

Public Trust and Collaborative Governance: An Instrumental Variable Approach

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Supplemental Information

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Appendix A Study 1

Appendix A i Survey Protocol in Study 1

Page 1: Priming information

[Control Condition]

Please read the following hypothetical scenario and answer questions. We will ask you some questions about the topic after reading.

Assuming that Midtown is a medium-sized American city, which has 100,000 population. The Midtown government is led by 1 city mayor and 10 city council members. All of them are elected officials.

[Corrupt Condition]

Please read the following hypothetical scenario and answer questions. We will ask you some questions about the topic after reading.

Assuming that Midtown is a medium-sized American city, which has 100,000 population. The Midtown government is led by 1 city mayor and 10 city council members. All of them are elected officials. Midtown has historical problem in corruption. In the last 20 years, 15 elected officials and 50 private individuals have been charged for corruption.

[Honest Condition]

Please read the following hypothetical scenario and answer questions. We will ask you some questions about the topic after reading.

Assuming that Midtown is a medium-sized American city, which has 100,000 population. The Midtown government is led by 1 city mayor and 10 city council members. All of them are elected officials. Midtown is well known for its public integrity. In the last 20 years, no elected official or private individual has been charged for corruption.

Page 2: Trust question

How much of the time do you think you can trust the government in Midtown to make decisions in a fair way? (Moving a 0-100 slide bar: 0 = never, 100 = always)

Page 3: Policy scenario

Assuming the government in Midtown plans to adopt an energy program: Community Choice Aggregation (CCA).

CCA allows local elected officials to choose where the energy comes from for their community. It's a program to purchase power in bulk for virtually all homes within the participating jurisdiction. The Midtown government promises that CCA can allow whole communities to participate in the clean energy economy by ensuring that a greater percentage of electricity is coming from renewable sources.

Based on this information, please evaluate the following statement.

[The order of following questions are randomized]

The CCA should promote wind power rather than solar power.

Moving a 0-100 slide bar: 0 = strongly disagree, 100 = strongly agree

The CCA implementation board should include business groups to monitor the policy decision-making process. The government-private partnership will benefit local interests in your community.

Moving a 0-100 slide bar: 0 = strongly disagree, 100 = strongly agree

The CCA should promote solar power rather than coal.

Moving a 0-100 slide bar: 0 = strongly disagree, 100 = strongly agree

The CCA implementation board should include local citizens to monitor the policy decision-making process. The government-citizen partnership will benefit local interests in your community.

Moving a 0-100 slide bar: 0 = strongly disagree, 100 = strongly agree

Page 4: Willingness to coproduce

As a local resident, are you willing to participate in the CCA implementation board and oversight the decision-making process of the Midtown government?

Moving a 0-100 slide bar: 0 = definitely not, 100 = definitely yes

Page 5

[Manipulation check] Have you seen the information below from any previous part of this survey?

“Local and state government have more corruption than we assumed”

- Yes
- No

Page 6: Demographics

Are you...

- Male
- Female

Do you consider yourself to be...

- White, not Hispanic or Latino
- Black, not Hispanic or Latino
- Hispanic or Latino
- Asian, not Hispanic or Latino

- Other

Your age: _____

How would you describe your political views as of today?

- Very liberal
- Liberal
- Moderate
- Conservative
- Very conservative

What was your total household income before taxes during the past 12 months?

- Less than \$25,000
- \$25,000 to \$34,999
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 or more

What is the highest level of education you have completed?

- Less than high school
- High school/GED
- Some college
- 2-year college degree
- 4-year college degree
- master degree
- doctoral degree
- Professional Degree (JD, MD)

This is just to screen out random clicking. Please move the slide to the answer of the following question: $17 + 63 = ?$

Do you think that global warming is happening?

- Yes
- No
- Don't know

Assuming global warming is happening, do you think it is...

- Caused mostly by human activities
- Caused mostly by natural changes
- Neither because global warming isn't happening

Page 7: Debriefing Thank you for your participation in this study! The goal of this study was to understand shifts in public opinion based on certain government information.

First, you have been randomly assigned to one of three groups:

Control group (basic information of midtown government)

Corrupt group (Midtown has historical problem of corruption)

Honest group (Midtown is well known for its public integrity)

Information you saw about Midtown is hypothetical, it does not reflect real situation of any American city.

The purpose of this design was to test whether different government information affects public trust in government and further affects people's attitude toward government-private collaboration or government-citizen collaboration in the energy program.

We apologize for hiding research purpose during the survey.

Appendix A ii Study 1 Sample

Table A.1: Study 1 Sample and Randomization Check

	Mean	SD	Min	Max	Randomization Check (P-value)
Female	0.48	0.50	0.00	1.00	0.73
White	0.71	0.46	0.00	1.00	0.10
Black	0.13	0.33	0.00	1.00	0.56
Hispanic	0.06	0.24	0.00	1.00	0.10
Asian	0.08	0.28	0.00	1.00	0.06
Other	0.02	0.14	0.00	1.00	0.92
Ideology	2.76	1.17	1.00	5.00	0.41
Age	39.85	12.82	18.00	91.00	0.93
Education	4.51	1.36	1.00	8.00	0.28
Income	3.73	1.72	1.00	7.00	0.73
GW	0.75	0.60	-1.00	1.00	0.61
GWH	0.69	0.56	-1.00	1.00	0.45
Climate Change Beliefs	0.72	0.52	-1.00	1.00	0.72

Note: GW refers to the question “Do you think global warming is happening?” (yes = 1, don’t know = 0, no = -1); GWH refers to the question “Assuming global warming is happening, do you think it is...” (caused mostly by human activities = 1, caused mostly by natural changes = 0, Neither because global warming isn’t happening = -1). Climate change belief takes the average value from GW and GWH. *P*-value in randomization check was obtained by ANOVA *F*-test.

Appendix A iii Placebo Test

Table A.2: 2SLS Estimate of Trust in Government on Placebo DVs

	Placebo DV1	Placebo DV1
	(1)	(2)
Trust in Government	0.04 (0.04)	0.06 (0.04)
Constant	54.71*** (2.27)	73.10*** (2.38)
R ²	0.03	0.01
Observation	1198	1198

Note: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; † $p < 0.1$. Standard errors are in parentheses. Standard errors are in parentheses. Placebo DV1 is measured by the question: “The CCA should promote wind power rather than solar power.” Placebo DV2 is measured by the question: “The CCA should promote solar power rather than coal.” Subjects answered both questions by moving a 0-100 slide bar (0 = strongly disagree, 100 = strongly agree). The first-stage regressions are the same as the main analysis, so their results are omitted in this table.

Appendix A iv OLS Estimate of Trust in Government as Categorical Variable

Table A.3: OLS Estimate of Trust in Government as Categorical Variable in Study 1

	Trust in Government	Public-private Partnership	Public-citizen Partnership	Willingness to Coproduct
	(1)	(2)	(3)	(4)
Government Integrity (Baseline group: Control)				
Honest	11.61*** (1.60)	0.98 (1.78)	-1.00 (1.33)	0.35 (1.67)
Corrupt	-28.98*** (1.58)	-2.13 (1.75)	-0.15 (1.31)	-2.93† (1.65)
Constant	63.11*** (1.12)	61.69*** (1.24)	77.73*** (0.93)	69.95*** (1.16)
R ²	0.37	0.00	0.00	0.00
Observation	1198	1198	1198	1198

Note: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; † $p < 0.1$. Standard errors are in parentheses.

Appendix B Study 2

Appendix B i Survey Protocol in Study 2

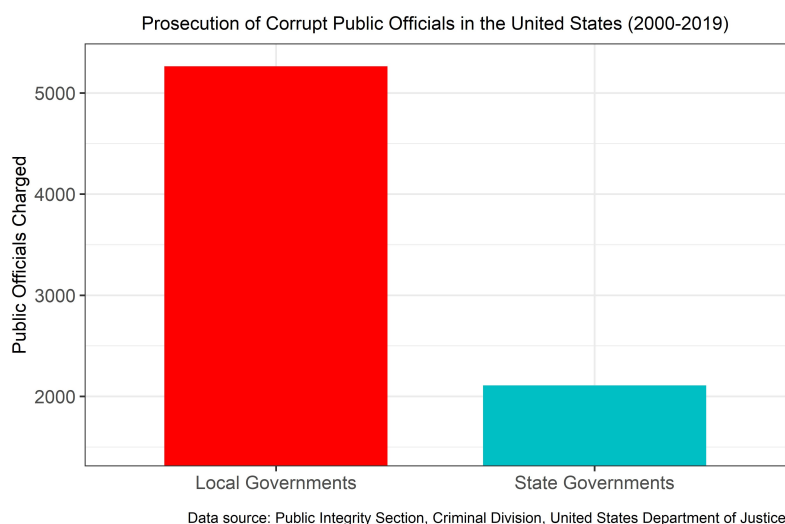
Page 1: Priming information

[Control Condition]

No information

[Corrupt Condition]

According to data from the Department of Justice, American local governments have more corruptions than we assumed.



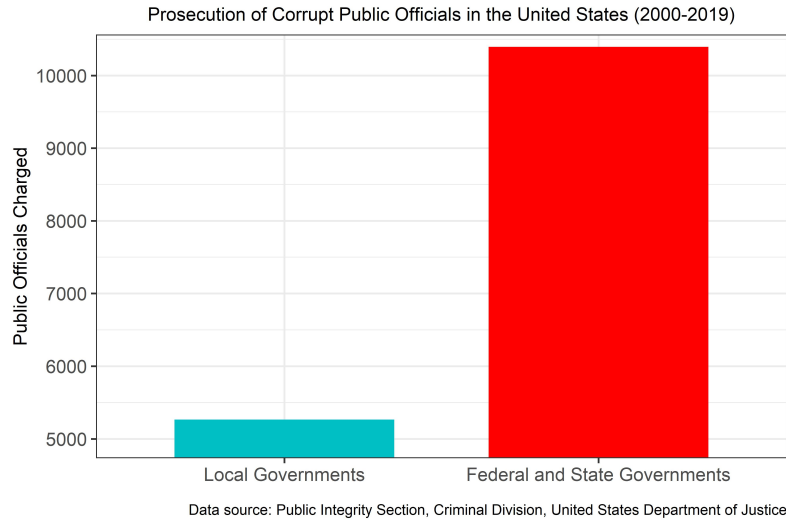
Follow up question: The bar graph shows the government corruption data of the United States from 2000 to 2019. Based on this information, American local governments are:

- Very corrupted = 1
- Somewhat corrupted = 2
- Neither corrupted nor honest = 3
- Somewhat honest = 4
- Very honest = 5

[Honest Condition]

According to data from the Department of Justice, American local governments are very honest, comparing to the federal and state governments.

Follow up question: The bar graph shows the government corruption data of the United States from 2000 to 2019. Based on this information, American local governments are:



- Very corrupted = 1
- Somewhat corrupted = 2
- Neither corrupted nor honest = 3
- Somewhat honest = 4
- Very honest = 5

Page 2: Trust items

In the following questions, please tell us your opinions of American local governments (strongly disagree = 1, disagree = 2, somewhat disagree = 3, neither agree nor disagree = 4, somewhat agree = 5, agree = 6, strongly agree = 7).

[Competence item] Local governments have the competence to provide good public programs. [Benevolence item] Local governments exert their best efforts to meet the needs of their citizens. [Honesty item] Local governments are honest.

Page 3: Based on your opinions of American local governments, please answer questions in the next page.

Page 4: Dependent variable items (question order is randomized)

Business groups should be included in local policy decision-making process. The government-private collaboration will benefit local interests. (0-100, definitely not to definitely yes)

Local citizens should be included in local policy decision-making process. The government-citizen collaboration will benefit local interests. (0-100, definitely not to definitely yes)

As a local citizen, are you willing to participate in your city or town government's policy decision-making processes? (0-100, definitely not to definitely yes)

Page 5: Demographics

Are you...

- Male
- Female

Do you consider yourself to be...

- White, not Hispanic or Latino
- Black, not Hispanic or Latino
- Hispanic or Latino
- Asian, not Hispanic or Latino
- Other

Your age: _____

How would you describe your political views as of today?

- Very liberal
- Liberal
- Moderate
- Conservative
- Very conservative

What was your total household income before taxes during the past 12 months?

- Less than \$25,000
- \$25,000 to \$34,999
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 or more

What is the highest level of education you have completed?

- Less than high school
- High school/GED
- Some college
- 2-year college degree
- 4-year college degree
- master degree
- doctoral degree
- Professional Degree (JD, MD)

This is just to screen out random clicking. Please move the slide to the answer of the following question: $17 + 63 = ?$

Do you think that global warming is happening?

- Yes
- No
- Don't know

Assuming global warming is happening, do you think it is...

- Caused mostly by human activities
- Caused mostly by natural changes
- Neither because global warming isn't happening

How concerned do you feel about the novel coronavirus, COVID-19?

- Not at all concerned
- A little concerned
- Moderately concerned
- Very concerned
- Extremely concerned

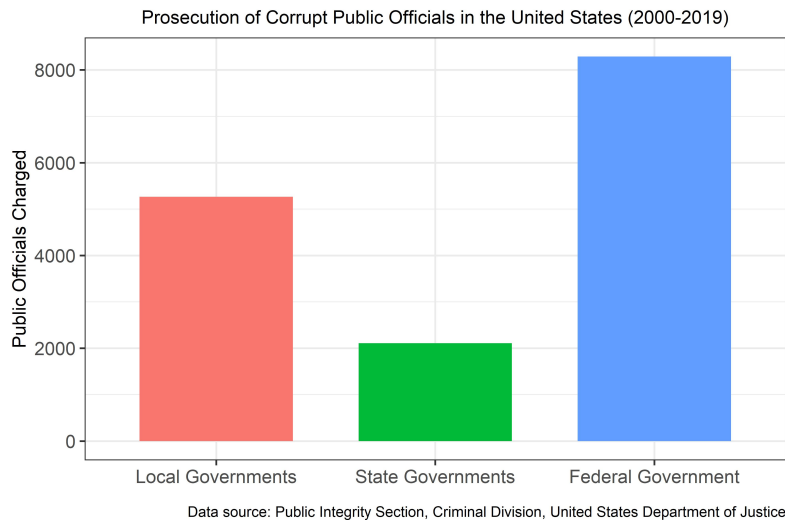
I am very concerned about job loss due to the pandemic and not being able to find a new job for a very long time.

- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree

Page 6: Debriefing Thank you for your participation in this study! The goal of this study was to understand shifts in public opinion based on certain government information. First, you have been randomly assigned to one of three groups:

- Control group
- Corrupt group (local governments have more corrupted officials than state governments)
- Honest group (local governments have fewer corrupted officials than state + federal governments)

Although we framed the corruption of local governments differently in different groups, all information you saw are real data from the Department of Justice (DOJ). The figure below shows the full picture of corruption in American governments. More information, please see: Annual Reports from the DOJ [website link provided here].



The purpose of this design was to test whether different government information affects public trust in government and further affects people’s attitude toward government-private collaboration or government-citizen collaboration.

We apologize for hiding research purpose during the survey.

Appendix B ii Study 2 Sample

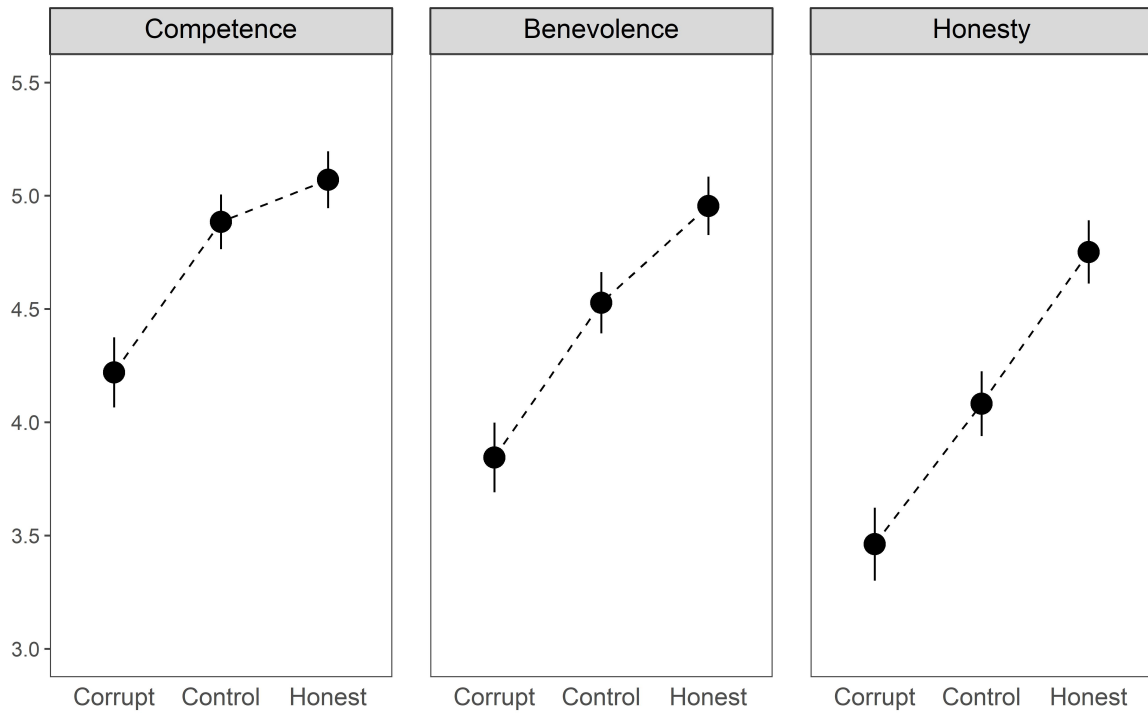
Table B.1: Study 2 Sample and Randomization Check

	Mean	SD	Min	Max	Randomization Check (P-value)
Female	0.60	0.49	0.00	1.00	0.33
White	0.72	0.45	0.00	1.00	0.72
Black	0.13	0.33	0.00	1.00	0.23
Hispanic	0.07	0.25	0.00	1.00	0.34
Asian	0.06	0.23	0.00	1.00	0.50
Other	0.03	0.17	0.00	1.00	0.43
Ideology	2.76	1.09	1.00	5.00	0.24
Age	38.23	12.11	18.00	79.00	0.03
Education	4.30	1.41	1.00	8.00	0.31
Income	3.65	1.72	1.00	7.00	0.12
GW	0.78	0.56	-1.00	1.00	0.66
GWH	0.72	0.53	-1.00	1.00	0.77
Climate Change Beliefs	0.75	0.49	-1.00	1.00	0.70
COVID Concern	3.32	1.23	1.00	5.00	0.67
COVID Job Concern	3.09	1.40	1.00	5.00	0.71

Note: GW refers to the question “Do you think global warming is happening?” (yes = 1, don’t know = 0, no = -1); GWH refers to the question “Assuming global warming is happening, do you think it is...” (caused mostly by human activities = 1, caused mostly by natural changes = 0, Neither because global warming isn’t happening = -1). Climate change belief takes the average value from GW and GWH. *P*-value in randomization check was obtained by ANOVA *F*-test.

Appendix B iii Perceived Competence, Benevolence, and Honest by Experimental Conditions

Figure B.1: Perceived Competence, Benevolence, and Honest by Experimental Conditions



Note: Bars are 95% confidence intervals.

Table B.2: ANOVA analysis for Competence, Benevolence, and Honest by Experimental Conditions

Trust Item	Test
Competence	$F(2,1334) = 41.67, p = 0.00$
Benevolence	$F(2,1334) = 60.19, p = 0.00$
Honesty	$F(2,1334) = 71.07, p = 0.00$

Appendix B iv OLS Estimate of Trust in Government as Categorical Variable

Table B.3: OLS Estimate of Trust in Government as Categorical Variable in Study 2

	Trust in Government	Public-private Partnership	Public-citizen Partnership	Willingness to Coproduct
	(1)	(2)	(3)	(4)
Government Integrity (Baseline group: Control)				
Honest	0.43*** (0.09)	1.96 (1.65)	-0.71 (1.09)	-2.11 (1.46)
Corrupt	-0.66*** (0.09)	-3.41* (1.67)	-1.46 (1.11)	-3.54* (1.49)
Constant	4.50*** (0.06)	63.42*** (1.15)	82.83*** (0.76)	73.00*** (1.02)
R ²	0.10	0.01	0.00	0.00
Observation	1337	1337	1337	1337

Note: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; † $p < 0.1$. Standard errors are in parentheses.

Appendix B v Effects of Covid19 Concerns

Table B.4: Effects of Covid19 Concerns

	Trust in Government (OLS)	Willingness to Coproduce (2SLS)	
	(1)	(2)	(3)
Trust in Government		0.94 (4.07)	0.86 (2.96)
Covid Concern	0.15*** (0.03)	2.38 (4.89)	
Covid Job Concern	0.02 (0.03)		1.31 (4.49)
Trust in Government \times Covid Concern		0.06 (1.12)	
Trust in Government \times Covid Job Concern			0.11 (1.00)
Constant	3.90*** (0.12)	58.28*** (17.31)	61.82*** (13.05)
R ²	0.02	0.03	0.02
Observation	1337	1337	1337

Note: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; † $p < 0.1$. Standard errors are in parentheses. Model (1) uses OLS regression to estimate association between Covid 19 concerns and trust in government. Models (2)-(3) use 2SLS regressions to estimate interaction effects between Covid19 concerns and trust in government on willingness to coproduce. First stage regressions (IV: government integrity) in Models (2)-(3) are omitted.