

IF YOU CANNOT GET YOUR FRIENDS ELECTED, LOBBY YOUR ENEMIES

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Abstract

We incorporate campaign contributions in the citizen-candidate model of representative democracy with endogenous lobbying of Felli and Merlo (2006). In equilibrium, lobbies contribute to the electoral campaign of candidates whose policy preferences are aligned with their own. In the event that their preferred candidate does not win the election, lobbies also transfer resources to elected politicians with opposed preferences to induce policy compromise. On the other hand, lobbies never make post electoral transfers to winning candidates whose electoral campaign they supported.

1. Introduction

Special interests play a prominent role in American politics as well as in many other modern democracies. According to the Lobbying Database of the Center for Responsive Politics, in 2005 there were over 15,000 active lobbyists in the United States, and total lobbying spending amounted to \$2.22 billion.¹

Special interest groups participate actively at almost every stage of the political process. They engage in a wide variety of activities that range from providing campaign contributions to electoral candidates, to lobbying elected representatives, to providing information to policy makers, as well as educating and mobilizing the general public (e.g., Grossman and Helpman 2001; Wright 1996). It is therefore not surprising that political scientists and political economists have long been interested in studying the role played by special interests in the policy-making process and their effects on policies.

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1. This database is available online at (<http://www.opensecrets.org/lobbyists/index.asp>).

Most of the existing theoretical literature studies specific activities of special interest groups in isolation. A large amount of work has focused on modeling either campaign contributions (e.g., Austen-Smith 1987; Baron 1989; and Grossman and Helpman 1996), transfers to elected representatives (e.g., Grossman and Helpman 1994; Besley and Coate 2001; and Felli and Merlo 2006 [henceforth FM06]), or informational lobbying (e.g., Austen-Smith 1995; Austen-Smith and Wright 1992; and Bennedsen and Feldmann 2002).² Recently, several authors have started to investigate the decisions of special interest groups to engage in multiple activities. For example, Bennedsen and Feldmann (2006) and Dahm and Porteiro (2006) consider environments where, to influence policy, special interest groups can provide information to policy makers as well as lobby them via contributions (Bennedsen and Feldmann) or exert political pressure on them (Dahm and Porteiro).

In this paper, we study the incentives faced by two lobbies with opposed policy preferences who can contribute to the electoral campaigns of two candidates in an election and also transfer resources to the winning candidate after the election. To analyze this issue, we consider an extension of our citizen-candidate model of representative democracy with endogenous lobbying, FM06, which incorporates campaign contributions.³

We model the political process as a multi stage game that begins with the citizens' decisions to participate in the political process as potential candidates for public office. Running for office is costly and entails raising funds for the electoral campaign. Given the set of potential candidates, lobbies choose whether to contribute to their electoral campaigns. Campaign contributions "have no strings attached." In particular, a lobby's decision to fund the campaign of a potential candidate does not entail any policy commitment on the part of the candidate.

The individuals who are successful in raising the necessary funds to finance their electoral campaign run for public office. Given the set of candidates, citizens vote (strategically) in an election that selects the plurality winner to choose policy for one period. After the election lobbies can try to influence the policy choice of the elected candidate by offering him transfers in exchange for policy compromise. Our model of lobbying assumes that given the set of existing lobbies, the elected candidate chooses the coalition of lobbies he will bargain with over policy in exchange for transfers. Hence, in our framework, policy is the outcome

2. The literature on lobbying is vast, and the references cited here only account for a small fraction of the most recent contributions. For surveys see, for example, chapter 7 in Persson and Tabellini (2000) or Grossman and Helpman (2001).

3. The model in FM06 builds on the citizen-candidate framework originally proposed by Besley and Coate (1997) and Osborne and Slivinski (1996), and is also related to the lobbying model of Besley and Coate (2001). For a detailed description of the relationship between these works see FM06. None of these papers, however, considers campaign contributions.

of efficient bargaining between the elected policy maker and a coalition of lobbies selected by the policy maker.

Our analysis yields the following results. In equilibrium, lobbies contribute to the electoral campaign of candidates whose policy preferences are aligned with their own (i.e., they try to get their “friends” elected). In the event that their preferred candidate does not win the election, lobbies also transfer resources to elected politicians with opposed preferences to induce policy compromise (i.e., they lobby their “enemies”). On the other hand, if their preferred candidate wins the election, lobbies are excluded from the bargaining process that determines the policy outcome. Hence, in equilibrium lobbies never make both campaign contributions and post electoral transfers to the same candidate.

2. The Model

Each citizen $i \in \{1, \dots, N\}$ has quasi-linear preferences over a one-dimensional policy outcome $x \in X = [-1, 1]$ that has a public good nature and distributive benefits $y_i \in \mathbb{R}$ that have a private good nature. Citizens differ with respect to their policy preferences. We assume there exists a continuum of types of citizens indexed by $j \in X$, where j denotes the most preferred policy outcome of all citizens of that type.⁴ Let F denote the cumulative distribution function of citizens’ types over the support X . We take the density of F to be continuous and symmetric around its median 0. We assume that the number of citizens N is large. Moreover, to guarantee that every $j \in X$ is represented in the citizenry, we abuse notation and refer to the population of citizens as a unit mass with density f on X . The utility function of citizen i of type j (henceforth, citizen i^j) is

$$U(x, y_i, j) = -(x - j)^2 + \lambda y_i,$$

where $\lambda > 0$ measures the intensity of each citizen’s preferences over money with respect to policy.

There are two lobbies, denoted L and R , that differ with respect to their policy preferences.⁵ Each lobby $h \in \mathcal{L} = \{L, R\}$ has a most preferred policy outcome $l_h \in X$ and preferences

$$V(x, y_h, l_h) = -(x - l_h)^2 + \mu y_h,$$

where $\mu > 0$ measures the intensity of each lobby’s preferences over money with respect to policy.⁶ We take μ to be strictly greater than the corresponding

4. As in FM06, there is no incomplete information in our model. In particular, the type of each citizen is publicly observable.

5. The analysis herein can be easily extended to a model with more than two lobbies. See FM06 for a model with three lobbies without campaign contributions.

6. The extent to which lobbies care about money over policy plays a crucial role also in other papers on lobbying, see, for example, Martimort and Semenov (2007).

parameter λ in the citizens' preferences. In other words, we assume that lobbies care more about money than citizens. For ease of exposition, in order to simplify the formulae below we take $\mu = 2\lambda$. Also, we restrict attention to the case where the two lobbies L and R have most preferred policy outcomes that are, respectively, at the extreme left and extreme right of the policy spectrum: $l_L = -1$ and $l_R = 1$. We normalize aggregate transfers to be zero (i.e., $\sum_{i \leq N} y_i + y_L + y_R = 0$), and assume that any policy $x \in X$ is costless to implement.

The political process has four stages. In the first stage, all citizens choose whether to become potential candidates. These potential candidates can then run for office only if they can raise enough funds to cover the cost of their campaign. In the second stage lobbies decide whether to contribute funds to the electoral campaigns of potential candidates. Given the set of candidates that have entered the electoral competition and raised enough funds to cover the cost of their campaigns, an election follows in the third stage. The election selects one candidate that is delegated the policy decision for one period. In the fourth and final stage, lobbying takes place and policy is chosen. We describe below the structure of each stage of the political process.

2.1. Entry of Candidates

Each citizen must decide simultaneously and independently whether to become a potential candidate. If a citizen enters the electoral competition as a potential candidate he has to pay a (small) opportunity cost $\delta > 0$ measured in units of the private good.

Let $\sigma(i^j) \in \{0, 1\}$ denote the decision by citizen i^j whether to become a potential candidate: $\sigma(i^j) = 1$ indicates citizen i^j 's decision to enter the electoral competition. Let $\sigma = (\sigma(1), \dots, \sigma(N))$ denote the vector of all citizens' entry decisions. For any given σ , let $\mathcal{P}(\sigma) = \{i^j | \sigma(i^j) = 1\}$ denote the set of potential candidates with typical element p . This set is the outcome of the entry-of-candidates subgame.

In the event that no citizen runs for office, we assume that a default policy $x_0 \in \mathbb{R}$ is implemented.

2.2. Campaign Contributions

Once a potential candidate has entered the electoral competition, in order to actually run for office he has to run an electoral campaign. Electoral campaigns are costly. In particular, we assume that the cost of a campaign is large and corresponds to the monetary cost C . For simplicity, we take the campaign cost C to be the same for all potential candidates, and let $C = 1/2$. We further assume that citizens have zero wealth and cannot raise the funds necessary to cover the

cost of the campaign through the credit market. Therefore, the only chance for a potential candidate to run for office is to receive campaign contributions from the lobbies.

Given $\mathcal{P}(\sigma) \neq \emptyset$, the two lobbies L and R decide simultaneously and independently whether to fund the campaigns of the potential candidates. We denote $\kappa_h(p) \in \{0, 1\}$ the decision of lobby $h \in \mathcal{L}$ whether to fund the campaign of the potential candidate $p \in \mathcal{P}(\sigma)$; $\kappa_h(p) = 1$ means that lobby h contributes funds to the campaign of p . If only one lobby funds the campaign of a potential candidate, the cost to the lobby is equal to C . In the event that both lobbies fund the campaign of a potential candidate we assume that the cost of the campaign is split equally between the two lobbies.⁷

Let $\kappa = (\kappa_L(p), \kappa_R(p))_{p \in \mathcal{P}(\sigma)}$ denote the vector of both lobbies' campaign-contribution decisions. For any given κ , let

$$\mathcal{C}(\kappa) = \{p \in \mathcal{P}(\sigma) \mid \kappa_h(p) = 1, h = L, R\}$$

denote the set of candidates who run in the election with typical element e . This is the outcome of the campaign-contributions subgame.

2.3. Voting

Elections are structured so that all citizens have one vote that, if used, must be cast for one of the running candidates.

In particular, given the set of candidates running for election $\mathcal{C}(\kappa)$, each citizen simultaneously and independently decides to vote for any candidate in $\mathcal{C}(\kappa)$ or abstains. Let $\gamma(i^j)$ denote citizen i^j 's choice: If $\gamma(i^j) = e$ then citizen i^j casts a vote for candidate $e \in \mathcal{C}(\kappa)$; whereas if $\gamma(i^j) = 0$ he abstains. The vector of all citizens' voting decisions is denoted by $\gamma = (\gamma(1), \dots, \gamma(N))$.

The candidate who receives the most votes is elected, and in the event of ties, the winning candidate is chosen with equal probability from among the tying candidates.⁸ We denote $P^E \in \mathcal{C}(\kappa)$ the elected candidate, where $E \in X$ denotes the elected candidate's most preferred policy outcome.

We assume that citizens correctly anticipate the outcome of the lobbying stage that follows an election and vote strategically: Each citizen i^j makes his voting decision $\gamma(i^j)$ so as to maximize his expected utility given the decisions of all other citizens.

7. The assumption that the two lobbies share equally the cost of the campaign is made here for simplicity and is of little consequence.

8. Notice that, although it is critical for our analysis that in case of a tie all tying candidates have a strictly positive probability of winning, the assumption that these probabilities are equal is of little consequence.

2.4. Lobbying

Each lobby $h \in \mathcal{L}$ is assumed to be able to sign binding contracts on policy choices with the elected candidate P^E in exchange for transfers. Notice that the elected candidate P^E has the option of not signing any contract and implementing his most preferred policy E .

Let $\Delta = \{\{\emptyset\}, \{L\}, \{R\}, \{L, R\}\}$ denote the power set of \mathcal{L} with typical element ℓ . The set Δ is the collection of all possible coalitions of lobbies with whom the elected candidate P^E may choose to bargain over policy and transfers.

As in FM06, we model lobbying as a two-stage bargaining game. In the first stage, each possible coalition $\ell \in \Delta$ is associated with a willingness to pay, $W_\ell(x, E)$, for any policy $x \in X$ the elected candidate P^E may choose to implement instead of his most preferred policy E

$$W_\ell(x, E) = \sum_{h \in \ell} w_h(x, E),$$

where $w_h(x, E)$ is the willingness to pay of lobby h measured in units of the private good and $W_\emptyset(x, E) \equiv 0$.

Given the preferences of a lobby the willingness to pay of lobby $h \in \mathcal{L}$ for any policy $x \in X$ implemented by P^E is

$$w_h(x, E) = [(E - l_h)^2 - (x - l_h)^2]/\mu.$$

This is the monetary value of the utility gain (or loss) with respect to the status quo that lobby h obtains if the elected candidate P^E 's policy choice is x . The status quo is here defined to be P^E 's policy choice in the absence of any lobbying, E . The total willingness to pay of coalition $\ell \in \Delta$ for a given policy choice $x \in X$ implemented by P^E is then

$$W_\ell(x, E) = \sum_{h \in \ell} [(E - l_h)^2 - (x - l_h)^2]/\mu.$$

In the second stage of the bargaining game, the elected candidate P^E first chooses an optimal policy $x_{PE}(\ell)$ for any potential coalition $\ell \in \Delta$ so as to maximize his payoff $-(x - E)^2 + \lambda W_\ell(x, E)$ and then chooses a bargaining coalition ℓ_{PE} so as to maximize $-(x_{PE}(\ell) - E)^2 + \lambda W_\ell(x_{PE}(\ell), E)$. Hence, an outcome of the bargaining game between the elected candidate P^E and a selected coalition ℓ_{PE} is a policy choice $x_{PE}(\ell_{PE})$ and transfers $W_{\ell_{PE}}(x_{PE}(\ell_{PE}), E)$.⁹

9. Notice that as in FM06 the elected candidate appropriates the entire willingness to pay of the selected bargaining coalition. This assumption is not critical for our results. The equilibrium characterization of the lobbying subgame remains the same (up to the size of the transfers) if the gains from trade are shared between the elected candidate and the members of the coalition in any fixed proportion.

3. Equilibrium Characterization

We proceed backward to solve for the *subgame perfect equilibria* of the four-stage political game described in Section 2. We start from the last stage of the game: lobbying.

3.1. Equilibria of the Lobbying Subgame

Let P^E be the candidate elected in the voting subgame. The characterization of the elected candidate P^E 's optimal coalition choice $\ell_{PE} \in \Delta$ and optimal policy choice $x_{PE} \in X$ follows the same steps of the characterization of the lobbying process in FM06.

In particular, for any coalition $\ell \in \Delta$ the equilibrium policy choice that the lobbying process generates is uniquely determined.¹⁰ This policy choice is

$$x_{PE}(\ell) = \left(E + \frac{1}{2} \sum_{h \in \ell} l_h \right) / \left(1 + \frac{1}{2} |\ell| \right),$$

where $|\ell|$ denotes the cardinality of the coalition ℓ .

This policy is a compromise (a weighted average) of the policy most preferred by the elected candidate E and the policy preferences of the lobbies included in the bargaining coalition $l_h, h \in \ell$.

The characterization of the equilibrium of the lobbying subgame is summarized in the following proposition.¹¹

PROPOSITION 1. *For any elected candidate $P^E \in \mathcal{C}(\kappa)$ the optimal coalition choice $\ell_{PE} \in \Delta$, policy choice $x_{PE} \in X$, and transfers $W_{\ell_{PE}}$ are as follows. If $E \leq 0$, then*

$$\ell_{PE} = \{R\}, \quad x_{PE} = (2E + 1)/3$$

and

$$W_{\ell_{PE}} = 5(E - 1)^2 / (9\mu).$$

If instead $E \geq 0$, then

$$\ell_{PE} = \{L\}, \quad x_{PE} = (2E - 1)/3$$

10. In other words, Lemma 1 in FM06 still holds in this new model.

11. The proof of Proposition 1 is a simplified version of the proof of Proposition 1 in FM06, and it is therefore omitted.

and

$$W_{\ell_{pE}} = 5(E + 1)^2 / (9\mu).$$

The equilibrium of the lobbying subgame is such that no elected candidate ever chooses to implement his most preferred policy. Moreover, no candidate ever includes both lobbies in his bargaining coalition. Finally, every elected candidate bargains over the equilibrium policy choice with the lobby whose preferences are the farthest from his most preferred policy position.

We now turn our attention to the analysis of the voting stage of the model.

3.2. Equilibria of the Voting Subgame

We restrict attention to the set of two-candidate equilibria of the electoral model.¹² Let $\mathcal{C}(\kappa) = \{e_1, e_2\}$ be the equilibrium set of candidates where $j_1, j_2 \in X$ denote the type of candidate e_1 and e_2 , respectively.

When analyzing the voting subgame it is then enough to focus on voting when two or at most three candidates enter the electoral competition. Our analysis of the voting subgame parallels the analysis of FM06. In particular, we rule out weakly dominated voting strategies.

A voting strategy $\gamma(i^j)$ is weakly dominated for citizen i^j if there exists an alternative voting strategy $\hat{\gamma}(i^j)$ for i^j such that for every configuration of the voting profile of the other citizens, citizen i^j 's payoff associated with $\gamma(i^j)$ is less than or equal to the payoff associated with $\hat{\gamma}(i^j)$.

Restricting attention to equilibria that survive one round of elimination of weakly dominated voting strategies greatly simplifies the analysis of the voting subgame when there is more than one candidate. In particular, whenever $\mathcal{C}(\kappa)$ contains at least two candidates who, if elected, implement different policy choices, all equilibria of the voting subgame that survive one round of elimination of weakly dominated strategies are such that no citizen i^j ever votes for a candidate that, if elected, implements i^j 's least preferred policy within the set of equilibrium policy choices of the candidates in $\mathcal{C}(\kappa)$.¹³

This property implies that in a two-candidate voting subgame where the two candidates implement different policies, each citizen votes for his most preferred candidate. In other words, strategic voting coincides with sincere voting in this instance. This is not necessarily the case in a three-candidate voting subgame.

12. In FM06 we show that, at least in terms of the equilibrium policy choices, restricting attention to two-candidate equilibria entails no loss of generality. When citizens vote strategically, all multi-candidate equilibria of the electoral competition game are such that no more than two distinct policy choices will be implemented in equilibrium (see Proposition 7 in FM06).

13. This result coincides with Proposition 2 in FM06. Its formal statement and proof are therefore omitted.

We now turn our attention to the characterization of the equilibria of the campaign-contributions and entry-of-candidates subgames, which completes our analysis.

3.3. *Equilibria of the Campaign-Contributions and Entry-of-Candidates Subgames*

The following lemma establishes that in all two-candidate equilibria the candidates' policy choices are symmetric around the median policy 0.¹⁴

LEMMA 1. *All two-candidate equilibria of the electoral competition model, $\mathcal{C}(\kappa) = \{e_1, e_2\}$, are such that $x_{e_1}(\ell_{e_1}) = -x_{e_2}(\ell_{e_2})$.*

The intuition behind this result is that to enter the electoral competition and pay the opportunity cost δ each candidate must be able to run for election (that is, raise the necessary funds to run his electoral campaign) and have a strictly positive probability of winning. In the contest of our model, this implies that neither candidate can win with probability one and both candidates have to win with equal probability. Because, in two-candidate electoral competitions, citizens vote sincerely, the population of voters necessarily has to split equally between the two candidates. This cannot occur if the distance of each candidate from the median policy differs.

A key feature of two-candidate equilibria is whether the equilibrium policy choices exhibit *reversal*. An equilibrium policy choice exhibits reversal if it is on the opposite side of the median than the candidate's type. On the basis of this criterion we can identify: *no-reversal equilibria*, where the policy choices of both candidates exhibit no reversal; *reversal equilibria*, where the policy choices of both candidates exhibit reversal; and *hybrid equilibria*, where the policy choice of one of the candidates exhibits reversal while the policy choice of the other candidate does not.

In this paper, we restrict our analysis to the set of two-candidates no-reversal equilibria.¹⁵ The following proposition provides a full characterization of these equilibria of our model of electoral competition with campaign contributions and lobbying.

PROPOSITION 2. *All two-candidate no-reversal equilibria of the electoral competition model, $\mathcal{C}(\kappa) = \{e_1, e_2\}$, have the following properties:*

- (i) *The candidates' types are $j_1 \in [-1, -1/2]$, $j_2 \in [1/2, 1]$, and $j_1 = -j_2$;*

14. The proof of Lemma 1 coincides with the proof of Lemma 3 in FM06 and it is therefore omitted.

15. As argued in FM06, we do not regard the sets of two-candidate reversal and hybrid equilibria as interesting or realistic.

- (ii) Lobby L funds the campaign of candidate e_1 and lobby R funds the campaign of candidate e_2 ;
- (iii) The equilibrium coalition choices are $\ell_{e_1} = \{R\}$ and $\ell_{e_2} = \{L\}$;
- (iv) The equilibrium policy choices are $x_{e_1} \in [-1/3, 0]$, $x_{e_2} \in [0, 1/3]$, and $x_{e_1} = -x_{e_2}$.

Proof. Parts (i), (iii), and (iv) of the proposition follow from a simple adaptation of the proof of Proposition 3 in FM06 to the environment we consider in this paper. The details of the proof are therefore omitted. Part (ii) is new and its proof is as follows.

Consider first a two-candidate no-reversal equilibria of the game where L funds e_1 and R funds e_2 . Lobby L 's equilibrium payoff is $-1/2(2(j_1 + 2)/3)^2 - 1/2(j_2 + 1)^2 - C$, while L 's payoff if it deviates and does not fund e_1 is $-(j_2 + 1)^2$. Because $C = 1/2 \leq 5/8$ and $j_1 = -j_2$, the former payoff is strictly larger than the latter. The analysis of lobby R 's optimal campaign-contribution decision is symmetric and therefore omitted. Finally, if δ is small enough both e_1 and e_2 enter the electoral competition as potential candidates. The difference between their payoffs if they become potential candidates and their payoffs if they do not is bounded below by $5/8 - \lambda \delta$.

Consider next, by way of contradiction, a two-candidate no-reversal equilibria of the game where L funds e_2 and R funds e_1 . Lobby L 's equilibrium payoff is $-1/2(2(j_1 + 2)/3)^2 - 1/2(j_2 + 1)^2 - C$, whereas L 's payoff if it deviates and does not fund e_2 is $-(2(j_1 + 2)/3)^2$. Because $j_1 = -j_2$, the former payoff is strictly smaller than the latter: a contradiction.

Consider next, by way of contradiction, a two-candidate no-reversal equilibrium such that L funds both e_1 and e_2 and R funds only e_2 . Lobby L 's equilibrium payoff is $-1/2(2(j_1 + 2)/3)^2 - 1/2(j_2 + 1)^2 - 3C/2$, while its payoff if it deviates and only funds e_1 is $-(2(j_1 + 2)/3)^2 - C$. Clearly the former payoff is strictly smaller than the latter: a contradiction. A similar argument shows that there does not exist any equilibrium where at least one of the two lobbies funds both candidates.

To conclude the proof, we have to show that two-candidate no-reversal equilibria such that $j_1 = j_2$ are not possible in the model with campaign contributions. These equilibria are possible in the game without electoral campaigns, and are such that either $j_1 = j_2 = -1/2$ and $\ell_{e_1} = \ell_{e_2} = \{R\}$, or $j_1 = j_2 = 1/2$ and $\ell_{e_1} = \ell_{e_2} = \{L\}$. In both cases the equilibrium policy choices coincide with the median policy: $x_{e_1} = x_{e_2} = 0$. These results follow immediately from a simple adaptation of the proof of Proposition 6 in FM06 to an environment with only two lobbies, L and R .

To show that these equilibria are not possible in our model with campaign contributions, assume by way of contradiction that an equilibrium exists where $j_1 = j_2 = 1/2$, L funds the campaign of candidate e_k , $k \in \{1, 2\}$, and R funds

the campaign of the other candidate. Lobby L 's equilibrium payoff is then $-9/4 - C$ whereas L 's payoff if it deviates and does not fund e_k is $-9/4$. Clearly, the former payoff is strictly smaller than the latter: a contradiction. A similar argument rules out any two-candidate no-reversal equilibria where $j_1 = j_2 = -1/2$. \square

The two-candidate no-reversal equilibria are such that the two candidates that run for office are citizens with rather extreme policy preferences. As a result of the lobbying process, however, they implement policies that are biased toward the center of the policy space.

In all these equilibria, each lobby funds the campaign of the candidate whose policy preferences are the closest to its own policy preferences.¹⁶ If such a candidate gets elected, however, the lobby that has funded his campaign will not be included in the bargaining process that determines the elected candidate's policy choice. If, instead, the lobby's most preferred candidate does not win the election, the lobby will be involved in policy negotiations with the elected candidate (whose policy preferences are opposed to those of the lobby) and will end up transferring resources to the policy maker in exchange for policy compromise.

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16. Notice that there does not exist any equilibrium where a lobby funds the campaigns of both candidates in an election.

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