The Cost of Public Financing: Crowding Out in the Context of Political Campaigns

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2022-08-11

Motivation

- ▶ Public financing for political campaigns is gaining popularity in the United States
  - ▶ 14 states and 24 municipalities began providing public financing from 2010-2018
- ▶ Two goals of public financing
  - ▶ Limit large contributions from wealthy donors
  - ▶ Encourage new contributions from ordinary people

Motivation

- ▶ Unintended consequence of public financing: crowding out
  - ▶ Public financing fully or partially replaces donations that would have been made otherwise
  - ▶ Crowding out creates inefficiency
- ▶ Cost of crowding out could be justified if the other two goals are achieved
- ▶ I use Seattle's Democracy Vouchers program to study the effects of public financing
  - ▶ Each voter receives four $25 vouchers in the mail
  - ▶ Voter can donate each voucher to a candidate for municipal office

Research Questions

1. To what extent did Seattle's Democracy Vouchers program crowd out private donations?

   ▶ Effect on total contributions

   ▶ Comparison to crowding out of charitable contributions

2. How did the Democracy Vouchers program change the composition of contributions?

   ▶ Effects on large and small contributions

3. How did the Democracy Vouchers program affect voter registration?

Summary of Results

- ▶ Total contributions increased by 132.9%
  - ▶ Implication: each dollar of Democracy Vouchers donations reduced cash donations by $0.29
  - ▶ Nearly identical to magnitudes in the charitable contribution literature
- ▶ Heterogeneity analysis
  - ▶ Small contributions increased by more than 100%
  - ▶ Large contributions decreased by more than 60%
- ▶ Increase in voter registration

Background

- ▶ Vouchers first became available in 2017 municipal elections

- ▶ 9 months before municipal elections, every registered voter receives four $25 Democracy Vouchers in the mail

- ▶ Voters can mail the vouchers to any campaign that has opted into receiving vouchers

  - ▶ Voucher recipients must accept a $250 individual contribution limit

  - ▶ The limit for non-recipients is $500

- ▶ Candidate participation

  - ▶ 2017: 44%

  - ▶ 2019: 91%

Voucher Donations Per Election

Table 1: Voucher Donations Per Election

Year	% Participation	Total Value of Vouchers
2017	4.1	$1,791,325
2019	7.7	$3,515,275

▶ Campaign average: $45,387 in vouchers

    ▶ 46% of the average campaign's total funding

Model

- ▶ Andreoni (1990) provides a model of individual contributions to charity in the presence of government financing

- ▶ I extend this model to political campaigns, incorporating unique features of my setting

  - ▶ Candidates must decide whether to opt into receiving funding

  - ▶ Individuals allocate government funding as well as their own money

Model

- ▶ Encompasses two extreme possibilities for donors' utility (Andreoni 1990, Payne 1998)

  - ▶ Pure altruism: donors only care about the total amount their preferred candidate raises

    - ▶ Complete crowding out

  - ▶ Pure egoism: donors only gain utility from the act of making a donation ("warm glow"), which does not depend on the total amount raised

    - ▶ No crowding out

- ▶ The extent of crowding out depends on where donors are positioned between these two extremes

Model

Three stages determine the total amount an individual donates

1. Individual's preferred candidate decides whether to accept Democracy Vouchers or not

2. Individual decides whether to use her vouchers or not, taking the candidate's decision as given

3. Individual chooses how much cash to donate, taking her own voucher use and the candidate's decision as given

I work through the model using backwards induction, starting in stage 3

Model Implications

Change in total contributions when Democracy Vouchers become available depends on

1. Number of candidates who accept vouchers

2. Effect of accepting Democracy Vouchers on the total amount each candidate raises, which is determined by

   ▶ Individuals' choices of whether to donate vouchers

   ▶ Individuals' cash donations

Extent of crowding out is determined by $\frac{\Delta c_i^*}{\Delta d_i}$

Data

- ▶ Data from King County, where Seattle is located
  - ▶ The 39 other cities in King County are the control group for Seattle
- ▶ Time frame: odd-numbered years from 2009-2019
- ▶ Campaign contribution data
  - ▶ All contributions to campaigns in King County
  - ▶ Both cash and voucher donations
  - ▶ Sample of 446,981 contributions to 813 campaigns

Data

- Voter registration
  - Precinct-level voter registration data
  - King County has about 2,550 precincts in each election
  - 15,318 observations
- Demographic data: ACS five-year estimates
  - Variables: age, gender, race, income, education and total population
  - City-level estimates constructed from census tract-level data

Methodology

Main specification:

$$ln(Y_{ct}) = \beta_0 + \beta_1 Seattle_c + \beta_2 Voucher_t + \beta_3 Seattle_c * Voucher_t + \gamma_c + \psi_t + \theta X_{ct} + \epsilon_{ct}$$

- ▶ Four outcomes
    - ▶ Total campaign contributions
    - ▶ Amount of small contributions
    - ▶ Amount of large contributions
    - ▶ Voter registration
- ▶ I use the method from Ferman and Pinto (2019) for inference
    - ▶ Heteroskedasticity-robust method developed for difference-in-differences with only one treated group

Methodology

- Event studies used to assess the plausibility of the parallel trends assumption, with the following specification:

$$ln(Y_{ct}) = \beta_0 + \beta_1 Seattle_c + \gamma_t + \sum_{\substack{j=2009 \\ j \neq 2015}}^{2019} \beta_j Seattle_c \mathbf{1}(t=j) + \psi_c + \theta X_{ct} + \epsilon_{ct}$$

- I use the Ferman and Pinto (2019) method for the event studies
- I find support for the parallel trends assumption for all the results I'm presenting today

Total Contributions

- ▶ 132.9% increase in total campaign contributions

- ▶ Implication: each dollar of Democracy Voucher spending reduced cash contributions by $0.29

  - ▶ Nearly identical to magnitudes in the charitable contribution literature (Abrams and Schmitz 1978, Abrams and Schmitz 1984)

- ▶ Potential "warm glow" from donating vouchers does not increase crowding out

  - ▶ Egoistic individuals may gain less utility from donating vouchers than from donating cash

  - ▶ Individuals may tend to be more altruistic in the context of political campaigns

Heterogeneity Analysis: Small Contributions

- ▶ Small contributions increase
    - ▶ Consistent with the program's goal
- ▶ Contributions \$100 and under
    - ▶ 174.2% increase, significant at the 5% level
    - ▶ City council only: 121.7% increase, significant at the 10% level
- ▶ Increase in small donations includes
    - ▶ Democracy Vouchers
    - ▶ Cash donations by individuals for whom $\frac{\Delta c_i^*}{\Delta d_i} > 0$
        - ▶ Inspired to donate cash when they researched candidates to donate vouchers

Heterogeneity Analysis: Large Contributions

▶ Large contributions decrease

    ▶ Consistent with the program's goal

▶ Contributions over $250

    ▶ Limit for Democracy Voucher recipients

    ▶ 62.98% decrease, significant at the 10% level

    ▶ City council only: 95.6% decrease, significant at the 1% level

▶ Decrease in contributions over $250 is due to

    ▶ Donors for whom $\frac{\Delta c_i^*}{\Delta d_i} < 0$

    ▶ Donors restricted by the $250 limit

        ▶ Could have switched to a non-voucher candidate

        ▶ Sign of $\frac{\Delta c_i^*}{\Delta d_i}$ is ambiguous for these donors

Heterogeneity Analysis: Large Contributions

- ▶ Contributions between \$100 and \$250

  - ▶ City council only: 69.9% decrease, significant at the 5% level

  - ▶ Not driven by the lower contribution limit for candidates who accept Democracy Vouchers

  - ▶ Evidence that $\frac{\Delta c_i^*}{\Delta d_i} < 0$ for some donors

    - ▶ Altruistic donors

    - ▶ Egoistic donors who experience a "warm glow" from donating vouchers

- ▶ Decrease in large contributions provides evidence that the increase in total contributions is driven by the increase in small contributions

- ▶ Consistent with the program's goals

Voter Registration

- Relevant to campaign finance because only registered voters can use Democracy Vouchers

- Increase of seven voters per precinct, significant at the 10% level
  - 1.7% increase from the pre-treatment mean of 412

- New registrants are individuals
  - for whom $c_i^* = 0$ when vouchers are unavailable
  - who may choose $d_i^* = v_i$ when vouchers are available

Voter Registration

- c_i^* for a new registrant will
    - be unchanged if $\frac{\Delta c_i^*}{\Delta d_i} \leq 0$
    - increase if $\frac{\Delta c_i^*}{\Delta d_i} > 0$
- Pool of new registrants
    - Recently moved to Seattle
    - Recently turned 18
    - Could have registered in the past but chose not to

Conclusion

- Public financing for campaigns in the form of Democracy Vouchers leads to incomplete crowding out

  - Each dollar of Democracy Voucher contributions reduces private contributions by $0.29

  - Unintended consequence

- The program does achieve its two goals

  - Increase in small contributions

  - Decrease in large contributions