

Online Appendix for  
Unobserved Contributions and Political Influence:  
Evidence from the Deaths of Top Donors

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**Abstract**

This document contains results omitted in the article “Unobserved Contributions and Political Influence: Evidence from the Death of Top Donors.”

## A Candidates in the U.S. Congress: Further Details

Table A1 Data Description

Variable Definition		Mean	St. dev.
Sample: Candidates running for office in the U.S. House of Representatives. Election cycles: 2008 - 2018			
Win election (1 = Yes)	Dummy variable. It takes the value one if candidate $i$ won the electoral race at election cycle $t$ , and zero otherwise.	0.76	0.42
% of votes	Continuous variable. It counts the percentage of votes received by candidate $i$ at election cycle $t$ .	55.91	15.20
At least one top donors died in current election cycle (1 = Yes)	Dummy variable. It takes the value one if candidate $i$ lost at least one top donor at election cycle $t$ , and zero otherwise.	0.28	0.45
Number of dead top donors in current election cycle	Continuous variable. It counts the number of top donors lost by candidate $i$ at election cycle $t$ .	0.44	0.85
- Who did not support candidate but resides in their state	Continuous variable. For each candidate $i$ at election cycle $t$ who lost a top donor, it counts the number of deceased top donors residing in the candidate's state who did not donate to the candidate.	0.58	1.80
- With total contributions in the highest quartile	Continuous variable. It counts the number of top donors lost by candidate $i$ at election cycle $t$ who belonged to the top 25% distribution of total contributions in the year of their last donation.	0.11	0.37
- With total contributions below the highest quartile	Continuous variable. It counts the number of top donors lost by candidate $i$ at election cycle $t$ who belonged to the bottom 75% distribution of total contributions in the year of their last donation.	0.33	0.86
- Who were listed on Forbes 400	Continuous variable. It counts the number of top donors lost by candidate $i$ at election cycle $t$ whose last name ever appeared on the Forbes 400 list.	0.11	0.36
- Who were not listed on Forbes 400	Continuous variable. It counts the number of top donors lost by candidate $i$ at election cycle $t$ whose last name never appeared on the Forbes 400 list.	0.33	0.70

Table A1 Data Description, continued

	<b>Variable Definition</b>	<b>Mean</b>	<b>St. dev.</b>
Candidate holds state office (1=Yes)	Dummy variable. It takes the value one if candidate $i$ won state elections before election cycle $t$ , and zero otherwise.	0.30	0.46
Candidate is Republican (1=Yes)	Dummy variable. It takes the value one if candidate $i$ at election cycle $t$ runs for the Republican party, and zero otherwise.	0.54	0.50
Candidate is Democrat (1=Yes)	Dummy variable. It takes the value one if candidate $i$ at election cycle $t$ runs for the Democratic party, and zero otherwise.	0.44	0.50
Candidate is male (1=Yes)	Dummy variable. It takes the value one if candidate $i$ is male, and zero otherwise.	0.82	0.38
No incumbent in the electoral race	Dummy variable. It takes the value one if candidate $i$ at election cycle $t$ runs in a district without an incumbent (i.e., the incumbent retired or lost the primary), and zero otherwise.	0.09	0.29
Voters in favor of the candidate's party presidential nominee...			
- between 25 and 50%	Dummy variable. It takes the value one if candidate $i$ at election cycle $t$ runs in a district where between 25 and 50% of voters supported the candidate's party presidential nominee, and zero otherwise.	0.26	0.44
- between 50 and 75%	Dummy variable. It takes the value one if candidate $i$ at election cycle $t$ runs in a district where between 50 and 75% of voters supported the candidate's party presidential nominee, and zero otherwise.	0.64	0.48
- more than 75%	Dummy variable. It takes the value one if candidate $i$ at election cycle $t$ runs in a district where more than 75% of voters supported the candidate's party presidential nominee, and zero otherwise.	0.07	0.25
Previous race was tight (1=Yes)	Dummy variable. It takes the value one if candidate $i$ at election cycle $t$ runs in a district where the margin of victory was tight at election cycle $t-1$ , and zero otherwise. A race is considered tight if its margin of victory falls in the bottom 5th percentile of the distribution of margins of victory across districts in that cycle.	0.07	0.25

Table A1 Data Description, continued

Variable Definition		Mean	St. dev.
Candidate changed district/District was redesigned (1=Yes)	Dummy variable. It takes the value one if candidate $i$ at election cycle $t$ runs in a district with a constituency different from that at $t-1$ —either because the candidate changed district or because the district was redesigned—and zero otherwise.	0.20	0.40
Candidate has a leadership role (1=Yes)	Dummy variable. It takes the value one if candidate $i$ at election cycle $t$ is a party leader or holds a prominent position in Congress at $t-1$ (i.e., Speaker, chair, or vice-chair of a committee), and zero otherwise.	0.33	0.47
Incumbency streak	Continuous variable. It counts the number of times candidate $i$ won two consecutive elections within the same district before election cycle $t$ .	2.43	2.24
Candidate ran primaries (1=Yes)	Dummy variable. It takes the value one if candidate $i$ was selected through primary elections at election cycle $t$ , and zero otherwise.	0.60	0.49
Candidate received major financial support from party (1=Yes)	Dummy variable. It takes the value one if candidate $i$ at election cycle $t$ received major monetary support from the party (defined as above the annual median), and zero otherwise.	0.26	0.44
% of contributions received	Continuous variable. It is equal to the % of contributions (both direct and from PACs and Super PACs) received by candidate $i$ at election cycle $t$ relative to his/her competitors in the district.	67.41	31.62
% of independent expenditures received	Continuous variable. It is equal to the % of independent expenditures in favour of candidate $i$ at election cycle $t$ relative to his/her competitors in the district.	19.27	37.53
Tot. indiv. contribs from dead donors in past elections	Continuous variable. It is equal to the total individual contributions received by candidate $i$ before election cycle $t$ from his/her top donors who died at $t$ .	14,972	113,952

Num. obs. 2,353. *Note:* The sample excludes candidates who ran for the U.S. House of Representatives in only one election cycle, candidates who were Speaker of the House at the time of the election and candidates whose share of contributions received relative to the district is below 0.05 percent or above 99.95 percent.

Table A1 Data Description, continued

Variable Definition		Mean	St. dev.
% Individual contributions...			
- from top donors	Continuous variable. It is equal to the % of direct contributions received from top donors by candidate $i$ at election cycle $t$ relative to his/her competitors in the district.	58.71	42.96
- from small donors	Continuous variable. It is equal to the % of direct contributions received from small donors by candidate $i$ at election cycle $t$ relative to his/her competitors in the district.	57.20	40.72
Num. obs. 3,702. <i>Note:</i> The sample excludes candidates who ran for the U.S. House of Representatives in only one election cycle.			
% Expenditures for political ads...			
- from candidate	Continuous variable. It is equal to the % of expenditures for political ads spent in his/her favor by candidate $i$ at election cycle $t$ relative to his/her competitors in the district.	18.11	33.41
- from interest groups	Continuous variable. It is equal to the % of expenditures for political ads spent by interest groups in favor of candidate $i$ at election cycle $t$ relative to his/her competitors in the district.	4.39	18.34
Num. obs. 2,277. <i>Note:</i> The sample excludes candidates who ran for the U.S. House of Representatives in only one election cycle. Data is not available before 2012.			

Table A1 Data Description, continued

Variable Definition		Mean	St. dev.
Sample: Candidates elected in the U.S. House of Representatives. Election cycles: 2008 - 2018			
Entropy of topics in sponsored bills	Continuous variable. It registers the change in the entropy of topics in bills sponsored by legislator $i$ from Congress $t$ to $t+1$ . This is calculated using the Shannon entropy index (Shannon, 1948): i.e., $\sum_{i=1}^n -p_i \log_2 p_i$ , where $p_i$ is the share of bills with main topic $i$ sponsored by a given legislator in a Congress, and $n$ is the total number of main topics in the bills sponsored by the legislator in that Congress.	0.49	0.42
Ideological distance from party's median position	Continuous variable. It registers the change in the distance from the party's median position by legislator $i$ from Congress $t$ to $t+1$ . This is obtained with the formula $ id_i - median(id_p) $ , where $id_i$ is the second dimension of the Nokken-Poole ideology estimate associated with Congress member $i$ in a given Congress, and $id_p$ is the median value of the second dimension of the Nokken-Poole ideology estimate associated to $i$ 's party colleagues in the same Congress (Nokken et al., 2004).	0.01	0.17
Number of dead top donors in current election cycle	Continuous variable. It counts the number of top donors lost by legislator $i$ at election cycle $t$ .	0.55	0.89
Representative is in the majority party	Dummy variable. It takes one if legislator $i$ at Congress $t$ is a member of the majority party of the House, and zero otherwise.	0.49	0.50
President is from representative's party	Dummy variable. It takes one if legislator $i$ at Congress $t$ is a member of the party of the President, and zero otherwise.	0.51	0.50
Num. obs. 1,323. <i>Note:</i> The sample excludes candidates who were elected to the U.S. House of Representatives in only one Congressional cycle, who were Speaker of the House, members of the party leadership, or committee chairs.			
Number of events during gift travels	Continuous variable. It counts the total number of meetings held during gift travels in a Congress cycle by legislator $i$ at Congress $t$ .	10.10	24.43
Num. obs. 1,425. <i>Note:</i> The sample excludes candidates who were elected to the U.S. House of Representatives in only one Congressional cycle, who were Speaker of the House, members of the party leadership, or committee chairs.			

Table A2  
 Top Donors and Candidates  
 – Support from Political Ads –

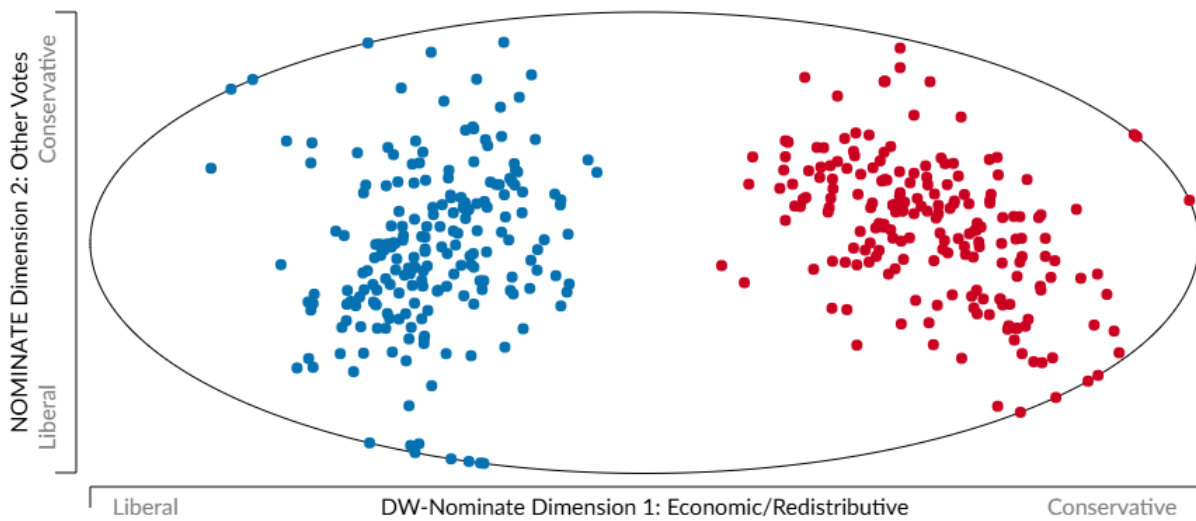
Panel A: % of Candidates Supported at least by one Political Ad				
	2012	2014	2016	2018
All	28.28	22.91	21.75	31.44
with at least one top donor	84.26	92.69	84.86	90.68
without top donors	15.74	7.31	15.14	9.32

Panel B: Average Expenditures (in thousands) for Political Ads in Support of a Candidate (St. dev.)				
	2012	2014	2016	2018
All	182.37	168.61	154.55	271.32
	(526.53)	(580.02)	(530.65)	(774.75)
with at least one top donor	374.16	320.95	328.08	486.2
	(713.95)	(771.88)	(743.05)	(991.02)
without top donors	10.66	3.69	5.61	8.03
	(83.89)	(61.58)	(42.38)	(84.76)

*Notes:* Percentage of candidates who were supported at least by one political ad (Panel A), and the average (and St. dev.) expenditures for political ads in support of a candidate (Panel B), in each election cycle. All ads are considered, i.e., those sponsored by a candidate, a party, or an interest group. The sample includes all candidates who ran for the U.S. House of Representatives.

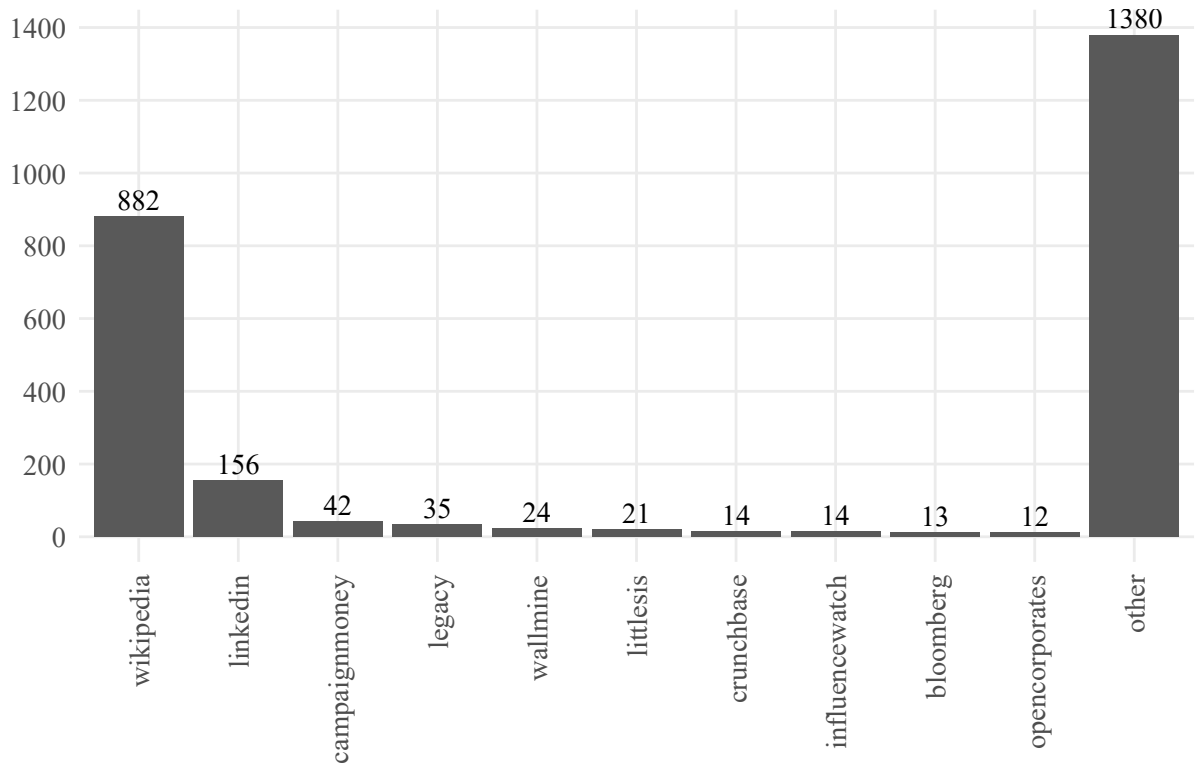
Figure A1  
Ideology of US House Representatives (118th Congress)  
- First and Second Dimension of the Nokken Poole Index -



*Notes:* The x-axis reports the first dimension of the Nokken-Poole index, which situates Representatives along the liberal-conservative spectrum on economic policy. The y-axis records the second dimension of the Nokken-Poole index, which reflects the positions of Representatives on high-salience, cross-cutting civil rights issues, such as gun control and abortion rights. Data refers to the 118th Congress (2023-2025). Source: <https://voteview.com/Congress/house>.

## B Top Donors in U.S. Congress: Further Details

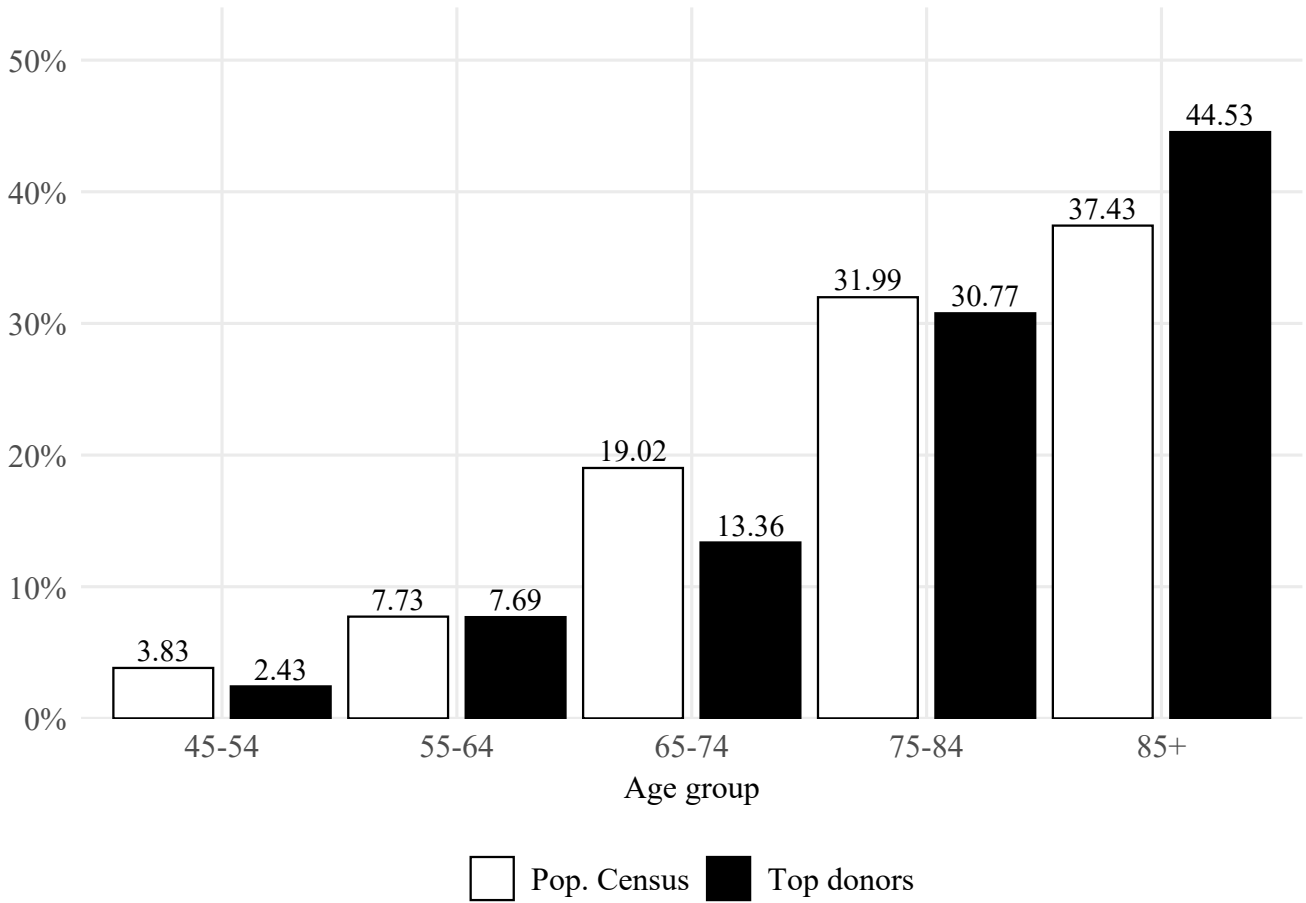
Figure B1  
Biographical Information about Top Donors  
- Data Sources -



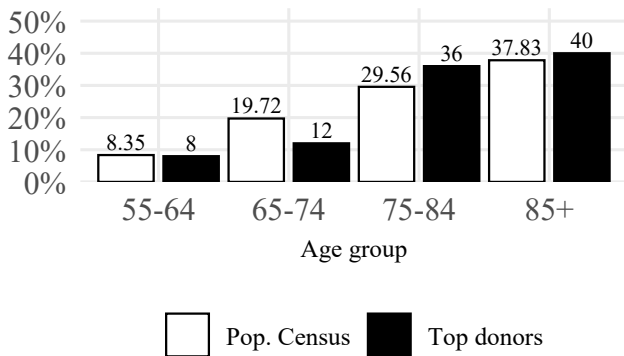
*Notes:* The x-axis reports the online sources used to retrieve top donors' biographical information. The y-axis reports the number of times the source was used. Sources are not mutually exclusive: multiple sources may be used to retrieve information about a donor. The top 10 sources used to retrieve information are indicated. The other sources are included in the category "other". These are 1,073 websites (among the most recurrent, "Forbes", "The New York Times", and "The Los Angeles Times").

Figure B2  
 Probability of Death across Age Groups  
 - General Population vs Top Donors -

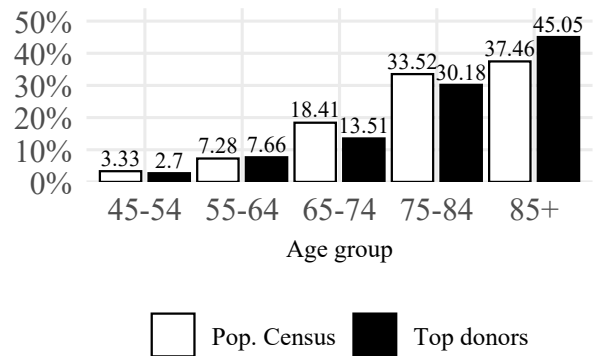
**Panel A**  
 - All -



**Panel B**  
 - Female -

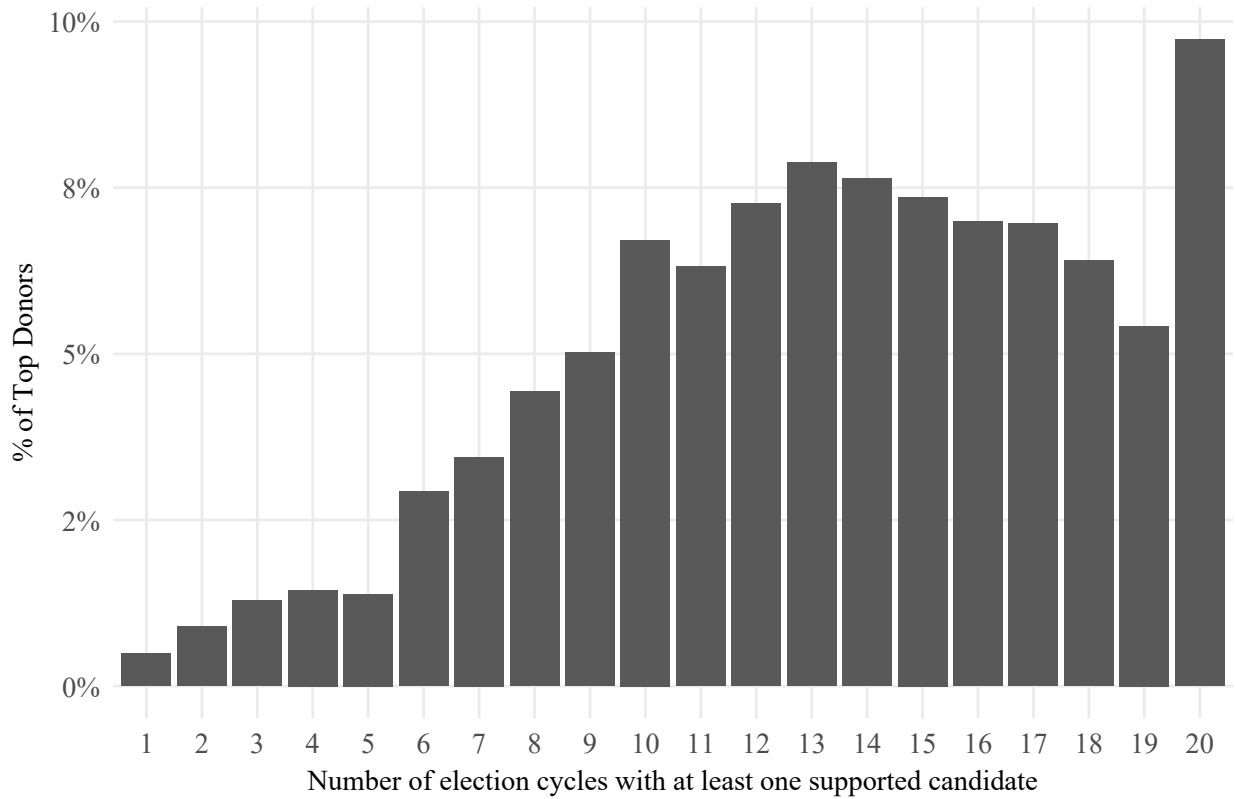


**Panel C**  
 - Male -



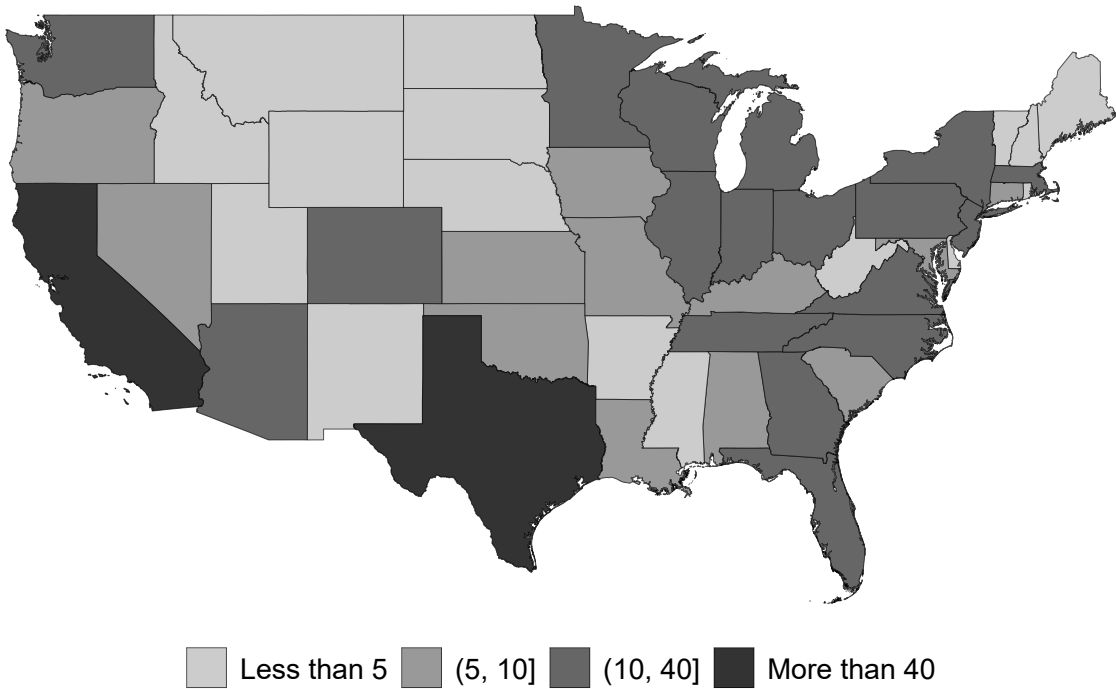
*Notes:* The figure compares the age distribution of deaths among top donors and a sample of highly educated individuals (master's or PhD) from CDC mortality data, weighted by the geographic distribution of deceased donors. Each bar represents the share of total deaths in a given population occurring within a specific age group, so that the shares for each population sum to one. The sample includes the top 1,000 donors in each election cycle from 2004 to 2018. Panel A considers the entire population, while Panels B and C focus respectively on females and males.

Figure B3  
 Top Donors  
 - Election Cycles with at least one Supported Candidate -



*Notes:* The x-axis reports the number of election cycles in which a top donor supported at least one candidate. The y-axis reports the percentage of top donors (between 2008 and 2018) who supported at least one candidate for a given number of election cycles (between 1982 and 2018). The sample includes the top 1,000 donors in each election cycle from 2004 to 2018.

Figure B4  
 Top Donors  
 - Average Number of Candidates Supported in one Election Cycle by State -



*Notes:* The figure shows the average number of candidates supported by at least one top donor by state in one cycle. For visualization purposes, Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands are excluded from the map. In each of these states, the average number of candidates supported by a top donor in one election cycle is less than 5. The sample includes all candidates running for office in the U.S. House of Representatives from 2008 to 2018.

## B.1 Profiles of Major Donors in U.S. Elections

In this appendix, we provide the identities and a brief discussion of the characteristics of the top 10 donors in each U.S. election cycle, ranked by total political contributions. Appendix Table B1 highlights several patterns.

First, all individuals listed are billionaires or centi-millionaires whose financial capacity far exceeds that of ordinary contributors.

Second, donors tend to be persistent over time. Many appear across multiple election cycles—several in three or more—suggesting the presence of a stable core of repeat megadonors rather than episodic participation. Prominent examples include George Soros and the Adelson family. This pattern is not universal, however. In some cases, a donor emerges prominently in a single cycle, as with billionaire Timothy Draper, who became a major contributor in 2014 while promoting his “Six Californias” ballot initiative to divide the state into six separate states.<sup>1</sup>

Third, while a small number of donors are widely recognized by the general public (e.g., Soros, Bloomberg, the Adelsons, Charlie Munger, Ken Griffin, and Paul Singer), many others remain relatively obscure outside political finance and elite economic circles despite their substantial and sustained influence on U.S. elections. Examples include William Bloomfield, a real-estate magnate and one of the largest donors in California;<sup>2</sup> George Joseph, the world’s oldest billionaire (103) in the insurance sector;<sup>3</sup> David Bohnett, founder of one of the first social networks (GeoCities) and included in the *Time* 100 Philanthropy list in 2025;<sup>4</sup> and Haim Saban, a major media proprietor and investor in the United States.<sup>5</sup>

Fourth, the table reveals a strong sectoral concentration among megadonors. Finance and investment figures (e.g., Singer, Griffin, Simons, and Sussman), technology and venture capital actors (e.g., Doerr and Hastings), and real-estate fortunes (e.g., Bloomfield, Hughes, Baron, and Rowling) are repeatedly overrepresented. Closely related are media and information industries, including Michael Bloomberg (financial media), Haim Saban and Jerry Perenchio (broadcasting), and, in the broader digital sector, Reed Hastings (Netflix) and David Bohnett (GeoCities).

Finally, several individuals listed in the table died during the period of analysis. These

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<sup>1</sup><https://www.mercurynews.com/2013/12/23/tech-investor-tim-draper-launches-six-californias-ballot-measure-to-divide-the-golden-state/>

<sup>2</sup><https://www.sacbee.com/news/politics-government/capitol-alert/article93602072.html>

<sup>3</sup><https://www.forbes.com/profile/george-joseph/>

<sup>4</sup><https://time.com/collections/time100-philanthropy-2025/>

<sup>5</sup><https://www.forbes.com/profile/haim-saban/>

Table B1  
Top 10 Donors by Election Cycle

Election Cycle	2008	2010	2012
Top donor name	Sperling, Peter; Doerr, John L. III; Templeton, John M. Jr.; Simmons, Harold; Baron, Frederick; Soros, George; Perry, Bob; Bohnett, David; Stryker, Jon; Maltz, David.	Perry, Bob; Steyer, Tom; Perenchio, Jerry; Doerr, John L. III; Hughes, B. Wayne; Rowling, Robert B.; Eshelman, Fred; Hastings, Reed; Saban, Haim; Soros, George.	Munger, Molly; Adelson, Sheldon G.; Adelson, Miriam; Steyer, Tom; Munger, Charles; Simmons, Harold; Perry, Bob; Joseph, George; Eychaner, Fred; Ricketts, John Joe.
Election Cycle	2014	2016	2018
Top donor name	Steyer, Tom; Bloomberg, Michael; Munger, Charles; Singer, Paul; Mercer, Robert; Eychaner, Fred; Simons, James; Ricketts, John Joe; Draper, Timothy; Hughes, B. Wayne.	Steyer, Tom; Adelson, Sheldon G.; Sussman, S. Donald; Adelson, Miriam; Eychaner, Fred; Bloomberg, Michael; Singer, Paul; Soros, George; Munger, Charles; Simons, James.	Steyer, Tom; Bloomberg, Michael; Adelson, Sheldon G.; Adelson, Miriam; Uihlein, Richard; Hastings, Reed; Sussman, S. Donald; Griffin, Kenneth C.; Soros, George; Bloomfield, William E.

*Notes:* The table shows the top 10 donors for each U.S. election cycle, ordered by total contributions.

include Frederick Baron (2008),<sup>6</sup> Bob Perry (2013),<sup>7</sup> Harold Simmons (2013),<sup>8</sup> John Marks Templeton Jr. (2015),<sup>9</sup> and Jerry Perenchio (2017).<sup>10</sup> In addition, some relatives of listed donors—who also appear among the top contributors—died during the period, including John G. Sperling (2014),<sup>11</sup> father of Peter Sperling, and Lucia Uihlein (2012), the wife of Richard Uihlein.<sup>12</sup>

<sup>6</sup><https://www.nytimes.com/2008/10/31/us/politics/31baron.html>

<sup>7</sup><https://publicintegrity.org/politics/gop-super-donor-bob-perry-dead-at-80/>

<sup>8</sup><https://www.forbes.com/sites/christopherhelman/2013/12/30/texas-billionaire-harold-simmons-dies-called-obama-most-dangerous-man-in-america/>

<sup>9</sup><https://www.wsj.com/articles/philanthropist-john-templeton-jr-dies-1432054655>

<sup>10</sup><https://www.forbes.com/profile/a-jerrold-perenchio/>

<sup>11</sup><https://www.nytimes.com/2014/08/26/us/john-g-sperling-for-profit-college-pioneer-dies-at-93.html>

<sup>12</sup>[https://www.chicagotribune.com/obituaries/lucia-e-uhlein-longboat-key-fl/&ved=2ahUK  
Ewjo2uCbrZiSAX9gvOHHQVONjQQFnoECDAQ&usq=A0vVaw0-STZ9ED8sPOLFU6QgcM10](https://www.chicagotribune.com/obituaries/lucia-e-uhlein-longboat-key-fl/&ved=2ahUKEwjo2uCbrZiSAX9gvOHHQVONjQQFnoECDAQ&usq=A0vVaw0-STZ9ED8sPOLFU6QgcM10)

## C The Social Network of Direct Contributions - Further Details

**Direct contributions convey information.** Donations from top donors signal viability, shape expectations, and attract additional contributors. The influence of donors is augmented by the common practice of pledging to match grassroots contributions up to a certain threshold, provided the donations are made within a specified timeframe.<sup>13</sup> These matching arrangements are often opaque, as the identities of matching donors are frequently not disclosed, and they have drawn criticism from campaign finance watchdogs and political observers.<sup>14</sup> However, this is not always the case. A notable example is Reid Hoffman, co-founder of LinkedIn, who in 2014 along with a group of wealthy donors publicly pledged to match up to \$1 million in small-dollar donations to support candidates for the U.S. House of Representatives through Mayday PAC.<sup>15</sup> The initiative remains one of the most prominent examples of a grassroots matching campaign explicitly linked to Congressional elections.

**Direct contributions coexist with other forms of giving.** Sam Bankman-Fried (SBF), former CEO of the cryptocurrency exchange FTX, was a major political donor ahead of the 2022 midterms (over \$40 million). In December 2022, prosecutors accused him of violating campaign finance laws by taking "a massive, secretive shortcut, using corporate funds and straw donors to pour tens of millions of dollars to unlawfully support politicians they believed to be crypto-friendly." The legal documents also make it clear that SBF was pairing legal and illegal contributions, since SBF wanted to explicitly signal his support. In the documents relative to this case, we find an e-mail by Gab Bankman-Fried, the brother of Sam, stating: "Sam and I want him to donate \$5,800 each (legal max) to various members of Congress, as well as potentially some related Political Action Committees (PACs)... the money has to come directly from Sam's personal account, not a corporate entity."<sup>16</sup>

Hui Qin was listed on Forbes Magazine's List of Billionaires and operated in the SMI Culture, a Hong Kong-based entertainment entity. Between December 2021 and December 2022, Qin coupled direct contributions with straw donations for a candidate for a member of the U.S. House of Representatives for a Congressional district in the Eastern District of New York, a candidate for a House of Representatives seat in a Rhode Island Congressional district, and for a candidate for Mayor in New York City, Eric Adams.<sup>17</sup> In the same campaign in

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<sup>13</sup>See for more details on this practice <https://www.opensecrets.org/news/2019/08/political-contributions-campaigns-say-theyll-match>.

<sup>14</sup><https://rollcall.com/2017/10/02/unlocking-the-truth-about-matching-fundraising-emails/>

<sup>15</sup><https://www.newyorker.com/magazine/2014/10/13/embrace-irony>

<sup>16</sup>Source: U.S. Bankruptcy Court, District of Delaware, Case 22-11068-JTD, Doc 27543, Filed 11/04/24.

<sup>17</sup>Sources: <https://apnews.com/article/hui-qin-chinese-billionaire-federal-election-e2429>

which Hui Qin made direct contributions alongside illegal straw donations to Eric Adams, two other individuals—Erden Arkan (KSK Construction Group) and Dwayne Montgomery (New York Police Department)—pleaded guilty to providing prohibited straw donations in support of Adams. Notably, both Arkan and Montgomery also made legal direct contributions to the Adams campaign.<sup>18</sup> Together, these cases illustrate that, within the same electoral context, straw donations were systematically paired with direct contributions.

**Direct contributions are the first step in a broader giving strategy.** Early documentation of this phenomenon dates to the 2012 election cycle, the first electoral cycle after Citizens United (2010) and the emergence of Super PACs, when reports by the Brennan Center for Justice<sup>19</sup> and the Campaign Legal Center<sup>20</sup> identified numerous donors supporting the same candidates through both channels. A prominent example of “double-dipping” donor documented at the time is that of billionaire Bernard Marcus, who maxed out his personal contributions to Mitt Romney’s presidential campaign while also donating \$20,000 to *Restore Our Future*, a Super PAC supporting Romney.<sup>21</sup> In the same period, the phenomenon of double-dipping donors attracted substantial media attention. *ABC News* published a detailed article documenting the behavior of “double donors,” while a *Guardian* article posed a question closely aligned with the question we posed: “You almost ask: why would anyone bother giving a direct campaign contribution anymore?”<sup>22</sup>

**Direct contributions as a social network.** Anecdotal evidence further illustrates how major donors build and deploy such large-scale campaign infrastructures. For example, *Forbes* reports that the billionaire Tom Steyer directly spent \$2.2 million to support 22 House races in 2018,<sup>23</sup> while *ABC News* documents that the billionaire Michael Bloomberg

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19f1e4ca8d7b1fb74c7e8ee81cf; <https://www.irs.gov/compliance/criminal-investigation/billionaire-chinese-national-pleads-guilty-to-straw-donor-campaign-contribution-scheme-and-other-frauds>.

<sup>18</sup>Sources: <https://www.politico.com/news/2025/01/10/eric-adams-donor-guilty-straw-scheme-00197617>; <https://www.politico.com/news/2024/02/05/eric-adams-nypd-dwayne-montgomery-straw-donations-guilty-plea-00139593>.

<sup>19</sup>[https://www.brennancenter.org/sites/default/files/2019-08/Report\\_After%20Citizens%20United\\_Web\\_Final.pdf](https://www.brennancenter.org/sites/default/files/2019-08/Report_After%20Citizens%20United_Web_Final.pdf)

<sup>20</sup><https://campaignlegal.org/press-releases/elite-donors-do-double-duty-presidential-super-pacs-attract-wealthy-donors-who-have>; <https://campaignlegal.org/press-releases/double-duty-donors-part-ii-large-numbers-wealthy-donors-hit-legal-limit-giving>

<sup>21</sup>[https://www.salon.com/2013/08/05/home\\_depot\\_founders\\_quiet\\_10\\_million\\_right\\_wing\\_investment/](https://www.salon.com/2013/08/05/home_depot_founders_quiet_10_million_right_wing_investment/)

<sup>22</sup>Sources: <https://abcnews.go.com/Politics/double-donors-wealthy-2012-contributors-pacs-give-big/story?id=14241924>; <https://www.theguardian.com/world/2012/feb/21/super-pac-donors-individual-donations>.

<sup>23</sup><https://www.forbes.com/sites/angelaueung/2018/11/09/how-billionaire-tom-steyers-123-million-made-a-difference-in-the-midterms/>

spent \$10 million promoting 22 Democratic House candidates in the same cycle.<sup>24</sup> Similarly, The Guardian describes how the political network of the Koch brothers, both billionaires, coordinates hundreds of wealthy donors who channel contributions across many candidates year after year.<sup>25</sup> Importantly, all of these donors are present in our data.

Table C1  
Federal Election Commission - Matters Under Review (MUR) - 2020-2025

Case	Emissary	Intermediary	Candidate	Year	Election	Emissary \$	Intermediary \$	Links
MUR #8363	P. Sauer	D. Meier	B. McCollum	2022	House	2,900	4,300	[1]
		M. Blakeslee		2022	House		1,000	
		K. Gillespie		2022	House		1,100	
		D. Myren		2022	House		1,000	
		A. Rivers		2022	House		1,000	
		G. Swanson		2022	House		1,100	
MUR #8363	P. Sauer	D. Meier	R. Wicker	2024	Senate	1,000	1,000	[2]
MUR #8092	B. Wali	E. Wali	T. Tillis	2020	Senate	5,600	5,600	[3]
MUR #7903	T. Chavez	Tomfoolery, LYc	C. Ramirez	2020	Senate	0	75,000	[4]
MUR #7491	J. Hough- taling	American Etha- ne Co., LYc	B. Cassidy	2018	Senate	1,000	1,600	[5]
			J. Kennedy	2018	Senate	8,100	8,100	
			M. Johnson	2018	House	0	6,100	
MUR #6850	A. Black	Family members, one employee, and two others	G. Graves	2018	House	0	5,400	[6]
			M. Lee	2010	Senate	0	9,600	

*Notes:* Federal Election Commission (FEC) Matters Under Review (MUR) between 2020 and 2025. Information is drawn from publicly available FEC enforcement records: [1] <https://www.fec.gov/data/legal/matter-under-review/8363/>; [https://www.fec.gov/files/legal/murs/8363/8363\\_19.pdf](https://www.fec.gov/files/legal/murs/8363/8363_19.pdf); [https://www.fec.gov/files/legal/murs/8363/8363\\_13.pdf](https://www.fec.gov/files/legal/murs/8363/8363_13.pdf). [2] <https://www.fec.gov/data/legal/matter-under-review/8092/>; [https://www.fec.gov/files/legal/murs/8092/8092\\_18.pdf](https://www.fec.gov/files/legal/murs/8092/8092_18.pdf). [3] <https://www.fec.gov/data/legal/matter-under-review/7903/>; [https://www.fec.gov/files/legal/murs/7903/7903\\_16.pdf](https://www.fec.gov/files/legal/murs/7903/7903_16.pdf). [4] <https://www.fec.gov/data/legal/matter-under-review/7491/>; [https://www.fec.gov/files/legal/murs/7491/7491\\_31.pdf](https://www.fec.gov/files/legal/murs/7491/7491_31.pdf); [5] <https://www.fec.gov/data/legal/matter-under-review/7491/>; [https://www.fec.gov/files/legal/murs/7491/7491\\_31.pdf](https://www.fec.gov/files/legal/murs/7491/7491_31.pdf). [6] <https://www.fec.gov/data/legal/matter-under-review/6850/>; [https://www.fec.gov/files/legal/murs/6850/6850\\_65.pdf](https://www.fec.gov/files/legal/murs/6850/6850_65.pdf).

<sup>24</sup>Source: <https://abcnews.go.com/Politics/bloomberg-donate-10-million-house-democrats-targeted-gop/story?id=67657394>

<sup>25</sup><https://www.theguardian.com/us-news/2018/sep/26/koch-brothers-americans-for-prosperity-rightwing-political-group>

Table C2  
 Further Evidence  
 - Contributions to Committees and Candidates from a Donor -

Dep. variable	Contributions of donor to committees (1)	Contributions of donor to committees (2)	Contributions of donor to committees (3)
Contributions from donor to candidate (\$)	2.3650*** (0.0884)	2.3288*** (0.0894)	1.6257*** (0.0857)
Election cycle fixed effects	No	Yes	Yes
Top donor fixed effects	No	No	Yes
Dependent variable: average value	263,545.55	263,545.55	263,545.55
Num. obs.	15,464	15,464	15,464

*Notes:* OLS coefficients are reported with robust standard errors clustered at the donor level. The unit of observation is the donor-cycle. The dependent variable is the total amount contributed by a donor to political committees in a given election cycle. The main independent variable is the total amount of contributions made by the same donor to candidates in that cycle. The sample includes the top 1,000 donors in each election cycle from 2004 to 2018. \*, \*\*, \*\*\* indicate statistical significance at the 10, 5, and 1 percent levels.

## D Identification Strategy - Further Details

To investigate whether candidates who will eventually experience the death of a top donor differ systematically from other candidates prior to the donor’s death, an ideal approach would be a staggered event-study design. However, such designs are not well-suited to our setting. Standard staggered event studies typically assume that units experience treatment at a well-defined point in time and are then compared with units that are not yet treated<sup>26</sup>. While recent work allows for multiple treatment intensities,<sup>27</sup> these frameworks still rely on clearly defined treatment timing. In contrast, in our context, treatment can occur repeatedly and exposure evolves over time: both treatment intensity—the number of dead donors associated with a candidate—and the probability of treatment vary across election cycles. For this reason, we instead implement the pre-trend test described below.

Specifically, we compare the probability of winning for candidates who will eventually lose a top donor with that of candidates who never lose a top donor at different distances from the donor’s death. We consider candidates who run for office in the U.S. House of Representatives in at least two election cycles. Among those who eventually lose a donor, we retain only observations occurring before the death of their first top donor. The analysis, therefore, relies exclusively on observations preceding the first donor death.

We estimate a model in which the probability of winning is regressed on a set of dummy variables capturing the number of election cycles remaining until the first donor death, together with candidate and cycle fixed effects. By construction, these dummies take value one if a candidate who will eventually lose a donor is observed  $x$  cycles before the donor’s death, and zero if the candidate never loses a top donor. With cycle fixed effects, identification comes from comparing candidates who will eventually lose a donor with candidates who never lose a donor within the same election cycle. Candidate fixed effects absorb time-invariant differences in electoral strength.

Figure D2 reports the estimated coefficients (dots) and their standard errors (bars) for each of these indicators. Each coefficient measures the difference in winning probability between candidates who are  $x$  cycles away from their first donor death and candidates who never experience a donor death, within the same cycle and net of time-invariant candidate

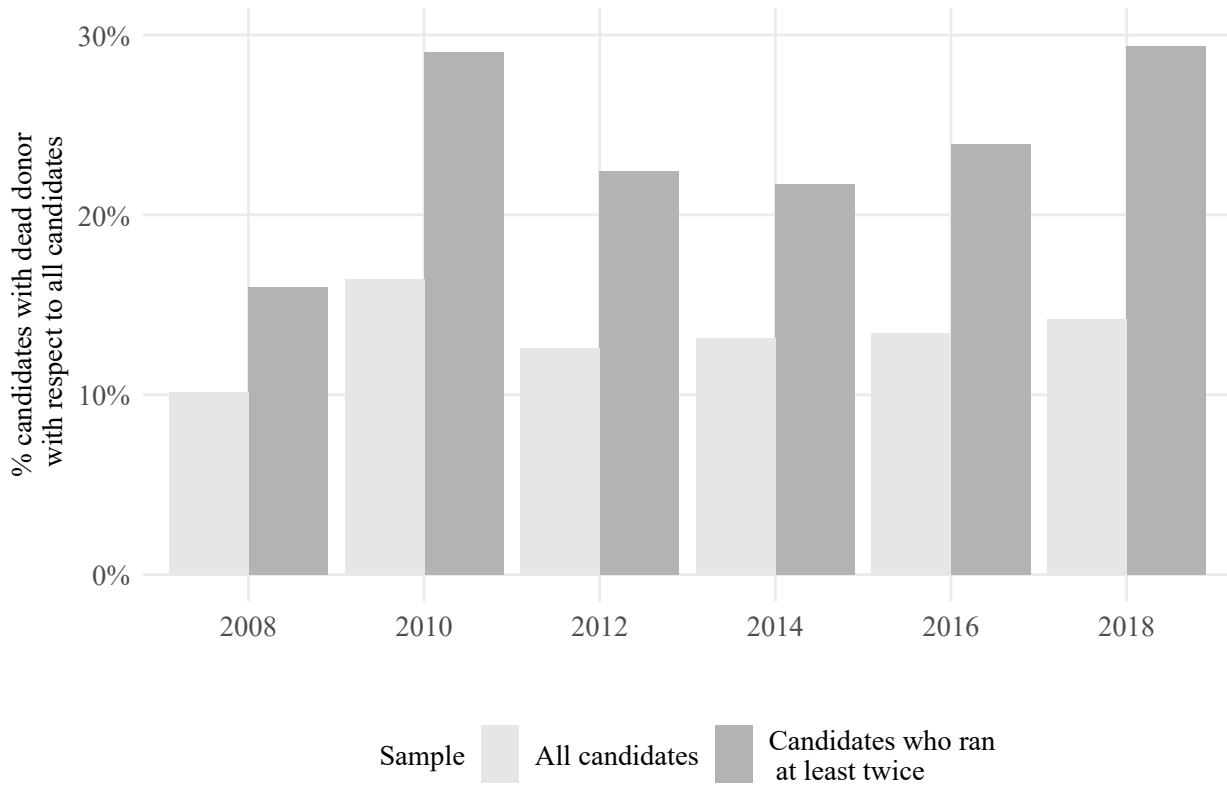
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<sup>26</sup>See, e.g., Sun, L., and Abraham S. (2021). Estimating Dynamic Treatment Effects in Event Studies with Heterogeneous Treatment Effects. *Journal of Econometrics* 225(2): 175–199; Callaway, B., and Sant’Anna P. H. C. (2021). Difference-in-Differences with Multiple Time Periods. *Journal of Econometrics* 225(2): 200–230; Goodman-Bacon, A. (2021). Difference-in-Differences with Variation in Treatment Timing. *Journal of Econometrics* 225(2): 254–277.

<sup>27</sup>E.g. de Chaisemartin, C., and D’Haultfoeuille X. (2024). Difference-in-Differences Estimators of Intertemporal Treatment Effects. SSRN Working Paper No. 3731856.

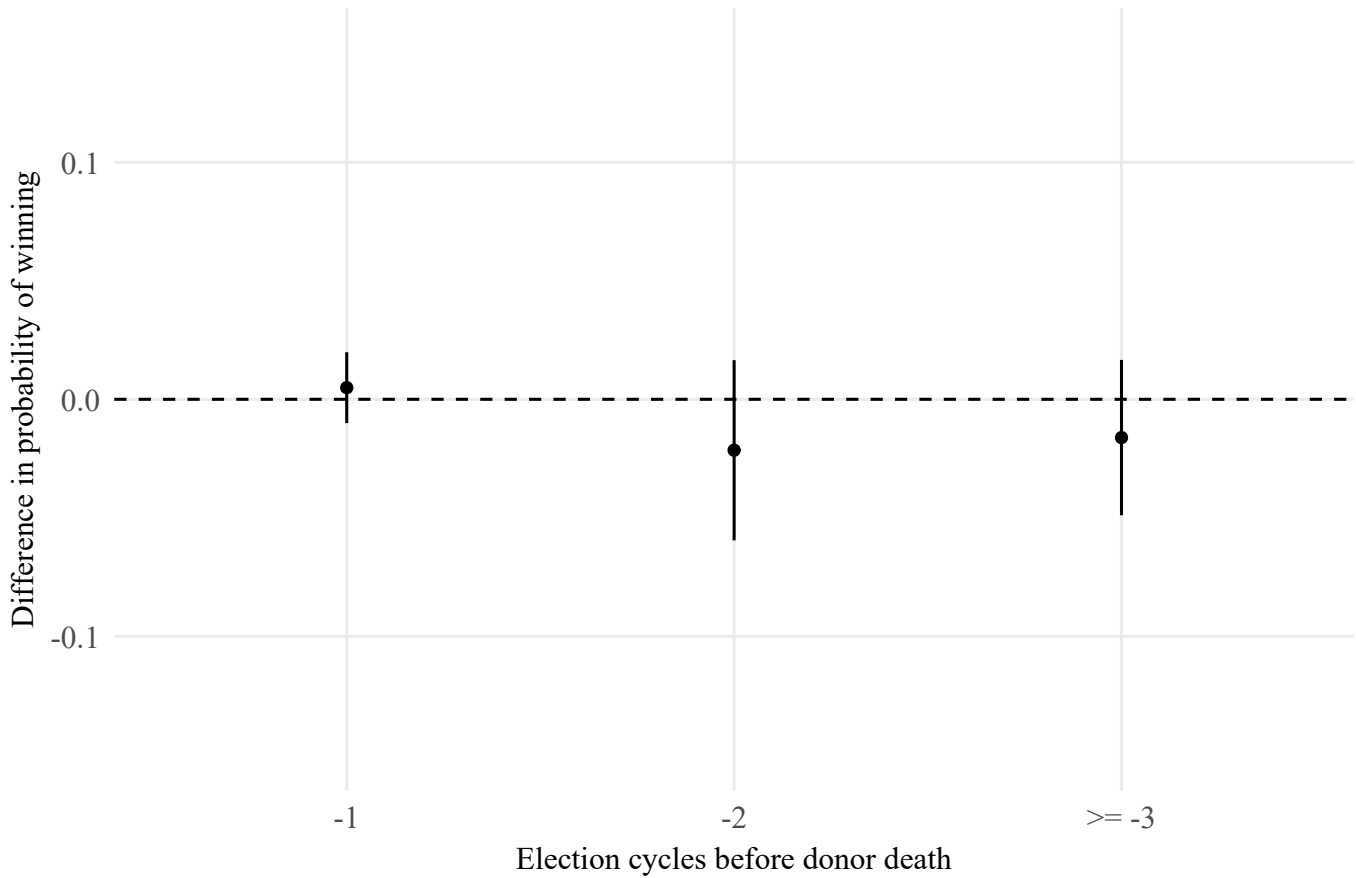
characteristics. The estimated coefficients are small and statistically indistinguishable from zero. Moreover, they are not statistically different from one another. This pattern indicates that candidates who will eventually lose a top donor do not exhibit systematically different electoral performance prior to the donor’s death, providing no evidence of differential pre-trends.

Figure D1  
Candidates Affected by the Death of at least one Top Donor



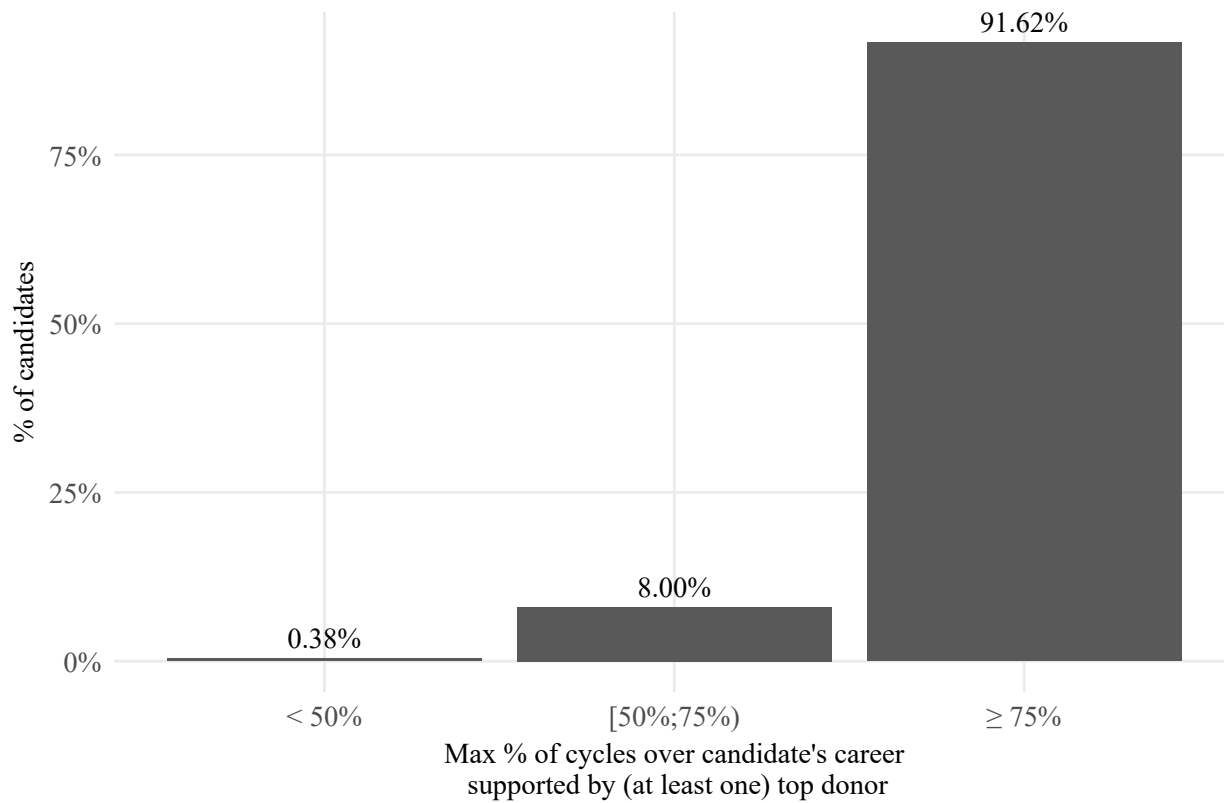
*Notes:* For each election cycle considered (x axis), the percentage of candidates who lost a top donor (y axis) is reported. Bars in light grey indicate the percentage of those who lost at least one top donor among all candidates. Bars in dark grey indicate the percentage of those who lost at least one top donor among the candidates who ran at least two electoral races. The sample includes all candidates running for office in the U.S. House of Representatives from 2008 to 2018.

Figure D2  
 Difference in Probability of Winning for Candidates Who Will and Will Not Suffer  
 from the Loss of a Top Donor in the Next Election Cycles



*Notes:* Dots report the estimated coefficients and bars indicate  $\pm$  one standard error. Coefficients are obtained from regressing an indicator for winning the election on a set of dummy variables indicating the number of election cycles remaining until the death of a candidate's first top donor (1, 2, or 3+ cycles), together with candidate and election-cycle fixed effects. Each dummy equals one for candidates who will experience the death of a top donor in  $x$  election cycles and zero for candidates who never experience the death of a top donor. The omitted category consists of candidates who never lose a top donor. The sample includes all candidates running for office in the U.S. House of Representatives in at least two election cycles from 2008 to 2018. Among those who lost at least one top donor, we select only observations before the death of the first top donor.

Figure D3  
Top Donors  
- Loyalty to Candidates -



*Notes:* For each candidate, we identify the longest sequence of consecutive electoral campaigns in which a given donor contributes to the candidate. We then express the length of this sequence as a fraction of the candidate's career. The x-axis reports this fraction. The y-axis shows the share of candidates whose career includes at least one donor contributing to that fraction of consecutive campaigns. The sample includes all candidates running for the U.S. House of Representatives with at least one top donor from 2008 to 2018.

## E Baseline Results - Further Details

Table E1  
Heterogeneous Effects of Top Donors  
- Complete List of Controls -

Dep. variable	Win election (1 = Yes) (1)	Win election (1 = Yes) (2)	Win election (1 = Yes) (3)	Win election (1 = Yes) (4)
Number of dead top donors in current election cycle				
-with age in the highest tertile	-0.0341* (0.0201)			
-with age below the highest tertile	-0.0305* (0.0181)			
-in tight race (top 10%)		-0.0950*** (0.0288)		
-in regular race (bottom 90%)		-0.0133 (0.0091)		
- resident in the candidate state			-0.0234* (0.0129)	
- resident outside the candidate state			-0.0322** (0.0133)	
-pre Citizen United				-0.0475*** (0.0179)
-post Citizen United				-0.0211** (0.0092)
No incumbent in the electoral race (1 = Yes)	0.0745*** (0.0251)	0.0722*** (0.0252)	0.0734*** (0.0250)	0.0721*** (0.0249)
Voters in favor of the candidate's party presidential nominee				
-between 25 and 50%	0.0200 (0.0567)	0.0242 (0.0577)	0.0207 (0.0570)	0.0233 (0.0569)
-between 50 and 75%	0.1286** (0.0623)	0.1276** (0.0628)	0.1311** (0.0627)	0.1328** (0.0626)
-more than 75%	0.1823** (0.0780)	0.1787** (0.0784)	0.1825** (0.0784)	0.1859** (0.0785)
Previous race was tight (1 = Yes)	0.0069 (0.0384)	-0.0093 (0.0379)	0.0057 (0.0383)	0.0057 (0.0381)
Candidate changed district/District was redesigned (1 = Yes)	-0.0485 (0.0373)	-0.0540 (0.0377)	-0.0491 (0.0369)	-0.0493 (0.0368)
Candidate has a leadership role (1 = Yes)	-0.0052 (0.0156)	-0.0030 (0.0152)	-0.0042 (0.0155)	-0.0032 (0.0156)
Incumbency streak	-0.0980*** (0.0164)	-0.1015*** (0.0163)	-0.0977*** (0.0164)	-0.1000*** (0.0166)
Candidate ran primaries (1 = Yes)	0.0230* (0.0138)	0.0229* (0.0137)	0.0228* (0.0137)	0.0211 (0.0137)
Candidate received major financial support from party (1 = Yes)	-0.0132 (0.0212)	-0.0093 (0.0207)	-0.0140 (0.0211)	-0.0130 (0.0211)
% of contributions received	0.0036*** (0.0005)	0.0036*** (0.0005)	0.0036*** (0.0005)	0.0036*** (0.0005)
% of independent expenditures received	-0.0001 (0.0002)	-0.0001 (0.0002)	-0.0001 (0.0002)	-0.0001 (0.0002)
Election cycle fixed effects	Yes	Yes	Yes	Yes
Candidate fixed effects	Yes	Yes	Yes	Yes
Dependent variable: average value	0.7675	0.7675	0.7675	0.7675
Num. obs.	2,353	2,353	2,353	2,353

*Notes:* OLS coefficients are reported with robust standard errors clustered at the candidate level. The sample is the same as in Table 5 of the paper. Variable definitions are provided in Section 2 of the paper, and Appendix Table A1. \*, \*\*, \*\*\* indicate statistical significance at the 10, 5, and 1 percent levels.

## F Robustness Analysis and Additional Evidence - Further Details

Table F1

Additional Evidence: Top Donors and Percentage of Votes

Dep. variable	Pct. of votes (1)	Pct. of votes (2)
Number of dead top donors in current election cycle	-0.3191* (0.1915)	
-in tight race (top 10%)		-1.3700*** (0.2329)
-in regular race (bottom 90%)		-0.0743 (0.2180)
No incumbent in the electoral race (1 = Yes)	-0.2134 (0.5096)	-0.2233 (0.5090)
Voters in favor of the candidate's party presidential nominee		
-between 25 and 50%	12.0388*** (4.0170)	12.0662*** (4.0096)
-between 50 and 75%	14.3243*** (4.0646)	14.2981*** (4.0567)
-more than 75%	18.4878*** (4.2346)	18.4552*** (4.2264)
Previous race was tight (1 = Yes)	-0.0232 (0.5190)	-0.1326 (0.5232)
Candidate changed district/District was redesigned (1 = Yes)	0.1406 (0.9260)	0.1012 (0.9259)
Candidate has a leadership role (1 = Yes)	-0.1461 (0.3660)	-0.1404 (0.3642)
Incumbency streak	-0.9774*** (0.3525)	-1.0065*** (0.3522)
Candidate ran primaries (1 = Yes)	0.0905 (0.3405)	0.0907 (0.3406)
Candidate received major financial support from party (1 = Yes)	-0.0402 (0.4428)	-0.0083 (0.4438)
% of contributions received	0.2085*** (0.0113)	0.2082*** (0.0113)
% of independent expenditures received	-0.0044 (0.0038)	-0.0043 (0.0038)
Election cycle fixed effects	Yes	Yes
Candidate fixed effects	Yes	Yes
Dependent variable: average value	55.91	55.91
Num. obs.	2,353	2,353

*Notes:* OLS coefficients are reported with robust standard errors clustered at the candidate level. The sample is the same as in Table 5 of the paper. Variable definitions are provided in Section 2 of the paper, and Appendix Table A1. \*, \*\*, \*\*\* indicate statistical significance at the 10, 5, and 1 percent levels.

Table F2  
Additional Evidence: Top Donors and Probability to Rerun

Dep. variable	Run in next cycle (1 = Yes) (1)	Run in next cycle (1 = Yes) (2)	Win election (1 = Yes) (3)
Number of dead top donors in current election cycle	-0.0145 (0.0107)	-0.0207* (0.0115)	
Number of dead top donors in previous election cycle			-0.0076 (0.0123)
Candidate holds state office (1 = Yes)	0.0785*** (0.0184)		
Candidate is Republican (1 = Yes)	-0.1107** (0.0445)		
Candidate is Democrat (1 = Yes)	-0.0600 (0.0434)		
Candidate is male (1 = Yes)	-0.0084 (0.0151)		
No incumbent in the electoral race (1 = Yes)	0.0352* (0.0197)	0.0542** (0.0267)	0.0768*** (0.0254)
Voters in favor of the candidate's party presidential nominee			
-between 25 and 50%	0.0085 (0.0414)	-0.0016 (0.1319)	0.0185 (0.0563)
-between 50 and 75%	0.1361*** (0.0439)	0.0894 (0.1332)	0.1302** (0.0619)
-more than 75%	0.0869** (0.0422)	0.0630 (0.1450)	0.1849** (0.0775)
Previous race was tight (1 = Yes)	-0.0212 (0.0314)	-0.0477 (0.0368)	0.0067 (0.0382)
Candidate changed district/District was redesigned (1 = Yes)	-0.0627 (0.0562)	-0.0320 (0.0719)	-0.0484 (0.0361)
Candidate has a leadership role (1 = Yes)	0.0284 (0.0216)	-0.0255 (0.0235)	-0.0049 (0.0156)
Incumbency streak	-0.0247*** (0.0046)	0.2847*** (0.0385)	-0.0972*** (0.0162)
Candidate ran primaries (1 = Yes)	0.0185 (0.0148)	-0.0025 (0.0196)	0.0223 (0.0138)
Candidate received major financial support from party (1 = Yes)	-0.0027 (0.0157)	-0.0156 (0.0251)	-0.0130 (0.0212)
% of contributions received	0.0064*** (0.0003)	0.0019*** (0.0005)	0.0037*** (0.0005)
% of independent expenditures received	0.0003 (0.0002)	-0.0001 (0.0002)	-0.0001 (0.0002)
Sample:	Include	Main	Main
	one-time candidates	Sample	Sample
Election cycle fixed effects	Yes	Yes	Yes
Candidate fixed effects	No	Yes	Yes
District fixed effects	Yes	No	No
Dependent variable: average value	0.3956	0.7012	0.7675
Num. obs.	4,337	2,353	2,353

*Notes:* OLS coefficients are reported with robust standard errors clustered at the candidate level. “Main Sample” is the same as in Table 5 of the paper. “Include one-time candidates” adds candidates who ran in only one election cycle. Variable definitions are provided in Section 2 of the paper, and Appendix Table A1. \*, \*\*, \*\*\* indicate statistical significance at the 10, 5, and 1 percent levels.

Table F3  
Alternative Model Specifications  
- Complete List of Controls -

Dep. variable	Win election (1 = Yes) (1)	Win election (1 = Yes) (2)	Win election (1 = Yes) (3)	Win election (1 = Yes) (4)
Number of dead top donors in current election cycle	-0.0284*** (0.0109)	-0.0286*** (0.0096)	-0.0335*** (0.0101)	-0.0324*** (0.0120)
Candidate holds state office (1 = Yes)	0.0521** (0.0239)			
Candidate is Republican (1 = Yes)	-0.0726 (0.0478)			
Candidate is Democrat (1 = Yes)	0.0163 (0.0425)			
Candidate is male (1 = Yes)	-0.0038 (0.0227)			
No incumbent in the electoral race (1 = Yes)	0.0870*** (0.0276)	0.0738*** (0.0252)	0.0832*** (0.0273)	0.0755** (0.0309)
Voters in favor of the candidate's party presidential nominee				
-between 25 and 50%	0.0734* (0.0400)	0.0203 (0.0569)	0.0392 (0.0595)	0.0269 (0.0684)
-between 50 and 75%	0.2947*** (0.0448)	0.1314** (0.0626)	0.1543** (0.0657)	0.1377* (0.0758)
-more than 75%	0.2962*** (0.0395)	0.1838** (0.0784)	0.1995** (0.0865)	0.1998** (0.0946)
Previous race was tight (1 = Yes)	0.0522 (0.0409)	0.0058 (0.0382)	-0.0117 (0.0405)	0.0085 (0.0474)
Candidate changed district/District was redesigned (1 = Yes)	-0.0531 (0.0686)	-0.0485 (0.0368)	-0.0714* (0.0425)	-0.0245* (0.0145)
Candidate has a leadership role	0.0004 (0.0172)	-0.0038 (0.0155)	-0.0067 (0.0173)	-0.0034 (0.0191)
Incumbency streak	0.0261*** (0.0053)	-0.0975*** (0.0165)	-0.1033*** (0.0182)	-0.0957*** (0.0194)
Candidate ran primaries (1 = Yes)	0.0072 (0.0160)	0.0229* (0.0137)	0.0252 (0.0161)	0.0196 (0.0168)
Candidate received major financial support from party (1 = Yes)	0.0350* (0.0192)	-0.0136 (0.0211)	-0.0118 (0.0230)	-0.0136 (0.0261)
% of contributions received	0.0075*** (0.0004)	0.0036*** (0.0005)	0.0033*** (0.0005)	0.0037*** (0.0006)
% of independent expenditures received	0.0005** (0.0002)	-0.0001 (0.0002)	-0.0001 (0.0002)	-0.0002 (0.0002)
% of ads expenditures in favor of the candidate wrt district		0.0001 (0.0003)		
Election cycle fixed effects	Yes	Yes	No	No
Candidate fixed effects	No	Yes	Yes	No
District fixed effects	Yes	No	No	No
Election cycle x state fixed effects	No	No	Yes	No
Candidate-specific time trend	No	No	No	Yes
Dependent variable: average value	0.7675	0.7675	0.7675	0.7675
Num. obs.	2,353	2,353	2,353	2,353

*Notes:* OLS coefficients are reported with robust standard errors clustered at the candidate level. The sample is the same as in Table 5 of the paper. Variable definitions are provided in Section 2 of the paper, and Appendix Table A1. \*, \*\*, \*\*\* indicate statistical significance at the 10, 5, and 1 percent levels.

Table F4  
Alternative Samples  
- Complete List of Controls -

Dep. variable	Win election (1 = Yes) (1)	Win election (1 = Yes) (2)	Win election (1 = Yes) (3)	Win election (1 = Yes) (4)
Number of dead top donors in current election cycle	-0.0153* (0.0092)	-0.0255** (0.0126)	-0.0183*** (0.0070)	-0.0594** (0.0256)
Candidate holds state office (1 = Yes)	0.0668*** (0.0147)			
Candidate is Republican (1 = Yes)	-0.0732*** (0.0213)			
Candidate is Democrat (1 = Yes)	-0.0113 (0.0200)			
Candidate is male (1 = Yes)	0.0207* (0.0117)			
No incumbent in the electoral race (1 = Yes)	0.0279* (0.0165)	0.0649** (0.0168)	0.0565*** (0.0168)	-0.0170 (0.0333)
Voters in favor of the candidate's party presidential nominee				
-between 25 and 50%	-0.0133 (0.0205)	0.0235 (0.0696)	-0.0156 (0.0193)	0.0005 (0.0676)
-between 50 and 75%	0.1994*** (0.0265)	0.1111 (0.0741)	0.0830*** (0.0282)	0.0701 (0.0745)
-more than 75%	0.1938*** (0.0252)	0.1134 (0.0765)	0.1165*** (0.0398)	0.2887** (0.1310)
Previous race was tight (1 = Yes)	0.0091 (0.0299)	0.0063 (0.0450)	0.0082 (0.0322)	0.0263 (0.0431)
Candidate changed district/District was redesigned (1 = Yes)	0.0007 (0.0521)	-0.0395 (0.0423)	-0.0186 (0.0141)	-0.0389 (0.0388)
Candidate has a leadership role (1 = Yes)	0.0230 (0.0142)	-0.0032 (0.0172)	-0.0077 (0.0117)	0.0006 (0.0345)
Incumbency streak	0.0337*** (0.0037)	-0.0992*** (0.0181)	-0.0371*** (0.0054)	-0.2016*** (0.0276)
Candidate ran primaries (1 = Yes)	-0.0028 (0.0096)	0.0208 (0.0161)	0.0213** (0.0096)	0.0473* (0.0270)
Candidate received major financial support from Party (1 = Yes)	0.0145 (0.0128)	-0.0209 (0.0230)	-0.0125 (0.0179)	0.0045 (0.0296)
% of contributions received	0.0079*** (0.0002)	0.0036*** (0.0006)	0.0036*** (0.0004)	0.0047*** (0.0007)
% of independent expenditures received	0.0006*** (0.0002)	-0.0000 (0.0002)	-0.0002 (0.0001)	0.0002 (0.0003)
Sample:	Include one-time candidates	Exclude major states	Include outliers	Exclude senior candidates
Election cycle fixed effects	Yes	Yes	Yes	Yes
Candidate fixed effects	No	Yes	Yes	Yes
District fixed effects	Yes	No	No	No
Dependent variable: average value	0.4643	0.7709	0.6453	0.6662
Num. obs.	4,336	1,755	3,719	1,417

*Notes:* OLS coefficients are reported with robust standard errors clustered at the candidate level. Unless specified, the sample is the same as in Table 5 of the paper. “Include one-time candidates” adds candidates who ran in only one election cycle; “Exclude major states” excludes candidates running in California, New York, and Texas; “Include outliers” adds candidates who were Speaker of the House at the time of the election and candidates whose percentage of contributions received relative to the district is below 0.05 percent or above 99.95 percent; and “Exclude senior candidates” excludes candidates who ran more than the median number of campaigns (three). Variable definitions are provided in Section 2 of the paper, and Appendix Table A1. \*, \*\*, \*\*\* indicate statistical significance at the 10, 5, and 1 percent levels.

Table F5  
Alternative Inference Procedures  
- Complete List of Controls -

Dep. variable	Win election (1 = Yes) (1)	Win election (1 = Yes) (2)	Win election (1 = Yes) (3)
Number of dead top donors in current election cycle	-0.0287 (0.0096) [-0.047; -0.0098]*** [-0.048; -0.0096]***		
One top donor died in current election cycle (1 = Yes)		-0.0260*** (0.0100)	-0.0260** (0.0104)
No incumbent in the electoral race	0.0736*** (0.0251)	0.0800*** (0.0118)	0.0800*** (0.0112)
Voters in favor of the candidate's party presidential nominee			
-between 25 and 50%	0.0203 (0.0569)	0.1414 (0.1221)	0.1414 (0.1221)
-between 50 and 75%	0.1313** (0.0625)	0.2532** (0.1234)	0.2532** (0.1234)
-more than 75%	0.1833** (0.0782)	0.3071** (0.1237)	0.3071** (0.1239)
Previous race was tight (1 = Yes)	0.0061 (0.0382)	0.0035 (0.0147)	0.0035 (0.0142)
Candidate changed district/District was redesigned (1=Yes)	-0.0485 (0.0368)	-0.0492** (0.0207)	-0.0492** (0.0208)
Candidate has a leadership role (1=Yes)	-0.0038 (0.0155)	-0.0050 (0.0075)	-0.0050 (0.0073)
Incumbency streak	-0.0974*** (0.0164)	-0.1396*** (0.0147)	-0.1396*** (0.0151)
Candidate ran primaries (1 = Yes)	0.0228* (0.0137)	0.0218*** (0.0069)	0.0218*** (0.0070)
Candidate received major financial support from Party (1=Yes)	-0.0138 (0.0211)	-0.0131 (0.0101)	-0.0131 (0.0096)
% of contributions received	0.0036*** (0.0005)	0.0037*** (0.0002)	0.0037*** (0.0002)
% of independent expenditures received	-0.0001 (0.0002)	-0.0002** (0.0001)	-0.0002* (0.0001)
Clustering by	Candidate	Donor-Candidate	Donor-Candidate state
Election cycle fixed effects	Yes	Yes	Yes
Candidate fixed effects	Yes	Yes	Yes
Dependent variable: average value	0.7675	0.8193	0.8193
Num. obs.	2,353	38,863	38,863

*Notes:* OLS coefficients are reported with robust standard errors clustered at the candidate level. In column (1), square brackets report confidence intervals and p-values. The first row reports inference based on clustered robust standard errors, and the second row reports inference based on the wild cluster bootstrap with 9,999 iterations. In column (1), the unit of observation is the candidate-cycle, and the sample is the same as in Table 5 of the paper. In columns (2) and (3), the unit of observation is the candidate-donor-cycle, and the sample is restricted to candidates who ran in at least two election cycles and had at least one top donor. In columns (2) and (3), each observation is weighted by  $1/N_t$ ,  $N_t$  being the number of top donors of a candidate at time  $t$ . Variable definitions are provided in Section 2 of the paper, and Appendix Table A1. \*, \*\*, \*\*\* indicate statistical significance at the 10, 5, and 1 percent levels.

## G Investigating the Mechanisms - Further Details

Table G1  
Top Donors, Campaign Contributions, and Electoral Outcomes  
- Complete List of Controls -

Dep. variable	Win election (1 = Yes) (1)	Win election (1 = Yes) (2)	Win election (1 = Yes) (3)
Number of dead top donors in current election cycle	-0.0260** (0.0108)		
- who did not support candidate but... resides in their state		-0.0051 (0.0035)	
has a legislative interest in their state			-0.0007 (0.0008)
* Tot. indiv. contribs from dead donors in past elections	-0.0027 (0.0050)		
Tot. indiv. contribs from dead donors in past elections	0.0026 (0.0077)		
No incumbent in the electoral race (1 = Yes)	0.0741*** (0.0250)	0.0757*** (0.0254)	0.0759*** (0.0254)
Voters in favor of the candidate's party presidential nominee			
-between 25 and 50%	0.0200 (0.0569)	0.0186 (0.0562)	0.0188 (0.0565)
-between 50 and 75%	0.1305** (0.0624)	0.1296** (0.0619)	0.1315** (0.0621)
-more than 75%	0.1822** (0.0782)	0.1854** (0.0776)	0.1851** (0.0778)
Previous race was tight (1 = Yes)	0.0060 (0.0382)	0.0078 (0.0384)	0.0067 (0.0383)
Candidate changed district/District was redesigned (1 = Yes)	-0.0486 (0.0376)	-0.0490 (0.0364)	-0.0488 (0.0366)
Candidate has a leadership role (1 = Yes)	-0.0039 (0.0156)	-0.0048 (0.0155)	-0.0042 (0.0154)
Incumbency streak	-0.0972*** (0.0164)	-0.0973*** (0.0162)	-0.0977*** (0.0162)
Candidate ran primaries (1 = Yes)	0.0232* (0.0139)	0.0227* (0.0138)	0.0219 (0.0137)
Candidate received major financial support from party (1 = Yes)	-0.0142 (0.0210)	-0.0127 (0.0211)	0.0129 (0.0212)
% of contributions received	0.0036*** (0.0005)	0.0037*** (0.0005)	0.0037*** (0.0005)
% of independent expenditures received	-0.0001 (0.0002)	-0.0001 (0.0002)	-0.0001 (0.0002)
Election cycle fixed effects	Yes	Yes	Yes
Candidate fixed effects	Yes	Yes	Yes
Dependent variable: average value	0.7675	0.7675	0.7675
Num. obs.	2,353	2,353	2,353

*Notes:* OLS coefficients are reported with robust standard errors clustered at the candidate level. The variable "Tot. indiv. contribs from dead donors in past elections" is divided by 100,000. The sample is the same as in Table 5 of the paper. Variable definitions are provided in Section 2 of the paper, and Appendix Table A1. \*, \*\*, \*\*\* indicate statistical significance at the 10, 5, and 1 percent levels.

Table G2  
Top Donors, Ads Expenditure, and Campaign Contributions  
- Complete List of Controls -

Dep. variable	% Individual contributions		% Expenditures for political ads		
	From	Top donors	Candidate	Interest groups	
	(1)	(2)	(3)	(4)	
Number of dead top donors in current election cycle		-1.0738** (0.5448)	-0.6146 (0.5082)	-0.3028 (1.2208)	-1.2134* (0.6784)
No incumbent in the electoral race (1 = Yes)		-3.5097** (1.3820)	-4.4751*** (1.2399)	4.7937** (2.4038)	0.7902 (1.9108)
Voters in favor of the candidate's party presidential nominee					
-between 25 and 50%		-0.4196 (2.7980)	-1.4472 (1.5652)	-3.5107 (4.0561)	0.8494 (0.8983)
-between 50 and 75%		8.5515*** (3.2150)	2.9837 (2.2998)	-2.2187 (5.3388)	-0.4896 (1.8404)
-more than 75%		11.8895*** (4.2743)	5.9186* (3.3579)	2.2766 (8.0306)	-5.9027* (3.0388)
Previous race was tight (1 = Yes)		-1.7205 (2.1109)	-1.1045 (1.7527)	2.7811 (2.8347)	2.3343 (2.7443)
Candidate changed district/District was redesigned (1 = Yes)		-2.8206 (2.1437)	-1.6667 (1.8059)	1.5384 (3.2455)	-0.7635 (1.3996)
Candidate has a leadership role (1 = Yes)		2.6089** (1.2655)	0.3970 (1.1187)	0.4985 (3.4782)	-0.9843 (2.0207)
Incumbency streak		-0.2292 (0.5166)	-0.5076 (0.5017)	-1.1172 (1.1171)	0.8549 (0.7414)
Candidate ran primaries (1 = Yes)		-2.2443** (0.9210)	-1.7027* (0.8688)	7.2145*** (2.5294)	-0.8377 (1.4485)
Election cycle fixed effects		Yes	Yes	Yes	Yes
Candidate fixed effects		Yes	Yes	Yes	Yes
Dependent variable: average value		58.71	57.20	18.11	4.39
Num. obs.		3,702	3,702	2,277	2,277

*Notes:* OLS coefficients are reported with robust standard errors clustered at the candidate level. The sample includes candidates for the U.S. House of Representatives from 2008 to 2018. The sample excludes candidates who ran for the U.S. House of Representatives in only one election cycle. Data on expenditures for political ads is not available for the period from 2008 to 2012. Variable definitions are provided in Section 2 of the paper, and Appendix Table A1. \*, \*\*, \*\*\* indicate statistical significance at the 10, 5, and 1 percent levels.

Table G3  
 Prominent Donors and Electoral Outcomes  
 - Complete List of Controls -

Dep. variable	Win election (1 = Yes) (1)	Win election (1 = Yes) (2)
Number of dead top donors in current election cycle		
- with total contributions in the highest quartile	-0.0913*** (0.0216)	
- with total contributions below the highest quartile	-0.0270*** (0.0095)	
- who were listed on Forbes 400		-0.0402** (0.0198)
- who were not listed on Forbes 400		-0.0246** (0.0112)
No incumbent in the electoral race (1 = Yes)	0.0763*** (0.0252)	0.0744*** (0.0251)
Voters in favor of the candidate's party presidential nominee		
-between 25 and 50%	0.0202 (0.0574)	0.0206 (0.0573)
-between 50 and 75%	0.1310** (0.0629)	0.1333** (0.0630)
-more than 75%	0.1835** (0.0788)	0.1862** (0.0787)
Previous race was tight (1 = Yes)	0.0080 (0.0384)	0.0058 (0.0382)
Candidate changed district/District was redesigned (1 = Yes)	-0.0419 (0.0381)	-0.0503 (0.0367)
Candidate has a leadership role (1 = Yes)	-0.0026 (0.0152)	-0.0029 (0.0156)
Incumbency streak	-0.0967*** (0.0166)	-0.0970*** (0.0165)
Candidate ran primaries (1 = Yes)	0.0256* (0.0137)	0.0222 (0.0139)
Candidate received major financial support from party (1 = Yes)	-0.0119 (0.0212)	-0.0140 (0.0211)
% of contributions received	0.0036*** (0.0005)	0.0036*** (0.0005)
% of independent expenditures received	-0.0001 (0.0002)	-0.0001 (0.0002)
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Election cycle fixed effects	Yes	Yes
Candidate fixed effects	Yes	Yes
Dependent variable: average value	0.7675	0.7675
Num. obs.	2,353	2,353

*Notes:* OLS coefficients are reported with robust standard errors clustered at the candidate level. The sample is the same as in Table 5 of the paper. Variable definitions are provided in Section 2 of the paper, and Appendix Table A1. \*, \*\*, \*\*\* indicate statistical significance at the 10, 5, and 1 percent levels.