

Political Information and Network Effects

Georgy Egorov (Northwestern – Kellogg/MEDS)

Sergei Guriev (London Business School)

Maxim Mironov (IE Business School)

Ekaterina Zhuravskaya (Paris School of Economics)

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Heterogeneity in effectiveness of political campaigns

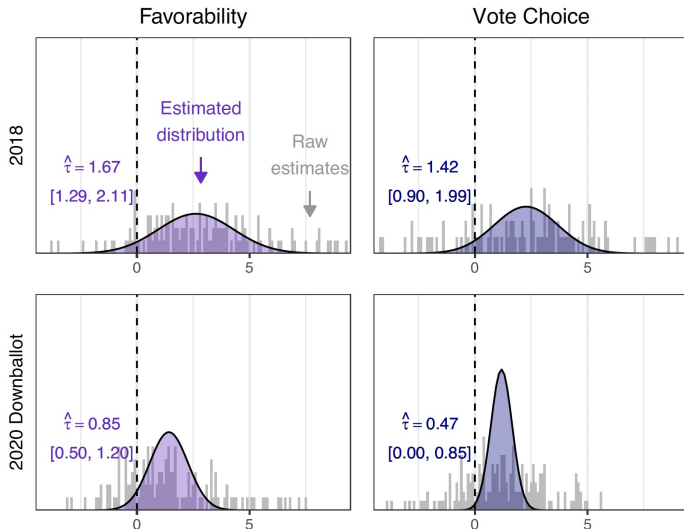
- Large literatures in political science, economics, and social psychology document substantial heterogeneity in the effectiveness of political campaigns

(e.g., Adena et al. 2015, Kendall et al. 2015, Barrera et al. 2020, Galasso et al. 2023, Enríquez et al. 2024, Hewitt et al 2024, Broockman et al. 2024, Hirs Garzón et al. 2025)

- At the individual level: Voters respond differently to the very same information. Some are persuaded, some are unaffected, and some others get dissuaded
- At the aggregate level: Campaigns are often ineffective and can even backfire, producing unexpected outcomes

Meta study (Hewitt et al. APSR 2024)

- 146 electoral information experiments during 51 US election campaigns 2018-2020
- Average Treatment Effects are **on average** positive, but many significantly negative



Political practitioners poorly predict which messages are persuasive (Broockman et al. 2024)

Direct vs. indirect effects of information in election campaigns

- Campaigns influence not only directly exposed voters but also their social circles.
 - Exposed individuals may discuss campaign messages with their peers, potentially influencing their attitudes and voting behavior.
- There is a small but growing literature that tries to measure the importance of indirect effects from election campaigns.

(e.g., Enríquez et al. 2024 in Mexico; Blattman et al. 2025 in Uganda)

- It is challenging because election outcomes data are typically too aggregated.
 - One should expect indirect effects to be the largest within the geographical units that usually are the most granular unit of measurement for the outcome available (i.e., electoral precincts)
 - Thus, existing work had to rely on geographical spillovers, which one should expect to be limited compared to social spillovers between individuals who live and socialize within the same geographical unit
- Surveys can help, but they require collecting a lot of sensitive information which is not always feasible or reliable

Our paper

We combine improved measurement of the direct and indirect effects of an election information campaign with heterogeneity in voter responses.

- We overcome the measurement challenge in identifying indirect effects by using a unique feature of elections in Argentina: results are reported separately for several groups of voters within the same precinct, organized into *mesas* (tables) by the first letter of their last names.
- This allows us to pinpoint the direct and indirect effects of a campaign much more precisely than in prior work.
- We show that the direct and indirect effects can and in our content do have opposite signs.
- We use heterogeneity in voter responses to information to explain this seemingly surprising result.

Heterogeneity and indirect effects

- Heterogeneity in voter responses to campaigns may also mean that voters who react differently themselves have different propensities to talk to others about the campaign.
 - One possibility, for instance, is that those who are outraged by the campaign talk to their peers more than those who consider the campaign messages reasonable and convincing (and therefore emotionally neutral).
 - Social psychologists emphasize the importance of emotions in persuasion (e.g., Albertson et al., 2020)
 - Average direct and indirect effects could potentially have opposite signs when:
 - minority of voters with a negative reaction to campaign (e.g., outrage) mobilizes to explain their reaction to their peers, while the majority is passive
- Understanding indirect in addition to direct effects of campaigns is important for explaining how political campaigns work, and their effects on voting and the spread of political misinformation. We help explain why practitioners struggle to predict the campaign effects.

Context: Argentina 2023

- Javier Milei, an anti-establishment political outsider, won the 2023 presidential election.
- Milei's initial campaign featured highly unorthodox and unsustainable policy proposals:
 - E.g., eliminating the Central Bank and dollarizing the economy to curb inflation and
 - replacing free public secondary education with a voucher system.
- In the “Simultaneous and Mandatory Open Primaries” (PASO), Milei unexpectedly won.
 - His PASO victory triggered a major depreciation of the peso.



Brief History of 2023 Elections

- **PASO Election** (Aug 13, 2023):
 - Javier Milei (outsider, anti-establishment): 30%
 - Patricia Bullrich (right-wing, establishment): 17% (her party's total 28%)
 - Sergio Massa (left-wing, establishment): 21% (his party's total 27%)
- **First Round** (Oct 22, 2023):
 - Both Massa and Milei focused their campaigns against Bullrich.
 - Results: Massa 37%, Milei 30%, Bullrich 24%.
- **Runoff** (Nov 19, 2023):
 - Before the runoff, Bullrich (and her party) supported Milei in exchange for policy moderation.
 - Results: Milei 56%, Massa 44%.

Argentina's Unique Election System

In contrast to most countries:

- 1 Argentina reports election results at the **mesa level** (typical precinct contains about 8 mesas)
 - Voters are assigned to mesas alphabetically
- 2 Political parties are required by law to publish lists of individual members along with their addresses
 - Allowing targeting election information campaigns to people in particular mesas
- 3 There is a primary (PASO) with mandatory participation, which determines eligible candidates for election
 - Allowing to identify pairs of comparable mesas in terms of voter preferences
- These unique features allow measuring direct and indirect effects of campaigns separately

What We Do in This Paper

- Design and evaluate the impact of an NGO-led campaign that informed voters about the risks of electing Milei by sending them leaflets with information by post.
 - We helped the NGO to design the campaign to measure its effects:
 - randomly pick treatment and control precincts,
 - find comparable mesas in terms of PASO vote in treatment and control precincts,
 - randomly target subset of mesas in treatment precincts, varying the percent of mesas exposed to the campaign within precincts

Aim to estimate:

- **Direct Effects:** Effect of direct exposure to campaign, i.e., receiving the leaflet.
- **Indirect Effects:** Effect on untreated voters of living in the same in precinct as treated voters.

Preview of the Results

- **Direct Effect:** About 20 fewer votes for Milei per 100 leaflets sent.
- **Indirect Effect:** About 30 more votes for Milei per 100 leaflets.
- **ATE:** On average, campaign backfired despite its persuasive effect on an average treated individual.
 - **Persistence:** The results of the first experiment (conducted before the first round) hold for first-round and runoff voting results.
 - **Replicability:** Pre-registered opposite-sign effects for the second experiment conducted between the first and second round, got consistent results.
 - **Suggestive evidence on the mechanism:** Conducted survey in 2025 with hypothetical scenarios to shed light on the mechanism
- **Methodological Contribution:** Disentangle direct and indirect effects through experimental design.

Literature

- **Election Information Campaigns**

- Average effects: Gerber et al. 2009, Kalla and Broockman 2017, Pons (2018), Arias et al. 2022, Galasso et al. 2021
- Heterogeneity: Kendall et al. 2015, Galasso et al. 2023, Hewitt et al 2024

- **Spillover effects**

- Enríquez, Larreguy, Marshall, and Simpser (2024)
- Blattman, Larreguy, Marx, and Reid (2024)

We combine these two literatures to get new insights.

Outline

- 1 Introduction and Motivation
- 2 Theoretical framework: Measuring direct and indirect effects
- 3 Data and Experimental Design
- 4 Results
- 5 Mechanism: survey evidence
- 6 Conclusions

Measuring Direct and Indirect Effects

- **Direct Effect:** Impact on voters who receive the campaign leaflets.
 - We have no individual-level data: we only know the share voters treated in each mesa
 - The direct treatment effect is proportional to the share of individuals treated in a *mesa*.
- **Indirect Effect:** Impact on non-exposed voters who live in the same precinct with directly exposed voters.
 - The indirect treatment effect for voters in untreated mesas is proportional to the overall share of treated individuals in a *precinct*.
 - Assume that indirect effect is the same in all mesas in a precinct

Probabilistic voting model

- Consider precinct p populated by a continuum of voters
- They belong to G groups with same policy preferences (n_g : share of voters in group g)
- They vote in one of M mesas (l_m : share of voters in mesa m)
- The split of citizens into groups is orthogonal to their split into mesas

- Two candidates with policy proposals A and B
- Voter i votes for candidate A (rather than B) if and only if

$$U_g(A) > U_g(B) + \varepsilon_i.$$

- ε_i is a random shock to popularity of B distributed uniformly on $[-K_g, K_g]$

Adding treatment to the basic model

- **Direct**

- Treat share τ_m of voters in mesa m ; each voter in group g in mesa m is treated with probability c_g (not necessarily equal to n_g).
- The utility of a voter in group g from voting for A if treated changes by r_g (can differ across groups and have any sign).

- **Indirect**

- Each member of group g hears something about the election from a random member of group h with probability η_{hg} .
- This changes the receiver's utility from voting for A by s_{hg} (again, different across pairs of groups and can have any sign).

- **Intuition:** direct treatment depends on the mesa; indirect treatment works in all precinct's mesas equally.

Structural result with treatment

The total vote share of candidate A in mesa m is:

$$Y^m = \frac{1}{2} + \alpha (U_g(A) - U_g(B)) + \beta \tau_m + \gamma \tau_p,$$

Where:

- τ_m is the share of treated voters in mesa m
- $\tau_p = \sum_m l_m \tau_m$ is the share of treated voters in precinct p
 - β increases with direct persuasion power of the campaign ($\beta = \sum_g \frac{c_g}{2K_g} r_g$)
 - γ increases with persuasion and intensity of social interactions ($\gamma = \sum_{g,h} \frac{n_g}{2K_g} \frac{c_h}{n_h} \eta_{hg} s_{hg}$).
 - α increases with size and density of g ($\alpha = \sum_g \frac{n_g}{2K_g}$).
- This equation can be taken directly to the data:
 - Regressing Milei's vote share in a given mesa on τ_m and τ_p gives estimates of direct and indirect treatment effects,
 - if τ_m and τ_p vary exogenously and political preferences of voters targeted more by the campaign are accounted for

Example: positive direct and negative indirect effects

- G1 negatively and G2 positively predisposed to the outsider candidate B
- G1 is majority: $n_1 > 0.5$ and $n_2 = 1 - n_1$.
- Density and probability to be treated are the same: $K_1 = K_2 = K$; $\alpha_1 = n_1$ and $\alpha_2 = n_2$.
- Political campaign criticizes $B \Rightarrow$ G1 reacts to it positively, G2 negatively: $r_1 = -r_2 = r$.
- Voters talk to each other only within groups (social segregation): $s_{12} = s_{21} = 0$.
- Social interactions within group are persuasive, positive within G1, negative within G2: $s_{11} = -s_{22} = s$.
- Then: Direct effect = $\frac{r(n_1 - n_2)}{2K}$; Indirect effect = $\frac{s(n_1\eta_{11} - n_2\eta_{22})}{2K}$.
- Direct effect is positive and the indirect effect is negative IFF:

$$1 < \frac{n_1}{n_2} < \frac{\eta_{22}}{\eta_{11}}$$

- G1 is larger than G2
- G2 interacts with far more voters than G1

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Data Sources:

- Official election results (PASO, first round, runoff)
- Electoral precinct locations
- NGO data on party affiliates
- Socioeconomic data from Salta (by department, 22 departments excluding Salta city)
- Data on undeliverable envelopes and driving distances (via Google Maps)

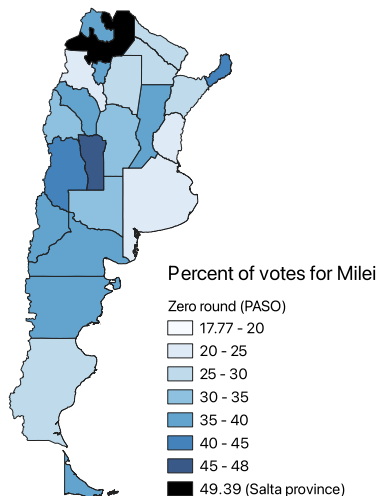
Focus on Salta Province

Rural and remote, with exceptionally high Milei support after PASO primary

- Population: 1,440,672 (7th largest).
- Area: 155,488 km² (6th largest).
- Salta Capital City accounts for 43% of the province's population
 - We focus on rural Salta
- PASO vote for Milei: 49% (highest among provinces).

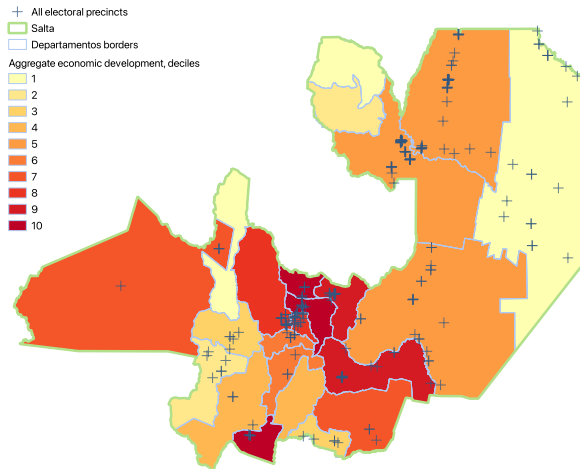
Map of Argentina

Results of primary elections (PASO) vote by province



Map of Salta province

Economic development of departments



There are 209 rural precincts and 1273 mesas. Typical precinct has 8 mesas.

Experiment: 1st Round

Within each department (outside Salta city), randomize all precincts into:

- (1/4) “Potential education treatment precincts”,
- (1/4) “Potential inflation treatment precincts”,
- (1/2) “Pure controls precincts” (where no voter will be treated)
 - This way, people in same precinct are never given different messages
- For each mesa in “potential treatment precincts,” find a matched mesa in “pure controls precincts” in the same department, by Milei’s vote in PASO, turnout, and share of available voter addresses
 - If match is unavailable, drop mesa from list of “targetable” mesas
- Randomly vary intensity of treatment: assign “potential treatment precincts” to either “high” intensity (2/3 of mesas treated) or “low” intensity (1/3 treated)
- Randomly choose mesas to treat among “targetable” mesas within “potential treatment precincts”

Inflation Treatment (First Round)

Inflation treatment (5,000 leaflets sent):

- Presents Milei's proposal to dollarize the economy and eliminate the Central Bank;
- Shows market reactions to Milei's PASO victory (peso depreciation and price increases);
- Explains why, given the macroeconomic context, dollarization could trigger a large devaluation and higher inflation, with references to economic experts.

Outside:

Las elecciones presidenciales el 22 de Octubre de 2023

¿Qué pasó con la **inflación** después de la inesperada victoria de Javier Milei en las PASO?

27.28% 28.00% 29.86%

Escrutinio definitivo de las elecciones PASO - 13 de Agosto de 2023

Inside:

La caída del peso luego de las PASO

Tres días después de las PASO, el dólar blue subió un 30%, de 600 a 780 pesos por dólar.*

Tras la suba del dólar, el precio de la carne aumentó hasta un 70% en agosto* y la canasta básica de alimentos un 27%.*

El peor escenario, la suba de la inflación

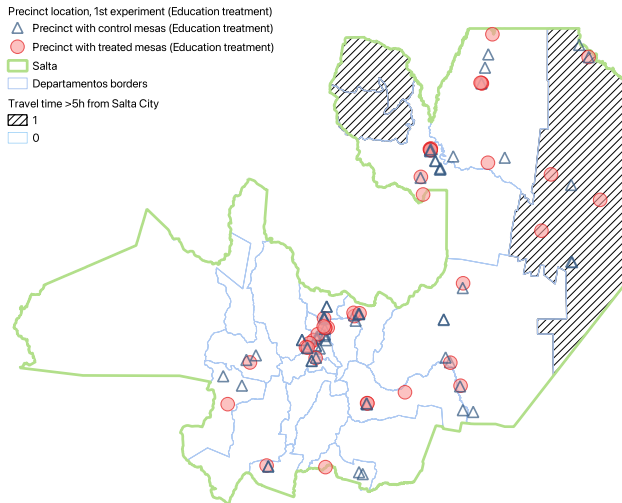
La inflación aumentó del 6.3% en julio hasta el 12.4% en agosto, la más alta desde 1991.*

Month	Inflation Rate
JUL	6.3%
AGO	12.4%

Los pronósticos de la nueva era económica

¿Por qué saltó el dólar y aumentó la inflación? Principalmente, porque el plan de dolarización de Milei, si es elegido presidente, puede causar una hiperinflación y una megadevaluación. Distintas consultoras estiman que el dólar va a saltar hasta los 9.944 pesos si Milei dolariza utilizando las reservas vigentes del Banco Central.*

Map of precincts with education treatment, 1st round experiment



Runoff Experiment

- Replication of the education treatment in the runoff.
- Similar design, 5000 leaflets sent as before
- Use some “pure control” precincts from the 1st round experiment as potential treatment precincts in the second experiment

Map of precincts with education treatment, Runoff experiment

Precinct location, Runoff experiment (Education treatment)

△ Precinct with control mesas (Education treatment)

● Precinct with treated mesas (Education treatment)

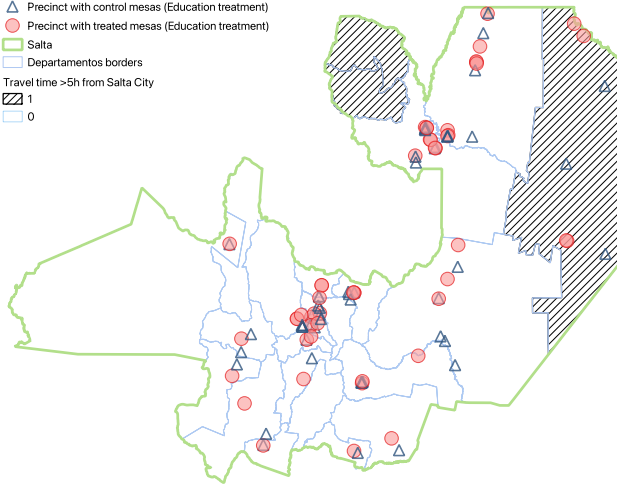
Salta

Departamentos borders

Travel time >5h from Salta City

1

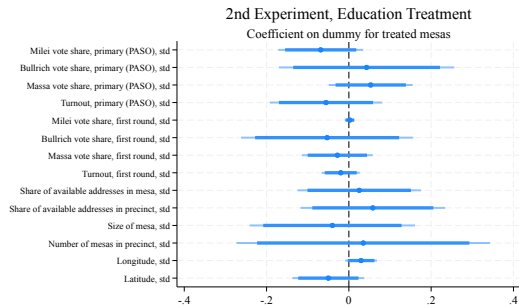
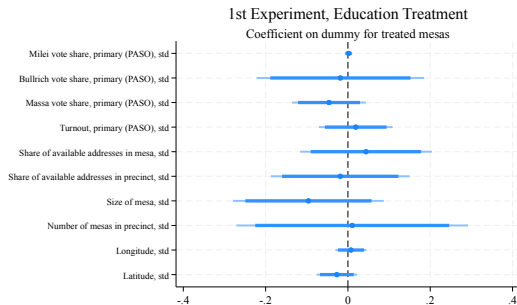
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Balance, extensive margin: randomization worked

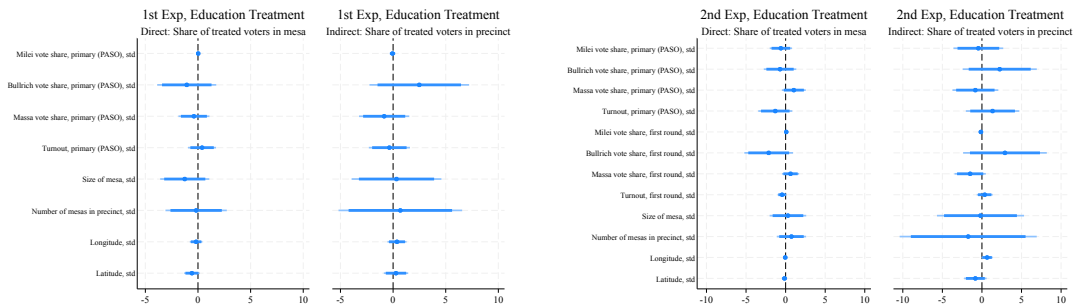
Mesa treatment status is unrelated to pre-treatment characteristics

1st experiment: PASO vote results; Runoff experiment: PASO vote and 1st-round vote results



Balance, intensive-margin: more demanding the shares of treated voters in mesa and precinct

The share of treated voters in treated mesa is determined by the share of available addresses from party membership registry



To ensure balance, we need to control for the share of available addresses flexibly in 1st round experiment, and also use entropy balancing weights in Runoff Experiment.

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First experiment, education treatment, main results

Dependent variable:	Milei Vote Share, First Round			
Sample:	Matched sets			
Share of treated voters, mesa (Direct effect)	-0.212* (0.119)	-0.211* (0.124)	-0.199* (0.117)	-0.216* (0.112)
Share of treated voters, precinct (Indirect effect)	0.327** (0.147)	0.329** (0.150)	0.252* (0.148)	0.312** (0.136)
Milei vote share, primary (PASO)		-0.720 (0.835)	0.574 (0.760)	0.789 (0.700)
Bullrich party vote share, primary (PASO)			0.129 (0.095)	0.080 (0.120)
Massa party vote share, primary (PASO)			-0.039 (0.072)	-0.129 (0.112)
Turnout, primary (PASO)			0.565*** (0.096)	0.550*** (0.083)
Mean, Dep. Var.	0.396	0.396	0.396	0.396
SD, Dep. Var.	0.085	0.085	0.085	0.085
R2	0.838	0.839	0.877	0.898
Observations	359	359	359	359
Available addresses, mesa, precinct	✓	✓	✓	
Matched set FEs	✓	✓	✓	✓
Latitude, Longitude				✓
Decile FEs for available addresses				✓

Estimating direct and indirect effects separately

- Direct effect only: Controlling for precinct fixed effects allows to control out the indirect effects
 - We can compare the vote shares for mesas with different treatment intensity and untreated mesas of the same precinct (without controlling for matched sets as pairs are never in the same precinct by design)
- Indirect effect only: Exclude treated mesas
 - Thus, compare the vote shares in untreated mesas of treated precincts to their matched sets in untreated precincts, depending on the share of treated voters in precinct

Estimating direct and indirect effects separately: Results

Dependent variable:	Milei Vote Share, First Round					
	Direct effect			Indirect effect (on untreated)		
	Matched sets		Full	Matched sets		Full
Sample:						
Share of treated voters, mesa (Direct effect)	-0.201*** (0.067)	-0.200*** (0.070)	-0.201*** (0.062)			
Share of treated voters, precinct (Indirect effect)				0.437*** (0.146)	0.391** (0.172)	0.359*** (0.116)
Milei vote share, primary (PASO)		0.519*** (0.094)	0.278*** (0.098)	-0.709 (1.268)	0.400*** (0.091)	
Bullrich party vote share, primary (PASO)		0.182* (0.094)	0.018 (0.078)	-0.354 (0.273)	0.145* (0.081)	
Massa party vote share, primary (PASO)		0.225*** (0.070)	0.006 (0.089)	-0.506* (0.267)	-0.016 (0.086)	
Turnout, primary (PASO)		0.171* (0.089)	0.166*** (0.048)	0.162 (0.168)	0.260*** (0.044)	
Mean, Dep. Var.	0.399	0.399	0.392	0.401	0.401	0.392
SD, Dep. Var.	0.083	0.083	0.092	0.072	0.072	0.089
R2	0.805	0.853	0.828	0.801	0.831	0.726
Observations	339	339	870	119	119	955
Available addresses, mesa, precinct	✓	✓	✓	✓	✓	✓
Precinct FEs	✓	✓	✓			
Matched set FEs				✓	✓	
Department FEs						✓
Latitude, Longitude					✓	✓

Illustration of the direct effects in the first experiment

1st experiment, direct effect: Binscatter plot

Precinct FEs, matched sample, N=339

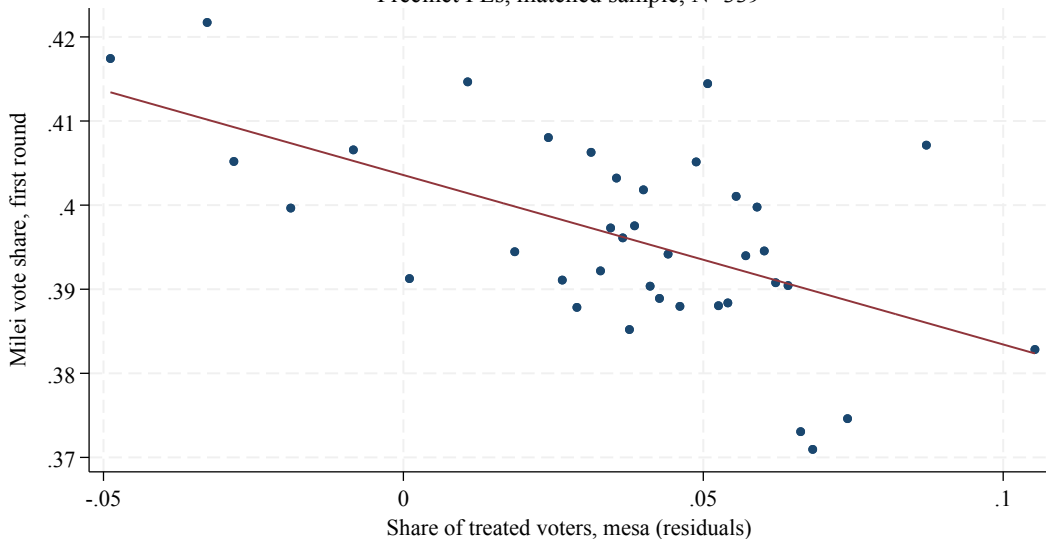
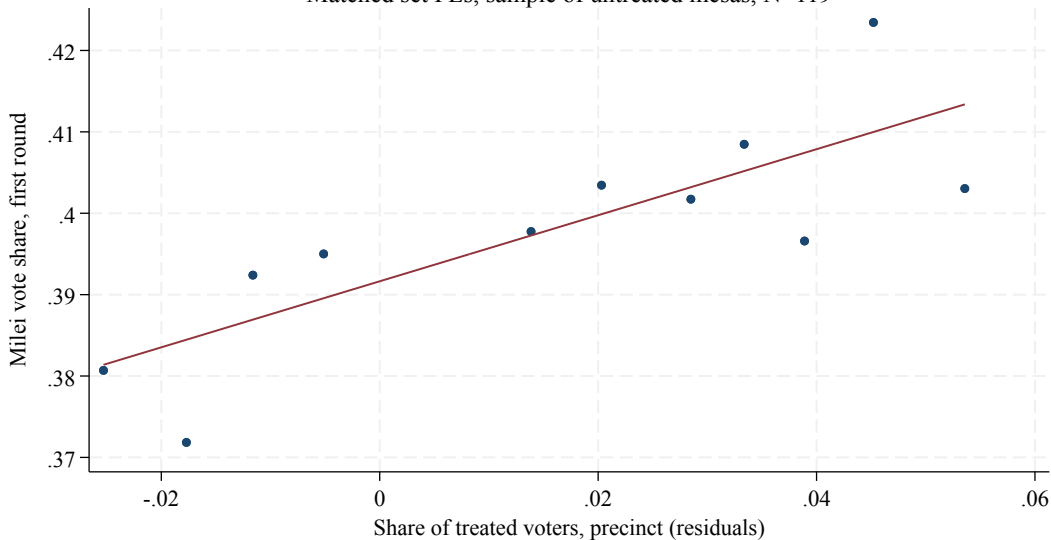


Illustration of the indirect effects in the first experiment

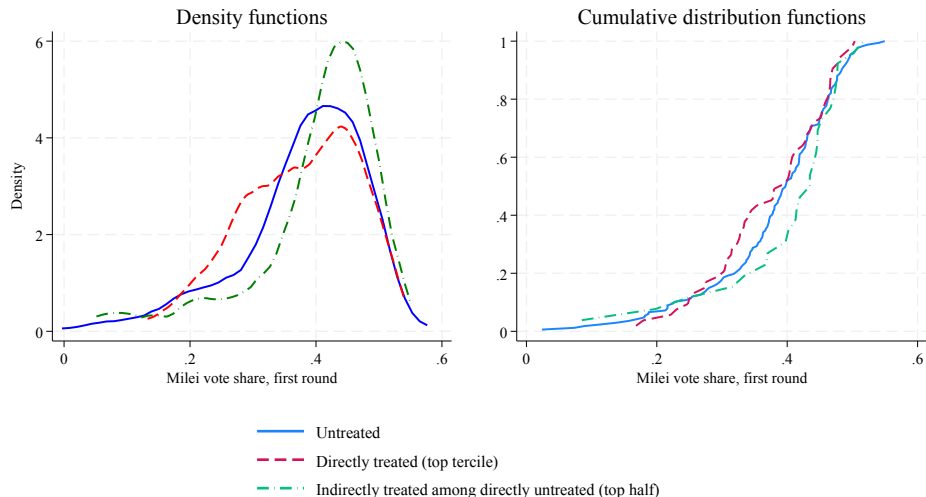
1st experiment, indirect effect: Binscatter plot

Matched set FEs, sample of untreated mesas, N=119



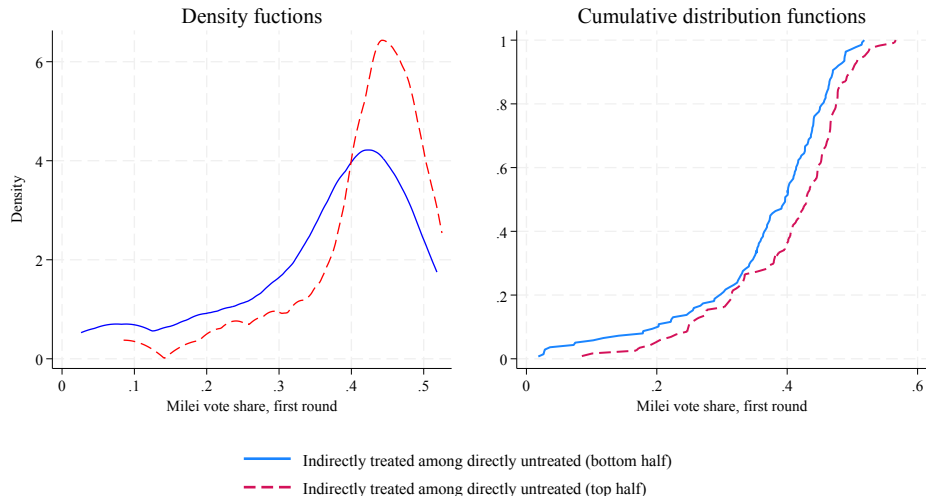
Distribution of Milei vote shares across mesas with different treatment intensities

Untreated, directly treated, and indirectly treated



Distribution of Milei vote shares across mesas with different treatment intensities

Indirect effects among directly untreated



First experiment, education treatment, persistence

Dependent variable:	Milei Vote Share, Runoff			
Sample:	Matched sets			
Share of treated voters, mesa (Direct effect)	-0.252** (0.105)	-0.243** (0.115)	-0.186* (0.110)	-0.200* (0.105)
Share of treated voters, precinct (Indirect effect)	0.513*** (0.171)	0.505*** (0.174)	0.315* (0.160)	0.360*** (0.134)
Milei vote share, primary (PASO)		-1.948** (0.943)	-0.214 (0.848)	0.192 (0.744)
Bullrich party vote share, primary (PASO)			0.532*** (0.139)	0.516*** (0.161)
Massa party vote share, primary (PASO)			-0.079 (0.116)	-0.140 (0.135)
Turnout, primary (PASO)			0.691*** (0.112)	0.673*** (0.111)
Mean, Dep. Var.	0.551	0.551	0.551	0.551
SD, Dep. Var.	0.118	0.118	0.118	0.118
R2	0.847	0.851	0.906	0.921
Observations	387	387	387	387
Available addresses, mesa, precinct	✓	✓	✓	
Matched set FEs	✓	✓	✓	✓
Latitude, Longitude				✓
Decile FEs for available addresses				✓

Persistence: direct and indirect, separately

Dependent variable:	Milei Vote Share, Runoff					
	Direct effect			Indirect effect (on untreated)		
	Matched sets		Full	Matched sets		Full
Sample:						
Share of treated voters, mesa (Direct effect)	-0.205*** (0.054)	-0.205*** (0.057)	-0.193*** (0.061)			
Share of treated voters, precinct (Indirect effect)				0.661*** (0.229)	0.517** (0.215)	0.425*** (0.136)
Milei vote share, primary (PASO)	0.355** (0.137)		0.189** (0.088)	-1.736 (1.049)	0.369*** (0.101)	
Bullrich party vote share, primary (PASO)	0.399*** (0.114)		0.274*** (0.079)	-0.101 (0.289)	0.574*** (0.098)	
Massa party vote share, primary (PASO)	0.057 (0.090)		-0.095 (0.075)	-0.744** (0.289)	-0.076 (0.094)	
Turnout, primary (PASO)	0.331*** (0.115)		0.280*** (0.052)	0.216 (0.197)	0.408*** (0.048)	
Mean, Dep. Var.	0.558	0.558	0.543	0.563	0.563	0.541
SD, Dep. Var.	0.111	0.111	0.123	0.093	0.093	0.123
R2	0.862	0.901	0.903	0.762	0.881	0.817
Observations	356	356	902	129	129	986
Available addresses, mesa, precinct	✓	✓	✓	✓	✓	✓
Precinct FEs	✓	✓	✓			
Matched set FEs				✓	✓	
Department FEs						✓
Latitude, Longitude					✓	✓

Runoff experiment, education treatment, main effects

Dependent variable:	Milei Vote Share, Runoff					
Sample:	Matched sets, full					
Weights:	No weights			Entropy balancing weights		
Share of treated voters, mesa (Direct effect)	-0.110*	-0.106*	-0.019	-0.107*	-0.101	-0.019
	(0.063)	(0.062)	(0.058)	(0.064)	(0.061)	(0.059)
Share of treated voters, precinct (Indirect effect)	0.339**	0.343**	0.225**	0.260*	0.264*	0.189*
	(0.152)	(0.152)	(0.112)	(0.154)	(0.154)	(0.113)
Milei vote share, primary (PASO)		0.054	-0.047		0.071	-0.026
		(0.048)	(0.089)		(0.051)	(0.089)
Bullrich party vote share, primary (PASO)			0.155			0.177
			(0.123)			(0.124)
Massa party vote share, primary (PASO)			-0.236*			-0.218*
			(0.123)			(0.121)
Turnout, primary (PASO)			0.197***			0.189***
			(0.048)			(0.047)
Mean, Dep. Var.	0.548	0.548	0.548	0.547	0.547	0.547
SD, Dep. Var.	0.117	0.117	0.117	0.118	0.118	0.118
R2	0.916	0.917	0.944	0.918	0.919	0.946
Observations	390	390	390	390	390	390
Available addresses, mesa, precinct	✓	✓		✓	✓	
Matched set FEs	✓	✓	✓	✓	✓	✓
Latitude, Longitude			✓			✓
Decile FEs for available addresses			✓			✓

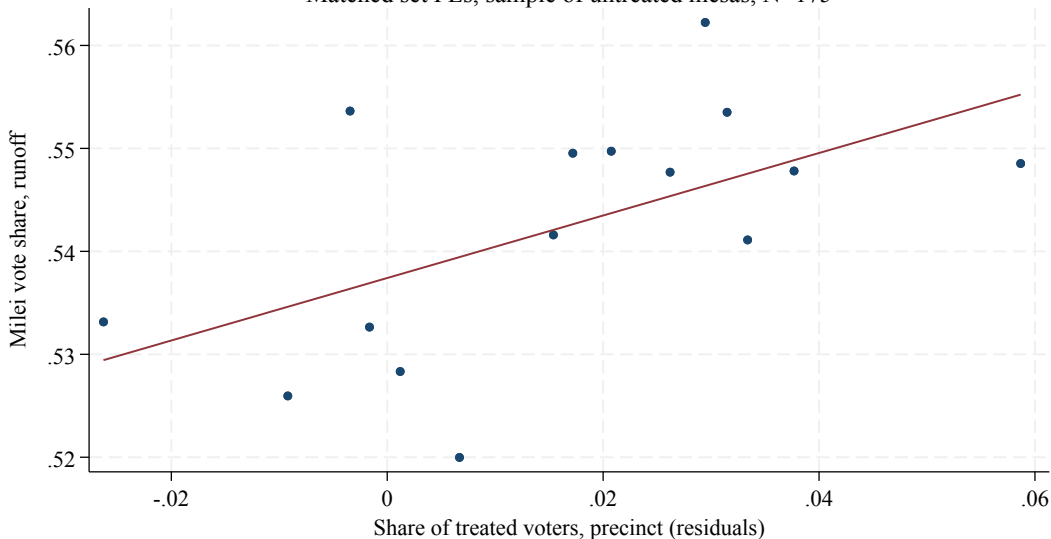
Runoff experiment: direct and indirect, separately

Dependent variable:	Milei Vote Share, Runoff							
Sample:	Matched sets, full							
Weights:	No weights		Entropy balancing		No weights		Entropy balancing	
	Direct effect				Indirect effect			
Share of treated voters, mesa (Direct effect)	-0.079** (0.039)	-0.071* (0.036)	-0.082** (0.039)	-0.075** (0.036)				
Share of treated voters, precinct (Indirect effect)					0.469*** (0.175)	0.315** (0.150)	0.422** (0.183)	0.290* (0.152)
Milei vote share, first round	0.801*** (0.068)	0.759*** (0.069)	0.783*** (0.063)	0.744*** (0.063)	0.464 (0.902)	0.108 (0.775)	0.453 (0.948)	0.074 (0.775)
Milei vote share, primary (PASO)		0.024 (0.068)		0.035 (0.070)		0.089 (0.125)		0.113 (0.128)
Bullrich party vote share, primary (PASO)		0.178* (0.092)		0.197** (0.090)		0.322** (0.142)		0.351** (0.144)
Massa party vote share, primary (PASO)		-0.043 (0.069)		-0.034 (0.070)		-0.027 (0.122)		-0.012 (0.123)
Mean, Dep. Var.	0.551	0.551	0.552	0.552	0.536	0.536	0.538	0.538
SD, Dep. Var.	0.116	0.116	0.116	0.116	0.117	0.117	0.117	0.117
R2	0.916	0.922	0.917	0.924	0.928	0.944	0.928	0.946
Observations	374	374	374	374	175	175	175	175
Available addresses, mesa, precinct	✓	✓	✓	✓	✓	✓	✓	✓
Precinct FEs	✓	✓	✓	✓				
Matched set FEs.					✓	✓	✓	✓
Latitude, Longitude						✓		✓

Illustration of the indirect effects in the runoff experiment

2nd experiment, indirect effect: Binscatter plot

Matched set FEs, sample of untreated mesas, N=175

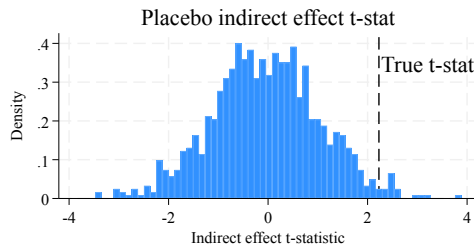
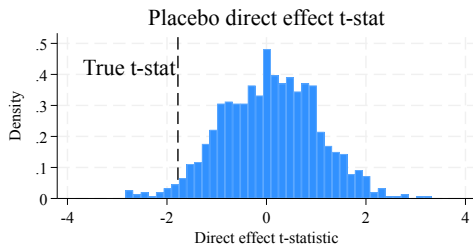
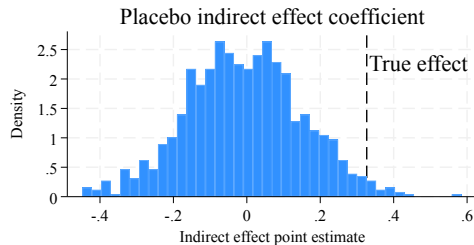
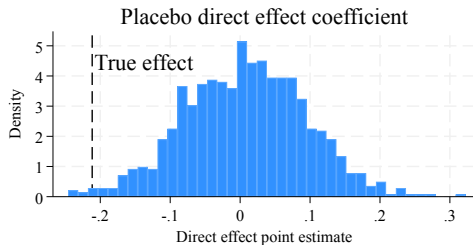


Summary of the results for education leaflet campaign

- Direct Effect: Approximately 20 fewer votes for Milei per 100 leaflets sent
- Indirect Effect: Approximately 30 additional votes for Milei per 100 leaflets via spillovers
- Similar results whether we estimate direct and indirect effects jointly or separately
- Evidence of persistence: Effects from the 1st round continue into the runoff
- Indirect effects appear amplified in the runoff election
- Second experiment produces similar results

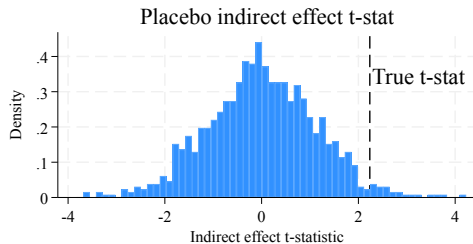
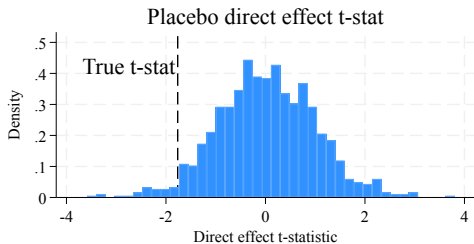
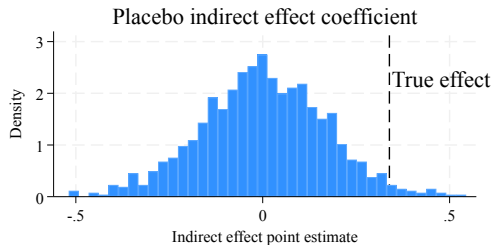
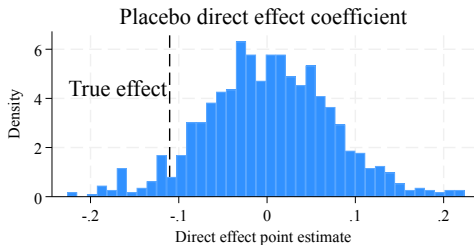
Placebo effects, first round education treatment, 1000 alternative randomizations

Panel A: Placebo, First-round education experiment



Placebo effects, runoff education treatment, 1000 alternative randomizations

Panel B: Placebo, Runoff education experiment



Additional results

- No significant results for the inflation treatment
 - Inflation was a central issue of the campaign
 - So voters likely already were fully informed before treatment
- No significant impact on turnout in any specification

Mechanism

Survey, August 2025: Vignette

Representative sample of 2,021 rural Salta residents

- Imagine that we are in an election, and Alberto Fernández is still president of Argentina. There are two candidates: One is from a traditional, long-established party. The other is new, not a politician, who wants to fight corruption and change things in the country. He is a non-traditional candidate. The election is close, he has a real chance of winning. You receive a colorful leaflet that criticizes one of the new candidate's proposals. The leaflet says that if the non-traditional candidate implements this proposal, it could harm the poor, according to some experts.
- Scenario A. (Respondents with even birthdates): Suppose you believe what the leaflet says, and for that reason you feel less inclined to vote for the new non-traditional candidate.
- Scenario B. (Respondents with odd birthdates): Suppose you do not believe the leaflet and think it is made to attack the new non-traditional candidate, and that makes you, if anything, more inclined to vote for him.

Survey results: main outcomes

People who were asked to imagine that they do not believe the leaflet would discuss its content with a larger number of friends

Dependent variables:	Would you discuss the leaflet with your peers and how many?			
	Very likely to discuss (max category)	With at least 6 peoples (max category)	Number of people	Number of people × Likely or very likely to discuss
Imagine: you do not believe the leaflet	0.0247 (0.0204)	0.0432** (0.0183)	0.1844* (0.0951)	0.2163** (0.1020)
Mean, Dep. Var.	0.351	0.222	2.360	2.035
SD, Dep. Var.	0.477	0.416	2.181	2.315
R2	0.159	0.116	0.132	0.112
Observations	2021	2021	2021	2021
Age, gender, income, education	✓	✓	✓	✓
Vote runoff and PASO 2023	✓	✓	✓	✓
Municipality and first letter FEs	✓	✓	✓	✓

Survey results: auxiliary outcomes

Do not believe the leaflet:

- ⇒ more likely to discuss with others in order to persuade others to vote like them
- ⇒ more likely to behave differently if the leaflet were about mainstream candidate

Dependent variables:	Discuss leaflet:	Behave differently	Opinion about the sender:	
	To convince others to vote like me	if leaflet about mainstream candidate	Bad: could be a lie	Good: useful information
Imagine: you do not believe the leaflet	0.0259* (0.0143)	0.0469** (0.0204)	0.0109 (0.0142)	-0.0285 (0.0192)
Mean, Dep. Var.	0.110	0.336	0.117	0.258
SD, Dep. Var.	0.313	0.472	0.321	0.438
R2	0.082	0.139	0.085	0.110
Observations	2021	2021	2021	2021
Age, gender, income, education	✓	✓	✓	✓
Vote runoff and PASO 2023	✓	✓	✓	✓

This evidence is consistent with the mechanism that heterogeneity in voter reaction to campaign leads to opposite-sign direct and indirect effects and this is particularly likely for an outsider candidate.

Conclusions

- Direct and indirect effects of an information campaign need not have the same sign
 - Backfiring is possible, despite campaign working well on average on the treated
 - People who disagree with campaign tend to mobilize their social networks more
 - This helps explain why anti-elite candidates are difficult to defeat, even when messages perform well in focus groups, and why political practitioners are often lost
- The effect is economically and statistically significant
 - Results replicate: runoff experiment
 - And persist: runoff outcomes of the first-round experiment
- Further theoretical and empirical research is needed to better understand:
 - How people process political information
 - When they become ambassadors of ideas

Leaflet: Education treatment, outside (translated)

The presidential election is scheduled for October 22, 2023



What will happen to
**public
education?**



Fuentes:

1. Milei anticipó que en su gestión "la educación

3. Vouchers educativos: gremios advierten que la

Sources

Contact

propuso un polémico sistema de ma2504,2023/

Argentines want to know **Javier Milei's plan regarding education.** The presidential candidate anticipates that under his administration "**education will no longer be free of charge.**"

Leaflet: Education treatment, inside (translated)

The future of education

Javier Milei has also announced that he is **against mandatory primary and secondary schooling.**



Milei's proposal: Educational vouchers

The executive board of **CTERA** (Argentina's most influential teachers' union) **explained what "educational vouchers" mean**, in reference to the proposal launched by the presidential candidate from "La Libertad Avanza"

“

The educational voucher system is outdated, segregationist, and unrealistic. It will dismantle public education and has already failed in all countries where it has been implemented.

”

The executive board of CTERA

Leaflet: Inflation treatment, outside (translated)

The presidential election is scheduled for October 22, 2023



What happened to
inflation
after **Javier Milei's**
unexpected victory
in the primaries?



Fuentes:

1. Dólar hoy: En una jornada muy volátil el blue cerró a \$780. Perfil, (16 de agosto 2023).
<https://www.perfil.com/noticias/economia/dolar-hoy-a>

4. La inflación sigue sin freno: fue 12,4% en agosto, la mayor en 32 años. Clarín, (13 de septiembre 2023).
<https://www.clarin.com/economia/infla-dramatic-im>

Sources

Contact

datos del comportamiento primari



Final results of primary elections – August 13, 2023

Leaflet: Inflation treatment, inside (translated)

The peso devaluation following the primaries

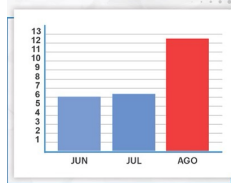
Three days after the primaries, the blue dollar surged by 30%, rising from 600 to 780 pesos per dollar.

Due to the dollar's appreciation, the price of meat rose by 70% in August, while the cost of the food basket increased by 27%.



The worst-case scenario: an increase in inflation

Inflation rose from 6.3% in July to 12.4% in August, making the worst result since 1991.



The forecast for the new economic era

Why did the dollar appreciate and inflation increase? Essentially, because the dollarization plan suggested by Milei, if elected he is elected president, could lead to hyperinflation and a significant devaluation of the peso. Consultancies estimate that the dollar could reach 9,944 pesos if Milei decides to dollarize the economy using the Central Bank reserves.