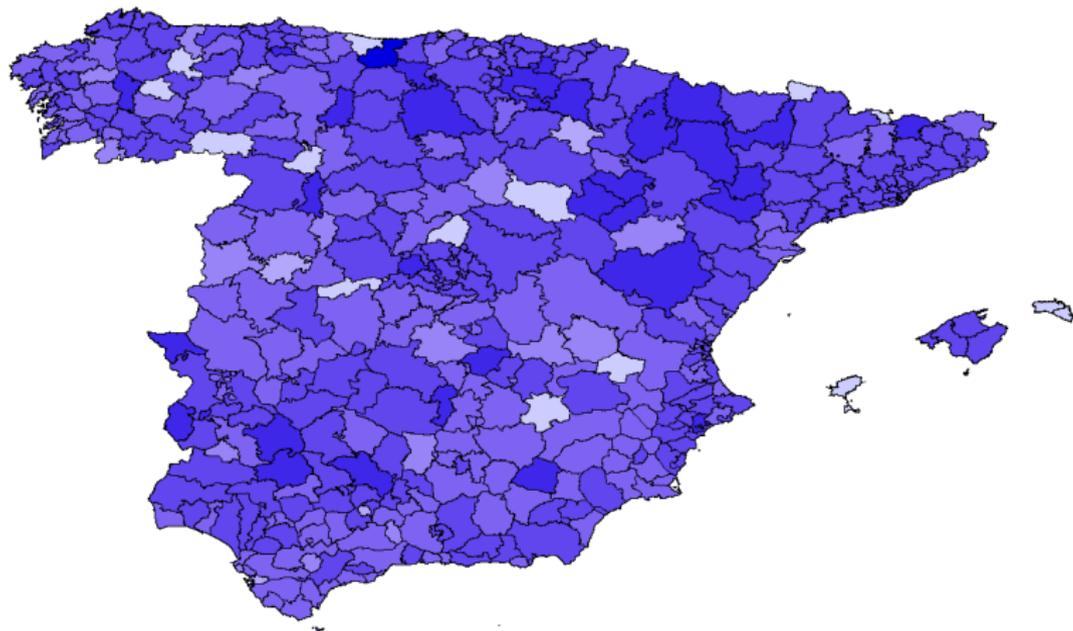
Year	Number	%
1936	2	0.41
1937	1	0.21
1940s	24	4.94
1950s	2	0.42
1960s	3	0.62
1970s	22	4.54
1980s	27	5.56
1990s	11	2.28
2000	2	0.41
2001	2	0.41
2002	15	3.09
2003	30	6.17
2004	33	6.79
2005	25	5.14
2006	21	4.32
2007	34	7.00
2008	47	9.67
2009	38	7.82
2010	51	10.49
2011	34	7.00
2012	37	7.61
2013	11	2.26
2014	12	2.47
2015	2	0.41
Total	486	100
No information	54	10.00

Notes: Additional information was extracted from the individual graves registry at the Ministry of Justice website and from internet searches on individual graves.



[▶ return](#)

# Generalized Trust in Spain



▶ Back

# First Stage Results: Transferred to Valley of the Fallen

[▸ types of graves](#)[▸ Unknown](#)

	All	Primary Road	Mola	Mola+Prim.Road
Distance to the taking of Madrid	-0.0079*** (0.0010)	-0.008*** (0.0010)	-0.0090*** (0.0008)	-0.0096*** (0.0009)
F statistic	67.75	64.19	117.57	118.85
Observations	29,531	27,372	29,531	27,372
AC and Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes

Notes: *Exhumed Graves/Population* is measured as the total (and updated) number of corpses exhumed in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. The instrument is the distance (in km) to the primary road that existed in 1931 that was taken in the advancement of the Francoist troops in the taken of Madrid during the first months on the war. Controls include age-group, education and labor status of the individual fixed effects, current size of the municipality fixed effects, population in 1930 and in the survey year, area of the judicial district, a measure of density in the primary roads network in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, an index of caloric yield of the soil and a landcover index. *Mola* measures the distance (in km) to the primary road that existed in 1931 and that General Mola planned to use to take Madrid. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

[▸ Back](#)

## IV Results: Transferred to Valley of the Fallen

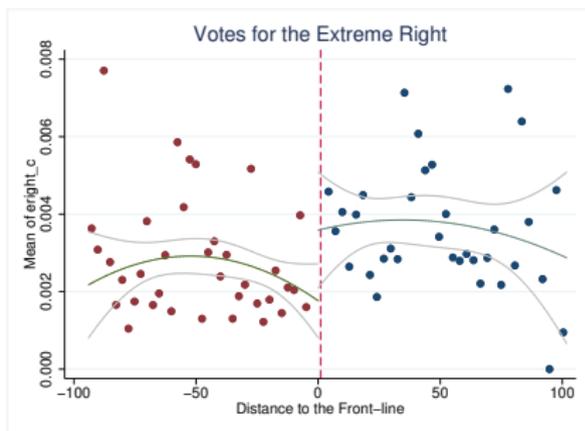
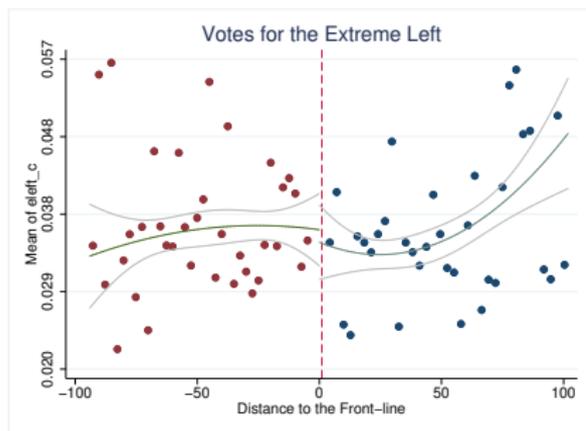
	All	Primary Road	Mola	Mola+Prim.Road
Exhumed corpses/Population	-0.102*** (0.0363)	-0.100*** (0.0380)	-0.106** (0.0456)	-0.115*** (0.0449)
Observations	29,531	27,372	29,531	27,372
Centered $R^2$	0.05	0.05	0.05	0.05
AC and Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Mean dep. variable	4.83	4.86	4.83	4.86

Notes: The dependent variable takes values from 0 to 10, where 0 indicates that you need to be very careful when dealing with people and 10 that most people can be trusted. *Exhumed Graves/Population* is measured as the total (and updated) number of corpses exhumed in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. The instrument is the distance (in km) to the primary road that existed in 1931 that was taken in the advancement of the Francoist troops in the taken of Madrid during the first months on the war. Controls include age-group, education and labor status of the individual fixed effects, current size of the municipality fixed effects, population in 1930 and in the survey year, area of the judicial district, a measure of density in the primary roads network in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, an index of caloric yield of the soil and a landcover index. *Mola* measures the distance (in km) to the primary road that existed in 1931 and that General Mola planned to use to take Madrid. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

[▶ Back](#)[▶ all types of mass graves](#)[▶ Unknown](#)[▶ other types of mass graves](#)

# Voting Results: Congressional 1977-2016, Extremes

- We code the political ideology (extreme left / extreme right) of the party: Communist and Fascist parties (Fontana et al., 2017)



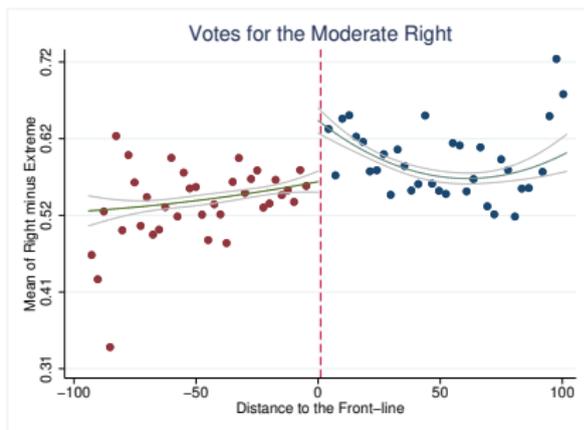
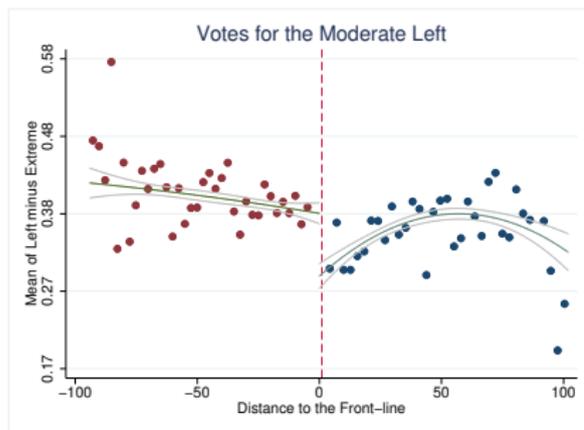
The dots show the means of votes for extreme left-wing or right-wing parties for the Spanish Parliament elections 1977-2016, conditional of the distance to the front. The lines are quadratic best fits, with confidence intervals. Municipalities located within the front are excluded. RD coefficients (st. error) are 0.002 (0.009) for the left and 0.001 (0.003) for the right, using `rdrobust` command.

► Populists

► Back

# Voting Results: Congressional 1977-2016, Moderates

- We code the political ideology (moderate left / moderate right) of the party: PSOE and PP

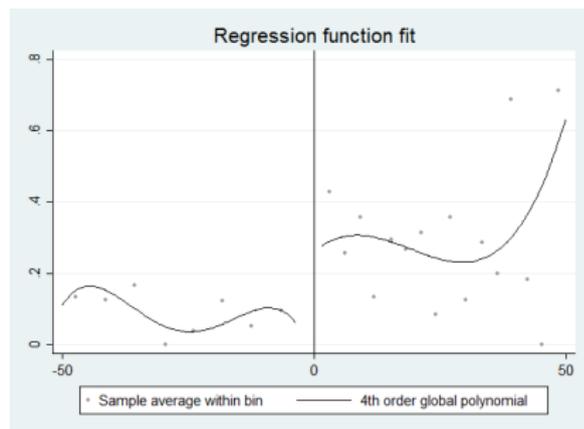
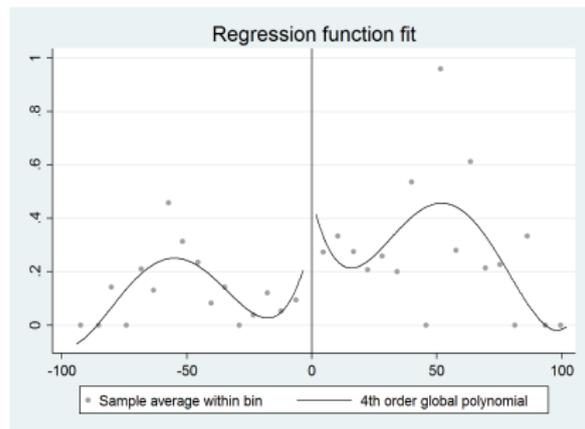


The dots show the means of votes for moderate left-wing or right-wing parties for the Spanish Parliament elections 1977-2016, conditional of the distance to the front. The lines are quadratic best fits, with confidence intervals. Municipalities located within the front are excluded. RD coefficients (st. error) are  $-0.077^{***}$  (0.0137) for the left and  $0.076^{***}$  (0.013) for the right, using `rdrubst` command.

▶ Regionalist

▶ Back

# Francoist Streets in Aragon

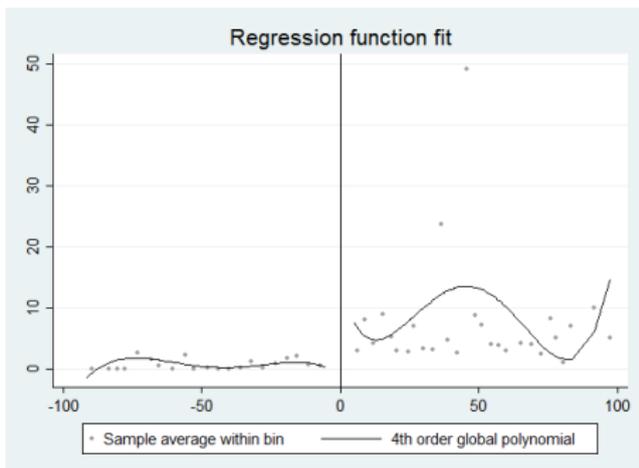
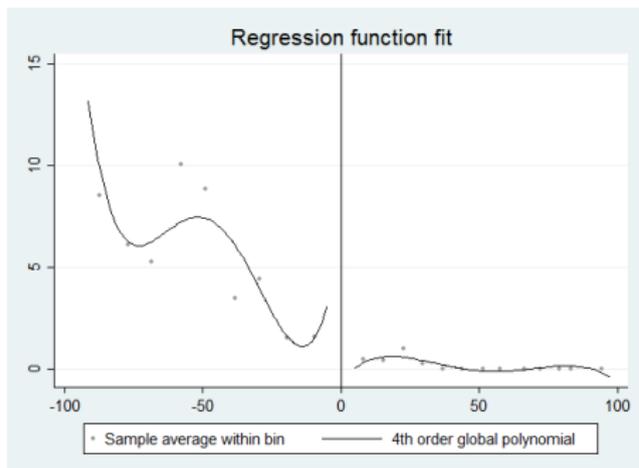


► Religion

► Back

# Political Repression: Intensive Margin

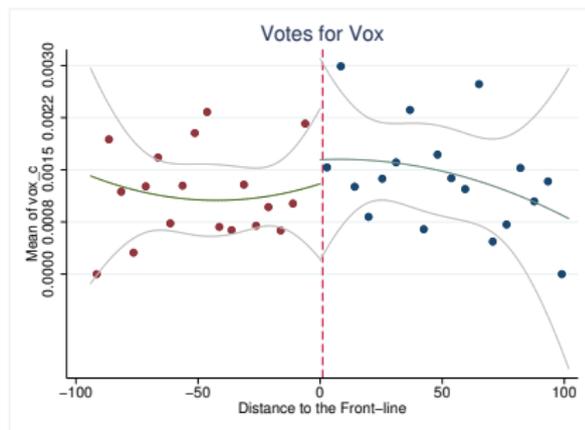
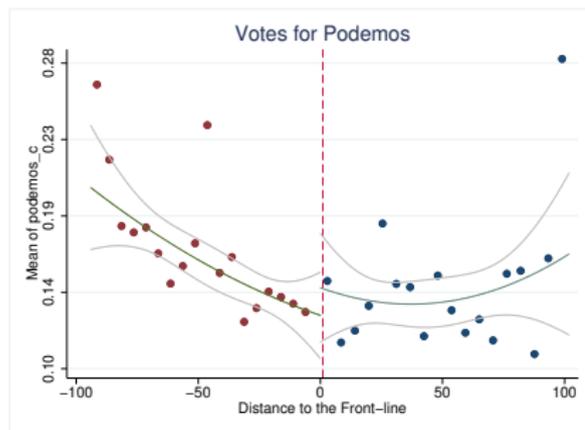
- Geo-located mass graves on political repression, with information on which side was responsible for the violence (negative is **Republican**)



▶ Back

# Voting Results: Congressional 1977-2016, Populism

- We code the political ideology (left populist / right populist) of the party: Podemos and Vox

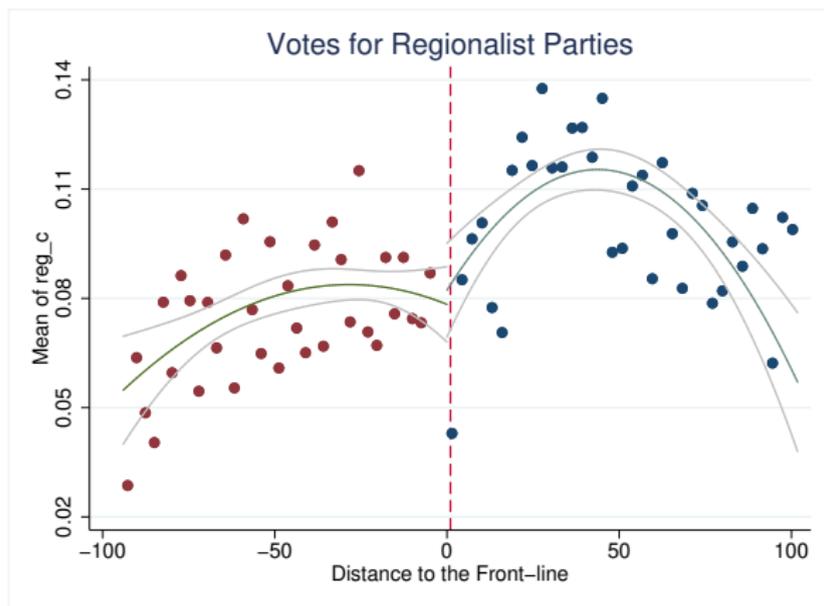


The dots show the means of votes for populist left-wing or right-wing parties for the Spanish Parliament elections in 2016, conditional of the distance to the front. The lines are quadratic best fits, with confidence intervals. Municipalities located within the front are excluded. RD coefficients (st. error) are 0.03 (0.042) for the left and -0.0008 (0.0014) for the right, using `rdr robust` command.

▶ Back

## Voting Results: Congressional 1977-2016, Regionalism

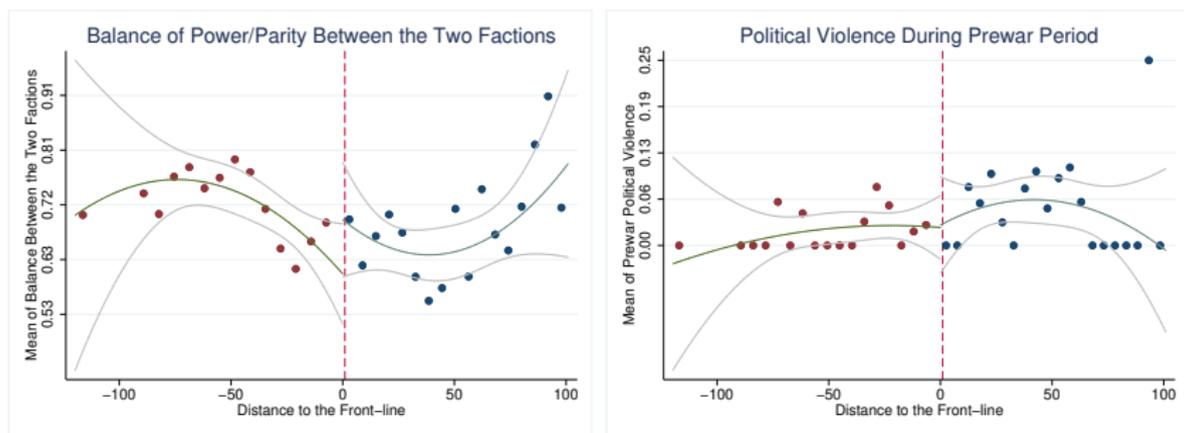
- We code the political ideology (regionalist) of the party: PAR, center, lately allied with PP



The dots show the means of votes for regionalist parties for the Spanish Parliament elections 1977-2016, conditional of the distance to the front. The lines are quadratic best fits, with confidence intervals. Municipalities located within the front are excluded. RD coefficients (st. error) is 0.008 (0.014) using `rdrrobust` command.

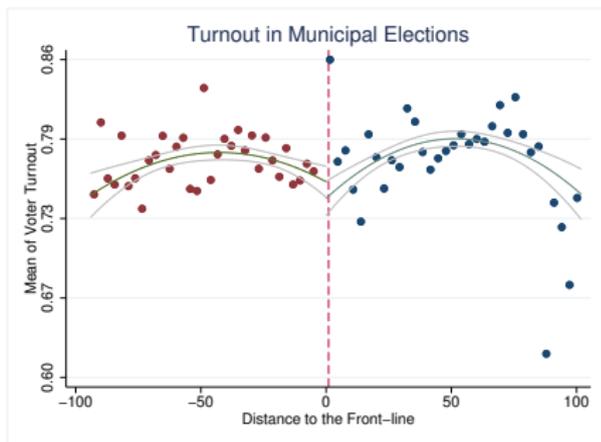
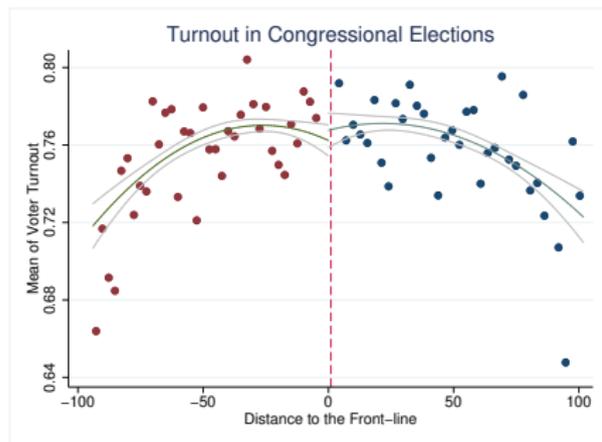
# Pre-trends: 1936 Political Competition and Previous Violence

- Information of prewar political outcomes available at the municipal level (Balcells, 2011)
- No evidence of discontinuities in ideology (left, anarcho-sindicalist union), political competition or pre-war violence



The dots show the an index capturing the extent to which there is a balance of power or parity between the two factions—left and right—(left panel) and political violence during the prewar period (right panel), both at the locality level and conditional of the distance to the front-line. Negative values of distance correspond to the Republican side. RD coefficients (st.error) are -0.06 (0.132) (left) and -0.06 (0.042) (right) , using `rdrobust` command.

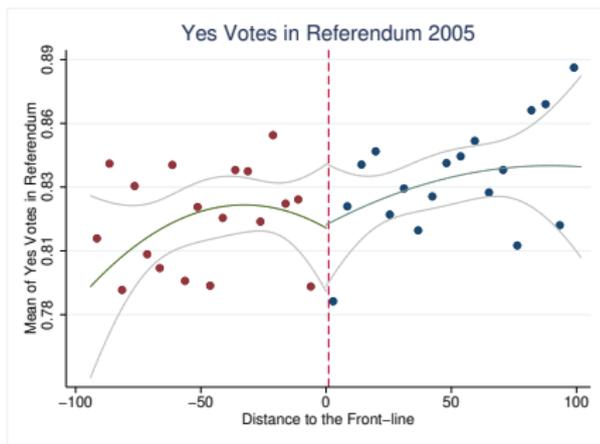
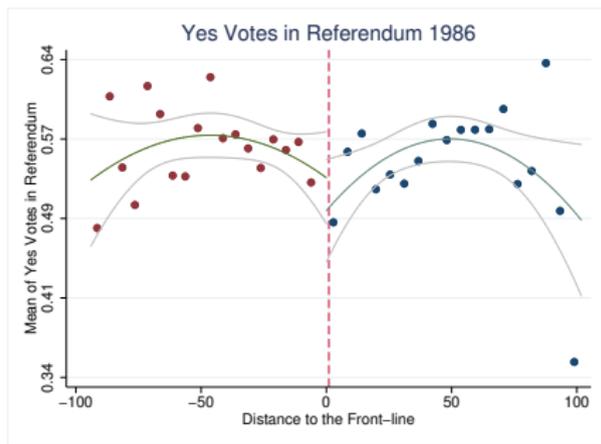
# Turnout in Congressional (1977-2016) and Municipal Elections (1987-2011)



The dots show the average turnout at the municipal level for all congressional (left) and municipal (right) elections, conditional on distance to the frontline. The lines are quadratic fits, with confidence intervals. Municipalities located within the front are excluded. Negative values of distance correspond to the Republican side. RD coefficients (st.error) are 0.03\*\* (0.013) for congressional elections and 0.03\* (0.020) for municipal elections, using the `rdrobust` command. \*\*  $p < 0.05$ , \*  $p < 0.1$ .

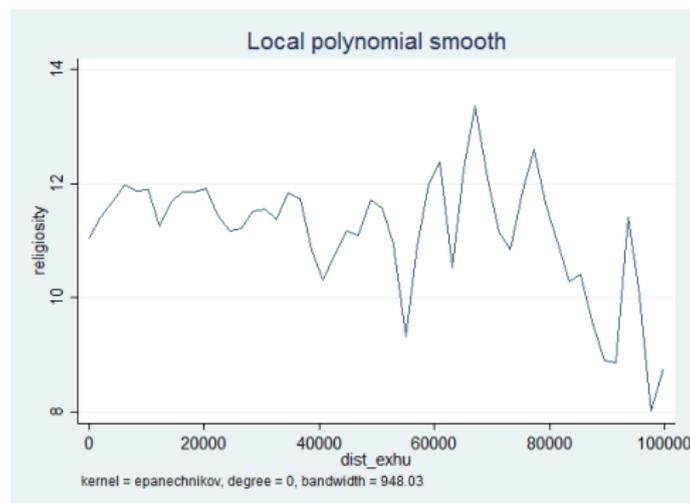
▶ Back

# Referendum Results: 1986 for NATO (left) and 2005 for EU (right)



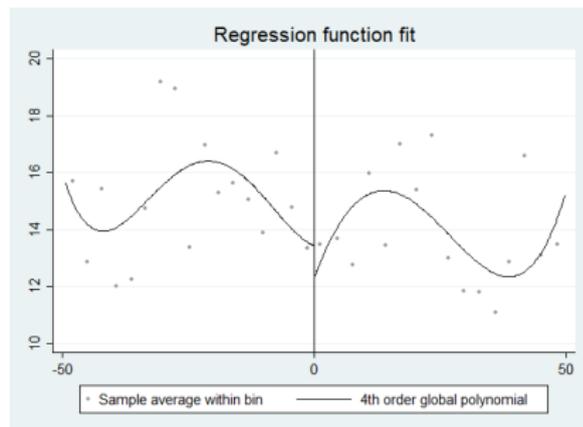
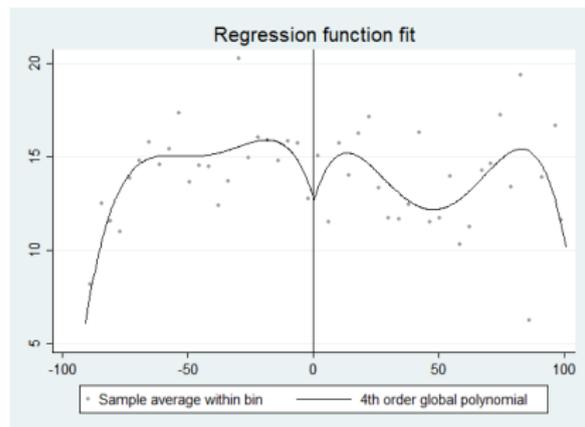
▶ Back

# Non-Parametric Regressions: Religion and Mass Graves



▶ Back

# Religious Streets in Aragon



▶ Back

# OLS Results on Generalized Trust: Exhumed Mass Graves, Restricted

	(1)	(2)	(3)	(4)	(5)
Exhumed corpses/Population	-0.0071*** (0.0023)	-0.0070*** (0.0023)	-0.0203*** (0.0059)	-0.0191*** (0.0058)	-0.0179*** (0.0059)
Observations	31,061	31,054	29,771	29,531	29,531
Adj- $R^2$	0.03	0.05	0.05	0.07	0.07
AC and year FE	Yes	Yes	Yes	Yes	Yes
Controls1	No	Yes	Yes	Yes	Yes
Controls2	No	No	Yes	Yes	Yes
Controls3	No	No	No	Yes	Yes
Controls4	No	No	No	No	Yes
Mean dep. variable	4.83	4.83	4.83	4.83	4.83

Notes: The dependent variable takes values from 0 to 10, where 0 indicates that you need to be very careful when dealing with people and 10 that most people can be trusted. *Exhumed/Population* is measured as the exhumed number of corpses in the exhumed mass graves in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. All models include region (autonomous community) and survey-year fixed effects. *Controls1* includes fixed effects for age groups, for current size of the municipalities, population in 1930 as well as in the survey year, and area at the judicial district level. *Controls2* includes an index of caloric yield of the soil, ruggedness, average temperature and its standard deviation, distance to river and to coast, and landcover. *Controls3* includes level of education and employment status of the individual. *Controls4* includes distance Madrid, distance to the Mola plan and to the taking of Madrid. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## Effects of Exhumation on Generalized Trust

	(1)	(2)
Post-Exhumation	0.065 (0.0763)	0.051 (0.0772)
Post*Older65		0.072 (0.0653)
Observations	34,377	34,377
Adj- $R^2$	0.10	0.10
Year FE	Yes	Yes
Judicial District FE	374	374
Mean dep. variable	4.85	4.85

Notes: The dependent variable takes values from 0 to 10, where 0 indicates that you need to be very careful when dealing with people and 10 that most people can be trusted. All models include judicial district, size of municipality, survey-year fixed effects, fixed effects for age groups, level of education and employment status of the individual. Model (2) includes an interaction term of post with being older than 65. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

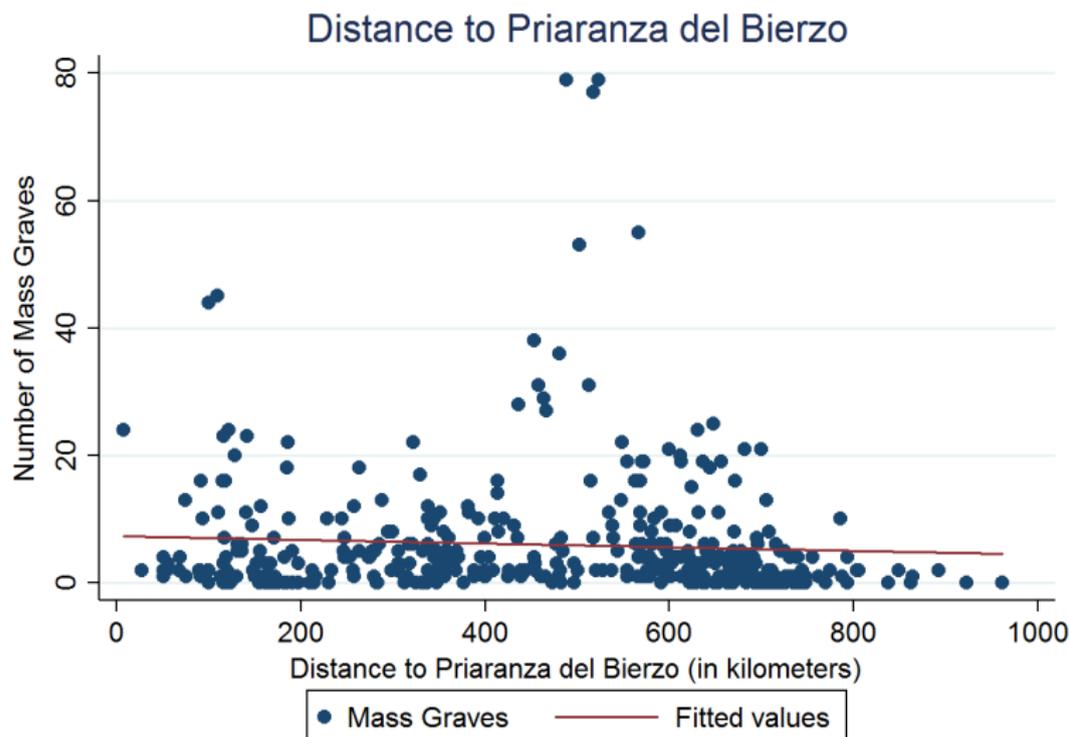
## Effects of Exhumation on Generalized Trust

	(1)	(2)
Post-Exhumation	0.042 (0.0938)	0.026 (0.0962)
Post*Older65		0.076 (0.1256)
Observations	11,591	11,591
Adj- $R^2$	0.12	0.12
Year FE	Yes	Yes
Judicial District FE	147	147
Mean dep. variable	4.85	4.85

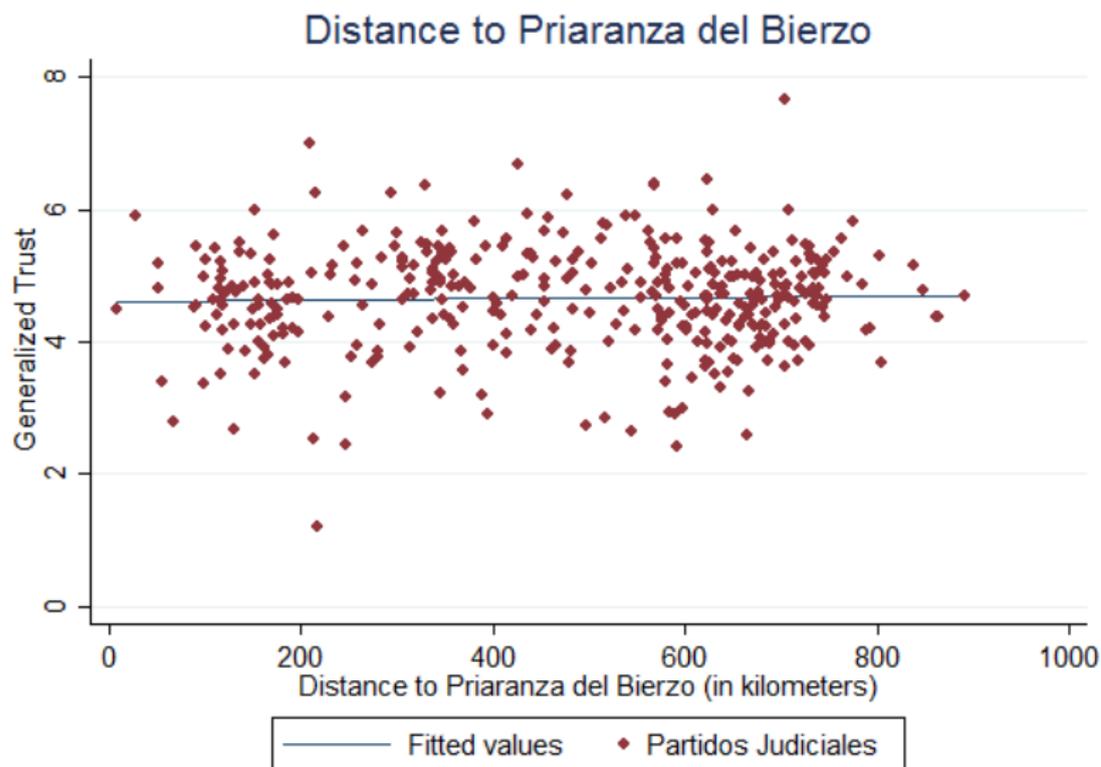
Notes: The dependent variable takes values from 0 to 10, where 0 indicates that you need to be very careful when dealing with people and 10 that most people can be trusted. All models include judicial district, size of municipality, survey-year fixed effects, fixed effects for age groups, level of education and employment status of the individual. Sample restricted to those judicial district with at least one exhumation. Model (2) includes an interaction term of post with being older than 65. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

▶ Back

# Priaranza del Bierzo



## Priaranza del Bierzo II



# Map of Aragon



▶ Back

## As a Consequence of the Civil War, at Least One Family Member or Close Person...

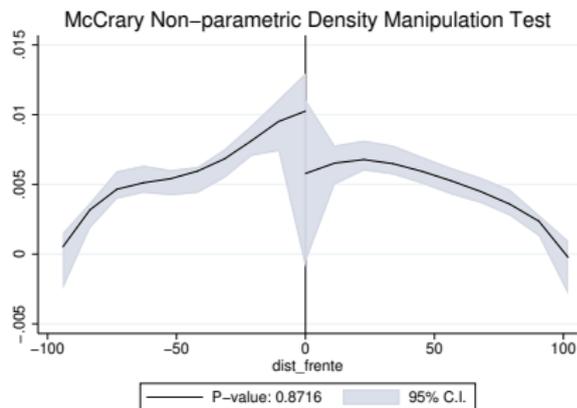
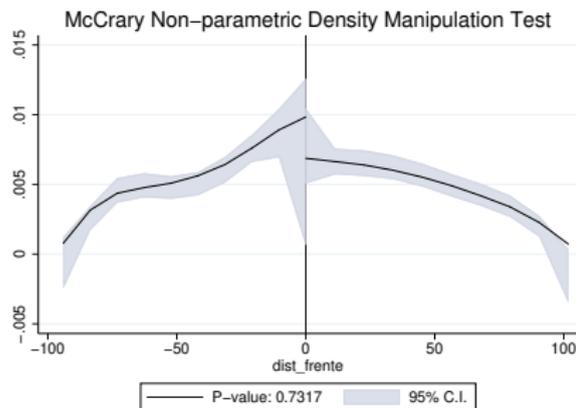
<b>Type of victimization</b>	<i>Number</i>	<i>%</i>
No victims	713	24.28
Was imprisoned	330	11.24
Was killed in combat	321	10.93
Was murdered	256	8.72
Had to hide	136	4.63
Had to leave Spain	129	4.39
Disappeared	73	2.49
Was killed in bombing	64	2.18
Was sentenced to death	49	1.67
Was fired from her job	18	0.61
Other situation	162	5.52
Total victims	1,538	52.38
Don't know	396	13.49
Don't answer	289	9.84

*Notes:* Survey on the Civil War and Franco's Dictatorship (CIS 2760) conducted in 2008.

[▶ side responsible](#)

[▶ return](#)

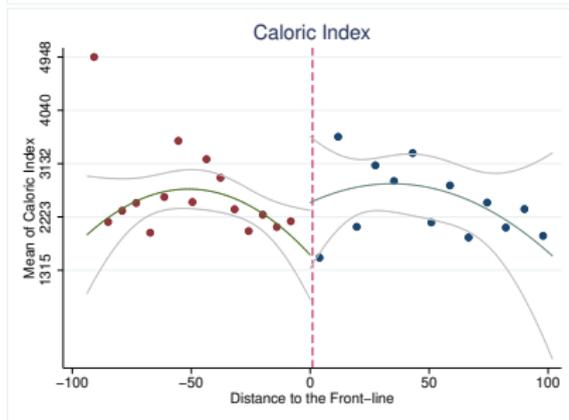
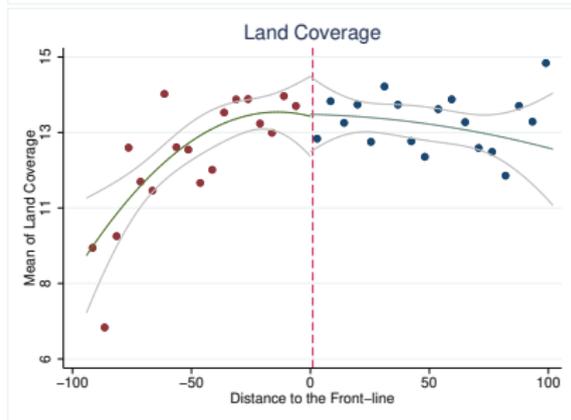
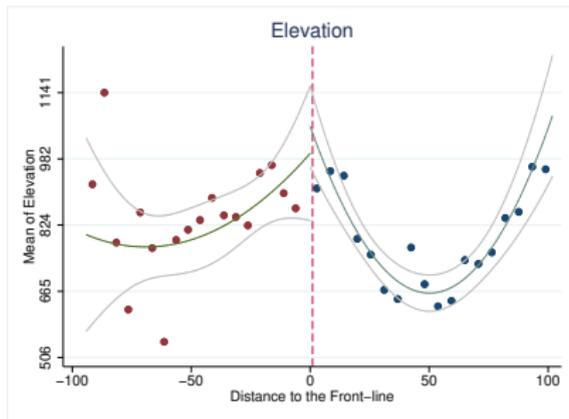
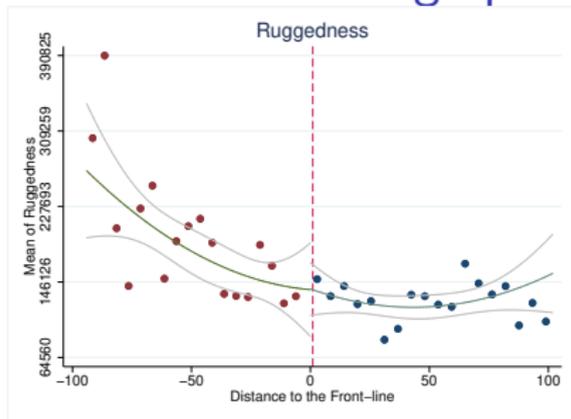
# McCrary Test of Manipulation of the Running Variable



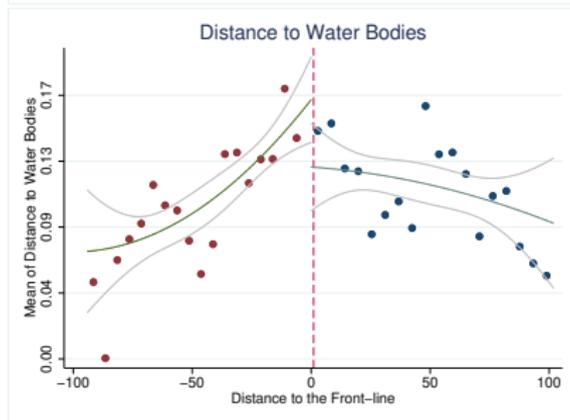
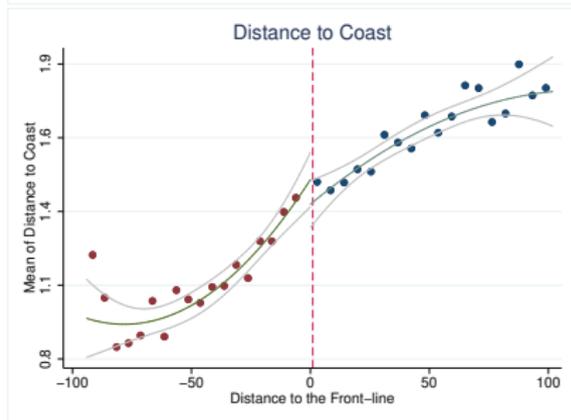
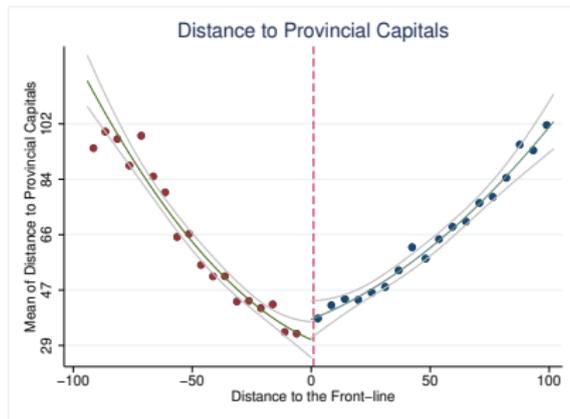
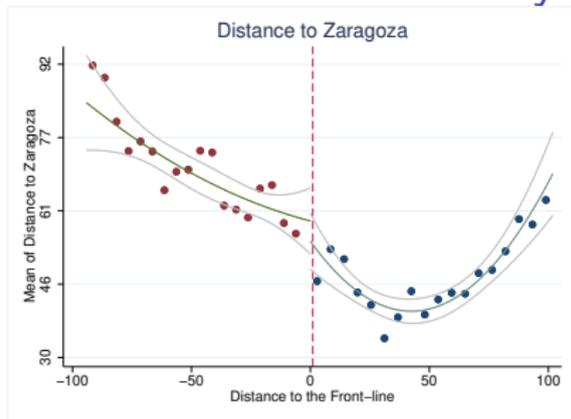
Manipulation test using the local-polynomial density estimators proposed by Cattaneo et al. [2019], with the command `rddensity`. The left panel includes all municipalities and the right panel excludes frontline municipalities. Negative values of distance correspond to the Republican side. We report p-values and 95% confidence intervals.

▶ Back

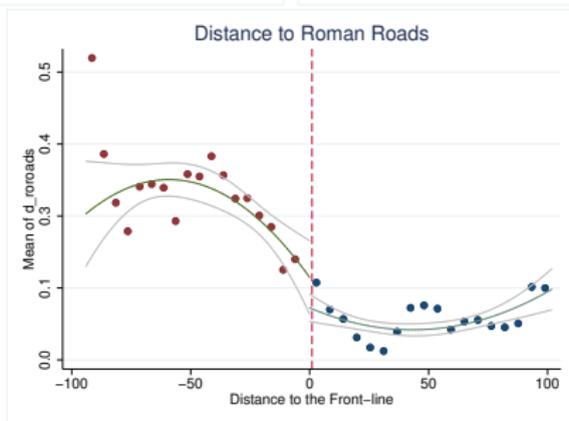
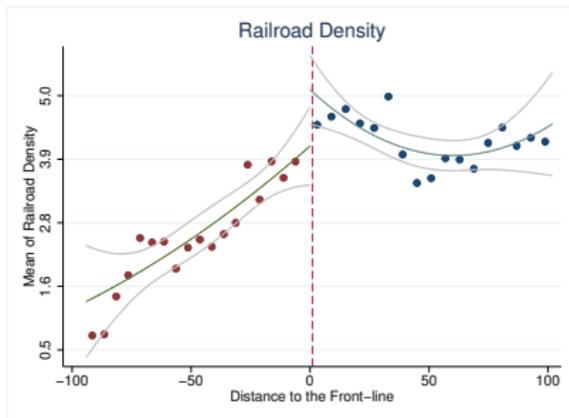
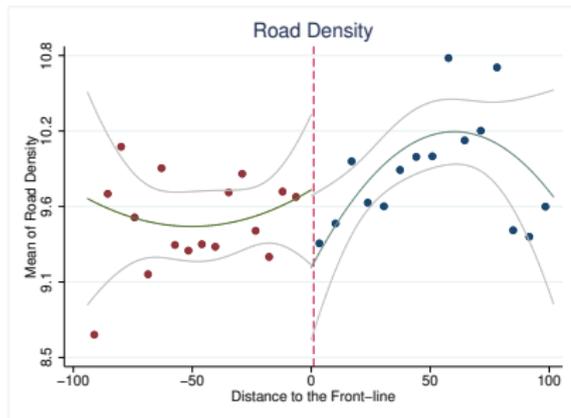
# Balancedness: Geographical Variables



# Balancedness: Other Key Distances



# Balancedness: Trade and Connectedness



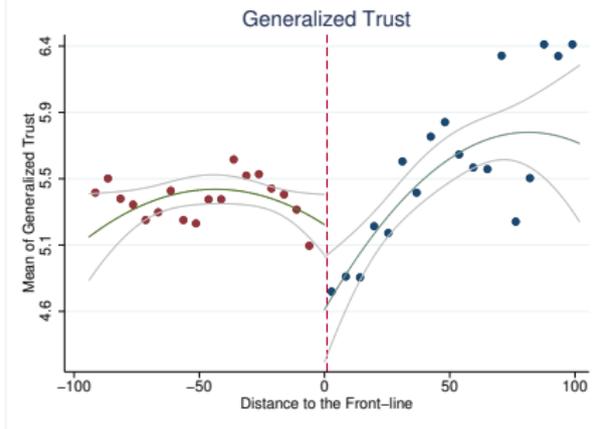


Figure: Generalized

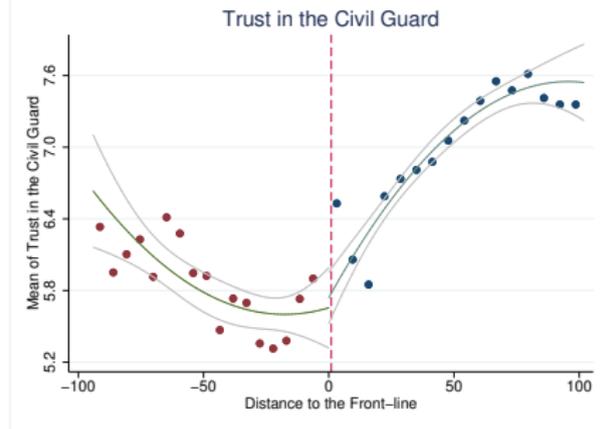
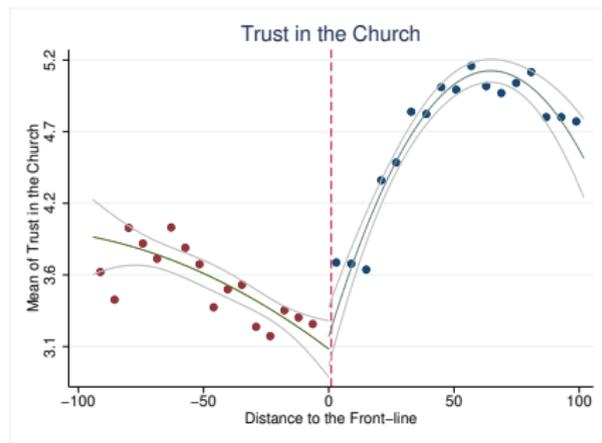
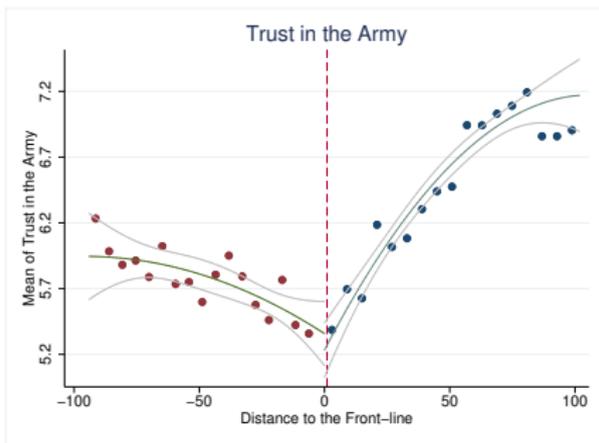


Figure: Civil Guard



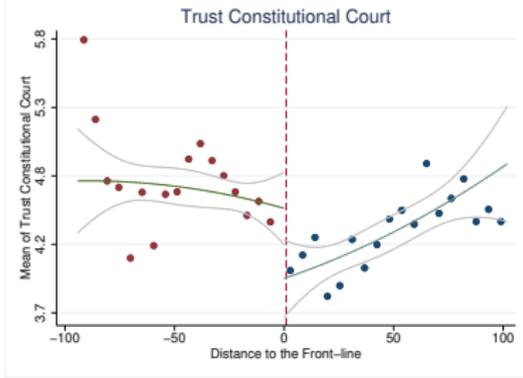


Figure: Constitutional Court

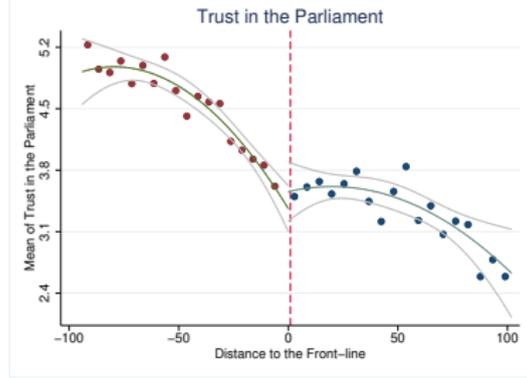


Figure: Parliament

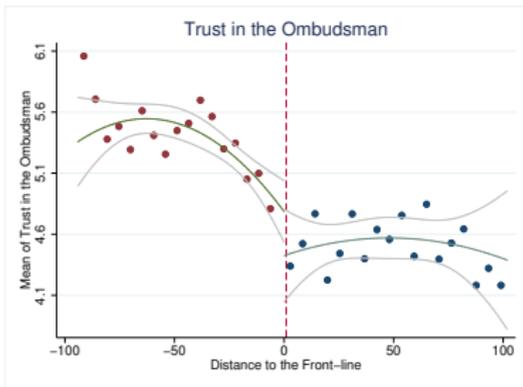


Figure: Ombudsman

# Decomposing Trust: RD Results with Trust on Institutions

	(1) Generalized	(2) Army	(3) Civil Guard	(4) Church	(5) Constit. Court	(6) Ombudsman	(7) Parliament
Republican side	-0.11 (0.226)	-0.75** (0.261)	-1.05** (0.375)	-1.11*** (0.262)	0.30 (0.339)	0.67* (0.340)	0.75** (0.281)
Observations	683	600	575	584	655	652	683
R-squared	0.26	0.28	0.49	0.52	0.13	0.25	0.48
Mean dep. variable	5.4	6.1	6.3	4.1	4.4	4.9	3.9

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Notes: The dependent variable takes values from 0 to 10, where 0 indicates that you need to be very careful when dealing with people and 10 that most people can be trusted. Similar measures for trust in the army, civil Guard, Church and Monarchy. The Nationalist and Republican sides are measured respective from the Aragon Front Line. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## Which Side Was Responsible?

<b>Side</b>	<i>Number</i>	<i>%</i>
National	916	59.56
Republicans	289	18.79
Don't know	296	19.25
Don't answer	37	2.4

*Notes:* Survey on the Civil War and Franco's Dictatorship (CIS 2760) conducted in 2008.

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# Survey Data on Trust

- **Generalized trust:** “Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?”
  - ▶ 10 'most people can be trusted'
  - ▶ 0 'need to be very careful'
  - ▶ average=4.9; st.dev=2.19
  - ▶ n=23,632
  - ▶ years 1998-2015
- **Trust on institutions:**
  - ▶ related to Civil War: military, Civil Guard, Church, etc.
  - ▶ related to Democracy: Constitutional Court, AC Parliament, Ombudsman, etc.

▶ return

# Mass Graves

<b>Type</b>	<i>Number</i>	<i>%</i>
No Interventions Undertaken	1,176	47.84
Fully or Partially Exhumed	540	21.97
Transferred to the Valley of the Fallen	499	20.30
Missing	242	9.85
Valley of the Fallen	1	0.04
<b>Total graves</b>	<b>2,458</b>	<b>100</b>

*Notes:* Information taken from the Justice Ministry. The information on exhumed graves has been revised and updated.

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## Exhumed Graves: Sources of Information

<b>Source</b>	<i>Number</i>	<i>%</i>
Ministry of Justice	438	81.11
Manually updated from the Map of Graves	31	5.74
<i>Aranzadi</i> Association	71	13.15
<b>Total</b>	<b>540</b>	<b>100</b>

*Notes:* Data used to create the Map of Graves comes from the information sent to the Ministry of Justice by the different Autonomous Regions that signed the collaboration agreements and by Associations, Foundations or Entities dedicated to recovering historical memory.

# El traslado de los restos de Caídos al Valle de Cuelgamuros

## *Plazo para solicitarlo*

Madrid, 29.—Uno de los principales fines que determinaron la construcción del monumento nacional a los Caídos, en el valle de Cuelgamuros. Guadarrama, fué el de dar en él sepultura a quienes fueron sacrificados por Dios y por España y a cuantos cayeron en nuestra Cruzada, sin distinción del campo en que combatieron, según exige el espíritu cristiano que inspiró aquella magna obra, con tal que fueran de nacionalidad española y de religión católica.

Próximas a su total terminación las obras de dicho monumento, se pone en conocimiento de los parientes de personas en quienes concurrieran aquellas circunstancias invitándoles a que manifiesten, en plazo de quince días y mediante escrito dirigido al Gobierno Civil, si desean o consienten que los restos de sus familiares sean trasladados al enterramiento del Valle de los Caídos.

En caso afirmativo, en el escrito en que así lo hagan constar deberá expresarse:

- a. Nombre, apellidos y domicilio del solicitante y su parentesco con la persona cuyo traslado de restos se interesa.
- b. Nombre y apellidos del fallecido, con expresión de la fecha, lugar y circunstancias de su muerte, si fueran conocidas.
- c. Lugar en que actualmente esté enterrado, con el mayor número de indicaciones posibles para su exacta localización. — Cifra.

## Preston (2011)

*The repression carried out by the military rebels was a carefully planned operation to eliminate, in the words of the director of the coup, Emilio Mola, 'without scruple or hesitation those who do not think as we do'.*

▶ [return](#)

# Mass Graves: Death Toll

Type	Number	%
Transferred to the Valley of the Fallen	33,839	49.08
No Interventions Undertaken	15,535	22.53
Fully or Partially Exhumed	14,977	21.72
Missing	4,261	6.18
Valley of the Fallen	338	0.49
Total dead	68,950	100

Notes: Information taken from the Justice Ministry. The information on exhumed graves has been revised and updated.

[▶ number of graves](#)

[▶ summary stats](#)

[▶ return](#)

## Summary Statistics. Mass Graves: Death Toll at the District Level (per 1,000 inhabitants in 1930)

Type	Average	St.Dev.	Min.	Max
Transferred to the Valley of the Fallen	2.01	14.42	0	187.44
Fully or Partially Exhumed	0.60	4.16	0	81.19
No Interventions Undertaken	0.43	1.53	0	14.63
Missing	0.06	0.29	0	3.33
Valley of the Fallen	0.05	0.95	0	19.72
Total dead	3.14	15.08	0	187.44

*Notes:* Information taken from the Ministry of Justice. The information on exhumed graves has been revised and updated. All figures are computed dividing by the population of the judicial district in 1930 and multiplied by 1,000. There are 434 judicial districts in Spain. [▶ return](#)

# Exhumed Graves

- Franco's explicit desire for annihilation of "leftists" [▶ quote](#)
  - ▶ violence not as collateral byproduct of military strategy
- Only captures violence against "leftists"
  - ▶ there were more exhumations during the 1940s, typically of 'Nationalist' victims
  - ▶ 'Causa General' contains valuable information about this other type of repression → available at the municipal level but not processed
- Victims were typically killed without a trial and buried in an unmarked mass grave
  - ▶ in order to target victims, army and militiamen relied on reports from other members of the community → *culture of distrust*
  - ▶ survivors suffered 'double repression'

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# OLS Results on Generalized Trust: Non-Exhumed Mass Graves

	(1)	(2)	(3)	(4)
Non-Exhumed corpses/Population	-0.0013*** (0.0005)	-0.0004 (0.0005)	0.0003 (0.0011)	0.0002 (0.0010)
Observations	38,287	38,275	36,159	35,839
Adj- $R^2$	0.03	0.04	0.05	0.07
AC and year FE	Yes	Yes	Yes	Yes
Controls1	No	Yes	Yes	Yes
Controls2	No	No	Yes	Yes
Controls3	No	No	No	Yes
Mean dep. variable	4.86	4.86	4.85	4.85

Notes: *Non-Exhumed/Population* is measured as the total number of corpses in all types of mass graves minus the total number of corpses in the exhumed mass graves in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. All models include region (autonomous community) and survey-year fixed effects. *Controls1* includes fixed effects for age groups, for current size of the municipalities, population in 1930 as well as in the survey year, and area at the judicial district level. *Controls2* includes an index of caloric yield of the soil, ruggedness, average temperature and its standard deviation, distance to river and to coast, and landcover. *Controls3* includes level of education and employment status of the individual. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

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# The Taking of Madrid



▶ return

# General Mola's Plan



▶ return

# First Stage Results: All Mass Graves

	All	Primary Road	Mola	Mola+Prim.Road
Distance to the taking Madrid	-0.015*** (0.0011)	-0.016*** (0.0011)	-0.014*** (0.0011)	-0.015*** (0.0012)
F statistic	206.35	202.42	149.51	152.21
Observations	29,531	27,372	29,531	27,372
AC and Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes

Notes: *Exhumed Graves/Population* is measured as the total (and updated) number of corpses exhumed in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. The instrument is the distance (in km) to the primary road that existed in 1931 that was taken in the advancement of the Francoist troops in the taken of Madrid during the first months on the war. Controls include age-group, education and labor status of the individual fixed effects, current size of the municipality fixed effects, population in 1930 and in the survey year, area of the judicial district, a measure of density in the primary roads network in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, an index of caloric yield of the soil and a landcover index. *Mola* measures the distance (in km) to the primary road that existed in 1931 and that General Mola planned to use to take Madrid. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## IV Results: All Mass Graves

	All	Primary Road	Mola	Mola+Prim.Road
All corpses/Population	-0.053*** (0.0181)	-0.051*** (0.0184)	-0.070** (0.030)	-0.075*** (0.029)
Observations	29,531	27,372	29,531	27,372
Centered	0.07	0.07	0.06	0.06
AC and Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Mean dep. variable	4.83	4.86	4.83	4.86

Notes: The dependent variable takes values from 0 to 10, where 0 indicates that you need to be very careful when dealing with people and 10 that most people can be trusted. *Exhumed Graves/Population* is measured as the total (and updated) number of corpses exhumed in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. The instrument is the distance (in km) to the primary road that existed in 1931 that was taken in the advancement of the Francoist troops in the taken of Madrid during the first months on the war. Controls include age-group, education and labor status of the individual fixed effects, current size of the municipality fixed effects, population in 1930 and in the survey year, area of the judicial district, a measure of density in the primary roads network in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, an index of caloric yield of the soil and a landcover index. *Mola* measures the distance (in km) to the primary road that existed in 1931 and that General Mola planned to use to take Madrid. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

[▶ return](#)

## First Stage Results: Not Intervened

	All	Primary Road	Mola	Mola+Prim.Road
Distance to road to Madrid	0.000 (0.000)	0.000 (0.000)	-0.002*** (0.0007)	-0.002** (0.0007)
F statistic	1.18	2.51	8.66	4.79
Observations	18,259	17,092	18,259	17,092
AC and Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes

Notes: *Exhumed Graves/Population* is measured as the total (and updated) number of corpses exhumed in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. The instrument is the distance (in km) to the primary road that existed in 1931 that was taken in the advancement of the Francoist troops in the taken of Madrid during the first months on the war. Controls include age-group, education and labor status of the individual fixed effects, current size of the municipality fixed effects, population in 1930 and in the survey year, area of the judicial district, a measure of density in the primary roads network in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, an index of caloric yield of the soil and a landcover index. *Mola* measures the distance (in km) to the primary road that existed in 1931 and that General Mola planned to use to take Madrid. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## IV Results: Not Intervened

	All	Primary Road	Mola	Mola+Prim.Road
Exhumed corpses/Population	1.8 (1.9)	1.1 (0.96)	-0.60* (0.33)	-0.84 (0.51)
Observations	18,259	17,092	18,259	17,092
AC and Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Mean dep. variable	4.9	4.9	4.9	4.9

Notes: The dependent variable takes values from 0 to 10, where 0 indicates that you need to be very careful when dealing with people and 10 that most people can be trusted. *Exhumed Graves/Population* is measured as the total (and updated) number of corpses exhumed in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. The instrument is the distance (in km) to the primary road that existed in 1931 that was taken in the advancement of the Francoist troops in the taken of Madrid during the first months on the war. Controls include age-group, education and labor status of the individual fixed effects, current size of the municipality fixed effects, population in 1930 and in the survey year, area of the judicial district, a measure of density in the primary roads network in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, an index of caloric yield of the soil and a landcover index. *Mola* measures the distance (in km) to the primary road that existed in 1931 and that General Mola planned to use to take Madrid. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## First Stage Results: All-Transferred-Exhumed

	All	Primary Road	Mola	Mola+Prim.Road
Distance to road to Madrid	0.000 (0.000)	0.000 (0.000)	-0.002** (0.0007)	-0.001 (0.0007)
F statistic	0.14	1.03	5.73	2.08
Observations	18,259	17,092	18,259	17,092
AC and Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes

Notes: *Exhumed Graves/Population* is measured as the total (and updated) number of corpses exhumed in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. The instrument is the distance (in km) to the primary road that existed in 1931 that was taken in the advancement of the Francoist troops in the taken of Madrid during the first months on the war. Controls include age-group, education and labor status of the individual fixed effects, current size of the municipality fixed effects, population in 1930 and in the survey year, area of the judicial district, a measure of density in the primary roads network in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, an index of caloric yield of the soil and a landcover index. *Mola* measures the distance (in km) to the primary road that existed in 1931 and that General Mola planned to use to take Madrid. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## IV Results: All-Transferred-Exhumed

	All	Primary Road	Mola	Mola+Prim.Road
Corpses/Population	5.17 (14.14)	1.74 (2.00)	-0.73* (0.44)	-1.28 (1.02)
Observations	18,259	17,092	18,259	17,092
AC and Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Mean dep. variable	4.9	4.9	4.9	4.9

Notes: The dependent variable takes values from 0 to 10, where 0 indicates that you need to be very careful when dealing with people and 10 that most people can be trusted. *Exhumed Graves/Population* is measured as the total (and updated) number of corpses exhumed in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. The instrument is the distance (in km) to the primary road that existed in 1931 that was taken in the advancement of the Francoist troops in the taken of Madrid during the first months on the war. Controls include age-group, education and labor status of the individual fixed effects, current size of the municipality fixed effects, population in 1930 and in the survey year, area of the judicial district, a measure of density in the primary roads network in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, an index of caloric yield of the soil and a landcover index. *Mola* measures the distance (in km) to the primary road that existed in 1931 and that General Mola planned to use to take Madrid. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

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## First Stage Results: Unknown Graves

	Missing	Not Intervened	Both	Extensive Both
Ruggedness	0.00023*** (0.00003)	0.0020*** (0.00025)	0.0023*** (0.0025)	0.0077*** (0.00045)
F statistic	65.54	66.33	82.05	287.37
Observations	29,531	29,531	29,531	29,587
AC and Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes

Notes: *Exhumed Graves/Population* is measured as the total (and updated) number of corpses exhumed in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. The instrument is the distance (in km) to the primary road that existed in 1931 that was taken in the advancement of the Francoist troops in the taken of Madrid during the first months on the war. Controls include age-group, education and labor status of the individual fixed effects, current size of the municipality fixed effects, population in 1930 and in the survey year, area of the judicial district, a measure of density in the primary roads network in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, an index of caloric yield of the soil and a landcover index. *Mola* measures the distance (in km) to the primary road that existed in 1931 and that General Mola planned to use to take Madrid. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## IV Results: Unknown Graves

	Missing	Not Intervened	Both	Extensive Both
All corpses/Population	-3.96*** (0.9728)	-0.4546*** (0.1113)	-0.4078*** (0.0974)	-0.1192*** (0.0266)
Observations	29,531	29,531	29,531	29,587
Centered	-0.06	-0.07	-0.04	0.02
AC and Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Mean dep. variable	4.83	4.83	4.83	4.83

Notes: The dependent variable takes values from 0 to 10, where 0 indicates that you need to be very careful when dealing with people and 10 that most people can be trusted. *Exhumed Graves/Population* is measured as the total (and updated) number of corpses exhumed in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. The instrument is the distance (in km) to the primary road that existed in 1931 that was taken in the advancement of the Francoist troops in the taken of Madrid during the first months on the war. Controls include age-group, education and labor status of the individual fixed effects, current size of the municipality fixed effects, population in 1930 and in the survey year, area of the judicial district, a measure of density in the primary roads network in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, an index of caloric yield of the soil and a landcover index. *Mola* measures the distance (in km) to the primary road that existed in 1931 and that General Mola planned to use to take Madrid. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

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## First-Stage Results: Exhumed, Robustness

	South	Extensive	Binary	Binary Cluster
Distance to the taking of Madrid	-0.013*** (0.0006)	-0.007*** (0.0004)	-0.0017*** (0.0001)	-0.0017*** (0.0005)
F-statistic	466.77	388.9	493.14	13.39
Observations	13,826	29,587	29,587	29,587
AC and Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes

Notes: *Exhumed Graves/Population* is measured as the total (and updated) number of corpses exhumed in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. The instrument is the distance (in km) to the primary road that existed in 1931 that was taken in the advancement of the Francoist troops in the taken of Madrid during the first months on the war. Controls include age-group, education and labor status of the individual fixed effects, current size of the municipality fixed effects, population in 1930 and in the survey year, area of the judicial district, primary roads in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, an index of caloric yield of the soil, a landcover index, and distance to Madrid *Mola* measures the distance (in km) to the primary road that existed in 1931 and that General Mola planned to use to take Madrid. Sample restricted to districts in the mainland, without Madrid. Robust standard errors in parentheses, clustered at the CCAA level in Column 4 \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

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## IV Results: Exhumed, Robustness

	South	Extensive	Binary	Prim.Road
Exhumed corpses/Population	-0.063* (0.0365)	-0.128** (0.0567)	-0.529** (0.2341)	-0.529* (0.2895)
Observations	13,826	29,587	29,587	29,587
Centered $R^2$	0.06	0.06	0.07	0.07
AC and Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Mean dep. variable	4.65	4.83	4.83	4.83

Notes: The dependent variable takes values from 0 to 10, where 0 indicates that you need to be very careful when dealing with people and 10 that most people can be trusted. *Exhumed Graves/Population* is measured as the total (and updated) number of corpses exhumed in each judicial district divided by the population that judicial district had in 1930 and multiplied by 1,000. The instrument is the distance (in km) to the primary road that existed in 1931 that was taken in the advancement of the Francoist troops in the taken of Madrid during the first months on the war. Controls include age-group, education and labor status of the individual fixed effects, current size of the municipality fixed effects, population in 1930 and in the survey year, area of the judicial district, primary roads in 1931, ruggedness, mean temperature and its standard deviation, distance to river and to coast, an index of caloric yield of the soil, a landcover index, and distance to Madrid. *Mola* measures the distance (in km) to the primary road that existed in 1931 and that General Mola planned to use to take Madrid. Sample restricted to districts in the mainland, without Madrid. Robust standard errors in parentheses, clustered at the CCAA level in Column 4 \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

# Judiciary

Dependent variable:	Litigation Rate			Offenses	Minor Offenses	
	Total	Civil	Criminal	Violence against Women	Violence against Women	Violence against Women
Share Exhumed Graves	-15.01*** (4.82)	-13.62*** (3.92)	-1.396 (1.09)	-0.547*** (0.19)	-138.9 (110.10)	-7.760* (4.27)
Share Transferred Graves	3.449 (5.52)	3.031 (4.80)	0.419 (1.05)	0.158 (0.21)	562.4* (295.50)	16.87** (8.37)
Observations	430	430	430	431	431	431
R-squared	0.023	0.023	0.006	0.022	0.064	0.015

Notes: The dependent variable is the litigation rates in total, civil and criminal courts in the first three columns. The same variable in column 4 for violence against women, divided into offenses and minor offenses in the last two columns. Share of exhumed and transferred graves at the partido judicial level. Robust standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

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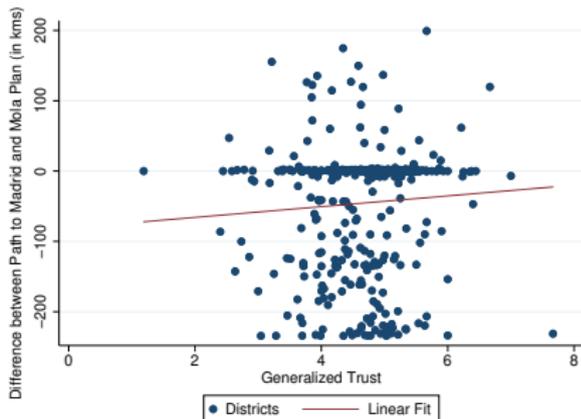
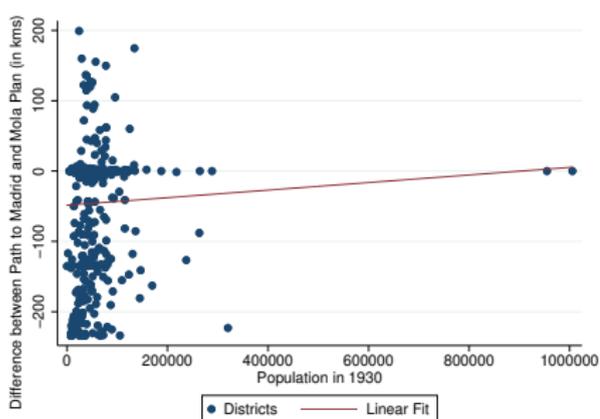
# Correlates of Deviations

(Std. Err. adjusted for 17 clusters in ccaa)

mad_mola_d-f	Robust		t	P> t	[95% Conf. Interval]	
	Coef.	Std. Err.				
caloric	82.70092	60.04111	1.38	0.187	-44.58056	209.9824
calosq	-.0228288	.0173352	-1.32	0.206	-.0595777	.0139201
capi	4289.835	5337.552	0.80	0.433	-7025.27	15604.94
temp	127.1815	210.8768	0.60	0.555	-319.8572	574.2203
tempsd	296.9449	1848.935	0.16	0.874	-3622.622	4216.512
preci	64.75623	55.41417	1.17	0.260	-52.71657	182.229
precisd	-145.4963	169.829	-0.86	0.404	-505.5178	214.5251
rugg	-.1111127	.0495377	-2.24	0.039	-.2161279	-.0060974
latitud	-364.4582	15819.84	-0.02	0.982	-33901.02	33172.1
landcover	-4856.179	2850.063	-1.70	0.108	-10898.04	1185.686
pobl930	.0103451	.0163076	0.63	0.535	-.0242255	.0449156
_cons	-82318.22	635614.7	-0.13	0.899	-1429761	1265125
sigma_u	76172.835					
sigma_e	36222.967					
rho	.81557087	(fraction of variance due to u_i)				

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# Deviations from Mola's Plan of Attack



The graphs plot the the difference (in kms) between the path to Madrid and Mola's initial plan of attack versus generalized trust (left panel) and population in 1930 at the district level (right panel). Linear fit coefficient 7.6 and standard error 5.7 for the left figure, and 0.00005 with corresponding standard error of 0.00006 for the right figure.

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## Failed Insurrections

- Deviation to Toledo in the taking of Madrid, Franco against Generals Mola and Queipo
- Troops diverted to Galicia, in the North
- Troops diverted from Despeñaperros to Badajoz in a tactical decision, as the passage was deemed too narrow and the position exposed, plus support from Portugal's dictatorial regime
- General Goded from the Balearic Islands is unsuccessful in the insurrection of Barcelona
- Ineffective insurrection in Valencia, led by the flaking of General Gonzalez Carrasco
- Republican capital established in Valencia

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