

# How and When Democratic Values Matter: Challenging the Effectiveness Centric Framework in Program Evaluation

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## **Supplemental Information**

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## **Appendix A Context (Local Sustainability Effort)**

We set our vignette in a local sustainability effort scenario: a solar panel installment project in public schools. There are two benefits of using a local sustainability program in comparing effects between democratic values and effectiveness. First, sustainability programs pursue both economic and environmental goals, which provide researchers a chance to see how citizens trade off different performance information. The U.S. National Environmental Policy Act 1969 defines sustainability as “to create and maintain conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations.” Second, sustainability programs often require collaboration with local interest groups or interorganizational agencies (Lubell and Fulton 2008). Therefore, how citizens perceive these different allocations reflect their value preferences.

The “solar school program” among the United States local governments have multi-dimensional attributes both subjective value elements and objective program effectiveness. Solar school program aims to save electricity expenses in schools and improve local air quality with solar panel installation. The solar school program has varying implementation strategies by local school districts (Solar Energy Industries Association 2017). At the decision-making stage, some school districts get their state’s financial assistance, some school districts developed third-party ownership of the solar system to save schools’ upfront capital fees, and others worked with local communities to develop installation plans. During the implementation stage, schools may involve diverse groups of citizens, technical experts, and/or government officials to oversee the project’s processes. At the evaluation stage, solar school projects are assessed by economic and environmental outcomes, such as cost-savings at the school and local air quality improvement. Therefore, the multi-dimensionality of solar school programs provides researchers a good opportunity to study how citizens trade off democratic values and effectiveness in assessing this public program.

### **References**

Environmental Protection Agency. National Environmental Policy Act <https://www.epa.gov/sustainability/learn-about-sustainability>. 1969.

Lubell, Mark and Allan Fulton. 2008. Local policy networks and agricultural watershed management. *Journal of Public Administration Research and Theory* 18(4):673-696.

Solar Energy Industries Association. Brighter future, a study on solar in U.S. schools. [www.thesolarfoundation.org/solar-schools](http://www.thesolarfoundation.org/solar-schools). 2017.

## Appendix B Survey Protocol

[Survey begin]

[VPN and Proxy Check]

[IRB Consent Form]

[Demographic: Ideology] When comes to social issues, I am...

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

[Low Trust instrument: Negative Information Cues]

[Control group] No information

[LT treatment group] In this section, you will read some facts about American local governments. Please read carefully.

[Page1]

**The vast majority of state and local government workers are not reaching their full potential**

According to the Gallup 2017 report,

**71%**

local government employees in U.S. are **unhappy or disengaged** with their jobs.

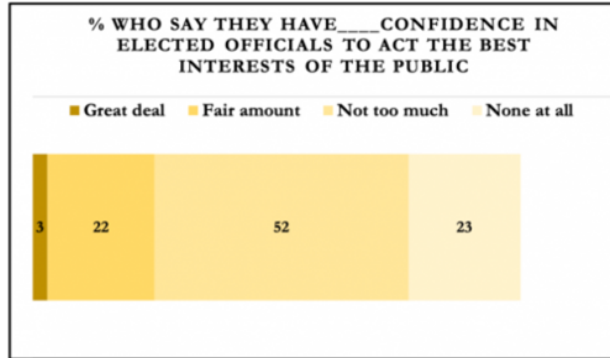
Information source: <https://news.gallup.com/opinion/gallup/210707/city-employees-not-engaged.aspx>

[Page2]

### American people have little confidence in elected officials

According to Pew Center 2018 report,

Information source: <https://news.gallup.com/opinion/gallup/210707/city-employees-not-engaged.aspx>

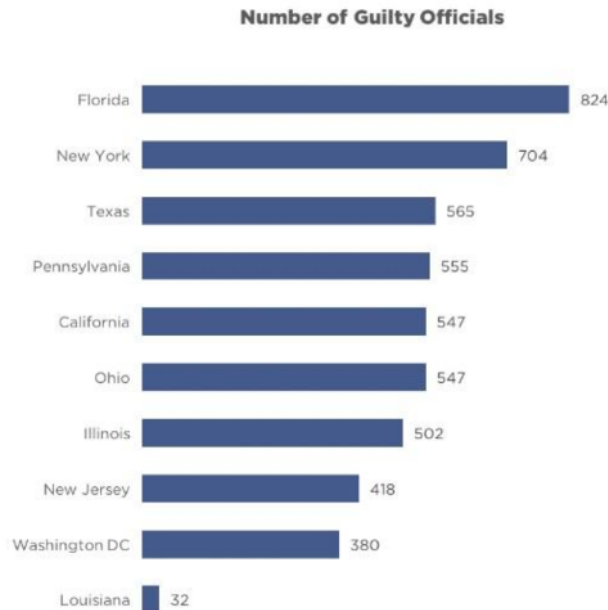


[Page3]

### Local and state governments have more corruptions than we assumed

According to a recent report from HARVARD POLITICAL REVIEW, more than **20,000** public officials and private individuals were convicted for crimes related to corruption in the last two decades. The graph below shows 10 example states from the original report.

information source: <https://harvardpolitics.com/united-states/stealing-in-the-shadows-state-level-political-corruption/>



[Trust question] Do you trust the U.S. local governments? (Please move the slide between 0 and 100)

0 = Definitely not; 100 = Definitely yes

(Note: We asked this question for both the control and treatment groups.)

[Conjoint tasks] In this section, you will be asked some questions about your personal idea on solar projects in U.S. school districts.

### Solar projects in U.S. Schools

Some of the school district governments in the U.S. are utilizing solar energy by installing solar PV (photo-voltaic) system on the school rooftops. Solar electricity saves schools' utility costs, reduces greenhouse gas emission, and provides teachers with a unique opportunity to teach concepts in science and technology.

Source: Brighter Future: A Study on Solar in U.S. Schools (2017) by Solar Energy Industries Association

[Example of a conjoint comparison task] Now, assume that a solar project will take place in your school district. You will get information of two possible projects for comparison in each page. Please indicate which project you prefer over the other.

In total, you are asked to make 4 comparisons.

Note: There is no right or wrong answer to any comparisons.

Please indicate which project you prefer:

This project:	Project A	Project B
Implementation information is available to	Public	Government internal review
Decision-making involves	Government agencies	Diverse local communities
Reduce annual CO2 emission (metric tons)	715 tons	320 tons
Save schools' annual expense	\$720K	\$720K

[DV: Choice]

[1] Project A [2] Project B

[DV: Rating] On a scale from 0 to 100, where 0 indicates that you do not like the project at all and 100 indicates that you are totally in favor of your government adopting the project, how would you rate each project?

Project A: 0 = Totally dislike 100 = Totally favor (Please move the slide between 0 and 100)

Project B: 0 = Totally dislike 100 = Totally favor (Please move the slide between 0 and 100)

[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

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

[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: \_\_\_\_\_

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)

[End of Survey]



## Appendix C Characteristics of Sample and Randomization Check

	Mean	SD	Min	Max	Randomization Check (P-value)
Female	0.48	0.50	0.00	1.00	0.86
White	0.76	0.42	0.00	1.00	0.29
Black	0.05	0.22	0.00	1.00	0.29
Hispanic	0.05	0.22	0.00	1.00	0.07
Asian	0.11	0.32	0.00	1.00	0.96
Other	0.02	0.15	0.00	1.00	0.29
Ideology	2.93	1.23	1.00	6.00	0.78
Age	39.50	13.84	18.00	78.00	0.47
Education	4.52	1.33	1.00	8.00	0.75
Income	3.94	1.78	1.00	7.00	0.48

*Note:* P-value is calculated from two sample t-test between the control and LT group.

**Appendix D Distribution of Trust in U.S. Local Governments**

