From Couch to Poll: Media content, voter engagement, and political accountability

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August 26, 2024

Overview

Media content and politics

- Informational content can elicit voter engagement and political accountability
- Entertainment content often crowds out relevant information

→ Local news is relevant to voters, and this relevance increases voter engagement and electoral competition, which holds politicians accountable

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What are the political effects of new media?

- Unclear whether engagement and accountability will dominate entertainment
- Why unclear? Content exposure across and within media type is endogenous
  - Heterogeneous treatment effects across media types (e.g. Newspapers, TV)
  - Non-random choice of informational content within media type (e.g. PBS, CNN)

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Novelty of this context

(1) Variation in content within a single media type (i.e., not a "TV effect")

(2) Viewers have no choice over public or private television content until 1958

Source of Content Variation

Television Content – Local Versus National Programming Ratios†

	Daytime viewing hours (47.5 hours per week)		
	Total Hours of Informational Content‡	National Content	Local Content
Private Television	19.9	0.7	19.2
Public Television	16.4	15.6	0.8
Private/Public Ratio	**1.21**	**0.05**	**22.86**

† Figures are based on total air time for the week January 15-21, 1956 (Royal Commission on Broadcasting, 1957).
‡ National content and local content sum up to the total hours of informational content.

→ Private stations deliver significantly more local informational content

"*Knowledge of local conditions and adaptability to local needs can best be provided by having a number of independent local units in the system. This is one of the principal reasons why we are strongly of the opinion that the continued presence of private elements in the system should be recognized and placed beyond uncertainty and doubt.*"

– **Robert Fowler**, Chair of the 1957 Royal Commission on Broadcasting

Summary

Conceptual framework

- Relevant information $\underset{(1)}{\Longrightarrow}$ engaged electorate $\underset{(2)}{\Longrightarrow}$ political accountability

Canadian context

- A dual system of broadcasters in a "one-station policy" world
  - Private broadcasts $\rightarrow$ locally relevant information
  - Public broadcasts $\rightarrow$ national information

Approach to identification

- Compare districts with Private broadcasts to districts with Public broadcasts, conditional on receiving television

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Main findings

(1) The introduction of (public) television reduces voter turnout

(2) Elected officials speak and act on behalf of constituents more in districts with more local information

Mechanism linking (1) and (2)

- Increased electoral competition forces changes in politician's behavior

Contributions to the Literature

(1) Media exposure and voter engagement

(Strömberg, 2004; Prat & Strömberg, 2005; Prior, 2005; George & Waldfogel, 2006; Gentzkow, 2006; Althaus & Trautman, 2008; Knight & Schiff, 2010; Synder & Strömberg, 2010; Chiang & Knight, 2011; Enikolopov et al., 2011; Campante & Hojman, 2013; Falck et al., 2014; Sørensen, 2016; Ellingsen & Hernæs, 2018; Wang, 2023)

- *This paper:* variation in local v national programming content within media type

(2) Media exposure and political accountability

(Besley & Burgess, 2002; Strömberg, 2004; Ferraz & Finan, 2008; Synder & Strömberg, 2010; Gavazza et al., 2019; Larreguy et al., 2020; Bessone et al., 2022)

- *This paper:* local news creates electoral competition that holds politicians accountable via their words and actions

(3) Non-randomness of media exposure

(Olken, 2009; Enikopolov et al., 2011; Farré and Fasani, 2013; Yanagizawa-Drott, 2014; and DellaVigna et al., 2014; Durante et al., 2019; Hara, 2022; Wang, 2022)

- *This paper:* novel exogenous variation above/below expected signal strength

Data and Motivating Evidence

Data

- Unit of observation
  - Federal electoral district-level panel from 1935-1958
  - Includes 7 general election cycles (4 pre-treatment, 3 post-treatment)

- Voter engagement
  1. Turnout constructed from the Report of the Chief Electoral Officer
  2. Party share and margin of victory for RDD analysis.

- Political accountability
  1. Speech outcomes for members of Parliament
     $\rightarrow$ *e.g., How often does the MP mention a place in her district?*
  2. Dissenting constructed from the parliamentary roll call votes
     $\rightarrow$ *e.g., How often votes the MP against her party line?*

  $\Rightarrow$ Both variables standardize multiple similar variables to avoid multiple hypothesis testing (Allcott, Braghieri, Eichmeyer, and Gentzkow, 2020 AER)

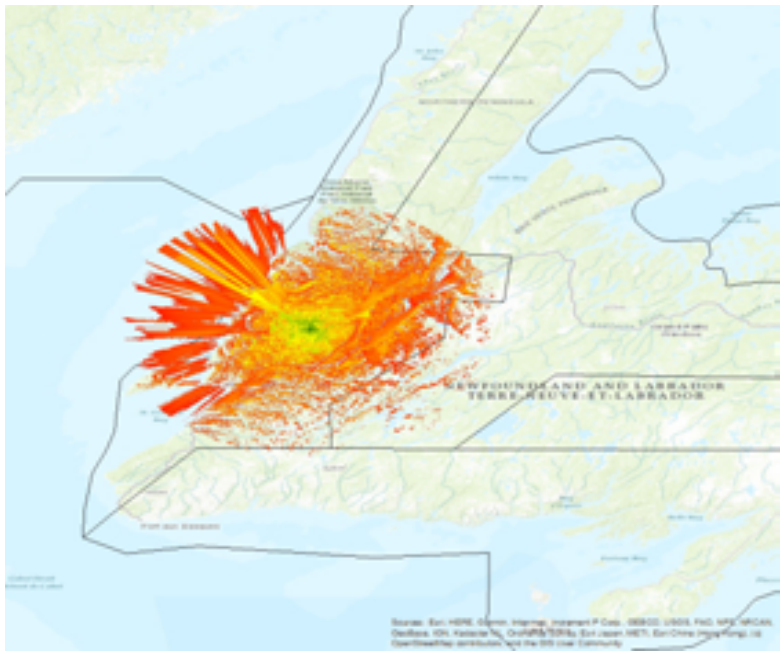
Data (Treatment)

Television signal strength (i.e., Treatment)

- Archival records of television transmitter installations and features

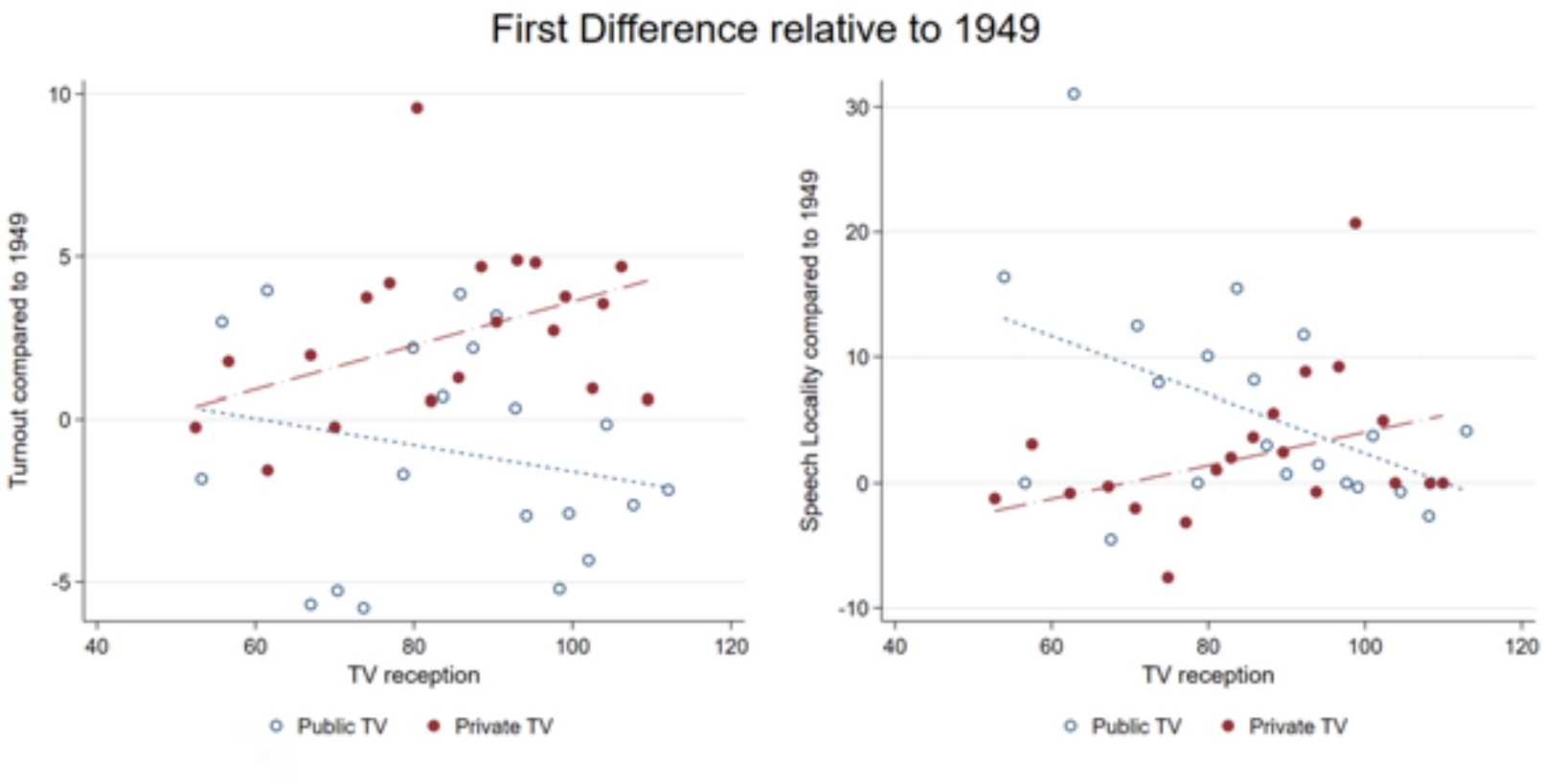
  (Library and Archives of Canada)

- Longley-Rice Irregular Terrain Model (ITM)
  - Estimates are a function of (1) transmitter features and (2) topography
  - Separately map public and private ITM estimates to electoral districts



Public television signal strength estimate in Humber – St George electoral district

Motivating Evidence



Note: First differences relative to 1949 for electoral districts with television reception

- Voter Engagement and Political Accountability
  - → **Increasing** in districts with **private** television
  - → **Decreasing** in districts with **public** television

Empirical Design and Main Findings

Empirical Design

Unit of Observation:

- Federal electoral district d in general election year t (1935-1958)

Full Model:

$$Y_{d,t} = \alpha_d + \alpha_t + \beta^{TV} signal_{d,t} + \beta^{Loc} \left(signal_{d,t} \times Local_{d,t} \right)$$

$$+ \gamma Local_{d,t} + f(\mu_{d,t}) + \Phi \left(\boldsymbol{X_d} \times t \right) + \epsilon_{d,t}$$

$Y_{d,t}$ = voter engagement or political accountability in district d year t

$signal_{d,t}$ = television signal strength in district d year t

$Local_{d,t}$ = whether a locally-owned private station broadcasts local informational content

$f(\mu_{d,t})$ = expected television signal strength in district d year t

$\boldsymbol{X_d}$ = vector of district d initial characteristics (pop density, income, literacy, urban, age)

α_d = district fixed effects

α_t = election-year fixed effects

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Threats to identification

β^{TV} Timing of exposure is non-random even when location is conditionally random

$\rightarrow$ Expected signal strength following Borusyak & Hull (2023)

- Simulating expected signal strength ($f(\mu_{d,t})$)
  - Randomize active transmitters in year t | (#transmitters, sampling prob)
  - Estimate $\mu_{d,t}$ as the avg signal strength of 500 counterfactual networks in d, t

$\rightarrow$ Recenter estimates around variation in $signal_{d,t}$ above/below expected in d, t

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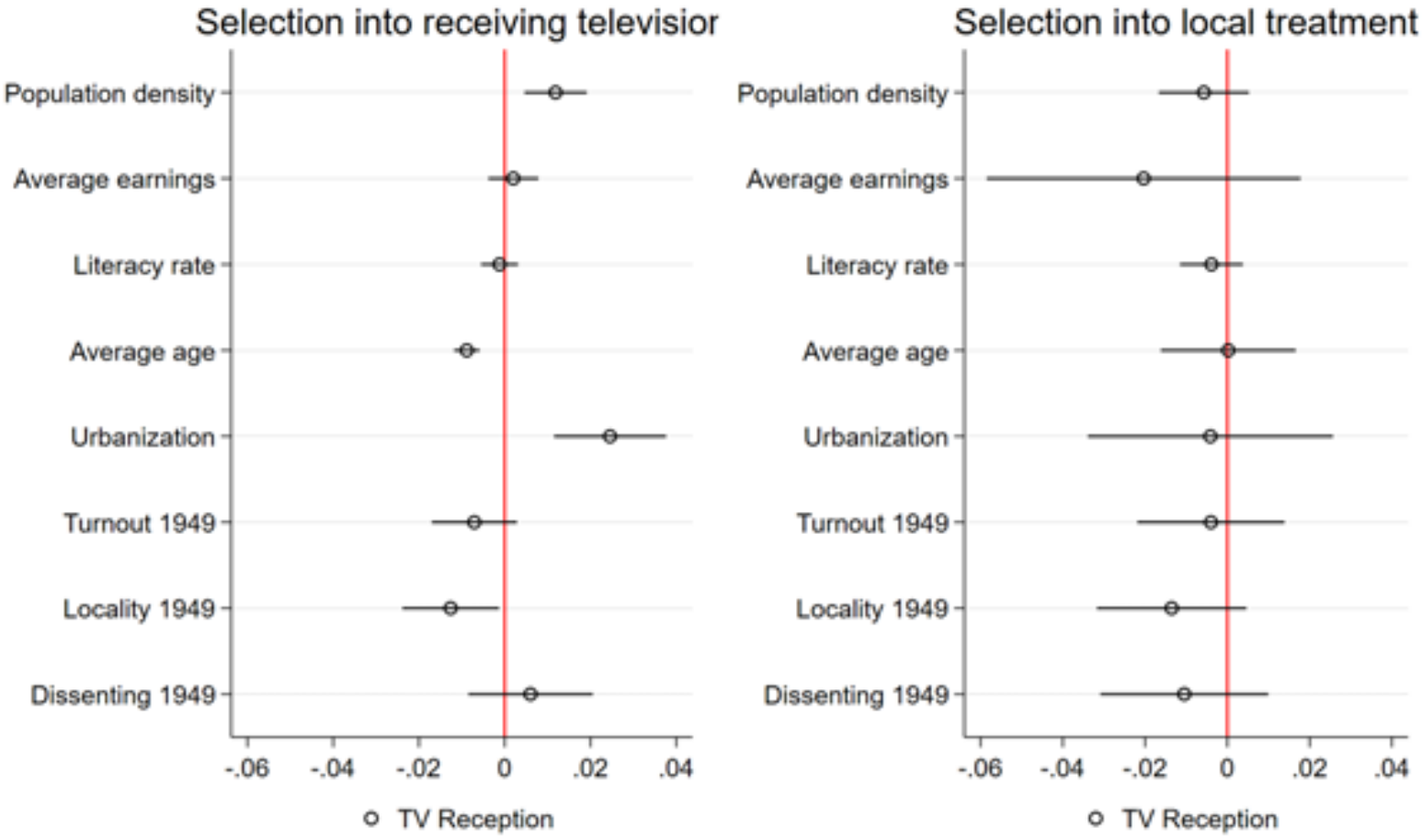
β^{Loc} Selection into private stations sending local content

- One-station policy inhibiting market competition
- Private stations use existing radio transmittors due to high initial costs
  - Selection would have happened before sample period

→ Covariates are balanced

Empirical Design



Standardized variables shown. The estimates in the right panel are conditional on receiving any TV. 95% confidence intervals shown.

Selection into receiving television (left) and into local content (right).

→ Covariates are balanced

→ Selection into treatment, conditional on receiving television, not an issue

Television's Impact on Voter Engagement and Political Accountability

	(1)	(2)	(3)	(4)	(5)	(6)
	Voter Engagement			**Political Accountability**		
[β^{TV}] Signal Strength	-0.054***	-0.053***	-0.042***	-0.001	-0.004**	-0.005**
	(0.010)	(0.012)	(0.013)	(0.002)	(0.002)	(0.002)
[β^{Loc}] Signal Strength × Local		0.052**	0.058**		0.012**	0.014**
		(0.023)	(0.024)		(0.005)	(0.005)
$\mathbb{E}$[Signal Strength]	Yes	Yes	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes	Yes	Yes
Election-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Covariates	No	No	Yes	No	No	Yes
Observations	1,795	1,795	1,764	1,674	1,674	1,646
Adjusted R^2	0.645	0.649	0.655	0.440	0.443	0.441
p-value (H_0: $\beta^{TV} + \beta^{Loc} = 0$)			0.460			0.080

Covariates include pre-treatment measures of district-level population density, earnings, age, literacy and urbanization interacted with year fixed effects. Standard errors are clustered at the electoral district level, as shown in parentheses. * p $<$ 0.10, ** p $<$ 0.05, *** p $<$ 0.01.

▸ Alt FE ▸ Event Study ▸ Treated Only ▸ Drop Large Centers ▸ Individual Variables

→ TV reduces engagement and accountability

→ Local informational content maintains engagement and accountability

What Explains These Results?

Taking stock

- Conditional on receiving TV, private broadcasters increase voter engagement and political accountability

Main hypothesis: Local information is relevant to the voter

Television Content – Local Versus National Programming Ratios†

	Daytime viewing hours (47.5 hours per week)			Adult viewing hours (28 hours per week)		
	Total Hours of Informational Content‡	National Content	Local Content	Hours of Informational Content	National Content	Local Content
Private Television	19.9	0.7	19.2	5.2	3.7	1.5
Public Television	16.4	15.6	0.8	4.8	4.1	0.7
Private/Public Ratio	**1.21**	**0.05**	**22.86**	**1.08**	**0.89**	**2.11**

† Figures are based on total air time for the week January 15-21, 1956 (Royal Commission on Broadcasting, 1957).
‡ National content and local sum up to the total hours of informational content.

→ $>$ 2x amount of local information on private stations at all times of day

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$\rightarrow$ $>$ 2x amount of local information on private stations at all times of day

Why provide local information?

- Private stations' ownership locally dispersed; Fowler Report 1957:
  - Some television stations originate from radio stations
  - But virtually no multi-television station ownership by individuals
- During prime-time hours, import US-shows to increase advertising revenue
- To increase day-time revenue, provide local news to increase viewership
- In many cases: using local reporters cheapest option

Local Reporters

- CFPL-TV (London, Ontario) signs on 28. November 1953
- Co-owned by W.J. Blackburn (33%) who also co-owned a local radio station
- That night a fire breaks out and is covered by a local news crew

Firemen close in on flames sweeping Dutch Laundry on Dundas Street, November 28, 1953. Forty men were called in to fight the flames thought to have started in two piles of rags soaked with cleaning fluid. This fire was CFPL-TV's first live news coverage.

Source: *London Free Press: From the Vault, Vol 2: A Photo-History* (p. 119) Ivey Family London Room, London Public Library, London, Ontario, Canada.

Alternative hypotheses

Main hypothesis: Local information is relevant to the voter

A1: Is Canada special compared to the US and elsewhere?

A2: Media bias

A3: Substitution from newspapers to television

Mechanism: Electoral Competition

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- Maybe the impact of Canadian television content is unique?
  - e.g., the Canadian public-private context differs from other context

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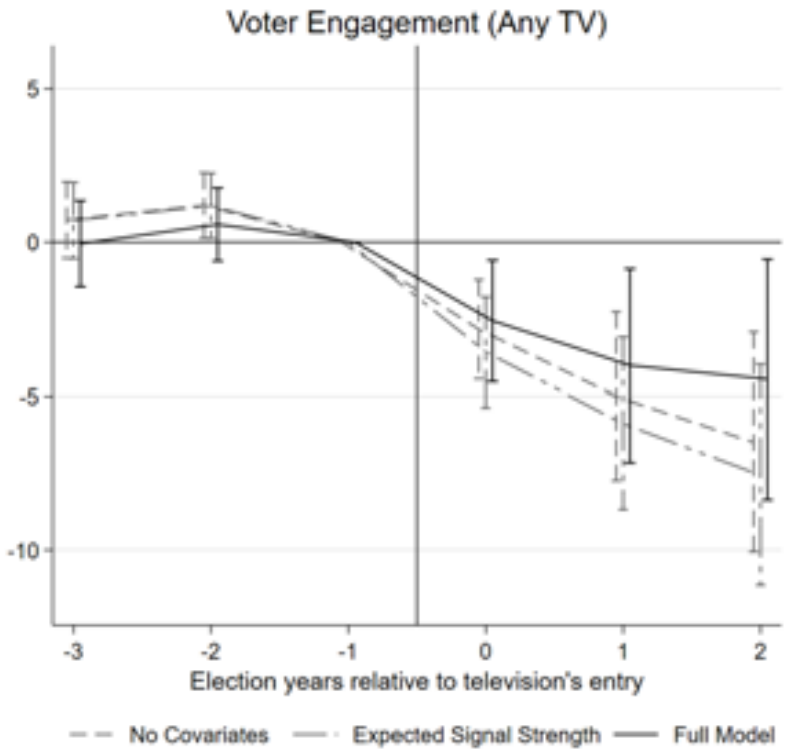

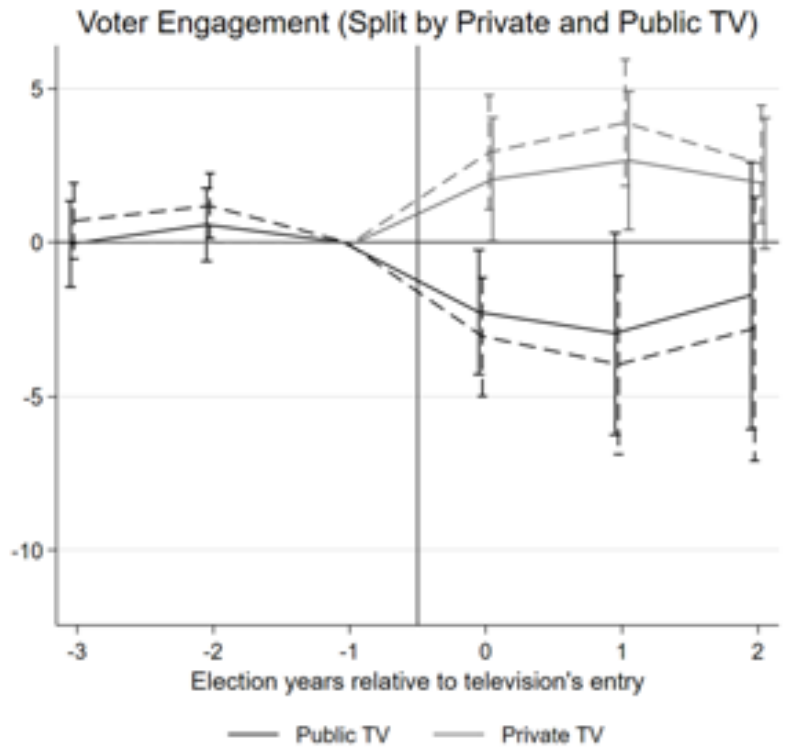

→ Same evidence as in US (and elsewhere): television reduces voter engagement

▸ Extended Panel ▸ Never Treated ▸ Goodman-Bacon ▸ Sun & Abraham

A2: Television news bias explains fall in voter turnout

- Maybe biased news alienates some voters but not others?
  - e.g., local television inccreased Conservative party vote shares and thus turnout

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	(1)	(2)	(3)	(4)	(5)	(6)
	Liberal Vote Share	**Con Vote Share**	**Lib-Con Share Diff**	**Lib-Other Share Diff**	**Con-Other Share Diff**	**Major-Other Diff**
[β^{TV}] Signal Strength	-0.009	-0.029	0.019	-0.062	-0.082	-0.091
	(0.024)	(0.024)	(0.037)	(0.049)	(0.050)	(0.061)
[β^{Loc}] Signal Strength ×Local	-0.011	0.058	-0.070	0.051	0.121	0.109
	(0.045)	(0.053)	(0.082)	(0.085)	(0.098)	(0.109)
$\mathbb{E}$[Signal Strength]	Yes	Yes	Yes	Yes	Yes	Yes
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes	Yes	Yes
Election-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,764	1,764	1,764	1,764	1,764	1,764
Adjusted R^2	0.740	0.707	0.736	0.722	0.698	0.702

Covariates include pre-treatment measures of district-level population density, earnings, age, literacy and urbanization interacted with year fixed effects. Standard errors are clustered at the electoral district level, as shown in parentheses. * p $<$ 0.10, ** p $<$ 0.05, *** p $<$ 0.01.

→ No shift in vote shares across party lines

A3: Substitution from Newspapers or Radio to Television

- Maybe the rate of substitution for local television viewers differs?
  - e.g., fall in local newspaper consumption greater among local television viewers

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	(1)	(2)	(3)	(4)	(5)	(6)
	Number of Newspapers			**Circulation Per Capita**		
$[\beta^{TV}]$ Signal Strength	0.019	0.641	0.661	0.026	0.005	0.025
	(0.077)	(0.442)	(0.432)	(0.039)	(0.052)	(0.070)
$[\beta^{Loc}]$ Signal Strength × Local	0.086	-0.625	-0.538	0.001	-0.070	-0.062
	(0.098)	(0.673)	(0.654)	(0.057)	(0.115)	(0.135)
$\mathbb{E}$[Signal Strength]	Yes	Yes	Yes	Yes	Yes	Yes
City FE	Yes	Yes	Yes	Yes	Yes	Yes
Election-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	536	535	535	536	530	530
Adjusted R^2	0.926	0.735	0.856	0.943	0.803	0.904
p-value (H_0: $\beta^{TV} + \beta^{Loc} = 0$)	0.058	0.963	0.731	0.258	0.436	0.676

Covariates include pre-treatment measures of district-level population density, earnings, age, literacy and urbanization interacted with year fixed effects. Standard errors are clustered at the electoral district level, as shown in parentheses. * p $<$ 0.10, ** p $<$ 0.05, *** p $<$ 0.01.

→ No differential change in newspaper circulation

A3: Substitution from Newspapers or Radio to Television

- Maybe the radio owners show different content than none-radio owner?
  - e.g., radio owners show same content they aired previously?

Table: **Radio**

	Voter Engagement		Political Accountability	
	(1)	(2)	(3)	(4)
Signal Strength $\times I^{Pvt} \times$ Radio Owner	0.006	-0.021	0.004	0.006
	(0.047)	(0.049)	(0.010)	(0.010)
Signal Strength $\times I^{Pvt}$	0.051**	0.064**	0.010*	0.012*
	(0.025)	(0.026)	(0.006)	(0.006)
Signal Strength	-0.053***	-0.042***	-0.004*	-0.005**
	(0.012)	(0.013)	(0.002)	(0.002)
$I^{Pvt} \times$ Radio Owner	-0.295	1.727	-0.526	-0.679
	(3.560)	(3.704)	(0.845)	(0.818)
District FE	Yes	Yes	Yes	Yes
Election-Year FE	Yes	Yes	Yes	Yes
Covariates	Yes	Yes	Yes	Yes
Observations	1,795	1,764	1,674	1,646
Adjusted R^2	0.649	0.654	0.443	0.441
p-value ($\beta^{pvt} + \beta = 0$)	0.922	0.347	0.229	0.249

Testing whether Radio behavior is different across public and private television. All regressions include a full set of city and election-year fixed effects, as well as expected signal strength. Standard errors clustered by city shown in parentheses. $*$ $p < 0.10$, $**$ $p < 0.05$, $***$ $p < 0.01$

$\rightarrow$ No differential effect of private stations owned by a radio owner

$\rightarrow$ Suggestive of a content effect, if radio and television show same content

Mechanism

- Politicians either act accountable or are held accountable.
  1. Either politicians adapt their behavior
  2. or voters choose different politicians

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Politicians' behavior

- Politician FE isolate within politician change in behavior

Table: **Impact on Policy: Dissents among Members of Parliament**

	Political Accountability		Dissenting votes	
	(1)	(2)	(3)	(4)
Signal Strength $\times I^{Pvt}$ $[\beta^{pvt}]$	0.014**	0.018**	0.011**	0.019*
	(0.005)	(0.008)	(0.006)	(0.010)
Signal Strength $[\beta]$	-0.005**	-0.002	-0.006**	-0.007
	(0.002)	(0.002)	(0.003)	(0.005)
District FE	Yes	Yes	Yes	Yes
Election-Year FE	Yes	Yes	Yes	Yes
Covariates	Yes	Yes	Yes	Yes
District $\times$ Politician FE		Yes		Yes
Observations	1,646	1,145	1,509	979
Adjusted R^2	0.441	0.566	0.267	0.262

Testing whether politicians behavior is different across public and private television. All regressions include a full set of city and election-year fixed effects, as well as expected signal strength. Standard errors clustered by city shown in parentheses. $*$ $p < 0.10$, $**$ $p < 0.05$, $***$ $p < 0.01$

Mechanism

- Politicians either act accountable or are held accountable.
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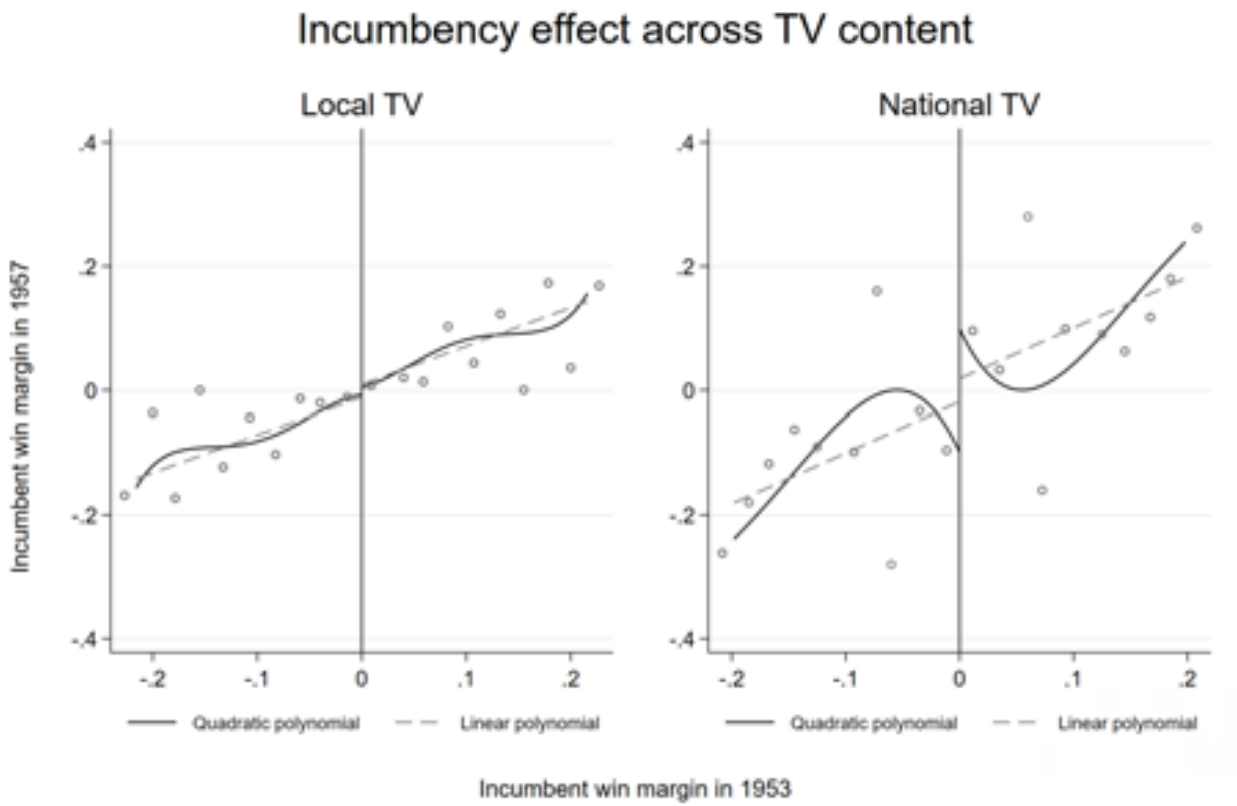
Electoral competition

- Compare incumbency advantage across media markets



Concluding Remarks

Summary

- Voter turnout falls after the introduction of public (but not private) television
  - The context allows us to tease out the role of content, not a "TV effect"
- Local informational content is key for engagement and accountability
- Heightend electoral competitiveness forces politicians to speak and act on behalf of their constituents

What does this setting teach us about the political effects of new media?

- The value of local news in a democracy
  - Adaptable media to local needs can impact political outcomes for the better
  - Cautionary tale as national news dominates most outlets at expense of local news
- Accountability effects of local news significant in a world with social media
  - Low barrier to entry gives a previously unheard voice to voters

Thank you!

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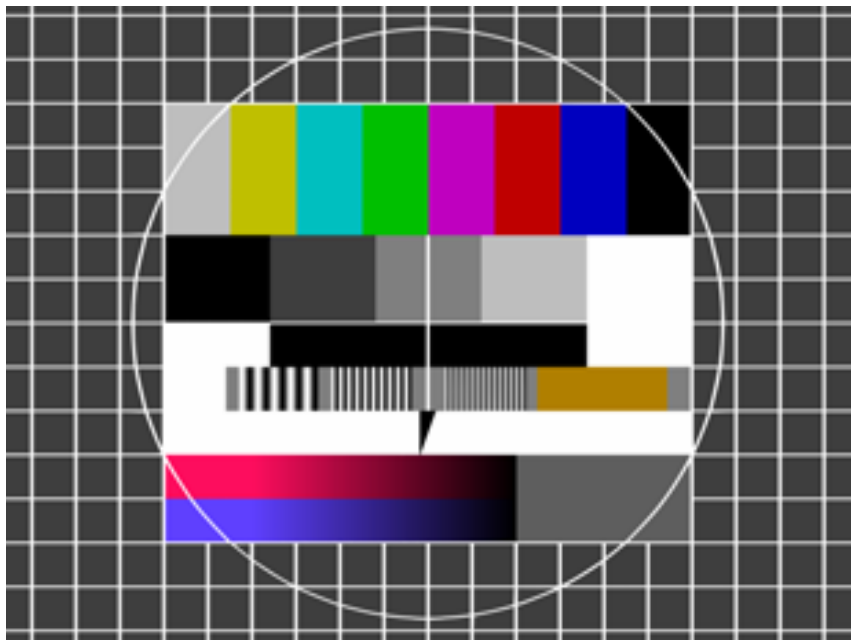
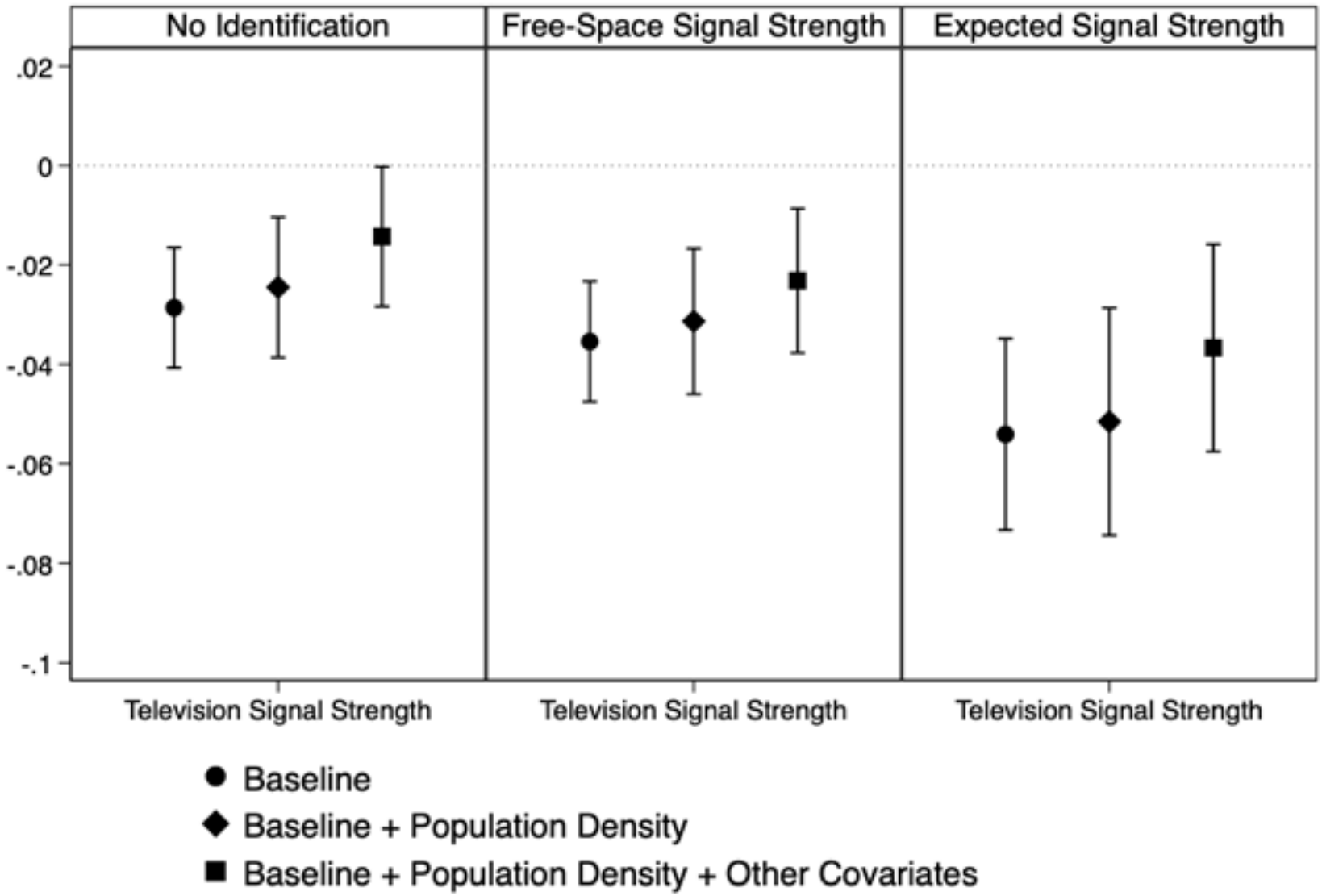


Television's Impact on Voter Turnout



Note: baseline estimates include district and year fixed effects.

◂ Table ◂ Alt FE

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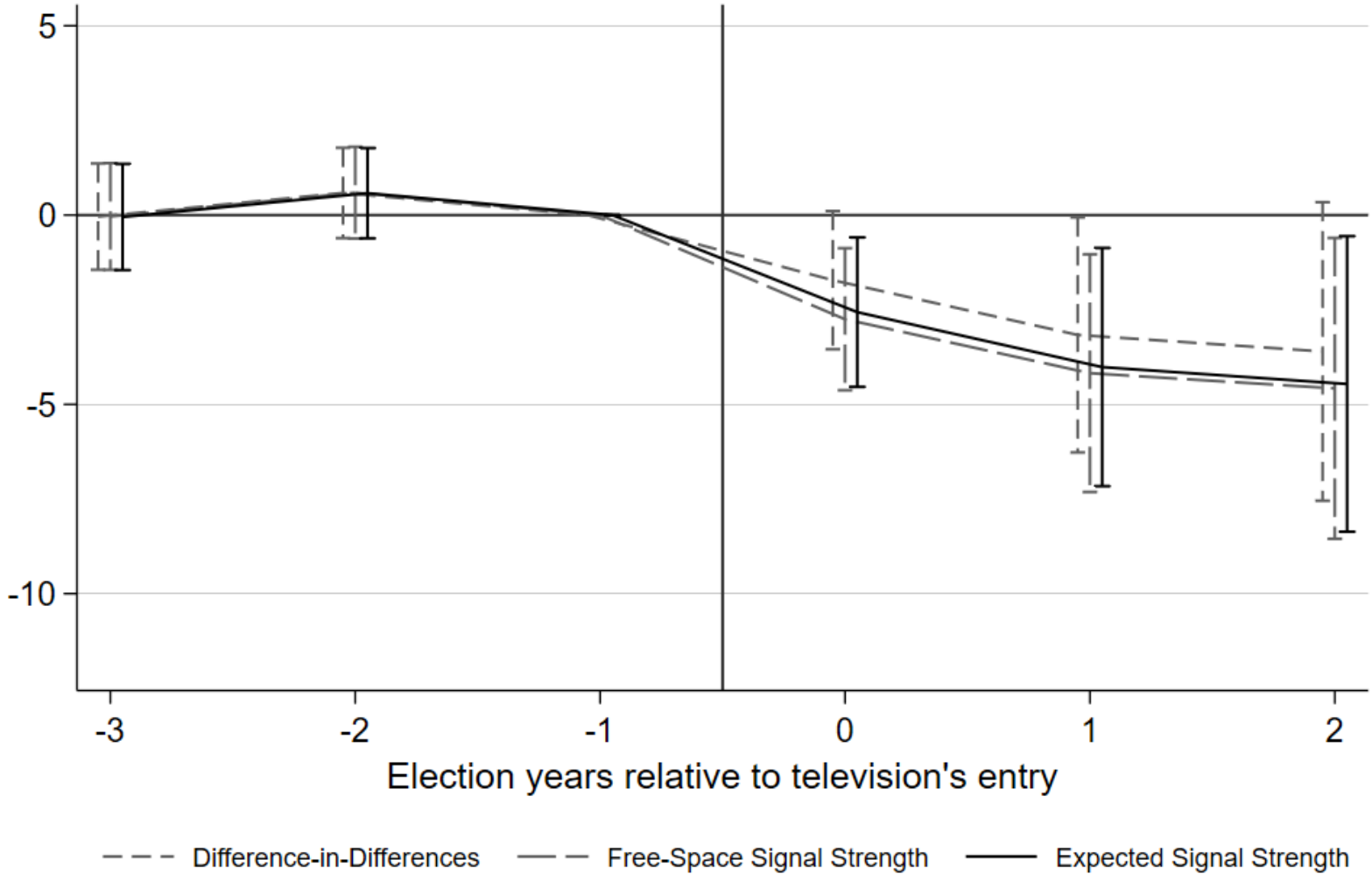


Note: baseline estimates include district and year fixed effects.

◂ Extended Panel ◂ Never Treated ◂ Goodman-Bacon ◂ Sun & Abraham

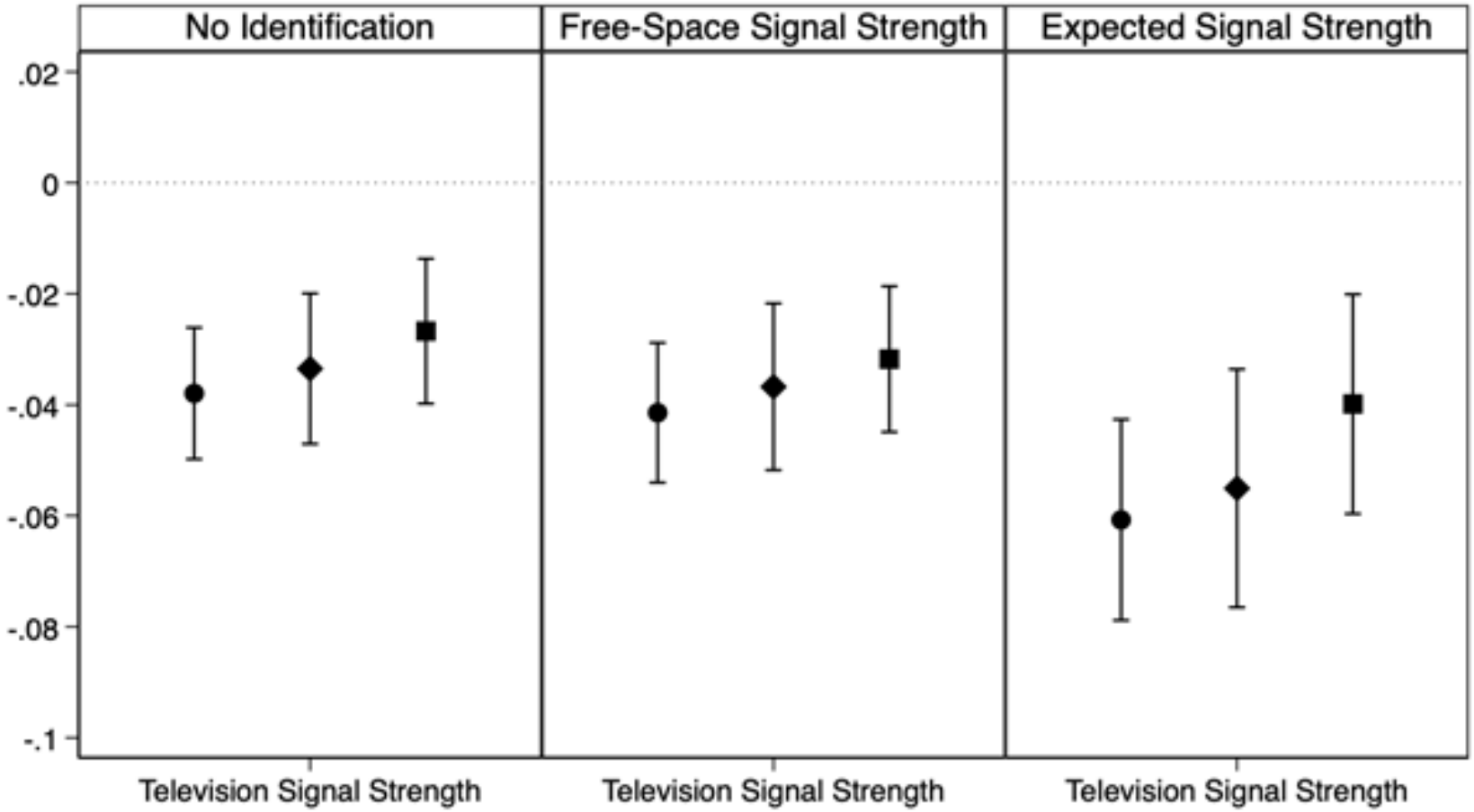
Television's Impact on Voter Turnout

	Dependent Variable: Voter turnout								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Signal Strength (dB)	-0.029***	-0.025***	-0.014**	-0.035***	-0.031***	-0.023***	-0.054***	-0.052***	-0.037***
	(0.006)	(0.007)	(0.007)	(0.006)	(0.007)	(0.007)	(0.010)	(0.012)	(0.011)
$\mathbb{E}$[Signal Strength]	No	No	No	No	No	No	Yes	Yes	Yes
Free-Space Signal	No	No	No	Yes	Yes	Yes	No	No	No
Population Density	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Other Covariates	No	No	Yes	No	No	Yes	No	No	Yes
District FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Election-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,795	1,764	1,764	1,795	1,764	1,764	1,795	1,764	1,764
Adjusted R^2	0.642	0.636	0.651	0.643	0.637	0.653	0.645	0.639	0.653

All covariates are time-invariant initial conditions measured at the district level, including population density, mean earnings, mean age, literacy rates and urbanization rates, all interacted with a year FE. Standard errors are clustered at the electoral district level. * p $<$ 0.10, ** p $<$ 0.05, *** p $<$ 0.01.

◂ Back

Television's Impact on Voter Turnout



Note: estimates conditional on electoral district and province-year fixed effects.

Back

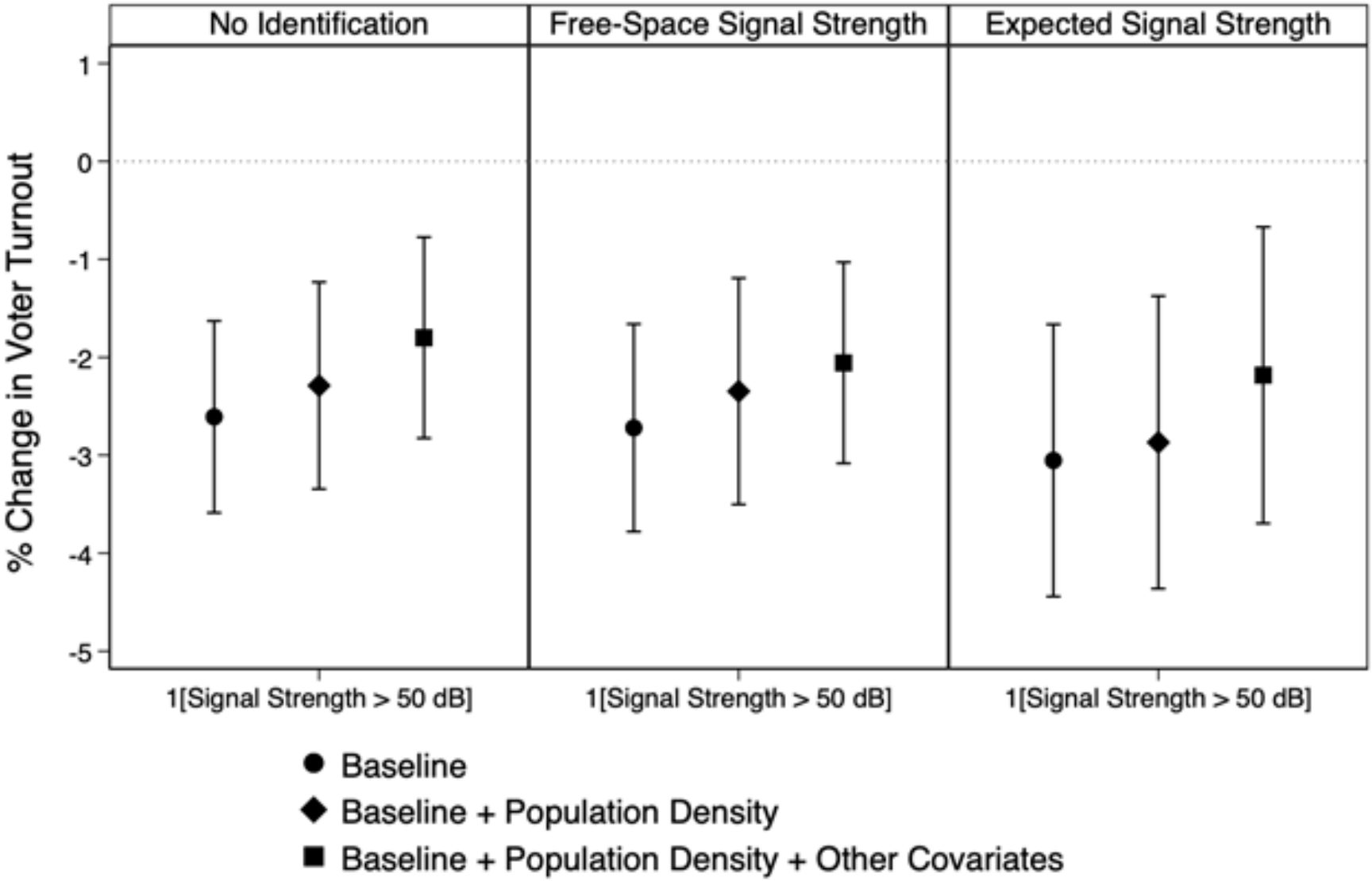
Television's Impact on Voter Turnout (Magnitude)

	Dependent Variable: Voter turnout								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1[Signal $>$ 50 dB]	-1.971***	-1.653***	-0.924	-2.402***	-2.033***	-1.507***	-3.014***	-2.961***	-2.260***
	(0.532)	(0.579)	(0.570)	(0.529)	(0.589)	(0.571)	(0.769)	(0.831)	(0.803)
$\mathbb{E}$[Signal Strength]	No	No	No	No	No	No	Yes	Yes	Yes
Free-Space Signal	No	No	No	Yes	Yes	Yes	No	No	No
Population Density	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Other Covariates	No	No	Yes	No	No	Yes	No	No	Yes
District FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Election-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,797	1,764	1,764	1,795	1,764	1,764	1,797	1,764	1,764
Adjusted R^2	0.640	0.634	0.650	0.640	0.634	0.652	0.640	0.635	0.651

All covariates are time-invariant initial conditions measured at the district level, including population density, mean earnings, mean age, literacy rates and urbanization rates, all interacted with a year FE. Standard errors are clustered at the electoral district level. * p $<$ 0.10, ** p $<$ 0.05, *** p $<$ 0.01.

◂ Back

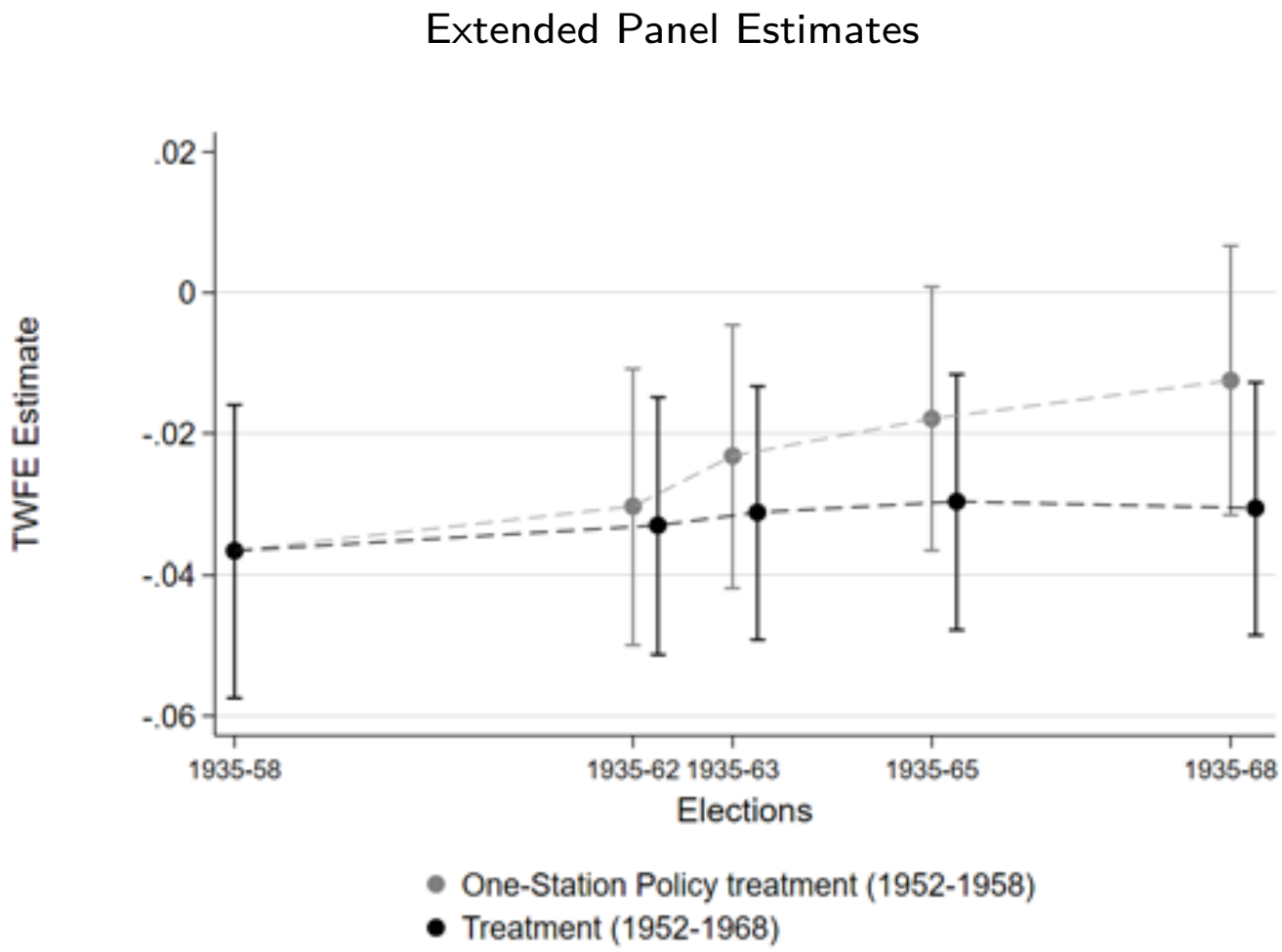
Television's Impact on Voter Turnout (Magnitude)



Note: baseline estimates include district and province-year fixed effects.

◂ Back

Television's Impact on Voter Turnout



Notes: Extended panel to 1968, which includes 4 additional treatment periods. We fix each district to its 1958 treatment status, thus allowing us to observe *all* cohorts for three lags after treatment—something that is not possible for the 1957 and 1958 treatment cohorts in our baseline sample. Intervals reflect 95 percent confidence.

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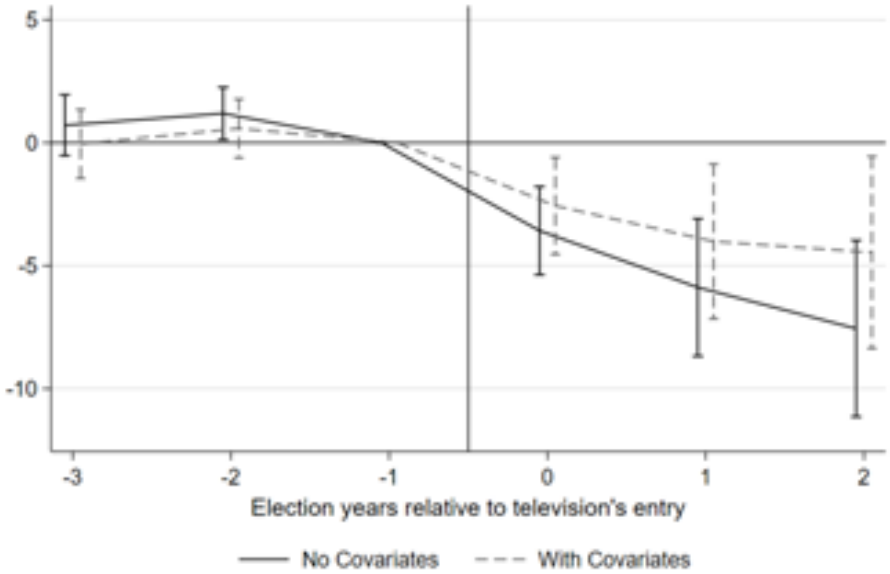
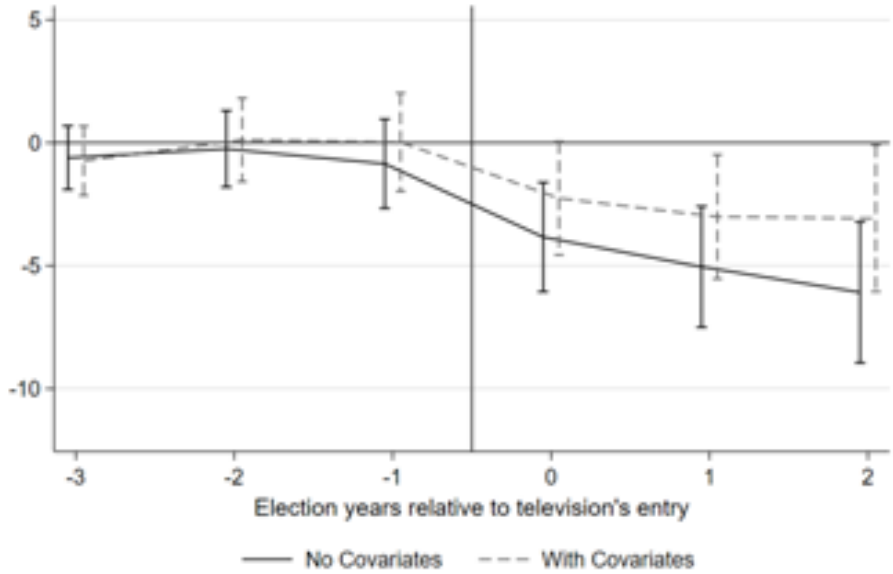
Television's Impact on Voter Turnout

Expected Signal Strength Estimates



Without never-treated



Including never-treated

Notes: This figure reports event-study estimates from excluding federal election districts that never get TV in our sample (left) and including them at period '-1' (right). Both figures provide evidence in favor of parallel trends and support our research design. Intervals reflect 95 percent confidence.

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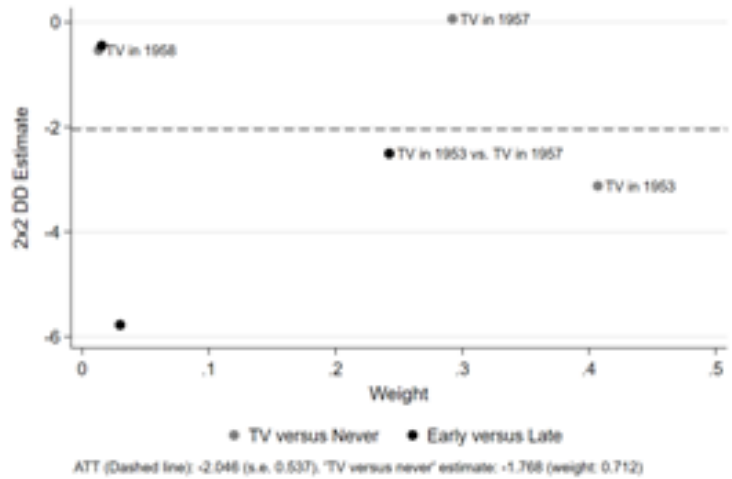
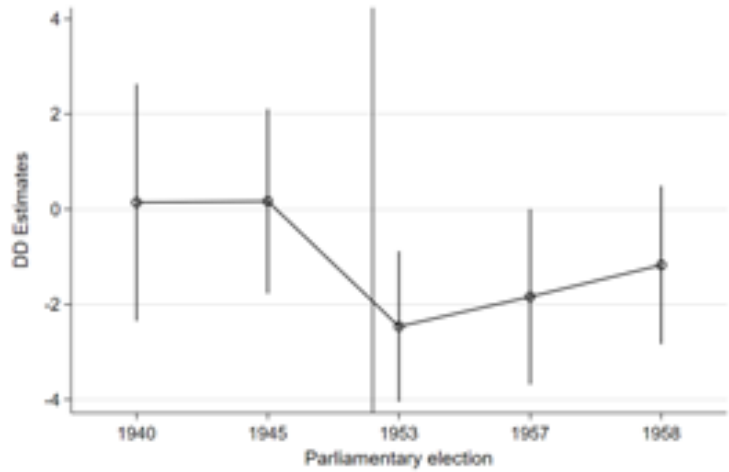
Television's Impact on Voter Turnout

Goodman-Bacon (2021) Decomposition



Decomposition



Pre-trends for 1953 treatment cohort

Notes: The left figure reports the weights and point estimates associated to the three treatment groups 1953, 1957, and 1958. The right figure plots the leads and lags for the 1953 treatment cohort compared to the never treated units. Intervals reflect 95 percent confidence.

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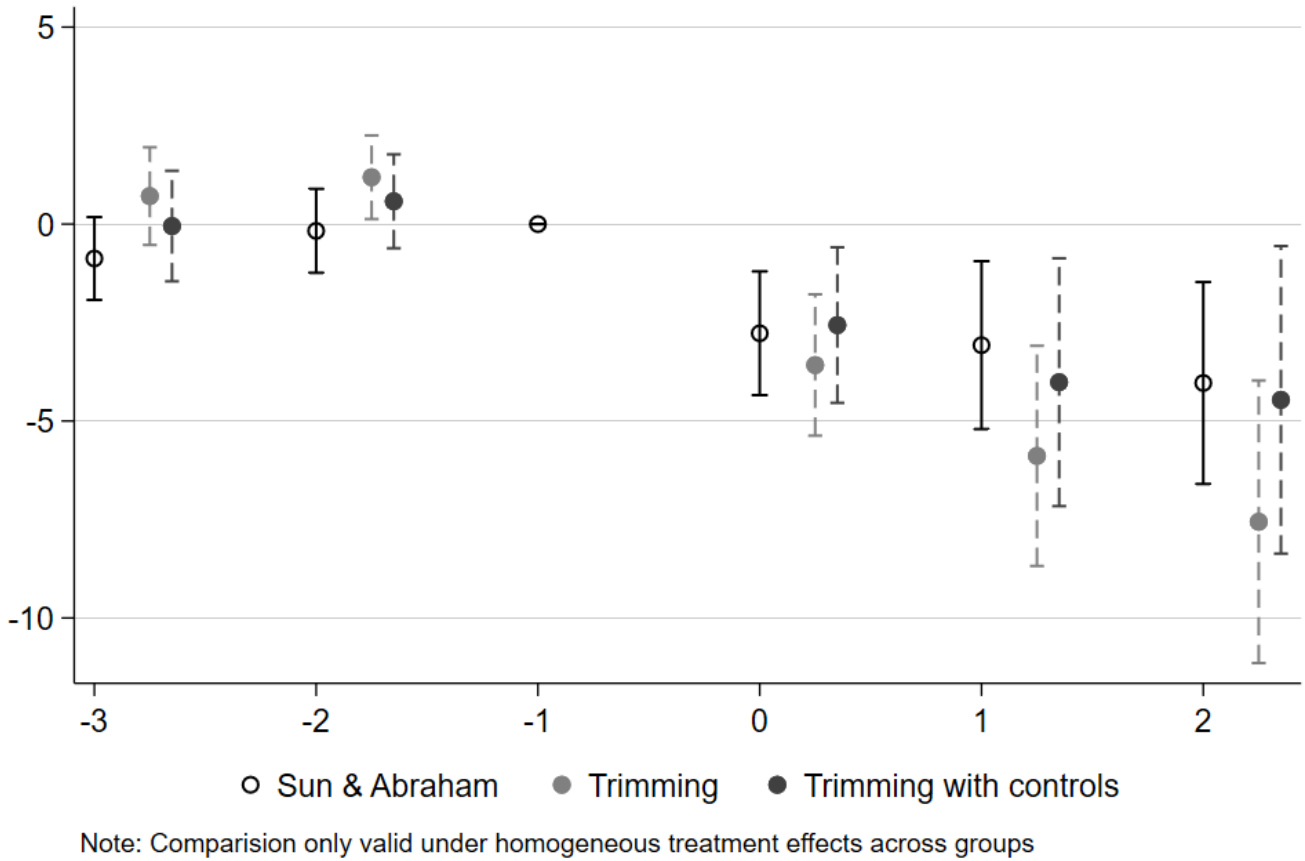
Television's Impact on Voter Turnout

Event Study with Sun & Abraham's (2021) Interaction-Weighted Estimator



Notes: This figure reports Sun & Abraham's (2021) interaction weighted (IW) estimator and includes a comparison to the trimming estimator without and with our baseline set of covariates. Intervals reflect 95 percent confidence.

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Public v Private Television's Impact on Voter Turnout

$$Y_{d,t} = \alpha_d + \alpha_t + \beta^{pub} Public_{d,t} + \beta^{pvt} Private_{d,t} + \gamma^{pub} \mu^{pub}_{d,t} + \gamma^{pvt} \mu^{pvt}_{d,t} + \Phi(\boldsymbol{X_d} \times t) + \epsilon_{d,t}$$

	Dependent Variable: Voter turnout		
	(1)	(2)	(3)
Private Signal Strength (dB)	0.003	0.003	-0.009
	(0.006)	(0.006)	(0.008)
Public Signal Strength (dB)	-0.029***	-0.045***	-0.044***
	(0.007)	(0.008)	(0.009)
$\mathbb{E}$[Signal Strength]	No	No	Yes
Free-Space Signal	No	Yes	No
Covariates	Yes	Yes	Yes
District FE	Yes	Yes	Yes
Election-Year FE	Yes	Yes	Yes
Observations	1,764	1,764	1,764
Adjusted R^2	0.655	0.658	0.655

All covariates are time-invariant initial conditions measured at the district level, including population density, mean earnings, mean age, literacy rates and urbanization rates, all interacted with a year FE. Standard errors are clustered at the electoral district level. * p $<$ 0.10, ** p $<$ 0.05, *** p $<$ 0.01.

◂ Back

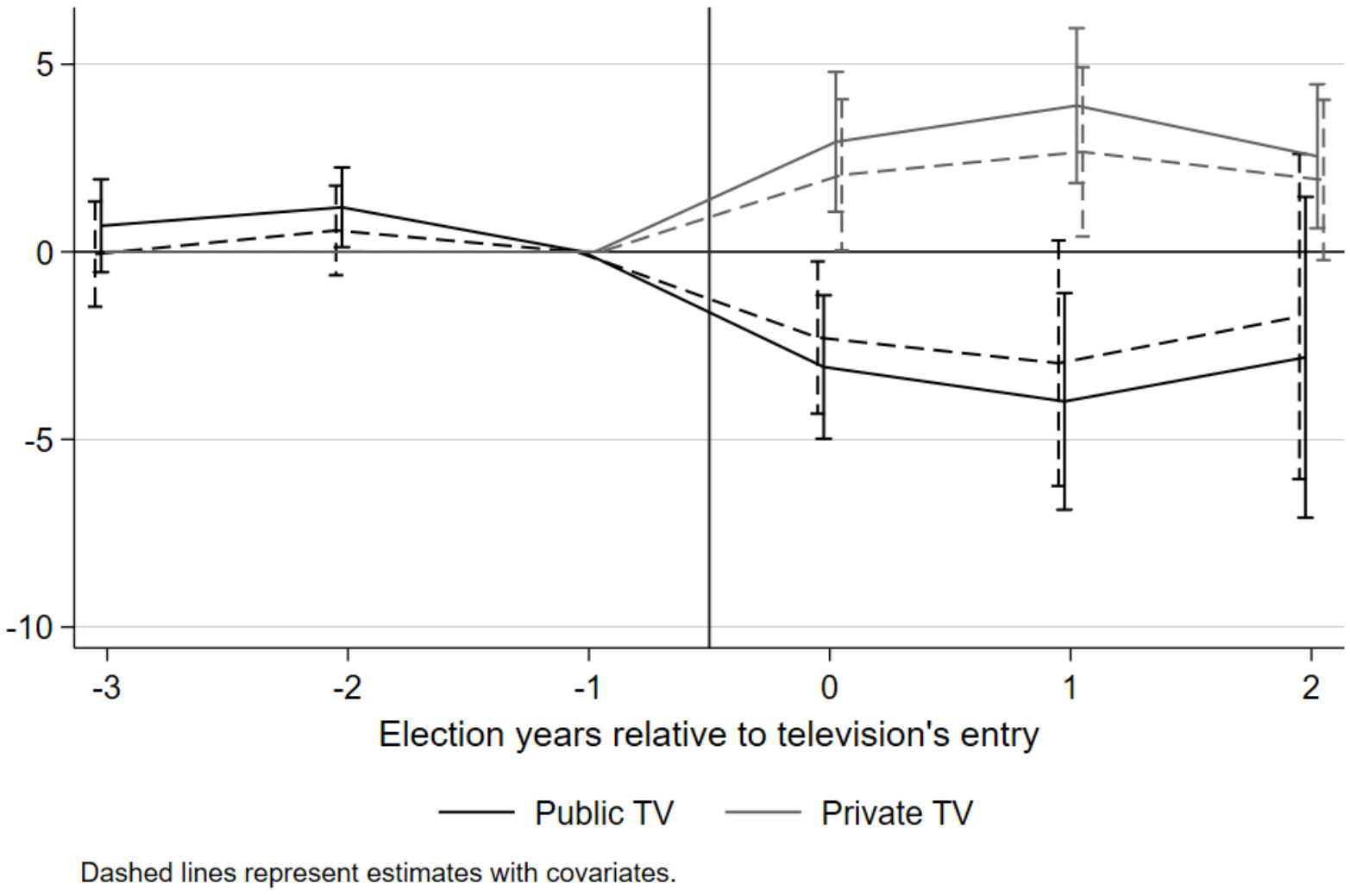
Public v Private Television's Impact on Voter Turnout

	Dependent Variable: Voter turnout		
	(1)	(2)	(3)
Signal Strength (dB) $\times I^{Pvt}$	0.037**	0.056	0.038*
	(0.019)	(0.059)	(0.023)
Signal Strength (dB)	-0.045***	-0.051***	-0.029**
	(0.008)	(0.008)	(0.012)
$\mathbb{E}$[Signal Strength]	No	No	Yes
Free-Space Signal	No	Yes	No
Covariates	Yes	Yes	Yes
District FE	Yes	Yes	Yes
Province-Year FE	Yes	Yes	Yes
Observations	1,757	1,757	1,757
Adjusted R^2	0.767	0.767	0.767

All covariates are time-invariant initial conditions measured at the district level, including population density, mean earnings, mean age, literacy rates and urbanization rates, all interacted with a year FE. Standard errors are clustered at the electoral district level. * p $<$ 0.10, ** p $<$ 0.05, *** p $<$ 0.01.

◂ Back

Public v Private Television's Impact on Voter Turnout



Notes: Baseline estimates include district and year fixed effects.

◂ Back

Public v Private Television's Impact on Voter Turnout

	Dependent Variable: Voter turnout		
	(1)	(2)	(3)
Signal Strength (dB) $\times I^{Pvt}$	0.052**	0.021	0.066***
	(0.021)	(0.049)	(0.024)
Signal Strength (dB)	-0.033***	-0.043***	-0.043***
	(0.009)	(0.009)	(0.013)
$\mathbb{E}$[Signal Strength]	No	No	Yes
Free-Space Signal	No	Yes	No
Covariates	Yes	Yes	Yes
District FE	Yes	Yes	Yes
Election-Year FE	Yes	Yes	Yes
Observations	1,660	1,660	1,660
Adjusted R^2	0.659	0.662	0.659

These estimates exclude "never treated" districts from the sample. All covariates are time-invariant initial conditions measured at the district level, including population density, mean earnings, mean age, literacy rates and urbanization rates, all interacted with a year FE. Standard errors are clustered at the electoral district level. * p $<$ 0.10, ** p $<$ 0.05, *** p $<$ 0.01.

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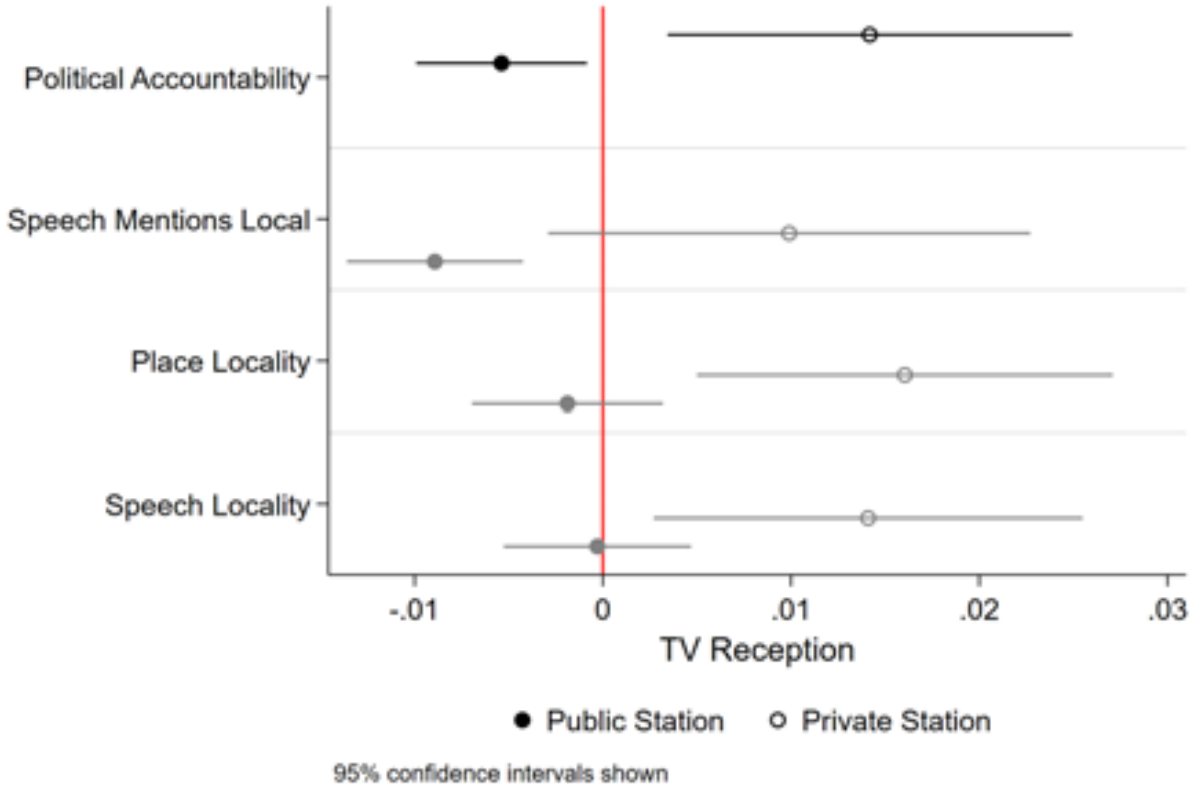
Individual Variables in Political Accountability



(1) Speech locality $= \frac{\#\text{ speeches mentioning a populated place within MP's district}}{\#\text{ total speeches by MP in an election cycle}}$

(2) Place locality $= \frac{\#\text{ populated places within MP's district mentioned in a speech}}{\#\text{ total populated places mentioned in a speech by MP}}$

(3) Place mentioned that lie within MP's district at least once $\in \{0, 1\}$

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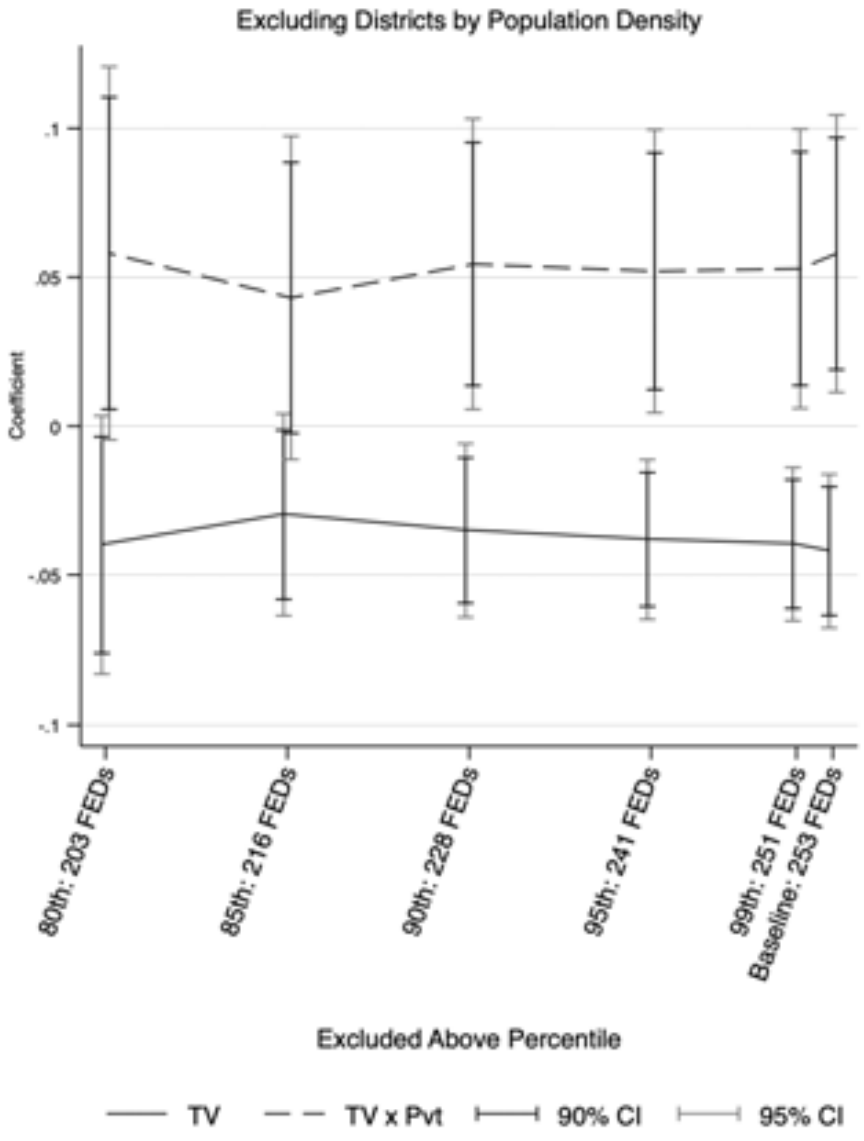
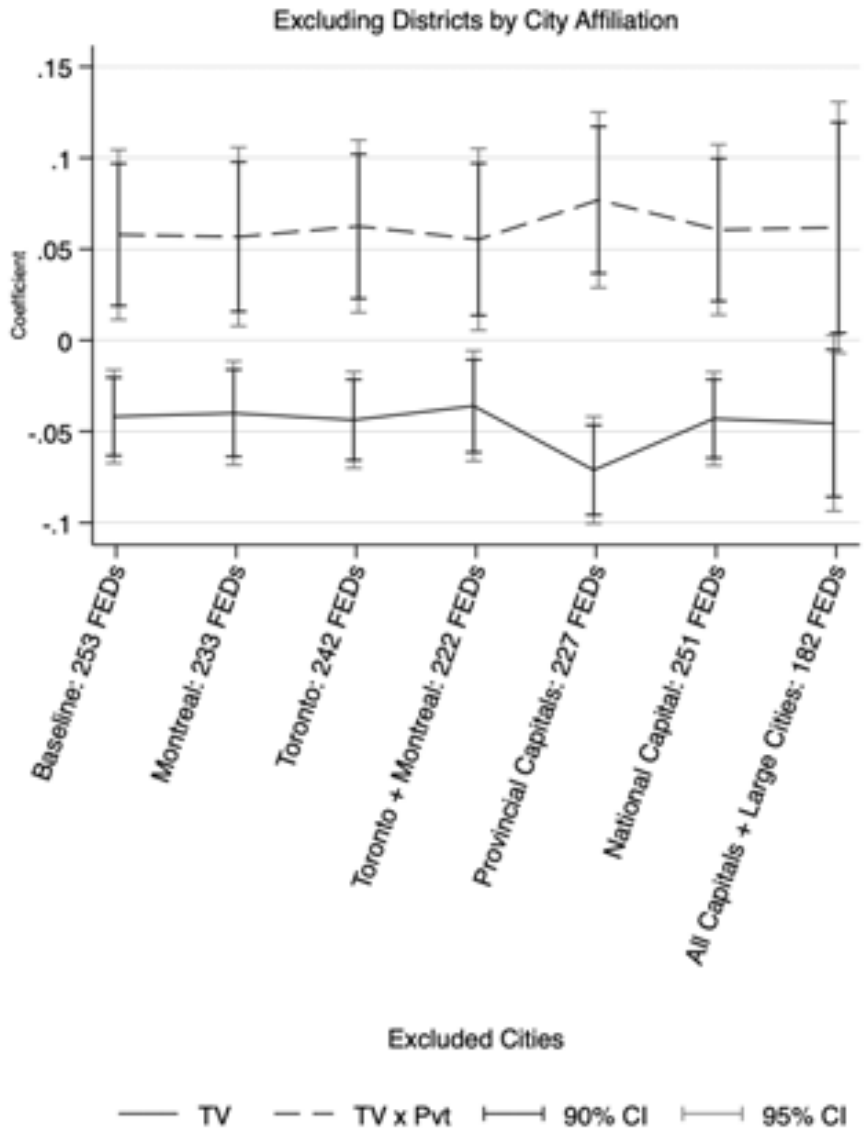
Public v Private Television's Impact on Voter Turnout





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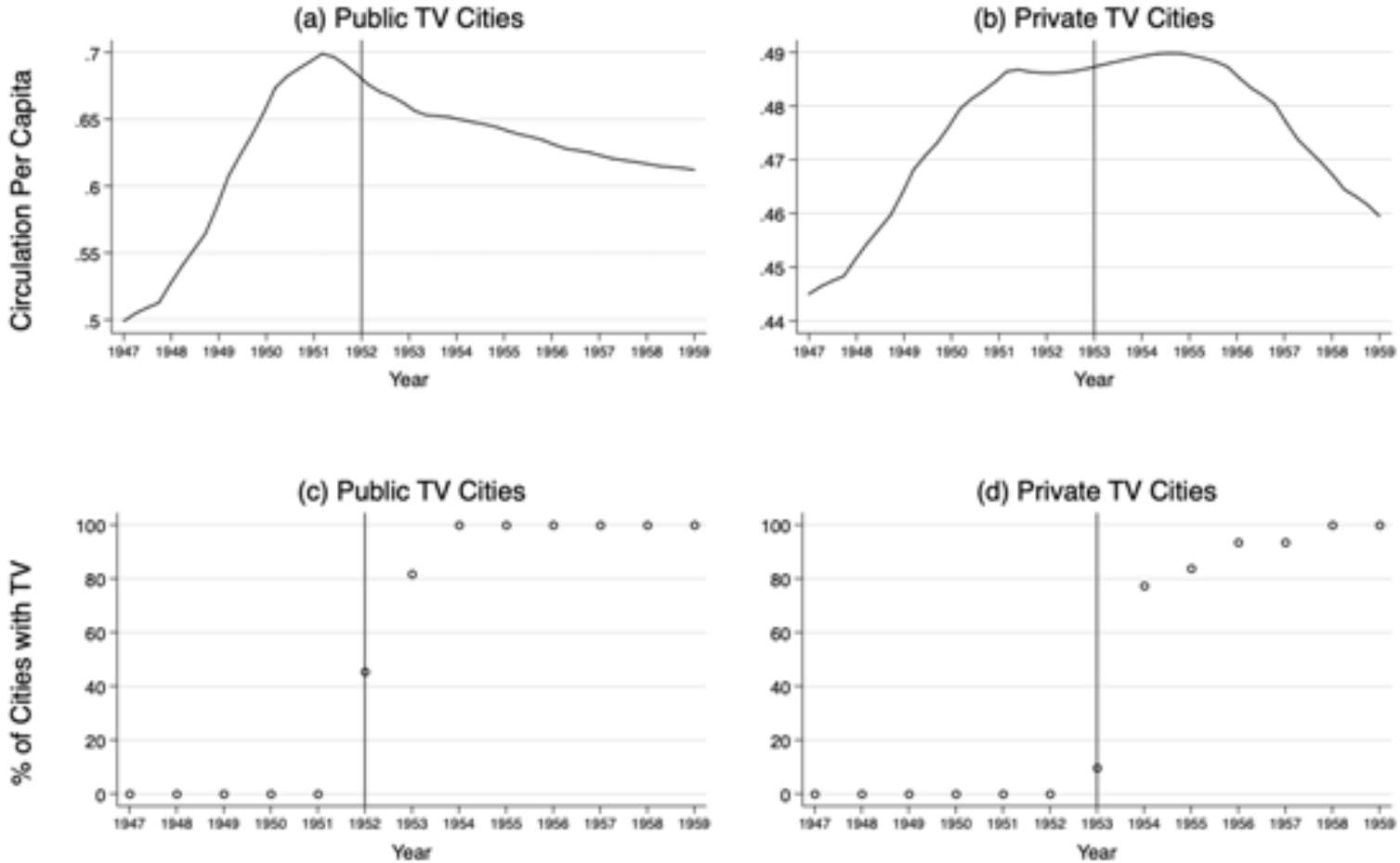
Daily Newspaper Circulation for Urban Centers (1947-1959)



Notes: Observations are at the city and year level. Average daily newspaper circulation rates are reported for our sample of 42 cities that receive public or private television—but not both—between 1947-1959, relative to the percent of cities with television. Circulation rates are adjusted for population and reported in per capita terms. Panel (a) is a kernel-weighted local polynomial smoothing of per capita circulation rates for the 11 cities that receive public television. Panel (b) is the same for the 31 cities that receive private television. Panels (c) and (d) report the percent of cities in our sample with public and private television, respectively.

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Substitution Effect

Case Study

- The CBC studied the impact of television on radio in the early 1950s
  (CBC Bureau of Audience Research)
  - Radio usage before/after CBHT-TV (Halifax) signs on in December 1954
  - *Before*: surveyed Halifax residents on radio listening habits, preferences, etc.
  - *After*: same residents surveyed on radio usage *and* TV habits a year later

→ Overall radio listening time drops by one-third

- During television hours, radio usage drops by two-thirds

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