Online Appendix to the Paper
Small Campaign Donors

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A Data construction

A.1 Scrapping the FEC's website

Committees registered with the FEC have to fill-in paper or electronic forms reporting their financial activity over periods varying from 24 hours to 6 months, depending on committees' type and the stage of the election cycle. The FEC uploads these fillings on its website, and processes most of their information, including the list of all contributions received and disbursements made, which it renders browsable and accessible for download. This data is already partially formatted: in their filings, the committees have to sort the contributions they received along "lines", which designate the different sources of contributions. Lines 11A(i) (and lines 17A(i), for presidential committees) of forms 3 and 3X gather all contributions from *individuals, partnerships and other persons who are not political committees*. In addition, the FEC identifies, among these contributions, all those coming from *physical* individuals (as opposed to partnerships, for instance), and stores them under the category "*Individual Contributions*" (is_individual=t in tabulated format). This is the data we scrapped.[1][2]

The FEC website allows to export detailed contributions data for no more than 500,000 records at a time. It proposes to filter the data on, among other things, intervals of date of receipt (e.g., between the 02/01/18 and 02/04/18) and contribution amounts (e.g., below 200 dollars). To extract the full set of records, we thus implemented the following procedure:

1. Retrieve for each day in the sample frame the number of contributions that were registered this day.

2. If the number of contributions made on that day is below 500,000, extract the data by selecting it through the following URL: `https://www.fec.gov/data/receipts/individual-contributions/?two_year_transaction_period=[PERIOD]&min_date=[MINDATE]&max_date=[MAXDATE]`; where `MINDATE`, `MAXDATE` are the same date and `PERIOD` is the identifier of the two-year period containing the interval of interest (e.g., 2017-2018).

3. If the number of contributions made on that day is above 500,000,[3] we divide the set of contributions in sets of records with fewer than 500,000 elements using amount ranges (e.g., below 2 dollars, between 2 and 100 dollars, over 100 dollars) and extract the data using `https://www.fec.gov/data/receipts/individual-contributions/?two_year_transaction_period=[PERIOD]&min_date=[MINDATE]&max_date=[MAXDATE]&min_amount=[a]&max_amount=[b]` where [a] and [b] are the different contribution amount thresholds.

All of these steps were implemented in Python, with the package *selenium*. Eventually, we merged all extracts in a single data file.

[1]URL: `https://www.fec.gov/data/receipts/individual-contributions`

[2]The *Individual Contributions* data contains about .6% of non-11A(i)/17A(i) lines, maybe due to processing errors; we deleted them.

[3]All these days but one are during the 2020 election cycle

A.2 Verifying the exhaustivity of the data

We verify the exhaustiveness of these data by comparing, for each committee, the aggregate amount of itemized contributions they reported in their financial summaries with the amounts obtained by summing all the contributions to this committee within our dataset. The process make apparent two issues: errors in either FEC or committee reporting, and missing reports.

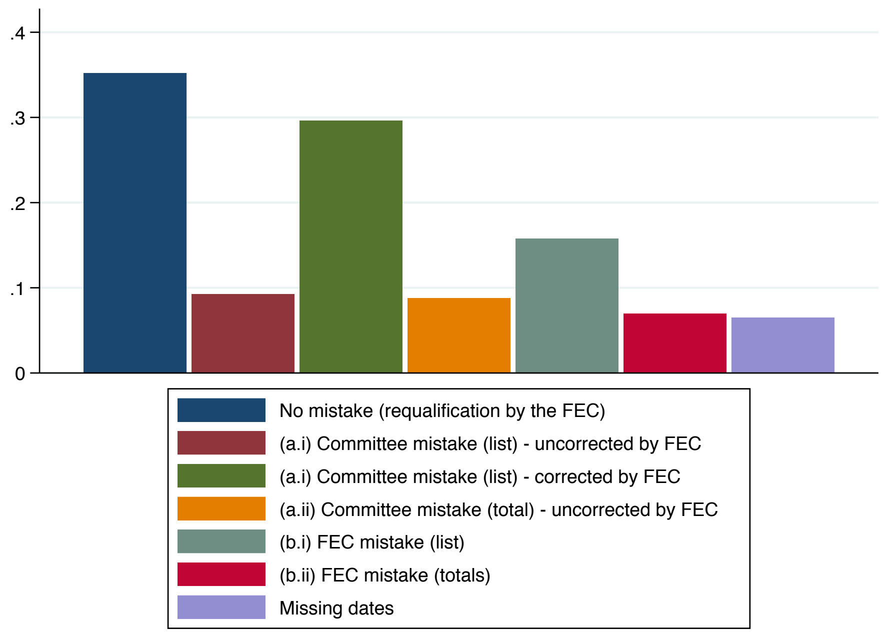
A.2.1 Issues in reporting

Among the 42,245 committee-cycles who filed reports with non-zero figures during the 2007-2018 period,[4] 18,082 (42.8%) have totals that do not match. We manually identified the sources of these mismatches for a stratified sample of 216 of those committees by looking at the list of all contributions, both in the pdf version of committees' reports and in the .csv tables generated by the FEC processing of these reports. The results are summarized in Figure A.1. About 40% are contributions from partnerships or other entities that qualify as 11A(i) contributors, but are not individuals *per se*. For this reason, the FEC does not include them in its "Individual Contributions" data section – and hence they do not appear in the data we scrapped –, even though they are still accounted for in the reported totals. This mismatches thus do not indicate erroneous or missing contributions – hence the denomination "No Mistake (requalification)". Similarly, about 6% of the mismatches come from the few contributions for which committees did not indicate a date of receipt: we had not found a way to scrap these contributions at the time of this verification (we have found a solution since).

The remaining differences are errors in the data, originating from mistakes either in committees' filings (whether in their list of itemized contributions (i) or in their reported totals (ii)) or in the FEC's processing of these elements (i.e. the pdf versions of reports are correct, but not the data tabulated by the FEC). In about 38% of the committee-cycles where there is a mismatch, the committee reported, in the list of 11A(i) contributions, contributions that are *not* 11A(i)'s – such as transfers from another committee – thereby providing an incorrect list of contributions (in the Figure "Committee mistake (list)"). Three-fourth of these wrong categorizations have been identified by the FEC and the appropriate contributions removed from the list ("-corrected"), but without changing the totals reported by the committee, meaning that these totals became un-representative of the – correct – available list of individual contributions. In the other fourth ("uncorrected"), the browsable list of individual contributions still includes these wrongly categorized donations, but the totals reported by the committee do not (so that the totals in fact accurately represent the sum of individual contributions).[5] On the contrary, for 8% of the cases, the list of individual contributions appears correct but differs nonetheless from totals reported, meaning that either contributions are missing, or the total computed

[4]We perform this verification exercise in 2020, before the 2020 data became available in full.

[5]There could also be committees for which the list of contributions has not been corrected by the FEC *and* for which the totals amounts computed include the erroneous contributions. Because the two are then equal, we are not able to systematically count the number of committees with such mistakes; we can nevertheless delete (parts of) the erroneous contributions ourselves (see below).



Notes: The figure represents the reasons why committees' list of individual contributions do not add up to the total amounts they reported. Each bar corresponds to a different error type, and represents the share of committees that include this error. One committee can display multiple errors and error-types.

Figure A.1: Reasons for totals mismatch

and reported by the committee are incorrect ("Committee mistake (total)").

Similar mistakes are made by the FEC in making the reports' information available for browsing and download. About 16% of totals' mismatches are due to misprocessing of contributions lists, so that they differ from those reported by the committees in their original filings ("FEC-mistake (list)"). Another 7% of committee-cycles have, on their financial summary webpage, totals that differ from those in the original filings, meaning the FEC processed them incorrectly ("FEC-mistake (totals)").

Eventually, we thus estimate that 25% of mismatching committees (11% of all) have inaccurate list of individual contributions, and 44% (18%) have incorrect totals. As most of our analyses are made at the contribution-level, we are interested in having the most accurate list of individual contributions. Hence we implement several strategies to correct the inaccurate lists.

- Contributions that have been wrongly categorized by committees can often be spotted through their name (that are not in the form firstname-surname): after dropping the obvious keywords ("INC.","INVESTMENTS",..), we navigated "manually" through the 240,000 first names that failed to have a gender assigned, in order to spot the non-individuals.

- The FEC wrong processing of lists was, in several cases, due to multiple imports of the same pdf report, which resulted in duplicate contributions. We thus dropped all donations that are from the same contributor, amount, date, description and report type, but with a different "file number", which is an automatic number assigned to a file when uploaded on the server.

A.2.2 Missing fillings

Several campaigns failed to report their financial data to the FEC. Out of the 19,029 candidate-cycles with positive official vote counts at either a primary or a general election between 2006 and 2018 cycles, 4,342 have no receipt declared. One explanation is that these campaigns may not have surpassed the 5,000$ reporting threshold. Yet, for those with relatively high vote counts, this seems very unlikely. The FEC procedure in these cases is to send a "Administrative Termination" letter, which, without further action from the committee, effectively terminates its activities. Contribution data for these missing fillings remains unavailable. We do not include these committees in our analyses.

A.3 Cleaning the contributions data

A.3.1 Earmarked contributions

Background An earmarked contribution is a contribution made by an individual donor through an intermediary, called conduit, with a clear designation of the final recipient committee. Conduits can be persons as well as organizations; and need not to be registered with the FEC to be subjected to reporting rules. Conduits registered with the FEC need to itemize and report *all* their contributions, whatever their amount, with information, for each contribution, on the name and address of the original contributor (if the contribution is from an individual and exceeds 200$, the conduit must also report the contributor's employer and occupation[6]); the date of the receipt; the identity of the recipient; the date of the transfer of the contribution to this recipient, and the type of payment (cash, check, etc.).

In terms of reporting threshold and contribution limits for the recipient committees, earmarked contributions are treated like a direct contribution originating from the individual donor (and not the conduit). This means that committees have to report earmarked contributions of contributors whose total contributions since the beginning of the election cycle (independently of whether they are earmarked) exceed $200. These contributions will thus be observable both in the committee reports and in the conduit reports.

Processing The data we scrapped include the list of all 11A(i) contributions in conduits reports, i.e. earmarked contributions from individual donors. In this list, the contributions are recorded as going from donors to conduits, but most of them also include a field called "memo text" with information on the recipient committee. The format of this memo text is heterogeneous across both time and conduits. To extract the information, we screened all possible patterns of reporting. Some included the full committee ID, other its name, or the one of the affiliated candidate.[7] – all of these being

[6]In practice, most conduits include this information for all contribution amounts.

[7]Earmarked contributions made early in the election cycle are sometimes designated to seats, before the official candidate is announced/running (e.g. "for the Democratic nominee for TX-02 district"). These are assigned to the candidate that will

subject to errors. We eventually managed to identify the recipient committee of 98% of all earmarked contributions.

The second step was to identify which of these contributions were also itemized by their recipient committee, in order to remove the duplicates. This pairing exercise is even less straightforward as the conduits do not always transfer contributions the moment they receive them (hence, duplicate contributions could be registered on different dates). Moreover, the reports by the conduit and the candidate committee may identify the contributors differently, and the candidate committee does not always record the contribution as earmarked. After manually identifying as many of these issues as possible, we managed to merge 87% of all the earmarked committee-itemized donations with their conduit-itemized equivalent, and dropped the latters.

Special cases As it is a non-profit, the conduit "Actblue" offers contributors to top-up their contributions with tiny amounts to support their operations. These donations are recorded in the conduit data as "Contributions to Actblue"; we dropped them from our analysis. We also dropped contributions of the conduit "It Starts Today", a 2018 special conduit that divides contributions equally across all 468 democratic candidates, thus artificially boosting the number of very small earmarked contributions.

A.3.2 Refunded contributions

Contributions refunded by committees to contributors, which appear in the data as one positive contribution and one negative contribution, have been removed. For partial refunds, we took away the appropriate amount from the initial contribution. There are multiple reasons for a contribution to be refunded: the contributor could have exceeded the legal contribution limit; the contribution may not permissible or may be unwanted by the committee (Democratic Party refunded a contribution from Harvey Weinstein after revelations on his sexual misconducts); etc.

A.4 Processing the data on contributors

A.4.1 Grouping

For each contribution, committees identify contributors with their full name, their full address, their occupation, and their employer. This is, in theory, enough to identify any given individual across contributions, committees and years. However, there are many ways contributors' information are collected and recorded by committees: orally at an event, self-declared in an app, on a paper form, etc. Hence, in practice, there are many small variations and errors in the information about any given contributor across contributions. This means that a grouping procedure relying on exact matching would generate a large number of false negatives – especially given that we have about 100M contributions.

eventually contest the seat.

We instead proceed in two steps. First, we choose the key identifying variables, which we clean and homogenize, sometimes by fuzzy matching string segments. Second, we establish a set of explicit rules based on these variables that define an exact matching procedure of identification. Each step reflects a detailed inspection of the microdata and our contextual understanding of mistakes or inconsistencies that humans make in reporting contributions.[8]

Step 1 We focus on four main variables: *first-name*, *surname*, *street* (including house number), and *zipcode*. From our experience with the data, occupation and employer are too inconsistently reported to constitute safe grouping variables.

- First-names were cleaned of all prefixes, suffixes, grades and titles. In addition, we built an index of first-name variants (Rebecca, Beck, Becky,...).
- Surnames were fuzzy grouped within same addresses to account for typos.
- Street suffixes were homogenized (Drive, Dr, Drv,...) and street names (that include house numbers) fuzzy grouped by contributors' name. In addition, we created a variable that is the sole name of the street, to account for variation in the presence of suffixes, coordinates, etc. Building units were extracted from street strings (when applicable, i.e. not often).
- Zipcodes were forced to their 5-digit format.
- Cities' and states' names were cleaned manually.

Step 2 Two individuals were considered to be the same if they matched exactly on 3 main characteristics, and fuzzy matched on the fourth. In other words, two individuals were considered to be the same if they shared one of the following:

- *first-name*, *surname*, *full street*, and *zipcode*.
- *first-name variant index*, *fuzzy surname*, *full street* and *zipcode*.
- *first-name*, *surname*, *fuzzy street* and *zipcode*.
- *first-name*, *surname*, *street name*, and *city-state*.

[8]The reason why we do not proceed with a fuzzy matching on the whole data is twofold. First, computational considerations: fuzzy grouping on strings requires calculation of between-string distances and thus the computational task grows at $O(N^2)$. Given the size of our data and the length of the variables, it would require a lot of data segmentation. Second, the rules we specify are conservative and transparent: we expect the false positive rate to remain very small.

A.4.2 Characteristics

Geography We also used the cleaned addresses of contributors to obtain the geographic coordinates of contributors' residence. To do so, we used an MIT-licensed US address locator on ArcMap 10.1. Addresses that do not match (because erroneous or missing) were geolocalized based on their 5-digit zipcode, and, for the remaining ones, on their state. The respective share of contributor-cycles matching in each step are 82%, 15.5% and 2%.[9]

Once mapped, addresses localized at the building level were overlapped with GIS maps from the Census Bureau of the census blocks' boundaries (providing a unique census "GEOID" that can be used to obtain any census geography), as well as with maps of congressional districts for each electoral cycle. For addresses localized at the zipcode level, we used HUD-USPS crosswalks provided by the US Office for Policy Development and Research to obtain both county and congressional district information.[10]

Demographics We use the surname and address of each contributor to compute the probabilities that she identifies with each of the main ethnic categories (white, hispanic, black, asian, other). We followed the method proposed by Elliott et al. (2009), which is increasingly used in the political science literature (see e.g. Grumbach and Sahn, 2020). Assuming that names are uninformative of the residence once controlling for race (which Imai and Khanna (2016) has shown to be reasonable empirically), the posterior probability of identifying with ethnicity r =1,..,R can be written using Bayes' rule:

$$P(R_i = r|N_i = n, G_i = g) = \frac{P(G_i = g|R_i = r)P(R_i = r|N_i = n)}{\sum_{j=1}^{R} P(G_i = g|R_i = r_j)P(R_i = r_j|N_i = n)} \tag{1}$$

with

$$P(G_i = g|R_i = r) = \frac{P(R_i = r|G_i = g)P(G_i = g)}{\sum_{j=1}^{G} P(R_i = r|G_i = g_j)P(G_i = g_j)} \tag{2}$$

We use Census data (obtained through the NHGIS (Manson et al., 2019)) to compute the quantities $P(R_i = r|N_i = n)$, $P(R_i = r|G_i = g)$ and $P(G_i = g)$ for each census geography (i.e., block-, tract-, county- and state-levels). For contributors that have a surname listed in the census lists (about 87%), we apply Bayes' rule using the smallest geographical level for which we have geolocalization. This produces probabilities for about 84% of the contributors-years, 80% of which are estimated at the census block-level. Finally, we define a contributor ethnicity as the one, if any, that has an assigned probability larger than 50%.[11]

[9] About .5% of addresses are in foreign countries; their coordinates are left missing.

[10] We used this correspondence only for zipcodes of which more than 98% of the territory lies in the same county/congressional district.

[11] Varying this threshold does not alter our results

To obtain gender probabilities, we merged contributors' first names with the list of U.S. Social Security Administration historical baby names, using R package `gender` (Mullen, 2021). 97% of contributors have a first name in the list. We then defined the contributor gender as the one, if any, with assigned probability larger than 75%.

A.5 Processing the data on committees and candidates

A.5.1 Mapping between committees and candidates

All contributions in our data are recorded with the indication of a recipient committee. We then mapped these committees to the individual candidate they are connected to, if any.

All candidates must have one committee that is solely linked to their campaign, called the *principal* committee. In addition, they can have other *authorized* committees, either solo or shared with other candidates or parties, which can transfer unlimited funds across themselves and are all assimilated for the purpose of contribution limits.[12] Authorized committees shared by multiple candidates and/or parties are called *joint* committees. They are usually created to facilitate fundraising, as they are allowed to request large contributions, that are then split across committees' participants (candidates and/or parties), taking into account their respective limits[13].

As a result, the mapping between candidates and committees is m-to-m. There are at least two reasons why this is not ideal for our analysis. First, it is not clear how we should interpret a contribution that is made to several candidates at the same time (even assuming the donor is aware of all the candidates she gives to, which is not always sure). Second, not all committees indicate properly that a contribution is joint and its allocation among committee participants, rendering the attribution difficult. Hence, we did not link joint committees to their affiliated candidates (11% all committee-cycles, 4% all individual contributions), thereby limiting the mapping between candidates and committees to a 1-to-m setting.[14] This allowed us to map each contribution to at most one recipient candidate, using the crosswalks provided by the FEC in its "bulk files" section.

A.5.2 Candidates characteristics

Electoral data We obtained candidates' votes information from FEC official election results tables. The data is available up until the 2018 election-cycle; for the 2020 cycle, we used the CQ Voting database.

[12] Like individuals, all other committees have specific limits on how much they can contribute to a single candidates.

[13] This is possible since *McCutcheon v. FEC 2014*; before, contributions to joint committee counted towards the joint committee's limit.

[14] There are several joint committees that split their proceeds between one candidate and one party (such as TRUMP MAKE AMERICA GREAT AGAIN, between Donald Trump and the Republican Party): we link these to the relevant candidate.

Demographics The ethnicity of all candidates running during in an electoral cycle between 2006 and 2020 has been coded manually by research assistants using internet searches.[15] We also collected manually the gender of candidates whose first name is less than 99% predictive of their gender, based on the method described above to determine the gender of contributors.

[15]We do not use the same automatic method as with contributors because candidates are much more likely to be non-representative of their underlying population than donors.

B A model of campaign donors' motivations

B.1 The model

Consider a race featuring two candidates, A and B, and a donor i who has to choose how much to contribute to her preferred candidate, say A.[16] We denote by $q_i \geq 0$ her contribution to A. Her utility if she contributes q_i encompasses the three motives of campaign contributors mentioned in Section 3.1 of the main text:

$$u_i(q_i) = \Pr(A \text{ wins}|\rho_A, q_i)\, v(A, \theta_i, \delta_A) + (1 - \Pr(A \text{ wins}|\rho_A, q_i))\, v(B, \theta_i, \delta_B) + h(q_i, \theta_i, \delta_A, \rho_A) + d(q_i, \theta_i, \delta_A, \rho_A) - \frac{(q_i)^2}{2y_i}. \quad (3)$$

The first two terms capture the electoral motive: the donor cares about how her contribution may affect the outcome of the election. The probability that candidate A wins given the contribution q_i, $\Pr(A \text{ wins}|\rho_A, q_i)$, depends on the expected outcome of the race involving candidate A, captured by ρ_A. The difference in utility if candidate A wins instead of B, $v(A, \theta_i, \delta_A) - v(B, \theta_i, \delta_B)$, depends on various characteristics of the donor (e.g., ideology, race, gender), θ_i, various characteristics of the candidates (these characteristics can be personal – e.g., gender, race, and skills – and political – e.g., ideology, incumbency, committee membership, party leadership), δ_A and δ_B, and the match between these characteristics.

The third term captures the favor motive: the donor cares about the favor promises she can extract from the candidate. We allow the favor-utility, $h(\cdot)$, to depend on the size of the donor's contribution, q_i, on the donor's characteristics, θ_i, on the characteristics of the candidate, δ_A, and on the expected outcome of the election, ρ_A. We assume that $h(\cdot)$ is increasing and concave in q_i: extracting favor promises from a given candidate is increasingly expensive.

The fourth term captures the expressive motive: donors obtains consumption utility out of the act of contributing to the campaign of their preferred candidate. We allow this consumption utility, $d(q_i, \theta_i, \delta_A, \rho_A)$, to vary with the size of the donor's contribution, with her own characteristics and those of the candidate, and with the expected outcome of the election. We assume that $d(\cdot)$ is increasing and concave in q_i, as is natural for any consumption good.

Finally, the last term captures the cost of contributing, $\frac{(q_i)^2}{2y_i}$, which is assumed to be decreasing in the donor's income or wealth, y_i.[17]

[16] Below, we discuss an extension of the model in which we allow donors to give to more than one candidate in any given race.

[17] This assumption would stem out of a model in which donors have to choose between allocating resources to campaign contributions or other consumption goods, and the marginal utility of those consumption goods is decreasing.

The first order conditions give us:

$$q_i = y_i \left(\frac{\partial \Pr\left(A \text{ wins}|\rho_A, q_i\right)}{\partial q_i} V\left(\theta_i, \delta_A, \delta_B\right) + H\left(q_i, \theta_i, \delta_A, \rho_A\right) + D\left(q_i, \theta_i, \delta_A, \rho_A\right) \right) \forall i, \quad (4)$$

where $\frac{\partial \Pr(A \text{ wins}|\rho_A, q_i)}{\partial q_i}$ is the marginal change in the probability that A wins when donor i increases her contribution given that the expected outcome of the race in which A runs is ρ_A, $V\left(\theta_i, \delta_A, \delta_B\right) \equiv v\left(A, \theta_i, \delta_A\right) - v\left(B, \theta_i, \delta_B\right)$ is the utility differential experienced by donor i if A wins instead of B, $H\left(q_i, \theta_i, \delta_A, \rho_A\right) \equiv \frac{\partial h(q_i, \theta_i, \delta_A \rho_A)}{\partial q_i}$ is the marginal utility from the additional favor promise that donor i can extract from candidate A by increasing her contribution, and $D\left(q_i, \theta_i, \delta_A, \rho_A\right) \equiv \frac{\partial d(q_i, \theta_i, \delta_A, \rho_A)}{\partial q_i}$ is the marginal consumption value of a contribution.

From equation (4), we have that, ceteris paribus, contributions are increasing in the income of the donor, independently of the motive driving those donations. This is quite natural: richer individuals simply have more resources available to contribute, hence the opportunity cost of one dollar of contribution is lower for them than for poorer individuals. This result implies that income is not a useful factor when it comes to differentiate the motives underlying donors' behavior; a point that has been made in the literature (Bouton et al., 2018). For the sake of expositional clarity, we will thus set $y_i = 1$ in the remainder of the section.

Note that we can easily use this setup to consider donor i's choice of how much to contribute to various candidates in different districts or states, once she has identified her preferred candidate in each race.In that case, the marginal dollar of contribution flows to the candidate with the highest marginal return. The different marginal returns take the same form as in equation (4). In equilibrium, it must then be that the marginal returns of contributions to every candidate receiving a contribution from donor i are equal, and they are all equal to the marginal cost of contributing.

B.2 Comparative statics

We now present a number of comparative statics depending on the different motives of interest.

The electoral motive When donor i is motivated exclusively by the electoral motive, her equilibrium contribution to her preferred candidate A is:

$$q_i = \frac{\partial \Pr\left(A \text{ wins}|\rho_A, q_i\right)}{\partial q_i} V\left(\theta_i, \delta_A, \delta_B\right). \quad (5)$$

Electorally-motivated contributions are thus increasing in the marginal effect of a contribution on the probability that A wins, and in the utility differential if A wins instead of B. It is natural to assume that the marginal effect of a contribution on the probability that A wins, $\frac{\partial \Pr(A \text{ wins}|q_i)}{\partial q_i}$, is higher when the election is expected to be close than when it is expected to be a landslide victory. Hence, our model predicts that electorally-motivated contributions increase in the closeness of the race.[18] The flip side of the coin is that donor i has no incentives to contribute to the campaign of a candidate sure to win or to lose.

Hall and Snyder (2015), building on the voting literature and Duverger's law (Duverger, 1954; Palfrey, 1988; Myerson and Weber, 1993; Cox, 1994; Fey, 1997), argue that, in races with more than two candidates, donors have incentives not to waste their contributions on candidates who do not finish among the top two. From equation (5) we see that our model produces this prediction if the marginal effect of a contribution on the probability that A wins drops close to zero when a candidate is not expected to finish among the top two.

The utility differential, $V(\theta_i, \delta_A, \delta_B)$, matters for obvious reasons. Importantly, it can be affected by the characteristics of the donor, the characteristics of the candidates, and how these characteristics match. The literature identifies various characteristics that affect the appeal of a candidate. As discussed by (Bonica, 2014) (p. 370), ideological proximity plays an important role: "[...] nearly all existing research on individual donors suggests that the choice of recipient represents a genuine expression of the donor's ideology (Ensley 2009; McCarty, Poole, and Rosenthal 1996)."

However, ideology is not the only relevant factor. Gender is another potentially important factor. The literature indeed identifies a "gender affinity effect" (Sanbonmatsu, 2002; King and Matland, 2003; Dolan, 2008): women (men) are expected to be more supportive of female (male) candidates, both in terms of votes and contributions. As argued in Dolan (2008) (p.79), there are various reasons for such an affinity effect. Those relevant for the electoral motive include feelings of group solidarity and of shared gender identity, and a desire for descriptive and/or substantive representation. Ethnicity is another relevant factor. The expected effect, and the reasons why it exists, are similar as with gender (see e.g. Grumbach and Sahn, 2020).[19]

The literature also highlights the role of geography in the behavior of donors (see e.g. Gimpel et al., 2006, 2008). The focus is on the importance of donors and candidates living in the same district or state. For electorally-motivated contributions, one argument is that spatial proximity (i.e., being in the same district or state) increases the chances that the donor and the candidate have aligned interests in terms of governmental resources flowing to the district, and of which projects in the district to spend those funds on. A candidate thus has a higher $v(A, \theta_i, \delta_A)$ if he lives in the same district as the donor than if he lives in another district. Another argument is that donors have better information about the candidates in their district or state. On reason is that local media devote more time and space to local candidates (Snyder and Stromberg 2010). In that case, the utility differential $V(\theta_i, \delta_A, \delta_B)$, is higher for same district/state candidates simply because for out-of-district/state candidates, donors may not

[18] As explained in Snyder (1990), donors "[...] that contribute in order to influence election outcomes rather than simply to buy favors will rationally contribute more in races that are expected to be close than in lopsided races (see Colantoni et al., 1975; Welch, 1980; Snyder, 1989)."

[19] In particular, (Grumbach and Sahn, 2020) mentions the following reasons: feelings of linked fate and empowerment, campaign appeals to coethnicity and the fact that "politicians from marginalized groups tend to exert greater effort to represent and improve the standing of their group in society (e.g., Broockman 2013; Dawson 1995; Logan 2018)."(p. 208)

have enough information to differentiate the candidates. Thus, all things equal, donors may have a tendency to donate more to in-district candidates, in comparison to out-of-district ones. Of course, the donor may still prefer to contribute to an out-of-district candidate if that candidate is a better match in terms of ideology, gender, or ethnicity, or if he is running in a closer race.

The favor motive When donor i is motivated exclusively by the favor motive, her equilibrium contribution to her preferred candidate A is implicitly defined by

$$q_i = H\left(q_i, \theta_i, \delta_A, \rho_A\right). \tag{6}$$

Given that $H(\cdot)$ is decreasing in q_i (by the concavity of $h(\cdot)$ in q_i), we have that $q_i^* > 0$ if $H(0, \theta_i, \delta_A, \rho_A) > 0$. Moreover, q_i^* is increasing in any characteristic of the donor, the candidate, and the race that increases the ability of the donor to extract a favor from the candidate for a given contribution. This is in line with the main insight from the literature: when the objective is to extract a favor from politicians, funds flow to politicians who can deliver the favor at the lowest cost (Denzau and Munger, 1986; Snyder, 1990).

The literature identifies various characteristics of politicians that make them more appealing from the perspective of donors driven by the favor motive. Incumbency is an important factor (see e.g. Snyder, 1992; Fouirnaies and Hall, 2014; Culberson et al., 2019), which is captured by the parameter δ_A in our model. One obvious reason is that incumbents are, by definition, in office. Hence, contributing to their campaign grants immediate access.[20]

The literature also predicts that favor-motivated contributions should flow to candidates more likely to win a race.[21] In the notation of our model, q_i^* should decrease in the closeness of the race, and increase when the candidate is likely to win, as captured by the parameter ρ_A.

Ideological, gender, and ethnic alignment may also influence positively favor-motivated donations. The common argument is that a necessary condition to get access and extract favor is to build a relationship of mutual trust and respect with politicians (Snyder, 1992; Morgan, 2004). Ideological commonality, as well as gender and ethnic alignment are factors facilitating the construction of such a relationship. The same is true for spatial proximity, which greatly facilitates interactions between donors and candidates. In our model, those effects appear through the positive effect on $H(\cdot)$ of a match between the characteristics of the donor, θ_i, and those of the candidate, δ_A.

An extension of our model in which we allow donors to give to more than one candidate in a given race delivers predictions about the so-called hedging behavior, i.e., donors contributing to more

[20] As explained in Bonica (2014), the literature also points to the attractiveness of specific types of incumbents: members of the majority party (Cox and Magar (1999)), party leaders, committee chairs, and members of particular committees (Grier and Munger, 1991; Snyder and Romer, 1994). The main reason is that these incumbents have more sway over policies, and are thus better able to deliver favors.

[21] This is the prediction of Snyder (1990)'s model of "investor contributors" who exchange contributions for policy favors. Under certain symmetry conditions, there is a positive relationship between the amount of contributions and the probability that a candidate wins the race.

than one candidate in a given race. This can happen in this extended version when the marginal favor promises that a donor can extract from two different candidates are similar (and sufficiently large). When candidates have similar tendencies to grant favor promises, this requires that the two candidates have similar probabilities of winning the race, and then that the race is close. As Bonica (2016) (p. 378) explain: “The suggested rationale for giving to opposing candidates is that when the outcome is uncertain, interested donors may wish to signal their support and willingness to work with both candidates so as to avoid siding with the loser and, as a result, risk being denied access to the eventual winner.”Note that hedging is a behavior that is not easily explained by the electoral motive nor the expressive motive. This is thus one of the few patterns of contributions that, if found in the data, could allow us to distinguish between the different motives.

The expressive motive Finally, when donor i is motivated exclusively by the expressive motive, her equilibrium contributions to her preferred candidate A are implicitly defined by

$$q_i = D\left(q_i, \theta_i, \delta_A, \rho_A\right). \tag{7}$$

Given that $D(\cdot)$ is decreasing in q_i (by the concavity of $d(\cdot)$ in q_i), we have that $q_i^* > 0$ if $D(0, \theta_i, \delta_A, \rho_A) > 0$. Moreover, q_i^* is increasing in any characteristic of the donor, the candidate, and the race that increases the consumption value of a contribution. For instance, if $D\left(q_i, \theta_i, \delta_A, \rho_A\right)$ is weakly increasing in the closeness of the election, ρ_A, we have that donor i has stronger incentives to contribute to close races. One justification for this assumption is that close races attract more attention from citizens and the media, and hence the marginal consumption value of a contribution to candidates in close races is higher.[22]

However, note that even when $D\left(q_i, \theta_i, \delta_A, \rho_A\right)$ is dependent on ρ_A, a donor may contribute to the campaign of a sure loser or that of a sure winner. According to Snyder (1990), contributing to the campaigns of sure losers is strongly suggestive of an expressive motive. His argument is that such a behavior is not compatible with a rational investment strategy (i.e., the electoral and favor motives), and is thus suggestive that the donor is at least partly expressively motivated. Our model generates similar predictions: when $\Pr\left(A \text{ wins} | q_i\right)$ and $\frac{\partial \Pr(A \text{ wins}|q_i)}{\partial q_i}$ drop close to zero (which should be the case for a sure loser), electorally-motivated contributions and favor-motivated contributions drop to zero. By contrast, expressively-motivated contributions can still be positive.

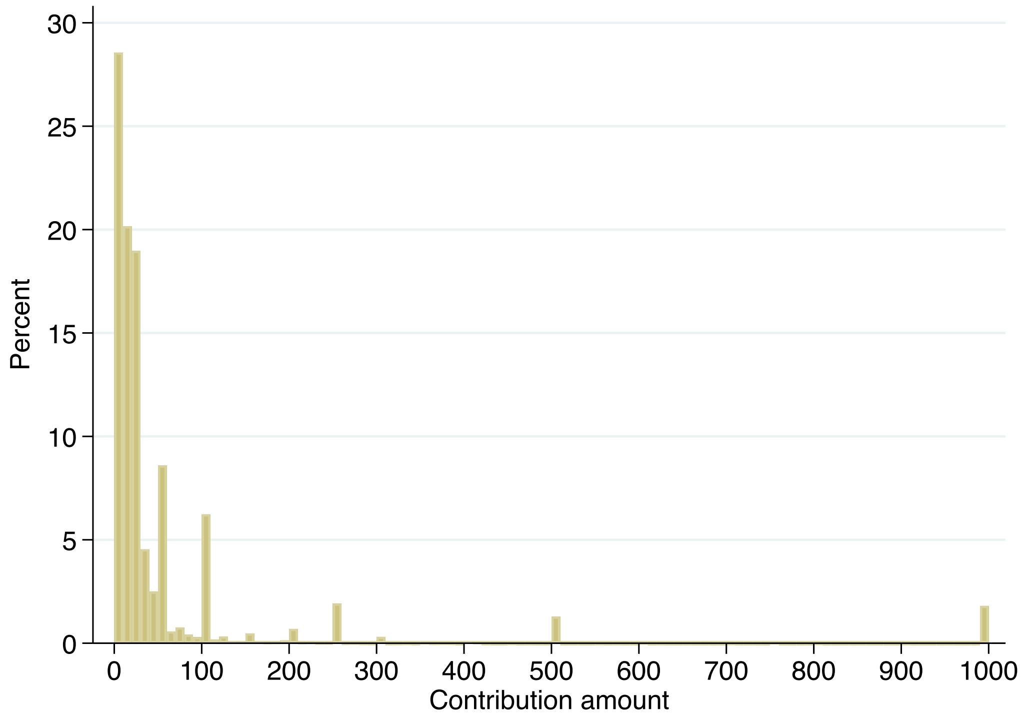
Equation (7) also clarifies the role of ideological, gender, ethnic and geographical alignment for expressively-motivated contributions. These contributions increase in such alignments if the marginal consumption of a contribution to candidate A, $D\left(q_i, \theta_i, \delta_A, \rho_A\right)$, increases when θ_i and δ_A match on those dimensions. Various of the reasons proposed by the literature for affinities between donors and

[22] Ansolabehere et al. (2003) suggest another channel: candidates increase their fundraising effort when the election is close and expressive donors respond to this effort. And indeed, Bouton et al. (2018) show formally that a closeness effect exists when expressively motivated donors react to candidates' fundraising effort and candidates care about winning the race (and hence about the marginal impact campaign spending has on the electoral outcome).

candidates along gender and ethnic dimensions are of an expressive nature (see the discussions in Cho, 2002; Grumbach and Sahn, 2020).

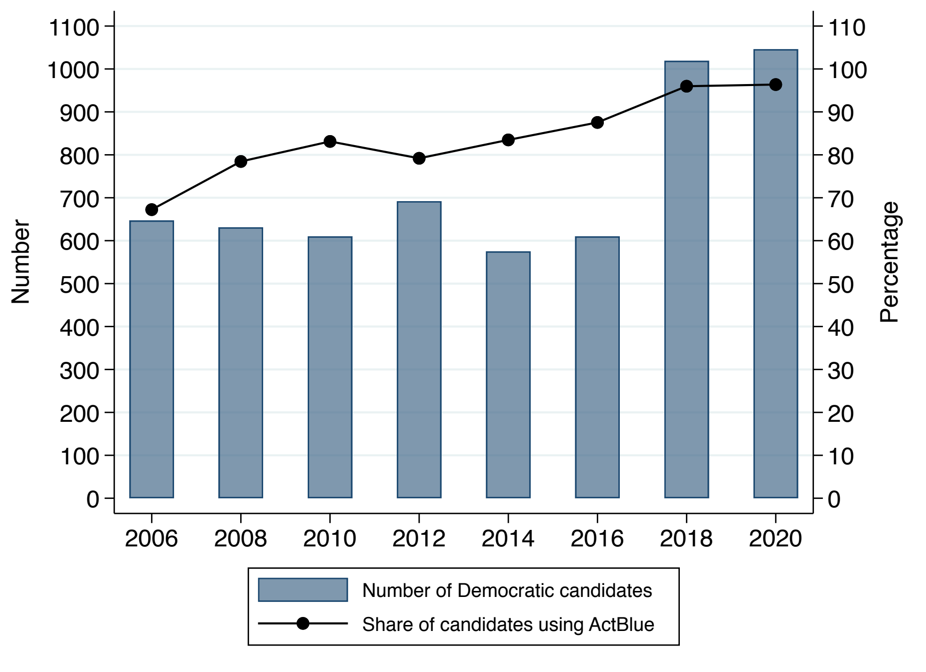
For the geographic alignment, one argument (see e.g. Gimpel et al., 2006) starts from the idea that expressively-motivated donors obtain utility from the act of contributing because this allows them to feel and show others that they are member of a specific social group and that they are fighting for a specific cause. Social interactions within local networks exacerbate those incentives, which can then naturally focus on local candidates and the local causes they stand for. In simple words, donors contribute to their local champion in order to be able to tell other guests at dinner parties than they too have contributed to the campaign. However, note that this argument could also apply to out-of-district champions, but it may prove more difficult for a social network to coordinate on such a candidate. The higher likelihood of meeting local candidates and their entourage can also increase the incentives to contribute to local candidates.

C Additional figures



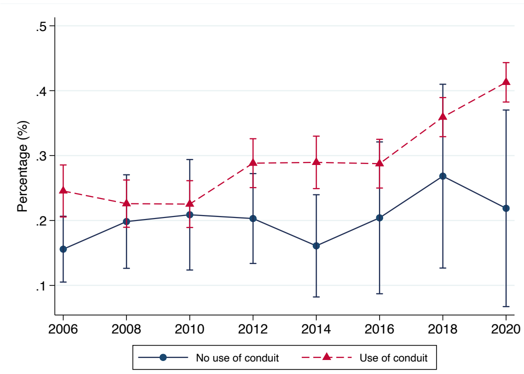
Notes: The figure plots the distribution of the amount of contributions made by individual donors and reported to the U.S. Federal Election Commission from 2006 to 2020. We use bins of \$10 and winsorize the variable at the 99th percentile (i.e. $\$1,000$).

Figure C.1: Distribution of the amount of contributions made by individuals donors and reported to the U.S. Federal Election Commission, 2006-2020

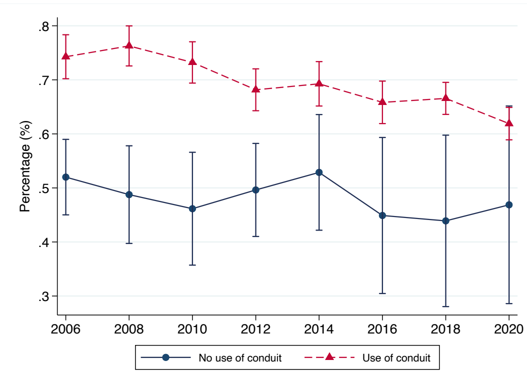


Notes: The figure represents the number of Democratic congressional candidates and the share of these candidates who use ActBlue by two-year electoral cycle.

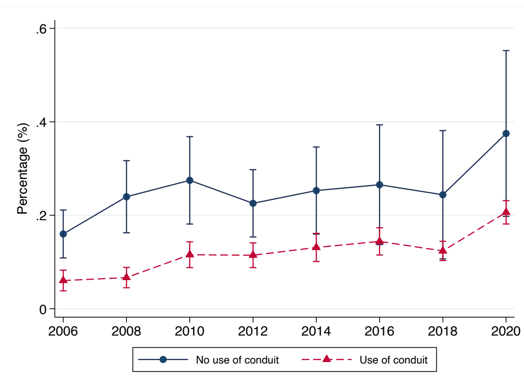
Figure C.2: Share of Democratic congressional candidates using ActBlue



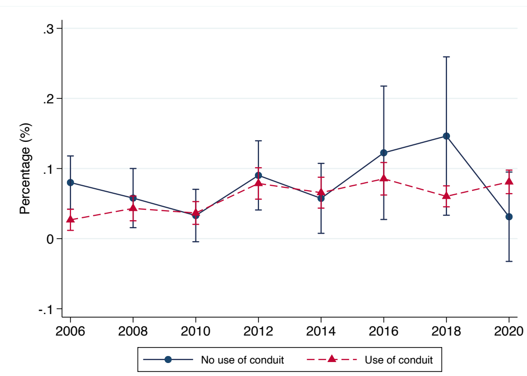
(a) **Share of female candidates**



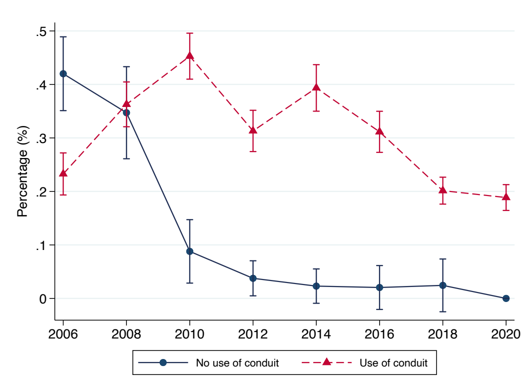
(b) **Share of White candidates**



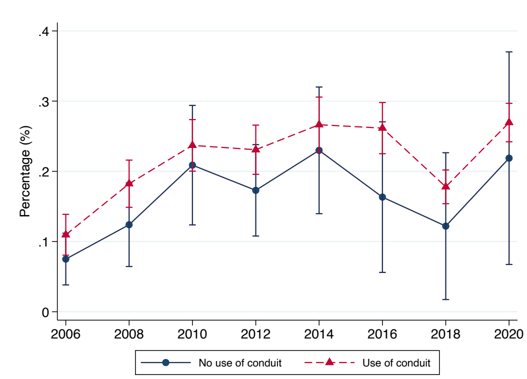
(c) **Share of Black candidates**



(d) **Share of Hispanic candidates**



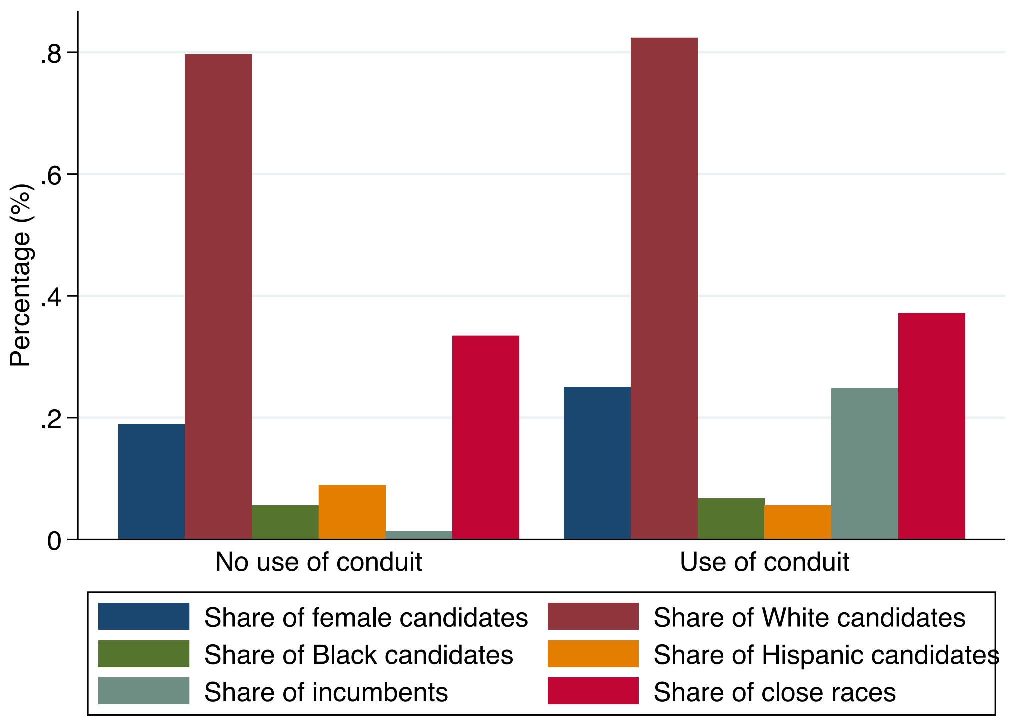
(e) **Share of incumbents**



(f) **Share of close races**

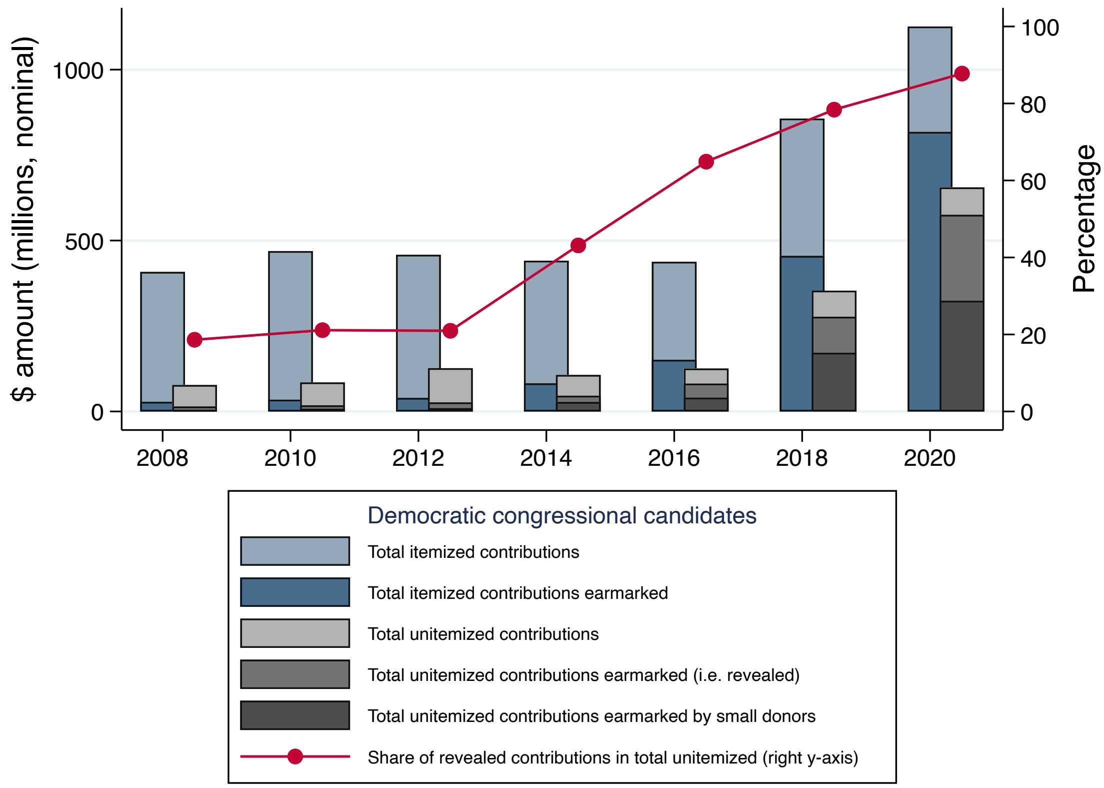
Notes: The figure plots the evolution of the characteristics of the Democratic candidates depending on whether they use conduits, 2006-2020.

Figure C.3: Characteristics of the Democratic candidates depending on whether they use conduits, 2006-2020



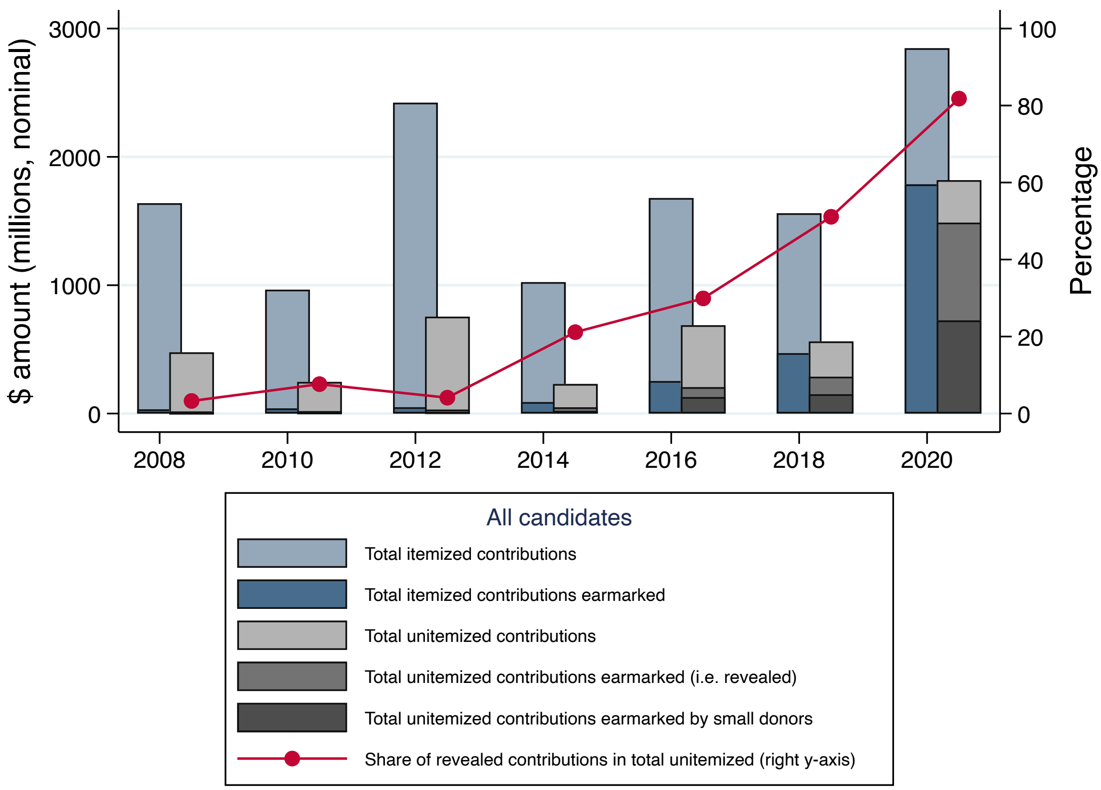
Notes: The figure plots the evolution of the characteristics of the Republican candidates depending on whether they use conduits in 2020.

Figure C.4: Characteristics of the Republican candidates depending on whether they use conduits, 2020



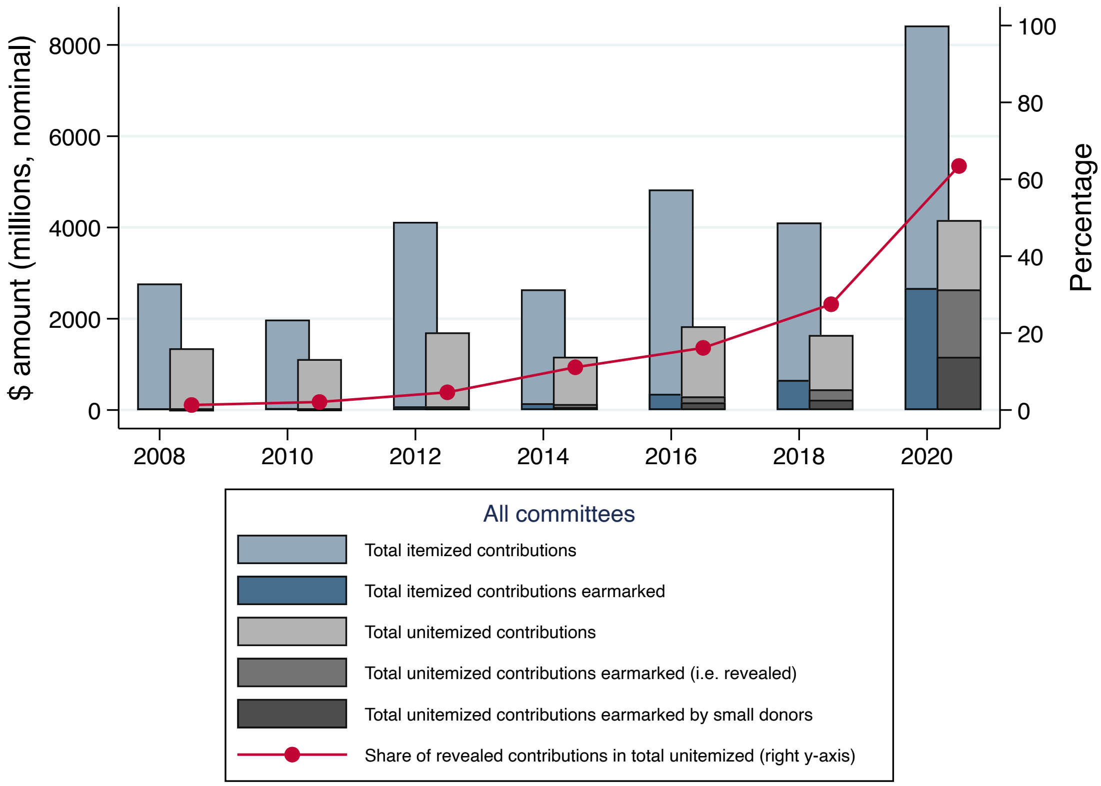
Notes: The figure plots the evolution of the donations received by Democratic congressional candidates. Light blue and light grey represent the aggregate contributions these candidates report in their financial summaries. Darker bars indicate the quantity of these contributions which are earmarked, as observed in our data, and the quantity of these contributions which are made by small donors.

Figure C.5: Contributions received by Democratic congressional candidates, depending on their type, 2008-2020



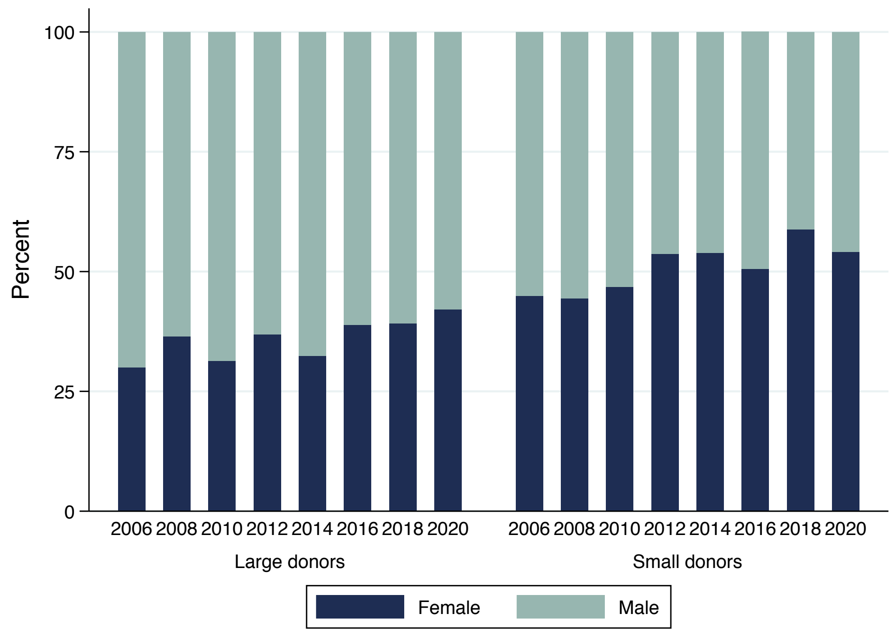
Notes: The figure plots the evolution of the donations received by all candidates. Light blue and light grey represent the aggregate contributions these candidates report in their financial summaries. Darker bars indicate the quantity of these contributions which are earmarked, as observed in our data, and the quantity of these contributions which are made by small donors.

Figure C.6: Contributions received by all candidates, depending on their type, 2008-2020



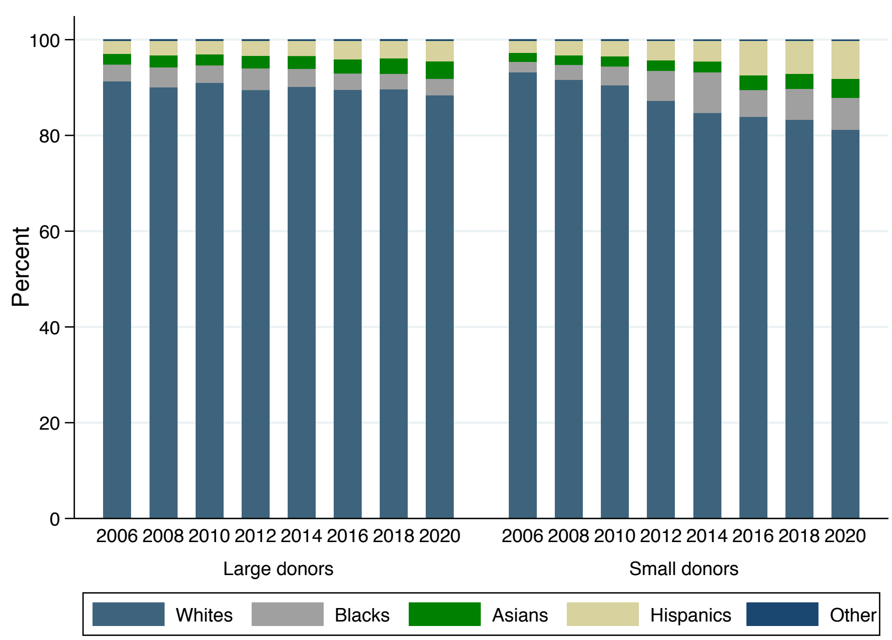
Notes: The figure plots the evolution of the donations received by all committees. Light blue and light grey represent the aggregate contributions these committees report in their financial summaries. Darker bars indicate the quantity of these contributions which are earmarked, as observed in our data, and the quantity of these contributions which are made by small donors.

Figure C.7: Contributions received by all committees, depending on their type, 2008-2020



Notes: The figure plots the share of female and male donors among small and large donors, for each electoral-cycle.

Figure C.8: Gender repartition of small and large donors

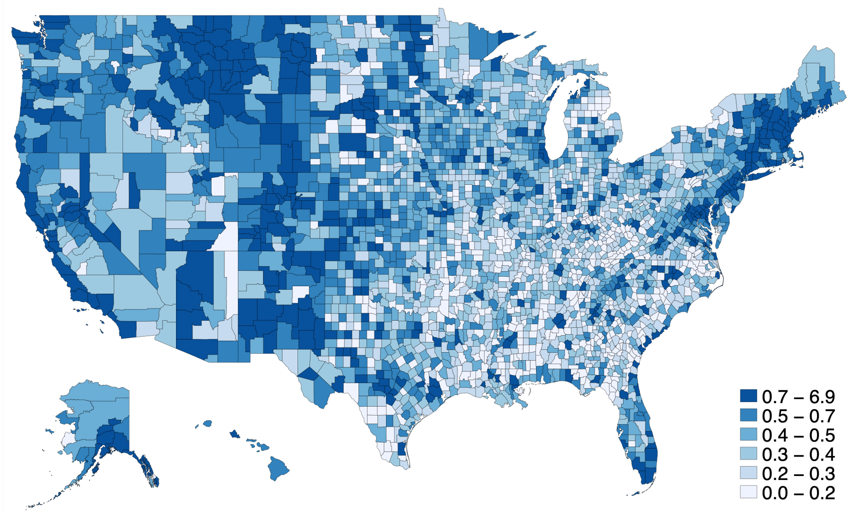


Notes: The figure plots the share of donors with different ethnicity among small and large donors, for each electoral-cycle.

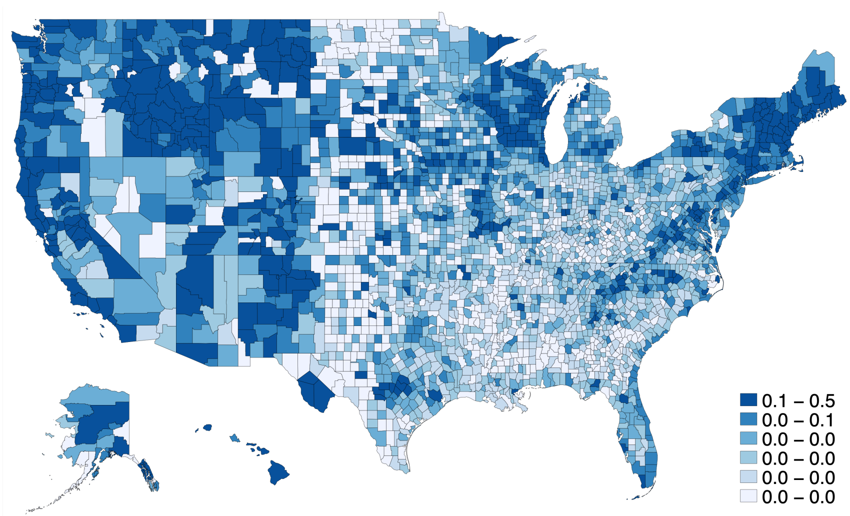
Figure C.9: Ethnicity distribution of small and large donors

Figure C.10: The geography of small and large donors, 2006

(a) **% of large donors in population**



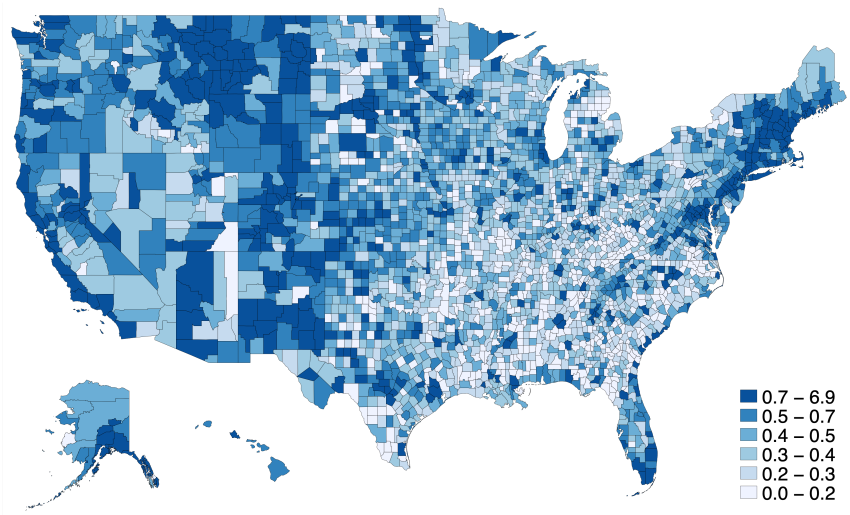
(b) **% of small donors in population**



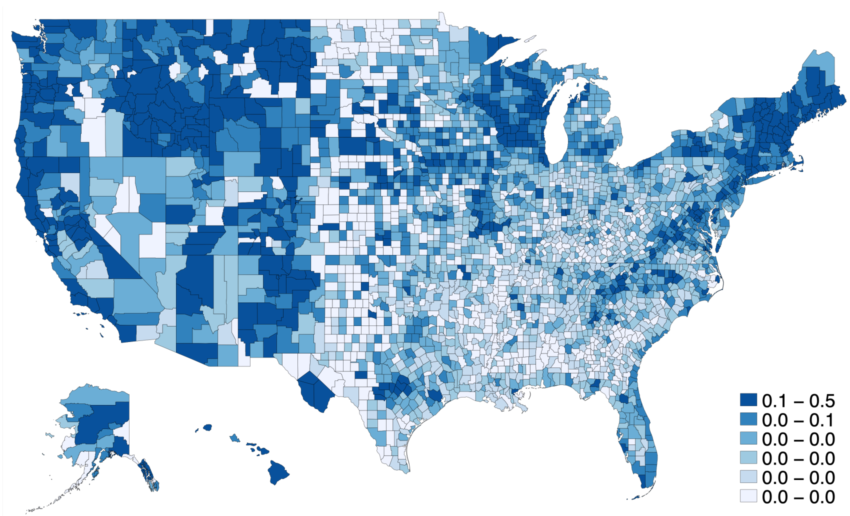
Notes: The figures map the small and large donors living in each US county during the 2006 electoral cycle, as a share of the county population. Small and large donors are defined in the text.

Figure C.11: The geography of small and large donors, 2008

(a) **% of large donors in population**



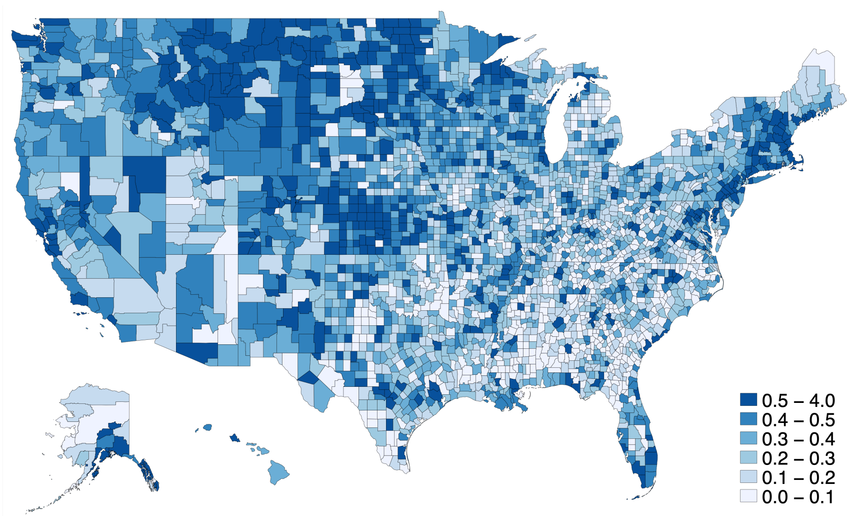
(b) **% of small donors in population**



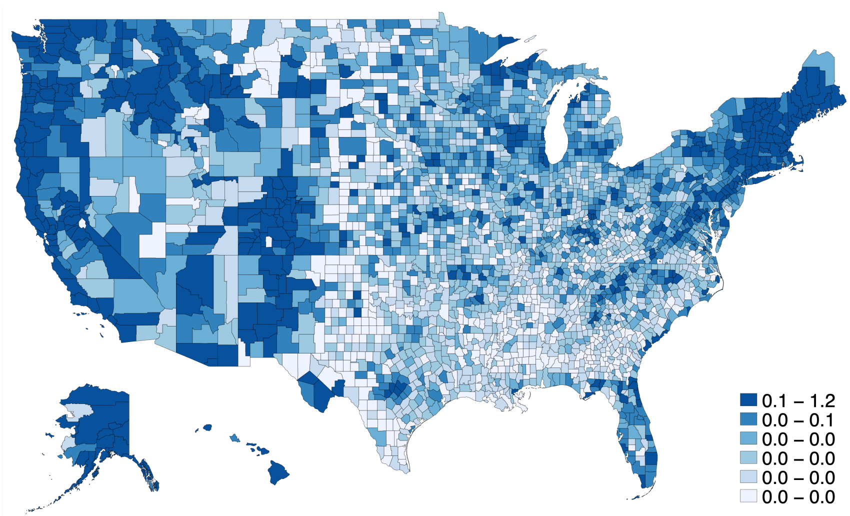
Notes: The figures map the small and large donors living in each US county during the 2008 electoral cycle, as a share of the county population. Small and large donors are defined in the text.

Figure C.12: The geography of small and large donors, 2010

(a) **% of large donors in population**



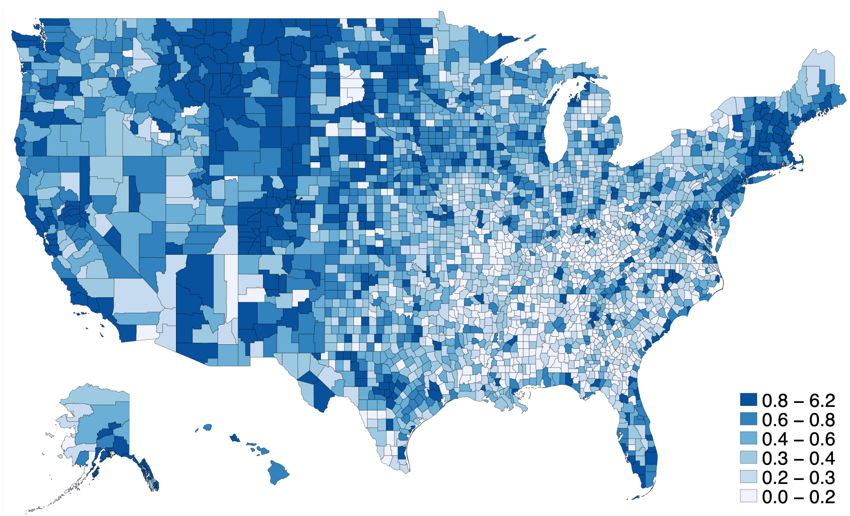
(b) **% of small donors in population**



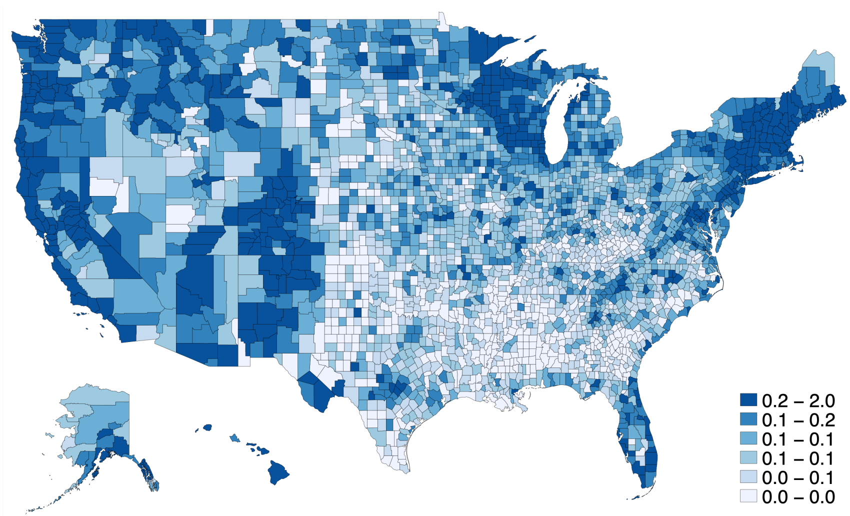
Notes: The figures map the small and large donors living in each US county during the 2010 electoral cycle, as a share of the county population. Small and large donors are defined in the text.

Figure C.13: The geography of small and large donors, 2012

(a) **% of large donors in population**



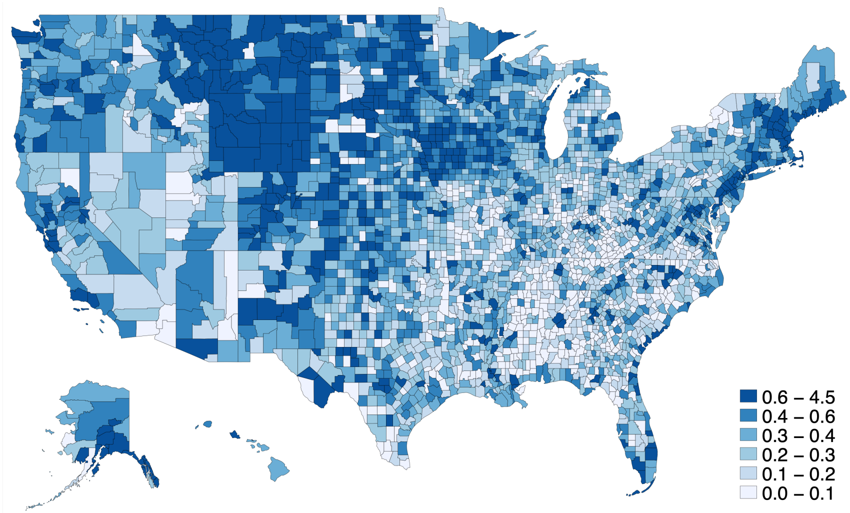
(b) **% of small donors in population**



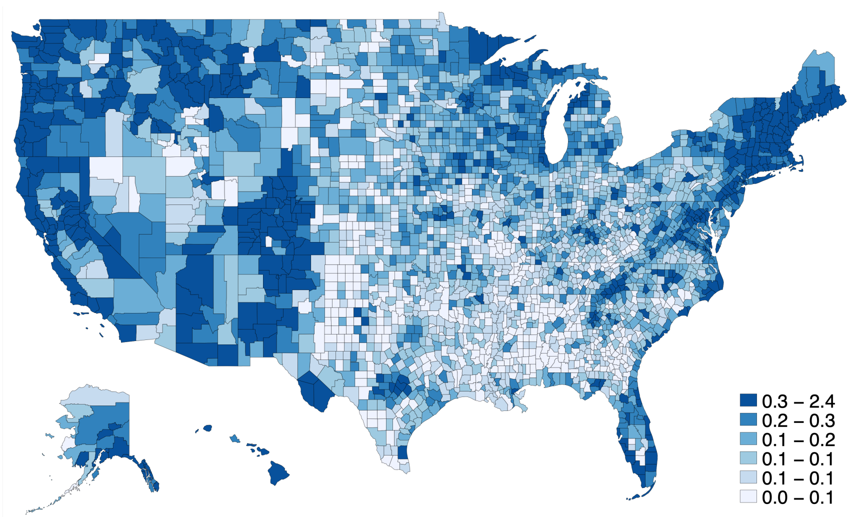
Notes: The figures map the small and large donors living in each US county during the 2012 electoral cycle, as a share of the county population. Small and large donors are defined in the text.

Figure C.14: The geography of small and large donors, 2014

(a) **% of large donors in population**



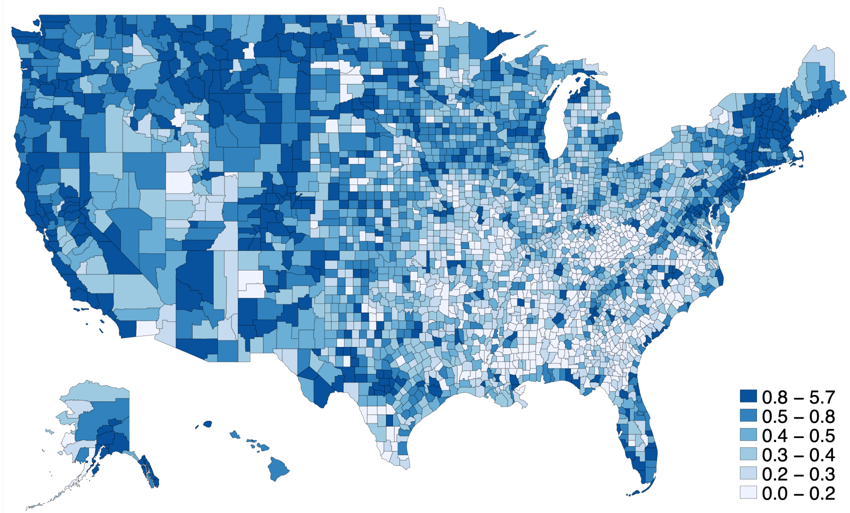
(b) **% of small donors in population**



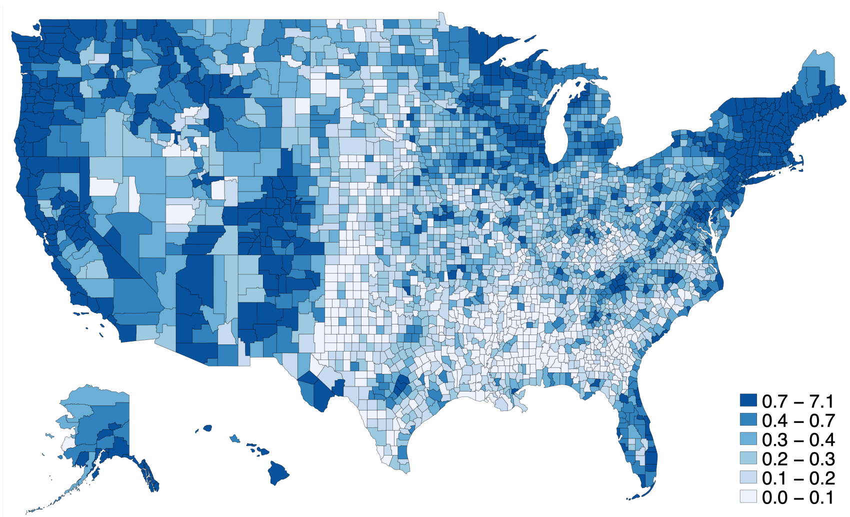
Notes: The figures map the small and large donors living in each US county during the 2014 electoral cycle, as a share of the county population. Small and large donors are defined in the text.

Figure C.15: The geography of small and large donors, 2016

(a) **% of large donors in population**



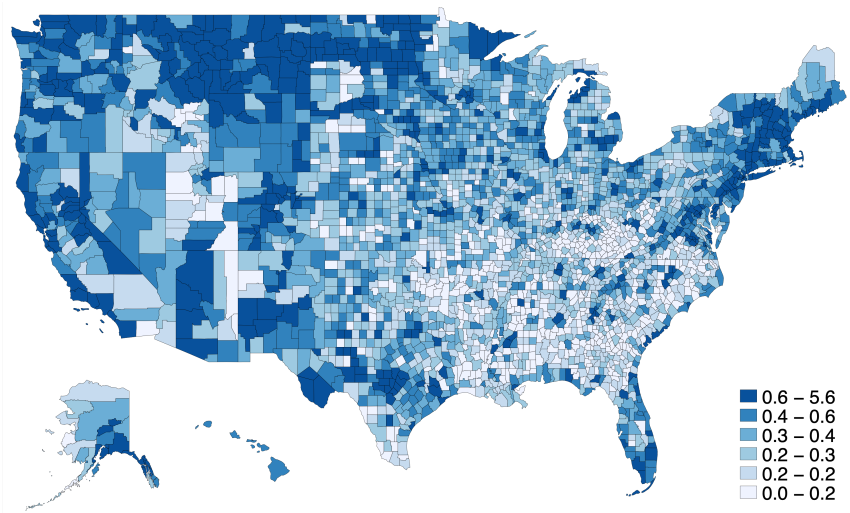
(b) **% of small donors in population**



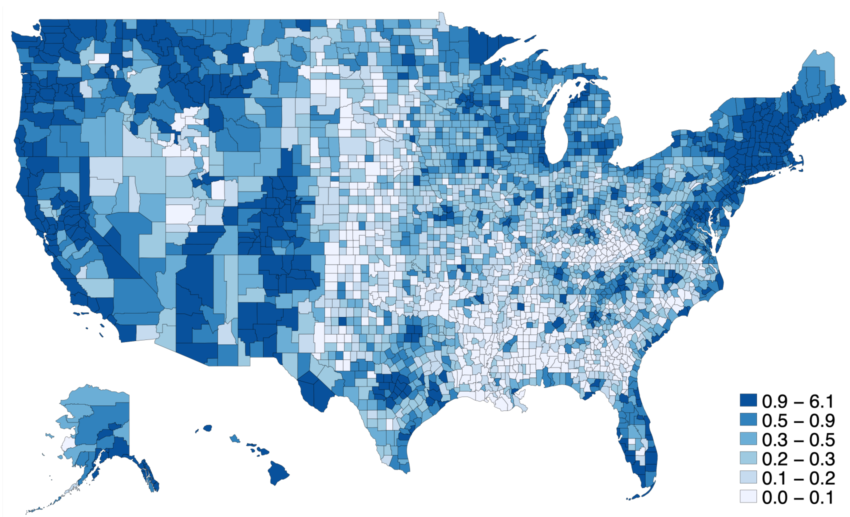
Notes: The figures map the small and large donors living in each US county during the 2016 electoral cycle, as a share of the county population. Small and large donors are defined in the text.

Figure C.16: The geography of small and large donors, 2018

(a) **% of large donors in population**



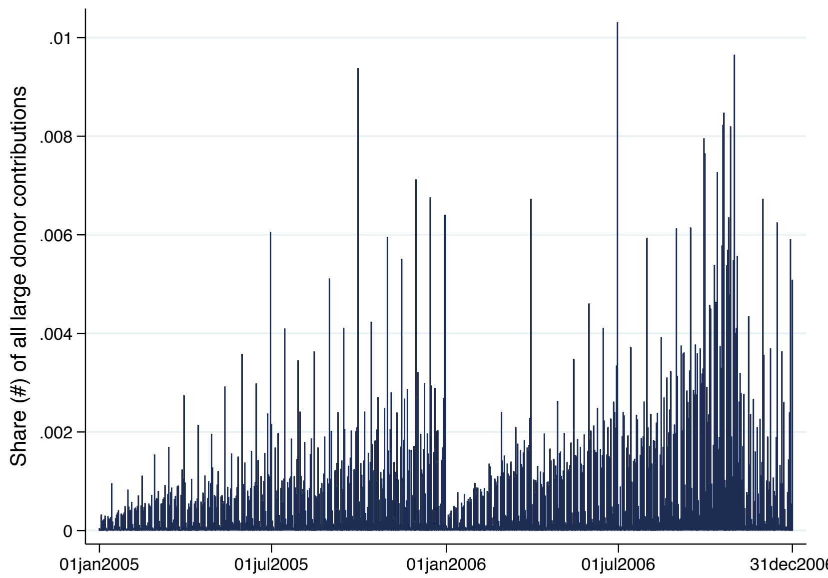
(b) **% of small donors in population**



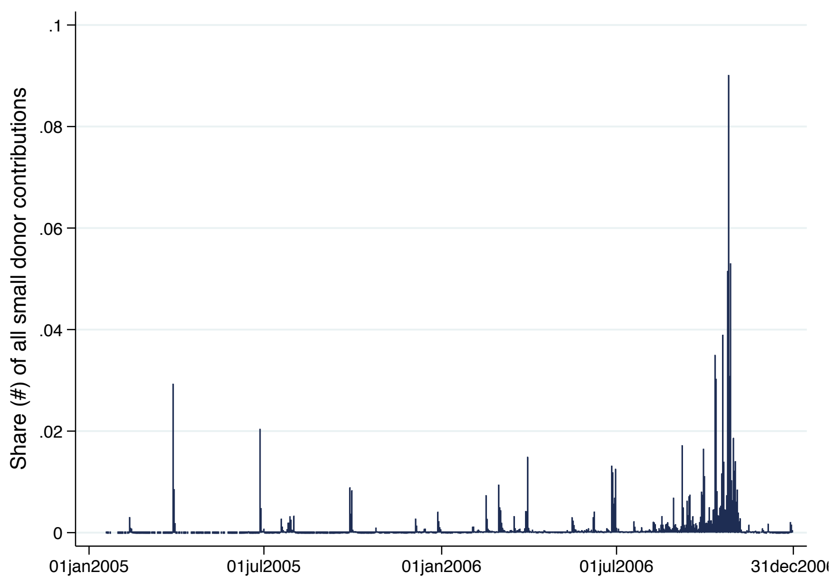
Notes: The figures map the small and large donors living in each US county during the 2018 electoral cycle, as a share of the county population. Small and large donors are defined in the text.

Figure C.17: The timing of small and large donors' contributions, 2006

(a) **Large Donors**



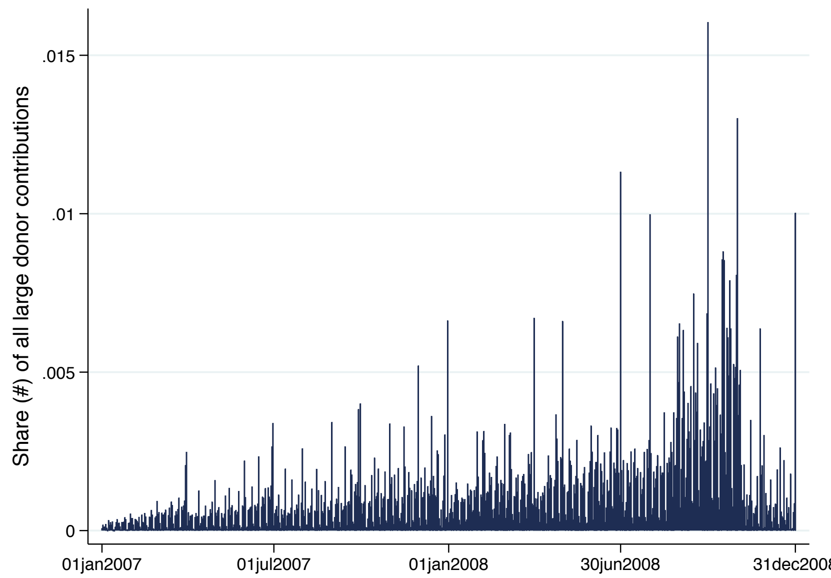
(b) **Small Donors**



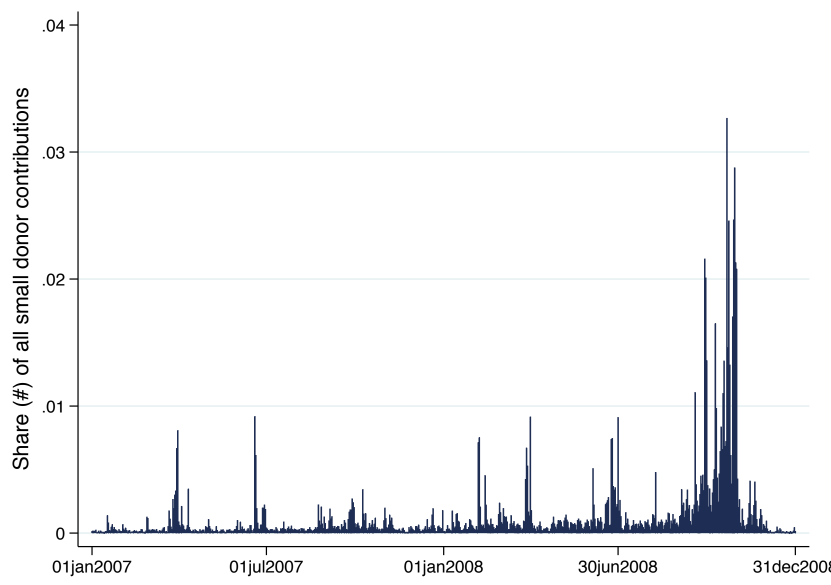
Notes: The figures plot the number of large and small donors' contributions on each day of the 2006 election cycle, as a share of the total contributions made over the full cycle. Small and large donors are defined in the text.

Figure C.18: The timing of small and large donors' contributions, 2008

(a) **Large Donors**



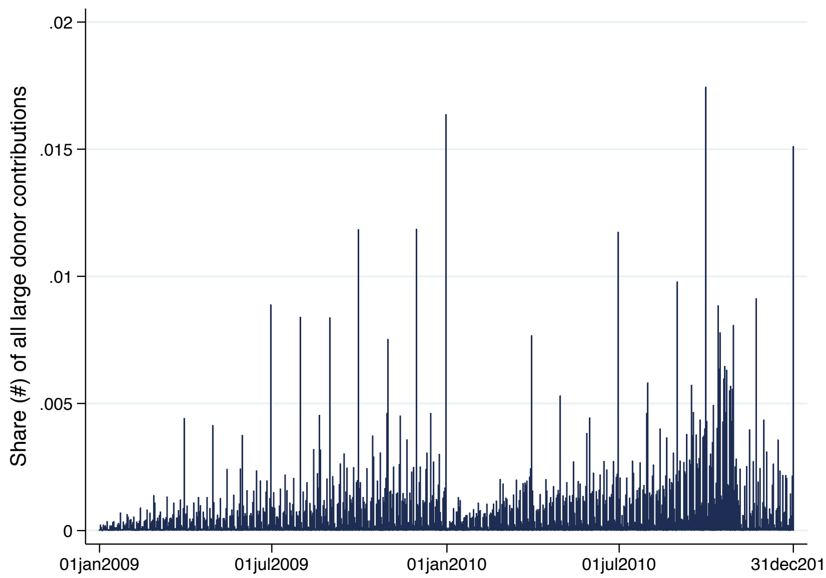
(b) **Small Donors**



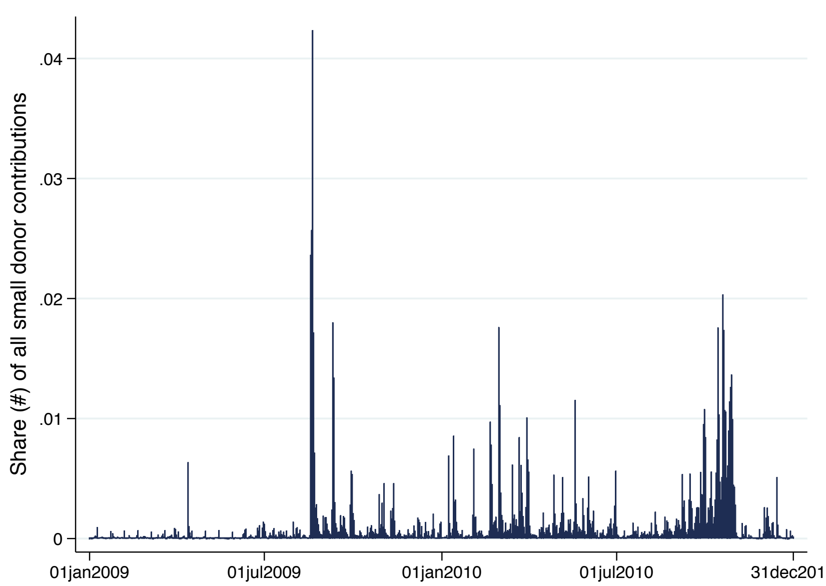
Notes: The figures plot the number of large and small donors' contributions on each day of the 2008 election cycle, as a share of the total contributions made over the full cycle. Small and large donors are defined in the text.

Figure C.19: The timing of small and large donors' contributions, 2010

(a) **Large Donors**



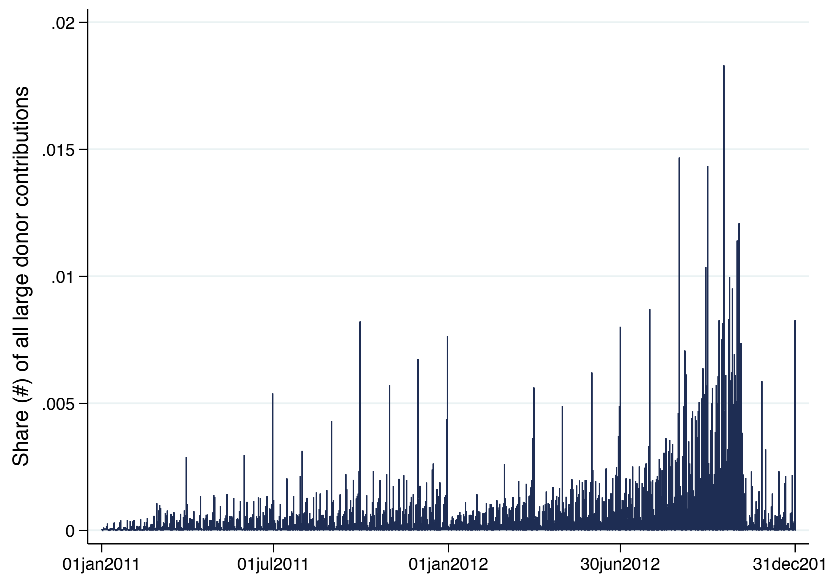
(b) **Small Donors**



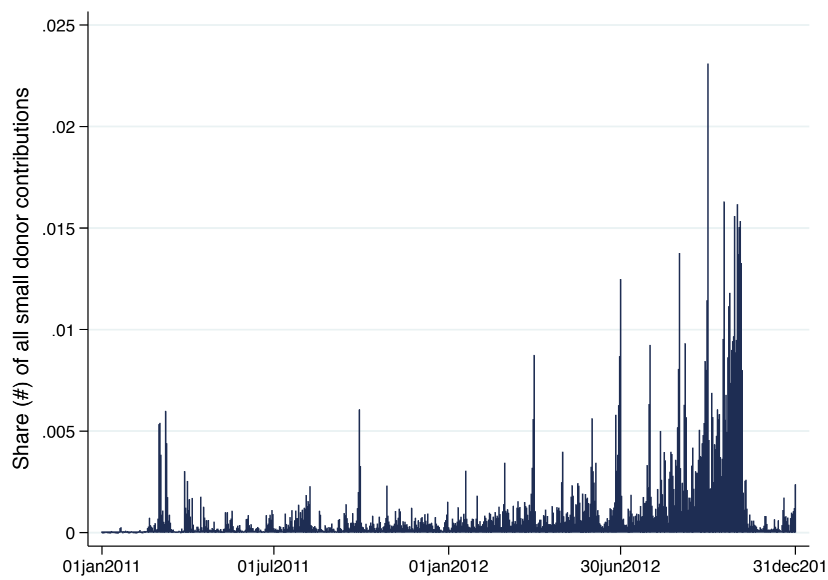
Notes: The figures plot the number of large and small donors' contributions on each day of the 2010 election cycle, as a share of the total contributions made over the full cycle. Small and large donors are defined in the text.

Figure C.20: The timing of small and large donors' contributions, 2012

(a) **Large Donors**



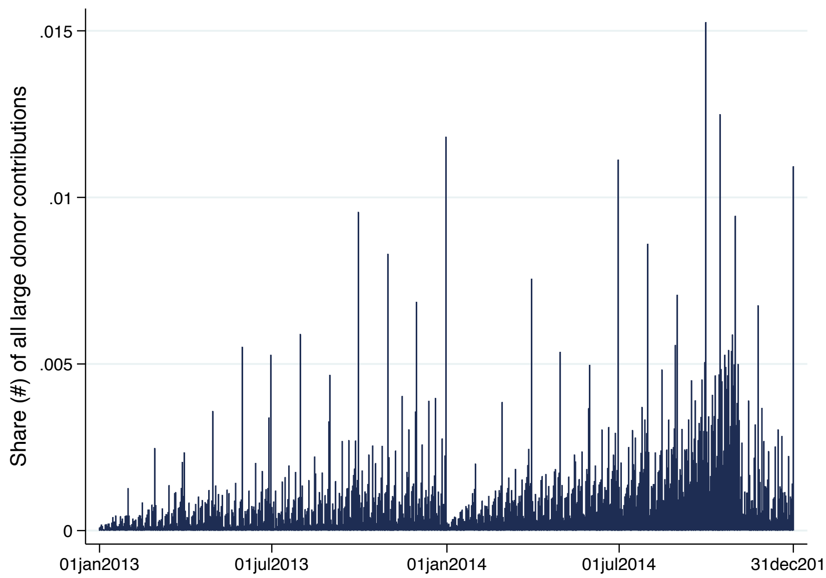
(b) **Small Donors**



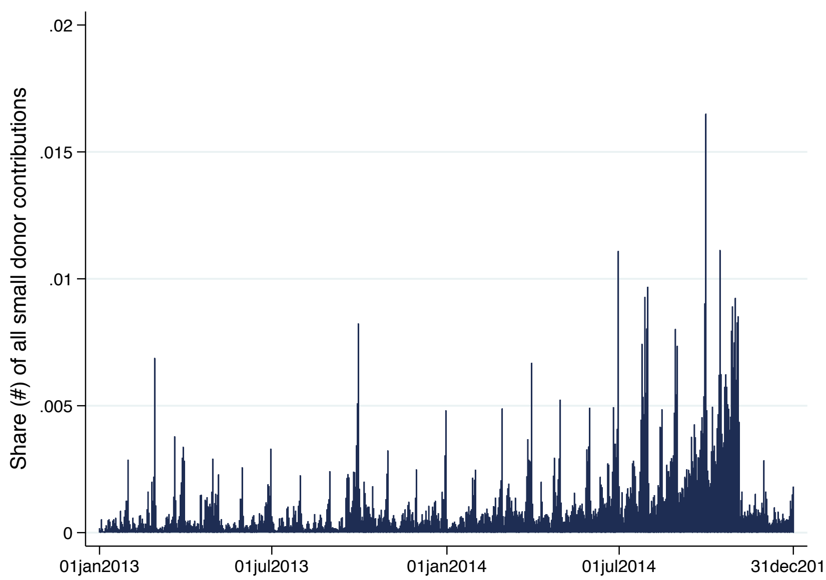
Notes: The figures plot the number of large and small donors' contributions on each day of the 2012 election cycle, as a share of the total contributions made over the full cycle. Small and large donors are defined in the text.

Figure C.21: The timing of small and large donors' contributions, 2014

(a) **Large Donors**



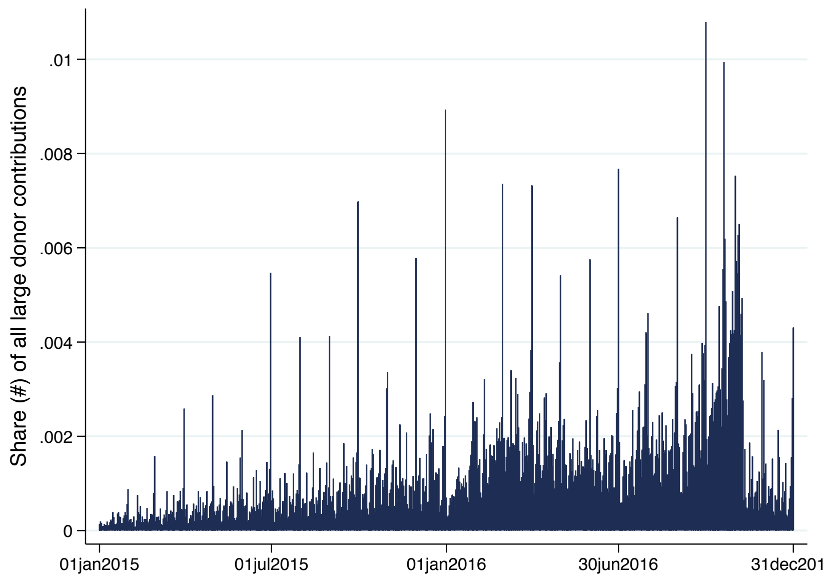
(b) **Small Donors**



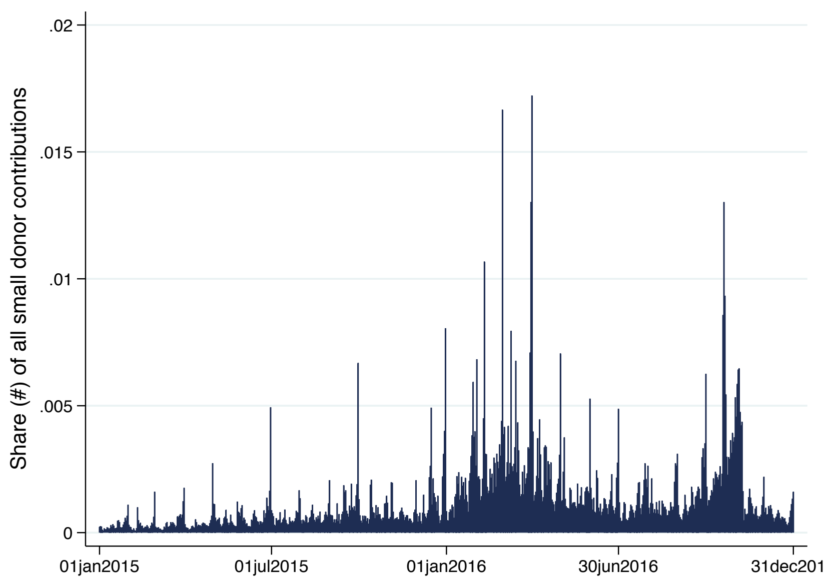
Notes: The figures plot the number of large and small donors' contributions on each day of the 2014 election cycle, as a share of the total contributions made over the full cycle. Small and large donors are defined in the text.

Figure C.22: The timing of small and large donors' contributions, 2016

(a) **Large Donors**



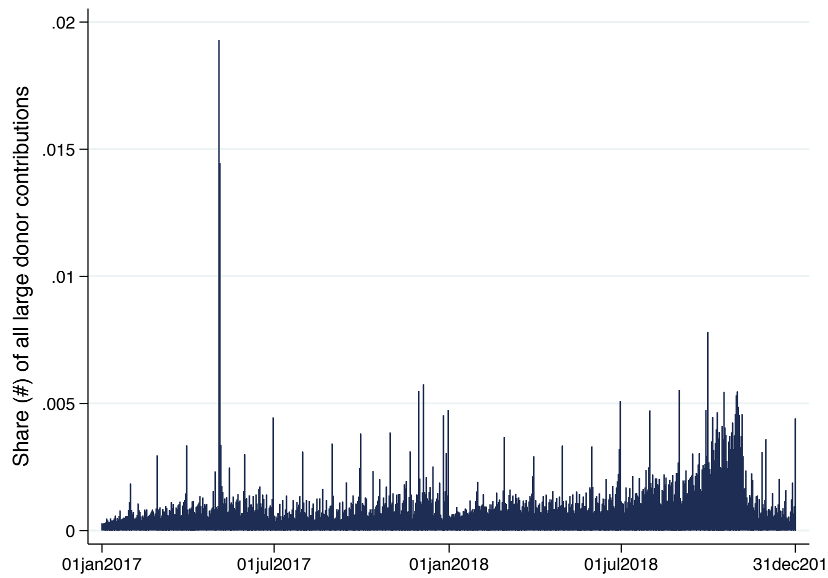
(b) **Small Donors**



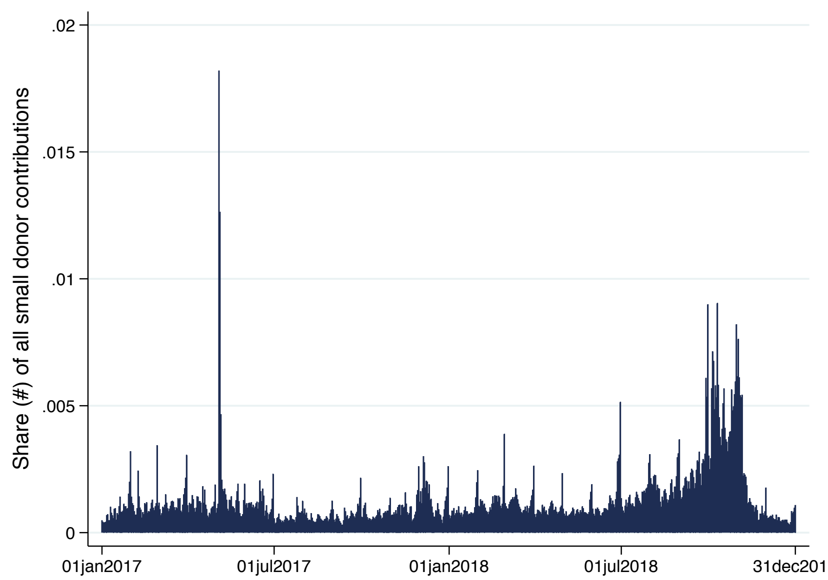
Notes: The figures plot the number of large and small donors' contributions on each day of the 2016 election cycle, as a share of the total contributions made over the full cycle. Small and large donors are defined in the text.

Figure C.23: The timing of small and large donors' contributions, 2018

(a) **Large Donors**



(b) **Small Donors**

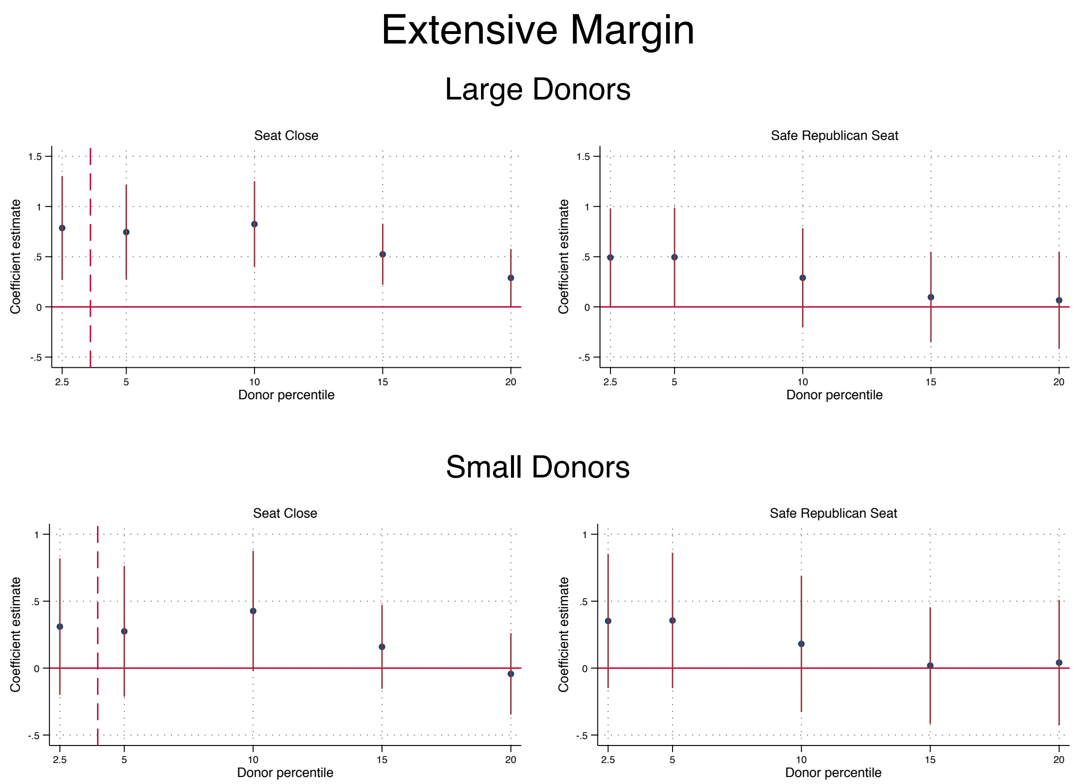


Notes: The figures plot the number of large and small donors' contributions on each day of the 2018 election cycle, as a share of the total contributions made over the full cycle. Small and large donors are defined in the text.

Figure C.24: The shares of all small and large donors in each committee, 2006-2020

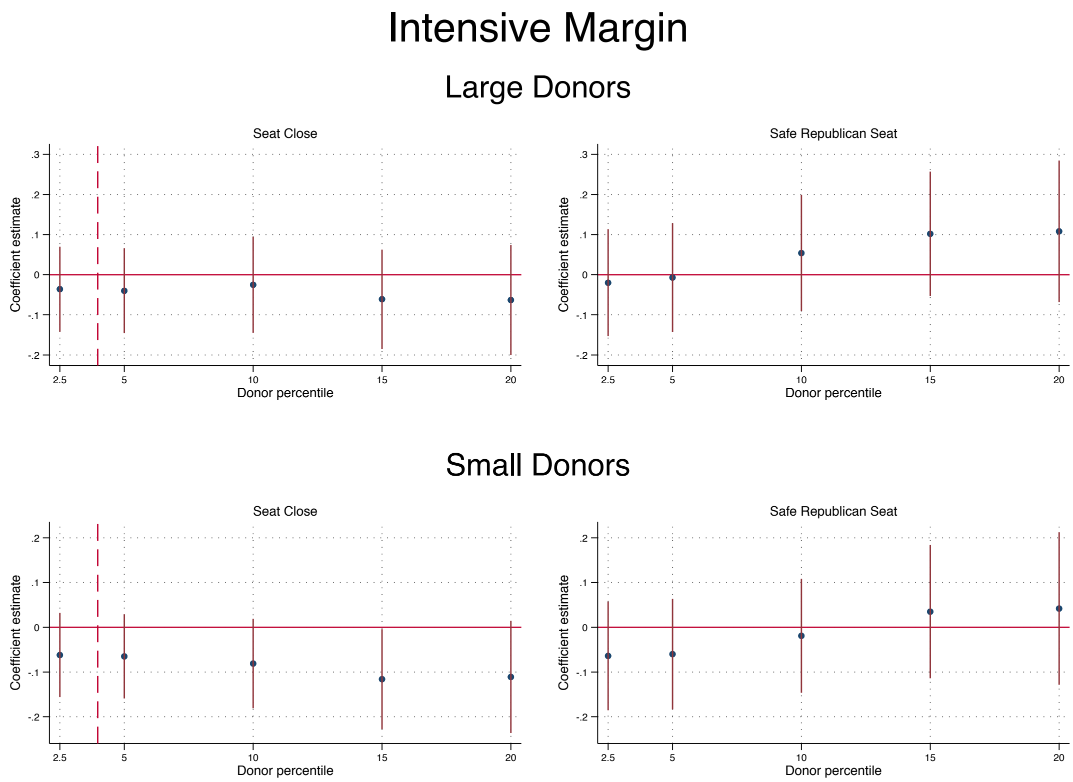
figures/share_S_01_ultralight.pdf

Notes: The figure plots, for each committee and at each electoral cycle from 2006 to 2020, the relationship between the share of large donors contributing to this committee (out of the total amount of large donors in that same cycle) on the x-axis, and the share of small donors to this committee (out of the total amount of small donors) on the y-axis. For the sake of readability, these shares are winzorised at their 99th percentile (which correspond to .0021 and .0023, respectively).



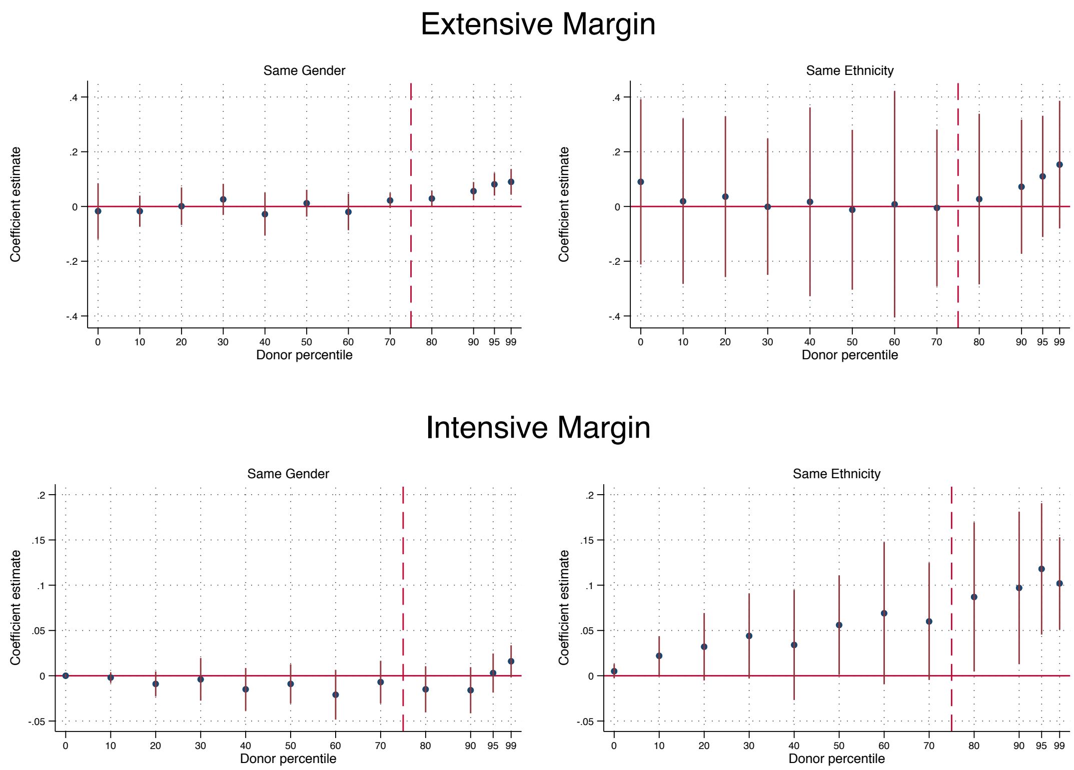
Notes: The figure plots the values and 95% confidence intervals of the ”Close Seat” and ”Safe Republican Seat” coefficients obtained from estimating Equation 1 for different definitions of closeness, indicated on the x-axis: the x-value represents the votes-margin threshold under which a race is deemed ”close”. All other covariates of Table 5 are included in the regression.

Figure C.25: The role of Closeness – Robustness of Effect to Different Thresholds – Extensive Margin – General Elections – 2012-2020



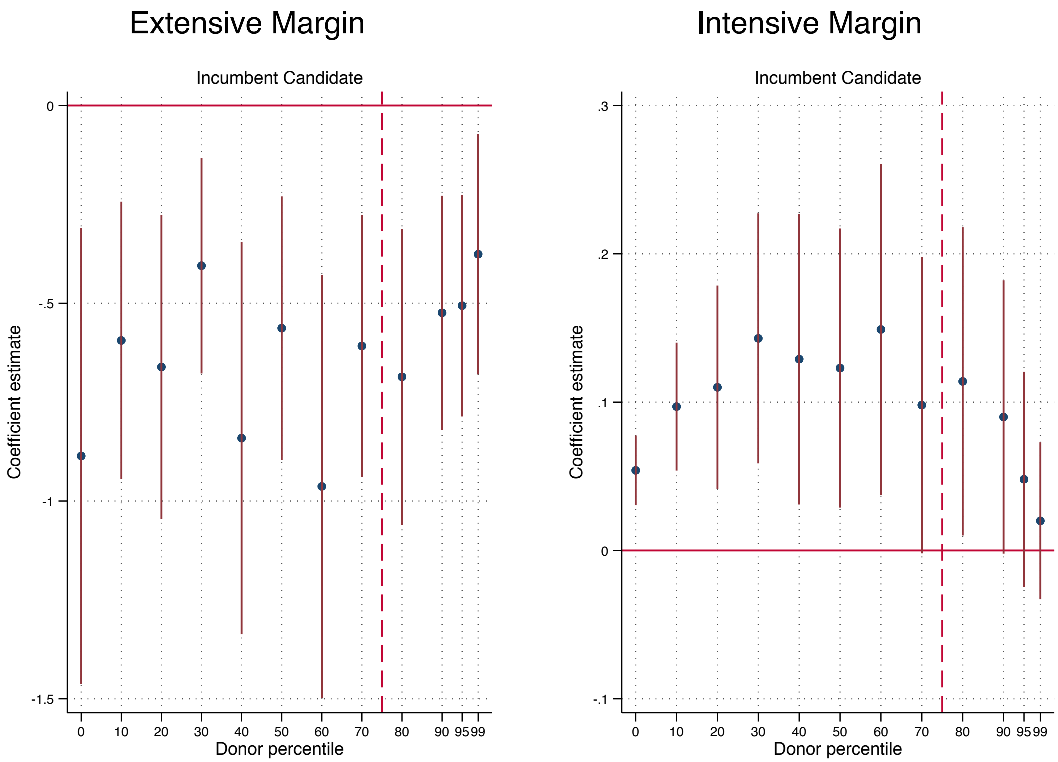
Notes: The figure plots the values and 95% confidence intervals of the "Close Seat" and "Safe Republican Seat" coefficients obtained from estimating Equation 1 for different definitions of closeness, indicated on the x-axis: the x-value represents the votes-margin threshold under which a race is deemed "close". All other covariates of Table 5 are included in the regression.

Figure C.26: The role of Closeness – Robustness of Effect to Different Thresholds – Intensive Margin – General Elections – 2012-2020



Notes: The figure plots the values and 95% confidence intervals of the ”Match gender” and ”Match race” coefficients obtained from estimating equation 1 for different deciles of donors, based on the distribution of the maximum contributions made to any candidate during an electoral cycle. A donor making a maximum contribution of $200, the threshold used to split our sample between small and large contributors in the regression tables, would locate in the 8th decile. The estimations include Election Year, State, House/Senate and Contributor fixed effects.

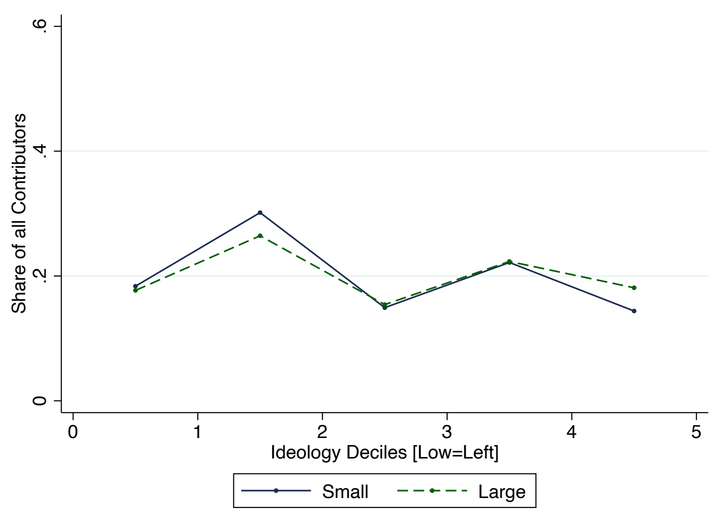
Figure C.27: The importance of gender and ethnicity: Estimations by donors' deciles, general elections, Democratic candidates, 2012-2020



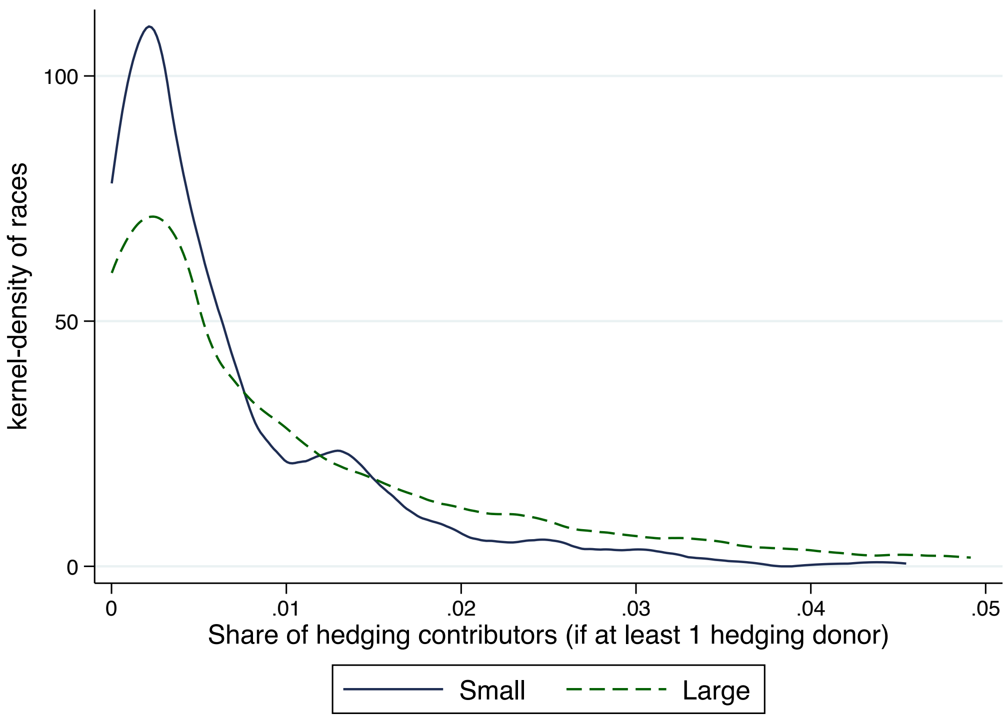
Notes: The figure plots the values and 95% confidence intervals of the "Incumbent Candidate" coefficient obtained from estimating equation 1 for different deciles of donors, based on the distribution of the maximum contributions made to any candidate during an electoral cycle. A donor making a maximum contribution of $200, the threshold used to split our sample between small and large contributors in the regression tables, would locate in the 8th decile. The estimations include Election Year, State, House/Senate and Contributor fixed effects.

Figure C.28: The importance of incumbency: Estimations by donors' deciles, general elections, Democratic candidates, 2012-2020

Figure C.29: The determinants of campaign donations: Ideology, Twitter-based measure, General elections, Democratic candidates, 2020



Notes: The figure represents, for electoral cycle 2020, the share of small and large donors contributions going to candidates grouped by quintiles of Twitter-based ideology estimates (Bailey 2021).



Notes: The figure plots the share of contributors who hedge, i.e. give to two or more candidates in the same district, during primary elections, among small vs. large donors. An observation is a district-year. Only districts with at least one donor hedging are shown.

Figure C.30: Share of hedging contributors among small vs. large donors, Primary elections, 2012-2020

D Additional tables

Table D.1: Missing values of the variables of interest, 2012-2020

Variable	Missing
Seat Close	0.11%
Seat Close (Primary)	0.25%
Same Gender	3.78%
Same Race	16.0%
Same District	7.80%
Same State	6.94%

Notes: The table indicates the share of observations for which the value of each variable is unavailable. An observation is a candidate-contributor pair at each electoral cycle. The time period is 2012-2020.

Table D.2: The determinants of campaign donations: Ex-post measure of closeness, extensive margin, general elections, Democratic candidates, 2012-2020

	Large		Small	
	(1)	(2)	(4)	(6)
Close Seat	1.366***	1.363***	0.925***	0.917***
	(0.210)	(0.211)	(0.203)	(0.203)
Safe Republican Seat	-0.064	-0.044	0.023	0.045
	(0.266)	(0.267)	(0.260)	(0.261)
Incumbent Candidate	-0.576**	-0.564**	-0.499**	-0.491**
	(0.189)	(0.188)	(0.184)	(0.183)
In Same State	1.617***	1.581***	0.617***	0.605***
	(0.124)	(0.123)	(0.077)	(0.083)
In Same District	24.495***	24.553***	18.653***	18.678***
	(1.629)	(1.650)	(2.862)	(2.885)
Same Gender	0.014	0.031	-0.006	-0.009
	(0.015)	(0.017)	(0.028)	(0.030)
Same Ethnicity	0.002	-0.016	0.003	-0.025
	(0.107)	(0.159)	(0.102)	(0.155)
Election Year FE	✓	✓	✓	✓
State FE	✓	✓	✓	✓
House/Senate FE	✓	✓	✓	✓
Contributor FE		✓		✓
Seat-Year FE				
Sample Mean	0.868	0.868	0.624	0.624
R-sq	0.070	0.086	0.068	0.079
R-sq (within)	0.033	0.034	0.025	0.025
Observations	1,003,104,252	1,003,104,252	1,697,099,635	1,697,099,635

Notes: Models are estimated using OLS. The time period is 2012-2020. An observation is a candidate-contributor pair at each electoral cycle. The sample includes, for each contributor who gave during a cycle, all the possible pairs of that cycle. The dependent variable is an indicator variable equal to 100 for each donor-candidate pair for which we observe at least one contribution during the cycle. For each donor that makes at least one contribution during the cycle, we then identify all the candidates this donor did not make a contribution to, and set the dependent variable of the corresponding pairs to 0. Regressors are described in the text. For each characteristic, we create and control for an indicator equal to one when the characteristic is missing, and set the corresponding matching variable to 0. Closeness is defined using the ex-post vote margin (i.e. the vote margin of the same-year election). Standard errors are shown in parentheses and two-way clustered at the candidate and donor levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.3: The determinants of campaign donations: Ex-post measure of closeness, Intensive Margin, General elections, Democratic candidates, 2012-2020

	Large		Small	
	(1)	(2)	(4)	(6)
Close Seat	0.002	0.038	-0.115	-0.031
	(0.056)	(0.048)	(0.072)	(0.042)
Safe Republican Seat	0.131	0.155*	0.213	0.139*
	(0.095)	(0.062)	(0.133)	(0.068)
Incumbent Candidate	0.270***	0.139**	0.147	0.111**
	(0.061)	(0.046)	(0.094)	(0.043)
In Same State	1.387***	0.692***	0.796***	0.435***
	(0.069)	(0.042)	(0.062)	(0.031)
In Same District	0.451***	0.676***	0.332**	0.436***
	(0.076)	(0.045)	(0.106)	(0.041)
Same Gender	0.080	-0.011	0.019	-0.009
	(0.042)	(0.011)	(0.034)	(0.009)
Same Ethnicity	0.094***	0.093**	0.062**	0.043
	(0.022)	(0.035)	(0.021)	(0.023)
Election Year FE	✓	✓	✓	✓
State FE	✓	✓	✓	✓
House/Senate FE	✓	✓	✓	✓
Contributor FE		✓		✓
Seat-Year FE				
Sample Mean	4.287	4.150	2.994	2.814
R-sq	0.161	0.738	0.176	0.775
R-sq (within)	0.126	0.094	0.098	0.076
Observations	8,707,859	7,869,765	10,597,215	8,502,972

Notes: Models are estimated using OLS. The time period is 2012-2020. An observation is a candidate-contributor pair at each electoral cycle. The sample includes all pairs for which we observe non-zero contributions. The dependent variable is the inverse hyperbolic sine transformation of the total amount contributed by the donor to the candidate during the general election. Regressors are described in the text. For each characteristic, we create and control for an indicator equal to one when the characteristic is missing, and set the corresponding matching variable to 0. Closeness is defined using the ex-post vote margin (i.e. the vote margin of the same-year election). Standard errors are shown in parentheses and two-way clustered at the candidate and contributor levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.4: The determinants of campaign donations: Contributor-Candidate Fixed Effects, Intensive Margin, General elections, Democratic candidates, 2012-2020

	Large	Small
	(1)	(2)
Close Seat	0.062	0.072
	(0.107)	(0.103)
Safe Republican Seat	0.172	0.212
	(0.175)	(0.148)
Incumbent Candidate	-0.014	0.003
	(0.069)	(0.068)
In Same District	0.032***	0.153**
	(0.042)	(0.052)
Election Year FE	✓	✓
State FE		
House/Senate FE		
Contributor FE		
Seat-Year FE		
Contributor-Candidate FE	✓	✓
Sample Mean	5.566	3.711
R-sq	0.874	0.771
R-sq (within)	0.002	0.004
Observations	422,564	96,936

Notes: Models are estimated using OLS. The time period is 2012-2020. An observation is a candidate-contributor pair at each electoral cycle. The sample includes all pairs for which we observe non-zero contributions. The dependent variable is the inverse hyperbolic sine transformation of the total amount contributed by the donor to the candidate during the general election. Regressors are described in the text. For each characteristic, we create and control for an indicator equal to one when the characteristic is missing, and set the corresponding matching variable to 0. Standard errors are shown in parentheses and two-way clustered at the candidate and contributor levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.5: The determinants of campaign donations: Ideology, extensive margin, general elections, Democratic candidates, 2012-2018

	Large		Small	
	(1)	(2)	(4)	(5)
Close Seat	0.377**	0.372**	0.001	-0.003
	(0.135)	(0.136)	(0.174)	(0.178)
Safe Republican Seat	-0.115	-0.121	-0.209	-0.213
	(0.170)	(0.170)	(0.194)	(0.191)
Incumbent Candidate	-0.394*	-0.396*	-0.499**	-0.500**
	(0.169)	(0.169)	(0.179)	(0.179)
In Same State	1.756***	1.729***	0.640***	0.636***
	(0.133)	(0.132)	(0.116)	(0.127)
In Same District	27.612***	27.671***	22.972***	23.001***
	(1.980)	(2.002)	(4.221)	(4.254)
Same Gender	0.041*	0.072***	0.025	0.021
	(0.017)	(0.021)	(0.022)	(0.026)
Same Ethnicity	0.063	0.091	0.061	0.085
	(0.059)	(0.096)	(0.057)	(0.101)
Ideology Score	-0.542**	-0.540**	-0.348*	-0.346*
	(0.192)	(0.192)	(0.159)	(0.160)
Ideology Score Sq.	-0.122**	-0.122**	-0.077*	-0.077*
	(0.045)	(0.045)	(0.036)	(0.036)
Election Year FE	✓	✓	✓	✓
State FE	✓	✓	✓	✓
House/Senate FE	✓	✓	✓	✓
Contributor FE		✓		✓
Seat-Year FE				
Sample Mean	0.741	0.741	0.523	0.523
R-sq	0.061	0.079	0.060	0.071
R-sq (within)	0.043	0.044	0.040	0.041
Observations	581,312,611	581,312,611	902,725,658	902,725,658

Notes: Models are estimated using OLS. The time period is 2012-2018. An observation is a candidate-contributor pair at each electoral cycle. The sample includes, for each contributor who gave during a cycle, all the possible pairs of that cycle. The dependent variable is an indicator variable equal to 100 for each donor-candidate pair for which we observe at least one contribution during the cycle. For each donor that makes at least one contribution during the cycle, we then identify all the candidates this donor did not make a contribution to, and set the dependent variable of the corresponding pairs to 0. Regressors are described in the text. For each characteristic, we create and control for an indicator equal to one when the characteristic is missing, and set the corresponding matching variable to 0. Standard errors are shown in parentheses and two-way clustered at the candidate and donor levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.6: The determinants of campaign donations: Ideology, intensive margin, general elections, Democratic candidates, 2012-2018

	Large		Small	
	(1)	(2)	(4)	(6)
Close Seat	-0.018	-0.007	-0.064	-0.033
	(0.087)	(0.057)	(0.074)	(0.046)
Safe Republican Seat	0.132	0.089	0.136	0.062
	(0.107)	(0.069)	(0.102)	(0.051)
Incumbent Candidate	0.238**	0.259***	0.272***	0.194***
	(0.075)	(0.050)	(0.081)	(0.046)
In Same State	1.678***	0.807***	0.960***	0.490***
	(0.060)	(0.039)	(0.058)	(0.033)
In Same District	0.337***	0.646***	0.108	0.479***
	(0.080)	(0.053)	(0.170)	(0.045)
Same Gender	0.091**	-0.011	0.012	-0.009
	(0.034)	(0.007)	(0.019)	(0.006)
Same Ethnicity	0.094**	0.101*	0.086*	0.045
	(0.032)	(0.046)	(0.035)	(0.034)
Ideology Score	0.493	-0.148	-0.012	-0.071
	(0.297)	(0.087)	(0.103)	(0.042)
Ideology Score Sq.	-0.037	0.086*	0.132**	0.071**
	(0.120)	(0.040)	(0.050)	(0.025)
Election Year FE	✓	✓	✓	✓
State FE	✓	✓	✓	✓
House/Senate FE	✓	✓	✓	✓
Contributor FE		✓		✓
Seat-Year FE				
Sample Mean	4.282	4.028	2.993	2.729
R-sq	0.233	0.769	0.223	0.765
R-sq (within)	0.181	0.112	0.128	0.100
Observations	4,306,447	3,727,642	4,721,934	3,486,549

Notes: Models are estimated using OLS. The time period is 2012-2018. An observation is a candidate-contributor pair at each electoral cycle. The sample includes all pairs for which we observe non-zero contributions. The dependent variable is the inverse hyperbolic sine transformation of the total amount contributed by the donor to the candidate during the general election. Regressors are described in the text. For each characteristic, we create and control for an indicator equal to one when the characteristic is missing, and set the corresponding matching variable to 0. Standard errors are shown in parentheses and two-way clustered at the candidate and contributor levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.7: The determinants of campaign donations: Extensive margin, primary elections, Democratic candidates, 2012-2020

	Large			Small		
	(1)	(2)	(3)	(4)	(5)	(6)
Close Seat	0.233***	0.230***		0.126*	0.124*	
	(0.068)	(0.068)		(0.051)	(0.052)	
Safe Republican Seat	0.114	0.110		0.078	0.077	
	(0.059)	(0.060)		(0.044)	(0.045)	
Close Primary Seat	-0.267	-0.268		-0.231*	-0.232*	
	(0.160)	(0.160)		(0.109)	(0.109)	
Incumbent Candidate	0.260***	0.258***		0.154*	0.153*	
	(0.066)	(0.066)		(0.074)	(0.074)	
Top 2 Primary Cand.	0.426***	0.426***	0.512***	0.306***	0.306***	0.367***
	(0.058)	(0.058)	(0.063)	(0.047)	(0.047)	(0.055)
In Same State	0.971***	0.991***	0.961***	0.412***	0.422***	0.407***
	(0.061)	(0.063)	(0.056)	(0.032)	(0.034)	(0.029)
In Same District	10.172***	10.200***	10.351***	7.155***	7.174***	7.180***
	(1.419)	(1.422)	(1.269)	(0.940)	(0.942)	(0.846)
Same Gender	0.015	0.028**	0.032**	0.020	0.022	0.016
	(0.009)	(0.010)	(0.011)	(0.011)	(0.012)	(0.010)
Same Ethnicity	0.059	0.071	0.115***	0.023	0.027	0.045*
	(0.038)	(0.052)	(0.034)	(0.029)	(0.039)	(0.022)
Election Year FE	✓	✓		✓	✓	
State FE	✓	✓		✓	✓	
House/Senate FE	✓	✓		✓	✓	
Contributor FE		✓	✓		✓	✓
Candidate-Year FE			✓			✓
Sample Mean	0.373	0.373	0.373	0.224	0.224	0.224
R-sq	0.022	0.032	0.054	0.016	0.021	0.049
R-sq (within)	0.016	0.016	0.016	0.011	0.011	0.011
Observations	125,256,898	125,256,898	125,256,898	179,462,029	179,462,029	179,462,029

Notes: Models are estimated using OLS. The time period is 2012-2020. An observation is a candidate-contributor pair at each electoral cycle. The sample includes, for each contributor who gave during a cycle, all the possible pairs of that cycle. The dependent variable is an indicator variable equal to 100 for each donor-candidate pair for which we observe at least one contribution during the cycle. For each donor that makes at least one contribution during the cycle, we then identify all the candidates this donor did not make a contribution to, and set the dependent variable of the corresponding pairs to 0. Regressors are described in the text. For each characteristic, we create and control for an indicator equal to one when the characteristic is missing, and set the corresponding matching variable to 0. Standard errors are shown in parentheses and two-way clustered at the candidate and donor levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.8: The determinants of campaign donations: Intensive margin, primary elections, Democratic candidates, 2012-2020

	Large			Small		
	(1)	(2)	(3)	(4)	(5)	(6)
Close Seat	-0.287***	-0.217***		-0.286***	-0.158***	
	(0.065)	(0.059)		(0.071)	(0.042)	
Safe Republican Seat	-0.419***	-0.183*		-0.157	-0.096*	
	(0.096)	(0.071)		(0.100)	(0.049)	
Close Primary Seat	-0.072	-0.036		-0.047	-0.010	
	(0.112)	(0.058)		(0.075)	(0.034)	
Incumbent Candidate	0.249***	0.123**		0.138*	0.106**	
	(0.065)	(0.045)		(0.061)	(0.035)	
Top 2 Primary Cand.	-0.833***	-0.090	-0.423***	-0.773***	-0.110	-0.502***
	(0.154)	(0.075)	(0.088)	(0.138)	(0.077)	(0.097)
In Same State	1.661***	0.692***	0.749***	0.796***	0.377***	0.389***
	(0.074)	(0.037)	(0.035)	(0.064)	(0.025)	(0.023)
In Same District	0.309***	0.590***	0.664***	0.309***	0.448***	0.505***
	(0.082)	(0.050)	(0.046)	(0.074)	(0.035)	(0.032)
Same Gender	0.128***	-0.017	-0.012	0.006	-0.013	-0.008
	(0.026)	(0.010)	(0.007)	(0.014)	(0.008)	(0.005)
Same Ethnicity	0.146**	0.082	0.113***	0.099*	0.055	0.089***
	(0.047)	(0.048)	(0.022)	(0.039)	(0.029)	(0.020)
Election Year FE	✓	✓		✓	✓	
State FE	✓	✓		✓	✓	
House/Senate FE	✓	✓		✓	✓	
Contributor FE		✓	✓		✓	✓
Candidate-Year FE			✓			✓
Sample Mean	4.256	4.019	4.019	2.996	2.703	2.702
R-sq	0.224	0.757	0.779	0.228	0.745	0.767
R-sq (within)	0.170	0.091	0.103	0.134	0.078	0.086
Observations	466,591	398,755	398,689	401,881	269,808	269,673

Notes: Models are estimated using OLS. The time period is 2012-2020. An observation is a candidate-contributor pair at each electoral cycle. The sample includes all pairs for which we observe non-zero contributions. The dependent variable is the inverse hyperbolic sine transformation of the total amount contributed by the donor to the candidate during the general election. Regressors are described in the text. For each characteristic, we create and control for an indicator equal to one when the characteristic is missing, and set the corresponding matching variable to 0. Standard errors are shown in parentheses and two-way clustered at the candidate and contributor levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.9: The determinants of campaign donations: Extensive+intensive margins, primary elections, Democratic candidates, 2012-2020

	Large			Small		
	(1)	(2)	(3)	(4)	(5)	(6)
Close Seat	0.009**	0.009**		0.003*	0.003	
	(0.003)	(0.003)		(0.002)	(0.002)	
Safe Republican Seat	0.005	0.004		0.002	0.002	
	(0.003)	(0.003)		(0.001)	(0.001)	
Close Primary Seat	-0.013	-0.013		-0.007*	-0.007*	
	(0.007)	(0.007)		(0.004)	(0.004)	
Incumbent Candidate	0.013***	0.013***		0.005*	0.005*	
	(0.003)	(0.003)		(0.002)	(0.002)	
Top 2 Primary Cand.	0.016***	0.016***	0.017***	0.008***	0.008***	0.008***
	(0.003)	(0.003)	(0.002)	(0.001)	(0.001)	(0.001)
In Same State	0.055***	0.056***	0.055***	0.015***	0.016***	0.015***
	(0.003)	(0.004)	(0.003)	(0.001)	(0.001)	(0.001)
In Same District	0.616***	0.617***	0.626***	0.281***	0.281***	0.282***
	(0.085)	(0.085)	(0.078)	(0.037)	(0.037)	(0.034)
Same Gender	0.001***	0.001***	0.002***	0.001	0.001	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Same Ethnicity	0.004*	0.005*	0.007***	0.001	0.001	0.002**
	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
Election Year FE	✓	✓		✓	✓	
State FE	✓	✓		✓	✓	
House/Senate FE	✓	✓		✓	✓	
Contributor FE		✓	✓		✓	✓
Candidate-Year FE			✓			✓
Sample Mean	0.016	0.016	0.016	0.007	0.007	0.007
R-sq	0.030	0.035	0.053	0.021	0.022	0.049
R-sq (within)	0.024	0.025	0.025	0.016	0.016	0.016
Observations	125,256,898	125,256,898	125,256,898	179,462,029	179,462,029	179,462,029

Notes: Models are estimated using OLS. The time period is 2012-2020. An observation is a candidate-contributor pair at each electoral cycle. The sample includes, for each contributor who gave during a cycle, all the possible pairs of that cycle. The dependent variable is the inverse hyperbolic sine transformation of the total amount contributed by the donor to the candidate during the general election. Regressors are described in the text. For each characteristic, we create and control for an indicator equal to one when the characteristic is missing, and set the corresponding matching variable to 0. Standard errors are shown in parentheses and two-way clustered at the candidate and contributor levels.* $p<0.10$, ** $p<0.05$, *** $p<0.01$.

Table D.10: The determinants of campaign donations: Ideology, Twitter-based measure, Extensive Margins, General elections, Democratic candidates, 2020

	Large		Small	
	(1)	(2)	(4)	(5)
Close Seat	0.950**	0.928**	0.510	0.488
	(0.310)	(0.313)	(0.272)	(0.276)
Safe Republican Seat	0.127	0.226	0.089	0.173
	(0.396)	(0.398)	(0.356)	(0.360)
Incumbent Candidate	-0.490	-0.430	-0.316	-0.267
	(0.312)	(0.312)	(0.274)	(0.275)
In Same State	1.438***	1.376***	0.547***	0.515***
	(0.143)	(0.142)	(0.068)	(0.068)
In Same District	20.410***	20.434***	13.283***	13.284***
	(1.739)	(1.767)	(1.438)	(1.459)
Same Gender	-0.006	-0.004	-0.010	-0.013
	(0.023)	(0.023)	(0.039)	(0.040)
Same Ethnicity	0.011	-0.050	0.037	-0.012
	(0.165)	(0.240)	(0.140)	(0.207)
Ideology Score	-1.317	-1.378	0.325	0.360
	(0.888)	(0.914)	(1.100)	(1.124)
Ideology Score Sq.	-0.772*	-0.825*	0.180	0.167
	(0.382)	(0.395)	(0.417)	(0.435)
Election Year FE	✓	✓	✓	✓
State FE	✓	✓	✓	✓
House/Senate FE	✓	✓	✓	✓
Contributor FE		✓		✓
Seat-Year FE				
Sample Mean	0.751	0.751	0.734	0.734
R-sq	0.060	0.079	0.094	0.109
R-sq (within)	0.041	0.042	0.010	0.012
Observations	231,402,012	231,402,012	835,350,117	835,350,117

Notes: Models are estimated using OLS. The time period is 2020. An observation is a candidate-contributor pair at each electoral cycle. The sample includes, for each contributor who gave during a cycle, all the possible pairs of that cycle. The dependent variable is an indicator variable equal to 100 for each donor-candidate pair for which we observe at least one contribution during the cycle. For each donor that makes at least one contribution during the cycle, we then identify all the candidates this donor did not make a contribution to, and set the dependent variable of the corresponding pairs to 0. Regressors are described in the text. For each characteristic, we create and control for an indicator equal to one when the characteristic is missing, and set the corresponding matching variable to 0. Standard errors are shown in parentheses and two-way clustered at the candidate and donor levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.11: The determinants of campaign donations: Ideology, Twitter-based measure, Intensive Margins, General elections, Democratic candidates, 2020

	Large		Small	
	(1)	(2)	(4)	(6)
Close Seat	-0.036	-0.121	0.510	0.488
	(0.073)	(0.097)	(0.272)	(0.276)
Safe Republican Seat	0.096	-0.059	0.089	0.173
	(0.089)	(0.099)	(0.356)	(0.360)
Incumbent Candidate	0.048	0.014	-0.316	-0.267
	(0.069)	(0.065)	(0.274)	(0.275)
In Same State	0.904***	0.520***	0.547***	0.515***
	(0.066)	(0.044)	(0.068)	(0.068)
In Same District	0.596***	0.723***	13.283***	13.284***
	(0.076)	(0.049)	(1.438)	(1.459)
Same Gender	0.059	-0.007	-0.010	-0.013
	(0.074)	(0.018)	(0.039)	(0.040)
Same Ethnicity	0.089***	0.057	0.037	-0.012
	(0.019)	(0.030)	(0.140)	(0.207)
Ideology Score	-0.236	-0.079	0.325	0.360
	(0.579)	(0.302)	(1.100)	(1.124)
Ideology Score Sq.	-0.263	-0.056	0.180	0.167
	(0.241)	(0.113)	(0.417)	(0.435)
Election Year FE	✓	✓	✓	✓
State FE	✓	✓	✓	✓
House/Senate FE	✓	✓	✓	✓
Contributor FE		✓		✓
Seat-Year FE				
Sample Mean	4.284	4.189	0.734	0.734
R-sq	0.100	0.748	0.094	0.109
R-sq (within)	0.066	0.072	0.010	0.012
Observations	4,674,403	4,157,006	835,350,117	835,350,117

Notes: Models are estimated using OLS. The time period is 2020. An observation is a candidate-contributor pair at each electoral cycle. The sample includes all pairs for which we observe non-zero contributions. The dependent variable is the inverse hyperbolic sine transformation of the total amount contributed by the donor to the candidate during the general election. Regressors are described in the text. For each characteristic, we create and control for an indicator equal to one when the characteristic is missing, and set the corresponding matching variable to 0. Standard errors are shown in parentheses and two-way clustered at the candidate and contributor levels. * $p<0.10$, ** $p<0.05$, *** $p<0.01$.

Table D.12: Summary statistics on electoral and matching demographic characteristics, General Elections, Republican Congressional Candidates, 2020

	Candidates	Large donors	Small donors
	Share	Share	Share
Electoral characteristics			
Close Races	0.302	0.454	0.346
Sure Winners	0.274	0.041	0.036
Sure Losers	0.424	0.506	0.618
Incumbents	0.427	0.580	0.662
Matching characteristics			
Gender		0.517	0.490
Race		0.720	0.725
District		0.062	0.072
Observations	354	3,343,861	1,236,063

Notes: The table gives summary statistics on electoral and matching demographic characteristics of candidates and donors. Electoral cycle 2020. An observation is a candidate-cycle in the first column, and a contributor-candidate-cycle pair in the second and third columns. Shares are computed based on all relevant population with non-missing values. Small and large donors are defined in the text.

Table D.13: Extensive Margin, General elections, only Republican candidates, 2020

	Large			Small		
	(1)	(2)	(3)	(4)	(5)	(6)
Close Seat	1.146***	1.180***		0.244	0.267	
	(0.348)	(0.350)		(0.198)	(0.196)	
Safe Republican Seat	0.945	0.992		0.395	0.426	
	(0.693)	(0.693)		(0.395)	(0.395)	
Incumbent Candidate	0.096	0.112		0.082	0.094	
	(0.536)	(0.537)		(0.313)	(0.314)	
In Same State	0.855***	0.827***	0.838***	0.345***	0.349***	0.349***
	(0.110)	(0.107)	(0.104)	(0.064)	(0.064)	(0.061)
In Same District	15.598***	15.667***	15.484***	8.391***	8.398***	8.346***
	(1.546)	(1.557)	(1.556)	(1.200)	(1.201)	(1.153)
Same Gender	-0.161***	-0.125	-0.104**	-0.042*	-0.052	-0.061**
	(0.047)	(0.074)	(0.034)	(0.019)	(0.028)	(0.022)
Same Ethnicity	-0.265*	-0.492*	-0.027	-0.134*	-0.288*	-0.001
	(0.112)	(0.249)	(0.029)	(0.055)	(0.124)	(0.025)
Election Year FE	✓	✓		✓	✓	
State FE	✓	✓		✓	✓	
House/Senate FE	✓	✓		✓	✓	
Contributor FE		✓	✓		✓	✓
Seat-Year FE			✓			✓
Sample Mean	1.036	1.036	1.036	0.460	0.460	0.460
R-sq	0.056	0.090	0.158	0.050	0.055	0.149
R-sq (within)	0.011	0.011	0.009	0.006	0.006	0.006
Observations	303,754,330	303,754,330	303,754,330	239,783,685	239,783,685	239,783,685

Notes: Models are estimated using OLS. The time period is 2020. An observation is a candidate-contributor pair at each electoral cycle. The sample includes, for each contributor who gave during a cycle, all the possible pairs of that cycle. The dependent variable is an indicator variable equal to 100 for each donor-candidate pair for which we observe at least one contribution during the cycle. For each donor that makes at least one contribution during the cycle, we then identify all the candidates this donor did not make a contribution to, and set the dependent variable of the corresponding pairs to 0. Regressors are described in the text. For each characteristic, we create and control for an indicator equal to one when the characteristic is missing, and set the corresponding matching variable to 0. Standard errors are shown in parentheses and two-way clustered at the candidate and donor levels. * $p<0.10$, ** $p<0.05$, *** $p<0.01$.

Table D.14: Intensive Margin, General elections, Republican candidates, 2020

	Large			Small		
	(1)	(2)	(3)	(4)	(5)	(6)
Close Seat	-1.097***	-0.478**		-0.307	-0.078	
	(0.253)	(0.175)		(0.180)	(0.088)	
Safe Republican Seat	-0.054	0.315		0.360	0.370**	
	(0.292)	(0.244)		(0.200)	(0.119)	
Incumbent Candidate	-0.265	-0.217		-0.402***	-0.242*	
	(0.165)	(0.177)		(0.121)	(0.116)	
In Same State	1.153***	0.501***	0.611***	0.336***	0.164***	0.228***
	(0.144)	(0.054)	(0.054)	(0.074)	(0.028)	(0.026)
In Same District	0.534**	0.476***	0.492***	0.263**	0.216***	0.202***
	(0.191)	(0.076)	(0.080)	(0.089)	(0.037)	(0.040)
Same Gender	0.174***	-0.049***	-0.056***	0.059***	-0.032***	-0.035***
	(0.043)	(0.013)	(0.008)	(0.016)	(0.007)	(0.007)
Same Ethnicity	0.011	-0.259	0.007	0.015	-0.102*	0.007
	(0.044)	(0.140)	(0.015)	(0.021)	(0.050)	(0.009)
Election Year FE	✓	✓		✓	✓	
State FE	✓	✓		✓	✓	
House/Senate FE	✓	✓		✓	✓	
Contributor FE		✓	✓		✓	✓
Seat-Year FE			✓			✓
Sample Mean	4.435	4.246	4.246	3.951	3.761	3.761
R-sq	0.280	0.713	0.764	0.124	0.696	0.713
R-sq (within)	0.109	0.071	0.044	0.043	0.031	0.016
Observations	3,146,794	2,718,524	2,718,519	1,102,578	613,804	613,786

Notes: Models are estimated using OLS. The time period is 2020. An observation is a candidate-contributor pair at each electoral cycle. The sample includes all pairs for which we observe non-zero contributions. The dependent variable is the inverse hyperbolic sine transformation of the total amount contributed by the donor to the candidate during the general election. Regressors are described in the text. For each characteristic, we create and control for an indicator equal to one when the characteristic is missing, and set the corresponding matching variable to 0. Standard errors are shown in parentheses and two-way clustered at the candidate and contributor levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.15: Extensive and Intensive Margin, General elections, Republican candidates, 2020

	Large			Small		
	(1)	(2)	(3)	(4)	(5)	(6)
Close Seat	0.042*	0.044*		0.009	0.010	
	(0.017)	(0.017)		(0.008)	(0.008)	
Safe Republican Seat	0.044	0.047		0.017	0.018	
	(0.037)	(0.037)		(0.017)	(0.017)	
Incumbent Candidate	0.005	0.006		0.003	0.003	
	(0.029)	(0.029)		(0.013)	(0.013)	
In Same State	0.047***	0.046***	0.046***	0.014***	0.014***	0.014***
	(0.006)	(0.006)	(0.006)	(0.003)	(0.003)	(0.002)
In Same District	0.938***	0.941***	0.932***	0.366***	0.366***	0.364***
	(0.088)	(0.089)	(0.088)	(0.053)	(0.053)	(0.051)
Same Gender	-0.005*	-0.006	-0.005**	-0.001	-0.002	-0.002*
	(0.003)	(0.004)	(0.002)	(0.001)	(0.001)	(0.001)
Same Ethnicity	-0.012*	-0.024*	-0.001	-0.005*	-0.011*	-0.000
	(0.005)	(0.012)	(0.001)	(0.002)	(0.005)	(0.001)
Election Year FE	✓	✓		✓	✓	
State FE	✓	✓		✓	✓	
House/Senate FE	✓	✓		✓	✓	
Contributor FE		✓	✓		✓	✓
Seat-Year FE			✓			✓
Sample Mean	0.046	0.046	0.046	0.018	0.018	0.018
R-sq	0.066	0.086	0.165	0.051	0.055	0.153
R-sq (within)	0.015	0.015	0.015	0.006	0.007	0.007
Observations	303,754,330	303,754,330	303,754,330	239,783,685	239,783,685	239,783,685

Notes: Models are estimated using OLS. The time period is 2020. An observation is a candidate-contributor pair at each electoral cycle. The sample includes, for each contributor who gave during a cycle, all the possible pairs of that cycle. The dependent variable is the inverse hyperbolic sine transformation of the total amount contributed by the donor to the candidate during the general election. Regressors are described in the text. For each characteristic, we create and control for an indicator equal to one when the characteristic is missing, and set the corresponding matching variable to 0. Standard errors are shown in parentheses and two-way clustered at the candidate and contributor levels. * $p<0.10$, ** $p<0.05$, *** $p<0.01$.

Table D.16: Effects of TV ads on electoral outcomes

(a) **Presidential elections**

	Turnout			Dem-Rep Votes		
	(1) 2012	(2) 2016	(3) 2012-2016	(4) 2012	(5) 2016	(6) 2012-2016
All Parties Ads (Total number, in 1000s)	0.04	0.04	-0.02			
	(0.03)	(0.04)	(0.02)			
Dem-Rep Difference in Ads				0.33***	0.10	0.11
				(0.09)	(0.13)	(0.11)
County-Pair x Year FE	✓	✓	✓	✓	✓	✓
County FE			✓			✓
Controls	✓	✓	✓	✓	✓	✓
Lagged Dep.	✓	✓		✓	✓	
R-sq (within)	0.847	0.822	0.016	0.968	0.958	0.147
Observations	5,058	5,058	10,116	5,058	5,058	10,116
Clusters	450+46	450+46	450+46	450+46	450+46	450+46
Mean DepVar	55.46	54.99	55.23	-23.34	-36.40	-29.87

(b) **Congressional elections**

	Turnout					Dem-Rep Votes				
	(1) 2012	(2) 2014	(3) 2016	(4) 2018	(5) 2012-2018	(6) 2012	(7) 2014	(8) 2016	(9) 2018	(10) 2012-2018
All Parties Local Ads (Total number, in 1000s)	0.06	0.09***	0.00	0.06***	0.03					
	(0.08)	(0.03)	(0.02)	(0.02)	(0.02)					
Dem-Rep Difference in Local Ads						0.46	1.32***	1.00***	0.50**	0.97***
						(0.61)	(0.43)	(0.32)	(0.23)	(0.20)
County-Pair x Year x Office FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
County x Office FE					✓					✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lagged Dep.	✓	✓	✓	✓		✓	✓	✓	✓	
R-sq (within)	0.628	0.684	0.737	0.789	0.021	0.611	0.773	0.762	0.838	0.021
Observations	6,038	6,384	6,274	5,948	24,600	6,038	6,384	6,274	5,948	24,600
Clusters	440+46	412+44	439+44	433+43	450+46	440+46	412+44	439+44	433+43	450+46
Mean DepVar	53.46	35.06	48.68	45.17	45.47	-23.16	-32.69	-35.51	-27.40	-29.76

Notes: Models are estimated using OLS. An observation is a county x election cycle x office type. In Panel a, the sample includes all county-pairs in the 2012 and 2016 presidential elections. In Panel b, we combine House and Senate races for the 2012 to 2018 elections. The sample includes all county-pairs with border-counties located in the same congressional district, for House races, and all county-pairs in which a Senate race took place. In columns (1) to (3), the dependent variable is turnout; in columns (4) to (6), the difference between the Democratic and Republican candidate's vote shares. Controls include all other political ads aired in the county (for presidential elections, these are House, Senate, governor and other down-ballot races' ads; for senatorial elections, presidential, House, non-local Senate, governor and other down-ballot races' ads; and for House elections, presidential, Senate, non-local House, governor and other down-ballot races' ads), measured in the same way as the main dependent variable (the sum of all parties ads in columns (1) to (3), and the difference between Democratic and Republican ads in columns (4) to (6)), together with a set of socio-demographic characteristics of the county (total population, share of high-school dropouts, share of college graduates, share of ethnic minorty population, share of foreign born population, media household income, share of population below poverty level and employment-to-population ratio). Single-cycle estimations (columns (1),(2),(4) and (5) in Panel a, and columns (1) to (4) and (6) to (9) in Panel b) include the value of the dependent variable in the previous election cycle ("lagged") as a control. Standard errors are shown in parentheses and clustered at the state and media market border levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.17: Effects of TV ads on electoral outcomes (without control variables)

(a) **Presidential elections**

	Turnout			Dem-Rep Votes		
	(1) 2012	(2) 2016	(3) 2012-2016	(4) 2012	(5) 2016	(6) 2012-2016
All Parties Ads (Total number, in 1000s)	0.02	0.05	-0.01			
	(0.02)	(0.03)	(0.02)			
Dem-Rep Difference in Ads				0.26***	-0.00	0.11
				(0.09)	(0.17)	(0.13)
County-Pair x Year FE	✓	✓	✓	✓	✓	✓
County FE			✓			✓
Controls						
Lagged Dep.	✓	✓		✓	✓	
R-sq (within)	0.838	0.782	0.000	0.962	0.895	0.001
Observations	5,058	5,058	10,116	5,058	5,058	10,116
Clusters	450+46	450+46	450+46	450+46	450+46	450+46
Mean DepVar	55.46	54.99	55.23	-23.34	-36.40	-29.87

(b) **Congressional elections**

	Turnout					Dem-Rep Votes				
	(1) 2012	(2) 2014	(3) 2016	(4) 2018	(5) 2012-2018	(6) 2012	(7) 2014	(8) 2016	(9) 2018	(10) 2012-2018
All Parties Local Ads (Total number, in 1000s)	0.08	0.07**	0.03	0.06***	0.04					
	(0.08)	(0.03)	(0.02)	(0.01)	(0.03)					
Dem-Rep Difference in Local Ads						0.30	1.37***	1.05***	0.18	0.94***
						(0.63)	(0.46)	(0.35)	(0.24)	(0.19)
County-Pair x Year x Office FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
County x Office FE					✓					✓
Controls										
Lagged Dep.	✓	✓	✓	✓		✓	✓	✓	✓	
R-sq (within)	0.530	0.668	0.690	0.781	0.001	0.487	0.753	0.690	0.789	0.007
Observations	6,038	6,384	6,274	5,948	24,600	6,038	6,384	6,274	5,948	24,600
Clusters	440+46	412+44	439+44	433+43	450+46	440+46	412+44	439+44	433+43	450+46
Mean DepVar	53.46	35.06	48.68	45.17	45.47	-23.16	-32.69	-35.51	-27.40	-29.76

Notes: Models are estimated using OLS. An observation is a county x election cycle x office type. In Panel a, the sample includes all county-pairs in the 2012 and 2016 presidential elections. In Panel b, we combine House and Senate races for the 2012 to 2018 elections. The sample includes all county-pairs with border-counties located in the same congressional district, for House races, and all county-pairs in which a Senate race took place. In columns (1) to (3), the dependent variable is turnout; in columns (4) to (6), the difference between the Democratic and Republican candidate's vote shares. Single-cycle estimations (columns (1),(2),(4) and (5) in Panel a, and columns (1) to (4) and (6) to (9) in Panel b) include the value of the dependent variable in the previous election cycle ("lagged") as a control. Standard errors are shown in parentheses and clustered at the state and media market border levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.18: Effects of TV ads on campaign contributions (without control variables)

(a) **Presidential elections**

	Contributors			Contributions		
	(1)	(2)	(3)	(4)	(5)	(6)
	All	Large	Small	All	Large	Small
Democratic Ads (Total number, in 1000s)	0.16	0.18	-0.02	-63.63	-63.59	-0.04
	(0.12)	(0.13)	(0.03)	(191.47)	(191.60)	(0.53)
Republican Ads	-0.02	-0.03	0.01	428.71	428.70	0.01
	(0.15)	(0.16)	(0.03)	(428.30)	(428.33)	(0.69)
County-Pair x Year FE	✓	✓	✓	✓	✓	✓
County FE	✓	✓	✓	✓	✓	✓
Controls						
R-sq (within)	0.004	0.004	0.001	0.009	0.009	0.000
Observations	10,116	10,116	10,116	10,116	10,116	10,116
Clusters	450+46	450+46	450+46	450+46	450+46	450+46
Mean DepVar	6.71	6.26	0.45	1,776.57	1,766.79	9.77

(b) **Congressional elections**

	Contributors			Contributions		
	(1)	(2)	(3)	(4)	(5)	(6)
	All	Large	Small	All	Large	Small
Democratic Ads (Total number, in 1000s)	0.18	0.04	0.14**	-9.56	-18.64	9.09**
	(0.11)	(0.05)	(0.07)	(72.24)	(70.22)	(4.22)
Republican Ads	-0.17	-0.05	-0.12	-1.78	6.80	-8.58*
	(0.12)	(0.06)	(0.08)	(77.27)	(75.74)	(4.27)
County-Pair x Year x Office FE	✓	✓	✓	✓	✓	✓
County x Office FE	✓	✓	✓	✓	✓	✓
Controls						
R-sq (within)	0.001	0.000	0.001	0.000	0.000	0.002
Observations	24,600	24,600	24,600	24,600	24,600	24,600
Clusters	450+46	450+46	450+46	450+46	450+46	450+46
Mean DepVar	6.74	3.06	3.68	1,000.78	863.02	137.76

Notes: Models are estimated using OLS. An observation is a county x election cycle x office type. In Panel a, the sample includes all county-pairs in the 2012 and 2016 presidential elections. In Panel b, we combine House and Senate races for the 2012 to 2018 elections. The sample includes all county-pairs with border-counties located in the same congressional district, for House races, and all county-pairs in which a Senate race took place. The dependent variable considers all contributions to Democratic candidates. In columns (1) to (3), it is the number of unique contributors over the last 60 days of the election, per 10,000 inhabitants in the county; in columns (4) to (6), it is the total dollar amount of contributions over the last 60 days of the election, per 10,000 inhabitants in the county. Standard errors are shown in parentheses and clustered at the state and media market border levels. * $p<0.10$, ** $p<0.05$, *** $p<0.01$.

Table D.19: Summary statistics on county-level political advertising and campaign contributions, 2012-2018

(a) **60-day totals, 60-day period before General Election**

	Mean	Median	sd	Min	Max	N
Democratic Ads (in 1000s)						
– Presidential	1.68	0.01	3.45	0.00	19.67	10,116
– Senate	2.40	1.23	3.00	0.00	16.95	13,157
– Senate (Local)	1.93	0.73	2.75	0.00	16.95	13,157
– House	1.68	0.16	2.95	0.00	19.64	12,469
– House (Local)	0.31	0.00	1.01	0.00	11.14	12,469
– Non-federal	1.68	0.49	2.40	0.00	16.39	18,862
Number of Contributors (per 10,000 inhabitants)						
– Presidential	6.71	3.82	10.02	0.00	138.87	10,116
– Senate	8.42	3.91	14.15	0.00	282.63	13,157
– Senate (Local)	5.07	1.96	10.43	0.00	282.63	13,157
– House	4.86	1.66	10.58	0.00	175.37	12,469
– House (Local)	2.72	0.00	8.37	0.00	151.59	12,469
Dollar Contributions (per 10,000 inhabitants)						
– Presidential	1,777	648	6,368	0	290,788	10,116
– Senate	1,076	347	2,556	0	61,818	13,157
– Senate (Local)	631	146	1,609	0	47,594	13,157
– House	910	112	4,877	0	209,808	12,469
– House (Local)	511	0	2,890	0	132,409	12,469

(b) **Monthly totals, 10-month period before General Election period**

	Mean	Median	sd	Min	Max	N
Democratic Ads (in 1000s)						
– Presidential	0.37	0.00	1.06	0.00	11.47	101,160
– Senate	0.37	0.00	0.91	0.00	10.15	131,570
– Senate (Local)	0.30	0.00	0.81	0.00	10.15	131,570
– House	0.21	0.00	0.81	0.00	12.37	124,690
– House (Local)	0.04	0.00	0.26	0.00	7.35	124,690
– Non-federal	0.25	0.00	0.80	0.00	13.94	188,620
Number of Contributors (per 10,000 inhabitants)						
– Presidential	5.22	1.94	11.78	0.00	418.20	101,160
– Senate	2.98	1.11	6.26	0.00	298.05	131,570
– Senate (Local)	1.88	0.37	4.72	0.00	267.21	131,570
– House	1.89	0.43	4.94	0.00	175.47	124,690
– House (Local)	0.89	0.00	3.57	0.00	135.50	124,690
Dollar Contributions (per 10,000 inhabitants)						
– Presidential	530	144	2,326	0	290,233	101,160
– Senate	276	40	931	0	54,972	131,570
– Senate (Local)	187	10	691	0	54,061	131,570
– House	239	7	1,595	0	185,187	124,690
– House (Local)	134	0	986	0	131,970	124,690

Notes: An observation is a county x election cycle in Panel a, and a county x month in Panel b. The samples include all county-pairs in which a race took place, for each election over the 2012-2018 period. For House races, the sample includes only county-pairs with border-counties located in the same congressional district.

Table D.20: Effects of TV ads on electoral outcomes

(a) **Senate elections**

	Turnout					Dem-Rep Votes				
	(1) 2012	(2) 2014	(3) 2016	(4) 2018	(5) 2012-2018	(6) 2012	(7) 2014	(8) 2016	(9) 2018	(10) 2012-2018
All Parties Local Ads (Total number, in 1000s)	0.09	0.11	-0.02	0.04	0.03					
	(0.12)	(0.07)	(0.06)	(0.04)	(0.04)					
Dem-Rep Difference in Local Ads						0.46	0.83**	0.86**	0.36	0.85***
						(0.54)	(0.39)	(0.34)	(0.25)	(0.19)
County-Pair x Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
County FE					✓					✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lagged Dep.	✓	✓	✓	✓		✓	✓	✓	✓	
R-sq (within)	0.518	0.646	0.693	0.760	0.023	0.621	0.764	0.805	0.894	0.026
Observations	3,102	3,686	3,328	3,012	13,128	3,102	3,686	3,328	3,012	13,128
Clusters	325+30	319+31	322+31	318+27	450+46	325+30	319+31	322+31	318+27	450+46
Mean DepVar	53.85	33.28	48.22	46.60	44.98	-14.22	-33.47	-24.13	-21.76	-23.87

(b) **House elections**

	Turnout					Dem-Rep Votes				
	(1) 2012	(2) 2014	(3) 2016	(4) 2018	(5) 2012-2018	(6) 2012	(7) 2014	(8) 2016	(9) 2018	(10) 2012-2018
All Parties Local Ads (Total number, in 1000s)	0.05	0.20	-0.06	0.05	0.02					
	(0.09)	(0.15)	(0.07)	(0.04)	(0.04)					
Dem-Rep Difference in Local Ads						0.65	2.39	1.81	0.91*	1.21**
						(1.65)	(1.58)	(1.37)	(0.51)	(0.57)
County-Pair x Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
County FE					✓					✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lagged Dep.	✓	✓	✓	✓		✓	✓	✓	✓	
R-sq (within)	0.770	0.706	0.794	0.840	0.023	0.730	0.677	0.718	0.788	0.028
Observations	2,946	2,946	2,946	2,910	11,748	2,946	2,944	2,946	2,910	11,746
Clusters	388+42	388+42	388+42	382+41	388+42	388+42	388+42	388+42	382+41	388+42
Mean DepVar	52.88	34.33	49.20	43.67	45.02	-32.84	-37.38	-48.36	-33.26	-37.97

Notes: Models are estimated using OLS. An observation is a county x election cycle x office type. The time period is 2012-2018. In Panel a, the sample includes all county-pairs x cycles where at Senate election takes place. In Panel b, the sample includes all county-pairs with border-counties located in the same congressional district. Other notes as in Table D.16. Standard errors are shown in parentheses and clustered at the state and media market border levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.21: Effects of TV ads on electoral outcomes, all ads

	Turnout					Dem-Rep Votes				
	(1) 2012	(2) 2014	(3) 2016	(4) 2018	(5) 2012-2018	(6) 2012	(7) 2014	(8) 2016	(9) 2018	(10) 2012-2018
All Parties All Ads (Total number, in 1000s)	-0.02	-0.00	0.04	0.01	0.01					
	(0.03)	(0.03)	(0.02)	(0.01)	(0.01)					
Dem-Rep Difference in All Ads						0.20	0.66**	0.92***	0.14	0.45***
						(0.48)	(0.29)	(0.25)	(0.12)	(0.12)
County-Pair x Year x Office FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
County x Office FE					✓					✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lagged Dep.	✓	✓	✓	✓		✓	✓	✓	✓	
R-sq (within)	0.628	0.682	0.737	0.789	0.021	0.611	0.776	0.763	0.838	0.018
Observations	6,038	6,384	6,274	5,912	24,564	6,038	6,382	6,274	5,912	24,562
Clusters	440+46	412+44	439+44	427+42	450+46	440+46	412+44	439+44	427+42	450+46
Mean DepVar	53.46	35.06	48.68	45.23	45.48	-23.16	-32.69	-35.51	-27.29	-29.74

Notes: Models are estimated using OLS. An observation is a county x election cycle x office type. We combine House and Senate races for the 2012 to 2018 elections. Controls include all other political ads aired in the county (for presidential elections, these are House, Senate, governor and other down-ballot races' ads; for senatorial elections, presidential, House, governor and other down-ballot races' ads; and for House elections, presidential, Senate, governor and other down-ballot races' ads), measured in the same way as the main dependent variable (the sum of all parties ads in columns (1) to (5), and the difference between Democratic and Republican ads in columns (6) to (10)), together with a set of socio-demographic characteristics of the county (total population, share of high-school dropouts, share of college graduates, share of ethnic minority population, share of foreign born population, media household income, share of population below poverty level and employment-to-population ratio). Other notes as Panel b of Table D.16. Standard errors are shown in parentheses and clustered at the state and media market border levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.22: Effects of TV ads on campaign contributions in Senate and House elections

(a) **Senate elections**

	Contributors			Contributions		
	(1) All	(2) Large	(3) Small	(4) All	(5) Large	(6) Small
Democratic Ads (Total number, in 1000s)	0.08	-0.10	0.18	-23.54	-35.97	12.44*
	(0.16)	(0.08)	(0.13)	(27.17)	(25.52)	(6.69)
Republican Ads	-0.06	0.11	-0.17	18.38	30.40	-12.02*
	(0.18)	(0.10)	(0.13)	(31.51)	(29.48)	(6.14)
County-Pair x Year FE	✓	✓	✓	✓	✓	✓
County FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
R-sq (within)	0.051	0.034	0.058	0.028	0.024	0.055
Observations	12,816	12,816	12,816	12,816	12,816	12,816
Clusters	450+46	450+46	450+46	450+46	450+46	450+46
Mean DepVar	8.52	3.65	4.86	1,085.94	908.42	177.52

(b) **House elections**

	Contributors			Contributions		
	(1) All	(2) Large	(3) Small	(4) All	(5) Large	(6) Small
Democratic Ads (Total number, in 1000s)	0.25*	0.13**	0.12	3.12	-3.38	6.50
	(0.13)	(0.06)	(0.07)	(115.97)	(112.61)	(5.22)
Republican Ads	-0.32**	-0.21**	-0.11	-19.22	-13.01	-6.21
	(0.16)	(0.08)	(0.10)	(156.73)	(152.76)	(6.36)
County-Pair x Year FE	✓	✓	✓	✓	✓	✓
County FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
R-sq (within)	0.031	0.016	0.031	0.013	0.012	0.030
Observations	11,784	11,784	11,784	11,784	11,784	11,784
Clusters	388+42	388+42	388+42	388+42	388+42	388+42
Mean DepVar	4.81	2.42	2.39	908.17	813.65	94.51

Notes: Models are estimated using OLS. An observation is a county x election cycle x office type. The time period is 2012-2018. In Panel a, the sample includes all county-pairs x cycles where at Senate election takes place. In Panel b, the sample includes all county-pairs with border-counties located in the same congressional district. Other notes as in Table 8. Standard errors are shown in parentheses and clustered at the state and media market border levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.23: Effects of *local* TV ads on campaign contributions to *local* Democratic candidates

(a) **Congressional elections**

	Contributors			Contributions		
	(1) All	(2) Large	(3) Small	(4) All	(5) Large	(6) Small
Local Democratic Ads (Total number, in 1000s)	0.16	-0.02	0.18*	-10.56	-18.80	8.24*
	(0.17)	(0.13)	(0.09)	(69.46)	(67.12)	(4.64)
Local Republican Ads	0.02	0.09	-0.06	24.56	28.11	-3.55
	(0.18)	(0.15)	(0.09)	(60.94)	(58.81)	(4.26)
County-Pair x Year x Office FE	✓	✓	✓	✓	✓	✓
County x Office FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
R-sq (within)	0.021	0.009	0.029	0.005	0.004	0.021
Observations	24,600	24,600	24,600	24,600	24,600	24,600
Clusters	450+46	450+46	450+46	450+46	450+46	450+46
Mean DepVar	4.00	1.97	2.02	580.57	504.98	75.60

(b) **Senate elections**

	Contributors			Contributions		
	(1) All	(2) Large	(3) Small	(4) All	(5) Large	(6) Small
Local Democratic Ads (Total number, in 1000s)	0.15	-0.06	0.22***	-8.22	-19.43	11.21***
	(0.15)	(0.13)	(0.06)	(34.23)	(34.22)	(3.49)
Republican Ads	0.07	0.18	-0.11*	39.20	45.51	-6.31**
	(0.19)	(0.17)	(0.07)	(30.11)	(30.55)	(2.71)
County-Pair x Year FE	✓	✓	✓	✓	✓	✓
County FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
R-sq (within)	0.032	0.024	0.040	0.013	0.012	0.032
Observations	12,816	12,816	12,816	12,816	12,816	12,816
Clusters	450+46	450+46	450+46	450+46	450+46	450+46
Mean DepVar	5.18	2.46	2.72	645.08	551.47	93.61

(c) **House elections**

	Contributors			Contributions		
	(1) All	(2) Large	(3) Small	(4) All	(5) Large	(6) Small
Local Democratic Ads (Total number, in 1000s)	0.10	0.19	-0.09	-35.94	-26.70	-9.23
	(0.74)	(0.35)	(0.43)	(357.94)	(340.47)	(21.44)
Republican Ads	-0.16	-0.43	0.27	-63.09	-77.24	14.15
	(0.85)	(0.44)	(0.50)	(375.14)	(356.47)	(25.45)
County-Pair x Year FE	✓	✓	✓	✓	✓	✓
County FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
R-sq (within)	0.021	0.017	0.021	0.009	0.008	0.019
Observations	11,784	11,784	11,784	11,784	11,784	11,784
Clusters	388+42	388+42	388+42	388+42	388+42	388+42
Mean DepVar	2.71	1.45	1.26	510.42	454.41	56.01

Notes: Models are estimated using OLS. An observation is a county x election cycle x office type. The time period is 2012-2018. In Panel a, we combine House and Senate races for the 2012 to 2018 elections. The sample includes all county-pairs with border-counties located in the same congressional district, for House races, and all county-pairs in which a Senate race took place. In Panel b, we focus on Senate elections; in Panel c, on House elections. The dependent variable considers contributions to local Democratic Congressional candidates in Panel a; local Democratic Senate candidates in Panel b; and local Democratic House candidates in Panel c. Controls include all other political ads aired in the county (for senatorial elections, presidential, House, non-local Senate, governor and other down-ballot races' ads; and for House elections, presidential, Senate, non-local House, governor and other down-ballot races' ads), measured in the same way as the main dependent variable and for both Democratic and Republican candidates, together with a set of socio-demographic characteristics of the county (total population, share of high-school dropouts, share of college graduates, share of ethnic minorty population, share of foreign born population, media household income, share of population below poverty level and employment-to-population ratio). Other notes as in Table 8. Standard errors are shown in parentheses and clustered at the state and media market border levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.24: Effects of TV ads on campaign contributions, monthly observations

(a) **Presidential elections**

	Contributors			Contributions		
	(1)	(2)	(3)	(4)	(5)	(6)
	All	Large	Small	All	Large	Small
Democratic Ads (Total number, in 1000s)	0.13	0.10	0.03	167.12	166.78	0.33
	(0.11)	(0.08)	(0.09)	(101.80)	(102.61)	(1.89)
Republican Ads (Total number, in 1000s)	0.02	0.08	-0.06	35.09	35.60	-0.52
	(0.18)	(0.10)	(0.11)	(47.98)	(47.70)	(2.56)
County-Pair x Month FE	✓	✓	✓	✓	✓	✓
County FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
R-sq (within)	0.000	0.001	0.000	0.004	0.004	0.000
Observations	101,160	101,160	101,160	101,160	101,160	101,160
Clusters	450+46	450+46	450+46	450+46	450+46	450+46
Mean DepVar	5.22	3.14	2.08	530.06	482.37	47.69

(b) **Congressional elections**

	Contributors			Contributions		
	(1)	(2)	(3)	(4)	(5)	(6)
	All	Large	Small	All	Large	Small
Democratic Ads (Total number, in 1000s)	0.13	0.04	0.09*	-40.40	-44.88	4.48*
	(0.11)	(0.07)	(0.05)	(68.60)	(67.71)	(2.48)
Republican Ads	-0.08	-0.03	-0.05	-17.43	-14.19	-3.24*
	(0.08)	(0.05)	(0.04)	(17.36)	(15.84)	(1.91)
County-Pair x Month x Office FE	✓	✓	✓	✓	✓	✓
County x Office FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
R-sq (within)	0.000	0.000	0.000	0.001	0.001	0.001
Observations	246,440	246,440	246,440	246,440	246,440	246,440
Clusters	450+46	450+46	450+46	450+46	450+46	450+46
Mean DepVar	2.46	1.34	1.11	258.98	231.26	27.72

Notes: Models are estimated using OLS. An observation is a county x month x office type. The time period is the last 10 months of each 2012 to 2018 election cycles. In Panel a, the sample includes all county-pairs in the 2012 and 2016 presidential elections. In Panel b, we combine House and Senate races for the 2012 to 2018 elections. The sample includes all county-pairs with border-counties located in the same congressional district, for House races, and all county-pairs in which a Senate race took place. The dependent variable considers contributions to all Democratic Congressional candidates. In columns (1) to (3), it is the number of unique contributors during the month, per 10,000 inhabitants in the county; in columns (4) to (6), it is the total dollar amount of contributions during the month, per 10,000 inhabitants in the county. Controls include all other political ads aired in the county (for presidential elections, these are House, Senate, governor and other down-ballot races' ads; for senatorial elections, presidential, House, governor and other down-ballot races' ads; and for House elections, presidential, Senate, governor and other down-ballot races' ads), measured in the same way as the main dependent variable and for both Democratic and Republican candidates. Standard errors are shown in parentheses and clustered at the state and media market border levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.25: Effects of TV ads on campaign contributions, monthly observations, with lags

(a) **Presidential elections**

	Contributors			Contributions		
	(1) All	(2) Large	(3) Small	(4) All	(5) Large	(6) Small
Democratic Ads (Total number, in 1000s)	-0.03	0.05	-0.08	140.03	142.22	-2.19
	(0.11)	(0.07)	(0.09)	(86.73)	(88.24)	(2.31)
Republican Ads (Total number, in 1000s)	-0.18	0.06	-0.24	60.81	66.58	-5.77
	(0.19)	(0.09)	(0.16)	(63.15)	(63.84)	(5.14)
Dem. Ads t-1	0.26**	0.07	0.19***	24.63	20.36	4.26**
	(0.10)	(0.06)	(0.07)	(21.74)	(21.02)	(1.68)
Rep. Ads t-1	0.14	0.03	0.12	-5.65	-9.62	3.97
	(0.23)	(0.09)	(0.16)	(17.02)	(17.66)	(5.14)
County-Pair x Month FE	✓	✓	✓	✓	✓	✓
County FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
R-sq (within)	0.001	0.001	0.001	0.004	0.004	0.001
Observations	94,638	94,638	94,638	94,638	94,638	94,638
Clusters	450+46	450+46	450+46	450+46	450+46	450+46
Mean DepVar	5.18	3.21	1.97	543.54	497.76	45.78

(b) **Congressional elections**

	Contributors			Contributions		
	(1) All	(2) Large	(3) Small	(4) All	(5) Large	(6) Small
Democratic Ads (Total number, in 1000s)	0.12	0.03	0.09	-39.83	-43.41	3.58
	(0.15)	(0.08)	(0.07)	(85.78)	(84.21)	(2.99)
Republican Ads	-0.06	-0.02	-0.05	-41.04**	-37.93**	-3.11*
	(0.08)	(0.05)	(0.04)	(19.36)	(18.57)	(1.74)
Dem. Ads t-1	0.01	0.01	-0.00	-2.66	-3.89	1.23
	(0.11)	(0.07)	(0.05)	(31.53)	(30.03)	(2.26)
Rep. Ads t-1	-0.03	-0.02	-0.01	33.02	33.36	-0.33
	(0.05)	(0.03)	(0.03)	(22.12)	(22.07)	(0.91)
County-Pair x Month x Office FE	✓	✓	✓	✓	✓	✓
County x Office FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
R-sq (within)	0.000	0.000	0.001	0.001	0.001	0.001
Observations	230,384	230,384	230,384	230,384	230,384	230,384
Clusters	450+46	450+46	450+46	450+46	450+46	450+46
Mean DepVar	2.55	1.39	1.16	270.52	241.47	29.05

Notes: Models are estimated using OLS. An observation is a county x month x office type. The time period is the last 10 months of each 2012 to 2018 election cycles. Ads in "t-1" are ads of the previous month. The controls for all other ads also include these lags. Other notes as in Table D.24. Standard errors are shown in parentheses and clustered at the state and media market border levels. * p<0.10, ** p<0.05, *** p<0.01.

Table D.26: Effects of *local* TV ads on campaign contributions to *local* Democratic candidates, monthly observations

(a) **Congressional elections**

	Contributors			Contributions		
	(1) All	(2) Large	(3) Small	(4) All	(5) Large	(6) Small
Local Democratic Ads (Total number, in 1000s)	0.10	-0.02	0.12	-15.18	-18.72	3.54
	(0.14)	(0.07)	(0.07)	(21.53)	(20.06)	(2.69)
Local Republican Ads	-0.07	-0.00	-0.07	4.83	7.00	-2.17
	(0.10)	(0.07)	(0.05)	(18.86)	(18.13)	(1.85)
County-Pair x Month x Office FE	✓	✓	✓	✓	✓	✓
County x Office FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
R-sq (within)	0.000	0.000	0.001	0.000	0.000	0.000
Observations	246,440	246,440	246,440	246,440	246,440	246,440
Clusters	450+46	450+46	450+46	450+46	450+46	450+46
Mean DepVar	1.42	0.82	0.60	162.70	146.62	16.08

(b) **Congressional elections, with lags**

	Contributors			Contributions		
	(1) All	(2) Large	(3) Small	(4) All	(5) Large	(6) Small
Local Democratic Ads (Total number, in 1000s)	0.15	-0.01	0.16*	-7.65	-12.62	4.97
	(0.16)	(0.08)	(0.08)	(23.21)	(21.24)	(3.09)
Local Republican Ads	-0.00	0.03	-0.04	6.76	7.51	-0.75
	(0.09)	(0.07)	(0.04)	(19.73)	(19.11)	(1.51)
Local Dem. Ads t-1	-0.07	-0.02	-0.05	-12.68	-10.82	-1.86
	(0.10)	(0.05)	(0.05)	(12.04)	(10.53)	(1.90)
Local Rep. Ads t-1	-0.10*	-0.05*	-0.04	-2.32	-0.31	-2.01**
	(0.06)	(0.03)	(0.03)	(5.87)	(5.71)	(0.99)
County-Pair x Month x Office FE	✓	✓	✓	✓	✓	✓
County x Office FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
R-sq (within)	0.000	0.000	0.001	0.000	0.000	0.001
Observations	230,384	230,384	230,384	230,384	230,384	230,384
Clusters	450+46	450+46	450+46	450+46	450+46	450+46
Mean DepVar	1.48	0.85	0.63	169.78	152.89	16.88

Notes: Models are estimated using OLS. An observation is a county x month x office type. The dependent variable considers local contributions only (i.e. those made to the Democratic candidate running in the county). Controls include all other political ads aired in the county (for presidential elections, these are House, Senate, governor and other down-ballot races' ads; for senatorial elections, presidential, House, non-local Senate, governor and other down-ballot races' ads; and for House elections, presidential, Senate, non-local House, governor and other down-ballot races' ads), measured in the same way as the main dependent variable and for both Democratic and Republican candidates. Other notes as in Table D.25. Standard errors are shown in parentheses and clustered at the state and media market border levels. * p<0.10, ** p<0.05, *** p<0.01.

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