

To Frac or Not To Frac: Campaign Donations and Legislator Behavior

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ABSTRACT

Few academics have closely inspected the influence of money in state-level elections, leaving a gap in the literature with respect to how special interests garner votes in state legislatures. This study examines the relationship between campaign donations and legislator behavior using OLS regression analysis on the voting record of 176 state senators and representatives in the North Carolina General Assembly on three bills related to hydraulic fracturing. Regression results show that the percentage anti-fracking donations make up of a legislator's total donations is positively correlated with a likelihood to vote against a pro-fracking bill. Results are less conclusive for the relationship between pro-fracking interests and likelihood to vote for a given bill, though there is a strong positive correlation between a legislator's affiliation to the Republican Party and her likelihood to vote for a pro-fracking bill. These findings do not invalidate the hypothesis that legislators who receive money from pro-fracking interests are more likely to vote in favor of a pro-fracking bill. More data and further study of this subject are necessary to appropriately assess the relationship between campaign donations and legislator behavior.

OVERVIEW

Do candidates behave differently depending on who funds their campaigns? In this paper, I study the impact of money on legislative elections in North Carolina. I examine the relationship between campaign donations and legislative behavior with respect to the issue of hydraulic fracturing. The NC legislature has passed several bills on fracking in the past year which have received bipartisan support. Businesses, particularly the oil industry, have a lot at stake on this issue. Since support for the bills has not fallen along strictly partisan lines, money may be playing a role in legislator decision making.

Nation-wide sampling and experimental conditions, such as randomized campaign donations, might be needed to comprehensively examine this policy question. A national experimental study is outside the scope of this paper. I approach the question in a narrower framework that may still yield results relevant to the question of how donations affect legislator behavior.

Do North Carolina legislators behave differently toward the issue of fracking depending on who funds their campaigns? I expect to find that legislators who receive more money from pro-fracking interests are more likely to behave favorably toward fracking than those who do not receive donations from pro-fracking interests. With this kind of observational and regression-based study, I won't be able to indicate causality – the reasons why legislators behave the way they do will still be unclear by the end of this paper. However, I will be able to show how this kind of donation targeting is being done – who gives the money, who receives it, and how the

legislators behave after the donation. This paper will attempt to show the existence of that relationship.

POLICY RELEVANCE

This study focuses the question of money's influence on state politics and on a specific issue, hydraulic fracturing. There is no ambiguity in the political contestation underlying this situation – interests groups publicly line up for and against fracking. A report by North Carolina Voters for Clean Elections identified ten corporations interested in fracking, a group which included two natural gas companies, three electric utilities companies, two railroad companies, General Electric, Weyerhaeuser, and Koch Industries.¹ Meanwhile, a swathe of environmental and regional groups oppose fracking as part of the Frack-Free NC Alliance.² Legislators will respond to these groups with actions in the General Assembly (recorded in the public record – votes, sponsorship, floor debates) and to the public and press. The researchers above speak about general trends; this paper deals specifically with a single policy issue in a single state. While state-level legislative assemblies function differently in different states, the results of this paper is useful in understanding political decision making in “purple” or “swing” states. Its conclusions give insight into how much money can decide a state's internal political landscape.

¹ Sturgis, Sue. “Fracking Interests Spent Heavily to Influence NC Lawmakers.” The Institute for Southern Studies, 5/24/12. <http://www.southernstudies.org/2012/05/fracking-interests-spent-heavily-to-influence-nc-lawmakers.html>

² Frack-Free NC, Partner page. <http://frackfreenc.org/partners/>

Campaign finance is a common piece of public discourse. The concept of campaign financing or the controversy surrounding it is not the focus of this paper, though the public debate surrounding financing will serve as a point of context. Two points highlight the importance of studying the relationship between campaign donations and legislator behavior. First, the amount of money in politics has changed over time. Not only have political donations increased through the course of our history, but the size of the donations themselves has also grown dramatically. More money in elections increases the importance of studying the influence of campaign funding on legislators, and raises the importance of empirical study of that relationship.

Second, this paper does not determine causal inference. The relationship between donations and legislators is ambiguous: we cannot tell whether campaign donations influence a legislator's voting record or whether the legislator's voting record attracts the donations. But both sides of the causality problem indicate disturbing or questionable trends in the relationship between donations and legislators. If campaign donations actually influence legislators' voting records, then our electoral system naturally values the opinion (if money is speech, per *Citizens United*) of private, corporate interests to that of the individual voter. If legislators accrue campaign money for their legislative behavior, then private, corporate interests are keeping individuals who do not necessarily represent the needs of the individual voter in power. Neither of these options is attractive.

Possible Sources of Bias

This paper faces a major source of bias in that it does not study legislator behavior in closed-door sessions of the General Assembly committees. Hall and Wayman note that legislators prefer to work without the fear of political retribution for their actions. Actions off the record, such as blocking a bill in committee or convincing another legislator to behave in a certain way, may be the most likely indicators of the efficacy of targeted donation.

However, there are fewer opportunities for this kind of behavior in the NC General Assembly for two reasons. First, the General Assembly has fewer opportunities for action off the public record. Congress has more committees and closed door sessions than the NC legislature. Second, the commanding majority of the Republicans in both the House and Senate, and their strong party loyalty, make the behavior of both parties' legislators more predictable on the majority of legislative issues. This is part of the impetus behind focusing this paper on hydraulic fracturing; on a contentious subject like fracking, legislators may behave differently from what we might expect. Notably, the choice of fracking does not reduce the bias mentioned above.

This paper should serve as a stepping stone to a closer experimental analysis of the nature of campaign financing, its influence on legislators, and the inequalities that arise from the increase in money in politics.

BACKGROUND

This study's policy question addresses money in politics and the power of the individual voter. Money and political power have always been relevant topics in the American political climate. Since the 1960s, money has taken a more and more central role in electoral politics and political campaigns.³ The Supreme Court has rendered decisions over the Civil Rights Act and the landmark *Citizens United* case that allow moneyed interests greater flexibility in how much they spend for candidates.

While the policy question above targets state legislator behavior over a specific political issue, this study is connected to a wider question: namely, does the idea of "one man, one vote" still apply in the modern electoral landscape? Anecdotal evidence suggests that individuals with enough capital and political will can "purchase politics" – they can spread their donations through a dizzying series of subsidiaries so as to hold greater influence over the behavior of legislators than the general public. In North Carolina politics, Art Pope is frequently cited as an example of this kind of activity. Progressive organizations give his bevy of political action committees and foundations credit for removing the Democrats from a position of power in the North Carolina General Assembly, where they held a majority for decades prior to the 2012 election.

³ For a comprehensive history and review of the increase of money in American politics, beginning in the 1970s and continuing to the present, I refer the reader to Jacob S. Hacker and Paul Pierson's book, *Winner-Take-All Politics*. Their chapter titled "Money Changes Everything" (p. 170) as well as chapters "The Republican Revival" (p. 172), "Democrats on the Defensive" (p. 174), and "Democrats, Business, and the Incumbency Card" (p. 177), provide a comprehensive review of the growth of money in political elections.

These questions bring up the question of political equality in America. When wealthy magnates or political action committees bring huge sums to bear for their cause, do individual voters matter? Do poor voters' opinions matter as much as the interests of major donors? If this study shows that donors' politics are likely to influence the behavior of legislators, then we must seriously reexamine some of the core tenets of our American democracy.

Money in Politics: Academia's Interest

Most public knowledge about campaign financing is anecdotal: "Big business is buying politics." "So-and-so basically funded the candidate's entire campaign." Whether legislators actually respond to the donations of their supporters is unclear from this type of speculation.

However, a number of academics who study legislator behavior find that money has a complicated relationship with our political system. Most of these academics study specific issues related to American society and politics. They are interested in socioeconomic divides that emerge in policymaking and Congressional decision-making.

Business, Money, and Influence

Few people in America would be willing to argue that the average day laborer has more political influence than the average CEO of a major bank or large business. Academics agree that moneyed and business interests are more strongly represented in American politics than those of the less wealthy. In their groundbreaking paper "Buying Time: Moneyed Interests and the Mobilization of Bias in Congressional Committees", Richard Hall & Frank Wayman find significant "support of

moneyed interests in the legislative process.” They also note that legislators are far more responsive to organized business than to unorganized voters with strong, visible preferences. As with many of the other authors interested in money in politics, Hall and Wayman focus on members of Congress rather than state representatives. However, their work can be extrapolated to members of the NC General Assembly, and their focus on organized business sounds disturbingly familiar to the current state of campaign finance in North Carolina.

One of the ways business and moneyed interests make their disproportionately-sized mark upon American politics is through campaign donations made to would-be legislators running for election. Martin Gilens’ recent book contextualizes the question of whether legislator behavior is influenced by campaign donations. In *Affluence and Influence*, Gilens questions the nature of American democracy in light of the disturbing revelation that policymakers cater almost exclusively to the preferences of the “economically advantaged.” He specifically targets money in politics (Ch. 8) and touches upon the effect of money in state elections, noting that campaign competitiveness is enhanced through public financing of elections. This study builds off of this argument, testing whether financing can influence legislative action on a specific political issue at the state level.

Other Theories on Legislator Behavior

In his work “Republic, Lost: How Money Corrupts Congress – And a Plan to Stop It,” Lawrence Lessig argues that money skews the behavior of representatives in Congress toward the interests of lobbyists and major campaign donors. He deals primarily with national representatives, so his

work is peripheral to this study. However, Lessig provides an excellent history of the increase in campaign donations over time, as well as a comparison point for the NC state legislature. To what degree is the influence of money in Congress reflected in the General Assembly? Comparing legislator behavior at the federal and state levels is beyond the scope of this study. However, Lessig's work brings attention to the issue of the influence of money on specific legislative issues, which falls directly in line with this paper's interests.

However, not all scholars consider money to be the prime motivator in legislative behavior. Frank Baumgartner, in his book "The Politics of Attention: How Government Prioritizes Problems," prioritizes information above money as a major motivating factor in legislator behavior. Other theorists, like R. Douglas Arnold, see legislator behavior as inextricably tied up in catering to the preferences of their constituencies in the interest of reelection. In his book "The Logic of Congressional Action," Arnold is chiefly concerned with explaining the behavior of members of Congress. His work deals specifically with his theory of Congressional action, which states that "potential preferences" drive the legislative decisions of members of Congress. Arnold's theory is couched in an understanding of legislative decision-making predicated on the notion that legislators will always prioritize reelection above all else in their decisions. While I do not dispute this reading of Congressional action, Arnold's book addresses the relationship between money and legislators in the context of the legislator as the principle actor. Conversely, this study views interest groups as principle actors, while legislators react to (or ignore) campaign donations through their actions in the legislature.

Hall wished to follow up his important 1990 work with Wayman with a more specified understanding of lobbying. In his paper with Alan V. Deardorff (“Lobbying as Legislative Subsidy”), Hall argues that lobbying assists political allies to achieve coincident objectives. At face value, this theory is upheld by the relationship between Art Pope and the General Assembly. Pope supports the oil industry and has donated an enormous amount of money to conservative Republicans in the last election, many of whom support fracking.

Today’s Questions about Political Influence

While these academics’ theories are relevant to this paper’s topic, none of them specifically deal with the relationship between campaign donations and legislator behavior at the state level. This study is designed to broaden the scholarly discourse on money and its influence on state-level politics.

FRACKING IN NORTH CAROLINA

Hydraulic fracturing is new to the legislative discourse in North Carolina. To accommodate interested parties in the oil industry, the General Assembly commissioned a study of the state’s potential shale gas resources in 2011. Fracking is an appropriate political subject with which to illuminate the question of how money interacts with legislators because of its recent prominence in North Carolina politics. Oil and gas, wealthy interests in the American economy, have contributed money to many different North Carolina legislators in the past several campaign

cycles. Environmental activists have also donated money to legislators' campaign war chests as they advocate against fracking due to its adverse environmental effects.

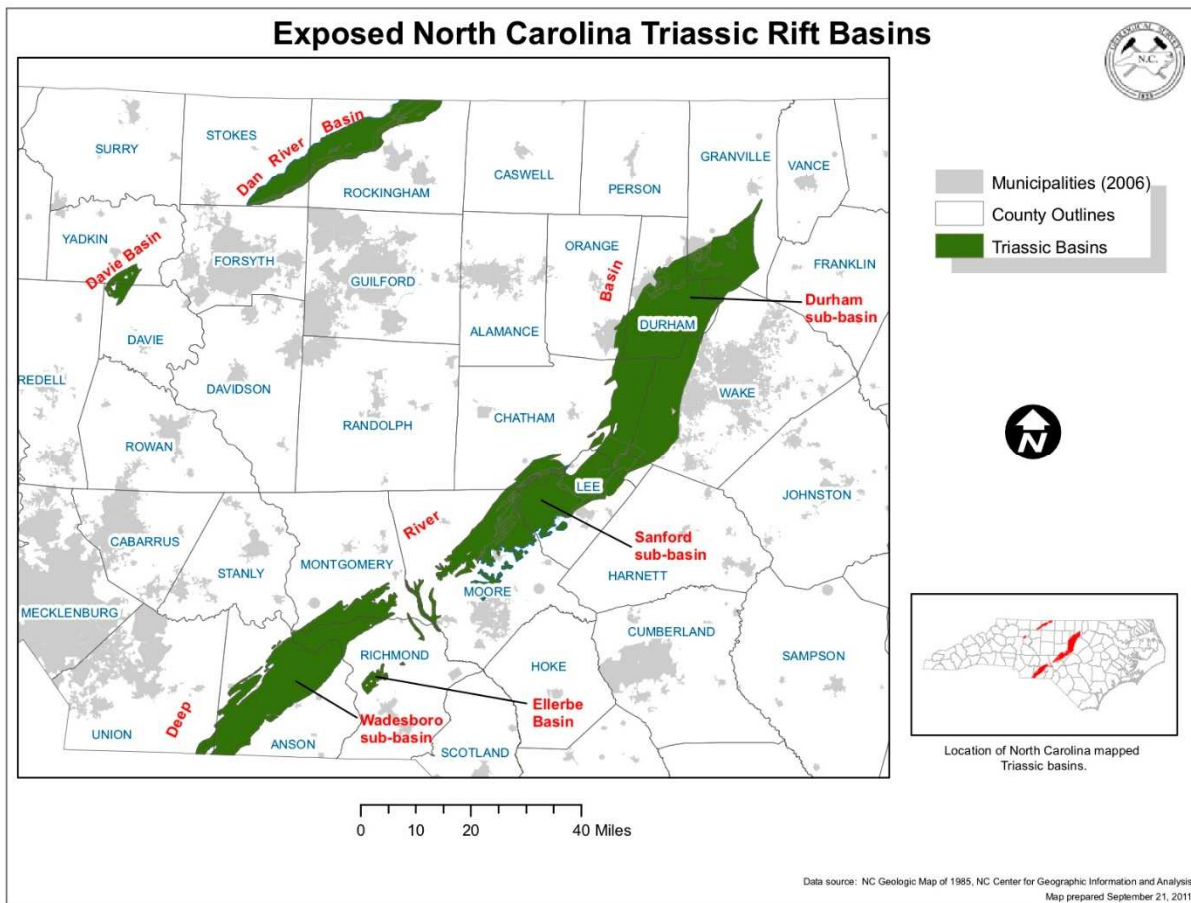
On May 1, 2012, the North Carolina Division of Energy and Natural Resources (NCDENR) presented a study of the potential development of shale gas in the state to the General Assembly. In the study, the NCDENR made recommendations regarding the necessary regulatory framework to develop the shale gas resources. Per the General Assembly's request, the study required the following⁴:

- Oil and gas resources present in the Triassic Basins and in any other areas of the state;
- Methods of exploration and production;
- Potential impacts on infrastructure and water resources;
- Potential environmental impacts;
- Potential social impacts;
- Potential oversight and administrative issues associated with a regulatory program;
- Consumer protection and legal issues; and
- Other pertinent issues.

The NCDENR's study provides some unbiased insight into the effect of fracking on the lives of North Carolinians. It also allows us to understand how legislators' decisions affect the lives of their constituents.

⁴ List taken from the NCDENR website. portal.ncdenr.org/web/lr/studies

According to the Shale Gas Study, the only area currently considered for drilling is a 59,000-acre range that covers parts of Chatham and Lee Counties. The range is known as the Sanford Sub-basin, and it is part of the North Carolina Triassic Rift Basin (see graphic). While the different parts of the Triassic Rift Basin have the potential to hold oil and gas reserves, the only part of the Basin which has currently been tested for resources is the Sanford Sub-basin.



In the Shale Gas Study, the NCDENR evaluates the economic impact of shale gas drilling on the North Carolina economy. The study urges caution:

“Overall, these studies show that a large infusion of economic activity from shale gas drilling will increase the incomes of some individuals and communities and will add

jobs. However, without reliable expenditure inputs based on primary research, it remains uncertain how much wealth, income or benefits from long-term employment would accrue to Lee, Chatham and surrounding counties.⁵

The study outlines the yearly costs of drilling and examines the job growth associated with the expansion of drilling. The NCDENR notes that while drilling will create over 850 new jobs at its peak, the jobs created are only temporary, and will cease along with the end of drilling.

The potential positive effects of fracking on North Carolina appear below in tables from the NCDENR’s report. They are included as some of the most economically-focused elements of the report, which may connect to the oil industry’s interest in the state’s potential shale oil deposits.

Potential Well Field⁶

Sanford Sub-basin Shale Play: Estimated Number of Wells			
Year	Annual Ramp Up	Cumulative Total	Annual Cost of Drilling
Year 1	7	7	\$21,000,000
Year 2	32	39	\$96,000,000
Year 3	45	84	\$135,000,000
Year 4	63	147	\$189,000,000
Year 5	88	235	\$264,000,000
Year 6	123	358	\$369,000,000
Year 7	10	369	\$30,000,000

These estimates were forecasted by N.C. DENR based on the estimated acreage of the Sanford sub-basin and using an estimated well spacing of one well per 160 acres.

Annual Employment Impacts⁷

Annual Employment Impacts (Job Years)				
Year	Direct Effect	Indirect Effect	Induced Effect	Total Effect
2013	39	6	15	59
2014	169	28	64	261

⁵ “2012 DENR Shale Gas Study,” NCDENR, 2012, p. 213.

⁶ “2012 DENR Shale Gas Study,” NCDENR, 2012, p. 211.

⁷ “2012 DENR Shale Gas Study,” NCDENR, 2012, p. 213.

2015	229	38	87	353
2016	308	51	117	475
2017	413	68	157	638
2018	555	92	210	858
2019	44	7	17	68
Cumulative	1,760	290	670	2,710

Source: MIG IMPLAN 3.0; model created February 2012. Cumulative employment impacts rounded to the nearest tenth.

The study estimates that drilling activities will increase the state’s DGP by \$292 million by the year 2019.⁸ However, the NCDENR hedges on this estimate, recognizing that North Carolina lacks an infrastructure to support the fossil fuel industry. Since the state has no fuel suppliers, investors may be less interested in the state’s resources, raising uncertainty over whether the state will gain employment benefits from supplier firms.⁹

The Shale and Gas Study goes on to examine the impact of drilling on other state economic sectors, such as agriculture, wineries, the food industry, and the housing market. The study also discusses the environmental impact of drilling, noting that since companies are not necessarily forced to disclose the chemicals in their fracking procedure, the ultimate impact of fracking on the environment is uncertain. However, many of the chemicals which have been released to the public contain known carcinogens which are dangerous to humans and wildlife in large quantities. The Shale and Gas Study recommends that the General Assembly take steps to force companies to disclose more information about the process of fracking in order to better understand the environmental and health impact.

⁸ “2012 DENR Shale Gas Study,” NCDENR, 2012, p. 214.

⁹ Ibid.

Fracking Bills in the General Assembly

After the NCDENR published the Shale and Gas Study, a number of different bills related to fracking reached the floor of the General Assembly. Three of the bills were deemed worthy of analysis in this paper: SB76, SB127, and HB74. Both houses of the General Assembly voted on each of these bills in the 2012-2013 State Congressional cycle. SB76 and HB74 both passed through the General Assembly and eventually were signed into law by Governor McCrory. SB127 passed in the State House and was struck down unanimously in the State Senate.

Overview of the Bills

Each bill altered slightly different aspects of the law surrounding hydraulic fracturing in North Carolina. While we cannot ascribe causal value to the language of one bill versus another as the reason behind why two passed and the other didn't, it is important to keep the details of each of these bills in mind while assessing data on legislator behavior.

The bills are as follows:

- **SB 76** – “Amends Hydraulic Fracturing Requirements and Authorizes Off-Shore Drilling.” This bill authorized the Department of Environment and Natural resources and the Mining and Energy Commission to issue permits for fracking and horizontal drilling.¹⁰ However, it allowed the Commission to withhold those permits until the appropriate rules regulations

¹⁰ Votesmart.org. <http://votesmart.org/bill/16263/46111#.UyqHxYWhEwA>

could be put in place regarding oil and gas development. The bill was ratified on July 24, 2013.

- **SB 127** – “An Act to Permit the Department of Commerce to Contract with a North Carolina Nonprofit Corporation for the Performance of Certain Economic Development Functions.” This bill attempted to significantly reduce the time available to the Mining and Energy Commission to create appropriate rules and regulations for fracking. The bill would have set severance tax rates and prohibited local governments from levying taxes on energy companies operating within their borders.¹¹ The House voted in favor of the bill 86 to 27, but the Senate voted unanimously (48 to 0) against the bill.
- **HB 74** – “An Act to improve and Streamline the Regulatory Process In Order to Stimulate Job Creation, to Eliminate unnecessary Regulation, to Make Various Other Statutory Changes, and to Amend Certain Environmental and Natural Resources Laws.” This bill prevented the Mining and Energy Commission from regulating chemical disclosure, and it allowed groundwater contamination from the fracking process to proceed up to a private property’s boundary, preventing cleanup until it appears on that property.¹² It also reduced the requirements on agencies working on fracking rules and regulations, allowing them to avoid preparing a study of the fiscal impact of fracking. This bill was ratified on July 26, 2014.

¹¹ North Carolina League of Conservation Voters. <http://nclcv.org/news/hotlist/20130725/>

¹² FrackfreeNC.org. <http://frackfreenc.org/call-your-reps-about-hb-74/>

DATA AND METHODS

Data

Campaign donation data was provided by FollowTheMoney.org, an organization which devotes itself to “transparency and... independent investigation of state-level campaign contributions”.¹³

FollowTheMoney.org collects, organizes, and disseminates data on state-level political campaign contributions. The organization’s data sets provide the names of donors and donor organizations, as well as other details about the donations themselves. These details form the variables used in this study’s analysis.

The following variables were used in the dataset constructed from FollowTheMoney.org’s data:

- Contributor Name
- Sector
- Industry
- Business Name
- Donation Amount
- Date of Donation
- Recipient of Donation

¹³ FollowTheMoney.org, Mission & History. <http://www.followthemoney.org/Institute/index.phtml>

- Recipient's Party Affiliation
- Recipient Description (House or Senate race)
- Total Amount of Money Raised

The sector variable was limited to donations directly related to environmental, natural resource, and energy-related issues.¹⁴ This was done to preserve the connection between the donations and the subject matter of each bill. Donations from each industry classified under the listed sectors were collected and provided for each member of both houses of the General Assembly.

Data on roll call votes on the three bills in question was gathered from the General Assembly's website, nclg.net. Legislators received their names as labels under a single legislator name variable. Legislators' votes were recorded as a 0/1 variable. Note that two legislators (Valerie Foushee and Angela R. Bryant) were appointed to the Senate after serving in the House for part of the Congressional session. Some legislators received no campaign donations from parties interested in the debate surrounding hydraulic fracturing. Several representatives were replaced in office due to death or scandal, but remained in the study because they took part in the votes on the bills in question.

Legislators were also coded by the district (Senate or Congressional) which they represent. Using the map above from the NCDENR study, districts were designated "proposed" sites for fracking

¹⁴ The sectors downloaded in the data set include Electric Utilities; Environmental Services & Equipment; Mining; Miscellaneous Energy; Miscellaneous Energy & Natural Resources; and Oil & Gas.

if they fell within the 59,000 acres designated within the Sanford Sub-basin for fracking should the legislature allow fracking to occur. Other districts that fell within the Triassic Basin area were designated “potential” sites for fracking.¹⁵

Another variable was created to gauge the interest of a district’s population in allowing fracking within its district borders. Since opinions on fracking have largely divided along partisan lines (progressives oppose fracking; conservatives support it), district populations’ interest was measured by President Obama’s voter share in the district from the 2012 presidential election. While this method is imperfect, it generates data with errors small enough that they will likely not affect the study’s overall conclusions.

Regression

To analyze the bills, the following regression was used:

$$\langle \text{bill} \rangle = \text{pct_profrack} \text{ pct_antifrack} \text{ republican} \text{ proposedsite} \text{ potentialsite} \\ \text{potenprosite} \text{ antiovote} \text{ antiovote} \text{ proposedfrack}$$

Variables “pct_profrack” and “pct_antifrack” refer to the percentage of pro- or anti-fracking donations out of the total amount of money raised for a single legislator. “Republican” is the 0/1

¹⁵ It is important to note here that this does not necessarily indicate that these sights have been, or will be, considered for fracking. Rather, this designation indicates that the districts possess a part of the Triassic Basin that has been speculated to possibly contain shale gas and oil. Whether these sites are considered for fracking in the future will depend on interest in prospecting, actual searches for shale gas, and the success or failure of the proposed fracking sites.

variable indicating party affiliation. “Proposedsite,” “potentialsite,” and “potenpropsite” refer to districts in proposed site areas, potential site areas, and both proposed and potential site areas respectively. “Antiovote” refers to the percentage of the voters who voted against President Obama in the 2012 presidential election, and “antiovoteproposedfrack” is an interaction term between the variables “antiovote” and “proposedsite”.

Regressions using only one of the three location-related variables (“proposedsite,” “potentialsite,” and (potenpropsite”) were also done to provide contrast and determine whether one of the variables had greater statistical significance than the others in the same regression.

RESULTS AND ANALYSIS

The single most significant variable found in any of the regressions run by this study was the “republican” variable. Members of the Republican Party were significantly more likely to vote in favor of each of these bills. These results were consistent for all three bills, including SB127, despite the fact that the entire State Senate voted against it.

Recipients of larger percentages of anti-fracking donations in their total donations were significantly more likely to vote against SB76 and HB74. While the “pct_antifrack” variable for SB127 does not show statistical significance, the coefficient is also negative, showing similar effects to those in the other two bill regressions. The statistical significance of the variable in SB76 and HB74 could suggest that environmentalists’ campaign donations have influenced

legislators into voting a particular way. However, the correlation between donations and behavior could also suggest that environmental organizations choose whom they wish to support carefully. The environmentalists give money specifically to the legislators who will vote for their bills, and choose not to waste dollars on more fracking-friendly members of the General Assembly.

For voting behavior with respect to SB127, representatives from districts that fall under areas covered by potential sites were significantly less likely to vote for the bill than representatives from districts unaffected by the legislation. The proposedsite variable also showed a negative correlation, though it did not show statistical significance. When the variable representing elected officials from both potential and proposed sites was put in the regression, it showed a negative correlation with statistical significance.

The “antiovote” variable showed no statistical significance in any of the regressions. This implies that the degree to which a district’s population supported or opposed fracking had no effect on whether a representative voted in favor of a bill. This is relevant in context of how strong the correlation between the “republican” variable and voting for these bills is. Since legislators’ votes appeared to be divided along party lines, this could suggest that legislators ignored the desires of their constituents when voting on the bills. However, one can expect a high degree of correlation to a conservative legislator’s voter share and Obama’s 2012 voter share; the results for this variable may be skewed by the method by which the “antiovote” variable’s data was collected.

Neither the “antiovote” variable nor the “antiovote_{proposedfrack}” variable show consistency across bills in terms of positive or negative correlation. The “antiovote_{proposedfrack}” variable also showed no statistical significance. Its coefficient did not show a p-value greater than 1.21, which had a negative correlation. This result may be skewed by the small number of proposed sites, which cover parts of Lee and Chatham Counties.

The “pct_{profrack}” variable shows contradictory results. None of its p-values indicate statistical significance in any of the regressions, which suggests that not enough money was donated from pro-fracking interests to influence (on average) members of the General Assembly to vote in favor of any of the bills. However, the variable shows negative correlation on HB74 and positive correlation on SB76 and SB127, suggesting that representatives who received money from fracking voted different ways on bills that all supported the fracking industry. If SB127 had been the only bill to show a negative correlation in its “pct_{profrack}” variable, then the results could have been ascribed to the unanimous State Senate vote against the bill. However, since the “pct_{profrack}” variable’s direction is split between SB76 and HB74, these results are more difficult to interpret.

This can be explained by several factors. Most of the representatives who received money from fracking interests were Republicans; Republicans raised more money than Democrats, which could reduce the amount of influence fracking interests had over their ability to influence

legislators. The fact that there is variation in whether the coefficient is positive or negative could show that fracking money made little difference in the outcome of the votes on each of the bills.

Again, another mitigating factor for these results is the fact that nearly every member of the State Senate voted against SB127, regardless of party. This almost certainly affected the regression results for SB127.

Since this study only covers three bills in a single congressional session and uses between 156 and 170 observations in each regression, this study's statistical power is weak. However, these limitations may not bring us to abandon our hypothesis. Rather, this study indicates that further study of the relationship between campaign donations and legislator behavior is necessary. This analysis should be repeated across multiple Congressional terms. Many of the confusing, contradictory, or seemingly counterintuitive results found in this study may be mitigated with more data.

POLICY IMPLICATIONS

If money significantly influences legislators, then a study like this could raise serious questions about equality and political influence in our democracy. In any event, this project cannot draw such concrete conclusions that it debunks the very idea of political equality in America. However, a wider study may show that interest groups can force their agenda on the average American through the injection of donations to political campaigns. We expected this to be the case with

pro-fracking interests. Instead, it appears that anti-fracking interests may have increased their influence through donations. This may not hold up over a study of multiple congressional sessions.

Is there a solution to this subversion of public interest? While representatives will always have a complex and barely-identifiable series of influences, one thing we can control is the degree to which money holds sway over our electoral system. However, that control is wielded by the representatives we elect; so long as politicians have incentive to use campaign finance law to keep their seats, we may never break out of this cycle of money's increasing control over politics.

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