Crowding-out in Context

When and How Does Government Support Affect Charitable Giving?

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Philanthropy Research Workshop
IU Lilly Family School of Philanthropy, Indianapolis
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The crowding-out hypothesis

1840
Alexis de Tocqueville

1953
Robert Nisbet

1962
Milton Friedman
The crowding-out hypothesis

“For every welfare state, if social obligations become increasingly public, then its institutional arrangements crowd out private obligations or make them at least no longer necessary”

(Van Oorschot and Arts 2005: 2)
Theories of altruism

- Behavioral economics
- Utility function includes preference for provision of public good
- Public good can be provided in different ways, mandatory or voluntary
What role for the state?
What role for the state?
What role for the state?
What role for the state?
What role for the state?
Mechanisms of crowding-out and crowding-in

- **Macro**: Government support
- **Meso**:
- **Micro**:

- **Total charitable donations**
Mechanisms of crowding-out and crowding-in

- **Macro**
  - Government support
  - Total charitable donations

- **Meso**

- **Micro**
  - Charitable donations
Mechanisms of crowding-out and crowding-in

Government support → Total charitable donations

Fundraising → Information → Charitable donations

Macro

Meso

Micro
Mechanisms of crowding-out and crowding-in

Macro

Government support

Meso

Information

Values

Resources

Micro

Charitable donations

Total charitable donations
Mechanisms of crowding-out and crowding-in

- Government support
- Fundraising
- Information
- Values
- Resources
- Total charitable donations

Macro

Meso

Micro
What's the evidence?

Publication:
http://jpart.oxfordjournals.org/content/early/2016/07/28/jopart.muw044.abstract

Pre-print, data, documentation:
https://osf.io/ps4ut/
What's the evidence?
What's the evidence?

Experimental: -0.643
Nonexperimental: 0.056
Meta-regression model (1)

\[ p\text{(crowding-in)}_{ij} / (1 - p\text{(crowding-in)}_{ij}) = \beta_0 + u_j + \beta_1 x_{1ij} + \beta_2 x_{2j} + \ldots + \beta_k x_{kij} + \epsilon_{ij} \]

Probability of finding a positive correlation of the \( i \)th estimate in the \( j \)th study

\( u_j \) is the study-specific intercept

\( \beta_k \) is the regression coefficient of the \( k \)th independent variable

\( \epsilon_{ij} \) is the error term for each estimate

Controls: year of publication, sample size (ln)
Meta-regression model (2)

\[ Y_{ij} = \beta_0 + u_j + \beta_1 X_{1ij} + \beta_2 X_{2j} + \ldots + \beta_k X_{kj} + \varepsilon_{ij} \]

Effect size of the \( i \)th estimate in the \( j \)th study

\( u_j \) is the study-specific intercept

\( \beta_k \) is the regression coefficient of the \( k \)th independent variable

\( \varepsilon_{ij} \) is the error term for each estimate

Controls: year of publication, sample size (ln)
Different designs, different findings (1)

Logistic regression results, among non-experimental studies

<table>
<thead>
<tr>
<th>Model Description</th>
<th>Coefficient</th>
<th>Standard Error</th>
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<tbody>
<tr>
<td>Less generous welfare states</td>
<td>0.444</td>
<td>(0.477)</td>
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<tr>
<td>FE or FD specification</td>
<td>3.460*</td>
<td>(2.197)</td>
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<tr>
<td>Instrumental Variables</td>
<td>0.460</td>
<td>(0.236)</td>
</tr>
<tr>
<td>Subsidies to organizations</td>
<td>9.388**</td>
<td>(8.399)</td>
</tr>
<tr>
<td>Only central government</td>
<td>3.555*</td>
<td>(2.543)</td>
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<tr>
<td>Only lower government</td>
<td>0.947</td>
<td>(1.300)</td>
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<tr>
<td>(Constant)</td>
<td>0.000</td>
<td>(0.000)</td>
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</table>

<table>
<thead>
<tr>
<th>Study Statistics</th>
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<tbody>
<tr>
<td>Rho</td>
<td>0.429</td>
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<tr>
<td>Studies</td>
<td>49</td>
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<tr>
<td>Observations</td>
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Different designs, different findings (2)

GLS regression results, among non-experimental studies

<table>
<thead>
<tr>
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<th>Estimate</th>
<th>Std. Error</th>
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<tr>
<td>Less generous welfare states</td>
<td>0.193</td>
<td>0.433</td>
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<tr>
<td>FE or FD specification</td>
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<td>0.151</td>
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<td>Instrumental Variables</td>
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<td>0.122</td>
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<td>Subsidies to organizations</td>
<td>0.047</td>
<td>0.280</td>
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<tr>
<td>Only central government</td>
<td>0.359*</td>
<td>0.208</td>
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<tr>
<td>Only lower government</td>
<td>0.079</td>
<td>0.355</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-21.081</td>
<td>20.483</td>
</tr>
</tbody>
</table>

Rho: 0.116
Studies: 36
Observations: 220
Empirical questions

- Macro: What is the incidence and level of donations across countries?
- Meso: How are changes in subsidies related to changes in donations to organizations?
- Micro: how do people respond to actual policy changes?
Empirical questions

- Macro: What is the incidence and level of donations across countries?
- Meso: How are changes in subsidies related to changes in donations to organizations?
- Micro: how do people respond to actual policy changes?
Cross-country comparison

Cross-country comparison


- Fri, November 18, 3:45 to 5:15pm
  Hyatt Regency Capitol Hill, Thornton B
Cross-country comparison

- Individual International Philanthropy Database (IPD)
- 19 countries: Australia, France, UK, the Netherlands, US, Canada, Norway, Finland, Mexico, South Korea, Japan, Austria, Indonesia, Taiwan, Ireland, Israel, Russia, Germany and Switzerland.
- Context data: IMF
No strong correlation
Different nonprofit regime types

![Graph showing mean amount donated (Winsorized) vs. Govt expenditures % GDP for different countries.]

- **Liberal**
- **Social-democratic**
- **Corporatist**
- **Statist**
Different nonprofit regime types
Multilevel regression model (1)

\[
p(\gamma)_{ij} / (1 - p(\gamma)_{ij}) = \beta_0 + u_j + \beta_1 G_j + \ldots + \varepsilon_{ij}
\]

Probability that respondent \(i\) in country \(j\) donates

- \(u_j\) is the country-specific intercept
- \(G_j\) is government expenditures in country \(j\)
- \(\varepsilon_{ij}\) is the error term for each observation

Controls: GDP per capita (L2), age, education, gender, marital status, income (L1)
Multilevel regression model (2)

\[ \ln(Y_{ij}) = \beta_0 + u_j + \beta_1 G_j + ... + \varepsilon_{ij} \]

Natural logarithm of amount donated by respondent \( i \) in country \( j \), conditional on donating

\( u_j \) is the country-specific intercept

\( G_j \) is government expenditures in country \( j \)

\( \varepsilon_{ij} \) is the error term for each observation

Controls: GDP per capita (L2), age, education, gender, marital status, income (L1)
Total giving: No association

\[ \beta_1 \]

\[ P < .05 \]

\[ \text{GDP} \quad \text{Individual controls} \]

- Probability
- Amount (ln)
However...

- Positive and negative correlations may cancel each other out
- There could be different effects in different nonprofit subsectors
- Government support in social welfare could drive donors to other ‘expressive’ subsectors
Multilevel regression model (3)

\[ p(Y)_{ijs} / (1 - p(Y)_{ijs}) = \beta_0 + u_{js} + \beta_1 G_{js} + ... + \varepsilon_{ijs} \]

Probability that respondent \( i \) in country \( j \) donates to sector \( s \)

- \( u_{js} \) is the country/sector-specific intercept
- \( G_{js} \) is government expenditures to sector \( s \) in country \( j \)
- \( \varepsilon_{ijs} \) is the error term for each observation

Controls: GDP per capita (L2), age, education, gender, marital status, income (L1)
Multilevel regression model (4)

\[ \ln(Y_{ijs}) = \beta_0 + u_{js} + \beta_1 G_{js} + \ldots + \varepsilon_{ijs} \]

Natural logarithm of amount donated by respondent \( i \) in country \( j \) to sector \( s \), conditional on donating

- \( u_{js} \) is the country/sector-specific intercept
- \( G_{js} \) is government expenditures to sector \( s \) in country \( j \)
- \( \varepsilon_{ijs} \) is the error term for each observation

Controls: GDP per capita (L2), age, education, gender, marital status, income (L1)
Crowding-in of donors

\[ \beta_1 \]

- GDP: P < .01
- Individual controls: P < .05

Probability vs. Amount (ln)
Crosswise crowding-in (1)
Crosswise crowding-in (1)
Crosswise crowding-in (2)

- $Y_{ij}$ = Donations to environment, international aid, or arts and culture
- $G_{js}$ = Government expenditures to social protection and health
Crosswise crowding-in (3)

![Bar chart showing β1 values for GDP and Individual controls with significance levels of P<.01, P<.10, and P<.01 respectively.](chart.png)
Empirical questions

- Macro: What is the incidence and level of donations across countries?
- Meso: How are changes in subsidies related to changes in donations to organizations?
- Micro: How do people respond to actual policy changes?
Donations, government support and the media

Publication:
http://esr.oxfordjournals.org/content/early/2016/10/31/esr.jcw048.abstract?papetoc
Pre-print and documentation at Open Science Framework:
https://osf.io/yu735/
Government support and donations over time

- The Giving in the Netherlands Panel Survey (GINPS)
  - \( n = 1,879 \)
- Central Bureau on Fundraising (CBF)
  - 19 organizations
- Newspaper articles through LexisNexis
No clear trend
Budget cuts on development aid

[Graph showing trends in Euro per household over the years 2000 to 2015 for Oxfam Novib. The graph compares donations (winsorized), subsidies, and fundraising expenditures.]
More subsidies to the Salvation Army

- Donations (winsorized)
- Subsidies
- Fundraising expenditures
Budget cuts are covered in the news
...but what about extra funding?
Mixed-effects model

\[ \Delta Y_{ijt} = \beta_0 + u_{0j} + v_i + \beta_1 \Delta G_{jt-1} + u_{1j} \Delta G_{jt-1} + \ldots + \varepsilon_{ijt} \]

Change of donations from respondent \( i \) to organization \( j \) from year \( t-2 \) to year \( t \)

- \( u_{0j} \) is the organization-specific intercept
- \( u_{1j} \) is the organization-specific slope
- \( v_i \) is the respondent-specific intercept
- \( \Delta G_{jt-1} \) is the change in government support to organization \( j \) from year \( t-3 \) to year \( t-1 \)

Controls: GDP per capita, Organization’s total expenditures, Labour Party in government coalition, Total government social transfers
No strong association...

Results from Maximum Likelihood Estimation models

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Δ Government support</td>
<td>-0.089</td>
<td>-0.113</td>
<td>-0.157</td>
<td>-0.120</td>
</tr>
<tr>
<td></td>
<td>(0.195)</td>
<td>(0.184)</td>
<td>(0.178)</td>
<td>(0.192)</td>
</tr>
<tr>
<td>Δ News items on govt support</td>
<td>-0.024</td>
<td>-0.074**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.019)</td>
<td>(0.034)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Δ News items on budget cuts</td>
<td></td>
<td></td>
<td>0.047</td>
<td>(0.051)</td>
</tr>
<tr>
<td>Δ News items on problems</td>
<td></td>
<td></td>
<td>0.027</td>
<td>(0.030)</td>
</tr>
<tr>
<td>Δ Positive news items</td>
<td></td>
<td></td>
<td>0.123</td>
<td>(0.110)</td>
</tr>
<tr>
<td>Δ Fundraising expenditures</td>
<td></td>
<td></td>
<td></td>
<td>2.378***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.772)</td>
</tr>
<tr>
<td>(Constant)</td>
<td>0.057</td>
<td>0.061</td>
<td>0.090</td>
<td>0.007</td>
</tr>
<tr>
<td></td>
<td>(0.153)</td>
<td>(0.153)</td>
<td>(0.154)</td>
<td>(0.152)</td>
</tr>
</tbody>
</table>
...but large differences between organizations...
...and between social groups
Empirical questions

- Macro: What is the incidence and level of donations across countries?
- Meso: How are changes in subsidies related to changes in donations to organizations?
- Micro: how do people respond to actual policy changes?
A survey experiment

- What if people knew about actual funding cuts?
- Let’s tell them.
- In a survey experiment.
- And then see what they think (believe) and what they do.
The data

- Giving in the Netherlands Panel Survey 2014, random and High Net Worth (HNW) sample.
- Respondents in the random sample are from a pool of people who registered for participating in surveys; HNW sample is invited through postal mail.
- N=2,458; response rates: 80% / 12% (HNW)
Experimental design (1)

- After filling out the survey, respondents receive a reward in the form of token points.
- The number of points depends on the time it took them to complete the questionnaire.
- Average earnings worth €3,23.
- Token points can be exchanged for vouchers, Air Miles or donations to one out of four preselected charitable organizations.
Experimental design (2)

- Charity: KWF Kankerbestrijding, Dutch Cancer Society
- Funds cancer research and helps cancer patients
- One of the most popular fundraising organizations in the Netherlands
Experimental design (3)

- Base line appeal:
  “The Dutch charities are in need of your support.”

- Information on lost subsidies:
  “The Dutch charities are in need of your support. KWF Kankerbestrijding for example received € 361,000 on government subsidies in 2011 but received no subsidies in 2012.”
“What do you think, did KWF Kankerbestrijding receive more, an equal amount of, or less government subsidies in 2012 compared with 2011?”
Knowledge question

“What do you think, did KWF Kankerbestrijding receive more, an equal amount of, or less government subsidies in 2012 compared with 2011?”

- Control group: Prior information
- Treatment group: Manipulation check
• After the participants made their choices, we asked them the following hypothetical question:

“Imagine that you would have heard that KWF Kankerbestrijding received [more/an equal amount of/less] government subsidies in 2012 compared with 2011, what would you have done with your reward?”
## Prior and new knowledge

<table>
<thead>
<tr>
<th></th>
<th>Thinks subsidies increased</th>
<th>Thinks subsidies did not change</th>
<th>Thinks subsidies decreased</th>
</tr>
</thead>
<tbody>
<tr>
<td>No information</td>
<td>5.1 %</td>
<td>43.1 %</td>
<td>51.8 %</td>
</tr>
<tr>
<td>Information</td>
<td>2.9 %</td>
<td>33.4 %</td>
<td>63.7 %</td>
</tr>
</tbody>
</table>
People who believe subsidies decreased are more likely to donate

![Bar chart showing the percentage of people who believe subsidies decreased or did not change, or increased, grouped by information status. The chart indicates that those who think subsidies decreased are more likely to donate.](chart.png)
People who believe subsidies decreased are more likely to donate

![Bar chart showing the percentage of people donating based on their belief about subsidy changes.](chart)

- **No information**:
  - Thinks subsidy increased or did not change: 8%
  - Thinks subsidy decreased: 10%
  - Total: 16%

- **Information**:
  - Thinks subsidy increased or did not change: 8%
  - Thinks subsidy decreased: 12%
  - Total: 16%

*Significance: p < .10*
Providing information further increases the number of donors.
Providing information further increases the number of donors

<table>
<thead>
<tr>
<th></th>
<th>No information</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thinks subsidy increased or did not change</td>
<td>8%</td>
<td>14%</td>
</tr>
<tr>
<td>Thinks subsidy decreased</td>
<td>6%</td>
<td>16%</td>
</tr>
<tr>
<td>Total</td>
<td>14%</td>
<td>30%</td>
</tr>
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</table>

p < .10
Providing information further increases the number of donors

![Bar chart showing the impact of providing information on donor behavior.](chart.png)

- **Thinks subsidy increased or did not change**
- **Thinks subsidy decreased**
- **Total**

- **No information**
  - Thinks subsidy increased or did not change: 8%
  - Thinks subsidy decreased: 6%
  - Total: 14%

- **Information**
  - Thinks subsidy increased or did not change: 10%
  - Thinks subsidy decreased: 12%
  - Total: 22%

Statistical significance: p < 0.10

---

+22%
No significant differences for amount donated

The graph shows the distribution of opinions on whether the subsidy increased or decreased, with no information or with information. The total amount donated is also indicated. The graph indicates that there are no significant differences in the amount donated between the two scenarios.
No strong moderating effect of prior knowledge

--- Knowledge: increase/no change
- Knowledge: decrease

--- Knowledge: increase/no change
- Knowledge: decrease

No information (real decision)  Information (scenario decision)
Moderators of the information effect
Most people do not change their giving with different information

<table>
<thead>
<tr>
<th></th>
<th>Stopped donating</th>
<th>Did not change decision</th>
<th>Started donating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group first, then in scenario: “Imagine that subsidies decreased”</td>
<td>0</td>
<td>96.9</td>
<td>3.1</td>
</tr>
<tr>
<td>Information first, then in scenario: “Imagine that subsidies increased / did not change”</td>
<td>1.8</td>
<td>97.2</td>
<td>1.0</td>
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Most people do not change their giving with different information

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Most people do not change their giving with different information.

<table>
<thead>
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<th>Scenario</th>
<th>Stopped donating</th>
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<td>Control group first, then in scenario: “Imagine that subsidies decreased”</td>
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So...
Mechanisms of crowding-out and crowding-in

Figure 1: Mechanisms of crowding-out and crowding-in

Macro
- Government support

Meso
- Fundraising
- Information

Micro
- Values
- Resources

Total charitable donations
Charitable donations
Mechanisms of crowding-out and crowding-in

Macro
Government support

Meso
Fundraising
Information

Micro
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Charitable donations
Total charitable donations
Mechanisms of crowding-out and crowding-in

Macro
Government support

Meso
Fundraising
Information

Micro
Values
Resources

Charitable donations

Total charitable donations

Values

Resources

Fundraising

Information
Thank you

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