

# Crime Perception and Voting Behavior: Evidence from Individual Data

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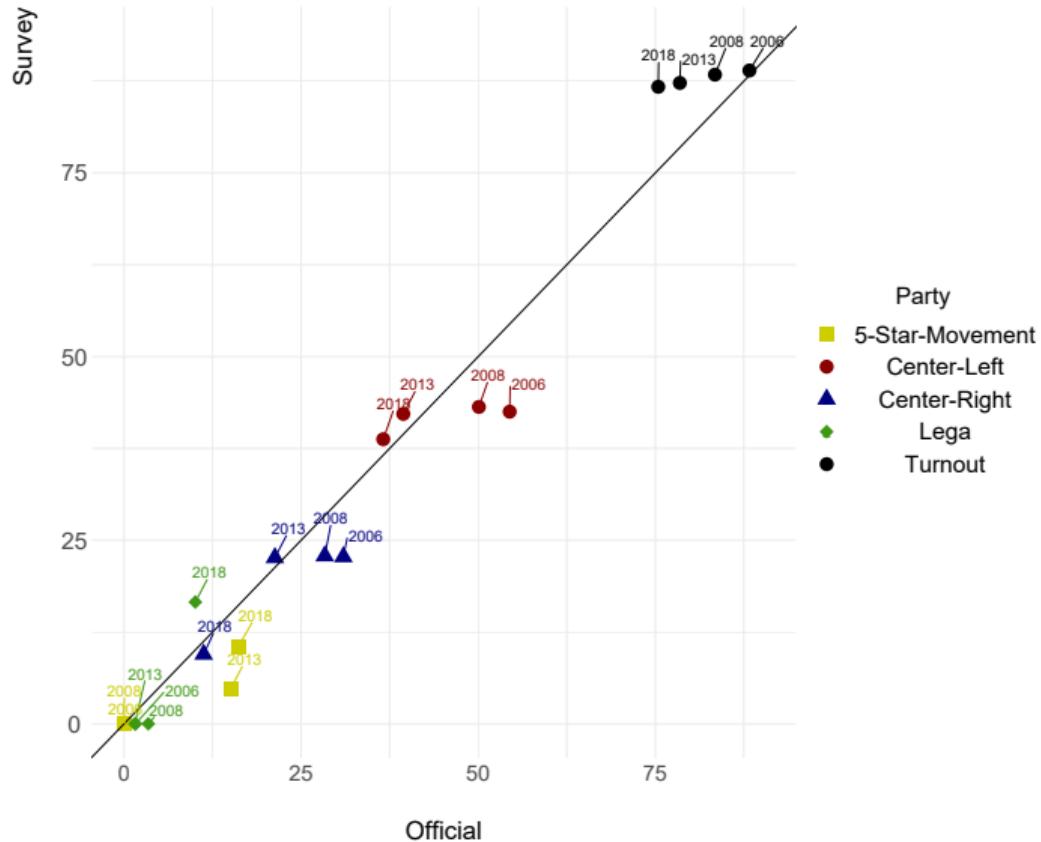
## Motivation: The Micro-Level Gap

- Democracies worldwide see a surge in **populism**, often driven by the link between **Immigration & Crime**
- Existing literature shows a link, but results rely on **aggregate data** (municipal/regional)
- **The Research Gap:** We lack understanding of how small, sudden crime *shocks* at the street level, close to an election, affect **individual voting choice**
- **Key Questions:**
  1. Is voting sensitive to **nearby crime** (within 30 days)?
  2. Do crimes by **immigrants** trigger **different** political responses than those by Italians?

## What We Do

- **Focus:** Individual-level analysis across **multiple elections** (national and administrative, 2013-2018)
- **Data:** Retrospective survey of **5,000 geolocated individuals** in Bologna, merged with  $\approx 11,000$  **geocoded crime news articles**
- **Methodology:** We isolate the **causal effect** of the offender's nationality on individual voting behavior

# Survey vs. Official Data



## What We Find

- When focusing on **general elections**, no clear results when crimes are lumped together
- Somewhat surprisingly, crimes committed by immigrants **reduce** support for populist parties (Lega and M5S) but **increase** that for *Law & Order* ones (Center Right)
- Specifically, **high skilled/educated** voters abandon M5S, **low skilled/low educated** abandon Lega, and **female** voters drive the increase of Center Right
- Things are different in **administrative elections**

## Setting: Bologna, the “*Red Stronghold*”

- **Context:** Bologna (Northern Italy) → historically a strong Left-wing city
- **Implication:** The observed effect of *party-switching* to the Right is likely a *lower bound*, due to the high social/identity cost of changing vote
- **Crime Information Source:** *Bologna Today* (online, free, non-affiliated local newspaper)
- **Coverage:**  $\approx 41\%$  of reported crimes are attributed to immigrants (close to national averages for property crime)

# Measurement: Hyper-Local and Salient Exposure

- **Operational Definition:** crime exposure is measured by the occurrence of a **reported** criminal event:
  1. Within a **200-meter radius** of the individual's residence
  2. In the **30 days** immediately preceding the election day (maximizing short-term salience)
    - Coincides with "*par condicio*" period (Law 28/2000)
- **Distinction:** We classify articles using a dictionary-based algorithm into **Italian Crime (CI)** vs. **Non-Italian Crime (CNI)**

## Spatial Crime Distribution by Year

- at least one crime news by immigrants
- at least one crime news by Italians

## Empirical Strategy: Causal Identification

- We employ an Individual-Level **Differences-in-Differences (DiD)** model:

$$\text{VoteP}_{it} = \alpha_{it} + \beta_{it} + \gamma_i + \delta_t \times \theta_d + \epsilon_{it}$$

- **Identification Power:**
  1. **Individual Fixed Effects ( $\gamma_i$ )**: Controls for all time-invariant individual characteristics (baseline ideology, average income)
  2. **District  $\times$  Year Fixed Effects ( $\delta_t \times \theta_d$ )**: Controls for all common shocks and trends specific to a district in a given year
- **Conclusion:** Coefficient  $\beta$  captures the **change in voting** associated only with the **local and temporary** variation in crime exposure

# National Elections: Aggregate Crime (Total)

Dep.	M5S		Lega		Center Right		Center Left		Abstention	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Total Crimes	-0.012** (0.004)	-0.011* (0.005)	-0.005 (0.010)	-0.005 (0.012)	0.010 (0.006)	0.010 (0.006)	0.007** (0.003)	0.004** (0.001)	0.007** (0.003)	0.007** (0.002)
Individual fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year fixed effects	✓		✓		✓		✓		✓	
Districts fixed effects × Year fixed effects		✓		✓		✓		✓		✓
R <sup>2</sup>	0.05	0.05	0.16	0.16	0.11	0.11	0.02	0.02	0.01	0.01
Observations	9624	9624	9624	9624	9624	9624	9624	9624	9624	9624

- **Mixed Result:** The overall effect of total crime is ambiguous and provides no clear direction for Right-wing voting
- **Takeaway:** It is crucial to disaggregate by nationality to isolate the political effect

# The Key Finding: Italian vs. Immigrant Crime

Dep.	M5S		Lega		Center		Right		Center		Left		Abstention	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Crimes by Italians	-0.004 (0.007)	-0.004 (0.007)	0.000 (0.014)	-0.002 (0.014)	0.002 (0.013)	0.004 (0.013)	0.004 (0.003)	0.002 (0.003)	0.005 (0.005)	0.007 (0.005)				
Crimes by immigrants	-0.023** (0.007)	-0.021** (0.007)	-0.015** (0.004)	-0.010 (0.007)	0.021** (0.006)	0.021** (0.008)	0.007 (0.006)	0.008 (0.006)	0.005 (0.010)	0.001 (0.011)				
Individual fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Year fixed effects	✓		✓		✓		✓		✓					
Districts fixed effects × Year fixed effects		✓		✓		✓		✓		✓				
R <sup>2</sup>	0.05	0.05	0.16	0.16	0.11	0.11	0.02	0.02	0.01	0.01				
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- **Crimes by Italians:** No significant effect on voting → “normal” crime does not shift allegiance
- **Crimes by Immigrants:**
  1. Strong drop in support for ambiguous populist parties (M5S and Lega)
  2. Significant increase in support for the Centre-Right (*Law & Order* party)

# Robustness: Causality and Pre-Trends

- Placebo Test (Post-Election): [▶ Table](#)

- Crime exposure **after** the election day has **no effect** on the vote
- This confirms the effect is driven by **salience** and **perception** leading up to the election

- No Pre-Trends (Diff-in-Disc): [▶ Graph by Italians](#) [▶ Graph by Immigrants](#)

- Graphical analysis confirms that Left- and Right-leaning areas **did not** have diverging crime exposure trends **before** the vote
- This supports the **exogeneity** of the short-term shock

## Heterogeneity Analysis: Who Drives the Effect?

- We examine how the crime effect varies based on individual characteristics:
  - Gender (Male vs. Female) [▶ Table](#)
  - Education (High vs. Low) [▶ Table](#)
  - Skills (High vs. Low) [▶ Table](#)

# The Mechanisms: Women and Populist Segmentation

- **Gender:** The increase in support for the Center-Right is driven mainly by **women**
  - **Interpretation:** Women are potentially more sensitive to personal safety concerns, making them more likely to reward the *Law & Order* option
- **Education / Skills (Populism Segmentation):**
  - **High-Skilled** voters abandon **M5S**
  - **Low-Skilled** voters abandon **Lega**
  - **Interpretation:** M5S is seen as ineffective by the higher-skilled segment, while Lega loses its vulnerable base (low-skilled) to the more explicit Center-Right

- **Crimes by Italians:**

- Main effect: **punishment of the incumbent** (Centre-Left loses support)
- Consistent with local crime being seen as the sitting administration's fault

- **Crimes by Immigrants:**

- Main effect: Increase in **abstention**
- **Mechanism:** In a Left-leaning context (Bologna), voters face a *high social cost* to switch to the Right-wing party, and thus prefer to abstain

## Conclusion and Implications

- Short-term crime exposure affects voting **only** when it is framed as a political issue (immigration/security)
- **Political Implication:** populist parties with ambiguous stances (M5S/Lega) are penalized, while explicit **Law & Order** parties (Centre-Right) are rewarded
- **Bologna Implication:** The observed effect is a **lower bound**, highlighting the *strength* of the mechanism

*Thank you!*

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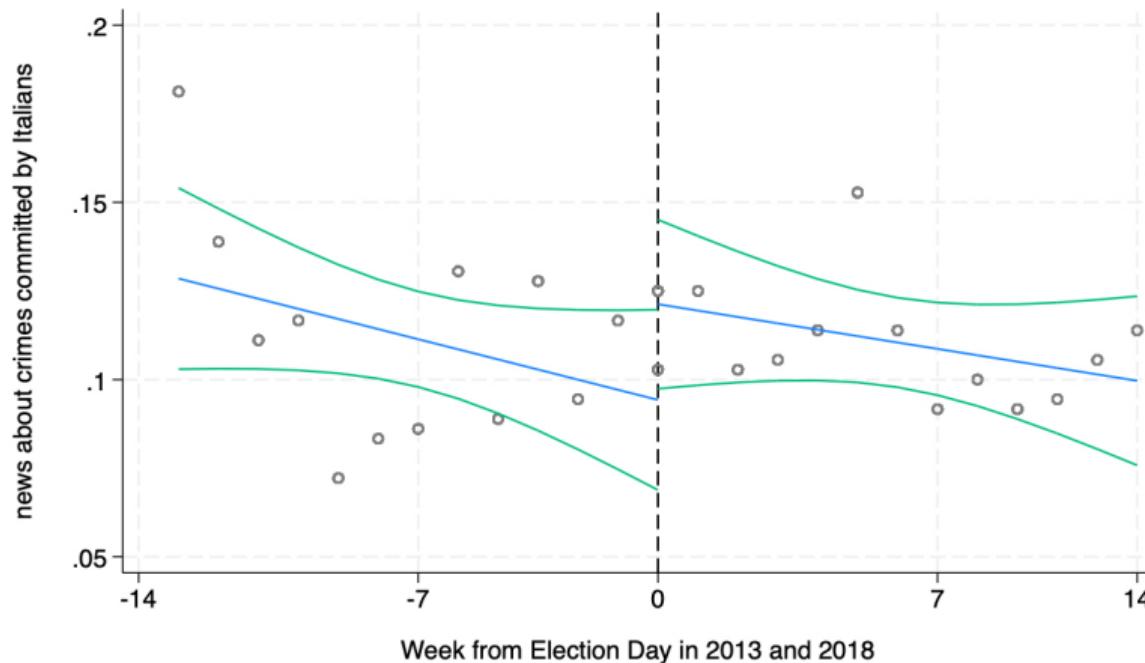
## Placebo Test: Post-Election

▶ Back

## Diff-in-Disc Estimates: Crime by Italians Before Elections

▶ Back

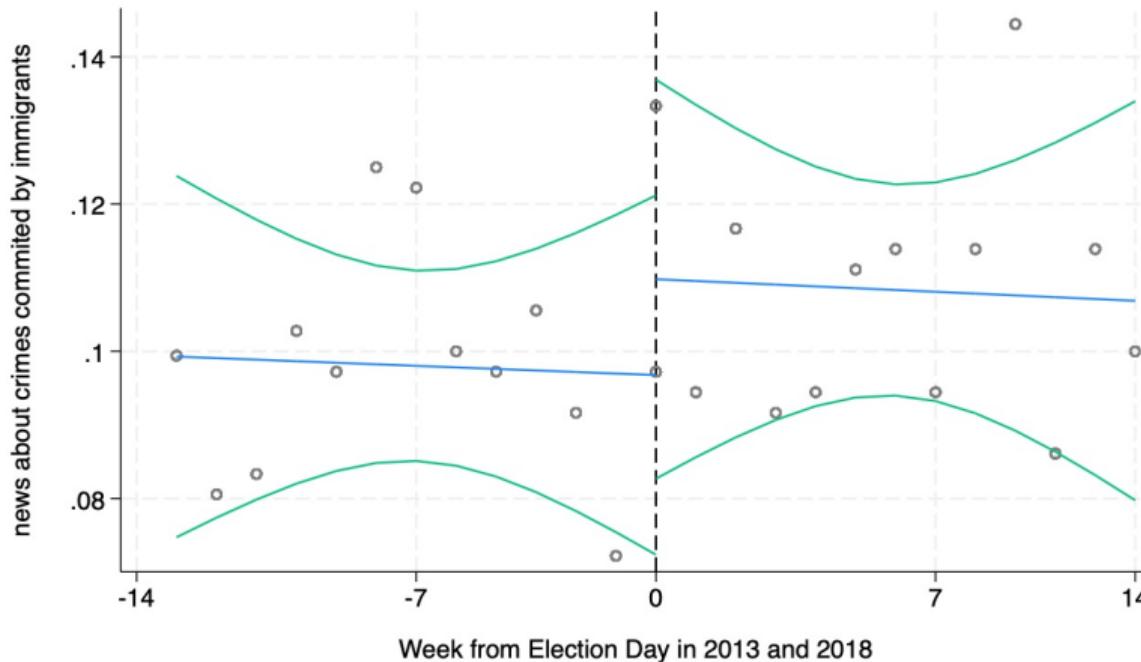
- Difference in crime exposure between zones historically aligned with Right vs. Left parties, around the electoral cutoff → *differential number of crimes (Right - Left) over time, focusing on the pre- and post-election periods*



## Diff-in-Disc Estimates: Crime by Immigrants Before Elections

▶ Back

- Difference in crime exposure between zones historically aligned with Right vs. Left parties, around the electoral cutoff → *differential number of crimes (Right - Left) over time, focusing on the pre- and post-election periods*



# Male vs. Female

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Dep.	M5S		Lega		Center		Right		Center		Left		Abstention	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Crime by Italians × female	-0.002 (0.007)	-0.001 (0.007)	-0.008 (0.022)	-0.010 (0.023)	0.006 (0.015)	0.008 (0.016)	0.017 (0.009)	0.015 (0.009)	0.001 (0.013)	0.003 (0.013)				
Crime by Italians × male	-0.006 (0.009)	-0.006 (0.009)	0.008 (0.007)	0.006 (0.008)	-0.002 (0.012)	-0.000 (0.013)	-0.009 (0.009)	-0.011 (0.009)	0.009 (0.004)	0.011* (0.005)				
Crime by immigrants × female	-0.028* (0.013)	-0.026 (0.013)	-0.015 (0.011)	-0.010 (0.011)	0.020** (0.007)	0.020* (0.008)	-0.002 (0.016)	-0.000 (0.016)	0.012 (0.011)	0.008 (0.011)				
Crime by immigrants × male	-0.016* (0.007)	-0.015* (0.007)	-0.016 (0.016)	-0.011 (0.018)	0.021 (0.012)	0.021 (0.013)	0.017 (0.009)	0.019 (0.010)	-0.004 (0.012)	-0.008 (0.012)				
Individual fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Year fixed effects	✓		✓		✓		✓				✓			
Districts × Year fixed effects		✓		✓		✓			✓			✓		
R <sup>2</sup>	0.05	0.05	0.16	0.16	0.11	0.11	0.02	0.02	0.01	0.01				
Observations	9624	9624	9624	9624	9624	9624	9624	9624	9624	9624				

# Low vs. High Education

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Dep.	M5S		Lega		Center		Right		Center		Left		Abstention	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Crime by Italians × low education	-0.015 (0.010)	-0.014 (0.010)	0.024 (0.023)	0.021 (0.026)	0.002 (0.022)	0.004 (0.024)	0.008 (0.009)	0.006 (0.009)	-0.005 (0.019)	-0.003 (0.018)				
Crime by Italians × high education	0.002 (0.015)	0.002 (0.016)	-0.013 (0.018)	-0.016 (0.017)	0.002 (0.017)	0.004 (0.017)	0.001 (0.008)	0.000 (0.007)	0.011 (0.006)	0.012 (0.007)				
Crime by immigrants × low education	-0.013 (0.011)	-0.012 (0.012)	-0.039*** (0.009)	-0.034** (0.012)	0.029* (0.013)	0.030* (0.014)	-0.005 (0.010)	-0.003 (0.010)	0.016 (0.013)	0.012 (0.012)				
Crime by immigrants × high education	-0.027** (0.008)	-0.026** (0.008)	-0.003 (0.008)	0.002 (0.009)	0.016 (0.009)	0.016 (0.010)	0.013 (0.009)	0.015 (0.010)	-0.001 (0.014)	-0.005 (0.015)				
Individual fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Year fixed effects	✓		✓		✓		✓			✓				
Districts × Year fixed effects		✓		✓		✓		✓		✓				
R <sup>2</sup>	0.05	0.05	0.16	0.16	0.11	0.11	0.02	0.02	0.01	0.01				
Observations	9624	9624	9624	9624	9624	9624	9624	9624	9624	9624				

## Low vs. High Skills

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## Administrative Elections

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