# GRASSROOTS LOBBYING AND THE ECONOMICS OF POLITICAL INFORMATION IN THE DIGITAL AGE

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A dissertation submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Department of Political Science.

Chapel Hill
2015

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**ABSTRACT**

JOHN CLUVERIUS: Grassroots Lobbying and the Economics of Political Information in the Digital Age.
(Under the direction of Thomas M. Carsey)

Leading theories of grassroots lobbying assert that legislators should respond positively to the volume of grassroots lobbying messages they receive because volume indicates the salience of an issue among constituents. This notion rests on the idea that the cost of producing a large volume of grassroots lobbying signals the value of the information to legislators. Advances in technology and strategy, however, have flattened the costs associated with producing such information – it costs an interest group about the same to generate one hundred email messages as it does ten thousand. In this environment, the volume of grassroots lobbying no longer signals the value of the information it contains. Instead, trust becomes the critical factor in evaluating grassroots lobbying, and with growing skepticism of mass emailing efforts, volume of grassroots lobbying should have no effect or even a negative effect. In this study, I test this theory using a survey of state legislators and interviews with legislators and interest group leaders. In a survey experiment, I find (contrary to previous work) that lobbying message volume has no effect on legislator responses to higher-salience issues, and a negative effect on lower salience issues. Interviews with legislators and coded open responses from the survey confirm that these effects are produced because legislators do not trust high-volume grassroots lobbying efforts. In interviews with state legislators, I find that the resources legislators are provided, particularly legislative staff, enable them to better trust grassroots lobbying information. In the context of other information sources, access to resources and majority party status also affect which source of information legislators trust most.

*For everyone whose preferences are risk-accepting enough*

*to run for office,*

*work for a cause,*

*or open a brewery.*

## ACKNOWLEDGMENTS

a fundamental appreciation of legislative politics and institutional thinking. Each of my committee members helped me in countless small ways; they talked me through problems when I was stuck, listened to my nonsensical ramblings, and continually exposed me to work and workers better than me.

Beyond these faculty members, I received helpful suggestions at UNC from Jim Stimson, Jason Roberts, Graeme Robertson, Rahsaan Maxwell, Stuart Rabinowitz, and Navin Bapat. Outside of my home institution, I've had excellent advice from Dick Winters, Dave Lowery, Michael Berkman, Rick Hall, Graeme Boushey, Shanna Pearson-Merkowitz, Bill Jacoby, and the political science faculties of the University of Massachusetts Lowell and Auburn University at Montgomery.

My colleagues helped a ton. They read my work and tore it apart. They celebrated with me when I made a breakthrough, and let me vent when I lost the edge. They raised questions of which I'd never thought, and practically held my hand when I had no clue what I was doing. I was lucky to be part of the State Politics Working Group at UNC, where professors and fellow students saw at least four different versions of work presented here. I'm particularly grateful to my fellow occupants of Hamilton 312: Justin Kirkland, Jeff Harden, Josh Jansa, and (replacing me) Eric Hansen. They took their headphones out and helped me out when they should have just ignored me. People senior to me took me under their wing and helped me when I confessed I had no idea what I was doing; especially Kevin Banda and Jason Windett. Paula Mukherjee and Ali Stoyan taught me how to give a great talk. Kelsey Shoub sketched out a lifesaving decision tree for me on a napkin. I got additional, and no less consequential comments from Derek Epp and John Lappie. Emily Carty and Thomas Loeber made my teaching better, even when I was focused on other things. Monica Moore wrote a damn fine paper with me that will never, ever get published. Anthony Chergosky, Jacob Smith, and Ryan Williams were great sounding boards for political topics great and small.

All the interviews and survey responses in this dissertation are anonymous, so let me say a very special thank you to ███████, █████████████, ████████, █████████, and every other state legislator, interest group leader, and staff member who took the time to talk with me and/or to take the survey. This work would not be possible without their participation.

Finally, I am most grateful to my wife and partner, Mary Peterson. She helped me tug on the threads of the theory more than a dozen times. She polished my practice talk and read my final prospectus. She put up with unanswered questions, forgotten chores, hanging clauses in conversations, sinks full of unwashed dishes, late nights, and early mornings. Somehow, when I asked her to abandon her friends and career to follow me on a wacky adventure, she said yes, twice. I'm humbled by her sacrifice, and I'm reminded every day what $5.21.04–\infty$ means.

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"...in the face of improving technological means to generate phony grass roots, it is vitally important that we come to terms with the way groups can lead policymakers away from popular policies that will benefit most citizens. Research on outside lobbying can help. If we want our government to respond more to the mass public and less to privileged minorities, then it is helpful to be able to define, understand, and recognize the difference."

–Ken Kollman, *Outside Lobbying*, page 162

## Introduction

At the end of 2011, my former employer, Salsa Labs, Inc., claimed that in that year, their clients had sent more than 1.2 million emails from constituents to elected officials. Other companies and the advocacy groups that serve them fixate on the number of emails sent to elected officials as a topline measure of their political efficacy. This makes sense; motivating members to contact legislators is not easy. Members need to be informed enough about an issue to support a policy position. Members also have incentive to free ride; their membership is usually conditional on dues, not on participation in activist activities. However, this metric does not accurately capture the impact of constituent contacts on the legislative process. Measuring efficacy has proved challenging, so organized interests count the emails sent by members and hope it counts for something.

However, many of these efforts are duplicative: they repeat arguments that legislators have heard before. Mass advocacy efforts are not new; before the email era, groups used postcards that would be sent to group members and then forwarded with postage by the

member to a legislative office. Organized interests used these in lieu of letter-writing campaigns. Groups believed that these contacts had two effects. They gave the legislator a signal of the interest group's power within the legislator's district. They would also, in some cases, signal the importance, or salience of a particular issue to legislators. The more effort an interest group had to undertake to motivate their members (and thus, the fewer contacts received), the less salient the issue was believed to be by legislators.

The information age has made the constituent-legislator contact a much easier enterprise. Advocacy groups can track who in their membership has contacted which legislator about which particular issue. Groups can also target individual messages to specific legislators, thanking legislators for their support on current legislation, and critiquing legislators who oppose them. Organized interests can also create webforms, which allow members to choose pre-written content to send to their legislator at the click of a mouse.

No group attempts to make their grassroots lobbying efforts to look phony. However, technological innovations have made it more difficult to tell the difference between which grassroots lobbying efforts are phony and which are real. More importantly, the cost of generating these email campaigns has *flattened*, that is to say, the cost of producing one additional email to a legislator, all else equal, has decreased. We observe cost-flattened information environments all the time in everyday life. Much like a consumer trying to determine whether their local restaurant truly offers a five-star dining experience, a legislator is trying to determine whether the hundreds and thousands of emails they receive about an issue are a genuine outpouring of concern among constituents or merely spam sent to every legislator from all over the country.

When costs flatten, legislators gain less information from the amount of email they receive from constituents because that amount no longer conveys anything about how hard the group worked or how salient the issue might be. Volume used to provide a useful signal of the usefulness of information. When costs flatten, that signal is no longer useful. Instead

of cost, legislators focus most on the trustworthiness of information.

**What Trust Means**

Information can be trustworthy in three ways: that it accurately represents the views of the mass public in the legislator's district, that it accurately represents the views of an issue public in the legislator's district, and that the information accurately represents the membership of an advocacy group in the district. Trustworthy information accurately and reliably can be used by legislators to help them accomplish their goals. These goals include re-election, protecting majority status of their party, good public policy, and advancing in the institution. Though the trustworthiness of other sources of information are discussed in Chapter 4, this dissertation focuses primarily on grassroots lobbying. In the case of grassroots lobbying, all trustworthy information should, in the mind of the legislator, contain true and relevant statements about constituent preferences on policy issues. Trustworthy emails come from constituents, not people outside the district or the state.

First, and most importantly, legislators consider information to be trustworthy if it reliably and accurately reflects the attitudes of an issue public – a small group of people who pay attention to a particular issue – in their district. People with the capacity to contact their legislator usually have a personal experience with an issue and are highly informed. These constituents also tend to be more willing to cast their vote based on a single issue. The classic example of this type of grassroots lobbying is the National Rifle Association (NRA). NRA members write frequently to their legislators on gun issues and are considered to be reliable voters on that particular issue.

Second, legislators consider grassroots lobbying information to be trustworthy if it accurately and reliably reflects the issue preferences of the mass public in the legislator's constituency. On highly controversial issues, legislators want to know how their constituents feel about an issue, especially if they do not have previous information about citizen attitudes. At the same time, legislators gain information about the mass preferences of their

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district through campaigns, polling information, and trusted contacts within their district.

Third, grassroots lobbying can be a signal of interest group power in the electorate. Legislators who received postcards sent from constituents on behalf of interest groups could usually count the cards to get a good idea of how many active members a group had in their district. With email, however, constituents must identify themselves as a member of that organization in the email in order to signal that interest group power to the legislature. Very few emails to legislators contain this information. Among organized interests, the norm is to not include this information in form emails written for constituents to send. As a result, trustworthiness is empirically evaluated as an accurate and reliable measure of the policy preference of either the mass public in the legislator's district, or an issue public in the legislator's district.

**Trust-Driven Legislator Behavior**

The trustworthiness of information determines its value in a market when the costs of providing information to legislators are flattened. When this happens, we should expect that legislators will consider the trustworthiness of information from grassroots lobbying more than the volume of emails sent to them. Email volume also provides a *negative* signal in the case where the issue discussed is not well-established. A high volume of emails looks like a mass email from an interest group, not a signal of a particular issue public. Legislators are more suspicious of grassroots lobbying on lower salience issues because fewer constituents know about the issue and are likely to have formed an opinion about it. Because almost no emails include the name of the interest group generating them, the volume of emails also does not signal interest group power. On higher salience issues, legislators receive much more information from all sources, and the negative signal from a high-volume grassroots lobbying campaign gets lost in the rest of the noise.

Instead, legislators will value information that is trustworthy from grassroots lobbying.

Legislators tend to talk about content rather than having too much or not enough information from a particular source. They say that they prefer content that helps identify grassroots lobbying messages as being genuinely from a constituent. Legislators say that they look for signals of a developing or shifting issue public, usually in the form of personal narratives from constituents. Constituents might email their legislators personal stories about hardships with high gasoline taxes, the need to use a car share service to navigate the city at night when taxis will not come, or the death of a loved one at the hands of a police officer. Because these messages focus on personal experience with policy rather than a broad argument about whether policy is good or bad, they signal reliable and accurate attitudes of an issue public in the legislator's district.

Forming trust with sources of information requires resources. Legislators who have more time in the legislative session to weigh the information they get will trust grassroots lobbing messages more because they can separate trustworthy messages from untrustworthy ones. A legislator will likely receive emails from both sides of an issue, and more time in session gives legislators more time to read through emails and determine which are genuinely representing an issue public and which are not. Legislators with more staff will also be able to separate trustworthy and untrustworthy information better because staff help extend the legislator's information processing based on their own experiences with constituents and interest groups. Staff may have connections with groups or constituents that the legislator does not. Staff also may be more aware some issue public attitudes than the legislator. By contrast, legislators in less-well resourced bodies will be more likely to dismiss all grassroots lobbying messages as equally untrustworthy.

Trustworthy relationships are also dependent on risk. Legislators who are more risk-averse will be less likely to trust grassroots lobbying messages and other outside sources of information. These legislators find information sources that are closest to them most trustworthy. Those sources convey similar information about the attitudes of issue publics and

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mass publics in the legislator's district, as well as interest group power in the district. However, legislators choose to get this information from close advisors rather than grassroots lobbying or other sources.

**Plan of the Dissertation**

In this dissertation, I explore how legislators form trustworthy relationships with information sources, focusing on grassroots lobbying in particular. I envision trust as the central feature of an information marketplace where legislators are consumers of information. I use a mix of methodological techniques organized around two data-gathering projects. The first is a series of interviews with legislators, legislative staff, and interest group leaders conducted over the summer of 2013. The second is an extensive survey of state legislators conducted in the summer of 2014. Full text of the survey is presented in Appendix B.

I have written the dissertation as a response and update to Ken Kollman's excellent 1998 book, *Outside Lobbying*. I challenge several of the conclusions in his book, particularly the structure of the relationship between the volume of contacts and issue salience and how different types of issues encourage different interest group strategies. I find that Kollman's warnings – issued at the end of his book and reprinted at the beginning of this section – have come true; worse, grassroots lobbying in its current state seems to offer minimal benefits for any of the parties involved. Interested citizens who care passionately about an issue are either diverted to form email campaigns or are drowned out by interest group mobilization. Legislators lack trustworthy information about what constituents want from them policy-wise.

Chapter 2 disputes previous findings on how the volume of emails generates legislator response. I use an experiment that varies hypothetical emails a legislator receives. The experiment has two different types of email treatments, one that varies the salience of the issue, and one that varies the volume of emails that I tell the legislator they received. I find

that on a lower-salience issue, the volume of emails has an inverse effect on legislator responsiveness; legislators who receive the higher-volume/lower salience treatment are about half as likely to say they will take a requested action (like voting for the bill on the floor) than those in the higher volume/higher salience treatment.

Chapter 3 uses interviews and the free-response section of the survey to examine the effects of information processing resources on trust formation. If the market analogy holds, and trustworthiness is the central feature of that market, better-resourced legislators should be able to better navigate the marketplace more easily, and should be more responsive to grassroots lobbying if they are able to develop ways of processing the deluge of emails that they receive. I find that with grassroots lobbying, most of the information processing power of legislators comes from staff expenditures and the ability of legislators to use their staffs to help handle constituent contacts.

Chapter 4 takes a step back to evaluate the role of grassroots lobbying and cost flattening in legislator information processing writ large. I use a multinomial logit model to determine the effects of legislative professionalism and majority party status on a legislator's most trusted source of information. I find some support for my theory. Majority party legislators show little variance across legislative professionalism for their most trusted source of information. Minority party legislators become more trusting of email messages from constituents and party leaders, and less trusting of polling information and professional lobbyists as legislative professionalism increases.

Finally, a note to readers: some of the theory sections are repetitive, even to the point of copying arguments in previous theoretical sections verbatim. I chose this to let each chapter stand alone as a component of the larger theoretical argument. None of this work has been published in a peer-reviewed journal, so self-citation would not be possible in this case.

## 2 GRASSROOTS LOBBYING AND ISSUE SALIENCE: THE FLATTENED COST OF SIGNALS

**Introduction**

On their own and motivated by groups, Americans send hundreds of thousands of messages to legislators across all levels of government on policy matters (Butler, Karpowitz and Pope 2012). In surveys and interviews, legislators at every level say they want to hear from constituents about policy issues, but recent changes in technology and groups (Karpf 2012) have reshaped how constituents contact legislators and how interest groups wield grassroots lobbying as a tool to accomplish their goals.

Leading theories of information in legislatures and explanations of grassroots lobbying rely on the assumption that the cost of producing information signals something about that information's value. However, the costs of producing this information have flattened,[1] meaning that the cost of producing one hundred email messages is about the same as the cost of producing ten thousand email messages for both interest groups and constituents. Developments in the tactics of grassroots lobbying and the dynamics of interest organizations have flattened the costs of grassroots lobbying for interest groups and incentivized more groups to use the tactic more often as a means of maintaining the organization. To explain information processing by institutional actors in the digital age, we need theories that explain how political actors in institutions respond when information is still costly, but where these costs do not signal value.

In this paper, I present an economic theory of political information where trust replaces

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[1]In this case, flattening is the process by which marginal costs, or the costs of producing an additional unit, are reduced. A detailed explanation is provided in the section labeled "The Flattening of Information Costs."

cost. Political actors treat information like a commodity. They use heuristics to help determine the value of information. Previously, legislators were able to use email volume – the number of emails (or other messages) sent – as a positive signal of the value of this information (Kollman 1998). However, when costs are flattened, volume sends a meaningless or negative signal about the value of that information because legislators believe these efforts to be fake or untrustworthy. Instead, legislators use the trustworthiness of information primarily to signal its value.

I used a series of interviews with state legislators to help refine the theory and shape the expectations derived from it. If trust replaces price, the volume of messages should not have a positive effect on legislator response. I expect that legislators are responding to information they deem to be trustworthy, not the signal provided by the volume of grassroots lobbying efforts. I test this theory using a survey experiment that alters the tone, volume, and issue salience of hypothetical grassroots lobbying messages sent to state legislators, and I measure their responses to these messages in the survey. I find that while the volume of email messages has no effect on higher-salience issues, legislators who see higher volume messages on lower-salience issues are less likely to respond to them. The effect is both statistically and substantively significant: the predicted probability of a legislator voting for legislation supported by a lower-salience/higher-volume treatment is half that of the probability of a legislator voting for a hypothetical bill supported lower-salience/lower-volume treatment. I find no effect for difference in email tone. From a hand-coded analysis of free-text responses to the survey, I find that legislators talk about trust in evaluating messages more than volume.

Grassroots Lobbying Defined

Grassroots lobbying is distinct from other forms of citizen/legislator communication and other forms of lobbying. Grassroots lobbying falls within the broader category of outside lobbying, which refers to mobilization of those outside the institution. It is a direct

communication between a citizen who is not a registered lobbyist and a legislator or legislator's office. The citizen may or may not be a constituent.[2] Grassroots lobbying is not constituent service; grassroots lobbying messages contain both an *issue position* and a *recommended legislative action*. A message requesting assistance with the Social Security Administration is constituent service; a message requesting the legislator support changes in Social Security policy is grassroots lobbying. A variety of organized interests can use grassroots lobbying as a tactic, though not all do.[3] Grassroots lobbyists are wholly amateurs; they do not register as lobbyists and are not in the paid employ of an advocacy organization. They tend to be "high-information" citizens, and are likely members of one or more organized interests.

**The Flattening of Information Costs**

The costs of grassroots lobbying have flattened in the information age. Costs are flattened when the cost of producing something of higher volume or quality decreases relative to the cost of producing something of lower volume or quality. This happens when marginal costs (the cost of producing one additional unit) decrease. The effort required by interest groups to get 1000 members to contact their legislators is lower than it was before, as group members no longer need to compose lengthy letters and pay postage to contact legislators. In addition, the scalability of interest group membership and email systems have flattened the costs of grassroots lobbying; the costs of getting 1000 members to contact their legislator is much closer to the cost of getting 100 members to contact their legislator than it used to be.[4] Flattening occurs for individuals as well; citizens need to expend less effort

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[2]Interviews of state legislators that I conducted reveal substantial variance in their desire to hear from non-constituents. There is no clear pattern in the data about this desire across either personal or institutional factors. Members of the United States Congress, on the other hand, report almost unanimously that they only want to hear from their constituents (Fitch, Goldschmidt, Fulton and Griffin 2005).

[3]In interviews, I spoke to leaders of trade groups, labor unions, citizen groups, and business groups. All reported using grassroots lobbying in some form. All different *types* of organized interests use grassroots lobbying, but not all groups do.

[4]Costs have also decreased in the information age. For instance, the cost of generating 1000 emails is lower than it used to be. The decrease mechanism has been observed by other scholars (Ringe and Victor

to contact more legislators on more issues than they did previously. If grassroots lobbying is a costly signal as Kollman (1998) claims, then we should observe a key aspect of costly signaling theory, that the actor who receives the signal learns about the sender through the cost to the sender of sending the signal (Hall, Van Houweling, and Beckmann 2012).

Assumptions

All else equal, legislators want to be re-elected. They are not "single-minded seekers of re-election" (Mayhew 1974), but legislators generally need to be re-elected to accomplish their other goals in government[5]. All else equal, legislators view responsiveness to citizen needs as helpful to their chances of re-election (Bianco, Spence and Wilkerson 1996). In order to be responsive, legislators must have information about the policy preferences of their constituents.[6] Among constituencies, legislators seek the most information about their re-election and primary[7] constituencies (Fenno 1977; Butler and Nickerson 2011). Whether they appeal more to their re-election constituency or their primary constituency is not as relevant as the fact that legislators seeks information about the preferences of the constituency (or constituencies) that they need to win re-election. Legislators may seek information from trusted individuals in their district (Fenno 1978), from parties (Aldrich 1995; Cox, Kousser and McCubbins 2010), or from interest groups (Hall and Deardorff 2006).

With a variety of sources of information, legislators must decide how valuable sources of information are, and how those sources help them do their jobs. To be successful, interest groups want to offer the most valuable information possible to legislators, and they create

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2013), but the flattening mechanism is more relevant to my theory.

[5]Beyond re-election, these goals include advancement in the chamber, good public policy, and majority status for their party (Fenno 1978; Cox and McCubbins 2004)

[6]This desire for information is not exclusive to the policy preferences of constituents. Legislators seek a variety of information to do their jobs.

[7]There some evidence that legislators fear primary challenges more now than they did previously. Recent research attributes this phenomenon to the development of ideological fundraising and new types of partisan organizations that operate outside of traditional party structures (Boatright 2013).

this information through interaction with members and potential members.

How Legislators Gain Information

Obtaining, processing, and evaluating information is important to legislators. Legislators develop institutional structures and rules to assist information processing. For example, the Massachusetts colonial legislature formed its committee structure to deal with information overload from citizen petitions (Jameson 1894; Higginson 1986). Studies of institutional systems show that these informational arrangements also shape the power of legislators within the body. Krehbiel (1991) argued that the committee structure of the U.S. Congress was designed to create unbiased and representative committees by encouraging individual legislators to become policy experts. While Krehbiel's findings are disputed by scholars who argue for a more party-centered organizational structure (Rohde 1991; Cox and McCubbins 2004; Cox, Kousser and McCubbins 2010), the finding that legislators must bear costs to gain policy information and that committee structures help allay these costs for some legislators remains robust.

Lobbying is an important source of information. The provision of information to legislators and bureaucrats is considered an important tactic of "insider" or "direct" lobbying (Walker 1983; Schlozman and Tierney 1986; Hojnacki and Kimball 1999). Gathering expert information and disseminating it to policymakers is a costly activity, but the results are mixed as to whether resource-rich interests win more policy conflicts (Baumgartner, Berry, Hojnacki, Kimball and Leech 2009; Godwin, Ainsworth and Godwin 2013). Much of what we understand about "outside" lobbying – policy activism through the mobilization of citizens, comes from Kollman's (1998) model of outside lobbying as the production of costly information signals to legislators. Kollman's model relies on the assumption that issue salience and the costs of outside lobbying are inversely related; in other words, the less a group's members care about an issue, the more it costs to mobilize them, because the group must bear the high costs of educating and mobilizing its members on a particular

issue.

Legislators and Flattened Information Costs

Information overload, where an individual or institution has more information than they can adequately process, shapes problems of politics. Political scientists have treated information overload like an information deficit; legislators are "barraged with information from a wide variety of sources, and lack the time and resources to effectively process the information they receive" (Ringe and Victor 2013). This thinking finds that the costs of producing information have decreased, but that legislators respond to information overload they same way that they do to information deficits – they try to find more information. At the same time, other political scientists say that information overload places bounds on the rationality of human beings and human governance (Baumgartner and Jones 1993; Jones 2001; Baumgartner and Jones 2015), forcing people to use heuristics, shortcuts that help people process information quickly.

While institutions have helped legislators deal with information overload and the demands of parties, citizens, and interest groups, the digital age has rapidly scaled up the communications directed at legislators. The rates of citizen contact to politicians has increased as much as tenfold in the last decade (Miler 2010). This surge of information has produced both information overload and flattened the costs of producing information for legislators.

With flattened information costs, it is harder for legislators to distinguish higher-value information from lower-value information. When information costs decrease, actors who process information can still gain some signal about the value of information. When information costs flatten, actors processing information lose the signal of that information's value. Because the costs of mobilizing members to engage in grassroots lobbying have flattened, a grassroots lobbying campaign from an interest group who genuinely represents

constituents on a more salient issue will appear almost identical to that of a grassroots lob-bying campaign from an outside interest group with less support in the district on a less salient issue. As citizen contact rates have increased, legislators are more likely to say that they believe grassroots lobbying messages are fake and that they do not show how salient issues are among constituents (Goldschmidt, Cooper and Fitch 2011). Legislators, there-fore, need a new model of evaluating information, especially that from grassroots lobbying.

American legislative institutions reward information gains with greater power in the institution (Lupia and McCubbins 1994), but legislators cannot infinitely process informa-tion. While previous work found that legislators were likely to value professional lobbyists for their information and expertise (Austen-Smith and Riker 1987), a recent survey of state legislators found that they solely seek campaign contributions from professional lobbyists rather than information (Powell 2012), regardless of the legislator's goals in the institution. When expertise is readily available, the issue becomes *which* expertise is most valuable. Legislators are faced with large amounts of information, and thus must develop a system to assign value to such information. Through this valuation, they determine which sources are trustworthy and which are not.

The Marketplace of Political Information

Information scientists deal with an information environment much like contemporary grassroots lobbying. Marketplace models of information allocate resources to end users based on the desire for information, the value assigned to that information, and the cost of that information. These models help actors deal with cost-flattened environments by using trust to regulate them. (Atkins, Birmingham, Durfee, Glover, Mullen, Rundensteiner, Soloway, Vidal, Wallace and Wellman 1996). Trust replaces cost as the primary feature in the marker: buyers use trust as a signal of information value, and sellers use trust as a signal to buyers about the value of the information they are offering. I apply this model to politics; political actors create and sell information in a marketplace environment to other

political actors who want to buy information in order to accomplish their goals. The roles of individuals and groups are conditioned by internal and external constraints.

I add a number of refinements to the marketplace of information model that make it more applicable to political processes. Political actors are more risk-averse than other actors; they tend to more heavily discount future gains (Rohde 1979), and they tend to be more responsive to uncertainty. Even average citizens become more risk-averse when making political decisions and evalutating political information (Jacobs and Matthews 2013). This refinement means that legislators will seek more information than they need to make a decision. The marketplace of political information model uses the acceptance and incorporation of information as its transactions, rather than a monetary purchase. Political scientists have used versions of this model before, treating expertise as a valuable commodity that legislators expend resources to obtain (Guston, Jones and Branscomb 1997). In information marketplaces with flattened production costs, the supply element no longer matters, instead trust is shaped by information resources.

Political actors pay a high cost for taking risks and failing; such failures tend to result in losses of position or power. This is not normally true of information marketplace environments. In typical information marketplaces, there are risk-neutral preferences, as information buyers are incentivized to innovate in purchasing information, and may agree to less assured responses in order to reap benefits in the long term.[8]

Legislators and Grassroots Lobbying

Empirical work has borne out the effectiveness of grassroots lobbying in less constrained legislatures (Bergan 2009) and its ineffectiveness in more constrained legislatures (Hojnacki and Kimball 1999). Bergan's field experiment showed that on an anti-smoking bill in a heavily citizen legislature, grassroots lobbying messages had a substantial effect on

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[8]In general, information seeking actors do not discount future benefits as much as do political actors. While this condition does affect the marketplace of political information, it is relevant to the theory only in that it reflects the risk-averse nature of political actors.

legislative action. However, it is unclear how legislators respond to messages that vary in content, volume, and tone. The field experiment used individuals contacting legislators on their own on a lower-salience issue, making it more likely that legislators would trust the information that they received. The question remains as to what conditions the legislator response to these efforts.

While legislators interpret lower-intensity grassroots lobbying messages as trustworthy, they are more skeptical of high-intensity grassroots lobbying efforts, especially by email. Flattened information costs means that legislators can no longer gain information from the costs of sending the messages (or mobilizing citizens to do so). Grassroots lobbying messages on higher salience issues provide no additional information, so the signal of effort has no effect on legislator's willingness to respond with legislative action. However, on lower-salience issues, the volume of messages is a meaningful signal of trust – lower volume messages are trusted more because they are believed to not be from constituents. Legislators should perceive lower-volume messages as generated organically rather than by interest groups. From these expectations, I generate three hypotheses.

**Hypothesis 1** *On higher-salience issues, there will be no measurable difference between higher volume and lower volume of emails on the probability of a legislator taking a requested action*

**Hypothesis 2** *On lower-salience issues, the probability that a legislator will take a requested action will be less when the legislator receives a higher volume of emails than when the legislator receives a lower volume of emails.*

**Hypothesis 3** *Legislators talk more about lacking trustworthy information from constituents than lacking information or having too much information.*

**Data, Methods, and Results**

I use two sources of data to test these hypotheses: interviews with state legislators and responses from an original survey of state legislators. For this paper, I used two key elements from the survey: an experimental treatment measuring email responses, and a coded analysis of open-ended text responses from the survey. This section is organized into three empirical subsections that combine the data, methods, and results for each of these empirical approaches. The interviews are used to formulate the hypotheses and to design the survey experiment, the survey experiment addresses Hypotheses 1 and 2, and the open-ended responses address Hypothesis 3.

Elite Interviews

I conducted 31 interviews by phone or in person with state legislators, legislative staff, and interest group leaders in seven states: Alaska, Utah, Maine, Massachusetts, North Carolina, Virginia, and New Hampshire. I emailed in these states to request interviews. To ensure more truthful answers, I told all interviewees at the beginning of each interview that their information would be de-identified; in all cases, I refer to interviewees using information that is institutionally relevant, and do not use the name of the interview subject or their state. The interviews were used to develop the theory and the survey instrument used in the following sections.

Legislators from large and small districts used similar numbers when discussing the emails they received from constituents and the number of emails that made a difference to them. Legislators with and without staff also spoke in similar terms about the problems of information and the difficulty in distinguishing a trustworthy email from an untrustworthy one. The interviews also first introduced the idea that the volume of emails has an interesting relationship with the trustworthiness of messages. When I asked one particular legislator how he or she how knew which messages to trust and which to ignore, the legislator told me "if I get less than five or more than fifty emails about any topic, I ignore

it." He or she explained that the former indicated no real interest among constituents, while the latter indicated an effort by an outside interest group that was not worthy of his time. Other interviewees echoed these numbers. Every legislator but one told me that the volume of emails was something they thought about, even if they had a negative reaction to it. Six additional legislators said that they look for a "sweet spot" of not too many emails, and not too few, before they craft a response. Four of the interest group leaders told me that they try to keep the number of emails sent to an individual legislature under fifty, while a fifth told me "more than five emails to a legislator is a coup."

The legislators I interviewed see a shift to a new model of constituent contact. One legislator from a highly professionalized legislature told me that "the shift [from letters and phone calls to emails] has been tectonic, incredible even, and along with that shift has been a depersonalization." Legislators rarely seem to talk about having too much information; rather they lack trustworthy or useful information from constituents. While all the legislators I interviewed said they received large numbers of emails about a wide variety of topics, they were hesitant to say it was too much, even when asked directly. Instead, they would describe the emails as "too much noise, not enough real information." Other legislators called it "chatter" or "interest-group spam." Some even went as far as to correct me when I said that there was too much information, saying "no, there's too much spam; it doesn't have much information." These interviews helped me add to the trust language codebook I developed for the open-ended response section.

Survey Experiment

I sent three email requests to complete my survey to 7,248 active state legislators over six weeks in the summer of 2014. The survey excludes approximately 134 legislative districts.[9] The lists of state legislators and public email lists were obtained from OpenStates,

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[9]Excluded legislators are distributed among all states, chambers, and parties. At least 90% of the legislators in individual states, chambers, and parties within chambers were included. Some legislators among the 134 do not have email addresses that are listed in any source. At the time of the survey, there were at least 32 state legislative seats that were vacant due to retirements, deaths in office, ethics investigations, and federal

an online, open-source resource of information on government. Additional emails were purchased from the National Conference of State Legislators, which maintains a private email list for 99% of state legislators. The surveys were delivered by email using the Qualtrics portal. Legislators received four email solicitations over a period of ten weeks.[10] I gave respondents the option to have a staff member complete the survey, and included a question asking whether the respondent was a staff member or a legislator. 512 respondents completed at least one question.

The core of the survey is an experiment using one of each of two possible variations on three treatment conditions (2x2x2) for a total of eight possible treatments. No control group was used. The Qualtrics survey software randomly assigned respondents to a treatment as they took the survey. Legislators are told that they receive the email from a constituent and either 6 (lower volume treatment) or 60 (higher volume treatment) similar emails about a hypothetical bill. The email displayed also varies in tone, using a formal, technical style (formal tone treatment), or an informal tone (informal tone treatment). The content of the message also varies on issue. I use two issues to separate the role of issue salience, a hypothetical bill that creates a 45-day waiting period to purchase a handgun (higher salience treatment), and a hypothetical bill that requires that all genetically modified (GMO) foods be labeled (lower salience treatment).[11] Table 2.1 shows the distribution of the treatment variables.

The dependent variable in the model is a binary outcome question asking legislators if they would take a particular action in response to the hypothetical email. A list of possible responses with check-boxes was provided on the survey. Respondents may choose

_____

indictments.

[10]Full copies of the survey are included in Appendix  request of the author. The survey and its data were authorized by the University of North Carolina Office of Human Research Ethics Non-Biomedical IRB, study number 14-0420.

[11]These issues were chosen in consultation with a number of legislators I interviewed. In the interviews, legislators repeatedly said that gun control issues were the most relevant regulatory issues in their legislature, and that while they knew about GMO labeling, their constituents did not.

Table 2.1: Distribution of Treatments

|  | low salience | high salience |
|---|---|---|
| low volume | 104 | 107 |
| high volume | 92 | 96 |

Table 2.2: Distribution of Dependent Binary Variables

| Action | $y = 1$ | $y = 0$ |
|---|---|---|
| Introduce Bill | 34 | 365 |
| Co-Sponsor Bill | 77 | 322 |
| Vote for Bill on Floor | 130 | 269 |
| Urge Fellow Legislators to Support Bill | 65 | 334 |

any, all, or check a box labeled "none of the above." For this analysis,[12] I chose the following legislator responses: introduce the bill "by request"[13] on behalf of a constituent, co-sponsor the bill, vote for the bill on the floor, and urge fellow legislators to support the bill. Distributions of these binary variables are reported in Table 2.2.

To analyze the data, I used a logistic regression model with binary variables for three of four possible categories: lower salience and higher volume, higher salience and lower volume, and higher salience and higher volume.[14] Numerical results are presented in Table A.1 in appendix . For ease of interpretation, I converted the regression results into predicted probabilities, and report these predicted probabilities in Figures 2.1 and 2.2.

To better evaluate whether there is a measurable difference between the predicted probability of a legislator responding to the volume treatments while holding salience constant,

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[12]Other possible responses were included in the survey, but were not used for this analysis because they were similar to the responses analyzed or did not offer any theoretically relevant additions to this paper. The excluded possible responses are: Vote for the bill in my committee if appropriate, Break with state party leaders to support the bill, Vote against the bill, Reply to the email personally, Send a form response email to the constituent, and None of the above.

[13]Submitting a bill "by request" is a tag that identifies a bill introduced by a legislator as being introduced at the request of a constituent.

[14]The lower-salience/lower-volume variable was excluded the excluded category to avoid perfect multicollinearity.

I simulate[15] first differences in the predicted probabilities, comparing the predicted probability when volume is higher to the predicted probability when volume is lower, holding issue salience constant at either higher or lower salience based on the analysis. Simulating these reduces the simulated quantity of interest from two estimates to one (King 1989; King, Tomz and Wittenberg 2000; Carsey and Harden 2014), creating an estimate of the average *difference* between two values of the explanatory variable of interest, and a measure of uncertainty around that estimate.

Figures 2.1 and 2.2 show the predicted probability plots[16] for the higher-salience treatments and lower-salience treatments respectively. These predicted probabilities are calculated by regressing the binary response variables on the lower salience/higher volume treatment, higher salience/lower volume treatment, and higher salience/higher volume treatment variables. This can be expressed as:

$Y_{(0,1)} = \beta_0 + \beta_1$Lower Salience/Higher Volume + $\beta_2$Higher Salience/Lower Volume + $\beta_3$Higher Salience/Higher Volume + $e$.

Higher Salience Treatments (Hypothesis 1)

The higher salience (gun control) treatment predicted probabilities are reported in Figure 2.1. The mean predicted probability across both volume treatments and all four legislator responses is approximately .184, with a lower 95% confidence bound of approximately .113, and an upper 95% confidence bound of approximately .255. The mean predicted probability across all four responses for the lower volume (6 email) treatments is approximately .196, with a lower 95% confidence bound of approximately .125 and an upper 95% confidence bound of approximately .268. The mean predicted probability across all four responses for the higher volume (60 email) treatments is approximately .172, with a lower 95% confidence bound of approximately .101 and an upper 95% confidence bound

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[15]I use 1000 simulations for each of the simulated first difference calculations.

[16]Full regression tables are available in the Appendix to this article.
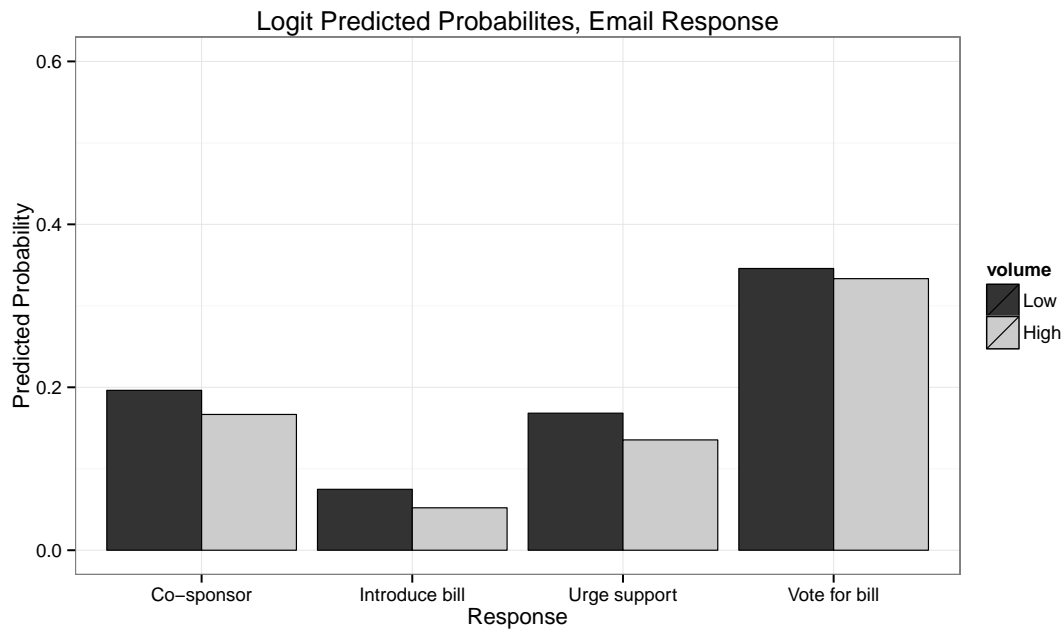
Figure 2.1: Predicted Probabilities of Legislator Responses
to Higher Salience Treatment

of approximately .242. The predicted probability that a legislator in the sample said they will co-sponsor the hypothetical bill is approximately .196, with a lower 95% confidence bound of approximately .121 and an upper 95% confidence bound of approximately .271 for those legislators who received the lower volume treatment, and approximately .167, with a lower 95% confidence bound of approximately .092 and an upper 95% confidence bound of approximately .241 for legislators who received the higher volume treatment. The predicted probability that a legislator said they would introduce the hypothetical bill "by request" is approximately .075, with a lower 95% confidence bound of approximately .025 and an upper 95% confidence bound of approximately .125 for those legislators who received the lower volume treatment, and approximately .052, with a lower 95% confidence bound of approximately .008 and an upper 95% confidence bound of approximately .097 for legislators who received the higher volume treatment. The predicted probability that a legislator said they would urge fellow legislators to support the hypothetical bill is

approximately .168, with a lower 95% confidence bound of approximately .097 and an upper 95% confidence bound of approximately .239 for those legislators who received the lower volume treatment, and approximately .135, with a lower 95% confidence bound of approximately .067 and an upper 95% confidence bound of approximately .204 for legislators who received the higher volume treatment. The predicted probability that a legislator said they would vote for the hypothetical bill on the floor is approximately .346, with a lower 95% confidence bound of approximately .256 and an upper 95% confidence bound of approximately .436 for those legislators who received the lower volume treatment, and approximately .333, with a lower 95% confidence bound of approximately .239 and an upper 95% confidence bound of approximately .428 for legislators who received the higher volume treatment.

Here, I report the results of simulating the first difference of the higher salience/lower volume treatment from the higher salience/higher volume treatment.[17]. The mean of the simulated first difference in predicted probabilities that a legislator in the sample would cosponsor the hypothetical bill by request is approximately -.028, with a lower 95% confidence bound of approximately -.013, and an upper 95% confidence bound of approximately .093. The mean of the simulated first difference in predicted probabilities that a legislator in the sample would introduce the hypothetical bill "by request" is approximately -.022, with a lower 95% confidence bound of approximately -.091, and an upper 95% confidence bound of approximately .049. The mean of the simulated first difference in predicted probabilities that a legislator in the sample would urge fellow legislators to support the hypothetical bill is approximately -.034, with a lower 95% confidence bound of approximately -.135, and an upper 95% confidence bound of approximately .07. The mean of the simulated first difference in predicted probabilities that a legislator in the sample would vote for the hypothetical bill on the floor is approximately -.011, with a lower 95% confidence bound of

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[17]This can be expressed as $E(Y|$Higher Salience/Higher Volume$)$-$E(Y|$Higher Salience/Lower Volume$)$
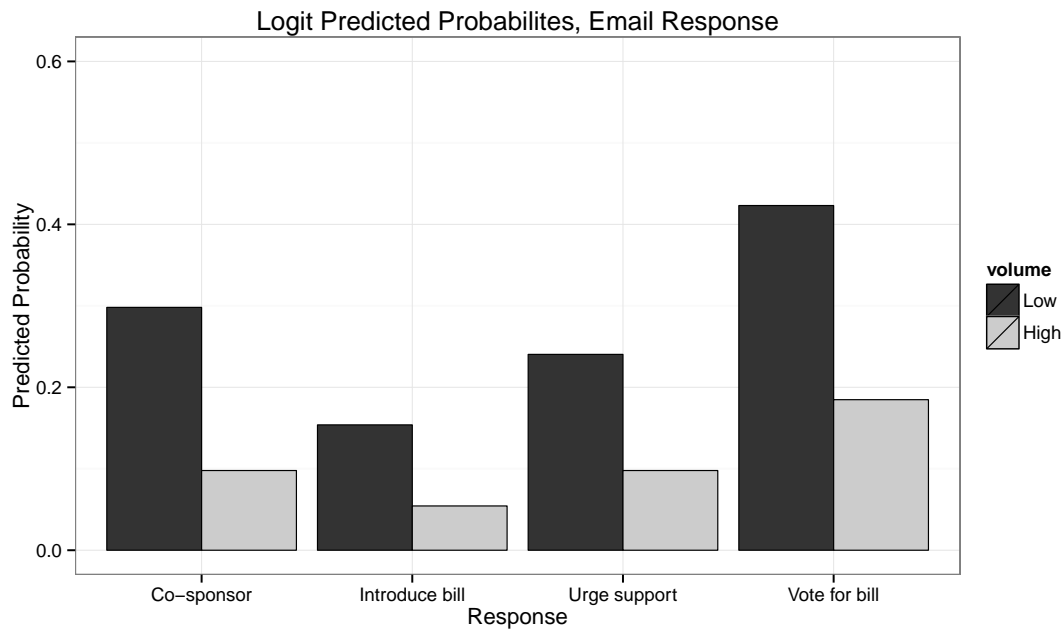
Figure 2.2: Predicted Probabilities of Legislator Responses
to Lower Salience Treatment

approximately -.138, and an upper 95% confidence bound of approximately .117.

Both the results of the predicted probability calculations and the simulated first differences are consistent with Hypothesis 1, that there should be no difference between the higher volume and lower volume treatments on higher salience issues. Within each response, the confidence intervals from the predicted probabilities overlap; the upper 95% confidence bound of the higher salience/higher volume treatments is greater than the lower 95% confidence bound for the higher salience/lower volume treatments. When simulating first differences, all the 95% confidence intervals for the first differences between higher salience/lower volume and higher salience/higher volume treatments contain zero. The differences in predicted probabilities within higher salience treatments between higher and lower volume treatments are not measurably different from zero for all the response categories measured.

Lower Salience Treatments (Hypothesis 2)

The lower salience (GMO food labeling) treatment predicted probabilities are reported in Figure 2.2. The mean predicted probability across both volume treatments and all four legislator responses is approximately .194, with a lower 95% confidence bound of approximately .121, and an upper 95% confidence bound of approximately .267. The mean predicted probability across all four responses for the lower volume (6 email) treatments is approximately .279, with a lower 95% confidence bound of approximately .195 and an upper 95% confidence bound of approximately .362. The mean predicted probability across all four responses for the higher volume (60 email) treatments is approximately .109, with a lower 95% confidence bound of approximately .047 and an upper 95% confidence bound of approximately .170. The predicted probability that a legislator in the sample said they will co-sponsor the hypothetical bill is approximately .298, with a lower 95% confidence bound of approximately .210 and an upper 95% confidence bound of approximately .386 for those legislators who received the lower volume treatment, and approximately .098, with a lower 95% confidence bound of approximately .037 and an upper 95% confidence bound of approximately .159 for legislators who received the higher volume treatment. The predicted probability that a legislator said they would introduce the hypothetical bill "by request" is approximately .154, with a lower 95% confidence bound of approximately .085 and an upper 95% confidence bound of approximately .223 for those legislators who received the lower volume treatment, and approximately .054, with a lower 95% confidence bound of approximately .008 and an upper 95% confidence bound of approximately .101 for legislators who received the higher volume treatment. The predicted probability that a legislator said they would urge fellow legislators to support the hypothetical bill is approximately .240, with a lower 95% confidence bound of approximately .158 and an upper 95% confidence bound of approximately .323 for those legislators who received the lower volume treatment, and approximately .098, with a lower 95% confidence bound of

approximately .037 and an upper 95% confidence bound of approximately .159 for legislators who received the higher volume treatment.The predicted probability that a legislator said they would vote for the hypothetical bill on the floor is approximately .423, with a lower 95% confidence bound of approximately .328 and an upper 95% confidence bound of approximately .518 for those legislators who received the lower volume treatment, and approximately .185, with a lower 95% confidence bound of approximately .105 and an upper 95% confidence bound of approximately .264 for legislators who received the higher volume treatment.

Here, I report the results of simulating the first difference of the lower salience/lower volume treatment from the higher salience/higher volume treatment.[18]. The mean of the simulated first difference in predicted probabilities that a legislator in the sample would cosponsor the hypothetical bill by request is approximately -.20, with a lower 95% confidence bound of approximately -.303, and an upper 95% confidence bound of approximately -.094. The mean of the simulated first difference in predicted probabilities that a legislator in the sample would introduce the hypothetical bill "by request" is approximately -.097, with a lower 95% confidence bound of approximately -.182, and an upper 95% confidence bound of approximately -.016. The mean of the simulated first difference in predicted probabilities that a legislator in the sample would urge fellow legislators to support the hypothetical bill is approximately -.141, with a lower 95% confidence bound of approximately -.245, and an upper 95% confidence bound of approximately -.035. The mean of the simulated first difference in predicted probabilities that a legislator in the sample would vote for the hypothetical bill on the floor is approximately -.236, with a lower 95% confidence bound of approximately -.362, and an upper 95% confidence bound of approximately -.112.

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[18]This can be expressed as $E(Y|$Lower Salience/Higher Volume$)-E(Y|$Lower Salience/Lower Volume$)$

Both the results of the predicted probability calculations and the simulated first differences are consistent with Hypothesis 2, that on lower-salience issues, the probability that a legislator will take a requested action will be less when the legislator receives a higher volume of emails than when the legislator receives a lower volume of emails. Within each response, the confidence intervals from the predicted probabilities do not overlap; the upper 95% confidence bound of the lower salience/higher volume treatments is less than the lower 95% confidence bound for the lower salience/lower volume treatments. When simulating first differences, all the 95% confidence intervals for the first differences between lower salience/lower volume and lower salience/higher volume treatments do not contain zero. All four first differences for the lower salience treatments also indicate that the predicted probabilities for the higher volume treatments are lower for all the response categories measures. This a substantively relevant finding as well, for the lower salience treatments, the predicted probability that a legislator will take any action is 14.4 percentage points lower when the legislator receives a higher volume treatment.

Open-Ended Legislator Responses

The survey also contained a free-response section at the end of the survey asking respondents for additional thoughts, comments, or statements to help me better understand what they hear from constituents and how they respond. 265 of 512 respondents completed this section of the survey. All these 265 respondents wrote at least one complete sentence of text. I coded these responses for how legislators respond to emails, and what the respondents said would motivate them to change behavior.

In particular, I coded messages for mentions of the volume of emails and the trustworthiness of emails. The coding system produced six binary variables: a mention of volume, a mention of too much volume, a mention of too little volume, and a mention of trust. Responses were coded as mentioning volume if they referred to a number of emails by number or in text, or if they used phrases like "too much," "not enough." If the email mentioned

volume, I looked for relational words that described whether the legislator thought they were receiving too many or too few email messages from constituents. For trust mentions, I looked for references to trust and trustworthiness, along with words that legislators used in interviews to describe trust related to email, such as "fake","form," "spam," or "cut and paste." Because I was using words to code for emotion, I validated my list of words to the NRC Word-Emotion Lexicon (also called EmoLex) (Mohammad and Turney 2013), which provides a list of words associated with trust in short-form messages.

Approximately 61% of legislators mentioned email explicitly in the text. In the form responses, 73% of those legislators were coded as using trust language. Approximately 35% of legislators were coded as using email language. Within the group who mentioned email explicitly, about 5% of tied volume to trust, saying that when they received large amounts of email, they were "unbelieveable," "untruthful," or "fake." While the evidence is not as definitive, these findings are consistent with Hypothesis 3, that legislators talk more about trust than volume.

**Conclusion**

The survey experiment provides evidence disputing the notion that legislators count email responses and treat them as a latent measure of issue salience. The higher-volume treatments, even when aggregated, show legislators less willing to take meaningful action on legislation when shown that more people are emailing them than when fewer people are emailing them. Instead of treating grassroots lobbying like a costly signal from interest groups, legislators are turned off by mass email efforts, especially on lower salience issues. The results also show a negative effect for higher volume treatments on lower-salience issues.

The open-ended survey responses show that legislators and staff think about trust and credibility more than information deficits or information overload, meaning that trust seems

to govern the marketplace for grassroots lobbying information more than a lack of information or too much information. Legislators used to use email volume as a heuristic for understanding grassroots lobbying. Instead, the trustworthiness of information is replacing that heuristic.

**Implications**

Beyond the relevant hypotheses, these findings have greater implications for information flows within and between political actors and for the relevance of costly signal games in information overloaded environments. Information recipients need to develop new methods of analyzing information, and information senders need to adapt their strategies for better communication. There are direct implications for the interaction between interest groups, citizens, and legislators, and indirect implications for other information flows and exchanges.

Cost flattening may occur in other legislative information environments, especially professional lobbying, where the number of employed lobbyists and registered lobbying contacts have greatly expanded, or on complex policy issues, where the amount of generated expertise may be too much for legislators to distill. These scenarios are less likely to occur where the cost of sending the signal is easier to determine, such as campaign contributions from individuals. Donations from interest groups or political action committees, who compete for attention with another, may look more like a cost-flattened environment

In aggregate, constituents who lobby legislators about policy issues should be disheartened, but individually, they should be empowered. Legislators find great value in compelling narratives from individual constituents, especially on issues about which the legislator knows little. This is not to say that groups who are considered powerful because of their grassroots lobbying efforts should cease altogether, but rather that their power comes from their ability to mobilize members around campaigns and elections, rather than grassroots lobbying. Groups like the National Rifle Association should be evaluated not in terms

of how many letters or phone calls they can generate around a legislative fight, but rather how many voters they can mobilize (or demobilize) in an election. The likelihood of changing a legislator's mind on a major issue seems low, if not zero. Constituents may find it more useful to contact legislators infrequently and on more obscure topics than to regularly contact legislators. No legislator I interviewed said that they had generated a lasting trust relationship with a constituent via email, and instead derided "frequent flyers" who seemed to contact the legislator daily.

For interest groups using grassroots lobbying as a strategy to effect policy change on a regular basis, especially on new and unknown issues, a more advisable strategy may be to use small numbers of members to deliver personal messages that relate individual narratives or personal experiences. Interest groups may also already be aware of the limited influence that grassroots lobbying efforts have policy outcomes, and may instead use these actions to maintain and measure their membership.

Information overload and flattened information cost should affect other information flows beyond the one discussed in this paper. Legislators try to contact citizens through email, along with interest groups seeking actions and donations. If legislators are competing for attention in constituent email boxes, it may be more difficult for legislators to signal their policy positions to constituents. Citizen activists in particular may be overloaded with information from multiple office-holders, campaigns, and interest groups. Trust would seem to shape these environments as well; citizens seek trustworthy and distinctive information from legislators. The flow of information between mass media and citizens should also be disrupted by information overload, leading to the balkanization of media outlets and emergence of explanatory journalism outlets within and outside of traditional outlets.

These findings imply a disconnect in the information exchange between organized interests and legislators. Legislators are able to identify emails with a formal tone and with a high volume as being from interest groups, but are most concerned with the fact that they

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do not know which group sent the messages. As a result, the signal from groups about their relative strength in the legislator's district (or the state as a whole) is lost. Interest groups who use grassroots lobbying should encourage members to identify themselves as a member of that interest group.[19] This strategy would help groups signal power in the electorate to legislators, and help legislators determine what groups are using constituents to lobby them. Legislators do not gain policy information from mass emails; they gain political information. By identifying themselves as group members, citizens will be able to act collectively, groups will be able to leverage political power, and legislators will be able to better process the signal of this collective action.

Finally, flattened information costs imply that institutional information exchanges should be disrupted as well, especially when the number of signals sent between institutions overwhelms the ability of actors to distinguish them. As the policy agenda expands and institutions receive more signals from one another, we may observe an increase in institutional friction, disrupting the already complex flows between government institutions.

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[19]The fact that grassroots lobbying groups have reduced the costs of becoming members complicates this recommendation.

# 3 HOW LEGISLATIVE PROFESSIONALISM AFFECTS GRASSROOTS LOBBYING

## Introduction

Every day, Americans send thousands of messages to legislators asking for changes in policy (Butler, Karpowitz and Pope 2012). Citizens send such messages on their own and/or at the request of interest groups. Grassroots lobbying has undergone massive changes in the last decade, fueled by the development and use of new advocacy communication tools, changes in the meaning of "membership" in interest groups, and new ideological groups that fight for attention with single-issue groups (Karpf 2012). Such changes raise questions about how information about policy preferences flows between citizens, organized interests, and government in the digital age.

Leading theories of information in government do not adequately address the role of grassroots lobbying in contemporary politics. Previous work has found that economic forces like scarcity, production costs, and value govern information in legislators (Krehbiel 1991). In addition, others find that political information produces information processing problems that human beings cannot solve rationally (Jones 2001; Baumgartner and Jones 2015); instead citizens and legislators use heuristics. Specific to grassroots lobbying, scholars have described it as a costly signal about the salience of issues from interest groups to legislators (Kollman 1998). However, changes in technology and interest group politics have reduced the marginal costs of producing grassroots lobbying messages, disrupting the way legislators seek out information, the ability of legislators to process information using heuristics, and the signals sent by interest groups through citizens to legislators. We need theories that address how legislators respond to information that lacks a costly signal.

To resolve this tension and update existing theories, I develop an economic theory of political information where trust replaces cost. Political actors treat information like a commodity, where buyers seek information to accomplish their goals, and sellers provide information to accomplish their goals. Buyers and sellers each have their own set of constraints and incentives, and act rationally based on the constraints and incentives generated in the marketplace environment and the institutions that surround it. These constraints and incentives create trade-offs for political actors. Technology has a flattening effect on information, meaning that the cost of producing 100 lobbying messages is much closer relative to the cost of producing 1000 lobbying messages than it was before. When costs are flattened, legislators use trust as the primary heuristic for determining the value of information rather than ideally-priced information because the cost of generating the information provided no longer signals the salience of an issue or the policy preferences of constituents. Among other factors, the ability to establish trust is conditioned on the information processing resources available to buyers. In grassroots lobbying, legislators act as buyers of information, and interest groups that engage in grassroots lobbying act as sellers.

If trust replaces price in information markets, I expect that legislators will vary in their responses to grassroots lobbying due to their information processing resources. Resources help people navigate market structures better, especially those governed by trust. With more resources, legislators learn how to determine which messages are trustworthy and which are not. Legislators who have fewer resources to process information will trust grassroots lobbying messages less compared to legislators with more information processing resources. From 31 interviews and 265 open-ended survey responses from state legislators, I find that legislators with longer legislative sessions to complete their work and more staff expenditures trust grassroots lobbying messages more as a useful source of information. However, in terms of responsiveness, longer legislative sessions make grassroots lobbying efforts by

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interest groups less successful, even for innovative groups, but more successful for individuals.

**The Marketplace of Political Information**

Defining Grassroots Lobbying and Cost Flattening

Grassroots lobbying is distinct from other forms of citizen/legislator communication and other forms of lobbying. Grassroots lobbying falls within the broader category of outside lobbying, which is the mobilization of those outside the institution being lobbied.[1] It is a direct communication between a citizen who is not a registered lobbyist and a legislator or legislator's office. This citizen may or may not be a constituent.[2]. Grassroots lobbying is not constituent service; grassroots lobbying messages contain both an *issue position* and a *recommended legislative action*. A variety of organized interests can use grassroots lobbying as a tactic, though not all do.[3] A message requesting assistance with the Social Security Administration is a service request; a message requesting the legislator support changes in Social Security policy is grassroots lobbying. There is no threshold for grassroots lobbying; both a single contact by a constituent and an organized, thousand-plus contact campaign are forms of grassroots lobbying. Grassroots lobbyists are wholly amateurs; they do not register as lobbyists, and are not paid by advocacy organization. However, they tend to be "high-information" citizens, and are likely members of one or more organized interests.

Costs are flattened when the cost of producing something of higher volume or quality decreases relative to the cost of producing something of lower volume or quality. In other words, flattening is a reduction in marginal costs. Cost-flattening is usually associated with

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[1]For a detailed description of outsider and insider lobbying activities, see Nownes and Freeman (1998).

[2]In interviews, state legislators vary greatly on their desire to hear from non-constituents. There is no clear pattern in the data about this desire across either personal or institutional factors. Members of the United States Congress, on the other hand, report almost unanimously that they only want to hear from their constituents(Goldschmidt, Cooper and Fitch 2011)

[3]In interviews, I spoke to leaders of trade groups, labor unions, citizen groups, and business groups. All reported using grassroots lobbying in some form. All different *types* of organized interests use grassroots lobbying, but not all groups do. In Nownes and Freeman (1998) found that 86% of interest groups mount grassroots lobbying efforts, while 97% of interest groups use in-person professional lobbying.

technological innovations. For instance, the cost of producing faster computers with greater storage space declines regularly. The cost of adding additional online storage space acts similarly. In the case of grassroots lobbying; technological tools have reduced the marginal costs for citizens and interest groups for making additional grassroots lobbying contacts.

Assumptions

All else equal, legislators want to be re-elected. They are not "single-minded seekers of re-election" (Mayhew 1974), but legislators generally need to be re-elected to accomplish their other goals in government[4]. All else equal, legislators view responsiveness to citizen needs as helpful to their chances of re-election (Bianco, Spence and Wilkerson 1996). In this vein, I assume that legislators desire information about the policy preferences of their constituents.[5] Among constituencies, legislators seek the most information about their re-election and primary[6] constituencies (Fenno 1977; Butler and Broockman 2011). Whether they appeal more to their re-election constituency or their primary constituency is not as relevant as the fact that legislators seeks information about the preferences of the constituency (or constituencies) that they need to win re-election. Legislators may see themselves as representative of their district, seek information from trusted individuals in their district (Fenno 1978), from parties (Aldrich 1995; Cox, Kousser and McCubbins 2010), or from interest groups (Hall and Deardorff 2006).

These assumptions suggest that legislators must evaluate the value of information that is offered to them. With a variety of sources of information, legislators must decide how valuable sources of information are, and how those sources help them do their jobs. It also suggests that interest groups want to offer the most valuable information possible to

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[4]Beyond re-election, these goals include advancement in the chamber, good public policy, and majority status for their party (Fenno 1978; Cox and McCubbins 2004)

[5]This desire for information is not exclusive to the policy preferences of constituents. Legislators seek a variety of information to do their jobs.

[6]There some evidence that legislators fear primary challenges more now than they did previously. Recent research attributes this phenomenon to the development of ideological fundraising and new types of partisan organizations that operate outside of traditional party structures (Boatright 2013).

legislators, and that they create this information through interaction with members and potential members.

The Role of Information in Legislative Politics

These assumptions lead to how legislators value information from interest groups and constituents. Obtaining, processing, and evaluating information is important to legislators. Legislators develop institutional structures and rules to assist information processing. For example, the Massachusetts colonial legislature formed its committee structure to deal with information overload from citizen petitions (Jameson 1894; Higginson 1986). Studies of institutional systems show that these informational arrangements also shape the power of legislators within the body. Krehbiel (1991) argued that the committee structure of the U.S. Congress was designed to create unbiased and representative committees by encouraging individual legislators to become policy experts. While Krehbiel's findings are disputed by scholars who argue for a more party-centered organizational structure (Rohde 1991; Cox and McCubbins 2004; Cox, Kousser and McCubbins 2010), the finding that legislators must bear costs to gain policy information and that committee structures help allay these costs for some legislators remains robust.

American legislative institutions reward information gains with greater power in the institution (Lupia and McCubbins 1994), but legislators cannot infinitely process information. While previous work found that legislators were likely to value professional lobbyists for their information and expertise (Austen-Smith and Riker 1987), a recent survey of state legislators found that they solely seek campaign contributions from professional lobbyists rather than information (Powell 2012), regardless of the legislator's goals in the institution. Expertise is readily available, the issue becomes *which* expertise is most valuable. Legislators are faced with large amounts of information, and thus must develop a system to assign value to such information. Through this valuation, they determine which sources are trustworthy and which are not.

Lobbying and Legislator Information

Lobbying is an important source of information. The provision of information to legislators and bureaucrats is considered an important tactic of insider lobbying (also called direct lobbying) (Walker 1983; Schlozman and Tierney 1986; Hojnacki and Kimball 1999). Gathering expert information and disseminating it to policymakers is a costly activity, but the results are mixed as to whether resource-rich interests win more policy conflicts (Baumgartner, Berry, Hojnacki, Kimball and Leech 2009; Godwin, Ainsworth and Godwin 2013). Much of what we understand about outside lobbying, policy activism through the mobilization of citizens, comes from Kollman's (1998) model of outside lobbying as the production of costly information signals to legislators. Kollman's model relies on the assumption that cost of generating information tells us something about the salience of issues among the population. While previous work found that legislators were likely to value professional lobbyists for their information and expertise (Austen-Smith and Riker 1987), a recent survey of state legislators found that they solely seek campaign contributions from professional lobbyists rather than information (Powell 2012), regardless of the legislator's goals in the institution.

Bounded Rationality and the Role of Heuristics

The bounded rationality literature finds that humans have trouble processing lots of information, and that information processing has always been a difficult task for government (Simon 1955; Baumgartner and Jones 1993; Jones 2001), no matter their variation in structure, rules, size, or resources (Baumgartner, Breunig, Green-Pedersen, Jones, Mortensen, Nuytemans and Walgrave 2009; Epp, Lovett and Baumgartner 2014). However, the bounded rationality work argues that like human beings, government uses heuristics (or informational shortcuts) to help simplify problems and smooth the process of information processing. These heuristics vary in their success, but the resources legislators have are critical to the heuristics they develop.

Legislators create endogenous institutions to help solve information processing problems. For example, party organizations help structure the flow of policy and the preferences of members (Aldrich 1995, 2011). They also develop member organizations to create informal networks outside of party structures on similar policy concerns (Ringe and Victor 2013). When it comes to hearing from constituents, legislators also depend on a select group of constituents (Fenno 1978) or use a signal from interest groups about the power of their message (Kollman 1998).

Information Overload Disrupts Old Heuristics

Information overload[7] shapes the problems of the twenty-first century by disrupting the heuristics that humans use to process information. The shortcuts that humans use when processing information become unstable, and must be replaced with new ones. Information overload is marked by a rapid increase in the production of information (Trelles, Prins, Snir and Jansen 2011). This information explosion is due to the compressed cost of producing information.

Information overload is distinct from other information processing problems in government. Political scientists have treated information overload like an information deficit; legislators are, "barraged with information from a wide variety of sources, and lack the time and resources to effectively process the information they receive" (Ringe and Victor 2013). Others treat the information processing problems of government as continuous, rather than rapidly changing (Baumgartner and Jones 2015). In the case of grassroots lobbying, information overload disrupts the signal from groups to legislators. Legislators can no longer determine the value of the information they receive from interest groups based on the cost of producing it. As a result, legislators must find new heuristics for processing grassroots lobbying messages. In my theory, that heuristic is trust.

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[7]Information overload is a form of cognitive overload where an individual or institution has too much information to process.

While institutions have helped legislators deal with information overload and the demands of parties, citizens, and interest groups, the digital age has rapidly scaled up the communications directed at legislators. The rates of citizen contact to politicians has increased as much as tenfold in the last decade (Miler 2010). As citizen contact rates have increased, legislators are more likely to say that they believe grassroots lobbying messages are fake (Goldschmidt, Cooper and Fitch 2011).

The costs of generating information have flattened, but the costs of evaluating information have not. Legislators retain the cognitive biases that they previously held, and lack additional resources to manage information. Legislators in states have received insignificant increases (if increases at all) in pay, time, and staff resources to process information (Bowen and Greene 2014).

Using Trust to Process Information

Other scholars find that in cost-flattened environments, people seeking information use trust as the central feature of a marketplace of information. Information scientists deal with an information environment much like contemporary grassroots lobbying. Marketplace models of information allocate resources to end users based on the desire for information, the value assigned to that information, and the cost of that information. These models help actors deal with cost-flattened environments by using trust to regulate them. (Atkins et al. 1996). Trust replaces cost as the central feature in the market: buyers use trust as a signal of information value, and sellers use trust as a signal to buyers about the value of the information they are offering. I apply this model to politics; political actors create and sell information in a marketplace environment to other political actors who want to buy information in order to accomplish their goals. The roles of individuals and groups are conditioned by internal and external constraints.

I add a number of refinements to the marketplace of information model that make it

more applicable to political processes. Political actors are more risk-averse than other actors; they tend to more heavily discount future gains (Rohde 1979), and tend to be more responsive to uncertainty. Even average citizens become more risk-averse when making political decisions and evalutating political information (Jacobs and Matthews 2013). This is a necessary condition, as this refinement means that legislators will seek more information than they need to make a decision. The marketplace of political information model uses the acceptance and incorporation of information as its transactions, rather than a monetary purchase. Political scientists have used versions of this model before, treating expertise as a valuable commodity that legislators expend resources to obtain (Guston, Jones and Branscomb 1997). In information marketplaces with flattened production costs, the supply element no longer matters, instead trust is shaped by information resources.

The marketplace of political information model uses the acceptance and incorporation of information as its transactions, rather than a monetary purchase. Political scientists have used versions of this model before, treating expertise as a valuable commodity that legislators expend resources to obtain (Guston, Jones and Branscomb 1997). In information marketplaces with flattened production costs, the supply element no longer matters, instead trust is shaped by information resources.

Trust-driven models appear in research on other information exchanges in political science. Browne (1995) found that trust determines how legislators get information from constituents. Rather than rely on numerous constituents, legislators check in with a small group of constituents whom the legislator trusts for advice on policy matters. In examining how constituents evaluate legislators, Bianco (1994) found that constituents create complex systems to evaluate the trustworthiness of their legislators. In both cases, legislators are able to accomplish trustworthy relationships because of resources at their disposal.

How Resources Help Legislators Evaluate Trustworthiness

States vary in the resources that they provide to legislators in three key ways. First, state legislatures meet for different time periods throughout each year. Second, state legislators are compensated at different levels for their work by the government. Third, state legislators have differing levels of staff and office expenditures. Combined, these resources are described as a measure of state legislative professionalism. (Squire 1993, 2007; Bowen and Greene 2014). For the purposes of this paper, each of these are resources that can be used by legislators to process information from grassroots lobbying and facilitate trust.

Resources help legislators evaluate the trustworthiness of information in three ways. Time gives legislators repeated, separated experiences in the marketplace of information, learning which sources are trustworthy and which are not. Staff help facilitate a network of trustworthy sources; they are trusted for their judgment by the legislator, and are another voice in the office who can evaluate the trustworthiness of a particular source. Pay reduces the distractions that legislators have. They can focus their time on legislating rather than a second job. While they may use heuristics to navigate this market, resources facilitate these as well, helping them develop more trustworthy relationships.

The resources their institution provides legislators should both promote and constrain their ability to process information from constituents. A legislator in a more professionalized institution, one that provides more time, money, and staff for legislators to do their other work, would likely be able to better process information from grassroots lobbying messages and would be more likely to respond to it. In contrast, legislative professionalism has a negative effect on professional lobbying. Less professionalized legislatures have a greater need for information from lobbyists (Berkman 2001) and professionalization promotes institutionalization, insulating legislators from lobbying (Berry, Berkman and Schneiderman 2000). New surveys of state legislators have failed to find evidence of the need for information from paid lobbyists at all (Powell 2012).

This occurs because the information that lobbyists provide is different from information from grassroots lobbying. Rather than information about policies, the information from grassroots lobbying is the salience and popularity of issues among constituents (Kollman 1998). Legislators in more professionalized institutions have been found to monitor the opinions of citizens more than legislators in less professionalized institutions (Maestas 2003). Likewise, the institutionalization of legislatures promotes trust relationships with grassroots lobbying because staff help process information from constituents rather than filter information the way they do with professional lobbyists.

Empirical work has borne out the effectiveness of grassroots lobbying in less constrained legislatures (Bergan 2009) and its ineffectiveness in more constrained legislatures (Hojnacki and Kimball 1999). Bergan's field experiment found that in New Hampshire, the least professionalized legislature, grassroots lobbying messages had a substantial effect on legislative action. Hojnacki and Kimball's study analyzed lobbying strategies in committees in the United States Congress. Between both, there is a large amount of variance in the resources provided to legislators. While legislators are motivated to gain more and more information about their constituents, institutions condition both the resources and incentives legislators have to seek additional information.

When information is cheap and plentiful, the traditional economic models of information do not hold. Legislators must use their experience in the information marketplace and the resources that they have to identify trustworthy information. To test these expectations, I identify three hypotheses.

Hypotheses

**Hypothesis 4** *As legislative session length increases in states, the likelihood that a state legislator will say that he or she is responsive to grassroots lobbying increases.*

Table 3.1: State Interviews and Variation on Variables of Interest

| State | Squire Index | Party Control |
|-------|-------------|---------------|
| Massachusetts | .385 | Democratic |
| Maine | .089 | Democratic |
| New Hampshire | .027 | Mixed |
| Virginia | .131 | Mixed |
| North Carolina | .198 | Republican |
| Utah | .067 | Republican |

**Hypothesis 5** *As legislator pay increases in states, the likelihood that a state legislator will say that he or she is responsive to grassroots lobbying increases.*

**Hypothesis 6** *As legislator staff expenditures increase, the likelihood that a state legislator will say that he or she is responsive to grassroots lobbying increases.*

**Data**

I conducted 31 interviews by phone or in person with state legislators, legislative staff, and interest group leaders in six[8] states: Utah, Maine, Massachusetts, North Carolina, Virginia, and New Hampshire. I emailed every legislator to request interview in these states. To encourage more truthful answers, I told all interviewees at the beginning of each interview that their information would be de-identified; in all cases, I refer to interviewees using information that is institutionally relevant, and do not use the name of the interview subject or their state. Variation of these states on measures of state legislator resources are described in Table 3.1.

To supplement these data, I used 265 free-text survey responses from a nationwide survey of state legislators. The free-response question appeared at the end of a fifteen-minute survey I sent to more than 7,000 legislators in all 50 states and 99 state legislative

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[8]One state was excluded from these interviews, because the conversation did not discuss resource-related issues.

chambers.[9] The free-response question asked legislators about their feelings about email messages from constituents, whether these messages help legislators do their jobs, and why. There were 512 total responses to the survey; 265 of these responded to the free-response question. All the 265 responses to the free-response questions contain at least one complete sentence of text. Summary statistics for the count of words are shown in Table 3.2. These legislators were also told that their responses would remain confidential, so I refer to them in their text and data only by their state.

I interviewed legislators and staff who occupy a variety of roles in the legislature. In each state, I spoke to at least one member of each party in each chamber. I also spoke to both party leaders and back benchers in each state. I spoke to both men and women, people of different ages, and people with varying professions, from doctors and lawyers to front office staff at professional sports teams. Most of the legislators I spoke to were quality candidates (Jacobson 1987), people who held at least one elected office prior to being elected to the legislature.[10]

I used a semistructured format (Leech 2002) for my interviews. I began with a description of my broad dissertation project and my desire to hear from legislators and interest group leaders directly. The introductory question for both interest group leaders and legislators was, "So you have constituents emailing legislators every day about policy issues. What role do these have in your job?" I would try to give legislators who spoke in a more narrative style the space to explain their thinking. I asked both group leaders and legislators who they thought were sending the most emails and whether they thought that grassroots lobbying made a differences. I also asked for descriptions of individual events, especially when the subject believed that grassroots lobbying had made a difference.

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[9]The full response set from the survey and survey question text are available upon request.

[10]While the Jacobson (1987) measure has some problems, it remains a robust measure of candidate quality and predictor of challenger success, even in state legislative races (Van Dunk 1997). Repeated attempts to refine the measure expend great data-gathering resources for at best, narrow improvements.

The interviews were scheduled to last about 30 minutes for each subject, but some interviews ran longer. While averages were consistent across gender, party, and left-right ideology, my interviews in person averaged about 41 minutes, and my interviews by phone averaged 29 minutes. I also found that meeting in an office generally lengthened an interview. Legislators and interest group leaders appeared less rushed in their offices than meeting at a secondary location like a coffee shop or restaurant.

The states I chose for interviews vary on factors that condition the ability of legislators to process information. The states include both professionalized and non-professionalized legislatures, especially with regard to the length of the legislative session. States also varied on both their party control of the legislature, and unified party government. States were not chosen at random: New England states in particular offer a variety of institutional arrangements in a small geographic space. When I spoke with legislators, their legislative session had either ended or was in recess; no legislative business took place on the days that I conducted interviews. This convenience sampling may undermine broader inference from the interviews, but the interview process has helped to test the theory using practical events and give a better understanding of the day-to-day interaction of legislators. In addition, a number of legislators gave me the opportunity to see some of the emails and messages sent to them by constituents.

Some of the most useful insight in my meetings came from interest group leaders, more than half of whom had worked at the legislative level in other states before their position at the time of the interview. These interviews helped explain how changes in institutions varied both their strategies in using grassroots lobbying and their belief in its effectiveness. While I did not have any legislators who had served in other states in my sample, four mentioned that they were active in national legislator organizations, and had talked to legislators in other states about the messages they were receiving.

Table 3.2: Summary Statistics: Free-Response Section Word Counts

| Statistic | Value |
| --- | --- |
| Mean | 51 |
| Median | 40 |
| Min | 2 |
| Max | 315 |
| Standard Deviation | 41.40 |

Political scientists describe state legislator resources as measures of legislative professionalism, a combined measure of days in the legislature, legislator pay, and legislator staff expenditures, indexed to the United States Congress (Squire 1993, 2007). However, scholars have contested using an index to measure state legislative professionalism because each component has a different theoretical meaning, and indexing to Congress censors the range of legislative professionalism onto a scale that does not match the data-generating process(Bowen and Greene 2014). Bowen and Greene also provided a more recent set of data. I use their measures of pay, staff expenditures, and session length from 2010-2011 (their most recent year of available data) for my analysis.

As part of the interview process, I sought to evaluate how legislators respond to grass roots lobbying. I did so by asking whether and how legislators replied to email messages they received from constituents. I also explored whether legislators felt that such messages changed their own legislative behavior in terms of bill introduction, co-sponsorship, floor voting or other types of behavior in the chamber.

**Discussion**

Here, I present my findings on each of my three hypotheses. I include both free response elements and quotes from interviews in this discussion. Free-response quotes use the verb "wrote," while interview quotes use the word "said."

Mixed Results as Session Length Varies

> "Often the bill has already been voted on - we receive multiple emails from the same person, often 5 to 10 emails. This is time that could be better spent. Groups or organizations should develop a better system of communicating with the elected officials – they should be better organized."

–Anonymous New Jersey Legislator

From the interviews and open-ended responses, I find mixed evidence on Hypothesis 4, that as the length of a legislative session increases, legislators are more likely to be responsive to grassroots lobbying. In states with shorter sessions, legislators tend to say they do not reply to every email, do not take legislative action based on single emails from constituents, but do take legislative action in response to some grassroots lobbying by certain groups. In longer sessions, legislators tend to say they respond to every email, have taken legislative action after a single email from a constituent, but lump all group grassroots lobbying together, and do not separate out different groups. These results, however, seem consistent with the underlying theory: legislators respond to the messages that they trust based on their ability to process information, given the resources that they have.

In states with shorter sessions, legislators said and wrote that they did not have the time to respond to email that they received. Approximately 70% of the legislators in the sample who said that they respond to every email came from states with sessions longer than 151 days, in the top 25% of the distribution of session length. Legislators in shorter sessions say things like, "We are a small state and our time is limited to study the issues for a better understanding to make good policy decisions. My time is much better spent studying than responding to canned emails that do not reach my constituents." A legislator in a longer session wrote, "I spend a lot of time trying to engage with the voters in my district. I encourage them to send me emails." A staff member from a state with a long session said, "We take form emails very seriously. They're very easy to deal with." Regardless of what

they write about their ability to reply to emails, legislators report feeling overwhelmed by emails from constituents at similar rates. Legislators from across the distribution of days also reported similar numbers of emails during a typical week in the legislative session.

Legislators in states with longer sessions are more able to recall single idiosyncratic events where grassroots lobbying messages changed their mind on an issue. In my interviews, all the legislators from a state with a legislative session lasting 300 days or more were able to recall at least one event where a single email from a constituent caused them to vote differently on a bill, offer an amendment, or introduce a bill. In contrast, only 37.5% of the legislators in the state with the shortest session were able to recall such an event. From my interviews with interest group leaders in these states, I was told that the group leaders disavowed single emails from constituents, dismissing them as unpredictable events that were near impossible for groups to leverage for their benefit.

In states with shorter sessions, the narrow window of the policy agenda rewards innovative groups, and puts general-ideology groups at a disadvantage. In addition, legislators in shorter-session bodies believe that large multi-issue ideological groups lack the sophistication to lobby them effectively. Group leaders in longer sessions say that their strategies are less successful than group leaders in states with shorter sessions. An interest group leader in a state with a 45 day session told me that her group was able to be strategic, and devote members to single issues in the legislature, "punching through the noise." In contrast, a single-issue group leader in a state with one of the longest sessions said that, "I would love 45 days!", later saying that the drawn out session makes it difficult to keep member attention focused on the legislature. These sentiments were echoed by legislators as well. It seems difficult for groups that focus on a broad set of policies to garner attention no matter the length of the legislative session (One legislator in a state with a shorter session called tactics from his state's progressive coalition "amateur hour"), legislators with some of the shortest sessions say that single issue groups are able to get more legislators to introduce,

co-sponsor, and vote on legislation because of grassroots lobbying.

Pay Has Little Effect on Legislators, Except at the Lowest Levels

"I've cobbled together odd jobs to support my legislative habit."

–Anonymous Maine Legislator

The evidence from my field interviews and the free response section do not support Hypothesis 5, that as legislator pay increases, legislator responsiveness to grassroots lobbying increases. Neither legislators nor interest group leaders in my sample freely discussed the effect of pay, except in states where legislator compensation is in the lowest 10% of states. Unlike the other resources components, no legislators compare their pay to other states, nor did they describe hypothetical scenarios where they were paid more or less. When prompted, legislators considered their service as a legislator their first priority, even if their legislative pay was low and pay from holding another job was higher. The only exception is legislators in states with the lowest 10% of salary, who say that their low pay lowers their motivation to respond to every email. These legislators also seem less able to tell which emails are generated by interest groups and which are created by constituents, but this does not seem to affect their legislative actions.

Only legislators in the bottom five states in legislator pay directly tie their pay to their ability to reply to grassroots lobbying emails. I asked every legislator I interviewed if their job would be easier if they were paid more or harder if they paid less, none answered in the affirmative, including those in lowest-paying states. In states like Vermont, New Hampshire, and Alabama, legislators write that they are less motivated to respond to emails than those in other states, especially those from inside the state but outside the legislator's district.[11]

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[11]This includes legislators who are the chairs of committees that cover statewide issues.

Legislative Staff Make Legislators More Responsive

"Emails are an excellent enhancement of democracy, but I need staff to manage

[them] well."

–Anonymous Florida Legislator

I find strong support for Hypothesis 6, that in legislatures with more staff expenditures, the likelihood of legislators responding to grassroots lobbying increases. While interest group leaders do not talk much about how staff affects how legislators respond to grassroots lobbying messages, legislators with and without staff resources say that staff are essential to helping them process information from grassroots lobbying. Legislators across all states say and write that staff make the job of replying to grassroots lobbying easier if they have them, or make that job harder if they lack them. Legislators without staff are unlikely to respond to grassroots lobbying messages at all; they say that they ignore emails or delete them. Legislators with access to committee staff rely on committee staff to help sort through email messages from citizens, especially if the member is the chair or ranking member of a legislative committee. Legislators with full-time, member-specific staffs (and large staff budgets) develop systems to sort and respond to emails; they are more likely to say that they respond individually and en masse to grassroots lobbying messages.

In terms of communicating with constituents, legislators with staff are more responsive to grassroots lobbying than legislators without staff. In states with high expenditures on legislative staff, legislators are far more likely to say that they respond to every email they get (including those not from constituents) than legislators with smaller numbers of staff. This is true in states that give legislators personal staff and in states where legislators share committee staff. The methods vary, in the free-response sections completed by people who identified themselves as legislative staff, some wrote that they handled other work in the office to give the legislator more time to reply to constituent emails. Other legislators with

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large staffs said that they made a point of training everyone in the office (including commu-nications, policy staff, and interns) so that all emails would be handled quickly. Still others depend on staff to help them weigh competing arguments from constituents. Legislators without staff, however, often wish for more. One legislator from New Hampshire said, "I delete everything that is not from someone living in my district. I try to answer those from in district, but without any staff support, I only manage to answer some of those I receive."

Legislators with staff also seem more responsive in terms of legislative action to grass-roots lobbying than legislators without staff. Legislators with staff were more able to recall introducing legislation, co-sponsoring legislation, or altering their vote based on grassroots lobbying emails. It also appears that staff help legislators gauge public opinion; a legislator in Michigan said, "If I receive more than 5 emails I consider the topic to be important in my district. I seek input to find out if this is truly grassroots or generated by outside groups. Many times I am neutral on the topic and the emails help me make up my mind."

Implications

"The shift [from letters and phone calls to emails] has been tectonic, incredible even, and along with that shift has been a depersonalization."

–Anonymous Massachusetts Legislator

If grassroots lobbying functions like a marketplace of information, then the resources available should condition the ability of legislators to work in the market. Legislators in more professionalized states, on average, take grassroots lobbying more seriously, respond to every email, and try to incorporate the information from grassroots lobbying into their thinking. However, most of this variation is driven by staff resources, at least in terms of how legislators attribute their usefulness. The role of pay, either as a mechanism for attracting legislators who process information well, or for reducing the cognitive load on legislators worried about making ends meet, seems not to work in this case. Legislators may be unwilling to share that they care about how much they earn, but it is more likely

that once in the legislature, they have already accepted the salary they receive as normal. Previous studies of the role of legislator salary show that it alters the choice to run for the legislature (among quality candidates), and the competition that others face (Maestas, Fulton, Maisel and Stone 2006). In addition, other surveys of legislators have found that legislators do not consider pay important to doing their job in either survey or experimental settings (Carnes 2012).

Finding that longer legislative sessions make legislators less responsive still fits with the marketplace of political information, considering that time allows for greater interactions and for legislators to learn more about who is trustworthy and who is not. Faced with a longer session, interest groups must do more to keep their members involved, and fight to keep the attention of members over prolonged legislative battles. Legislators in these longer sessions still value grassroots lobbying, but the kind that comes directly from constituents, who generally suggest policy changes that the legislator has not considered. This places larger groups at a disadvantage in these states.

These findings have meaningful implications for both legislative information flows and interest group strategy. First, it suggests that the presence of staff and a legislator's management of said staff affect the rate at which the policy concerns of constituents will be addressed. The states with fewer staff expenditures also have smaller populations than other states, but there was limited evidence that legislators with fewer constituents interacted personally with constituents at a greater level. It seems that without legislative staff, some of the concerns of constituents will go unanswered.

Interest groups must also innovate to use grassroots lobbying based on the legislature they may be dealing with. In particular, it seems that groups will need more resources in states with long (200+ day) legislative sessions, in order to sustain longer policy battles. This can be a difficult proposition. I was able to meet with state chapters of national organizations across states; in every case, the physical size of the office and the number of paid

personnel were similar. National organizations may want to devote more national resources to states with longer legislative sessions in order to sustain policy battles.

## 4    HOW LEGISLATORS RANK INFORMATION SOURCES

**Introduction**

Legislators need information to do their jobs. Every day at their jobs, legislators receive information from advisors, party leaders, constituents, lobbyists, and others (Sabatier and Whiteman 1985). Good information helps legislators win re-election, support good public policy, and secure political power for themselves and their party. When inundated with information, legislators use heuristics and create institutions to help them process information effectively.

Previous research has found that legislators know that the information they receive is biased (Calvert 1985), that legislators use heuristic shortcuts to process information (Simon 1955; Baumgartner and Jones 1993; Jones 2001) and that legislators use the cost of producing information as a signal about that information's value (Denzau and Munger 1986; Kollman 1998). Newer research has disputed these connections individually, offering new alternatives that show that legislators weigh the cost of providing information less when processing information from political parties (Aldrich 2011), messages from constituents (Bergan 2009), professional lobbyists (Powell 2012), and polling (Butler and Nickerson 2011). Previous research shows legislators choose among multiple information sources based on the needs and opportunities legislators have (Mooney 1991*a,b*) to process information, the current information environment has flattened the costs of providing information, disrupting the cost heuristic. This raises questions about how legislators weigh information sources when they cannot use cost as a heuristic about the value of information.

To answer these questions, I develop a theory of political information. I envision political information as a marketplace where trust replaces cost as a heuristic for evaluating the value of information. Like other markets, legislators use other heuristics to evaluate the value of information, but trustworthiness is the central feature of the market rather than cost. Compared to a cost-centered market, the penalties for error in a trust-centered market are much higher. Resources become more important; legislators need time, money, and people to generate more reputation-building interactions with outside sources of information. More interactions help legislators determine which sources of information are trustworthy and which are not. In addition, constraints make legislators more risk-averse, causing them to interact less in the marketplace, and making them trust only the sources closest to them.

To test this theory, I use a survey sent to every state legislator in the United States to examine how state legislators rank sources of information on trustworthiness. I use a multinomial logistic regression model to determine the effects of resources and party constraints on which source of information legislators rank as the most trustworthy. I find statistically significant and substantial variation in the most trusted sources of information across legislatures with regard to legislative professionalism, and among individual legislators depending on whether they are in the majority party or not. Resources and constraints shape a trust-centered market. When legislators in the minority have more resources, they are able to interact more in the marketplace of information, showing more variance in the source of information they trust most. Legislators in the majority party are more risk averse, trust information from advisors most, and increase this reliance as these advisors are more likely to be paid by the legislator or the legislator's party. These findings also suggest that effects showing legislators changing their behavior in response to polling information, grassroots lobbying, and lobbyist information occur only in less-resourced legislatures and among minority party members, who are most likely to seek sources outside their advisors. They

also suggest larger implications about the role of information flows and trust in politics.

**Trust Shapes Information Processing**

Information is essential to decision making and helps organizations function (March 1994). Information also plays a central role in legislative politics (Webber 1987; Krehbiel 1991; Mooney 1991*b*), helping legislators make choices based on their own goals in the legislature. Legislators use information to choose actions to help them get re-elected (Mayhew 1974), handle constituents in their districts (Fenno 1978), and gain power within their committees (Fenno 1973) and their party (Rohde 1991). Like other humans, legislators use heuristics, or information shortcuts, to evaluate information and choose which pieces of information to use or ignore (Simon 1955). Heuristics help legislators navigate information choices (Baumgartner and Jones 1993, 2015). Normally, these heuristics are a response to deficit or overload of information (Ringe and Victor 2013). Legislators use the cost expended by the provider of information as the central feature of an information market. However, the expansion of the internet and human-generated data has flattened the costs of providing information to legislators, meaning that the costs of providing high-quality information to legislators has declined relative to the cost of providing low-quality information to legislators. Now, rather than cost, legislators use trust as the central feature of the marketplace of information to determine the usefulness of information. Legislators have always wanted trustworthy information, and have previously used it as a heuristic to navigate cost-based markets. Now, however, trust is the central feature of the market. Trust is more difficult to build than cost or value, and requires regular information exchanges to maintain. How legislators trust information is contingent then on the resources they have to find trustworthy information and the risk they are willing to bear when trying to build trusting relationships.

American legislatures reward members who gain information and use it effectively (Lupia and McCubbins 1994). Obtaining, processing, and evaluating information is important

to legislators. Legislators develop institutional structures and rules to assist information processing (Jameson 1894; Higginson 1986). Studies of institutional systems show that these informational arrangements also shape the power of legislators within the body. Krehbiel (1991) argued that the committee structure of the U.S. Congress was designed to create unbiased and representative committees by encouraging individual legislators to become policy experts. While Krehbiel's findings are disputed by scholars who argue for a more party-centered organizational structure (Rohde 1991; Cox and McCubbins 2004; Cox, Kousser and McCubbins 2010), the finding that legislators need information and that committee structures help them process information remains robust.

Heuristics and Information Overload

Searching for and gathering information is not an easy process for legislators. Legislators face information overload, meaning that they have more information than they can adequately process (Ringe and Victor 2013). Legislators develop shortcuts to help them process information (Baumgartner and Jones 2015). However, legislators are not naive searchers. Legislators know that the information they are provided with is not free of bias (Schlozman and Tierney 1986). They depend on shortcuts to help better understand the information that they are presented. The heuristics that legislators use develop similarly to heuristics other humans use. Legislators prefer sources that seem similar to them (Matthews and Stimson 1977; Butler, Karpowitz and Pope 2012). Legislators prefer sources that are current or recent (Kingdon 1984), or are close to the legislator (Mooney 1991*b*; Braithwaite and Levi 1998). Under all these heuristics, there is a signaling process that takes place.

Legislators use these heuristics to help navigate information marketplaces that have cost as their central feature. Legislators think that expertise is a precious commodity (Krehbiel 1991; Weissert 1991), and are willing to expend limited resources in order to obtain it (Guston, Jones and Branscomb 1997). Research that incorporates decision making on legislator

information argues that legislators value information on two dimensions: the usefulness of information in accomplishing their goals (Kingdon 1981; Ringe and Victor 2013) and the cost to the outside source of producing the information for the legislator (Gilligan and Krehbiel 1989; Kollman 1998; Hall and Deardorff 2006). These two dimensions create a cost-driven market for information. Information may be plentiful, but good information is scarce. In a cost-driven market, legislators evaluate information based on the cost of providing the information to the legislature, and use heuristics to assist this evaluation.

While legislators use heuristics to navigate this environment, how one heuristic dominates others in evaluating information remains unclear. Heuristics also overlap with one another. As an example, previous research shows that legislators prefer information that they received recently over information they obtained less recently. They also prefer information from sources they interact with daily over sources they see or hear from only every other month. They also prefer information from people who are similar to them than people who are different from them. However, legislators tend to interact most recently and regularly with people who are similar to them (Kingdon 1984), making it difficult to unpack the recency, regularity, and similarity heuristics from one another. Legislators want information that is valuable, but they also want information that comports with their preferences.

The Flattening of Information Costs

However, in contemporary legislative politics, the costs of producing information have flattened, meaning that the cost of producing one additional unit of information or one degree of better quality information has decreased. Cost flattening has occurred because advances in technology make producing high-quality information far less expensive without greatly increasing the cost of producing low quality information (Trelles et al. 2011). This disrupts cost as the central feature of information markets (Hall and Miler 2008). In cost-flattened environments, legislators receive multiple pieces of information that cost about

the same to provide to the legislator, but vary in content. The heuristics that legislators use remain similar, but cost is no longer useful in determining the value of information.

Other scholars find that in cost-flattened environments, people seeking information use trust as the central feature of a marketplace of information. Information scientists describe cost-flattened information environments as a marketplace of information with trust as its central feature (Turoff and Chinai 1985; Fodness and Murray 1997; Lesser, Horling, Raja, Wagner and Zhang 2000). Marketplace models of information allocate resources to end users based on the desire for information, the value assigned to that information, and the cost of that information. These models help actors deal with cost-flattened environments by using trust to regulate them (Atkins et al. 1996). Trust replaces cost as the central feature in the market: buyers use trust as a signal of information value, and sellers use trust as a signal to buyers about the value of the information they are offering.[1] I apply this model to politics; political actors create and sell information in a marketplace environment to other political actors who want to buy information in order to accomplish their goals. In the marketplace of information, the central focus is trust, rather than cost. Legislators always wanted trustworthy information, but in cost-flattened environments, it is the central focus for other information process heuristics.

Building Trust

Building trust is not easy for legislators. Trust is highly dependent on the reputation of the information source (Masum and Tovey 2012), and building a quality reputation requires regular interactions with people who want the information provided. Trust also requires agents to help determine which sources are trustworthy and which are not (Milgrom and North 1990). Trust-building is thus resource-intensive in a way that evaluating cost is not. In a cost-centered information market, legislators do not need regular interactions in the

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[1]Two notable examples appear the information science literature. First, people use trust to choose which online reviews (for goods and services) to believe (Chen, Shang and Kao 2009). They also previously used trust to pick websites for illegally downloading copyrighted material, but this process is more complicated with the development of new file sharing technologies (Mui, Mohtashemi and Halberstadt 2002).

market or agents to make information choices; their choices are conditioned only on the cost of the information (Bybee and Comadena 1984).

Trust-based models also require that people seeking information accept more risk than cost-based models. When trust is the central feature of an information market, legislators bear more risk when they trust unfamiliar sources of information because the negative consequences of making an imperfect trust decision are higher than making an imperfect cost decision (Kim, Ferrin and Rao 2008). As legislators become more risk-averse, they should be less trustworthy of new or outside sources of information.

Trust and Distance

Trust-centered markets also alter the relationship between information sources and the legislator's distance to them. Mooney (1991*b*,*a*), examining legislatures under a cost model, treats distance as a function of familiarity with the job of legislating on a day-to-day basis. Other legislators and party leaders are considered inside sources, having a daily schedule that looks very much like a legislator's, and being most familiar with the legislator's job. Advisors are the next closest, followed by professional lobbyists, an example of a "middle range" source (Sabatier and Whiteman 1985). In cost models, constituents are the furthest from legislators, and are considered to be the least reliable sources of information.

In trust-centered information environments, distance becomes a feeling of shared goals rather than shared experiences. The more goals or interests the information recipient shares with the source of information, the closer the information source is to the recipient (Ziegler and Golbeck 2007). Legislators thus alter which sources they consider closest to them. In trust markets, advisors, who legislators depend on for reliable information, are the closest sources of information. Other legislators, lobbyists, and party leaders are "middle range" sources. Middle range sources share goals with the legislator, but have other priorities like cultivating a governing majority (Francis 1985; Bianco and Sened 2005) in the case of party leaders, or winning policy battles by cultivating and lobbying allies (Hojnacki and

Kimball 1998; Esterling 2007). Outside sources, like constituents, share, on average, the fewest goals of the legislator, even though they may ally to re-elect the legislator and have similar policy preferences.

How Party and Resources Shape Trust in State Legislatures

If trust is the central feature of the information market in legislatures, legislators will find different sources of information trustworthy. This is because the resources legislators have and their willingness to accept risk condition their ability to build trust with information sources. When legislatures are more professionalized, legislators have more time to have repeated interactions with information sources and trustworthy agents, reducing their trust in other professional sources of information. Being in the majority party increases the risk aversion of legislators because majorities have governing coalitions to protect. This risk aversion reduces legislator trust in outside sources of information. In addition, the relationship between legislative professionalism and majority party status are interactive; resources give minority members more ability to trust outside sources of information, but they reinforce the risk aversion of majority party legislators. Majority party legislators in professionalized institutions have more to lose, and become more risk averse.

The resources their institution provides legislators should both promote and constrain their trust relationships, based on the source of information. A legislator in a more professionalized institution, one that provides more time, money, and staff for legislators to do their other work, can better process information and develop trustworthy information sources because more professionalized legislatures give legislators time to gain experience in the information marketplace and to use agents (staff) to facilitate trust relationships. Legislators in more professionalized chambers also receive additional pay, which should reduce distractions of other work, and focus the legislator more on developing trustworthy relationships with information sources. With more resources, legislators will be more trustworthy of sources closest to them because those sources are likely paid by the legislator,

cementing the trust relationship. At the same time, legislators will become less trustworthy of other "professional" sources of information, that is, information sources who are paid to provide information to the legislator because staff act as a filter between those sources and the legislator. However, outside sources like email messages from constituents are more trusted because legislators have more ability to interact with them.

When parties operate as cartels in legislatures (Cox and McCubbins 2004), they constrain the behavior of legislators in order to preserve majority party status and retain control over the policy agenda. As a result, legislators in the majority party process information in different ways from legislators in the minority party (Francis and Riddlesperger 1982). Majority party legislators have more to lose, and are more risk averse. By being in the majority, the trust relationships of legislators are constrained. This in turn focuses members on sources that they have regular interaction with and who are known to share the interest of preserving the party majority. In turn, minority party members, being less risk-averse, may develop trust relationships with outside sources in order to attempt to gain a majority. Because minority party members are less-risk averse, they are more willing, in general, to trust outside sources of information.

There also should be an interactive effect between party status and resources. As legislators gain more resources, they become more insulated from shifts in party control in the legislature. Being in the majority reduces the effects of resources on trust because legislators become even more risk averse, while being in the minority exacerbates them, making legislators more free to build trust relationships.

Majority party status and legislative professionalism, along with the interaction between them, affect how legislators choose among different information sources. In general, they affect choices based on the closeness of the information source to them, and the professional nature of that closeness. However, the way that legislative professionalism and majority party status affect trust in each source individually vary based on the particular

dynamics of that source.

I sort this section into five groups, ordered from closest to furthest from the legislator in a trust-centered market. The five categories are: advisors, party leaders, professional lobbyists, email messages from constituents, and polling information. The five categories constitute a range of sources that appear in other studies of how legislators gain information (Kingdon 1981; Mooney 1991*b*).

Advisors

Advisors hold different official roles: they may be staff, interns, former legislators, political bosses, spouses, or merely concerned citizens. Regardless of job title, advisors are usually the most dependable source of information for legislators, and are used to bridge the gap between legislators and other information sources, like lobbyists, fellow legislators, and constituents (Fenno 1978; Mooney 1991*b*).

The structure of party should not affect this trust greatly, members in both majority and minority parties depend on a trusted group advisors for reliable and trustworthy information. However, this trust in advisors is likely to increase for members of more professionalized legislatures. With more money to pay high-quality staff, legislators are likely to trust their employees more than people who are unpaid and therefore have political interests beyond the legislator, or depend on another source of income that may also run counter to the legislator's best interests.

Party Leaders

Legislators in the majority party should trust their leaders more than legislators in the minority. Trust is essential to maintaining party control of government. Rohde (1991) argues that the strength of party leaders flows from the consent and inherent trust of party members. Unconstrained by the responsibilities of governing, legislators in the minority are less dependent on their leaders for information, and thus less likely to trust them.

As resources in legislatures increase, the stakes of holding a majority in the legislature increase. With control of the agenda, legislators in professionalized legislatures have

more staff to craft legislation, more pay to reduce their need for outside employment, and more time in which to move legislation through the policy process. At the same time, professionalized legislatures make legislators less reliant on outside professional sources of information.

Professional Lobbyists

Previous research has found that professionalized legislatures have a greater need for information from lobbyists (Berkman 2001), but that professionalization promotes institutionalization, insulating legislators from lobbying (Berry, Berkman and Schneiderman 2000). However, this seems to be based in the idea that lobbying is about the provision of expertise (Austen-Smith and Riker 1987), rather than a subsidy or provision of other resources (Hall and Deardorff 2006). A recent survey of state legislators found that they seek campaign contributions from professional lobbyists rather than information (Powell 2012), regardless of the legislator's goals in the institution.

As a result, while majority party members are less likely to trust lobbyists than minority party members, consistent with the constraints placed on the majority, there should be no effect of legislative professionalism on the trust of professional lobbyists among majority party members. While minority party members should trust professional lobbyists less as they become more professionalized, majority party members should trust lobbyists at similar levels in citizen and professionalized legislatures.

Email Messages From Constituents

Constituents email messages to legislators frequently about policy issues (Butler, Karpowitz and Pope 2012), a practice also called grasroots lobbying. Previous work using cost-based models considers grassroots lobbying a costly signal between interest groups, constituents, and legislators (Kollman 1998). However, the number of emails sent to legislators by constituents has increased tenfold over the last five years (Karpf 2012), overloading legislators with information and reducing the ability of legislators to use cost to evaluate the value of information.

Legislators in the majority party want to protect their majority, but are constrained by the behavior of other members in the majority attempting to maintain agenda control (Cox, Kousser and McCubbins 2010). They also do not know if the emails being sent are representative of their constituents, or represent a subset of individuals who feel strongly on the issue (Frantzich 1986), meaning that information from grassroots lobbying does not reliably threaten the majority party status of a legislator. As a result, legislators in the majority are less likely to find email messages from constituents trustworthy.

Legislative professionalism magnifies these effects. Having more resources gives minority party legislators a more effective means of interacting with constituent contacts regularly, making them more likely to trust email messages from constituents, free of the pressures of maintaining agenda control. In turn, majority party members are less likely to trust email messages from constituents because they have more to protect in the majority.

Polling Information

It is difficult to generate expectations about the value of polling information from a legislator's district. Having been elected, legislators believe that they understand the preferences of their constituents and can represent them well (Fenno 1977). Legislators in more professionalized institutions have been found to monitor the opinions of citizens more than legislators in less professionalized institutions (Maestas 2003). However, in experimental conditions, legislators in less professionalized states are highly responsive to polling information on single bills provided to them by researchers (Butler and Broockman 2011).[2] Trust in polling information is difficult to predict given the competing pressures on it.

Hypotheses

From these expectations, I generate four hypotheses.

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[2]These effects are magnified further when information sharing among legislators is modeled into the findings (Coppock 2014).

**Hypothesis 7** *As legislative professionalism increases, legislators are more likely to name email from constituents as their most trustworthy source of information, but this effect is only true for minority legislators.*

**Hypothesis 8** *Legislators in the majority party will be more likely to trust advisors over other sources than legislators in the minority party, regardless of the professionalization of the legislature.*

**Hypothesis 9** *There should be no effect of legislative professionalism on how legislators rank the trustworthiness of professional lobbyists.*

**Hypothesis 10** *Members of the majority party are more likely to list party leaders as most trustworthy across levels of legislative professionalism.*

**Data and Methods**

The dependent variable for the analysis was generated from a survey sent to every state legislator with an email address in all 50 states. The survey contained a question asking respondents to rank five sources of information on trustworthiness.[3] The sources in the list were: trusted advisors, professional lobbyists, party leaders, polling information from your district and email messages from constituents. I randomized the order of the responses to prevent satisficing and bias towards a single choice.[4] 499 of 512 total respondents answered the trustworthiness question. From this question, I generated an unordered categorical variable of the information source that the legislator ranked as "1," or most trustworthy.

The first explanatory variable I use in the model is a multi-dimensional scaling measure of legislative professionalism developed by Bowen and Greene (2014). Other measures of legislative professionalism index legislator pay, staff expenditures, and days in session to the United States Congress(Squire 1993; Mooney 1995; Squire 2007), but these measures

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[3]The exact question reads: Who do you find most trustworthy for information to help you accomplish your goals in the legislature (please rank, with 1 being most trustworthy and 5 being least trustworthy)?

[4]The order of source appearance has no effect in the models, nor does it predict how the respondent sorted the information sources.

compress the variance across state legislatures. The Bowen and Greene scale uses similar components to the Squire measure, and in some models, performs similarly. I use the most recently available first dimension of the multi-dimensional scaling component, those from 2010 and 2011. I used 2011 only when states did not hold a 2010 session. These data are more recent by seven years than the last published version of the Squire Index.

For majority party status, I create a dichotomous variable coded 1 if the legislator is a member of the majority party in their legislative chamber, and 0 otherwise. I match the legislator's party to party majorities within the legislative chamber using data from the 2014 edition of the Book of the States. If the legislature was not in session in 2014, I use the closest session previous to 2014. None of the legislators in the sample changed parties during the relevant sessions. I exclude Nebraska, which has no formal legislative parties, from the analysis.[5]

I also incorporate an interaction term in the model. The effect of legislative professionalism should be different based on the majority party status of the legislator. A longer session, more legislator pay, and more staff expenditures all raise the stakes for holding a majority and encourage innovation among the minority. As a result, the effect of majority status should change across the distribution of legislative professionalism; legislators with more resources provided to them will have more lose and be more risk averse if they are the majority, but will be enabled to innovate more if they are in the minority.

Methodologically, I use a multinomial logit model to calculate the effects of the Bowen and Greene legislative professionalism measure, majority party status, and the interaction between majority party status and legislative professionalism on the respondent's most trustworthy information source. A multinomial logit model is, given the data-generating process and the topic, less likely to produce estimation problems than other models that use

[5]Nebraska majority governing coalitions include members of both the Democratic and Republican parties. In addition, these governing majorities operate differently from party-based governing coalitions in other states (Wright and Schaffner 2002).

this type of dependent variable.[6] In addition, because none of the covariates in the model are choice-specific, using a multinomial probit model would be more likely to produce inaccurate results (Quinn, Martin and Whitford 1999). Multinomial logit models work well for unordered choices within surveys because the survey question constrains respondents within a set of categories (Agresti 2013).

**Results**

| Variable | Levels | n | % | $\sum$% |
|---|---|---|---|---|
| Most Trusted Category | Advisors | 217 | 64.6 | 64.6 |
| | Email | 22 | 6.5 | 71.1 |
| | Lobbyists | 42 | 12.5 | 83.6 |
| | PartyLeaders | 25 | 7.4 | 91.1 |
| | Polling | 30 | 8.9 | 100.0 |
| | all | 336 | 100.0 | |
| Party | majority | 321 | 65.6 | 65.6 |
| | minority | 168 | 34.4 | 100.0 |
| | all | 489 | 100.0 | |

Table 4.1: Descriptive Statistics of Nominal Variables

| Measure | Value |
|---|---|
| **n** | 336 |
| **Min** | -1.671 |
| $q_1$ | -1.106 |
| $\widetilde{x}$ | -0.616 |
| $\bar{x}$ | -0.2359 |
| $q_3$ | 0.0923 |
| **Max** | 7.649 |
| **s** | 1.284 |

Table 4.2: Descriptive Statistics of Legislative Professionalism

Tables 4.1 and 4.2 show descriptive statistics of the variables in the model. Table 4.3 shows the results of the multinomial logit model.[7] The excluded category is advisors.

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[6]Multinomial logit models rely on the assumption of the independence of irrevelant alternatives (IIA), but simulations of both multinomial logit and multinomial probit models show that even when the IIA assumption is violated, multinomial logit models are preferred (Kropko 2008).

[7]Weighting the responses of the survey on gender, race, and party at the chamber and state did not substantially alter the results.

Table 4.3: Unordered Multinomial Logit Results:
Most Trustworthy Information Source

| | Most Trustworthy Source of Information♣ | | | |
|---|---|---|---|---|
| | Email | Lobbyists | Party Leaders | Polling |
| | (1) | (2) | (3) | (4) |
| Legislative Professionalism | 0.064 | −0.832** | 0.116 | −1.027** |
| | (0.264) | (0.421) | (0.244) | (0.482) |
| In Majority Party | −0.447 | 0.303 | −0.854 | −0.174 |
| | (0.476) | (0.454) | (0.575) | (0.551) |
| Leg. Prof X Majority | −0.213 | 0.756* | −0.914* | 0.864 |
| | (0.371) | (0.451) | (0.494) | (0.542) |
| Constant | −2.003*** | −1.921*** | −1.911*** | −2.139*** |
| | (0.359) | (0.402) | (0.347) | (0.465) |
| AIC | | | | 748.326 |
| N | | | | 499 |

*Note:*            *p<0.1; **p<0.05; ***p<0.01
Standard errors in parentheses
♣ Excluded Category: Advisors

Figure 4.1: Predicted Probability of Most Trusted Information Source
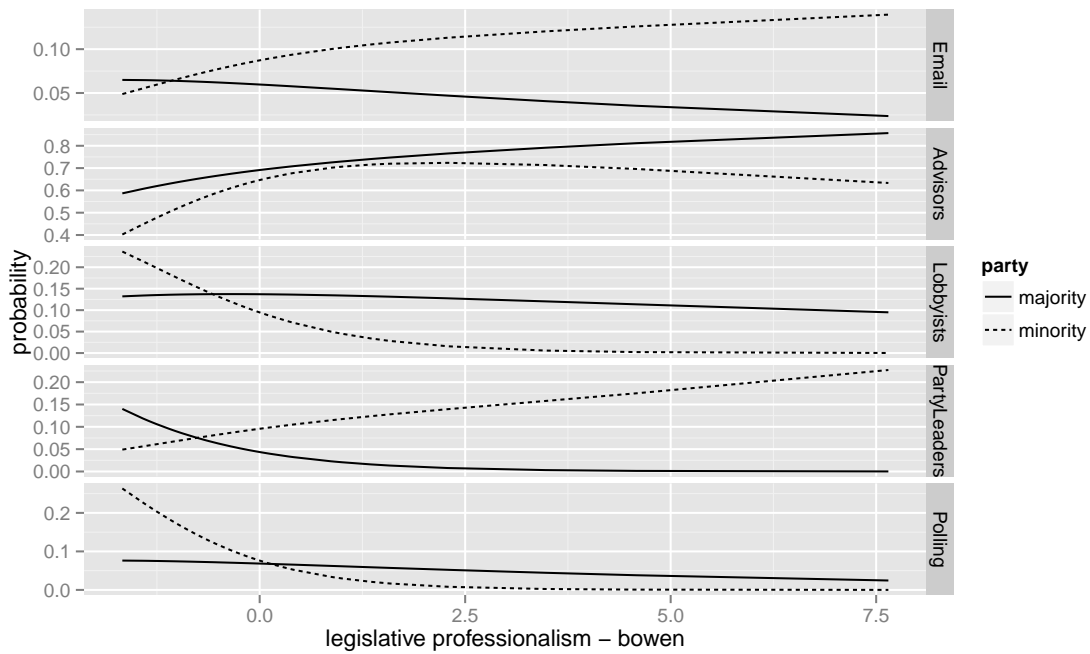


Multinomial model coefficients from the regression table do not provide an easily interpretable test of the hypotheses, especially with the interaction term included in the model. Also, predicted probability plots are greatly preferred in this case, where the hypotheses estimate changes within each category over the range of the explanatory variables (Carsey and Berry 2014). I estimate the predicted probability of being in each category across the range of possible values of legislative professionalism by simulating values using the Zelig software package (Imai, King and Lau 2008). These predicted probabilities allow an easier interpretation of the results of the multinomial logit model.

Figure 4.1 shows the predicted probability for each information source being rated as the most trustworthy information source, rated across the range of observed values of legislative professionalism, and separated by minority and majority party status in the chamber. The Y-axis shows the predicted probability of being in each particular category. The X axis shows the range of values for the legislative professionalism measure. The solid lines show predicted probabilities for majority party status equal to 1, while the dashed lines

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show predicted probability where majority party status is equal to 0. Note that the Y-axis is scaled for each information source for ease of interpretation.

The predicted probability that a legislator chose advisors as their most trustworthy source of information is highest among the five information source categories at every value of legislative professionalism and for both minority and majority party legislators. The predicted probability that a minority party legislator in the sample chose advisors ranges from approximately .40 at the minimum level of legislative professionalism to .63 at the maximum level of legislative professionalism. The predicted probability that a majority party legislator in the sample chose advisors is higher across the distribution of legislative professionalism, approximately .69 at the minimum level of legislative professionalism, and approximately .86 at the maximum level of legislative professionalism. The separation between majority and minority party leaders is highest at the extreme values of legislative professionalism. These findings show limited support for Hypothesis 8 – that legislators in the majority party will be more likely to trust advisors over other sources than legislators in the minority party, regardless of the professionalization of the legislature. The predicted probabilities show that while legislators in the majority party are more likely than minority paty legislators to chose advisors as their most trustworthy information source across the distribution of legislative professionalism, the difference is highest at the extremes of legislative professionalism.

The predicted probability that legislators in the sample chose party leaders as the most trusted source of information shows evidence counter to Hypothesis 10, that members of the majority party are more likely to list party leaders as most trustworthy across levels of legislative professionalism. The predicted probability that a minority party legislator in the sample chose party leaders ranges from approximately .05 at the minimum level of legislative professionalism to approximately .23 at the maximum level of legislative professionalism. The predicted probability that a majority party legislator in the sample

chose party leaders ranges from approximately .14 at the minimum level of legislative professionalism to less than .01 at the maximum level of legislative professionalism. There is more variation in predicted probability among minority party legislators especially; the predicted probability that legislators will choose party leaders more than quadruples over the distribution of legislative professionalism. Majority party members are less likely than minority party members to choose party leaders as their most trusted source of information for most states. This evidence counters Hypothesis 10, which predicted the opposite to occur.

The predicted probability that legislators in the sample chose professional lobbyists as their most trustworthy information source can be used to evaluate Hypothesis 9– that there should be no effect of legislative professionalism on how legislators rank the trustworthiness of professional lobbyists. The predicted probability that a minority party legislator in the sample chose professional lobbyists ranges from approximately .24 at the minimum level of legislative professionalism to less than .01 at the maximum level of legislative professionalism. The predicted probability that a majority party legislator in the sample chose professional lobbyists ranges from approximately .13 at the minimum level of legislative professionalism to less than .09 at the maximum level of legislative professionalism. There is more variation in predicted probability among minority party legislators especially; the predicted probability that they chose lobbyists as their most trustworthy goes to near zero for legislatures at the middle range of legislative professionalism (also called "hybrid" legislatures) and professional legislatures. This evidence runs counter to Hypothesis 9; legislative professionalism has a negative effect on the predicted probability of choosing lobbyists as the most trustworthy information source, especially for minority party legislators.

The portion of predicted probability plot labeled "Email" shows the results from testing Hypothesis 7, that as legislative professionalism increases, legislators are more likely to name email from constituents as their most trustworthy source of information, but that

this effect is only true for minority legislators. The predicted probability that a legislator chose email as the most trustworthy source increases over the distribution of legislative professionalism for minority party legislators, but decreases for legislators in the majority party. The predicted probability that a legislator in the sample chose email ranges from approximately .048 to .139 across the range of legislative professionalism values for legislators in the minority. The same predicted probability for legislators in the majority ranges from approximately .065 at the minimum value of legislative professionalism to .023 at the maximum value of legislative professionalism. In the most professionalized legislatures, minority party legislators in the sample are six times more likely to say they think email messages from constituents are their most trustworthy source of information than are majority party legislators. This shows some support for Hypothesis 7; legislators in the minority party are more likely to trust emails from constituents at higher levels of legislative professionalism.

While I do not make any hypotheses relevant to shifts in the trustworthiness of polling information from their district, there is noticeable variation in the data. The predicted probability that a minority party legislator in the sample chose polling information ranges from approximately .26 at the minimum level of legislative professionalism to less than .01 at the maximum level of legislative professionalism. The predicted probability that a majority party legislator in the sample chose polling information ranges from approximately .08 at the minimum level of legislative professionalism to less than .02 at the maximum level of legislative professionalism.

**Discussion and Implications**

The results of the analysis show that legislative party status and professionalism affect how legislators rank the trustworthiness of information sources. Trust appears to me less of a random heuristic among legislators and more of a central feature in a marketplace of political information. I find support for the hypotheses related to advisors and email messages

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from constituents. While I did not find support for Hypotheses 10 and 9, the predicted probabilities generated from the analysis of party leaders and lobbyists show significant differences across the distribution of legislative professionalism, the results also indicate that my understanding of trustworthiness needs additional refinements. The variation suggests that legislators who have more resources become even more trusting of advisors, and that minority party members become more trusting of party leaders and email from constituents as professionalism increases. It is possible that cost flattening may be inconsistent across different *sources* of information as well, and that information overload disrupts these processes at different rates. These results also have implications for disparate research in political science.

Previous research has shown that email messages from constituents were successful in affecting legislator decision making in a field experiment conducted in New Hampshire (Bergan 2009), the state ranked lowest on all measures of legislative professionalism, and further, that these messages were a costly signal to legislators. My work counters both of these findings; trust matters to legislators when evaluating email messages from constituents, and minority and majority legislators separate in their ratings of trustworthiness in more professionalized bodies.

Also relevant to previous research is the higher predicted probability of choosing lobbyists as the most trustworthy source of information at low levels of professionalism. Citizen legislators are more likely to rank information from professional lobbyists as most trustworthy than more professionalized legislators. Legislative staff may replace professional lobbyists as a paid source of information for these legislators. With *any* staff, they do not need information from lobbyists.

Lobbyists may also be responding to other factors in the legislature. Minority party members are far less trusting of professional lobbyists than majority party members except at the lowest levels of legislative professionalism. It may be that majority party members

do not need information from lobbyists and seek campaign contributions instead. This is consistent with research showing that lobbyists cultivate allies in legislative committees, and subsidize those allies (Hall and Deardorff 2006).

While my theory does not generate expectations relative to polling information, it is particularly interesting given the findings of Butler and Nickerson's (2011) field experiment in New Mexico and subsequent replication and extensions of their data analysis (Coppock 2014). New Mexico has a citizen legislature, where legislators are much more likely to rate polling information from their district as the most trustworthy source of information than legislators in more professionalized bodies, suggesting that these results may not reproduce in other states.

Beyond these specific findings, these results have implications about how political actors weigh sources of information relative to one another. Much of the research around trust focuses on citizens, rather than institutions. Trust is usually measured as overall trust in government or a characteristic rating of a single person or institution. Asking citizens to rank people and institutions on trustworthiness may reveal more subtle connections between trust and democratic governance.

# A   SURVEY REGRESSION RESULTS

**Regression Results**

Table A.1: Logistic Regression of Treatment Variables

|  | **Introduce** | **Cosponsor** | **Vote for Bill** | **Urge Support** |
|---|---|---|---|---|
| GMOs/High Vol. | −0.811* | −0.553* | −0.327 | −0.448 |
|  | (0.457) | (0.324) | (0.284) | (0.346) |
| Guns/Low Vol. | −1.152** | −1.365*** | −1.174*** | −1.071** |
|  | (0.534) | (0.411) | (0.334) | (0.419) |
| Guns/High Vol. | −1.197** | −0.753** | −0.383 | −0.703* |
|  | (0.534) | (0.348) | (0.294) | (0.376) |
| Constant | −1.705*** | −0.856*** | −0.310 | −1.151*** |
|  | (0.272) | (0.214) | (0.198) | (0.229) |
| N | 399 | 399 | 399 | 399 |
| AIC | 232.311 | 386.126 | 497.959 | 354.742 |

***p < .01; **p < .05; *p < .1

# B   SURVEY TEXT

## Survey

The following pages contain a full text copy of the survey downloaded from Qualtrics.

Q3 Some legislators answer their own e-mail, but many others have staff who answer e-mail for them. Are you a legislator yourself, or are you a staff member?
- ❍ Legislator (1)
- ❍ Staff Member (2)

Q2 In the current or most recent legislative session, approximately how many emails have you received from constituents asking you to support or oppose a piece of legislation?

Q6 In the last legislative session, approximately how many contacts have you had with registered lobbyists asking you to support or oppose a piece of legislation?

Q47 I want to ask you a few questions about information you receive from leaders in your party, professional lobbyists, constituents, polling information from your district, and trusted advisors.

Q43 Would you say that you get enough information to accomplish your goals as a legislator or as a staff member from...

|  | Yes (1) | No (2) |
|---|---|---|
| State Party Leaders (1) | ❍ | ❍ |
| Professional Lobbyists (2) | ❍ | ❍ |
| Emails from constituents (3) | ❍ | ❍ |
| Trusted advisors (4) | ❍ | ❍ |
| Polling information from your district (5) | ❍ | ❍ |

Q44 Would you say that you are barraged with too much information from...

|  | Yes (1) | No (2) |
|---|---|---|
| State party leaders (1) | ❍ | ❍ |
| Professional lobbyists (2) | ❍ | ❍ |
| Emails from constituents (3) | ❍ | ❍ |
| Polling information from your district (4) | ❍ | ❍ |
| Trusted advisors (5) | ❍ | ❍ |

Answer If Would you say that you are barraged with too much information from...  - Yes Is Selected
Q45 Do you think that you lack the time or resources to efficiently process the information you receive?
- ❍ Yes, lack time (1)
- ❍ Yes, lack resources (2)
- ❍ Yes, lack time and resources (3)
- ❍ No (4)

Q8 The next set of questions deals with different interest groups in your district.

Q7 I want to ask you about interest groups in your district. On a scale of 0 to 100, please estimate the percent of your constituents who agree with the policy agenda of the following groups.
_____ AFL-CIO (1)
_____ Family Research Council (2)
_____ National Rifle Association (3)
_____ Sierra Club (4)
_____ Planned Parenthood (5)
_____ Chamber of Commerce (6)

Q9 Similarly, please rate how much email you get from constituents that you think is generated by these groups.

| | None (1) | Little (2) | Some (3) | A Lot (4) |
|---|---|---|---|---|
| AFL-CIO (1) | ○ | ○ | ○ | ○ |
| Family Research Council (2) | ○ | ○ | ○ | ○ |
| National Rifle Association (3) | ○ | ○ | ○ | ○ |
| Sierra Club (4) | ○ | ○ | ○ | ○ |
| Planned Parenthood (5) | ○ | ○ | ○ | ○ |
| Chamber of Commerce (6) | ○ | ○ | ○ | ○ |

Q12 Who do you find most trustworthy for information to help you accomplish your goals in the legislature (please rank, with 1 being most trustworthy and 5 being least trustworthy)?
_____ State party leaders (1)
_____ Trusted advisors (2)
_____ Professional lobbyists (3)
_____ Polling information from your district (4)
_____ Email messages from constituents. (5)

Q11 Which statement best describes your plans for the next election cycle?
○ Very likely to seek re-election in my current office (1)
○ Equal chance of seeking re-election or not seeking re-election in my current office (2)
○ Term-limited out of my current office (3)
○ Plan to run for a different office (4)
○ Undecided (5)

Q5 What best describes your current role in the office?
- ○ Chief of Staff (1)
- ○ Communications (2)
- ○ Constituent Service (3)
- ○ Policy (4)

Q48 In the average week in session, how many hours do you spend responding to constituent emails?

LAX For the next question imagine you have received the following email from a constituent and 6 others similar to it about a fictional bill.  I am writing to you to urge you to support Senate Bill 516,  legislation requiring genetically modified (GMO) foods be labeled. Unsuspecting consumers by the tens of millions are being allowed to purchase and consume unlabeled genetically engineered foods, despite a finding by FDA scientists that these foods could pose serious risks and despite the fact that FDA does not do any testing of its own. Labeling GMO foods helps give people the freedom to choose what they want to buy, and protects consumers who are worried about the safety of GMO foods.GMO foods require labeling in nearly 50 countries around the world including the united Kingdom, Japan, China, Australia, New Zealand and many others. Would you help make this a reality by supporting the bill to require labeling of genetically modified foods?

LPX For the next question imagine you have received the following email from a constituent and 6 others similar to it about a fictional bill.  I am writing to you to urge you to support Senate Bill 516, legislation requiring genetically modified (GMO) foods be labeled. I&#39;m worried about the safety of GMO foods, and want to know what I&#39;m buying at the grocery store.  Labeling GMO foods helps give people the freedom to choose what they want to buy, and protects consumers who are worried about the safety of GMO foods.  I&#39;ve heard that they label genetically modified foods in many other places, and I think it would be a good idea to start labeling them here. That way, we know what we&#39;re getting.  Would you help make this a reality by supporting this bill?

Q37 For the next question imagine you have received the following email from a constituent and 6 others similar to it about a fictional bill.  I am writing to you to support Senate Bill 516, legislation restricting handgun purchases to one handgun per 45-day period. Laws limiting an individual's ability to purchase multiple firearms within a short span of time reduce gun trafficking, specifically the number of guns entering the illegal market and flowing between states.    I support the Second Amendment and own several guns myself, but I don&#39;t want guns in the hands of gun-runners and criminals.    Firearms sold in "multiple sales" are frequently used in crime. About 22% of crime guns are guns from multiple sales. Furthermore, guns from multiple sales 64% more likely to be used in crime than guns from single sales. Legislation like this in other states reduces the number of crime guns linked to that state.    Will you help make this legislation a reality by co-sponsoring this bill?

Q38 For the next question imagine you have received the following email from a constituent and 6 others similar to it about a fictional bill.   I am writing to you to support Senate Bill 516, legislation restricting handgun purchases to one handgun per 45-day period. I don't want criminals coming to our state to buy guns, or people in other states accusing gun shop owners here of aiding criminals.  I support the Second Amendment and own several guns myself, but I don't want guns in the hands of gun-runners and criminals. Most people I know who carry for self-defense buy one handgun at a time. It seems to me that if you're going to buy more than one handgun at once, you're likely to use them in crime. I've also heard that other states have laws that limit handgun purchases, and they've kept gun-running criminals out of their state. Will you help make this legislation a reality by supporting this bill?

LAY For the next question imagine you have received the following email from a constituent and 60 others similar to it about a fictional bill.   I am writing to you to urge you to support Senate Bill 516,   legislation requiring GMO foods be labeled. Unsuspecting consumers by  the tens of millions are being allowed to purchase and consume unlabeled  genetically engineered foods, despite a finding by FDA scientists that  these foods could pose serious risks and despite the fact that FDA does  not do any testing of its own. Labeling GMO foods helps give  people the freedom to choose what they want to buy, and protects  consumers who are worried about the safety of GMO foods.GMO  foods require labeling in nearly 50 countries around the world including  the united Kingdom, Japan, China, Australia, New Zealand and many  others. Would you help make this a reality by co-sponsoring the bill to require labeling of genetically modified foods?

LPY For the next question imagine you have received the following email from  a constituent and 60 others similar to it about a fictional bill.I  am writing to you to urge you to support Senate Bill 516, legislation  requiring GMO foods be labeled. I'm worried about the safety of GMO foods, and want to know what I'm buying at the grocery store. Labeling GMO foods helps give people the freedom to choose what they  want to buy, and protects consumers who are worried about the safety of  GMO foods.I've heard that they label genetically modified foods  in many other places, and I think it would be a good idea to start  labeling them here. That way, we know what we're getting.Would you help make this a reality by co-sponsoring the bill to require labeling of genetically modified foods?

Q42 For the next question imagine you have received the following email from a constituent and 60 others like it about a fictional bill. I am writing to you to support Senate Bill 516, legislation restricting handgun purchases to one handgun per 45-day period. Laws limiting an individual's ability to purchase multiple firearms within a short span of time reduce gun trafficking, specifically the number of guns entering the illegal market and flowing between states. I support the Second Amendment and own several guns myself, but I don't want guns in the hands of gun-runners and criminals. Firearms sold in "multiple sales" are frequently used in crime. About 22% of crime guns are guns from multiple sales, and 64% more likely to be used in crime than guns from single sales.  Legislation like this in other states reduces the number of crime guns linked to that state. Will you help make this legislation a reality by co-sponsoring this bill?

Q41 For the next question imagine you have received the following email from a constituent and 60 others like it about a fictional bill. I am writing to you to support Senate Bill 516, legislation restricting handgun purchases to one handgun per 45-day period. I don't want criminals coming to our state to buy guns, or people in other states accusing gun shop owners here of aiding criminals.  I support the Second Amendment and own several guns myself, but I don't want guns in the hands of gun-runners and criminals. Most people I know who carry for self-defense buy one handgun at a time. It seems to me that no one with good intentions would need to buy more than one gun at a time. I've also heard that other states have laws that limit handgun purchases, and they've kept gun-running criminals out of their state. Will you help make this legislation a reality by co-sponsoring this bill?

Q34 Which of the following actions would you be likely to take in response to this email? (Select All that apply)
❑  Introduce a bill "by request" on behalf of the constituent (1)
❑  Vote for the bill in my committee if appropriate (2)
❑  Vote for the bill when it reaches the floor (3)
❑  Break with state party leaders to support the bill (4)
❑  Co-sponsor the bill at the constituent's request (5)
❑  Urge fellow legislators to support the bill (6)
❑  Vote against the bill (7)
❑  Reply to the email personally (8)
❑  Send a form response email to the constituent (9)
❑  None of the above (10)

Q46 Do you think any of the following consequences would occur if you supported the bill?

| | Definitely yes (1) | Probably yes (2) | Probably not (3) | Definitely not (4) | Don't Know (5) | Don't Care (6) |
|---|---|---|---|---|---|---|
| My relection chances would be hurt if I supported this bill (1) | ○ | ○ | ○ | ○ | ○ | ○ |
| I would lose the support of an important interest group if I supported this bill (2) | ○ | ○ | ○ | ○ | ○ | ○ |
| I would get a lot more negative email than positive if I supported this bill (3) | ○ | ○ | ○ | ○ | ○ | ○ |
| Leaders in my caucus would be upset with me if I supported this bill (4) | ○ | ○ | ○ | ○ | ○ | ○ |
| I would lose the support of people outside my district if I supported this bill (5) | ○ | ○ | ○ | ○ | ○ | ○ |

Q51 Do you think any of the following consequences would occur if you opposed the bill?

| | Definitely yes (1) | Probably yes (2) | Probably not (3) | Definitely not (4) | Don't Know (5) | Don't Care (6) |
|---|---|---|---|---|---|---|
| My relection chances would be hurt if I opposed this bill (1) | ○ | ○ | ○ | ○ | ○ | ○ |
| I would lose the support of an important interest group if I opposed this bill (2) | ○ | ○ | ○ | ○ | ○ | ○ |
| I would get a lot more negative email than positive if I opposed this bill (3) | ○ | ○ | ○ | ○ | ○ | ○ |
| Leaders in my caucus would be upset with me if I opposed this bill (4) | ○ | ○ | ○ | ○ | ○ | ○ |
| I would lose the support of people outside my district if I opposed this bill (5) | ○ | ○ | ○ | ○ | ○ | ○ |

Q15 A number of states have passed, or are considering, legislation which frees some public schools from certain state regulations and permits them to function independently. Some people say that these charter schools would be a good thing, because with fewer regulations, they would be able to try out new ideas for improving education. Others say charter schools would be a bad thing because regulations are necessary to guard against inferior or poor educational

practices. Which position do you agree more with -- that charter schools are a good thing for education, or that they are a bad thing for education?
❍ Charter schools are a good thing for education (1)
❍ They are a bad thing for education (2)

Q17 A number of states have passed, or are considering, legislation which frees some public schools from certain state regulations and permits them to function independently. Some people, including powerful interest groups in your district, say that these charter schools would be a good thing, because with fewer regulations, they would be able to try out new ideas for improving education. Others say charter schools would be a bad thing because regulations are necessary to guard against inferior or poor educational practices. Which position do you agree more with -- that charter schools are a good thing for education, or that they are a bad thing for education?
❍ Charter schools are a good thing for education (1)
❍ They are a bad thing for education (2)

Q19 A number of states have passed, or are considering, legislation which frees some public schools from certain state regulations and permits them to function independently. Some people, including a majority of poll respondents in your district, say that these charter schools would be a good thing, because with fewer regulations, they would be able to try out new ideas for improving education. Others say charter schools would be a bad thing because regulations are necessary to guard against inferior or poor educational practices. Which position do you agree more with -- that charter schools are a good thing for education, or that they are a bad thing for education?
❍ Charter Schools are a good thing for education (1)
❍ They are a bad thing for education (2)

Q21 A number of states have passed, or are considering, legislation which frees some public schools from certain state regulations and permits them to function independently. Some people, including a large number of constituents who have called or emailed you, say that these charter schools would be a good thing, because with fewer regulations, they would be able to try out new ideas for improving education. Others say charter schools would be a bad thing because regulations are necessary to guard against inferior or poor educational practices. Which position do you agree more with -- that charter schools are a good thing for education, or that they are a bad thing for education?
❍ Charter Schools are a good thing for education (1)
❍ They are a bad thing for education (2)

Q23 A number of states have passed, or are considering, legislation which frees some public schools from certain state regulations and permits them to function independently. Some people, including leaders in your party, say that these charter schools would be a good thing, because with fewer regulations, they would be able to try out new ideas for improving education. Others say charter schools would be a bad thing because regulations are necessary to guard

against inferior or poor educational practices. Which position do you agree more with -- that charter schools are a good thing for education, or that they are a bad thing for education?
❍  Charter Schools are a good thing for education (1)
❍  They are a bad thing for education (2)

Q29 The federal government is in the process of evaluating applications for building new nuclear power plants in the United States. Some say those applications shouldn't be approved because of safety concerns about nuclear power. Other people say nuclear power plants can provide needed electric power safely. Do you support or oppose building new nuclear power plants in your state?
❍  Support building new power plants (1)
❍  Oppose building new power plants (2)

Q30 The federal government is in the process of evaluating applications for building new nuclear power plants in the United States. Some people, including powerful interest groups in your district, say those applications shouldn't be approved because of safety concerns about nuclear power. Other people say nuclear power plants can provide needed electric power safely. Do you support or oppose building new nuclear power plants in your state?
❍  Support building new power plants (1)
❍  Oppose building new power plants (2)

Q31 The federal government is in the process of evaluating applications for building new nuclear power plants in the United States. Some people, including a majority of poll respondents in your district, say those applications shouldn't be approved because of safety concerns about nuclear power. Other people say nuclear power plants can provide needed electric power safely. Do you support or oppose building new nuclear power plants in your state?
❍  Support building new power plants (1)
❍  Oppose building new power plants (2)

Q32 The federal government is in the process of evaluating applications for building new nuclear power plants in the United States. Some people, including a large number of constituents who have contacted your office, say those applications shouldn't be approved because of safety concerns about nuclear power.  Other people say nuclear power plants can provide needed electric power safely. Do you support or oppose building new nuclear power plants in your state?
❍  Support building new power plants (1)
❍  Oppose building new power plants (2)

Q33 The federal government is in the process of evaluating applications for building new nuclear power plants in the United States. Some people, including leaders in your party, say those applications shouldn't be approved because of safety concerns about nuclear power. Others people say nuclear power plants can provide needed electric power safely. Do you support or oppose building new nuclear power plants in your state?
- ○ Support building new power plants (1)
- ○ Oppose building new power plants (2)

Q51 We know that surveys don't always tell the whole story. Please use this space to tell us about your experience receiving emails from constituents about policy issues.

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