The Management of the Pandemic and its Effects on Trust and Accountability

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Trust in Instituions in Times of the Pandemic

- Support for democratic institutions and trust a cornerstone of a well-functioning democracy (Besley & Person 2019, Acemoglu & Robinson 2019)

- Trust in political institutions crucial during pandemics
  - Compliance with government directives key to contain the virus

- Covid-19: the perfect storm
  - Outbreak during a "trust crises" (Dustmann et al. 2017): 75% of the EU population distrusts political parties
  - Erratic management of the pandemic and changing directives may have exacerbated the low levels of trust in governments and experts

Research questions

1. Does poor management of the COVID-19 pandemic crisis affect individuals' trust in government?

2. Does it affect their willingness to comply with regulations?

3. How does individuals' ideology & political context interfere with how individuals process information about government performance?

This Paper

- This paper:
  1. Online survey $\sim$ 4,000 respondents in Spain, Nov 2020.

  2. Survey Experiment
     - Treatment group got information on the number of contact tracers in their region
     - $\rightarrow$ Key policy for virus containment. Broad support.
     - $\rightarrow$ We also convey info on quality of this system

- Part of a larger research agenda.
  - Examine the determinants of political discontent
  - Online surveys
  - What policy interventions are more effective to regain trust?

Overview of Results

1. People over-estimate the number of contact tracers.

2. Information treatment leads to ↓ trust in government and willingness to accept COVID-19 vaccine.

3. Individuals politically aligned to the regional government → shift blame to the central government.

Related Literature

- Information on government performance and accountability
  - Besley and Burgess 2002, Ferraz and Finan 2008, Kendall et al. 2015, Arias et al. 2018

- Information provision and trust in institutions
  - Acemoglu, Cheema, Khwaja, Robinson, 2020

- COVID-19. A number of papers have studied the determinants of compliance with government directives
  - Political identity and demographics (Allcott et al. 2020, Besley and Dray, 2021)
  - Generalized trust (Durante et al 2020, Goldstein and Wiedemann 2021)
  - Trust in political institutions (Bargain and Aminjonov, 2020)

- COVID-19. Government performance and support for democracy Becher et al. 2021

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Context and Research Design

Context

- November 2020. Covid-19 2nd wave: rising cases and deaths
- State of alarm reinstated in Oct 25
- New restrictions on mobility and social gatherings

Each day shows deaths reported since the previous day · About this data

▸ Spain, UK, US

Contact Tracing (I)

- Contact Tracing: system for identifying and notifying people that were in close contact with a positive covid-19 case.

- Testing & tracing one of the key policies advocated by the WHO
    "When systematically applied, contact tracing will break the chains of transmission of an infectious disease and is thus an essential public health tool for controlling infectious disease outbreaks." WHO, May 2020.

- Deficiencies in contact tracing increase disease transmission and deaths (Fetzer and Graeber, 2021)
    "One additional case referred late to contact tracing is associated with 18.6 additional infections and 0.24 deaths in a 6-week period"

Contact Tracing (II)

- Less controversial than other measures to contain the virus
  - → The best proxy we found of government performance

- Contact tracing is a responsibility of regional governments
  (Autonomous Communities), but at also contact tracers from
  the military
  - → Perceived ambiguity in areas of responsibility.

- Discussion on the media
  of deficient contact
  tracing services

- *"Madrid has only hired 661
  contact tracers, half of what it is
  needed to fight against covid."*

Data

- Online Survey fielded by YouGov in Nov 2020 in Spain.

- Fielded to $\sim$ 4,000 respondents $\rightarrow$ 3,700 completed the survey

- Representative of the Spanish adult population in age, gender, region and education. Quota sampling system. ▸ details

- Survey Structure:
  1. Collects socio-economic information
  2. Survey experiment $\rightarrow$ info given to treated group
  3. Outcomes collected:
     - Beliefs on competence of different governments
     - Trust in governments and other institutions
     - Compliance with vaccination
     - Perceptions of areas of responsibility
     - Support for incumbents

Experimental Design

- Experiment:
    - Respondents are randomly assigned to one of 2 groups:
    - Treatment (1/2): Information on contact tracers in their region
        - 1/2 of them get extra information on the ranking of performance of their region relative to others
    - Control (1/2): No information by the time the outcomes are measured
        - They get the info at the end $\rightarrow$ we measure their priors

- Randomization stratified by age, region, education $\rightarrow$ 798 groups
    - Within strata, randomly assign to T and C

Prior Elicitation

- Do you know how many contact tracers per 100,000 inhabitants there were in your Autonomous Community in October 2020?

- Before giving you the exact number, we ask you to try to guess it based on the information provided

- Please, move the cursor to guess how many contact tracers per 100,000 inhabitants you think there were in your region.

- The colors in the bar below indicate the following:
  - **Red**: Very few contact tracers. More than half of cases left un-traced
  - **Orange/Yellow:** Insufficient contact tracers. All cases cannot be traced.
  - **Green:** Adequate number of contact tracers. All cases can be traced.

0   [0]   300

Treatment (IV)

The Autonomous Community of Castilla y Leon has 41 contact tracers per 100,000 inhabitants.

41

0   **VERY FEW TRACERS**   120   240   300
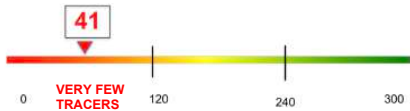
With 41 contact tracers, your region lacks 200 tracers per 100,000 inhabitants to be able to trace all cases.

The deficiencies in contact tracing contribute to the increase in cases and lead to the application of tougher measures, such as those we have been experiencing in recent weeks.

- Half of the treated individuals obtained additional information on the relative performance of different autonomous communities in terms of contact tracers. ▸ Extra T

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Data on Contact Tracers

- Data on number of contact tracers per region in October 2020 was obtained by *El País* from regional health authorities.

- Estimates on *"necessary contact tracers"* from the Int'l Contact Tracing Workforce Estimator from U.S. Health Dept.
  - Tailored to number of cases and population of each locality
  - Optimistic assumptions about efficiency of tracers and level of work-load $\rightarrow$ probably under-estimates the ideal number of contact tracers

- Slider tailored to the situation in each region
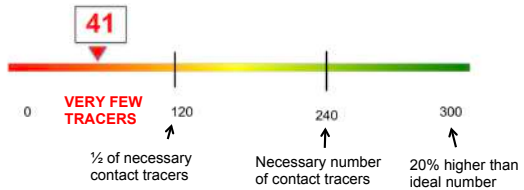
Empirical Strategy

- Regression Analysis

$$y_{ig} = \beta T_i + \delta_g + \varepsilon_{ig} \tag{1}$$

- where
  - y_{ig} is the outcome of interest for individual i
  - T_i is the treatment group indicator
  - δ_g are strata fixed effects

- Pre-analysis plan registered with AEA

Balance Table

	Age Group	Education Level	Female	Household Income	HH Income Change	Past Vote PP	Past Vote PSOE	Ideology 1-10	CT - Prior	$\mathbb{1}$(CT - Prior<0)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Treatment	0.00	0.01	0.03	-55.03	4.54	0.01	-0.01	0.12	0.06	-0.01
	(0.03)	(0.01)	(0.02)	(56.31)	(15.86)	(0.01)	(0.01)	(0.08)	(1.94)	(0.01)
Observations	3,705	3,705	3,705	3,359	3,525	3,150	3,150	3,699	3,705	3,705
R^2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$\bar{Y}$ if T=0	2.17	1.77	0.49	2301.97	-218.69	0.08	0.22	4.57	-51.34	0.85

Treatment also balanced by region and other covariates.

Results

Distribution of Priors on Number of Contact Tracers
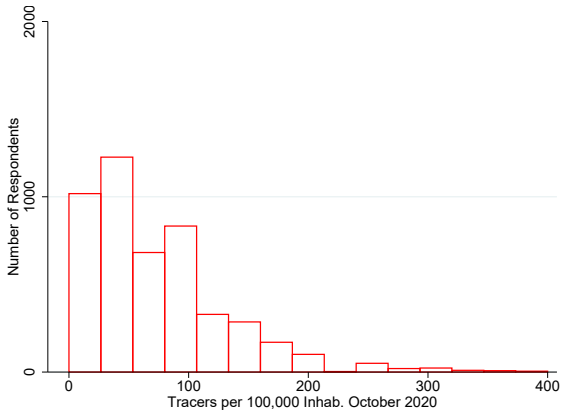
Distribution of Priors and Actual Number of Contact Tracers
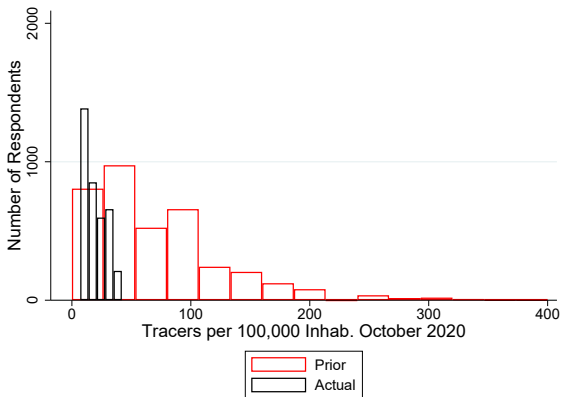
Distribution of (Prior - Actual) Number of Contact Tracers
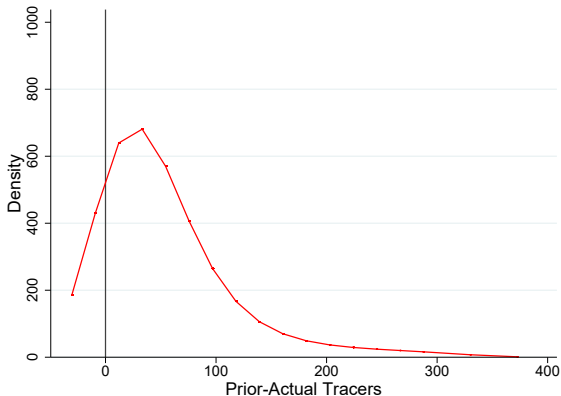
- **Result:** 85% of respondents over-estimate the number of contact tracers in their region
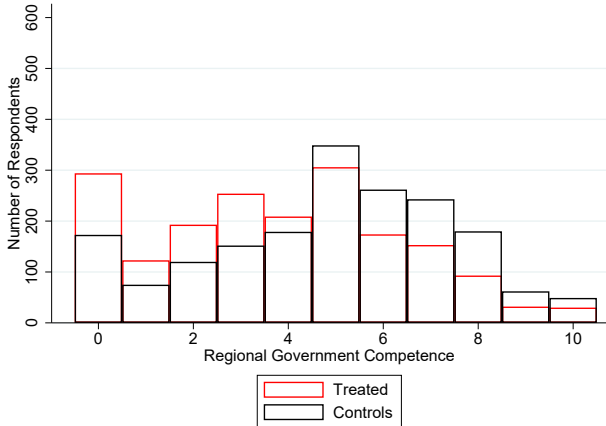
Effects on Assessed Competence of Governments

- Dependent Variable:
  - *On a scale from 0 to 10, how would you evaluate the quality of management of government X when handling crises such as the Covid-19 one?*

- where X is the regional government or the central government.

- *Conceptual "First Stage"*

Effects on Assessed Competence of Governments

	(1)	(2)	(3)	(4)
	Comp Reg Gov	Comp Reg Gov	Comp Nat Gov	Comp Nat Gov
t	-1.02***	-0.61***	-0.61***	-0.33
	(0.08)	(0.20)	(0.08)	(0.22)
Bad News		1.51***		1.31***
		(0.17)		(0.18)
t*Bad News		-0.48**		-0.32
		(0.22)		(0.23)
N	4,764	4,764	4,764	4,764
r2	0.18	0.20	0.15	0.16
Mean_Y	4.40	4.40	3.64	3.64

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

BadNews $= \mathbb{1}(Prior > Actual)$. Indicator of over-estimating the actual number of contact tracers

Effects on Evaluation of Competence of Regional Gov

Effects on Trust in Governments

- Does negative information about the competence of governments affect trust in government?

- Measuring Trust:
    - *On a scale from 0 to 10, how much confidence do you have in government X?*

    - *Imagine you won a lottery of 1,000 euros to mitigate the effects of Covid-19. You can't keep the prize but you can donate it. How much would you donate to Gov X and how much to the Red Cross?*

Effects on Trust in Governments

| | Trust (scale 0-10) | | Contribution Gov$\geq$50% | |
	Regional Gov	Central Gov	Regional Gov	Central Gov
	(1)	(2)	(3)	(4)
Treatment	-0.31***	-0.20**	-0.04**	-0.04**
	(0.09)	(0.10)	(0.02)	(0.02)
Observations	3,705	3,705	3,470	3,429
R^2	0.17	0.14	0.15	0.16
$\bar{Y}$ if T=0	3.95	3.13	0.64	0.60

Trust: Other Institutions

	Trust (scale 0-10)							
	Cen Gov	Reg Gov	Congress	Loc Gov	EU	Judic	Health	Index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	-0.20**	-0.31***	0.00	-0.14	-0.05	-0.14	-0.23***	-0.08**
	(0.10)	(0.09)	(0.08)	(0.09)	(0.08)	(0.09)	(0.09)	(0.03)
Observations	3,705	3,705	3,705	3,705	3,705	3,705	3,705	3,705
R^2	0.14	0.17	0.15	0.15	0.17	0.16	0.18	0.18
$\bar{Y}$ if T=0	3.13	3.95	2.26	4.19	4.47	3.94	6.39	0.05

Effects on Share of Contribution to Central Government
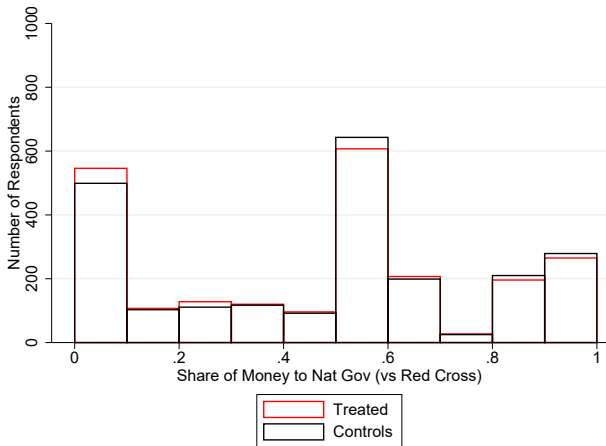
Effects on Confidence in Vaccines

- Does information about poor governance affect people's trust in government directives?

- Measuring Compliance:
    - *Imagine that in the next months a Covid-19 vaccine is approved.* If Gov X recommends vaccination, would you take the vaccine?
    - Dep Var =1 if take it for sure

    - Question asked in Nov 2020, before the FDA or EMA approved the vaccines

Effects on Trust in Governments

	Vaccination Recommended By	
	Regional Gov	Central Gov
	(1)	(2)
Treatment	-0.03**	-0.04**
	(0.02)	(0.02)
Observations	3,537	3,545
R^2	0.16	0.16
$\bar{Y}$ if T=0	0.35	0.36

Heterogenous Effects on Trust

	Dep. Variable: Trust Regional Gov			
	(1)	(2)	(3)	(4)
Treatment	-0.31***	-0.36***	-0.52***	-0.48***
	(0.09)	(0.11)	(0.19)	(0.15)
Treatment 2		0.11	0.47**	0.42**
		(0.13)	(0.21)	(0.17)
Treat x Low Contact Tracers			0.23	
			(0.23)	
Treat 2 x Low Contact Tracers			-0.53**	
			(0.26)	
Low (Contact Tracers - Prior)				1.22***
				(0.14)
Treat x Low (Contact Tracers - Prior)				0.23
				(0.23)
Treat 2 x Low (Contact Tracers - Prior)				-0.68***
				(0.26)
Observations	3,705	3,705	3,705	3,705
R^2	0.17	0.17	0.17	0.20
$\bar{Y}$ if T=0	3.95	3.95	3.95	3.95

Effects on Perception of Responsibility for the Shock

- What level of government is responsible?
  - What institution do you think has a greater responsibility in the management of the Covid-19 crisis (health services, testing, contact tracing, etc.)?
  - - 10 "Central Gov" $\rightarrow$ + 10 "Regional Gov"

- Does the political position affect how individuals attribute responsibility for "poor governance"?
  - We examine heterogeneity of effects by political alignment
  - Aligned $= 1$ iff respondent voted in the last general election for a party that forms a government coalition in their region.
    - e.g. $=1$ if voter of PP in Madrid, Galicia, etc.

Blame-Shifting: Effects on Perceived Responsibility

	Dep. var.: Responsibility of Regional Government (vs. Central Government)			
	Sample			
	All		Divided Gov	Non-divided Gov
	(1)	(2)	(3)	(4)
Treatment	-0.42**	-0.08	0.01	-0.18
	(0.20)	(0.25)	(0.29)	(0.46)
Aligned Reg Gov		-1.15***	-2.41***	1.89***
		(0.33)	(0.39)	(0.57)
T*Aligned Reg Gov		-1.08**	-1.45***	-0.06
		(0.45)	(0.53)	(0.81)
Observations	3,705	3,705	2,498	1,207
R^2	0.14	0.15	0.15	0.24
$\bar{Y}$ if T=0	-0.75	-0.75	-0.47	-1.33

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Blame-Shifting: Effects on Perceived Responsibility

	Dep. var.: Responsibility of Regional Government (vs. Central Government)			
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	All		Divided Gov	Non-divided Gov
	(1)	(2)	(3)	(4)
Treatment	-0.42**	-0.08	0.01	-0.18
	(0.20)	(0.25)	(0.29)	(0.46)
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T*Aligned Reg Gov		-1.08**	-1.45***	-0.06
		(0.45)	(0.53)	(0.81)
Observations	3,705	3,705	2,498	1,207
R^2	0.14	0.15	0.15	0.24
$\bar{Y}$ if T=0	-0.75	-0.75	-0.47	-1.33

Effects on Accountability

	Divided Gov		Non-divided Gov	
	Vote Regional Gov	Vote Central Gov	Vote Regional Gov	Vote Central Gov
	(1)	(2)	(3)	(4)
Treatment	-0.02	0.01	-0.07**	-0.09**
	(0.02)	(0.02)	(0.03)	(0.04)
Observations	1,910	1,910	893	893
R^2	0.14	0.12	0.29	0.26
$\bar{Y}$ if T=0	0.39	0.32	0.44	0.45

Summary of Results

- 85% of people over-estimate the number of contact tracers in their region

- Information on actual number of contact tracers:
    1. ↓ perceived competence of governments
    2. ↓ trust in governments
    3. ↓ willingness to take-up Covid-19 vaccines

- Differential impact of the negative information depending on the individual's political leanings.
    - If aligned to regional government → shift blame to central government.

- Stronger blame-shifting effect if divided government.
    - In regions with divided government → blame-shifting → no punishment to regional incumbent
    - In regions without divided government → no blame-shifting → punishment to regional incumbent ↓

Taking Stock

- People do not have accurate information on the performance of their political representatives

- Learning actual (bad) performance lowers trust and willingness to comply

- Endogenous attribution of responsibility mediated by political leanings
    - Accountability is harder at times of polarization.
    - Also in federal political systems when different parties control different levels of the administration.

Thanks!

Back-Up Slides

Representative Sample

- The sample is representative of the Spanish population

	Spanish Population (source: INE)	Our Sample
Female	0.52	0.50
Ages 18-24	0.08	0.06
Ages: 25-34	0.14	0.15
Ages: 35-44	0.19	0.22
Ages: 45-54	0.19	0.22
Ages: 55+	0.39	0.35
North-East Region	0.21	0.21
East Region	0.14	0.14
South Region	0.24	0.24
Center Region	0.22	0.24
North-West Region	0.09	0.10
North Region	0.09	0.07
Primary Education or Less	0.18	0.12
Secondary Education	0.29	0.21
Upper Secondary Education	0.14	0.18
Vocational Training	0.08	0.11
Tertiary Education	0.31	0.39
Observations		4764

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Summary Statistics

	Mean	Min.	Max.	Std. Dev.	Observations
Demographic Characteristics					
Female	0.50	0.00	1.00	0.50	3705
Age Group	2.17	1.00	3.00	0.79	3705
Age	46.48	18.00	91.00	13.97	3705
Education Level	1.78	1.00	2.00	0.42	3705
Household Income	2274.34	0.00	8000.00	1632.10	3359
HH Income Change	-216.41	-1500.00	1000.00	470.53	3525
Variables for Heterogeneities					
Contact Tracers - Prior	-51.31	-383.00	41.00	59.10	3705
$\mathbb{1}$ (Contact Tracers - Prior < 0)	0.84	0.00	1.00	0.36	3705
Divided Gov	0.67	0.00	1.00	0.47	3705
Aligned Regional Gov	0.34	0.00	1.00	0.47	3705
Outcomes					
Competence Regional Gov	4.34	0.00	10.00	2.65	3705
Competence Central Gov	3.60	0.00	10.00	2.70	3705
Trust Regional Gov	3.78	0.00	10.00	2.75	3705
Trust Central Gov	3.03	0.00	10.00	2.87	3705
Contrib. Regional Gov$\geq$50%	0.63	0.00	1.00	0.48	3489
Contrib. Central Gov$\geq$50%	0.58	0.00	1.00	0.49	3451
Vaccine Regional Gov	0.33	0.00	1.00	0.47	3551
Vaccine Central Gov	0.34	0.00	1.00	0.47	3558
Resp Reg Gov vs Central Gov	-0.94	-10.00	10.00	6.02	3705
Vote Regional Gov	0.38	0.00	1.00	0.49	2980
Vote Central Gov	0.35	0.00	1.00	0.48	2982

## Effects on Vaccine Acceptance if Recommended by Regional Government
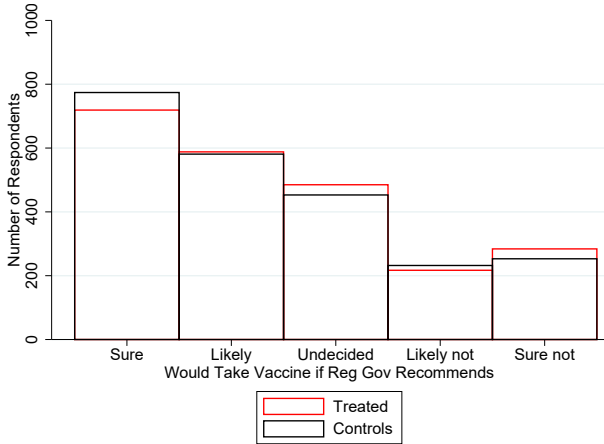
Representative Sample

	Spanish Population (source: INE)	Our Sample
Female	0.52	0.50
Ages 18-24	0.08	0.06
Ages: 25-34	0.14	0.15
Ages: 35-44	0.19	0.22
Ages: 45-54	0.19	0.22
Ages: 55+	0.39	0.35
North-East Region	0.21	0.21
East Region	0.14	0.14
South Region	0.24	0.24
Center Region	0.22	0.24
North-West Region	0.09	0.10
North Region	0.09	0.07
Primary Education or Less	0.18	0.12
Secondary Education	0.29	0.21
Upper Secondary Education	0.14	0.18
Vocational Training	0.08	0.11
Tertiary Education	0.31	0.39
Observations		4764

Effects on Evaluation of Competence of Regional and Central Gov
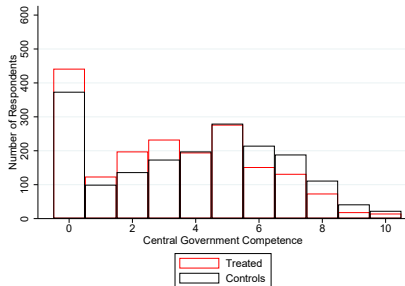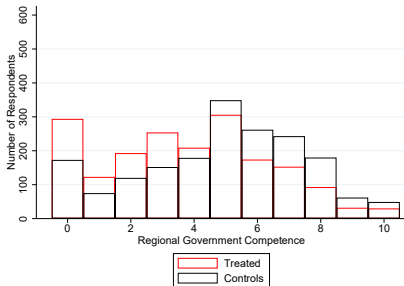
"First Stage" by Treatment

| | Competence of Government (scale 0-10) | | | | | | | |
| | Regional Gov | | Central Gov | | | | | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	-1.07***	-0.93***	-0.89***	-1.08***	-0.62***	-0.53***	-0.46*	-0.60***
	(0.11)	(0.17)	(0.21)	(0.11)	(0.11)	(0.20)	(0.24)	(0.11)
Treatment 2	0.04	0.38*	0.66***	0.10	0.05	-0.10	-0.13	0.06
	(0.12)	(0.20)	(0.24)	(0.12)	(0.12)	(0.22)	(0.27)	(0.13)
t_competence_below		-0.21				-0.13		
		(0.22)				(0.24)		
t2_competence_below		-0.51**				0.22		
		(0.25)				(0.27)		
t_competence_belowb			-0.23				-0.20	
			(0.24)				(0.27)	
t2_competence_belowb			-0.80***				0.23	
			(0.28)				(0.30)	
t_competence_belowc				0.30				-0.61
				(0.50)				(0.60)
t2_competence_belowc				-1.67***				-0.20
				(0.58)				(0.66)
Observations	3,705	3,705	3,705	3,705	3,705	3,705	3,705	3,705
R^2	0.19	0.19	0.20	0.19	0.16	0.16	0.16	0.16

"First Stage" by Alignment

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"First Stage" by Confidence

	Competence of Government (scale 0-10)							
	Regional Gov				Central Gov			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	-1.02***	-0.61***	-1.24***	-0.79***	-0.61***	-0.33	-0.80***	-0.41
	(0.08)	(0.20)	(0.10)	(0.25)	(0.08)	(0.22)	(0.10)	(0.26)
Bad News		1.51***		1.28***		1.31***		1.08***
		(0.17)		(0.20)		(0.18)		(0.21)
T*Bad News		-0.48**		-0.51*		-0.32		-0.45
		(0.22)		(0.27)		(0.23)		(0.28)
Confident			0.24**	-0.34			0.43***	-0.13
			(0.12)	(0.31)			(0.13)	(0.35)
T*Confident			0.49***	0.55			0.37**	0.21
			(0.17)	(0.43)			(0.17)	(0.47)
T*Bad News*Confident				-0.11				0.14
				(0.47)				(0.51)
Bad News*Confident				0.67**				0.64*
				(0.34)				(0.38)
Observations	4,764	4,764	4,764	4,764	4,764	4,764	4,764	4,764
R^2	0.18	0.20	0.19	0.21	0.15	0.16	0.16	0.17
$\bar{Y}$ if T=0	4.92	4.92	4.92	4.92	3.95	3.95	3.95	3.95

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Effects on Share of Contribution to Central Government

- *Imagine you won a lottery of 1,000 euros to mitigate the effects of Covid-19. You can't keep the prize but you can donate it. How much would you donate to Gov X and how much to the Red Cross?*
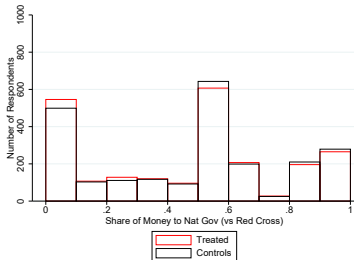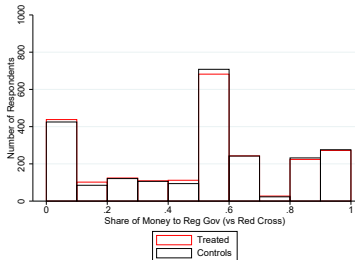
Trust: Other Groups

	Trust (scale 0-10)				
	Epidemiologists	Economists	Media	Pharma	Index
	(1)	(2)	(3)	(4)	(5)
Treatment	-0.07	-0.11	-0.05	-0.04	-0.03
	(0.09)	(0.08)	(0.09)	(0.09)	(0.03)
Observations	3,705	3,705	3,705	3,705	3,705
R^2	0.18	0.16	0.17	0.15	0.18
$\bar{Y}$ if T=0	6.10	4.38	3.25	4.31	0.02

Trust by Prior

	Trust		Contribution Gov≥50%						
	Regional Gov	Central Gov	Regional Gov				Central Gov		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9
Treatment	-0.27	-0.29*	-0.08	-0.28	0.02	-0.03	-0.01	-0.06**	0.0
	(0.24)	(0.16)	(0.26)	(0.17)	(0.05)	(0.03)	(0.05)	(0.03)	(0.0
Bad News	1.21***		1.13***		0.16***		0.10**		0.14
	(0.21)		(0.21)		(0.04)		(0.04)		(0.0
T*Bad News	-0.04		-0.13		-0.06		-0.04		-0.
	(0.26)		(0.29)		(0.05)		(0.05)		(0.0
t_competence_below		-0.03		0.13		-0.01		0.02	
		(0.19)		(0.21)		(0.04)		(0.04)	
competence_belowb		0.00		0.00		0.00		0.00	
		(.)		(.)		(.)		(.)	
Observations	3,705	3,705	3,705	3,705	3,470	3,470	3,429	3,429	3,5
R^2	0.19	0.17	0.15	0.14	0.15	0.15	0.16	0.16	0.
$\bar{Y}$ if T=0	3.95	3.95	3.13	3.13	0.64	0.64	0.60	0.60	0.

Dep Var: On a scale from 0 to 10, how much confidence do you have in X?

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Trust by Treatment

	Trust				Contribution		Gov≥50%		
	Regional Gov		Central Gov		Regional Gov				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Treatment	-0.36***	-0.52***	-0.55***	-0.24**	-0.35*	-0.25	-0.04*	-0.06*	-(
	(0.11)	(0.19)	(0.20)	(0.12)	(0.21)	(0.22)	(0.02)	(0.04)	(
Treatment 2	0.11	0.47**	0.55**	0.09	0.12	0.06	-0.00	0.06	(
	(0.13)	(0.21)	(0.22)	(0.14)	(0.24)	(0.25)	(0.02)	(0.04)	(
t_competence_below		0.23				0.16		0.04	
		(0.23)				(0.25)		(0.04)	
t2_competence_below		-0.53**				-0.06		-0.09*	
		(0.26)				(0.29)		(0.05)	
t_competence_belowc			0.26			0.01			
			(0.24)			(0.26)			(
t2_competence_belowc			-0.63**			0.03			-
			(0.27)			(0.30)			(
Observations	3,705	3,705	3,705	3,705	3,705	3,705	3,470	3,470	3
R^2	0.17	0.17	0.17	0.14	0.14	0.14	0.15	0.15	
$\bar{Y}$ if T=0	3.95	3.95	3.95	3.13	3.13	3.13	0.64	0.64	

Trust by Alignment

| | Trust | | Contribution Gov≥50% | | | | |
| | Regional Gov | Central Gov | Regional Gov | | | | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treatment	-0.25**	-0.24**	-0.47***	-0.11	-0.14	-0.33*	-0.0
	(0.11)	(0.11)	(0.17)	(0.12)	(0.11)	(0.18)	(0.0
Aligned Regional Gov	2.01***			-0.22			0.07
	(0.14)			(0.15)			(0.0
T*Aligned Reg Gov	-0.08			-0.27			-0.0
	(0.19)			(0.21)			(0.0
Observations	3,705	2,498	1,207	3,705	2,498	1,207	3,47
R^2	0.27	0.12	0.25	0.15	0.10	0.22	0.1
$\bar{Y}$ if T=0	3.95	3.72	4.42	3.13	2.98	3.45	0.6

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Effects on Vaccine Acceptance if Recommended by Central Government
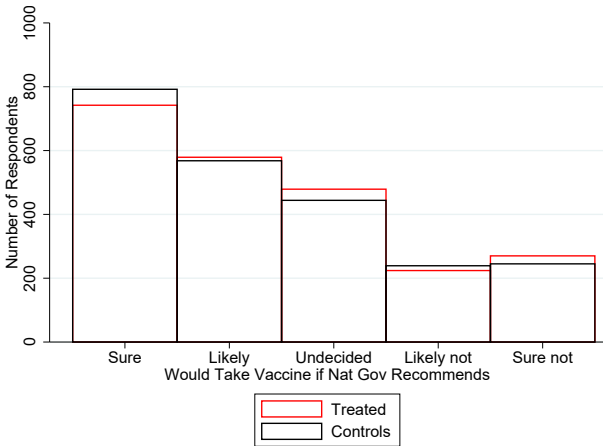
Effects on Compliance with Regulations

	Compliance with Regulations	
	Mask Wearing	Quarantines
	Regional Gov	Regional Gov
	(1)	(2)
Treatment	-0.01	-0.00
	(0.01)	(0.01)
N	4,740	4,690
r2	0.14	0.11
Mean_Y	0.77	0.82

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Compliance by Alignment

	Compliance with Regulations							
	Mask Wearing		Quarentines		Hypothetical Vaccination			
	Regional Gov		Regional Gov		Regional Gov		Central Gov	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	-0.00	0.07***	0.01	-0.03	-0.04**	-0.05	-0.06***	-0.07**
	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.03)
Aligned	0.02	-0.03	0.01	-0.06**	0.00	-0.15***	-0.03	-0.22***
	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.04)	(0.03)	(0.04)
Treatment*Aligned	-0.01	-0.08*	-0.01	0.04	0.02	0.06	0.05	0.09*
	(0.03)	(0.04)	(0.03)	(0.04)	(0.03)	(0.05)	(0.03)	(0.05)
N	3,793	1,772	3,748	1,758	3,644	1,722	3,652	1,725
r2	0.15	0.18	0.12	0.15	0.16	0.17	0.16	0.19
Mean_Y	0.77	0.79	0.83	0.84	0.33	0.34	0.34	0.36

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Effects on Blame-Shifting and Accountability
Divided Government

- Divided Government: Restrict sample to regions where right-wing coalition rules
  (the central government is left-leaning).

	Responsibility Regional Gov (vs. Central)		1 if Would Vote for Regional Gov Incumbent		1 if Would Vote for Central Gov Incumbent	
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	-0.56**	-0.07	-0.01	-0.03	0.01	0.01
	(0.24)	(0.28)	(0.03)	(0.03)	(0.03)	(0.03)
Aligned Reg Gov		-2.21***		0.72***		-0.51***
		(0.37)		(0.03)		(0.03)
T*Aligned Reg Gov		-1.37***		0.06*		-0.01
		(0.51)		(0.03)		(0.05)
Observations	2,692	2,692	1,577	1,577	1,577	1,577
R^2	0.11	0.15	0.17	0.62	0.16	0.37
$\bar{Y}$ if T=0	-0.39	-0.39	0.51	0.51	0.48	0.48

Regions: Andalucía, Cantabria, Castilla y León, Cataluña, Madrid, Galicia, País Vasco,
and Murcia.

Effects on Blame-Shifting and Accountability
Non-Divided Government

- Non-Divided Government: Left-leaning governments in center and regional governments.

	Responsibility Regional Gov (vs. Central)		1 if Would Vote for Regional Gov Incumbent		1 if Would Vote for Central Gov Incumbent	
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	-0.04	0.35	-0.10**	-0.08	-0.08*	-0.05
	(0.40)	(0.57)	(0.04)	(0.05)	(0.05)	(0.05)
Aligned Reg Gov		2.45***		0.62***		0.68***
		(0.63)		(0.05)		(0.06)
T*Aligned Reg Gov		-0.78		0.03		0.01
		(0.84)		(0.07)		(0.08)
Observations	1,013	1,013	547	547	547	547
R^2	0.21	0.23	0.34	0.62	0.29	0.61
$\bar{Y}$ if T=0	-1.69	-1.69	0.57	0.57	0.54	0.54

Regions: Aragon, Castilla-La Mancha, Navarra, Comunidad Valenciana, Extramadura, Baleares, Canarias, Rioja, Asturias. ▸ Back

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Taking Stock
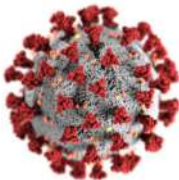00

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Treatment

YouGov

En las últimas semanas se han impuesto **duras medidas** para contener el avance del Covid-19.
- Toque de queda
- Restricciones de movilidad
- Máximo de 6 personas en reuniones sociales
- Cancelación de eventos culturales y restauración

Translation: In the last weeks, harsh measures have been imposed to contain the advance of Covid-19.

- Curfews, restrictions in social gatherings (...)

YouGov

¿Cómo hemos llegado hasta aquí?

¿Se podrían haber evitado estas medidas con una gestión más eficiente de la pandemia por parte de nuestros gobiernos?

- How did we get here?
- Could these measures have been avoided with a more efficient management of the pandemic by our governments?

YouGov

En marzo de 2020, la comunidad científica recomendó desarrollar sistemas de tests masivos y de rastreo de contactos.

Invertir en estos sistemas permite reducir la propagación del virus y ayuda a no tener que tomar medidas más duras.

- In March 2020, the scientific community recommended developing mass testing and contact tracing systems.
- Investing in these systems reduces the spread of the virus and it helps to avoid having to take harsher measures.

YouGov

¿Han hecho nuestros políticos "los deberes"?

A continuación, te daremos información sobre la calidad del sistema de rastreo del Gobierno de tu Comunidad Autónoma.*

*Al final de la encuesta te damos más información sobre los datos utilizados

- Have our politicians done their "homework"?
- Next, we will give you information about the quality of the tracing system in your Autonomous Community
- *At the end of the survey we will give you more information about the data used.

YouGov

¿Sabes cuántos rastreadores por 100.000 habitantes había en tu Comunidad Autónoma según los últimos datos disponibles (Octubre de 2020)?
Antes de darte el número exacto, te pedimos que lo intentes adivinar en base a la información proporcionada.

Por favor, mueve el cursor para indicar cuántos rastreadores por 100.000 habitantes crees que tenía la Comunidad Autónoma de Madrid en octubre de 2020.

Los colores de la barra horizontal indican lo siguiente:

Colores Rojos: Muy pocos rastreadores. Más de la mitad de los casos se quedan sin rastrear.
Colores Anaranjados/Amarillos: Rastreadores insuficientes. No se pueden rastrear todos los casos.
Colores Verdes: Número adecuado de rastreadores. Se pueden rastrean todos los contactos.

$$\boxed{80}$$

0 ▭▭▭▭▭▭▭▭▭▭▭▭▭▭ 200

- Do you know how many contact tracers per 100,000 inhabitants there were in your Autonomous Community in October 2020?
- Before giving you the exact number, we ask you to try to guess based on the information provided
- The colors indicate the following:
    - **Red:** Very few contact tracers. More than half of cases left un-traced.
    - **Orange/Yellow:** Insufficient contact tracers. All cases cannot be traced.
    - **Green:** Adequate number of contact tracers. All cases can be traced.

YouGov

¿Sabes cuántos rastreadores por 100.000 habitantes había en tu Comunidad Autónoma según los últimos datos disponibles (Octubre de 2020)?
Antes de darte el número exacto, te pedimos que lo intentes adivinar en base a la información proporcionada.

Por favor, mueve el cursor para indicar cuántos rastreadores por 100.000 habitantes crees que tenía la Comunidad Autónoma de Madrid en octubre de 2020.

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Colores Verdes: Número adecuado de rastreadores. Se pueden rastrean todos los contactos.

80

0   200

- Do you know how many contact tracers per 100,000 inhabitants there were in your Autonomous Community in October 2020?
- Before giving you the exact number, we ask you to try to guess based on the information provided
- The colors indicate the following:
    - **Red:** Very few contact tracers. More than half of cases left un-traced.
    - **Orange/Yellow:** Insufficient contact tracers. All cases cannot be traced.
    - **Green:** Adequate number of contact tracers. All cases can be traced.

YouGov

En una escala del 0 al 10 donde 0 es muy poco seguro/a y 10 es muy seguro/a. ¿cómo de seguro/a estás de haber estado cerca del número de rastreadores correcto?

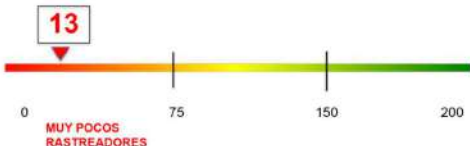Nada Seguro/a 0—1—2—3—4—5—6—7—8—9—10 Muy Seguro/a

>

- On a scale of 0 to 10 where 0 is very unsure and 10 is very sure, how confident are you that you have been close to the correct number of contact tracers?

YouGov

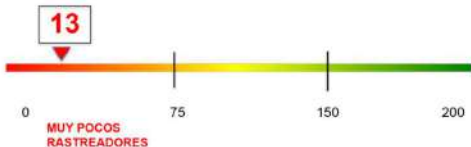**La Comunidad Autónoma de Madrid tiene 13 rastreadores por 100.000 habitantes**

MUY POCOS RASTREADORES

Con 13 rastreadores, a tu Comunidad Autónoma le faltan 141 rastreadores por cada 100.000 habitantes para poder rastrear todos los casos.

Las deficiencias en el rastreo contribuyen al aumento de casos y conllevan la aplicación de medidas más duras, como las que estamos viviendo en las últimas semanas.

- With 13 contact tracers, your Autonomous Community lacks 141 contact tracers per 100,000 inhabitants to be able to track all cases.
- The deficiencies in tracing contribute to the increase in cases and lead to the application of tougher measures, such as those we have been experiencing in recent weeks.

YouGov

La Comunidad Autónoma de Madrid tiene 13 rastreadores por 100.000 habitantes

13

0   75   150   200

MUY POCOS
RASTREADORES

Con 13 rastreadores, a tu Comunidad Autónoma le faltan 141 rastreadores por cada 100.000 habitantes para poder rastrear todos los casos.

Las deficiencias en el rastreo contribuyen al aumento de casos y conllevan la aplicación de medidas más duras, como las que estamos viviendo en las últimas semanas.

- With 13 contact tracers, your Autonomous Community lacks 141 contact tracers per 100,000 inhabitants to be able to track all cases.
- The deficiencies in tracing contribute to the increase in cases and lead to the application of tougher measures, such as those we have been experiencing in recent weeks.

Treatment 2

**Next screens are only shown to a subset of the treated**

YouGov

Todas las Comunidades Autónomas tienen falta de
rastreadores, pero hay grandes diferencias entre ellas.

¿Cómo funciona el rastreo de casos en tu Comunidad
Autónoma respecto a las otras comunidades de
España?

A continuación te damos información al respecto.

- All the Autonomous Communities have a lack of contact tracers, but there are
  big differences across them.
- How does contact tracing work in your Autonomous Community compared with
  other communities in Spain?
- Next, we give you information about it.

Número de rastreadores que faltan por cada 100.000 habitantes
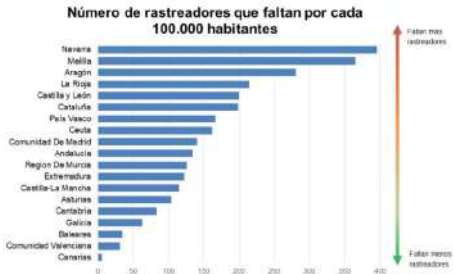
Tu Comunidad Autónoma es la novena peor comunidad en rastreadores.

El gráfico muestra la diferencia entre el número necesario de rastreadores y el que en realidad tiene cada Comunidad Autónoma. El número necesario de rastreadores es aquel que permitiría rastrear todos los casos.

- **Figure Title:** Number of contact tracers lacking per 100,000 inhabitants.
- Your Autonomous Community is the 9th worse in terms of contact tracers.

▸ Back T2

Timeline of the Pandemic: Spain, UK, US ◦ Back

Daily new confirmed COVID-19 cases per million people
7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.

Daily new confirmed COVID-19 deaths per million people
7-day rolling average. Due to limited testing and challenges in the attribution of the cause of death, confirmed deaths can be lower than the true number of deaths.

Sample: Regions with Divided Governments

	Responsibility Regional Gov (vs. Central)		1 if Would Vote for Regional Gov Incumbent		1 if Would Vote for Central Gov Incumbent	
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	-0.56**	-0.07	-0.01	-0.03	0.01	0.01
	(0.24)	(0.28)	(0.03)	(0.03)	(0.03)	(0.03)
Aligned Reg Gov		-2.21***		0.72***		-0.51***
		(0.37)		(0.03)		(0.03)
T*Aligned Reg Gov		-1.37***		0.06*		-0.01
		(0.51)		(0.03)		(0.05)
Observations	2,692	2,692	1,577	1,577	1,577	1,577
R^2	0.11	0.15	0.17	0.62	0.16	0.37
$\bar{Y}$ if T=0	-0.39	-0.39	0.51	0.51	0.48	0.48

Regions: Andalucía, Cantabria, Castilla y León, Cataluña, Madrid, Galicia, País Vasco, and Murcia.

Sample: Regions with Non-Divided Governments

	Responsibility Regional Gov (vs. Central)		1 if Would Vote for Regional Gov Incumbent		1 if Would Vote for Central Gov Incumbent	
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	-0.04	0.35	-0.10**	-0.08	-0.08*	-0.05
	(0.40)	(0.57)	(0.04)	(0.05)	(0.05)	(0.05)
Aligned Reg Gov		2.45***		0.62***		0.68***
		(0.63)		(0.05)		(0.06)
T*Aligned Reg Gov		-0.78		0.03		0.01
		(0.84)		(0.07)		(0.08)
Observations	1,013	1,013	547	547	547	547
R^2	0.21	0.23	0.34	0.62	0.29	0.61
$\bar{Y}$ if T=0	-1.69	-1.69	0.57	0.57	0.54	0.54

Regions: Aragon, Castilla-La Mancha, Navarra, Comunidad Valenciana, Extramadura, Baleares, Canarias, Rioja, Asturias.