Special Interest Groups Versus Voters and the Political Economics of Attention

Patrick Balles* Ulrich Matter† Alois Stutzer‡

February 14, 2022

Abstract

We examine whether representatives are more likely to serve special interest donors instead of constituents during times of low media attention to politics. On the basis of 652 roll calls between 2005 and 2018 in the US House of Representatives, we show that representatives are more likely to vote against the preferred position of their constituency, the more special interest money they receive from groups favoring the opposite position. Importantly, the latter effect is significantly larger when less attention is being paid to politics due to exogenous newsworthy events like natural disasters and mass shootings. The opportunistic behavior of representatives seems to be mediated, at least in part, by the short-term scheduling of sensitive votes into periods with news pressure from distracting shock events. Among retiring representatives, we find no stronger response to special interest money in the wake of such events.

Keywords: Attention, campaign finance, interest groups, legislative voting, mass media, roll call voting, US House of Representatives

JEL classifications: D72, L82, L86

---

*University of Basel, Faculty of Business and Economics, Peter Merian-Weg 6, 4002 Basel, Switzerland; email: patrick.balles@unibas.ch.

†University of St. Gallen, School of Economics and Political Science (SEPS-HSG)/SIAW, Bodanstrasse 8, 9000 St. Gallen, Switzerland; email: ulrich.matter@unisg.ch.

‡University of Basel, Faculty of Business and Economics, Peter Merian-Weg 6, 4002 Basel, Switzerland; email: alois.stutzer@unibas.ch.

We are grateful to numerous colleagues and conference participants for helpful comments on the project. We gratefully acknowledge financial support from the Swiss National Science Foundation grant #100018_200946.

1 Introduction

In democracies, representatives who want to be re-elected have to convince their constituencies to vote for them. In such a system, electoral support depends on the extent to which voters perceive representatives to support legislative bills in line with their preferences, as well as on persuasive campaigning, which is largely funded by special interest groups rather than by constituents. These groups in turn contribute more if a representative votes according to their wishes. In this intuitive framework – conceptualized by Kau et al. (1982) – a conflict of interest can emerge. If, for a particular policy issue, special interests and the electorate's interests are not aligned, the representative faces a trade-off between serving the electorate and following the wishes of special interests.[1]

In this paper, we study the fundamental role that media attention plays in this trade-off. Most importantly, voters rely on media outlets as intermediaries for political information, while wealthy special interest groups are generally well informed about the representatives' actions in office. Accordingly, media attention to politics is expected to crucially affect whether representatives are rather aligned with their constituency's interests or the preferences of special interest groups when the two are in conflict. The implied strategic calculus has been noted in interviews with former congressmen. For example, Representative Vin Weber (R-MN, 1995) reports that *"If nobody else cares about it very much, the special interest will get its way. [...] If the company or interest group is (a) supportive of you, (b) vitally concerned about an issue that, (c) nobody else in your district knows about or ever will know about, then the political calculus is quite simple."* (Schram, 1995, p. 4).

Following this notion, we hypothesize that a representative is more likely to support a bill that goes against his or her voters' interests but is favored by special interests (that financially contribute to his or her campaign) at times of low media attention to the legislative process. In order to test this hypothesis, we exploit that media outlets in a competitive market need to assess the 'newsworthiness' of political information vis-à-vis non-political information, as resources for coverage and broadcasting time are limited. Accordingly, the extended coverage of non-political events or issues crowds out political

[1] We use the terms *interest groups*, *organized interests* and *special interests/special interest groups* interchangeably.

coverage. Moreover, it induces variation in media attention to the legislative process that is independent of what is currently being debated in the legislature. The validity of exploiting exogenous variation in media attention due to newsworthy 'distracting' events is well established in the literature (see, in particular, Eisensee and Strömberg, 2007, Garz and Sörensen, 2017, Durante and Zhuravskaya, 2018, Kaplan et al., 2018, and Djourelova and Durante, 2021).[2] This 'crowding out' of news contents due to distracting events points to media attention as a strategic factor that political agents bear in mind when they make their decisions. For an empirical test of the hypothesis, moreover, we need to measure the electorate's *as well as* special interest groups' preferences regarding particular issues across a broad array of policy domains.

In our empirical investigation focusing on voting decisions in the US House of Representatives, we address this challenge and are able to approximate constituents' preferences in the context of a specific vote cast by a specific representative. By combining data on individual campaign donor records and information on policy positions regarding particular bills, we construct a measure of *"Alignment"*. The measure captures whether a particular representative voted in line with the dominating policy preference in his or her district in a particular roll call vote.[3] While the actively donating citizens form a rather small and comparatively wealthy fraction of the overall voting age population, we document that our measure well approximates specific policy positions of the overall voting age population. We show (at the level of individual bills) that our measure for voter preferences is strongly correlated with voters' policy preferences revealed in ballot measures (for the case of popular votes in California) as well as with voters' policy preferences expressed in election surveys (across the US). Similarly, we define a representative-vote-specific measure of special interest group pressure that reflects the amount of

[2]We discuss this literature in more detail below.

[3]More precisely, we can observe how many actively donating citizens with ties to groups that either favor or oppose specific pieces of legislation live in a representative's constituency. For example, if a bill intended to increase power production from renewables comes to the vote, our measure largely reflects the share of the donating population in a representative's district that is employed in the alternative energy sector or supports environmental protection groups minus the share of donating citizens working for traditional energy producers.

campaign money a representative receives during the election cycle prior to a given vote from groups that oppose the position of the constituency (net of money from groups that are aligned with the constituency) regarding a specific bill. Importantly, we are neither assuming nor testing a particular model of strategic campaign donations but think of campaign contributions by interest groups primarily as reflecting long-term exchange relationships between interest groups and some individual representative, approximating special interest group pressure.[4] In that sense, our interpretation of campaign finance donations is in line with that emphasizing the "influence motive" of campaign contributions by interest groups.

Taken together, for a given US representative, we know whether his or her vote was aligned or misaligned with the majority preference of his or her constituents when deciding on a particular bill, as well as the net amount of special interest money directed against his or her constituency's position that he or she received. Overall, our unique data set includes information on individual-level representation of voters vs. special interests for 652 roll call votes on 650 different bills between 2005 and 2018 in the US House of Representatives, providing us with a baseline sample of about 270,000 observations.

Using this data set, we test our main hypothesis by regressing the measure of alignment with constituents on special interest groups' pressure to decide against them, taking into account whether the roll call falls on a day with limited attention to politics. Thus, we compare representatives' responsiveness to the interests of their constituents in a situation of *exogenously low media attention on politics* with the choices made by the same representatives under the commonly experienced media attention to politics. Specifically, we exploit exogenous variation in the amount of news coverage given to the US lawmaking process that is driven by natural disasters, terrorist attacks, and mass shootings. We validate this strategy by analyzing coverage of these distracting events and of national politics in both local television and local newspapers across the US. As expected, reports on national politics are crowded out by the distracting events, while coverage of the events in question increases.

[4]This view is consistent with the notion that donations serve as a potential channel of access that provides opportunities for further lobbying activities. Access-oriented campaign donations are analyzed, for example, in Hall and Wayman (1990), Austen-Smith (1995), Kalla and Broockman (2016), and Fouirnaies and Hall (2018). Snyder (1992) and Kroszner and Stratmann (1998, 2005) emphasize the long-term motives in political giving.

Two main findings emerge from our core analyses. First, more special interest money directed against the position of the constituency is associated with representatives showing lower levels of alignment with their constituents' preferences. Second, given the occurrence of a shock causing high levels of news pressure, special interest money influences representatives' voting decisions much more. Regarding the first correlation, one standard deviation more (about $39,000) in donations from special interest groups opposing the majority position of the constituency (donated over the last two-year election cycle) is associated with a 24%-increase in clearly misaligned votes. Regarding the effect under high news pressure, i.e., in a period marked by a serious shock event (such as on a day when a serious natural disaster strikes the US), the same special interest money actually translates into a 42% increase in clearly misaligned votes (which is a 75% higher partial correlation).

The two central findings are robust to various sensitivity checks. First, we show that alternative definitions for both the dependent alignment variable and the measure of special interest group pressure do not change our main results neither qualitatively nor quantitatively. Second, we use an ordered logistic model (vs. OLS used in our baseline estimates), given the categorical nature of the dependent variable, yielding fully consistent results. Third, we perform a placebo test where we randomly assign the legislative votes to the shock treatment groups. The results suggest that our main findings are very unlikely to occur just by chance.

In order to better understand the mechanisms behind our main finding, we extend our analysis in two directions. First, based on two alternative tests, we show some evidence that suggests systematic agenda-setting by the majority party in the wake of shock events. For bills decided on during high news pressure around a shock event, we find significantly more representatives of the majority party facing a constituency opposed to the bill, but special interests groups favoring it. Moreover, we find that these latter bills move through the legislative process from first consideration to final passage vote more quickly than all other bills, on average. Second, we perform sample splits and estimate our baseline model respectively for i) representatives running for re-election vs. those retiring, ii) representatives from competitive districts vs. those with rather safe seats, and iii) roll call votes taken in election vs. non-election years. The results show no response to shock events for retiring representatives, suggesting

that it is indeed re-election concerns that drive our results. Furthermore, we find no differential response to shocks among representatives exposed to high or rather low electoral competition. Finally, we find that the magnitude of effects does not sizeably differ in election vs. non-election years on days with high news pressure. However, we document that in non-election years, even on days with rather moderate news pressure (e.g., two days after a serious natural disaster), special interest groups' campaign funds are more decisive in influencing representatives' voting behavior.

The remainder of this paper is organized as follows. In Section 2, we give a detailed account of the literature to which we contribute. Section 3 introduces the data sources, describes the coding of our main variables, and explains the choice of distracting shock events as indicators for reduced media attention to politics. In Section 4, we introduce the econometric model, including the description of the control strategy, and present the main results. Robustness checks are provided in Section 5. Sections 6 and 7 present the two extensions regarding agenda-setting by majority leaders and incentives due to electoral constraints. Finally, we offer concluding remarks in Section 8.

2 Literature

Our findings contribute to the literature on the role of campaign contributions in representatives' policy decisions. Important theoretical considerations are discussed in Kau et al. (1982) and Grossman and Helpman (1994). Empirical evidence for a positive relationship between campaign donations and legislative voting in line with the interests of donors is provided by many studies (see, e.g., Wilhite and Theilmann, 1987, Langbein and Lotwis, 1990, Stratmann, 1991, 1995, 2002, Fellowes and Wolf, 2004, Mian et al., 2010) – but not by all (see, e.g., Wright, 1985, Grenzke, 1989, Bronars and Lott, 1997, Wawro, 2001).[5] While together these contributions cover special interests' influence through campaign contributions on various issues, each study individually is rather selective as to what particular

[5] Stratmann (2005) as well as Ansolabehere et al. (2003) provide excellent reviews of the literature, though they come to opposite overall conclusions regarding the general effectiveness of money in affecting policy outcomes. While Ansolabehere et al. (2003) emphasize that donations can to a large extent be understood as consumption of some expressive value, Stratmann (2005) focuses on money from special interest groups effectively affecting representatives' voting behavior.

bills and interest groups it focuses on. This is due to the difficulty of measuring interest groups' and voters' preferences on a large number of diverse bills simultaneously. We rise to this challenge and propose a new way of measuring these preferences, allowing us to take into consideration a wide array of bills across the full range of policy domains simultaneously.[6] A prominent question in this literature is whether and to what extent donations actually change the positions of representatives (based on an "influence motive") or whether given positions attract donations (based on an "electoral motive"). Our analysis does not aim at addressing this long-standing identification issue and at coming up with an assessment of the relative importance of the two motives (and we also abstain from interpreting the correlation between campaign contributions and voting behavior in this respect). Instead, we assume long-term exchange relationships between politicians and interest groups, which we approximate through campaign funds, and test for a specific aspect of the influence motive in terms of short-term opportunistic behavior in favor of campaign donors (due to exogenous variation in the attention to politics). On a more general level, our results can also be interpreted in the light of the seminal work by Gilens (2012) and Gilens and Page (2014). Their findings inter alia suggest that whenever the policy preferences of well-funded small interest groups conflict with the preferences of the public at large, the positions of the former tend to prevail in policy making. While Gilens and Page look at the implementation of policies overall (which might involve executive as well as legislative decisions), we provide evidence for a mechanism in the legislative process that can at least in part explain the larger picture they draw.

Our study importantly complements previous work examining the interaction between interest groups' influence through campaign money and attention to politics (e.g., Schroedel, 1986, Jones and Keiser, 1987, Neustadtl, 1990, Witko, 2006, Matter and Stutzer, 2019).[7] For specific issues, these studies provide evidence that media attention shapes the role of financial campaign support provided by special

[6] In fact, our data set contains the universe of non-amended bills in the US House between 2005 and 2018 on which at least one roll call on final passage took place and for which at least one organization publicly announced opposition or support (i.e., bills for which we can reliably construct preferences of voters and special interest donors).

[7] This literature does, in part, refer to different terms for what we here call 'media attention' or 'attention'. Among these, 'visibility' or 'salience' are the terms most often used.

interest groups in representatives' policy decisions, conditional on high or low attention to precisely the bills under consideration. In contrast, our study covers a large range of different policy issues and exploits exogenous variation in media attention to Congress. Hence, our results do not suffer from a potential selection bias, as our treatment, low attention to politics due to distracting newsworthy events, is independent of the bills under consideration. In concurrent independent research, Kaplan et al. (2018) investigate the influence of natural disasters on the likelihood that House representatives will vote with special interests. Their main finding is that the influence of special interest donors on post-disaster voting increases statistically significantly. Like us, they use MapLight data on the positions of interest groups regarding certain bills and campaign contributions to representatives in order to generate a measure for special interest group pressure with regard to specific legislative bills. In contrast to our approach, however, they leave it open whether the special interest group position is in conflict with that of a representative's constituents. A key difference to our contribution thus arises as we explicitly model the (bill-specific) preferences of voters living in the constituency of the representatives in order to distinguish the latter from the preferences of the special interest groups providing campaign contributions to the representatives.

Further, our findings are important for the emerging literature that sheds light on the interaction between media markets and political markets. Contributions to this literature have documented how media access and news reporting influence government responsiveness and accountability, redistributive spending, and voter turnout (e.g., Besley et al., 2002, Besley and Burgess, 2002, Strömberg, 2004, Oberholzer-Gee and Waldfogel, 2009, Snyder and Strömberg, 2010, Gentzkow et al., 2011, Enikolopov et al., 2011). These studies therefore crucially contribute to our understanding of the media's role as the 'fourth estate'. In this context, our contribution stresses a potential systemic problem of the fourth estate based on free media markets, when the role of money in politics and media attention are inherently interdependent. That is, media outlets' competition for the audience's attention (with the necessary focus on newsworthy events) gives special interest groups more influence over legislative politics, at the expense of voters.

More specifically, we draw on variation in attention to politics as opposed to other topics, namely exogenous news shocks. This strategy has been pioneered in the work of Eisensee and Strömberg (2007) on the US government's foreign aid decisions in response to natural disasters. Adopting an instrumental variable strategy based on a compiled measure of general news pressure (the measure that we use to select periods of low media attention to politics due to exogenous shocks), they show that a country is more likely to receive financial support if the disaster is covered by the US evening news. The idea for identification has been taken up in subsequent research. Garz and Sörensen (2017) find that politicians resign with a higher probability after their political immunity is lifted if their cases receive more exogenously determined media attention, and Durante and Zhuravskaya (2018) show that Israeli military attacks against Palestinians are more likely to occur one day before anticipated newsworthy US events take place. In a similar vein, Djourelova and Durante (2021) show that unpopular US presidential executive orders are signed in a strategic manner at times before other newsworthy and predictable events take place. In this strategy, the behavior is only observed for periods of divided government when negative publicity due to congressional opposition is likely.

3 Data and coding of main variables

In this section, we outline how we compile our data set and how we define our main variables (alignment with voter preferences in roll call voting, special interest group pressure, and distracting shock events). Overall, our data set covers the period 2005 to 2018 (109th to 115th Congress), and consists of 269,312 individual voting decisions, taken in 652 roll call votes on 650 different bills. This selection corresponds to all final passage votes on (non-amended) bills for which MapLight has collected bill positions.[8]

[8]Two bills from our sample were voted on twice (resulting in 652 votes in total), since the bills did not receive the required majority in the first run but were then voted on again at a later point in time (without amendments in between).

Measuring alignment with constituents' preferences

Our dependent variable, denoted as *Alignment*, indicates whether a particular representative followed the majority preference of his or her constituency when voting on a particular bill (based on roll call data collected from Congress.gov). We approximate the preferences of constituents as follows.

In a first step, we approximate the fraction of citizens in an electoral district who are either negatively or positively affected by a particular bill by linking individual donor records provided by OpenSecrets to information on the bill positions of industries and associations provided by MapLight. The related Sections A.1/A.2 in the Online Appendix provide detailed information on data access and specifics about the data compilation, Section A.3 offers a detailed account of the measure construction. Building on the raw Federal Election Commission (FEC) records, OpenSecrets assigns an interest group code to each single transaction (industry, union, or ideological/single-issue group), identifying the donor's interest with which the donation was made. Group assignment is based on the donor's employer or on the Political Action Committee (PAC) (union/ideological/single-issue) he or she donates to. If the contribution is to a party or to a PAC that his or her employer is associated with (usually corporations and trade associations), group assignment is based on the donor's employer. If an individual contributes to a union PAC or to an ideological and/or single-issue PAC (e.g., environmental protection, human rights, or gun control), OpenSecrets assigns their corresponding group code. If a citizen contributes to a candidate, either the employer's group code, or, if the donation is identified as being ideologically motivated, the corresponding ideological group code is assigned. OpenSecrets codes a single transaction to a candidate as ideological if the donor also donates to an ideological PAC, and the candidate also receives funds from the same or similar ideological groups. If, for example, a citizen who is employed in the alternative energy sector donates to his or her employer's PAC, OpenSecrets assigns the industry/group code E1500 (*Alternative Energy Production & Services*).[9] Relying on OpenSecrets, we assume that individual donors

[9]For further details on OpenSecrets methodology, see https://www.opensecrets.org/industries/methodology.php for details). For OpenSecrets interest group categorization scheme, see https://www.opensecrets.org/downloads/crp/CRP_Categories.txt.

and assigned interest groups share the same political interests. Since MapLight uses the same group categorization for their bill position data, we can directly link individual donors in a constituency to these preferences for specific bills (either support, oppose or neutral). If the above-mentioned producer of alternative energy adopts a clear position in favor of a particular bill (and this is considered by MapLight to be representative of the interest group *Alternative Energy Production & Services*), we code individual donors assigned to that interest group by OpenSecrets as having preferences for the corresponding bill.[10] For each representative i deciding on a particular bill in vote j, we count the number of individual donations in the representative's constituency coming from citizens who are (according to the measure outlined above) in favor of (or, respectively, against) the bill. We then consider these numbers in relation to the total number of donations from citizens (located in the representative's district) with preferences regarding the bill (considering the last election cycle before the vote takes place). Thus, we arrive at the percentages of (actively donating) citizens in representative i's constituency who support (oppose) the bill presented in vote j. Finally, we code a representative's vote as one where his or her vote is politically aligned (misaligned) with that of the constituency if i) more than 62.5% (less than 37.5%) of his or her voters hold the same position regarding the bill, and ii) the bill is important enough for the representative's constituency in terms of the number of voters with preferences. The idea behind ii) is that we only want to code those voting decisions as aligned or misaligned with voters' preferences where a sufficient number of citizens in the constituency care about the bill in question (and representatives face some electoral pressure). To address this latter point, we divide the number of donations from citizens with preferences regarding the respective bill by the total number of donations from the constituency (regardless of whether they come from citizens with preferences). We then consider a bill as important

[10]For some bills, we observe contrasting positions taken by organizations associated with the same group. If this is the case, we calculate the share of supporting organizations among the total number of organizations supporting or opposing the bill (i.e., a bill support index), and distribute the individual donors according to this weight. As the industry codes in our data set are rather highly granular (the financial sector alone is split into 36 distinct groups/sub-sectors), this potential caveat concerns only a very small fraction of our observations. In more than 98% of the interest group-bill combinations, the organizations within an interest group share the same position. Figure A1(b) in the Online Appendix shows how different sectors are represented in our constituent interests measure.

enough if the resulting percentage for a particular representative when voting on a particular bill lies above the 25th percentile of the representative-congress-specific distribution (in 14% of cases there are no constituent positions at all). For all other cases, i.e., when the difference in the share of voters for and against the bill is less than 25 percentage points ($62.5\% - 37.5\%$), and/or we only observe a small share of voters with preferences regarding the bill, we accordingly code $Alignment_{ij}$ from our model equation (1) introduced below as 0.[11] Note that we scale the alignment indicator by the factor 100, so that cases of alignment are coded with 100, and cases of misalignment with -100. Following this approach, we document that 47.3% of all individual roll call votes in our sample were taken with the majority preference of the electorate, about 18.4% were taken against the majority, and in another 34.3% of cases no clear evaluation is possible. Overall, these cases are restricted to the subset of final passage votes on bills for which MapLight provides interest group positions (excluding votes on amendments, committee reports, and procedural issues related to these bills).[12] For our selection of 652 votes in the House of Representatives, we cover 13,691 documented positions taken by 4,568 organizations, assigned to 392 different interest group codes. On average, for a single bill in our sample, we observe about 21

[11] In Table 4 (Section 5), we show the estimation results for two alternative measures of political alignment. In particular, we define two different thresholds to determine whether a representative is likely to have represented the majority of his or her electorate with his or her voting decision, i.e., a 10 and 5 percentage point difference in the share of voters either in favor or against a bill instead of 25 as in the baseline estimate. For both alternative dependent variables, we document robust results regarding the effect of news pressure around shock events on representatives' voting behavior.

[12] MapLight generally selects bills "that move forward in Congress or that are mentioned in the news or blogs. [MapLight does] not research support/opposition for ceremonial bills (such as naming post offices)." (see http://classic.maplight.org/us-congress/guide/data/support-opposition). MapLight collects organizations' policy positions on bills, and does not assess their preferences with regard to single amendments on these bills. Note, however, that previous studies on special interest politics in the US House have pointed to the importance of bill amendments for special interests in passing their favorite policies (see, e.g., Stratmann, 1992). Our theoretical framework does not distinguish between votes on amendments and final passage votes and would suggest the same rationale for representatives in a conflict of interest in either situation. If it is indeed the case that long-term exchange relationships with special interest groups have most influence on representatives' voting on amendments, our findings based on final passage votes would underestimate the magnitude of the phenomenon.

organizations that take a stand, belonging to ten different interest groups. About 80% of the interest group positions were recorded by MapLight at least one day before the corresponding bills were voted on, with a median position quoted 36 days before the vote.[13]

The advantages of our approach and the resulting measure of citizens' preferences lie in the general applicability across policy issues. With the same approach we can gather information on individual donors linked to different kinds of groups such as corporations, business associations, unions, non-profits, single-issue or ideological groups. Moreover, the measure approximates people's affectedness with regard to specific legislative proposals, reflecting preference intensities. People who care about politics (and who are not close to being indifferent) are the likely donors. Importantly, political giving is not only positively correlated with turnout but also with volunteer campaign activities (Buchanan and Bird, 1966). Accordingly, our variable for constituent interests captures the subset of citizens who potentially generate a large proportion of the electoral pressure representatives face.

Bearing in mind that our approach to approximate bill-specific voter preferences is a new one, we check its validity in various ways. To this end, we use i) California ballot proposition votes, ii) survey data from the Cooperative Congressional Election Study (CCES), as well as iii) official employment figures at the county/industry level to contrast the preference measures obtained therein with those from our approach. All three analyses show the same picture: our measure of voter preferences based on individual campaign contribution data shows a high correlation with citizens' policy preference measures commonly used in the literature so far (see in particular Tables B1 and B2 in Online Appendix B).

[13] A potential issue might be that the shock events that we use for identification have an impact on interest groups' bill positions. This would be particularly relevant for those bills that are related to the shocks in terms of content. However, we exclude such bills from the analysis (as explained below).

Measuring special interest group pressure

Our main explanatory variable (*SIG Money Contra-Constituency*) measures the extent to which single representatives face pressure from special interest donors to vote against the preferred position of their constituency. Here, we link special interest groups' donations (OpenSecrets) to individual representatives with information on these groups' preferences for specific bills.

In order to code our representative-vote-specific variable of special interest group pressure, we rely again on OpenSecrets and MapLight data. Drawing on MapLight's bill position data, we interpret special interest groups' campaign contributions directed to individual representatives as pressure to vote for their preferred position. Specifically, we aggregate the campaign contributions coming from their PACs.[14] OpenSecrets assigns an interest group code to each PAC (as they do for individual donors).[15] Using these data, we measure special interest groups' pressure directed against the preferred position of the constituency (*SIG Money Contra-Constituency*$_{ij}$). Formally, for each representative *i* deciding on a particular bill (presented in vote *j*), we sum up all the campaign money the representative received prior to the vote from special interests that are at odds with the preferred constituency position. We thereby subtract all the money the representative received from groups that share the constituency's position (thus obtaining special interest group pressure in net terms). In our baseline model, we consider all the donations that were made within the last election cycle before the vote (i.e., the money donated during the last two-year term which helped with re-election). Note that in cases where we cannot construct a clear majority preference of the constituency (i.e., cases where *Alignment* takes a value of 0), we plausibly code *SIG Money Contra-Constituency* with 0. In other words, only if a representative's vote is

[14] See footnote 1 in the Online Appendix for the definition of PACs, and why special interests need to establish PACs.

[15] In the case of conflicting bill positions of organizations associated with the same interest group, we allocate their funds according to what percent of the organizations within the group are for or against the bill in question (analogous to the approach used for measuring constituency preferences). Among the 6,326 interest group-bill combinations in our sample, the organizations within an interest group agree in 98.4% of the cases.

clearly aligned or misaligned with his or her constituency (i.e., *Alignment* is 100 or -100, respectively), do we assign money flows to *SIG Money Contra-Constituency*, i.e., no money can be counted as donated against the constituency's preferred position if we cannot define the latter.[16]

Coding of distracting shock events

We finally link the political variables to information on exogenous shocks occurring in the US, thereby drawing on databases on natural and technological disasters, terrorist attacks, and mass shootings.

In previous research on attention and politics (e.g., Jones and Keiser, 1987 and Neustadtl, 1990), attention is measured by the media coverage of the bills under consideration. For example, the impact of union campaign spending on representatives' voting decisions is examined by comparing how they voted when a labor-related bill received a lot of media attention and how they voted when another labor-related bill received little media attention. There are substantial endogeneity concerns with such an approach, as there might well be factors, like the content of a bill, that influence media attention to the bill, voters' and special interests' positions on the bill, as well as representatives' decisions when voting on it. Instead of measuring actual media coverage of certain bills, we therefore adopt a different *indirect* approach, building on the idea of *news pressure* pioneered by Eisensee and Strömberg (2007). The focus here is on competing newsworthy information that crowds out reporting on the legislative process, but is otherwise not related to it. Our identification strategy draws on disastrous events (mass shootings, natural and technological disasters as well as terrorist attacks) which reduce attention to politics but are arguably exogenous to the representatives and the bills they are voting on around the time of the event.[17] For

[16] See also Section A.4 in the Online Appendix for more details on the construction of the special interests measure and Section C in the Online Appendix for an analysis of the determinants of the amount of campaign money received by individual representatives from special interests in the last election cycle before a given vote.

[17] We focus exclusively on incidents in the US, as these arguably cause most significant news pressure there. In Online Appendix D, we show that shocks outside the US actually have a less substantial or even a non-significant impact on news pressure in the US (see Figure D1/Table D3). The information on disasters is from EM-DAT, the International Disaster Database (Guha-Sapir et al., 2015). EM-DAT reports a disaster if one of the following criteria is satisfied: i) ten or more people dead; ii) 100 or more people affected; iii) the declaration of a state of emergency; iv) a call for international assistance. The terrorism data originates from

example, on October 12, 2011, a mass shooting occurred at a hair salon in Seal Beach, California. Eight people were killed. It was the deadliest mass killing in the history of Orange County.[18] The next day, October 13, 2011, the House of Representatives voted on the final passage of the *Protect Life Act*, an anti-abortion bill. Plausibly exogenous to the incident in California, we consider this vote as one that took place with comparatively little media attention to politics due to the distracting event.

For the coding of our 'shock event' variable we proceed in two steps. First, we take into account that the perceived newsworthiness of a single event strongly depends on its severity (Koopmans and Vliegenthart, 2011). As an approximation for the severity of such incidents, we rely on the reported number of disaster-related deaths per day. In the case of natural disasters that usually last from several days to weeks, we consider all disasters that last ten days or less (80% of all incidents) and allocate the number of deaths equally across all disaster days. For all other shock types, the number of deaths can be attributed to exactly one day. We then define a 'shock day' if the number of deaths lies above the 95th percentile of its (event-specific) distribution.[19] This approach ensures that we only consider the most serious incidents which likely distract from the legislative process. Overall, our sample of potential shock events covers the period from 1990 to 2020 (terror incidents and mass shootings only until 2019). Second, in order to assign the congressional votes as precisely as possible to treatment and control group, we verify i) whether we indeed observe a crowding out of news stories around the days we marked as shock days, and ii) how the magnitude of crowding out effects evolves around the

---

the Global Terrorism Database (GTD), introduced by LaFree and Dugan (2007). Regarding mass shootings, we access the mass shooter database from the The Violence Project (https://www.theviolenceproject.org/mass-shooter-database; accessed May 15, 2021)

[18] https://www.latimes.com/archives/la-xpm-2011-oct-12-la-me-1013-seal-beach-shooting-20111013-story.html.

[19] Note that for all events except natural disasters, the number of deaths is zero on over 95% of the days in our sample period. That is why we only use days with a positive number of deaths here. The respective thresholds are 98.79% (technological disasters) and 98.82% (terrorist attacks), i.e., regarding terrorist attacks, the number of deaths caused by terror in the US is zero at 98.82% of days between 1990 and 2019. Table D2 in the Online Appendix shows descriptive statistics for each type of shock event including the resulting 95th percentile thresholds.

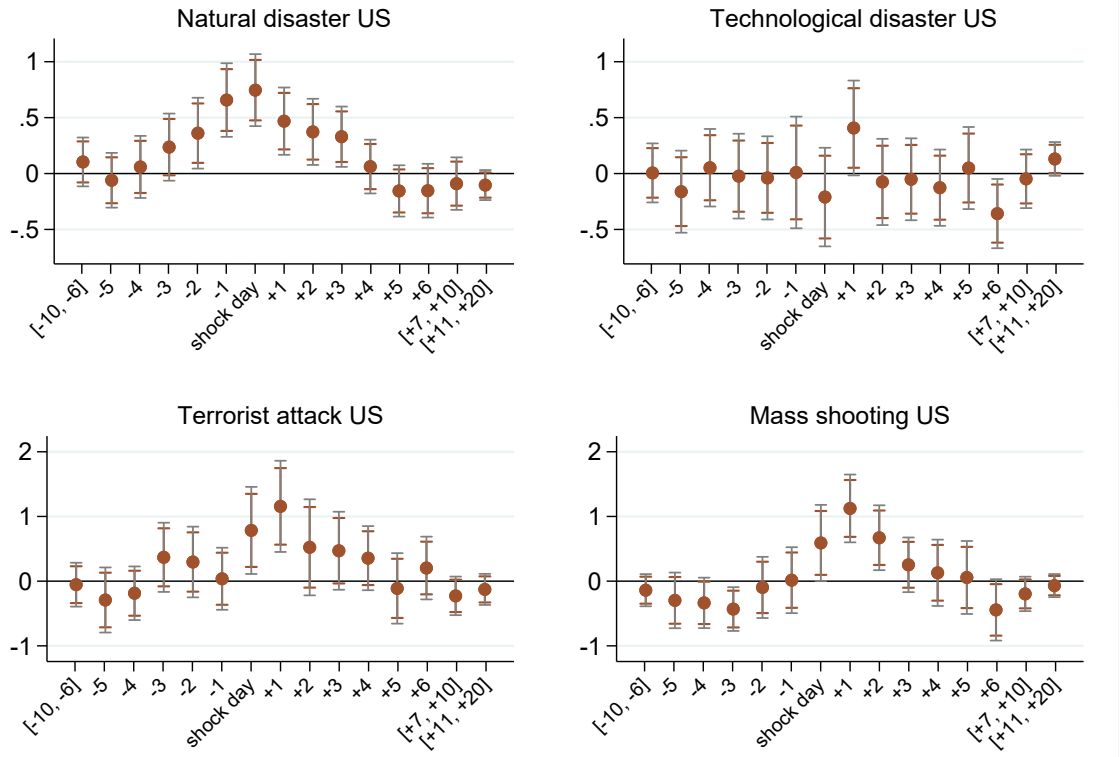
different shock types. This is motivated by the fact that some congressional votes were potentially affected by a disaster-related drop in attention before the disaster officially took place (e.g., hurricanes intensely covered in the news before they hit the shore). To this end, we estimate models with *daily news pressure* (Eisensee and Strömberg, 2007) on different days around a particular shock day as the dependent variable.[20] Given the day of a shock t, we examine day t and the six days following the shock $(t+1, t+2, ..., t+6)$, the subsequent time spans $[t+7, t+10]$ and $[t+11, t+20]$, as well as the pre-shock interval $[t-10, t-6]$ and the five days immediately preceding the shock $(t-5, t-4, ..., t-1)$. The coefficients on the shock indicators then display the magnitude of crowding out effects at the times considered. We include month-by-year fixed effects and fixed effects for each day of the week to account for seasonal and intra-weekly fluctuations in news coverage. Figure 1 depicts for each type of shock how the respective effects evolve over time.[21] We find significant crowding out effects for all event types. On their peak days, terrorist attacks and mass shootings exhibit the strongest crowding out effects (about 45% of a standard deviation), followed by natural and technological disasters (30% respectively 16% of a standard deviation). The news crowding time frames vary by the type of event. In the case of US natural disasters, we already observe crowding out effects before they occur, as expected.

Based on the actual crowding out effects following big shock events, we define event type-specific time intervals, defining which roll calls fall into the treatment (distraction due to shock event) and control group. For each shock type, we further distinguish between days when news pressure is at its peak (denoted *Shock Peak*) – such as on the day of a serious natural disaster or just the day after a terrorist attack – and days when there is less but still considerable news pressure (*Shock Medium*) (i.e., medium

[20] The *daily news pressure* measure captures the median length of the first three stories in the US evening news (across the US television networks ABC, CBS, CNN and NBC). The idea behind *daily news pressure* is that if a major media event occurs, the news stories usually become longer and the events are placed at the beginning of a bulletin. As total airtime is limited to 30 minutes, the length of the first three segments is a good measure for how much newsworthy material is available on a particular day. Depending on editors' evaluations regarding the newsworthiness of competing news stories, some events and topics will receive less attention just because something else happened by chance.

[21] The corresponding figures for events outside the US (along with the related estimation results regarding their impact on news pressure in the US) can be found in Online Appendix D.

Figure 1: News pressure in the US following shock events, 1990-2018



Notes: The graphs show the effects of US shock events on news pressure in the US around the day of the shock. The estimates are based on OLS regressions controlling for month-by-year and day-of-the-week fixed effects (with robust standard errors clustered at the month-by-year level). The dependent variable of *daily news pressure* on different days or intervals around the shock is from Eisensee and Strömberg (2007). Table D1 (Online Appendix D) shows the full OLS regression results. 95% and 90% confidence intervals are included.

news pressure, such as two days before a natural disaster hits US soil, or two days after a terrorist attack). We think this is the most reasonable approach to appropriately distinguish between treatment and control votes (i.e., votes taken under limited vs. rather normal attention to politics).

To ensure that there is no contextual link between the bills voted on during a (peak or medium) shock period and the shock events themselves, we systematically review the content of the bills that fall into the shock periods. We both qualitatively and quantitatively analyze the respective bill's content. Based on the Policy Agendas Project's bill classification scheme (`https://www.comparativeagendas.net/us`), we check for each of the possible shock treatment votes whether the bill in question is assigned to one or more categories that indicate a possible connection with the preceding shock. Table F1 in the Online Appendix shows the corresponding bill topics that we consider relevant to each type of shock. For example, any bill voted on after a terrorist attack that addresses immigration, defense, or civil rights

issues is included in our selection. This way we can identify 20 votes/bills with a coincidental connection between shock and bill (five such votes fall into a *Shock Peak* and 15 into a *Shock Medium* period). For those bills, we have reason to believe that the exogeneity assumption is violated and exclude them from our analysis. The shock intervals defined for each type of shock as well as the corresponding final number of votes on the passage of (non-shock related) bills are summarized in Table 1. We observe a total of 60 votes held during *Shock Peak* and 80 votes that fall in a *Shock Medium* period (out of a total of 652 votes).[22]

Table 1: The relevant reporting periods around shock events

Type of shock event	Region	High news pressure (*Shock Peak*)	#Votes	Medium news pressure (*Shock Medium*)	#Votes
Natural disaster	USA	$[t-1, t]$	40	$t-2, [t+1, t+3]$	36
Technolog. disaster	USA	$t+1$	0	not def.	0
Terrorist attack	USA	$t+1$	12	$[t+2, t+4]$	29
Mass shooting	USA	$t+1$	13	$[t+2, t+3]$	19

Notes: We assign a vote to one of the shock treatment groups (*Shock Peak* and *Shock Medium*) if it lies in the relevant period with increased (peak or medium) *daily news pressure* around a shock at time t (see Figure 1). Five votes fall into two periods of peak news pressure and four votes fall into two periods of medium news pressure.

Finally, we critically assess our choice of shock events and the chosen time periods with increased news pressure by investigating to what extent they are actually related to less political news reporting and simultaneously more reporting on the respective shock events. In this, we study local television as well as newspapers. The related analyses including a description of the data used as well as their compilation can be found in Online Appendix E. In short, we find evidence for a crowding out of national political news in local television and newspaper on all days we classified as shock days (*Shock Peak* or *Shock Medium*). The pattern is thus clearly consistent with the idea that 'newsworthy' tragedies crowd out political news across media types and media outlets and thus distract attention from the political process.

[22]Note that if a vote falls into both the *Shock Peak* and *Shock Medium* periods (which happens for serious natural disasters that last more than a day), we plausibly assign it to the *Shock Peak* period. Also note that five respectively four votes each fall into two separate periods of peak and medium news pressure, which is why the sum of votes in Table 1 turns out to be a little higher than the actual number of shock treatment votes.

4 Empirical model and main results

On the basis of the data compiled, we have available three basic pieces of information, i.e., i) whether representatives take into account the majority preference of their constituents in their voting decisions, ii) how much money they receive from special interest groups that oppose the majority preference of their constituents, and iii) whether the vote took place in a period of shock news pressure. Directly building on our theoretical framework, this allows us to test our main hypothesis by estimation of model equation (1).

$$\begin{aligned} \textit{Alignment}_{ij} = \beta_0 &+ \beta_1 \textit{SIG Money Contra-Constituency}_{ij} \\ &+ \beta_2 \textit{SIG Money Contra-Constituency}_{ij} \times \textit{Shock}_j \\ &+ \textit{Representative-by-Year}_{ij}\, FE \\ &+ \textit{Vote}_j\, FE + \varepsilon_{ij}. \end{aligned} \tag{1}$$

The dependent variable $\textit{Alignment}_{ij}$ subsumes representatives' voting behavior on legislative proposals. It takes a value of 100 if representative i votes in alignment with the majority preference in his or her constituency in roll call vote j (deciding on the passage of a particular bill), a value of -100 if he or she votes against the majority preference, and 0 if likely neither of the two applies. The (continuous) explanatory variable $\textit{SIG Money Contra-Constituency}_{ij}$ measures special interest groups' pressure that single representatives i face with regard to specific legislative votes j. Note that positive values in *SIG Money Contra-Constituency* indicate a conflict of interest faced by the representative – special interest donors prefer the opposite of what constituents prefer. The interaction of *SIG Money Contra-Constituency* with *Shock* tests our main hypothesis (specifically, we use the two refined shock treatment indicators *Shock Peak* and *Shock Medium*). Based on the estimated coefficients, we can calculate and compare the marginal effect of campaign funds directed against the constituency preference on representatives' likelihood of deviating from it. That is, we can once calculate the effect of special interest pressure on alignment under the usual level of attention, and once under low attention to

politics, as a result of exogenous shocks crowding out news on politics. The representative-by-year fixed effects control for all politician-specific characteristics that influence alignment, such as their preferences, or more general media monitoring in the constituency, for example, as triggered by differently sized television markets. The vote-specific effects take into account that there may be content-related factors which, independently of single representatives, lead to a higher or lower alignment with voter preferences in a particular vote j.

Table 2 shows descriptive statistics for all the variables used in our main empirical analysis. Table 3 presents the OLS regression results for different specifications of the fixed effects structure. Model (1) does not account for fixed effects, model (2) accounts for month-by-year as well as day-of-week effects, thus controlling for seasonal and intra-weekly fluctuations in alignment (such as those triggered by the election cycle). In model (3) we add fixed effects for each representative (by year), and the most restrictive model in model (4) accounts for representative-by-year fixed effects as well as vote fixed effects (which also control for month-by-year and day-of-the-week effects). In this last model, the main effects of our shock indicators (*Shock Peak* and *Shock Medium*) are captured by the vote fixed effects, and the interaction effects are identified based on the variation in the situations of individual representatives within a given vote.

Across all specifications, we document a significant alignment-reducing effect of special interest money that is spent against the preferred position of the electorate. With respect to model (4), one standard deviation more money from groups directed against the position of the electorate (about $39,000) is associated with an average reduction in the alignment indicator of 17 units. As the mean alignment rate of 28.5 arises due to 64.25% clear alignments and 35.75% clear misalignments, the effect of shifting 8.5 percentage points of votes from aligned to misaligned (i.e., $17/2 = 8.5$) is equivalent to a 24% increase in clearly misaligned votes. Regarding the interaction between special interest money and news pressure around shock events, we find evidence consistent with our main hypothesis. Given that the roll call vote is held at times of distracting events, representatives are observed to be more responsive to special interest group money, weakening the representation of their constituents' preferences. On days coded with *Shock Peak*, i.e., days around shocks when news pressure is most pronounced (and

thus distracts attention from the political process), the interaction is significantly negative for all model specifications. When representatives decide on legislation on such days, the same $39,000 in money (one standard deviation) directed against the constituency's majority preference has an extra effect on alignment of -12.8 units, i.e., the probability of a clear misalignment increases by another 6.4 percentage points. What is more, we document that there does not seem to be a general effect of limited attention to politics on representatives' responsiveness to constituents' interests (as the small and statistically insignificant coefficients for the main effects of the shock variables indicate).[23] Consistent with our theoretical framework, attention matters only when there is a trade-off between serving special and constituent interests (i.e., when special interest money is directed against voters' preferences).

Table 2: Descriptive statistics for the main variables

Variable	Mean	Std. Dev.	Min.	Max.	N
Alignment	28.92	75.69	-100	100	269,312
SIG Money Contra-Constituency	-1.203	3.950	-149.6	46.05	269,312
Shock Peak	0.091	0.287	0	1	269,312
Shock Medium	0.123	0.328	0	1	269,312

Notes: The unit of observation is representative-vote; *SIG Money Contra-Constituency* is expressed in $10,000 units.

5 Robustness

We test the robustness of our main results in several ways. First, we propose alternative codings for both the dependent variable of alignment and for our measure of special interest group pressure. Second, we estimate an ordered logistic regression to exclude the possibility that our results are driven by standard OLS assumptions. Third, we perform a placebo test in which we randomly assign the legislative votes to the shock treatment group, instead of assigning them according to the occurrence of major, distracting events.

[23] One might argue that political disagreements over an issue become less salient among voters and representatives in the face of tragedy, and representatives then vote differently due to the change in salience. Such a conjecture would suggest that shock events affect voting behavior independently of whether representatives face a trade-off between representing the preferences of their constituents vs. special interest donors. Our results do not support this conjecture.

Table 3: Media attention, special interest group pressure and alignment with constituent interests in roll call voting in the US House of Representatives, 2005-2018

Dependent variable: *Alignment* (-100, 0, 100)	(1)	(2)	(3)	(4)
SIG Money Contra-Constituency	-3.589***	-3.843***	-3.897***	-4.321***
	(0.406)	(0.447)	(0.449)	(0.624)
Shock Peak	-1.438	0.984	0.558	
	(5.515)	(5.474)	(5.479)	
Shock Medium	-3.967	0.955	1.169	
	(4.860)	(5.138)	(5.128)	
SIG Money Contra-Constituency x Shock Peak	-4.225**	-3.440**	-4.036***	-3.277*
	(1.649)	(1.392)	(1.397)	(1.810)
SIG Money Contra-Constituency x Shock Medium	-0.577	-1.583*	-1.406*	-0.933
	(0.944)	(0.817)	(0.797)	(0.922)
Month-by-Year FE		X	X	
Day-of-the-Week FE		X	X	
Vote FE				X
Representative-by-Year FE			X	X
Observations	269,312	269,312	269,312	269,312
Adjusted R^2	0.042	0.118	0.140	0.305

Notes: OLS regressions with robust standard errors two-way clustered by representative and vote in parentheses. The unit of observation is representative-vote. The dependent variable *Alignment* measures whether representatives vote in alignment with the majority preference of their constituents. *SIG Money Contra-Constituency* aggregates the campaign money that representatives received in the last election cycle from special interests that are against the constituents' preferred position (in net terms). *Shock Peak* and *Shock Medium* indicate periods of increased news pressure around serious (non-political) shock events (see Table 1). * p<0.1, ** p<0.05, *** p<0.01.

Alternative codings for political alignment and special interest group pressure

Columns (2) and (3) of Table 4 show the estimation results for baseline model equation (1) using different definitions for our indicator of alignment with constituents' preferences. In particular, we impose two additional thresholds to determine whether a representative's voting decision was likely to represent a majority of his or her electorate. More specifically, instead of the 25 percentage points, as in the baseline estimate (column 1), we use differences of 10 as well as 5 percentage points in the share of voters either in favor or against a bill. Regarding both alternative dependent variables, we document robust results regarding the effect of peak shock news pressure on representatives' voting behavior. The effect sizes are comparable to those of the baseline estimate.

In column (4) of Table 4, we use a modified version of our special interest group measure. Specifically, instead of counting the absolute dollars from special interest groups that oppose the electorate's position

(as in the baseline version), we consider their share of the representative's total campaign budget. The newly defined *SIG Money Contra-Constituency* (potentially) ranges between 0 and 1, where 1 would mean that the representative's total campaign budget comes from special interest groups that oppose the position held by the constituency. We divide the resulting percentage by its standard deviation for easier interpretation. Again, we document that special interest money in conflict with the predominant voter position has a significantly higher impact on the representative's probability of voting against the voter position in the face of severe news pressure around shock events. The partial correlation increases by more than half.

Ordered logistic regression

To test whether the imposed linear relationship in our baseline model presents an issue for our findings in qualitative as well as in quantitative terms, we re-estimate our main specification using an ordered logistic regression model. Column (5) of Table 4 shows the related results. We document robust results regarding the increased influence of special interest group money that conflicts with voters' wishes when there is less public attention to politics. If a representative receives an additional $10,000 from special interest groups that favor the opposite of what voters want, the odds of a representative deciding in alignment with voter preferences decrease by 35% (i.e., in favor of his/her deciding misaligned or neither aligned nor misaligned). In cases of peak shock news pressure, the same money causes a drop in alignment by as much as 62%. In this specification, there is no extra effect of money from special interest groups during periods of medium news pressure around shock events.

Placebo test

If voting behavior is analyzed for differential effects of campaign money and constituent interests, the same patterns for the effect of limited attention as those reported in our main specification in Table 3 should be observed only rarely if the days considered shock days were randomly assigned. Based on this idea, we undertake a placebo test and randomly distribute the shock treatment days over all days with legislative votes in our sample (excluding real shock days). The number of placebo days is chosen in

Table 4: Robustness checks: Media attention, special interest group pressure and alignment with constituent interests in roll call voting in the US House of Representatives, 2005-2018

Dependent variable: *Alignment* (-100, 0, 100)	(1) baseline model	(2) alignment 10% threshold	(3) alignment 5% threshold	(4) SIG money in % of total budget	(5) ordered logit
SIG Money Contra-Constituency	-4.321***	-4.473***	-4.502***	-22.53***	-0.440***
	(0.624)	(0.621)	(0.617)	(2.061)	(0.027)
SIG Money Contra-Constituency x Shock Peak	-3.277*	-3.635**	-3.700**	-12.30**	-0.541***
	(1.810)	(1.799)	(1.762)	(5.090)	(0.062)
SIG Money Contra-Constituency x Shock Medium	-0.933	-1.028	-1.017	-1.355	0.0349**
	(0.922)	(0.933)	(0.931)	(3.815)	(0.017)
Vote FE	X	X	X	X	X
Representative-by-Year FE	X	X	X	X	X
Observations	269,312	269,312	269,312	267,341	269,312
Adjusted/Pseudo R^2	0.305	0.298	0.295	0.320	0.238

Notes: OLS regressions with robust standard errors two-way clustered by representative and vote in parentheses (column 5 only with standard errors clustered at the representative level). The unit of observation is representative-vote. The dependent variable *Alignment* measures whether representatives vote aligned with the majority preference of their constituents. *SIG Money Contra-Constituency* aggregates the campaign money that representatives received in the last election cycle from special interests that are against the constituents' preferred position (in net terms). *Shock Peak* and *Shock Medium* indicate periods of increased news pressure around serious (non-political) shock events (see Table 1). * p<0.1, ** p<0.05, *** p<0.01.

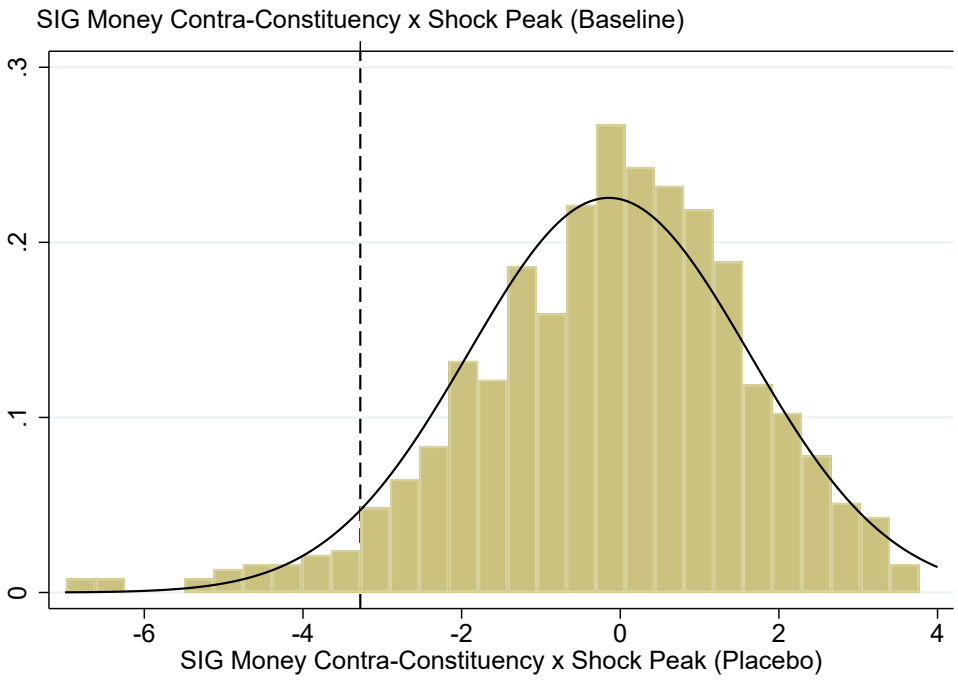
such a way that it matches the 9.7% and 12.3% of the original shock peak and shock medium treatment days, respectively. We perform this random assignment of placebo shock days 1,000 times and estimate our baseline model (1) for each draw.

The distribution of the estimated placebo coefficients on *SIG Money Contra-Constituency* $\times$ *Shock Peak* are shown in Figure 2. The empirical p-value is 0.044, i.e., in only 4.4% of the cases is the estimated coefficient smaller than the estimated coefficient of -3.277 from our baseline estimation. This suggests that the finding that campaign funds from special interests in conflict with constituency preferences are more influential in the days following major shock events is most likely not a mere coincidence.

6 Mechanism: Agenda-setting vs. individual short-term opportunism

So far, we have implicitly interpreted the observed patterns in voting behavior in terms of individual representatives' short-term opportunism. However, what if majority leaders take advantage of the limited attention caused by shock events and deliberately bring particular bills to the vote during them? On the one hand, the majority leadership might be directly pressured by organized interests to ensure passage of

Figure 2: Robustness: Distribution of the placebo coefficients



Notes: The graph shows the distribution of the coefficients on the interaction *SIG Money Contra-Constituency* × *Shock Peak* resulting from the placebo model. The placebo days were randomly distributed over all non-shock days for a total of 1,000 runs. The number of placebo days is chosen in such a way that it matches the proportion of original shock treatment days. The vertical dashed line depicts the estimated coefficient from our baseline model that is based on the real shock treatment.

certain bills. On the other, majority party leaders might be aware of the fact that several of their party colleagues face a conflict of interest (special interest groups versus voters) in some upcoming votes. In order to improve their re-election chances, majority leaders would be tempted to time these votes in such a way that conflicted colleagues are less likely to be punished by voters when they vote against their electorate's interests. The institutional setting in the House of Representatives allows for a short-term change of the agenda along these lines.[24] The body responsible for such changes is the Rules Committee, which is disproportionately comprised of members of the majority party, and thus to a substantial degree is under the control of the majority leadership. In particular, it is the Speaker of the House who exercises

[24]The study of Lindstädt and Vander Wielen (2014) finds evidence consistent with the hypothesis that majority party leaders strategically schedule votes that divide the parties when elections are far off. In their theory, parties want to avoid situations in which representatives face the decision of showing party loyalty or not, due to the electoral costs of party loyalty shortly before the elections. This kind of agenda-setting, however, seems rather long-term, and differs from the short-term change of the agenda after major shock events that we have in mind.

control over the Rules Committee.[25] The former Speaker Thomas P. O'Neill (1977-1987) described the role of the Rules Committee as follows: "What makes the Rules Committee so important is that it sets the agenda for the flow of legislation in the House and ensures that the place runs smoothly and doesn't get bogged down."[26] Issues that are highly sensitive to organized interests, but likely to conflict with the public's interest, could thus be affected by strategic short-term agenda-setting through the Rules Committee. We investigate this mediating factor on the basis of two tests.

Timing of votes with many conflicted representatives

First, based on our theoretical considerations, majority leaders should primarily have an incentive to push the Rules Committee to change the agenda if special interests have strong preferences that a particular piece of legislation be passed when large parts of the electorate are against it – but not the other way round. This follows from the idea that interest groups are well informed about the voting behavior of the representatives they support, while voters' level of information depends on the availability of political news, which is affected by media producers' judgments as to relative newsworthiness. To test whether bills that face opposition from voters but support from special interests are more likely to come to a vote after shock events, we count for each vote the number of representatives in the majority party who

[25] After a bill is introduced in the House of Representatives, it is sent to a Committee and Subcommittee for hearings, recommendations regarding amendments, and reporting. When a bill returns from the Committee, it is usually not sent directly to the House floor. In particular, the Rules Committee schedules when a specific bill comes to the floor for consideration, and sets the rules concerning amendment limitations and the amount of debating time allocated to each bill. After a simple majority of the entire House approves the rule, the bill is ready for debate, possible voting on amendments, and final passage voting (https://www.congress.gov/legislative-process and rules.house.gov). It is also possible that the final vote will be taken directly, without a ruling from the Rules Committee (i.e. 'under suspension of the rules'). In this latter case, debate is limited to 40 minutes and no amendments are possible (requires a 2/3 majority).

[26] Quoted in https://archives-democrats-rules.house.gov/Archives/pre20th_rules.htm#N_4_.

face a conflict of the type *special interest groups Yes and voters No* (i.e., if the representative receives substantially more special interest money from groups that support the bill and faces a constituency that clearly opposes it).[27] We refer to this variable as *#AS-Conflicts* (number of agenda-setting conflicts).

Figure F1 in the Online Appendix depicts the distribution of *#AS-Conflicts* for the 652 votes in our sample. A high number of agenda-setting conflicts can be observed for only a small number of votes, but for about 24% of them, we observe at least one representative with a conflict (with a mean value of 8.03 conflicted representatives per vote). As possible evidence of agenda-setting by the majority leader, we document an average of six more representatives with conflicts in votes held on days with peak shock news pressure. The related OLS results can be found in column (1) of Table 5. In column (2), we estimate a logit model in which the dependent variable is an indicator that takes a value of 1 if the number of conflicts of representatives belonging to the majority party is larger than 25 (which is about 10% of the average number of representatives affiliated with the majority party). The results are consistent. When the vote is taken on a day with highest shock activity, the odds of there being a high number of representatives with conflicts double.

Elapsed time between first consideration of bill and final passage voting

As an additional test of the agenda-setting hypothesis, we examine the elapsed time between a bill's first consideration in the House (i.e., after the bill is reported out of committee) and its final passage vote. If strategic short-term agenda-setting takes place right after shock events, the bills that are decided during the days with limited media attention are expected to reach their final vote faster (on average) than any other bills. Majority leaders may, for example, convince their party colleagues not to use up the time available for the debate or to withhold amendments which would otherwise delay the process. For

[27] To distinguish clear cases of conflict, we consider only those where i) representatives receive more money from special interest groups that favor the bill than from groups that oppose it and the difference is above a certain threshold (whereby we use the median of the absolute difference between Yes and No money across all votes that a particular representative casts in a particular congressional session), and ii) constituents clearly oppose the bill (i.e., a 25 percentage point higher proportion of voters opposing than favoring it, and a minimum share of voters with preferences exceeding the 25th percentile in the representative-congress distribution).

bills whose consideration by the House was initiated only after the shock event, the Rules Committee may provide a rather restrictive rule, i.e., a rule that limits the debate time and/or the possibilities for amendments. Another way to quickly pass legislation would be to ask for 'suspension of the rules' (requiring a 2/3 majority), which limits debate to 40 minutes and does not allow any amendments to the bill.

For each bill, we count the days between the first consideration on the House floor and the vote on final passage. For the bills that were voted on twice, which applies to 19 bills (mostly because they did not get a majority in the first vote), we count the elapsed days between the renewed consideration and the final vote. The corresponding distribution for the 652 votes in our sample is shown in Figure F2 in the Online Appendix. In 84% of cases, first consideration (or re-consideration) and final voting are on the same day (the average elapsed time is 0.21 days).

We estimate an OLS regression using as the dependent variable an indicator (0/100) of whether first consideration and final passage vote fall on the same day. The corresponding estimate is shown in column (3) of Table 5. We document that bills voted on during *Shock Peak* are 8.7 percentage points more likely to have been first considered on the same day than bills voted on during non-shock days. In column (4) we estimate the same specification using a logit model, yielding consistent results.

Table 5: Two tests for a possible agenda-setting mechanism: Number of agenda-setting conflicts and elapsed time between first consideration of bill and final passage voting

Dependent variable:	#AS-Conflicts	#AS-Conflicts > 25 (Logit)	Final vote on same day	Final vote on same day (Logit)
Shock Peak	6.231*	0.707*	8.854*	0.825*
	(3.570)	(0.397)	(4.994)	(0.482)
Shock Medium	4.756	0.495	3.437	0.264
	(3.145)	(0.375)	(4.400)	(0.345)
Mean DV	7.853	0.090	84.40	84.40
Observations	652	652	652	652
Adjusted/Pseudo R^2	0.007	0.010	0.005	0.007

Notes: OLS and logit regressions with standard errors in parentheses. *#AS-Conflicts* refers to the number of individual representatives affiliated with the majority party who face an agenda-setting conflict in any given vote. *Final vote on same day* is an indicator that takes a value of 100 if the bill's first consideration in the full House and final voting take place on the same day. The unit of observation is vote. * p<0.1, ** p<0.05, *** p<0.01.

Overall, the results of the two tests speak for the hypothesis that short-term agenda-setting by the majority party mediates the effect of attention on the influence of special interests.

7 Heterogeneity analysis: Retiring representatives, electoral competition, and voting behavior in election vs. non-election years

The core aspect of our theoretical framework underlying the hypothesis is the office-motivated incumbent maximizing his or her re-election chances. Under this presumption, the attention paid to politicians' actions is predicted to influence the trade-off between serving voters vs. special interests. In this section, we explore the results when we split our baseline sample and compare representatives in situations where re-election concerns and attention to politics are expected to be more or less pronounced.

First, we examine whether representatives who are not running for re-election (because they are retiring) react differently to campaign money from special interests in the wake of shocks. Assuming that misaligned behavior can no longer be sanctioned in the next election, exploiting periods of limited attention to cater to special interests would be unnecessary. That is, we would not expect a different effect of special interest group money during shock vs. non-shock days. Columns (2) and (3) of Table 6 show the corresponding results for a sample split between representatives running for re-election and those retiring. In fact, we document that among retiring representatives, shocks do not moderate the effect of special interest money directed against the constituency preference. Consistent with our theoretical framework, our main result is thus driven by re-election-oriented representatives.

Both direct support from voters (gained by voting in line with their interests) and generous financial support from special interests are increasingly valuable when re-election concerns become more pressing. Accordingly, from our basic framework it is theoretically unclear whether representatives will cater more or less to special interests under higher levels of electoral competition. We study the empirical pattern by re-running our baseline regression for two different sub-samples. Specifically, we compare representatives in rather contested districts (approximated by a margin of victory in the last elections that lies below 5%) with their colleagues sitting on relatively 'safe seats' (margin of victory in the last elections at 5% or above). The related results are shown on columns (4) and (5) of Table 6. We find that

in the presence of shocks, special interest money that conflicts with voter preferences does not have a differential impact on the representation of voters for representatives facing high vs. rather low levels of competition.[28]

Finally, we compare the effect of limited attention to politics for votes taken in election vs. non-election years. As the corresponding estimates in columns (6) and (7) (Table 6) show, we find comparable estimates for the effect of special interest money at peak shock news pressure (though imprecisely estimated for the sample restricted to all votes cast in election years). Beyond that, we find a significantly higher effect of our measure of special interest group pressure on the likelihood of deciding against voters on days with medium shock news pressure (such as two days after a serious disaster). This is plausible given that general attention paid to politics is lower in non-election years. Another consistent interpretation is that re-election concerns are likely to be less pressing in non-election years, leveraging the impact of special interest money.

8 Concluding remarks

The democratic process is fundamentally about serving citizens in decisions that lend themselves to being taken collectively. While interests of all kinds should be heard in this process, specific interests are often at an advantage, as they manage to become organized and collect money among their supporters. If then, for some policy issues, the interests of specific groups diverge from those of a large part of the population, concerns arise about interest groups having undue influence on policy making at the cost of consumers and taxpayers at large. In this, the representatives' reliance on campaign finance donations for electoral success is one prominent avenue by which special interests can influence politics. However, representatives face a trade-off when relying on financial support from special interests for running campaigns and winning elections in exchange for policy favors, as they may be sanctioned by their constituents if they support policies that run against voters' preferences.

[28] We estimated an interaction model to test the significance of the difference in effects for high vs. low competition. The p-value of the relevant interaction term is 0.986 (results available upon request).

Table 6: Electoral incentives and the effects of limited attention on the representation of voters and special interests

Dependent variable: *Alignment* (-100, 0, 100)	Baseline	Non-retiring vs. retiring		Competitive vs. safe districts		Election vs. non-election year	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
SIG Money Contra-Constituency	-4.321***	-4.365***	-3.959***	-5.001***	-4.304***	-4.561***	-4.168***
	(0.624)	(0.643)	(0.733)	(0.822)	(0.639)	(0.851)	(0.797)
SIG Money Contra-Constituency x Shock Peak	-3.277*	-3.481*	-0.915	-3.800***	-3.195*	-3.508	-3.369*
	(1.810)	(1.787)	(2.139)	(1.418)	(1.937)	(3.539)	(2.030)
SIG Money Contra-Constituency x Shock Medium	-0.933	-0.934	-0.970	-1.313	-0.896	0.546	-2.494*
	(0.922)	(0.926)	(1.009)	(1.592)	(0.899)	(1.082)	(1.339)
Vote FE	X	X	X	X	X	X	X
Representative-by-Year FE	X	X	X	X	X	X	X
Observations	269,312	254,792	14,520	17,199	252,113	111,481	157,831
Adjusted R^2	0.305	0.305	0.329	0.371	0.303	0.291	0.315

Notes: OLS regressions with robust standard errors two-way clustered by representative and vote in parentheses. The unit of observation is representative-vote. Column (1) shows our baseline estimate (column 4 from Table 3). In the other specifications, we split the sample between those representatives who are facing re-election and those who are retiring, between those representatives who come from a relatively competitive district and those with a relatively safe seat (approximated by a victory margin in the last elections that lies above 5%), as well as between those votes that took place in an election (even-numbered) and non-election year. * p<0.1, ** p<0.05, *** p<0.01.

Our study shows that media attention is a crucial factor affecting this trade-off. Representatives are systematically more likely to vote against their electorate's policy preferences but more aligned with those of special interest groups that support them over time periods when media attention is drawn away from politics due to an exogenous shock event (such as a natural disaster hitting the US). This suggests that special interests can leverage their advantage in monitoring representatives during times of limited media attention to politics, an issue that has so far not been prominently discussed in the context of special interest politics. Importantly, constituent interests already lose out to special interests when attention is not diverted from politics. In fact in such a situation, empirical analysis shows that the more money representatives receive from special interest donors whose policy preferences conflict with those of voters, the more likely we are to observe representatives taking decisions against their constituency. It is quite likely, in fact, that we still underestimate the influence of special interest groups in our setting, as our approach focuses on their visible actions (i.e., their donations to politicians). We cannot account for the effect of the "second face of power" (Bachrach and Baratz, 1962), i.e., the threat of additional actions by moneyed interests in the future (such as, for example, negative campaigning in the next election).

Our findings open several avenues for further research in this context. First, information asymmetries between different types of (interest) groups in the population might deserve more attention in theoretical work on special interest politics as, mass-based interest groups such as unions probably rely on different information flows than well-funded but comparatively small business interest groups. Second, while we model attention as being uniformly distributed and affected by shock events across representatives, the organizational structure of media markets and its interaction with political markets might well create systematic variation in voters' exposure to political information about their representatives' behavior.

Finally, our findings raise some interesting issues regarding the role of media markets and media control in representative democracies. If attention to politics is an obstacle for special interests to overcome in influencing the political process when their preferences conflict with the desires of large fractions of the population, the value of controlling media outlets wins a new and important aspect. A large part of the new literature at the intersection of media economics and political economics focuses on how the media work as the 'fourth estate', keeping elected officials in line with the interests of voters

(see, e.g., Prat and Strömberg, 2013, and DellaVigna and Gentzkow, 2010, for excellent reviews of the arguments). A complementary literature suggests a different involvement of the media in democracies, i.e., the representation of corporate interests supporting their attempts to secure rents in the democratic process (see, e.g., Herman and Chomsky, 1988, Gilens and Hertzman, 2000, and Corneo, 2006). Taken together, the modus operandi under which media outlets work fundamentally affects their functioning as the fourth estate and thus the role of special interests in politics.

References

Ansolabehere, S., de Figueiredo, J. M., and Snyder, J. M. (2003). Why is there so little money in US politics? *Journal of Economic Perspectives*, 17(1):105–130.

Austen-Smith, D. (1995). Campaign contributions and access. *American Political Science Review*, 89(3):566–581.

Bachrach, P. and Baratz, M. S. (1962). Two faces of power. *American Political Science Review*, 56(4):947–952.

Besley, T. and Burgess, R. (2002). The political economy of government responsiveness: Theory and evidence from India. *Quarterly Journal of Economics*, 117(4):1415–1451.

Besley, T., Burgess, R., and Prat, A. (2002). Mass media and political accountability. In Islam, R., Djankov, S., and McLeish, C., editors, *The right to tell*. World Bank, Washington.

Bronars, S. G. and Lott, J. J. R. (1997). Do campaign donations alter how a politician votes? Or, do donors support candidates who value the same things that they do? *Journal of Law and Economics*, 40(2):317–350.

Buchanan, W. and Bird, A. (1966). *Money as a campaign resource: Tennessee Democratic Senatorial Primaries, 1948-1964*. Citizens' Research Foundation, Princeton, N.J.

Corneo, G. (2006). Media capture in a democracy: The role of wealth concentration. *Journal of Public Economics*, 90(1-2):37–58.

DellaVigna, S. and Gentzkow, M. (2010). Persuasion: Empirical evidence. *Annual Review of Economics*, 2(1):643–669.

Djourelova, M. and Durante, R. (2021). Media attention and strategic timing in politics: Evidence from US presidential executive orders. *American Journal of Political Science*, in press.

Durante, R. and Zhuravskaya, E. (2018). Attack when the world is not watching? US news and the Israeli-Palestinian conflict. *Journal of Political Economy*, 126(3):1085–1133.

Eisensee, T. and Strömberg, D. (2007). News droughts, news floods, and US disaster relief. *Quarterly Journal of Economics*, 122(2):693–728.

Enikolopov, R., Petrova, M., and Zhuravskaya, E. (2011). Media and political persuasion: Evidence from Russia. *American Economic Review*, 101(7):3253–3285.

Fellowes, M. C. and Wolf, P. J. (2004). Funding mechanisms and policy instruments: How business campaign contributions influence congressional votes. *Political Research Quarterly*, 57(2):315–324.

Fouirnaies, A. and Hall, A. B. (2018). How do interest groups seek access to committees? *American Journal of Political Science*, 62(1):132–147.

Garz, M. and Sörensen, J. (2017). Politicians under investigation: The news media's effect on the likelihood of resignation. *Journal of Public Economics*, 153:82–91.

Gentzkow, M., Shapiro, J. M., and Sinkinson, M. (2011). The effect of newspaper entry and exit on electoral politics. *American Economic Review*, 101(7):2980–3018.

Gilens, M. (2012). *Affluence and influence: Economic inequality and political power in America*. Princeton University Press, Princeton, NJ.

Gilens, M. and Hertzman, C. (2000). Corporate ownership and news bias: Newspaper coverage of the 1996 Telecommunications Act. *Journal of Politics*, 62(2):369–386.

Gilens, M. and Page, B. I. (2014). Testing theories of American politics: Elites, interest groups, and average citizens. *Perspectives on Politics*, 12(3):564–581.

Grenzke, J. M. (1989). PACs and the congressional supermarket: The currency is complex. *American Journal of Political Science*, 33(1):1–24.

Grossman, G. M. and Helpman, E. (1994). Protection for sale. *American Economic Review*, 84(4):833–850.

Guha-Sapir, D., Below, R., and Hoyois, P. (2015). EM-DAT: International disaster database. Catholic University of Louvain: Brussels, Belgium.

Hall, R. L. and Wayman, F. W. (1990). Buying time: Moneyed interests and the mobilization of bias in congressional committees. *American Political Science Review*, 84(3):797.

Herman, E. S. and Chomsky, N. (1988). *Manufacturing consent: The political economy of the mass media*. Vintage, London.

Jones, W. and Keiser, K. R. (1987). Issue visibility and the effects of PAC money. *Social Science Quarterly*, 68(1):170.

Kalla, J. L. and Broockman, D. E. (2016). Campaign contributions facilitate access to congressional officials: A randomized field experiment. *American Journal of Political Science*, 60(3):545–558.

Kaplan, E., Spenkuch, J. L., and Yuan, H. (2018). Natural disasters, moral hazard, and special interests in Congress. *CESifo Working Paper No. 7408*.

Kau, J. B., Keenan, D., and Rubin, P. H. (1982). A general equilibrium model of congressional voting. *Quarterly Journal of Economics*, 97(2):271–293.

Koopmans, R. and Vliegenthart, R. (2011). Media attention as the outcome of a diffusion process—a theoretical framework and cross-national evidence on earthquake coverage. *European Sociological Review*, 27(5):636–653.

Kroszner, R. S. and Stratmann, T. (1998). Interest-group competition and the organization of Congress: Theory and evidence from financial services' political action committees. *American Economic Review*, 88(5):1163–1187.

Kroszner, R. S. and Stratmann, T. (2005). Corporate campaign contributions, repeat giving, and the rewards to legislator reputation. *Journal of Law and Economics*, 48(1):41–71.

LaFree, G. and Dugan, L. (2007). Introducing the Global Terrorism Database. *Terrorism and Political Violence*, 19(2):181–204.

Langbein, L. I. and Lotwis, M. A. (1990). The political efficacy of lobbying and money: Gun control in the U.S. House, 1986. *Legislative Studies Quarterly*, 15(3):413–440.

Lindstädt, R. and Vander Wielen, R. J. (2014). Dynamic elite partisanship: Party loyalty and agenda setting in the US House. *British Journal of Political Science*, 44(4):741–772.

Matter, U. and Stutzer, A. (2019). Does public attention reduce the influence of moneyed interests? Policy positions on SOPA/PIPA before and after the Internet Blackout. *Economic Inquiry*, 57(4):1879–1895.

Mian, A., Sufi, A., and Trebbi, F. (2010). The political economy of the US mortgage default crisis. *American Economic Review*, 100(5):1967–1998.

Neustadtl, A. (1990). Interest-group PACsmanship: An analysis of campaign contributions, issue visibility, and legislative impact. *Social Forces*, 69(2):549–564.

Oberholzer-Gee, F. and Waldfogel, J. (2009). Media markets and localism: Does local news en Espanol boost Hispanic voter turnout? *American Economic Review*, 99(5):2120–2128.

Prat, A. and Strömberg, D. (2013). The political economy of mass media. In Acemoglu, D., Arellano, M., and Dekel, E., editors, *Advances in Economics and Econometrics*. Cambridge University Press, Cambridge, U.K., 135-187.

Schram, M. (1995). *Speaking freely: Former members of Congress talk about money in politics*. Center for Responsive Politics, Washington D.C.

Schroedel, J. R. (1986). Campaign contributions and legislative outcomes. *Western Political Quarterly*, 39(3):371–389.

Snyder, J. M. (1992). Long-term investing in politicians; or, give early, give often. *Journal of Law and Economics*, 35(1):15–43.

Snyder, J. M. and Strömberg, D. (2010). Press coverage and political accountability. *Journal of Political Economy*, 118(2):355–408.

Stratmann, T. (1991). What do campaign contributions buy? Deciphering causal effects of money and votes. *Southern Economic Journal*, 57(3):606–620.

Stratmann, T. (1992). The effects of logrolling on congressional voting. *American Economic Review*, 82(5):1162–1176.

Stratmann, T. (1995). Campaign contributions and congressional voting: Does the timing of contributions matter? *Review of Economics and Statistics*, 77(1):127–136.

Stratmann, T. (2002). Can special interests buy congressional votes? Evidence from financial services legislation. *Journal of Law and Economics*, 45(2):345–373.

Stratmann, T. (2005). Some talk: Money in politics. A (partial) review of the literature. *Public Choice*, 124(1-2):135.

Strömberg, D. (2004). Radio's impact on public spending. *Quarterly Journal of Economics*, 119(1):189–221.

Wawro, G. (2001). A panel probit analysis of campaign contributions and roll-call votes. *American Journal of Political Science*, 45(3):563–579.

Wilhite, A. and Theilmann, J. (1987). Labor PAC contributions and labor legislation: A simultaneous logit approach. *Public Choice*, 53(3):267–276.

Witko, C. (2006). PACs, issue context, and congressional decisionmaking. *Political Research Quarterly*, 59(2):283–295.

Wright, J. R. (1985). PACs, contributions, and roll calls: An organizational perspective. *American Political Science Review*, 79(02):400–414.

Special Interest Groups Versus Voters and the Political Economics of Attention

Patrick Balles Ulrich Matter Alois Stutzer

February 2022

Online Appendix

A Data on campaign donations 1

A.1 Data origin 1

A.2 Data access 1

A.3 Compilation of measure for constituent interests 2

A.4 Compilation of measure for special interests 4

B Validation of measure for constituent interests 7

C Determinants of representative-vote-specific campaign money 16

D Identification of shock days 20

E News reporting on politics and shock events 23

E.1 Television 24

E.2 Newspapers 26

F Additional information 30

A Data on campaign donations

A.1 Data origin

Originally, the campaign contribution data is from the Federal Election Commission (FEC), the US agency that regulates campaign finance in federal elections. The donation recipients (candidates, parties and PACs[1]) are required by the US *Federal Election Campaign Act* to identify donors who give them more than $200 in an election cycle (including their address and employer information).

A.2 Data access

The data from OpenSecrets is accessible through its website OpenSecrets.org. We collected the campaign finance data via the Sunlight Foundation's Influence Explorer. The original data set (consisting of federal campaign finance records between 1990 and 2014) is available online under https://sunlightlabs.github.io/datacommons/#bulk-data. We have updated the original data set with subsequent additions of campaign finance data directly provided by OpenSecrets.[2] The MapLight data is accessible via an API under https://maplight.org/data_guide/bill-positions-api. We accessed the data on October 28, 2019. The GovTrack roll call data is publicly accessible via an API under https://www.govtrack.us/developers.

[1] Organizations (but not individuals) that want to contribute to a candidate's campaign cannot do so directly. They have to establish a PAC that is regulated by the Federal Election Commission. Corporations, trade associations and unions establish a connected PAC, ideological or single-issue groups a non-connected PAC. Whereas for connected PACs, the establishing organization is allowed to provide funding for start-up and administrative costs, providing funds for the purpose of campaign contributions to a candidate is not allowed. Instead, connected PACs have to raise funds from individuals associated with the sponsoring organization, who are usually managers and executives in the case of corporations and members in the case of unions, trade and professional associations. Non-connected PACs, however, may accept funds from the general public, but are not sponsored by an associated organization.

[2] The original bulk data set provided by the Sunlight Foundation did not yet contain all records for the 2014 cycle, upon publication of the bulk data set. We therefore completed the data set once the respective records were made available by OpenSecrets.

A.3 Compilation of measure for constituent interests

We calculate the percentage net support for a given bill by subtracting the number of donations from constituents opposing the bill from the number of donations from constituents supporting the bill, dividing it by the total number of donations coming from constituents with preferences in the constituency. Table A1 provides an overview of the transaction types and interest group codes that we exclude before aggregating the donations. Note that with this approach all the donations of citizens in a particular district are considered independently of whether they went to their House representative (including, for example, donations to presidential candidates, candidates for the Senate, or to PACs of any kind). We count all donations made by individuals in a representative's constituency in the last election cycle prior to the corresponding roll call vote (for example, if the vote takes place in May 2011, we count all donations made between the November elections 2008 and 2010). This holds for all donations except for those to presidential candidates. In the latter case, we consider donations made by individuals in a representative's district within the last presidential election cycle, i.e., the two years before the last presidential election (i.e., for the vote in May 2011 we count all donations to presidential candidates made between the 2006 elections and the 2008 presidential elections). In cases where a citizen who is assigned to a particular group contributes more than once per election cycle, we accordingly count all of his or her transactions. An individual contributes about 2.3 times per two-year cycle on average. We thus take repeated contributions by the same individual into account by assigning a higher weight to this individual's preference in our measure for district interests. Only on rare occasions is the same donor assigned to different groups within a cycle (e.g., if the individual contributes to his or her employer's PAC and additionally to an ideological PAC). In such a case, we also count both transactions. On average, an individual has links to 1.1 groups per cycle. Depending on whether the groups the individual is linked with share the same position with respect to the observed bill, the individual donor gets a higher (if they agree) or lower (if they disagree and offset each other) weight. The median individual is assigned to one group and donates once per election cycle.

Table A1: Excluded transaction types and interest group codes in the campaign finance data

Constituent interests measure (*Alignment)*

- Excluded transaction types: 10 (donations to Independent Expenditure-Only Committees, i.e., Super PACs), 10j, 11j, 15j (memo entries, i.e., the share of an individual's donation to a candidate or to another committee that was previously donated to a joint fundraising committee; such donations would be counted twice if we kept these transactions), 19 (electioneering communications), 22y (refunds; for example, if the maximum limit allowed for donations has been exceeded by the individual, the surplus money is returned; we would count such cases doubly if we did not exclude these transactions)
- Excluded group codes: Y0000, Y2000, Y3000, Y4000 (unknown category, no employer listed or impossible to assign category; note that we count individuals assigned to these codes when we calculate the total number of individual donations from citizens in the constituency), Z9000, Z9100, Z9500, Z9600, Z9700, Z9800, Z9999 (non-contributing categories and candidate self-finance)

Special interests measure (*SIG Money Contra-Constituency)*

- Excluded transaction types: 16c, 20c, 22h (loans to candidates and loan repayments), 18g, 24g (transfers in from and out to affiliated committees), 24e, 24f (independent expenditures and communication costs), 24c (coordinated party expenditures), 29 (electioneering communications)
- Excluded group codes: Y0000, Y2000, Y3000, Y4000 (unknown category, no employer listed or impossible to assign category), Z9000, Z9100, Z9500, Z9600, Z9700, Z9800, Z9999 (non-contributing categories and candidate self-finance)

Given the way we measure constituency preferences and special interest pressure we also capture well the cases in which these interests are aligned. For example, as firms are prohibited from directly contributing to candidates, they often found a company PAC to which the management of the firm is allowed to contribute. In such a case, the policy preferences of the firm's PAC and the contributing managers' preferences are likely aligned. By construction, our measures assign in such a case the individual donors (the managers/employees of the firm) to the same group as the PAC itself (which then donates to the campaign of a representative), thus assigning the same policy preferences to PAC and employees. The same holds more broadly. If a representative from Connecticut, for example, votes

for insurance interests and a large share of the constituency benefits from the physical presence of the insurance industry in their state (that is, a large share of the population is employed in this industry), our measures would consider the policy preferences of the industry and the constituency as aligned and the representative would not face a conflict of interest in this situation. As we show below, the share of actively donating citizens working in a given industry in a given county/state is strongly correlated with the official employment share in this industry of the same county/state.

Individual donors are matched to congressional districts based on the ZIP codes in the campaign finance data (home or employer's address) and concordance tables provided by the US Census Bureau, which approximate the areas of US Postal Service ZIP codes using so-called ZIP Code Tabulation Areas (ZCTAs). The relationship files are available under https://www.census.gov/geo/maps-data/data/cd_national.html. Note that in 4% of the underlying individual transactions, we cannot allocate congressional districts because there is no corresponding entry in the US Census Bureau data. If a ZIP code falls into more than one district, we count the individual donors as if they belonged to all.

A.4 Compilation of measure for special interests

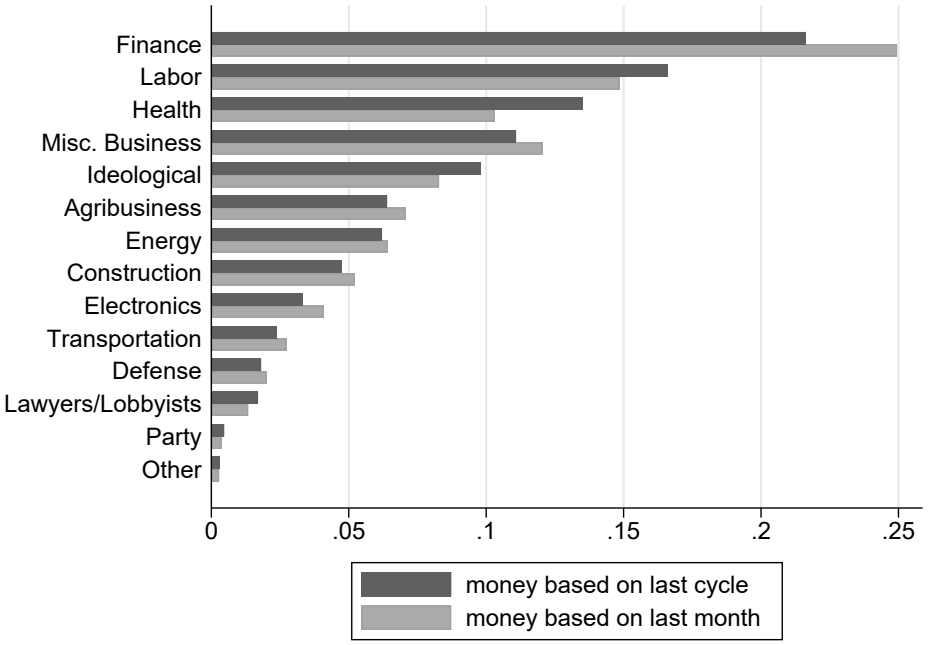
We sum up all the direct PAC donations a representative receives prior to a vote from special interest groups supporting and opposing the related bill, and calculate the net money flows directed against the preferred position of the constituency (*SIG Money Contra-Constituency*). If, for example, the constituency is (clearly) against the bill, our special interest variable indicates the money of groups that are for the bill minus the money of groups that are against the bill (see Table A1 for an overview of the transaction types and interest group codes that we exclude before aggregating special interest groups' campaign donations). Note that we consider refunds when constructing the money variables, i.e., when donations are transferred from a candidate back to the donating PAC. In some cases, this results in a representative returning more money to groups than he or she received from them. In these cases, we replace the corresponding money variable with zero. Otherwise, we would be looking at a situation in which a representative returns more money to groups which support the bill than he or she receives from them as pressure to vote against the issue (given that the constituency is in favor of the bill).

Figure A1(a) shows how different sectors are represented in our special interests measure (before we calculate *SIG Money Contra-Constituency* and possibly do not take into account campaign funds by some interest groups, as no clear position of the electorate is given (i.e., when *Alignment* is coded with zero). Each bar aggregates campaign donations that we can assign to particular votes, made by groups in the respective sector (in percentages relative to the total assignable money from all groups). A possible concern with our measure of interest group pressure might be the double counting of some money flows (e.g., if a group that supports two bills donates to a representative who votes on both issues). In order to see to what extent this issue affects our special interests measure, we change the time frame and only consider the campaign donations a representative receives in the month before the vote. This is what the corresponding second bar in Figure A1(a) shows, indicating a distribution of money flows across sectors that is rather similar to the one for the main measure. In general, there is a trade-off between capturing the theoretically relevant long-term relationship between campaign donors and representatives, and the potential double counting of money in the special interests measure. However, as the overall pattern changes only slightly, we conclude that potential double counting of money is not a substantial concern for the interpretation of our findings.

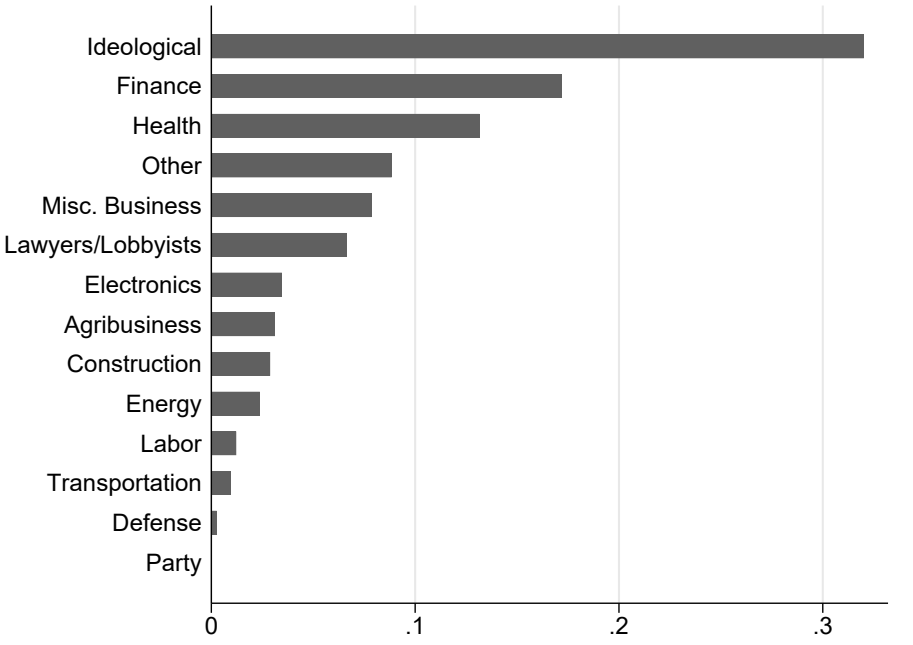
For the definition of the sectors, we follow the taxonomy of OpenSecrets, except for the sector *Party*, which in our definition includes leadership PACs as well as party and candidate committees (single and joint). In OpenSecrets's original definition, leadership PACs and candidate committees belong to the sector *Ideology/Single-Issue*, while joint candidate committees form a separate sector. Our sector *Ideological* corresponds to their sector *Ideology/Single-Issue*.

Figure A1: The relative strength of sectors in the constituent and special interests measures

(a) Special interests – Assigned campaign money per sector



(b) Constituent interests – Assigned individual campaign donations per sector



Notes: Each bar in figure (a) shows the share a particular sector makes up when aggregating all campaign donations that can be assigned to specific votes and made by groups in that sector (relative to the total assignable money by all groups). Figure (b) depicts the shares for the number of campaign donations made by individuals that we can assign to position-taking groups in each sector (relative to the total number of assignable individual donations). The sector *Other* includes education, civil servants, retired and non-profits.

B Validation of measure for constituent interests

We validate our measure for constituents' bill-specific policy preferences primarily in two ways. First, we adopt the most direct validation test possible and compare citizens' voting behavior on particular issues with our measure based on the number of donors. Second, we compare our measure with citizens' policy positions on certain bills as reported in election surveys, thereby neglecting preference intensities that affect turnout. Both analyses test whether our measure is consistent with other measures for voter preferences referring to the *exact same bills*. Moreover, we check whether our measure based on comparatively wealthy citizens actually correlates with the revealed and reported policy preferences of the overall voting age population. In addition to the two tests focusing on expressed bill-specific preferences, we contrast the latent economic interests captured in our measure with industry-level employment figures across counties. This latter test validates that the selection of actively donating citizens in a district is in fact approximately representative for the employed voting age population of the same district.

Voting on propositions. Election returns of ballot propositions are a particularly attractive way to directly measure voters' preferences regarding a specific legislative proposal. They reflect people's choice ideally after a public debate leading to a binding collective decision involving those people who felt sufficiently affected. Measuring voter preferences in this way seems intuitive and arguably very close to the definition of bill-specific voter preferences. Moreover, this approach has been proofed useful in the recent literature.[3] Besides positions on federal bills, MapLight also documents positions on selected state legislation. This allows us to compare our measure for constituent interests with actual popular voting results for those ballot propositions that involve legislation previously passed in a state legislature, and for which MapLight has collected positions from interest groups. This applies to three

[3]For example, Matsusaka (2017) constructs a bill-specific measure for voter preferences by using referendum election returns in nine US states; Stadelmann et al. (2013) follow the same approach in the Swiss context.

ballot measures in the state of California from the years 2014 and 2016.[4] For these, we calculate the percentage of people in a county who voted in favor of the proposition in question (denoted *Yes share*), as well as the percentage of individual donations coming from people who are in favor of the bill in net terms, scaled by the total number of donations coded for and against the bill (therefore ranging from -100 to 100). We refer to the latter as *Yes donor share (net)*. Note that this is the same measure we use to construct our alignment indicator (see Section 3). In cases where no donor at all is assigned to groups with positions, we replace the individual donation-based Yes shares with zeros, assuming that nobody is substantially affected by the proposed law. We estimate an OLS model in which we correlate the Yes shares for a particular bill based on individuals' donations, *Yes donor share (net)*, with the corresponding Yes shares based on ballot election returns (*Yes share*). Our sample for this analysis consists of 174 observations (3 ballot proposals $\times$ 58 counties). The related results are presented in columns (1) and (2) of Table B1. Both regressions account for bill fixed effects (some bills may per se affect voters more than others). We thus only exploit variation in the Yes shares for a given bill across the different counties. In column (2) we restrict the sample to those counties where the Yes shares in the popular vote lie between 40 and 60%. By only considering situations where a confrontation of different interests in a county is likely, we exclude the possibility that the correlation found between the two preference measures is primarily the result of rather clear cases where most voters agree or disagree on the bill in question. On average, referring to model (1), a ten percentage points higher proportion of people voting for the ballot proposition is associated with a 15-percentage-point higher share of donations from people supporting

[4]The popular votes examined include Propositions 1 and 42 of 2014, and Proposition 67 of 2016. Proposition 1 dealt with Assembly Bill 1471 of 2014 (AB 1471) a legislatively referred bond act, Proposition 42 with Senate Constitutional Amendment 3 of 2013 (SCA 3) a legislatively referred constitutional amendment, and Proposition 67 related to Senate Bill 270 of 2014 (SB 270) a veto referendum. AB 1471 authorized California to raise $7.12 billion for water infrastructure projects; SCA 3 obliged local agencies to disclose government documents, and SB 270 banned the use of plastic bags in retail stores. All three measures were accepted. Regarding AB 1471, MapLight has documented positions of 15 different interest groups, for SCA 3 and SB 270 we observe positions of 2 and 20 different groups, respectively.

the related bill. Thus even though campaign donors probably make up the tail end of the distribution in terms of preference intensity and economic potency, they seem to reflect well the broader distribution of voter preferences in an electoral district.

Responses to survey questions. In a second validation, we check whether our measure for voter interests also correlates with a bill-specific preference measure obtained from survey data. For this purpose, we use information from the Cooperative Congressional Election Study (CCES), a web-based survey on congressional elections that also includes questions on important legislation discussed in Congress (Ansolabehere, 2010).[5] Using the CCES survey waves from 2006, 2008, 2010, 2012, 2014, 2016, and 2018 we are able to identify 30 bills for which MapLight also documents positions of interest groups (and we can thus construct our measure for constituent interests).[6] Analogous to analysis of the ballot proposition, we test in a regression framework whether more people in a congressional district who indicate in the survey their support for a certain bill (number of people who answer Yes divided by the number of people who say Yes or No, referred to as *Yes share*) is related to a higher share of donations from people in the district who support the bill in net terms based on the positions of the groups OpenSecrets assigned to them – corresponding to *Yes donor share (net)*. As before, we consider all individual campaign donations in connection with federal elections that were made in the last (two-year) election cycle before the citizens were asked about the bill in question. The OLS regression results can be found in columns (3) to (5) of Table B1. As in the ballot proposition analysis, the dependent variable is our measure for voter interests based on individual campaign donations. The estimates with bill fixed effects reveal a statistically significant correlation between the share of CCES respondents supporting a certain bill and the percentage of campaign donors from the district who have preferences for that bill. With reference to column (3), a ten-percentage-point higher Yes share in the CCES is on average

[5] Ansolabehere and Jones (2010) study voters' responses in the CCES to analyze whether senators are held accountable based on voters' beliefs about their voting behavior. This seems to be the case. In a related study, Nordin (2019) constructs a bill-specific measure for voters' preferences using the CCES. He observes that voters with better access to relevant local television are more likely to evaluate their senators based on the alignment between their preferences and their senators' actual roll call decisions.

[6] Table B3 in the Online Appendix lists the bills under consideration.

related to a 2.2-percentage-point higher share of donations from people supporting the bill in net terms. In model (4) we restrict the sample to those districts where more than 70 people were asked in the CCES survey about the respective bill and where we observe more than 30 donations from people assigned to groups with preferences regarding the bill in question (i.e., with the number of observations above the 25th percentile for both variables). Finally, in column (5) we apply both the latter restriction and additionally limit the sample to only those cases where the CCES Yes share is between 40 and 60%. A correlation of similar magnitude is observed.

Table B1: Validating the constituent interests measure using election returns on ballot propositions in California and CCES survey data

Dependent variable: *Yes donor share (net)*	Ballot proposition votes		CCES survey data		
	(1)	(2)	(3)	(4)	(5)
Yes share (ballot/survey)	1.502***	1.746**	0.216***	0.264***	0.303***
	(0.236)	(0.754)	(0.039)	(0.038)	(0.084)
Bill FE	X	X	X	X	X
Yes share range	[0,100]	[40,60]	[0,100]	[0,100]	[40,60]
Respondents per district	-	-	> 0	> 70 (25th pctl.)	> 70
#Donations per district	-	-	> 0	> 30 (25th pctl.)	> 30
Observations	174	93	12,868	7,627	2,935
Adjusted R^2	0.156	0.046	0.698	0.869	0.920

Notes: OLS regressions with robust standard errors clustered by county or district in parentheses. The unit of observation is county/district-bill (county in California for the ballot proposition analysis and congressional district for the estimates based on CCES survey data). The dependent variable counts the individual donations from people in the county/district with links to groups that support the bill in net terms (relative to the total number of donations for and against the bill), with a range from -100 to 100. Its respective means/SDs (for the full sample) are 72.97/43.02 for the ballot analysis and 39.27/61.28 for the CCES data. The main explanatory variable in the ballot proposition analysis captures the share of people in the county voting in favor of the respective ballot measure. In the analyis based on CCES survey data, the main explanatory variable is the share of CCES respondents in the district who say that they support the bill in question, relative to the total number of respondents who say Yes or No. Their respective means/SDs are 53.84/11.86 and 56.64/18.36. * p<0.1, ** p<0.05, *** p<0.01.

Industry structure. Economic interests tied to people's jobs are an important driver of policy preferences (and have often been in the center of previous empirical applications, see, e.g., Mayda and Rodrik, 2005, in the context of individuals' preferences over trade policy).[7] In our third validation exercise, we

[7]The authors show that an individual's attitude towards trade correlates with the extent to which the sector where the individual works is exposed to trade. For example, people from sectors with a comparative disadvantage are more likely to have a protectionist attitude.

thus assess whether the industry structure is also reflected in our broader measure of constituent interests offering some economic face validity for the construct. Based on the US Census Bureau's *County Business Patterns (CBP)* statistics and the matching of OpenSecrets industry codes to the classification used there, we find that county-level employment across industries is strongly positively correlated with individual campaign donations of people who work in these industries (see Table B2). Specifically, an increase in the employment share of a particular industry by ten percentage points is on average related to a four-percentage-point higher share of donors assigned to that industry.

Table B2: Comparing the industry structure from employment statistics and individual donor data

	Dependent variable:					
	#Donors	*#Donors (log)*	*Donor Share*			
	(1)	(2)	(3)	(4)	(5)	(6)
#Employees	0.031***					
	(0.005)					
#Employees (log)		0.403***				
		(0.012)				
Employment Share			0.408***	0.427***	0.435***	0.461***
			(0.030)	(0.028)	(0.029)	(0.030)
Constant						0.003***
						(0.0002)
State FE	X	X	X	X	X	
Cycle FE	X	X	X	X		
Industry FE	X	X	X			
Observations	135,393	135,393	135,393	135,393	135,393	135,393
Adjusted R^2	0.112	0.412	0.302	0.244	0.216	0.190

Notes: OLS regressions with robust standard errors clustered by county in parentheses. The unit of observation is county-industry-year. In specification (1) the dependent variable is the number of individual campaign donors associated with a specific industry per county and year according to the FEC's individual donations records and the industry assigned by OpenSecrets. In model (2) we use the natural logarithm of the latter as the dependent variable. The dependent variable in specifications (3) to (6) is the share of donors associated with a specific industry per county and year. The explanatory variable *#Employees* measures the number of employees per industry-county-state according to the US Census Bureau County Business Patterns (CBP) statistics. The CBP figures are available at the level of 6-digit NAICS codes, and are more granular than OpenSecrets industry categories. Employment in a particular NAICS industry is therefore evenly distributed among OpenSecrets industries where this NAICS code occurs. In all specifications the sample is restricted to observations with more than 50 employees and more than 10 donors. The time span of our sample is 2000 to 2018. * p<0.1, ** p<0.05, *** p<0.01.

Together, we interpret the results of the preceding validation tests as evidence that the presence of different policy preferences in a particular constituency can be well approximated by individual donors and the interest groups that OpenSecrets assigned to them. Moreover, the assumption that donors

share the same political preferences as their employers (or those of unions or ideological groups, if the donation goes to such groups) seems quite reasonable given the context of the bills that we were able to investigate.

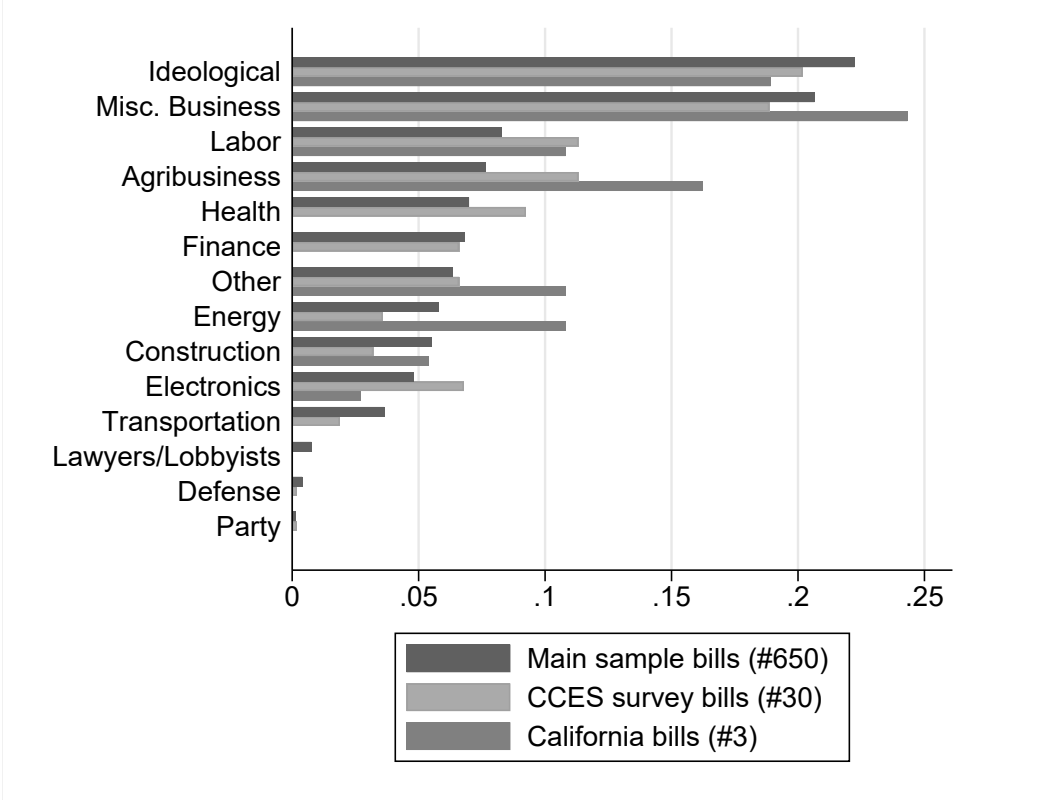
With respect to the representativeness of the bills in our validation tests, Figure B1 shows the relative frequencies with which interests of specific sectors take positions regarding i) the 650 bills from our main analysis, ii) the 30 bills from the CCES survey, and iii) the three Californian bills from the ballot proposition analysis. High shares in all three sets of bills represent groups associated with *Ideological* and *Misc. Business* interests. Somewhat overrepresented in both the CCES and the Californian sample of bills are interests from the *Agribusiness* sector (15/16% versus 9%). In the CCES sample, we have ten bills (out of 30) in which we observe positions from interest groups associated with *Agribusiness*. An estimate of models (3), (4) and (5) from Table B1 excluding these bills provides point estimates of 0.300, 0.265 and 0.201 (p-values all smaller than 0.01). The fact that we have only three bills that allow us to validate our measure of voter preference by ballot proposition voting in California explains why for some sectors we do not observe any positions of interest groups associated with them.

Supplementary information on data used and their compilation

In addition to the explanations in the main text, we here provide some specific supplementary information regarding the data used and their compilation into the final data sets that we use in the three validation approaches.

Voting on propositions in California. For the constructed measure of constituent preferences, we take into account all individual campaign donations in connection with federal elections that were made in the election cycle before the respective ballot vote. To assign citizens' ZIP codes from OpenSecrets donor data to the corresponding counties in California, a crosswalk from the US Department of Housing and Urban Development was used (https://www.huduser.gov/portal/datasets/usps_crosswalk.html; we took the 1st quarter 2014 file; in cases where a ZIP code lies in more

Figure B1: Interest group presence by sector in different sets of bills



Notes: The graph shows the relative presence of interest group sectors in three sets of bills: The 650 bills from our main analysis, the 30 bills from the CCES survey, and the three Californian bills from the ballot proposition analysis. We use the latter two sets to validate our measure for constituent interests, which we construct for the 650 bills from our main analysis. We measure the frequency with which interest groups of a particular sector take positions regarding the bills from the respective set (i.e., the number of positions from interest groups within a sector relative to the total number of positions). The sector *Other* includes education, civil servants, retired and non-profits.

than one county, the county in which most people live has been assigned to it). The county-level voting results on ballot proposition are from the office of the California Secretary of State (see https://www.sos.ca.gov/elections/prior-elections/statewide-election-results).

Responses to survey questions. The surveys of the Cooperative Congressional Election Study for the different years can be downloaded from the Harvard Dataverse (https://cces.gov.harvard.edu). The number of respondents is about 35,000 in the 2006 and 2008 surveys, and about 55,000 in 2010, 2012 and 2014. Table B3 lists the bills included in our analysis. Note that we can only construct preferences on policies for which a bill exists and for which MapLight has documented interest group positions; i.e., we cannot consider preferences on legislative amendments for which the CCES includes questions. Also note that the questions are always asked before the congressional elections, and involve

bills discussed in the current Congress, but also bills from past sessions. If the question about a particular bill is contained in several waves, we take the answers from the congressional session in which the bill appeared for the first time.

Industry structure. For the categorization of industries the US Census Bureau uses the North American Industry Classification System (NAICS). In order to assign the employment of a particular NAICS category to the broader OpenSecrets industry categories, we distribute its employment equally among all OpenSecrets industries where this NAICS code appears.

Table B3: Bills from the CCES survey that we use to validate the measure for constituent interests

2006 CCES (109th Congress)

- Immigration Reform Act - S. 2611
- Central America Free Trade Agreement - H.R. 3045

2008 CCES (110th Congress)

- Withdrawal of US troops from Iraq - H.R. 2237
- Increase Minimum Wage - H.R. 2
- Stem Cell Research Funding - S. 5
- Health Insurance Program for Children - H.R. 976
- Housing and Economic Stimulus Act - H.R. 3221
- Extend NAFTA to Peru - H.R. 3688
- Bank Bailout of 2008 - H.R. 1424

2010 CCES (111th Congress)

- American Recovery and Reinvestment Act - H.R. 1
- Children's Health Insurance Program - H.R. 2
- American Clean Energy and Security Act - H.R. 2454
- Affordable Care Act - H.R. 3590
- Wall Street Reform Bill - H.R. 4173

2012 CCES (112th Congress)

- Ryan Budget Bill - H.Con.Res. 34
- Middle Class Tax Cut Act - S. 3412
- Tax Hike Prevention Act - S. 3413
- US-Korea Free Trade Agreement - H.R. 3080
- Repeal Affordable Care Act - H.R. 6079

2014 CCES (113th Congress)

- Temporary Debt Limit Extension Act - S. 540
- Farm Bill - H.R. 2642
- NSA Phone Surveillance Reform - S. 2685
- Changing Senate Cloture Rules - S.Res. 15

2016 CCES (114th Congress)

- USA Freedom Act - H.R. 2048
- Every Student Succeeds Act - S. 1177
- Highway and Transportation Funding Act - H.R. 2353
- Iran Sanctions Act - H.R. 6297
- Medicare Accountability and Cost Reform Act - H.R. 2
- Repeal Affordable Care Act - H.R. 596

2018 CCES (115th Congress)

- Countering America's Adversaries Through Sanctions Act - H.R. 3364

C Determinants of representative-vote-specific campaign money

The amount of campaign money individual representatives receive from special interests is likely the result of some strategic considerations to effectively influence the political process. We are therefore reluctant to make strong interpretations of the correlation with voting behavior and concentrate on the interaction with exogenous variation in media attention. However, we still want to provide an understanding of the covariates related to these money flows. Accordingly, we estimate models where the dependent variable is the total amount of money that a representative received in the last election cycle before a particular vote from interest groups with a position regarding the bill. As explanatory variables we use party affiliation, majority status, age, a dummy indicating retirement at the end of the session, electoral security and ideological moderateness. We also include two bill-specific measures capturing i) the potential for conflict and ii) the extent to which the bill tends to affect economic (business groups, unions, trade associations) or ideological/partisan groups. We measure *Electoral Security* by the margin of victory in the representative's last election; *Ideological Moderateness* is the negative of the absolute distance of the DW-NOMINATE score to zero (higher values are thus associated with more moderate representatives); *Bill Conflict Potential* is the number of organizations taking positions regarding the bill (support/oppose/indifferent) minus the absolute difference between supporting and opposing organizations; *Bill Economic* is the number of economic interest groups with positions on the bill divided by the total number of interest groups (economic, ideological/single-issue and partisan) that have documented positions. Table C1 provides descriptive statistics for all the variables we use in our analysis.

For each vote, a representative gets about $19,000 from special interests supporting or opposing the bill, on average. The regression results in Table C2 show that Democrats receive, on average, $2,700 less compared with their Republican colleagues (over one election cycle). This is consistent with the fact that business PACs tend to favor Republican candidates, just as they outspend labor and ideological

interests.[8] When we exploit variation within representatives in column (3) we find that being a member of the majority party is associated with more than $3,000 in additional campaign funds per vote. This is in line with Rudolph (1999) and Cox and Magar (1999), who argue that majority party status is an important institutional asset. The estimated coefficients on seniority and retirement emphasize the investment motive of interest groups when engaging in political spending. Our results indicate that ten more years in office are associated with $24,000 more for each vote. Surprisingly and counterintuitively, a representative who is serving his or her last term before retiring does not get less money than before. A likely explanation is that in our approach (which measures long-term exchange relationships) the timing of money transfer and legislative vote may be far apart (in the most extreme case, up to almost four years, for example when the transfer takes place at the beginning of 2007 and the vote before the elections in 2010). In such cases, at the time of donation, special interests often will not know that the supported representative is retiring after his or her next term. We therefore estimated a model where the dependent variable is representatives' last year campaign funds (instead of over the last election cycle). This approach yields, as expected, a significantly negative coefficient on the retiring indicator. In the last year before the vote, retiring representatives receive on average $4,400 less from groups that are interested in the bills they vote on, whereas all other findings do not change substantially.[9]

Beyond that, a higher vote margin in the representative's last election leads to a decrease in vote-specific campaign funds: A 25 percentage point higher margin (one standard deviation) is associated with a loss of about $1,500. This seems plausible against the background that political investors see their chance rather in contested races where candidates rely on well filled war chests. Snyder (1992) as well as Grier and Munger (1993) test seniority and electoral security (among other factors). Their results also indicate a positive relationship between representatives' time in office and aggregate campaign contributions they receive, and a negative correlation between electoral security and campaign funds.

[8] More than 70% of all PAC donations in the 2015-16 election cycle came from business PACs, of which two thirds were to Republican candidates (https://www.opensecrets.org/overview/blio.php?cycle=2016).

[9] The mean value for the amount of campaign funds that representatives receive in the last year before voting (excluding the month of the vote) is $11,100, with a standard deviation of $26,500. The additional results are available upon request.

Likewise, ideological moderation is associated with more campaign funds ($3,600 more for a position that is one standard deviation closer to zero in the DW-NOMINATE score). This suggests that special interest groups may have stronger incentives to fund less extreme representatives whose voters are more likely to be located at the threshold between supporting and opposing a particular bill. As we have just one representative changing party in our sample and as ideological moderateness barely changes over time for a given representative, we exclude those covariates when we exploit variation within representatives. Finally and not surprisingly, a more contested bill as well as a greater share of economic organizations interested in the bill are correlated with more campaign money.

We are aware that there are many more potential factors determining campaign support from special interests. In particular, these are factors that change over-time due to changes in electoral competition, political control in Congress or new legislation being discussed.

Table C1: Descriptive statistics for the determinants of campaign money

Variable	Mean	Std. Dev.	Min.	Max.	N
Money Total	1.936	4.496	0	149.60	267,827
Democratic Party	0.475	0.499	0	1	267,827
Majority Member	0.557	0.497	0	1	267,827
Seniority	5.723	4.455	1	30	267,827
Retiring from Office	0.054	0.225	0	1	267,827
Electoral Security	0.353	0.247	0	1	267,827
Ideological Moderateness	-0.427	0.144	-0.931	-0.011	267,827
Bill Conflict Potential	7.422	20.16	0	208	267,827
Bill Economic	0.562	0.373	0	1	267,827

Notes: Money Total is measured in $10,000 units, *Seniority* is in two-year terms. The unit of observation is representative-vote.

Table C2: The determinants of representative-vote-specific campaign money

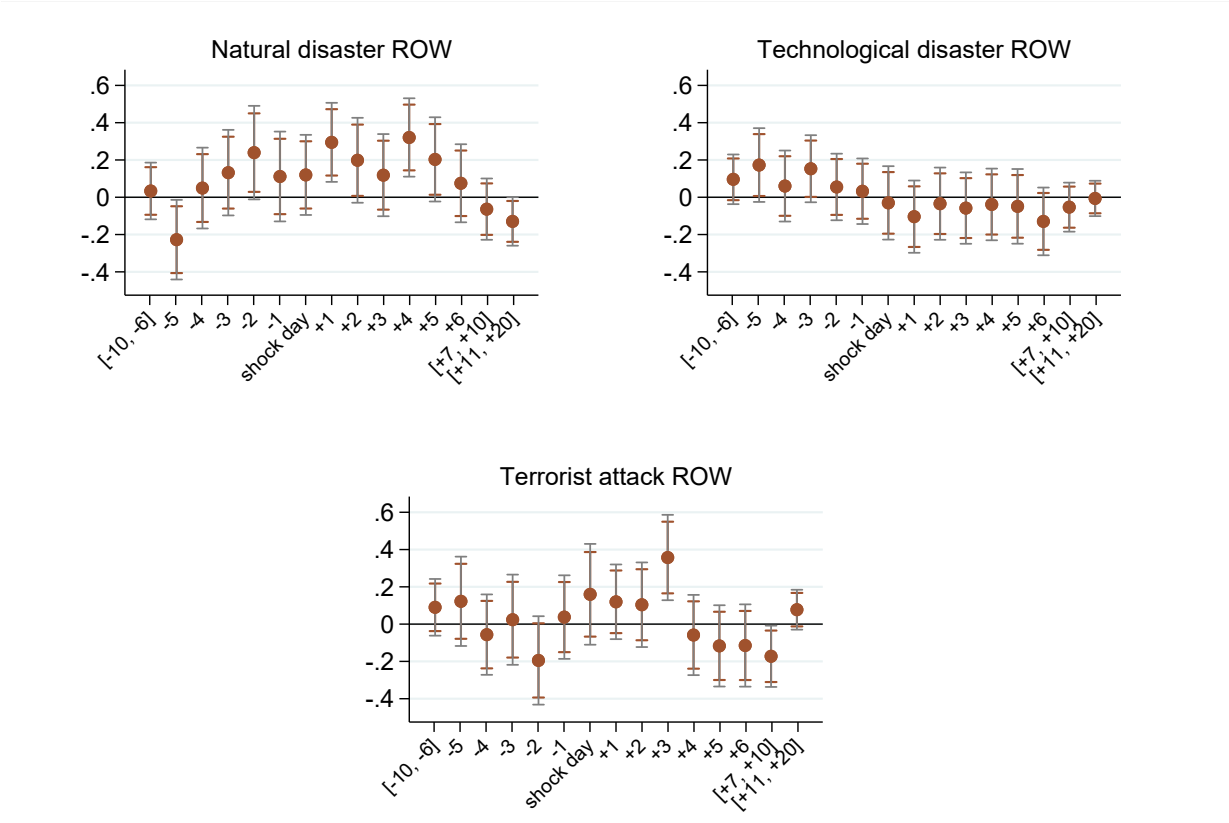
Dependent variable: *Money Total*	(1)	(2)	(3)
Democratic Party	-0.270**	-0.275**	
	(0.113)	(0.113)	
Majority Member	0.166**	0.167**	0.300***
	(0.081)	(0.081)	(0.113)
Seniority	0.055***	0.055***	0.483***
	(0.016)	(0.016)	(0.062)
Retiring from Office	0.100	0.092	-0.002
	(0.149)	(0.151)	(0.136)
Electoral Security	-0.298*	-0.306*	-0.601**
	(0.168)	(0.170)	(0.233)
Ideological Moderateness	2.512***	2.519***	
	(0.371)	(0.373)	
Bill Conflict Potential	0.072***		
	(0.009)		
Bill Economic	2.081***		
	(0.259)		
Congress FE	X		
Vote FE		X	
Representative FE			X
Observations	267,827	267,827	267,827
Adjusted R^2	0.185	0.491	0.086

Notes: OLS regressions with robust standard errors two-way clustered by representative and vote in parentheses. The unit of observation is representative-vote. *Money Total* (in $10,000 units) is the sum of campaign contributions a representative received from interest groups with positions on the bill in the last (two-year) election cycle before the vote. The sample consists of 652 final passage votes between 2005 and 2018. Descriptive statistics of the variables used are presented in Table C1. * p<0.1, ** p<0.05, *** p<0.01.

D Identification of shock days

Table D1 and D3 presents the full set of estimation results on how the various shock events (occurring in the US and worldwide) affect the measure of *daily news pressure*. The estimated coefficients for the different time intervals regarding US shock events are presented graphically in Figure 1 in the main text. Figure D1 depicts the corresponding estimates for shocks happening outside the US (aggregated in ROW, i.e., rest of world). The related thresholds for the definition of US and worldwide shocks (whereby for the latter we aggregate the number of deaths per day caused by the respective shocks across all countries outside the US) can be found in Tables D2 and D4, respectively.

Figure D1: News pressure in the US following worldwide shock events, 1990-2018



Notes: The graphs show the effects of worldwide shocks on news pressure in the US around the day of the shock (ROW means rest of the world and aggregates all incidents outside the US). The estimates are based on OLS regressions controlling for month-by-year and day-of-the-week fixed effects (with robust standard errors clustered at the month-by-year level). The dependent variable of *daily news pressure* on different days or intervals around the shock is from Eisensee and Strömberg (2007). Table D3 shows the full regression outputs. 95% and 90% confidence intervals are included.

Table D1: US Shock events and news pressure in the US evening news

Dependent variable: *Daily News Pressure*	$[-10,-6]$	-5	-4	-3	-2	-1	$shock = t$	$+1$	$+2$	$+3$	$+4$	$+5$	$+6$	$[+7,+10]$	$[+10,+20]$
Natural disaster US	0.104	-0.060	0.059	0.236	0.361**	0.657***	0.746***	0.468***	0.373**	0.329**	0.062	-0.156	-0.153	-0.090	-0.103
	(0.111)	(0.125)	(0.142)	(0.153)	(0.162)	(0.168)	(0.164)	(0.154)	(0.151)	(0.138)	(0.123)	(0.117)	(0.123)	(0.120)	(0.068)
Techn. disaster US	0.006	-0.162	0.052	-0.023	-0.039	0.010	-0.210	0.407*	-0.075	-0.051	-0.127	0.049	-0.358**	-0.047	0.131*
	(0.135)	(0.187)	(0.177)	(0.194)	(0.190)	(0.255)	(0.225)	(0.216)	(0.197)	(0.187)	(0.174)	(0.187)	(0.158)	(0.134)	(0.077)
Terrorist attack US	-0.054	-0.291	-0.187	0.368	0.296	0.037	0.784**	1.156***	0.523	0.470	0.355	-0.112	0.203	-0.228	-0.128
	(0.173)	(0.257)	(0.211)	(0.273)	(0.279)	(0.245)	(0.343)	(0.360)	(0.379)	(0.307)	(0.253)	(0.278)	(0.247)	(0.152)	(0.123)
Mass shooting US	-0.140	-0.297	-0.336*	-0.431**	-0.097	0.015	0.591**	1.124***	0.671***	0.253	0.129	0.057	-0.444*	-0.197	-0.069
	(0.127)	(0.220)	(0.199)	(0.173)	(0.241)	(0.260)	(0.300)	(0.267)	(0.256)	(0.216)	(0.262)	(0.288)	(0.242)	(0.136)	(0.091)
Month-by-Year FE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Day-of-the-week FE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Observations	10,568	10,429	10,429	10,429	10,429	10,429	10,429	10,428	10,427	10,426	10,425	10,424	10,423	10,560	10,562
Adjusted R^2	0.458	0.253	0.251	0.251	0.251	0.254	0.258	0.259	0.255	0.255	0.254	0.256	0.260	0.450	0.607

Notes: OLS regressions with standard errors clustered at the month-by-year level in parentheses. The dependent variable is *daily news pressure* (Eisensee and Strömberg, 2007) at different days around the shock event (or averaged over days if we consider time spans). The explanatory variables are indicators which take a value of one if, on day t, the number of deaths caused by the respective event lies above the 95th percentile of the (event-specific) distribution. The mean value of *daily news pressure* (in minutes) is 8.44 (with a standard deviation of 2.53). The sample period is 1990-2018. * p<0.1, ** p<0.05, *** p<0.01.

Table D2: US shock events: The number of deaths per day (by type of event), 1990-2020

Type of event	Region	Mean	Min.	Max.	95th pctl.	#shock days (#incidents)
Natural disaster	USA	0.621	0	670	2.75	563 (632)
Technolog. disaster	USA	0.293	0	265	0	137 (175)
Terrorist attack	USA	0.333	0	3,004	0	129 (999)
Mass shooting	USA	0.088	0	58	0	130 (130)

Notes: Overview of the no. of days coded as potentially distracting from the legislative process (i.e., a shock day) based on whether the number of event-related deaths per day lies above the 95th percentile of its (event–specific) distribution. In the case of natural and technological disasters, we restrict the sample to incidents lasting at most ten days. The 632 natural disasters in the US, consist mainly of storms and floods (69% and 18%, respectively) and wildfires (8%.) The remaining 5% are shared by earthquakes, extreme temperatures, landslides, and an epidemic. The shock sample period is 1990-2020 (terror and mass shooting incidents until 2019).

Table D3: Worldwide shock events and news pressure in the US evening news

Dependent variable: *Daily News Pressure*	$[-10,-6]$	-5	-4	-3	-2	-1	$shock = t$	$+1$	$+2$	$+3$	$+4$	$+5$	$+6$	$[+7,+10]$	$[+10,+20]$
Natural disaster ROW	0.034	-0.227**	0.049	0.132	0.240*	0.111	0.120	0.295***	0.198*	0.119	0.321***	0.203*	0.075	-0.064	-0.129*
	(0.078)	(0.109)	(0.111)	(0.117)	(0.128)	(0.123)	(0.110)	(0.108)	(0.116)	(0.112)	(0.107)	(0.115)	(0.107)	(0.084)	(0.067)
Techn. disaster ROW	0.096	0.173*	0.060	0.153*	0.055	0.032	-0.030	-0.104	-0.034	-0.058	-0.038	-0.049	-0.130	-0.053	-0.006
	(0.068)	(0.101)	(0.097)	(0.092)	(0.091)	(0.090)	(0.100)	(0.099)	(0.099)	(0.098)	(0.098)	(0.102)	(0.093)	(0.067)	(0.048)
Terrorist attack ROW	0.090	0.122	-0.056	0.024	-0.195	0.038	0.160	0.120	0.104	0.357***	-0.058	-0.117	-0.115	-0.173**	0.077
	(0.078)	(0.122)	(0.110)	(0.123)	(0.121)	(0.114)	(0.138)	(0.102)	(0.116)	(0.117)	(0.110)	(0.111)	(0.113)	(0.084)	(0.055)
Month-by-Year FE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Day-of-the-week FE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Observations	10,568	10,429	10,429	10,429	10,429	10,429	10,429	10,428	10,427	10,426	10,425	10,424	10,423	10,560	10,562
Adjusted R^2	0.458	0.253	0.250	0.250	0.250	0.251	0.253	0.253	0.253	0.255	0.255	0.256	0.260	0.450	0.607

Notes: OLS regressions with standard errors clustered at the month-by-year level in parentheses. The dependent variable is *daily news pressure* (Eisensee and Strömberg, 2007) at different days around the shock event (or averaged over days if we consider time spans). The explanatory variables are indicators which take a value of one if, on day t, the number of deaths caused by the respective event lies above the 95th percentile of the (event-specific) distribution. ROW refers to the rest of the world and aggregates all countries except the US. The mean value of *daily news pressure* (in minutes) is 8.44 (with a standard deviation of 2.53). The sample period is 1990-2018. * p<0.1, ** p<0.05, *** p<0.01.

Table D4: Worldwide shock events: The number of deaths per day (by type of event), 1990-2020

Type of event	Region	Mean	Min.	Max.	95th pctl.	#shock days (#incidents)
Natural disaster	ROW	109.3	0	226,408	76.2	566 (7,064)
Technolog. disaster	ROW	21.35	0	2,236	90	554 (7,017)
Terrorist attack	ROW	21.76	0	1,612	102	545 (158,754)

Notes: The shock sample period is 1990-2020 (terror and mass shooting incidents until 2019). ROW refers to the rest of the world and aggregates all countries outside the US.

E News reporting on politics and shock events

To check whether the news pressure caused by our shock events is actually related to reduced media attention to national politics, we estimate models in which we use the shock events to explain political news coverage. We particularly focus on local news outlets as these are only partly covered by the general measure of news pressure (Eisensee and Strömberg, 2007) (capturing news pressure in the news shows of the major television networks). This critical assessment is motivated primarily by two potential concerns regarding our general measure of news pressure. First, it might be the case that voters consume news on the Congress and, in particular, news on their representative primarily through local news outlets. In our main analyses we assume that the pattern captured by our general measure of news pressure is reflected similarly in local news outlets (television, print, and online) (or at least the response in the national outlets is not counteracted). That is, if there is a crowding out effect in major national television news shows due to a shock event, a similar crowding out effect is assumed in more local news outlets. With the additional analysis in this section we can validate whether that assumption is actually supported by the data. Second, and in a similar vein, our general measure of news pressure captures the idea of the broadcast time constraint with which television news editors are confronted. The pressure due to limited resources (here particularly time) is thus especially pronounced in the television context but arguably less so in the context of (online) newspapers. Thus, if voters were to obtain news on the Congress primarily from online news sites, it would be questionable whether they would be affected at all by a reduced supply captured by our general measure of news pressure (while they might still shift their priorities in the content they consume). Developing the argument further, if it were the case that there is no measurable crowding out of political news in (online) newspapers and a large share of the voters consumed news from such outlets, there might even be a potential extensive margin effect of shocks leading not to fewer but to more voters being informed about politics (more people following the news due to the shock event and thereby also learning about legislative politics).[10] In order to address

[10]While a valid argument, we see it as a second order concern given that television is still the most important source of information for a majority of people in the US. In 2018, 49% of US adults surveyed said that they often get news from

these two concerns, we construct a data set on the coverage of national politics as well as shock events in local television and newspapers. The underlying data come from the TV News Archive and Media Cloud. The following describes (for television and newspapers respectively) the data used and presents the results of the estimates.

E.1 Television

We collect data from the TV News Archive (a tool of the Internet Archive).[11] We use the Television Explorer (a service provided by the Global Database of Events, Language, and Tone, short GDELT) to systematically access this data via an API.[12] From a selection of more than 150 stations (local, national and international), transcripts of the spoken texts in news broadcasts (so-called closed captions) have been archived here since 2009. Our analysis focuses on 2009-2020, the period for which we have both information on shock incidents and television stations' newscasts.[13] This selection leaves us with 140 local channels from 29 distinct market areas, of which we have recorded news broadcasts (note that not all channels have been monitored over the entire period). We look for news segments that contain either "Congress", "White House", or "Federal Government", serving as our measure for political news. In case of a shock period, we clean these news clips of those that contain both one of the three terms as well as at least one keyword related to the respective shock.[14] The reason for adjusting the measure is

---

television (compared to 33% from news websites, which rank second) (see https://www.pewresearch.org/fact-tank/2018/12/10/social-media-outpaces-print-newspapers-in-the-u-s-as-a-news-source). This argument holds even more for the period before 2018 (our observation period being 2005 to 2018).

[11] See https://archive.org/details/tv.

[12] GDELT 2.0 Television API: https://blog.gdeltproject.org/gdelt-2-0-television-api-debuts.

[13] For terror and mass shooting incidents only until 2019. However, this does not reduce the number of different stations we observe in the sample.

[14] The relevant keywords for shock-related news are as follows:

- Disasters: "Disaster", "Catastrophe","Flood", "Tsunami", "Flooding", "Earthquake", "Tornado", "Storm", "Hurricane", "Volcano", "Volcanic", "Landslide", "Epidemic", "Wildfire", "Fire", "Evacuation", "Accident", "Crash", "Casualty".
- Terrorist attacks: "Terror", "Terrorist", "Terrorism", "Attack", "Bomb", "Bombing", "Detonation" "Explosion", "Firebomb", "Killing".

that shocks can obviously trigger a political response and we do not expect fewer news reports about, for example, the US government's response to terrorism after a terrorist attack or the US government's financial aid promises following a devastating natural disaster abroad.

The recorded news segments are divided by GDELT's Television Explorer into 15-second clips. Thus, the search result of each request is the number of 15-second clips that contain our keywords. The total number of recorded 15 second-clips per channel and day is also provided. This makes an interpretation in terms of percentage airtime possible, allowing comparisons between stations as well as for a given station over time. We estimate specifications where the percentage of airtime devoted to national political issues by a given station on a given day (net of shock-related political news in case of a shock) is the dependent variable. The explanatory variables are our shock treatment indicators, split up by event type. We use only one indicator for each event type, taking a value of one when there is either peak or medium news pressure (i.e., the days around a shock when news pressure is significantly higher, as given by Table 1/Section **??**). To rule out the possibility that the effects found are not driven by individual stations or (seasonal or intra-weekly) fluctuations in political coverage, we include fixed effects for each television station, month-by-year and day-of-the-week throughout all estimations. We estimate the different specifications using OLS. The coefficient estimates then indicate how much political news is crowded out in the specified periods of shock news pressure. In a second set of models, we validate our choice of shock days and use the airtime devoted to shock-related news as dependent variables, here aggregating news stories that contain at least one of the relevant shock keywords (compare footnote 14). Descriptive statistics for the constructed variables are shown below (Table E3).

The mean value for the political news proxy is slightly below 0.9%., i.e., a local station allocates less than one percent of its news reports to national politics on average. This corresponds to about 3 minutes per day, taking the 5.6 hours that a local station uses on average for local news in its program as a basis.[15]

– Mass shootings: "Shooting", "Rampage", "Killing Spree"", "Shooter", "Gunman", "Gunfire", "Shootout", "Suicide".

[15]This figure comes from a 2017 survey conducted by the Radio Television Digital News Association (RTDNA) in collaboration with Hofstra University; see https://rtdna.org/article/research_2018_local_news_by_the_numbers#televisionH.

However, the recorded news segments are in the form of 15-second clips and we get a hit each time one of our keywords is found in such a 15-second segment. Therefore, we are likely to primarily capture the extensive margin of reporting, given that we do not know the actual length of the reports. Assuming that television stations produce not only fewer but also shorter news reports in the face of a shock, the crowding out effects reported here are therefore likely to be lower bound estimates.

As the regression results in Table E1 show, the shock periods we have chosen are all associated with increased news reporting about the corresponding shock on local television. For example, disaster-related coverage increases by 0.95 percentage points on average when there is shock news pressure due to a natural disaster (i.e., two days before to three days after an incident; see Table 1 for the relevant time frames). This effect is quite large, given that the average news share for disasters is only about 3.5%. The increased coverage of shock events seems to crowd out political news. On days with shock news pressure, political coverage decreases by an average of 0.02 to 0.08 percentage points, depending on the type of shock.[16] Evaluated at the mean share used by broadcasters for political news (roughly 0.9%), this corresponds to a 2% to 9% decline.

E.2 Newspapers

In Table E2 we present results of estimates in which we examine the extent to which our shock events displace newspaper articles about national politics in local newspapers. The underlying data are from Media Cloud, an open source project of the Berkman Klein Center for Internet & Society at Harvard University and the Center for Civic Media at MIT (https://mediacloud.org). Media Cloud tracks newspapers, websites, and blogs, and makes their content available in searchable form. Via their public API, we systematically queried when which newspapers mention our keywords in articles.[17] Our queries are based on more than 900 US newspapers (state and local), both print and online, published in English, and covering the period from 2008 to 2020 (not all newspapers were tracked throughout the entire

[16] The p-value of the coefficient on the mass shooting indicator is 0.100.

[17] A guide to using the API can be found here: https://github.com/berkmancenter/mediacloud/blob/master/doc/api_2_0_spec/api_2_0_spec.md.

Table E1: News coverage of national politics on local television after shock events, 2009-2020

	Disaster news (1)	*Political news* (2)	*Terror news* (3)	*Political news* (4)	*Shooting news* (5)	*Political news* (6)
Natural disaster US	0.949***	-0.076***				
	(0.086)	(0.010)				
Terrorist attack US			0.559***	-0.083***		
			(0.058)	(0.016)		
Mass shooting US					1.101***	-0.022
					(0.139)	(0.013)
Mean DV	3.544	0.875	1.243	0.864	0.851	0.865
Station FE	X	X	X	X	X	X
Month-by-Year FE	X	X	X	X	X	X
Day-of-the-Week FE	X	X	X	X	X	X
Observations	112,482	112,482	109,188	109,188	109,188	109,188
Adjusted R^2	0.443	0.334	0.297	0.326	0.313	0.326

Notes: OLS regressions with robust standard errors clustered by local television station in parentheses. The unit of observation is station-day. The dependent variables indicate the percentage news airtime dedicated to shock-related or national political news (hits for "Congress", "White House", or "Federal Government"), (potentially) ranging from 0 to 100. Those news segments that address political news related to the respective shock type were subtracted from *Political news* in case of a shock period. The explanatory variables indicate the relevant period with increased news pressure around each shock according to Table 1 (combining *Shock Peak* and *Shock Medium*, i.e., periods of peak and medium news pressure). Descriptive statistics for all the variables used in the regressions can be found in Table E3. * p<0.1, ** p<0.05, *** p<0.01.

period). For many newspapers, Media Cloud documents only very few articles per day in total, which is why we focus on those where at least 10 articles were recorded on the observed day. This restriction leaves us with 404 newspapers in the sample (regarding the estimates involving terrorist attacks and mass shootings, where we only have the data up to 2019, the sample comprises 347 newspapers).

As in the preceding analysis of local television news broadcasts, we code an article as one about national politics if it contains either "Congress", "White House", or "Federal Government". Similarly, we code newspaper articles about shocks to examine whether shocks are actually associated with more coverage of them in newspapers.[18] Note that in case of a shock, we subtract from the number of political articles those mentioning both one of the political keywords and one of the corresponding shock keywords (to exclude articles that address politics related to the shock, of which we do not expect less). For all newspaper articles that we assign to a particular news category, we calculate the respective percentage of the total number of articles recorded per newspaper and day. We therefore obtain the news

[18] See footnote 14 for the shock keyword list.

share that the observed newspaper devotes to national politics respectively to the corresponding shock category on a given day. Descriptive statistics for all variables are presented below in Table E3. The average proportion of articles related to national politics based on our keyword approach is roughly 5%. Notably, this share is substantially higher than the corresponding share that we get for local television (0.9% of news airtime).[19]

Finally, we regress the news shares of the different news categories on our shock treatment indicators (indicating whether the day falls in a period with peak or medium news news pressure around a shock; see Table 1 for the relevant periods). All estimates are with fixed effects for each newspaper, each month of each year and each day of the week. The related OLS regression results are presented in Table E2. Across all shock periods, we document an increase in newspaper coverage of the corresponding shock category, as well as a crowding out of national political news (hits for "Congress," "White House," or "Federal Government"). The observed crowding out effects range from roughly 15 to 25% (evaluated at the means), i.e., on days with shock news pressure in the major national television networks, a newspaper reduces its political coverage by this amount on average.

In summary, given the documented pattern of the preceding analyses on local television and newspapers, we think that extensive margin effects are not a first order concern for our approach. With the documented crowding out effects it seems rather unlikely that shocks can lead to more rather than fewer citizens being informed about legislative politics. The results further validate our choice of the general news pressure measure (Eisensee and Strömberg, 2007) for constructing periods of low media attention to politics. The latter seems to capture very well the news reporting patterns as they prevail in local media outlets.

[19] However, we have to keep in mind that our television estimates are more of a lower bound, as the underlying news segments that we search are divided into 15-second clips (see discussion in Section E.1).

Table E2: News coverage of national politics in local newspapers after shock events, 2008-2020

	Disaster news (1)	*Political news* (2)	*Terror news* (3)	*Political news* (4)	*Shooting news* (5)	*Political news* (6)
Natural disaster US	1.030***	-1.359***				
	(0.069)	(0.056)				
Terrorist attack US			0.291***	-1.387***		
			(0.065)	(0.073)		
Mass shooting US					2.303***	-0.802***
					(0.106)	(0.053)
Mean DV	13.12	5.582	1.916	5.378	6.458	5.449
Newspaper FE	X	X	X	X	X	X
Month-by-Year FE	X	X	X	X	X	X
Day-of-the-Week FE	X	X	X	X	X	X
Observations	328,641	328,641	292,735	292,735	292,735	292,735
Adjusted R^2	0.195	0.234	0.625	0.229	0.231	0.231

Notes: OLS regressions with robust standard errors clustered by newspaper in parentheses. The unit of observation is newspaper-day. The dependent variables indicate the percentage of newspaper articles with hits for the respective shock keywords (see footnote 14), and the percentage of articles that address national politics, approximated by articles containing "Congress", "White House" or "Federal Government" (excluding articles that contain both one of the latter keywords and a shock keyword in case of a shock). All news variables (potentially) range from 0 to 100. The explanatory variables indicate the relevant period with increased news pressure around each shock according to Table 1 (combining *Shock Peak* and *Shock Medium*, i.e., periods of peak and medium news pressure). Descriptive statistics for the variables can be found in Table E3. * p<0.1, ** p<0.05, *** p<0.01.

Table E3: Descriptive statistics for the local television and newspaper estimates

Variable	Mean	Std. Dev.	Min.	Max.	N
Television (Table E1)					
Natural disaster US	0.136	0.343	0	1	112,482
Terrorist attack US	0.070	0.255	0	1	109,188
Mass shooting US	0.046	0.209	0	1	109,188
Disaster news	3.544	4.012	0	51.485	112,482
Terror news	1.243	1.557	0	22.785	109,188
Shooting news	0.851	1.318	0	24.573	109,188
Political news (excl. disaster-politics news)	0.875	1.189	0	16.268	112,482
Political news (excl. terror-politics news)	0.864	1.183	0	16.268	109,188
Political news (excl. shooting-politics news)	0.865	1.183	0	16.268	109,188
Newspapers (Table E2)					
Natural disaster US	0.131	0.338	0	1	328,641
Terrorist attack US	0.082	0.275	0	1	292,735
Mass shooting US	0.045	0.208	0	1	292,735
Disaster news	13.12	8.744	0	100	328,641
Terror news	1.916	4.717	0	76.92	292,735
Shooting news	6.458	6.190	0	100	292,735
Political news (excl. disaster-politics news)	5.582	5.803	0	96.15	328,641
Political news (excl. terror-politics news)	5.378	5.599	0	96.15	292,735
Political news (excl. shooting-politics news)	5.449	5.647	0	96.15	292,735

Notes: The unit of observation is station/newspaper-day. The news variables approximate the percentage of news airtime/news articles dedicated to shock-related or national political news (excluding news on politics related to the respective shock in case of a shock period).

F Additional information

Table F1: Legislative topics related to the shocks in terms of content

Issues and related topic codes (Policy Agendas Project):

Natural disasters:

- Subsidies to Farmers (402): Includes issues related to government subsidies to farmers and ranchers, including agricultural disaster insurance.
- Nuclear (801): Includes issues related to nuclear energy, safety and security, and disposal of nuclear waste.
- Disaster Relief (1523): Includes issues related to domestic natural disaster relief, disaster or flood insurance, and natural disaster preparedness.
- Foreign Aid (1901): Includes issues related to foreign aid not directly targeting at increasing international development.
- Public Lands (2103): Includes issues related to natural resources, public lands, and forest management, including forest fires, livestock grazing.

Technological disasters:

- Transportation (10). Includes all topics listed under this major topic code.
- Worker Safety: (501): Includes issues related to worker safety and protection and compensation for work-related injury and disease.
- Nuclear: (801): Includes issues related to nuclear energy, safety and security, and disposal of nuclear waste.

Terrorist attacks:

- Civil Rights (2). Includes all topics listed under this major topic code.
- Immigration (9). Includes all topics listed under this major topic code.
- Defense (16). Includes all topics listed under this major topic code.
- Agencies (1201): Includes issues related to all law enforcement agencies, including border, customs, and other specialized enforcement agencies and their appropriations.
- Criminal Civil Code (1210): Includes issues related to domestic criminal and civil codes, including crimes not mentioned in other subtopics.
- Crime Control (1211): Includes issues related to the control, prevention, and impact of crime.
- Police (1227): Includes issues related to Police and other general domestic security responses to terrorism, such as special police.
- Terrorism (1927): Includes issues related to international terrorism, hijacking, and acts of piracy in other countries, efforts to fight international terrorism, international legal mechanisms to combat terrorism.

Mass shootings:

- Civil Rights (2). Includes all topics listed under this major topic code.
- Agencies (1201): Includes issues related to all law enforcement agencies, including border, customs, and other specialized enforcement agencies and their appropriations.
- Criminal Civil Code (1210): Includes issues related to domestic criminal and civil codes, including crimes not mentioned in other subtopics.
- Crime Control (1211): Includes issues related to the control, prevention, and impact of crime.
- Police (1227): Includes issues related to Police and other general domestic security responses to terrorism, such as special police.

Figure F1: The number of conflicted representatives per vote (#*AS-Conflicts*)

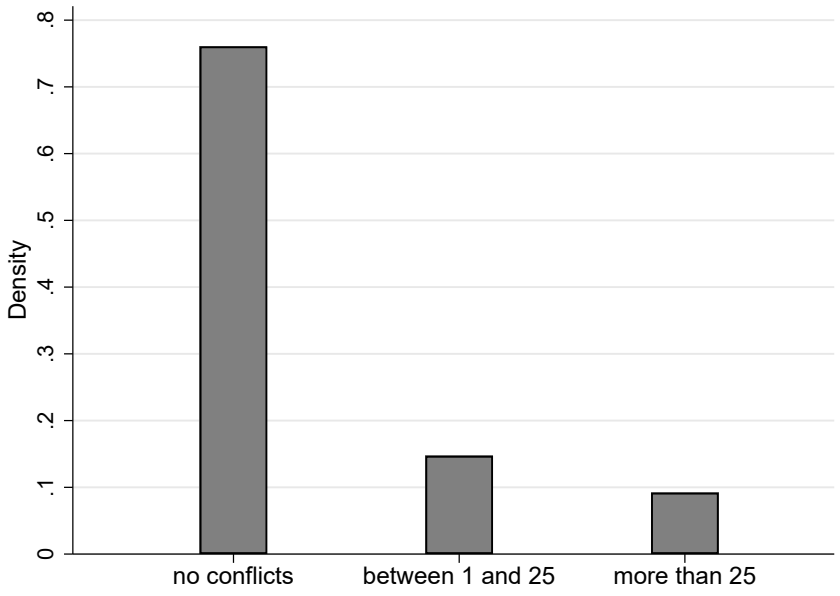
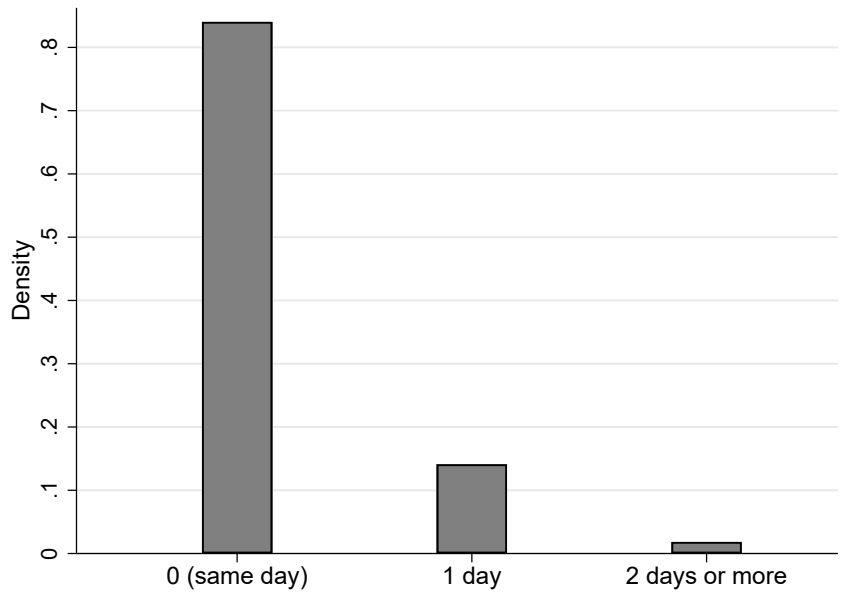


Figure F2: The number of days between first consideration of bill and final passage voting



Notes: The figures show the distribution of the vote-specific characteristic *#AS-Conflicts* as well as the number of days that elapsed between the bill's first consideration by the full House and the final vote on passage. The former captures the number of representatives affiliated with the majority party and facing a conflict of type *special interests Yes and voters No*. The sample involves 652 votes.

Appendix References

Ansolabehere, S. (2010). Guide to the 2006 Cooperative Congressional Election Survey. Data Release No. 3. Cambridge MA: MIT.

Ansolabehere, S. and P. E. Jones (2010). Constituents' responses to congressional roll-call voting. *American Journal of Political Science 54*(3), 583–597.

Cox, G. W. and E. Magar (1999). How much is majority status in the U.S. Congress worth? *American Political Science Review 93*(2), 299–309.

Eisensee, T. and D. Strömberg (2007). News droughts, news floods, and US disaster relief. *Quarterly Journal of Economics 122*(2), 693–728.

Grier, K. B. and M. C. Munger (1993). Comparing interest group PAC contributions to House and Senate incumbents, 1980-1986. *Journal of Politics 55*(3), 615–643.

Matsusaka, J. G. (2017). When do legislators follow constituent opinion? Evidence from matched roll call and referendum votes. *USC CLASS Research Paper No. CLASS15-18.*.

Mayda, A. M. and D. Rodrik (2005). Why are some people (and countries) more protectionist than others? *European Economic Review 49*(6), 1393–1430.

Nordin, M. (2019). Local television, citizen knowledge and U.S. senators' roll-call voting. *European Journal of Political Economy 56*, 212–232.

Rudolph, T. J. (1999). Corporate and labor PAC contributions in House elections: Measuring the effects of majority party status. *Journal of Politics 61*(1), 195–206.

Snyder, J. M. (1992). Long-term investing in politicians; or, give early, give often. *Journal of Law and Economics 35*(1), 15–43.

Stadelmann, D., M. Portmann, and R. Eichenberger (2013). Quantifying parliamentary representation of constituents' preferences with quasi-experimental data. *Journal of Comparative Economics 41*(1), 170–180.