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## POLITICS & INTERNATIONAL RELATIONS | RESEARCH ARTICLE

# The impact of education on legislative responsiveness in three field experiments

Jayme Neiman<sup>1\*</sup>

**Abstract:** Three field experiments were used to investigate whether a constituent's education level influences state legislators' responsiveness to their request for assistance. Legislators were sent emails that were randomly varied as to the education level of the writer. Results indicate that communication from constituents with lower education levels receive fewer replies. Two potential explanations for the variation in legislative response are explored—political party and the legislator's own education level. Analysis suggests that neither of these variables account for the response differential to the email manipulations.

**Subjects:** Politics & International Relations; Political Behavior and Participation; Government; Legislative Politics; Education; Sociology of Education; Education Policy & Politics; Education Politics

**Keywords:** Legislators; field experiment; responsiveness; representation; state legislatures; communication; email

### 1. Background

Equality of political access and political influence are two of the cornerstones of what makes a democratic system representative (Butler & Broockman, 2011; Dahl, 1956; Verba, 2003). Research indicates, however, that there is considerable variation in who has this access and influence (e.g. Butler & Broockman, 2011; Fraga, 1992; Hajnal, 2009; Thernstrom, 1987), and in this paper I examine whether a constituent's education level contributes to that variation, and thus to the benefits of democracy.

In order to explore this question, I focus on communication responsiveness—literally how lawmakers reply to emails sent to them from mock constituents. In a series of three field experiments, I sent emails to state legislators, varying the education level (both perceived and explicit) of the constituent email sender to look for differences in the response rates from the lawmakers.

### ABOUT THE AUTHOR

Jayme Neiman teaches Political Science and Public Administration at the University of Northern Iowa. Before joining University of Northern Iowa, she received her PhD at the University of Nebraska. She also has a Masters of Public Administration from California State University, Northridge. This work stems from her dissertation project and represents a launching point from which she plans to continue her work on the linkages between education and democracy.

### PUBLIC INTEREST STATEMENT

The 2016 presidential election recently served as a beautiful illustration of the strong relationship between education and democracy in the United States. This relationship, however, is generally looked at in terms of the correlation between education and voter turnout or that between education and ideology/party ID. The goal of this paper is to look at a different angle—what does education (or lack thereof) mean for representation. This paper argues that because the under educated do not tend to vote at high rates, and because elected officials tend to be of higher educational levels themselves, those constituents with lower levels will likely be left behind in the race for responsiveness.

Responding to email communication falls into a category of the kind of quotidian casework that makes up the bulk of the daily work of a state legislative office (Jewell, 1982; Keefe & Ogul, 1989).

Casework refers generally to the actions taken by legislative offices to provide a specific benefit for one constituent or a group of constituents. This can take the form of answering questions, assisting with navigating regulations, helping with benefit eligibility, or even job assistance. Though congressional scholars have studied casework at the federal level (Cain, Ferejohn & Fiorina, 1980; Fenno, 1978; Fiorina, 1974, 1977; Frantzich, 1986; Mann & Wolfinger, 1980; Parker, 1986; Serra & Moon, 1994; Yiannakis, 1981; Wagner, 2007), few have examined casework at the state legislative level.

Casework can be viewed as representation or responsiveness as these concepts are conceptualized by Pitkin (1967/1972), and Eulau and Karps (1977). Specifically, casework embodies Pitkin's concept of substantive representation and Eulau and Karps' service responsiveness model: the actions that representatives take on behalf of or in the interest of the represented. In this way casework is foundational to democracy—the “re” in representation and responsiveness.

In addition to being essential for the constituency and for representative democracy itself, casework is important to the elected officials themselves. Legislators do constituent casework in order to claim credit for helping their people (Mayhew, 1974). Essentially, if a constituent knows that the lawmaker was the one that helped them with their problem or inquiry, the more likely they are to see that lawmaker as a helpful and effective public official (Fenno, 1978; Mayhew, 1974). And, of course, the more someone sees a lawmaker as helpful and effective, the more likely they are to vote for that person and to contribute money toward that person's future campaigns. Even the most benevolent of lawmakers generally is motivated to keep their job and to take actions to do so.

Lawmakers, however, cannot give everyone all of their attention all of the time. It is important to note that existing research has found significant variation in the amount of casework that state legislative offices perform. This suggests meaningful variation in this particular form of representation or responsiveness. There have been many attempts to explain this variation, including individual factors such as personal enjoyment (Rosenthal, 1981), developing relationships with constituents (Diamond, 1977), electoral advantage (Patterson, 1990; Rosenthal, 1993) and political ideology (Cain, Ferejohn, & Fiorina, 1987; Johannes, 1984). State and district factors, such as urbanization (Johannes, 1984), institutional culture (Jewell, 1982), and legislative professionalism (Jewell, 1982; Patterson, 1990; Rosenthal, 1993) have also been shown to have an effect.

There may be another concept at play here—statistical discrimination (Butler & Broockman, 2011). The idea that legislators have a pretty good idea of who will and who will not be a supporter come election time has been a popular theme in the research on legislative behavior since the 1970s. For example wealthier Americans tend to vote at higher rates than poorer ones, and Larry Bartels (2002) found that U.S. Senators are “vastly more responsive to the views of affluent constituents than to constituents of modest means” (21). In 2005, Martin Gilens found similar, possibly even more disheartening, results—policy outcomes vary with the preferences of the richest Americans, but do not reflect at all the preferences of poor or middle-income ones (Gilens, 2005).

This sort of preferential treatment can be broken down even further. Butler and Broockman (2011) noted that black voters tend to cast their votes for the Democratic candidate nearly all of the time, and thus hypothesized that a rational Republican legislator would be more responsive to a white constituent than a black one. The results of their study did, in fact, indicate that this was the case. Further, they found that when the black “constituent” specified that he was a Republican, this effect disappeared. These results show that legislators may be relying on racial cues when deciding where to allocate their attention and resources.

Responsiveness in this sense has real-world implications that have been documented in the literature—there is evidence that when historically underserved groups, such as women and racial minorities, perceive their representatives as being responsive they vote at higher rates (Chattopadhyay & Duflo, 2004; Griffin & Keane, 2006). The flip of this, unfortunately, is that when lawmakers do not respond to these constituents in the same way as they do to their white male counterparts, individuals who were already more likely to stay home on election day become even more likely to do so because of their negative experience.

## 2. Hypotheses

I propose that these mechanisms for variation in responsiveness may hold true for education level as well. It is commonly understood that individuals with more education participate at higher rates (Berinsky & Lenz, 2011; Campbell, 1980; Hillygus, 2005; Nie et al., 1996; Schlozman, 2002; Wolfinger & Rosenstone, 1980). It is not entirely clear why this relationship is so strong, and many theories have been posited. Rosenstone and Hansen (1993) argue that education “imparts the knowledge and skills most essential” (136) to understanding politics and government. On the same note, Verba et al. (1995) offer the idea that education increases civic skills and that those skills enable participation. Conversely, Kam and Palmer (2008) propose that rather than knowledge, increased educational attainment endows pre-adult experiences that create particular dispositions and a particular status that makes participation more likely.

More highly educated individuals are more likely to participate in all areas of politics, but of particular interest to lawmakers is voting and contributing monetarily to campaigns. If we continue to trust that Mayhew was correct and that legislators act toward being reelected, it follows that they may devote a disproportionate amount of time and attention to the people who will be more likely to support them. Consequently, I hypothesize that legislators will be more responsive to constituents who are perceived to have more education (Hypothesis 1).

Another established mechanism for explaining variation in responsiveness that might be applicable here is political party. In addition to making one more likely to participate, higher education levels are correlated with political liberalism and identification with the Democratic Party (*Party Identification Trends*, 2014). Among those with a high school diploma or less, 31% identified as Democratic while only 22% identified as Republican—a difference of 9% points (others did not respond or identified as Independent). Respondents with a college degree showed a larger difference, as 34% identified as Democratic and 24% as Republican (a 10-point difference). The biggest difference was between the parties was among those with post-graduate degrees where 38% identified as Democratic and only 20% as Republican, a much larger 19-point difference. Put simply, the higher the level of education, the bigger edge the Democrats have.

There has been notorious vitriol surrounding this correlation. While running for president in 2012 Rick Santorum referred to institutions of higher education as “indoctrination mills” for liberalism. That may be an overstatement, however studies have indeed found that professors tend to be more liberal than the general population (Gross & Simmons, 2007; Horowitz, 2007) and that there is a generally liberal campus culture and curriculum (Binder & Wood, 2013). Studies of students themselves indicate that they do in fact become more liberal as their years of post-secondary schooling progress (Horowitz, 2007), though the changes are in line with non-collegiate adults between the ages of 18 and 24 (Mariani & Hewitt, 2008). Further, data indicates a self-selection effect, as liberal high schoolers are more likely than their conservative counterparts to attend college in the first place (Stoker & Jennings, 2008).

There is a clear connection between educational attainment and political party affiliation such that those with higher levels of education are more likely to identify as Democrats. A Republican official, when faced with a highly educated constituent, may be aware of the statistics and assume that person to not be a supporter. Accordingly, I expect Republican representatives to be more responsive to communication from uneducated constituents than their Democratic counterparts as they are more likely to hope for a chance at that individual’s vote/campaign contribution (Hypothesis 2).

The third potential area for looking at the relationship between variation responsiveness and education level lies in the educational attainment of the legislators themselves. In a study looking at gender, Phillips (1995) argues that the mere presence of women in governing bodies increases the representation of women in the constituency. Shared experiences and a naturally-occurring empathy necessarily bestow this benefit. She argues that this principle is transferrable to other historically disadvantaged or underrepresented groups. I propose that those members of American society who have relatively lower levels of education may fit this model. Education certainly endows certain types of shared experiences—graduation, classes, coursework, and for many, particular social experiences. Not going to college also bestows shared experiences. Those who drop out of high school largely miss out on the specific experiences unique to those who obtain further education. They are often limited in the types of jobs available to them, and tend to be overrepresented amongst those who do not have health insurance and who collect government benefits. They also make up a majority of those Americans who became parents as teenagers.

If the relatively uneducated are, in fact, a cohesive group in terms of shared experiences and specific interests, it follows that they may be most represented by legislators who also lack extended education. Perhaps individual legislators who did not attend college (there are very few, if any, who did not complete high school in the entire country and none in my sample though there is substantial variation—see Table 1 for detailed statistics) would be more sympathetic to, or at least unfazed by, communication from constituents who clearly lack education as well. Hypothesis 3 is, then, legislators with less education themselves will be more responsive to the uneducated constituents than their better-educated counterparts.

Per the relevant literature, I am also including several control variables in my models. Female legislators tend to spend more time on constituency service than males do (Richardson & Freeman, 1995; Thomas, 1992), so gender is included. Staff size has been found to have an effect on the time that an office is able to allocate to casework (Freeman & Richardson, 1994; Jewell, 1982; Patterson, 1990; Rosenthal, 1993), so legislative professionalism/capacity is included. Senate offices, generally having larger staffs and budgets, tend to devote more time to constituent services than House offices (Rosenthal, 1993). Finally, individual legislator’s views on government spending has been found to influence casework in that those who favor limited government spend less time on it (Cain et al., 1987; Johannes, 1984), and legislator party identification will be used as a proxy. These variables may impact overall responsiveness, however there is no specific reason to believe that they would affect the responsiveness to a well-educated constituent over one who is not so well-educated.

### 3. Study 1

In order to test legislative response variation and educational attainment, a sample of five state representatives and five state senators and their email addresses were randomly selected from the National Conference of State Legislators database. After attrition due to email delivery problems and job turnover, the data-set included 332 cases in 38 states. Table 1 presents the univariate

**Table 1. Univariate statistics for independent variables**

	Minimum	Maximum	Mean	SD
Gender	0 (Male)	1 (Female)	.330	.472
Party	0 (Dem)	1 (Rep)	.520	.500
Chamber	0 (Senate)	1 (House)	.490	.501
Legislative Professionalism <sup>a</sup>	1	5	2.621	.987
Education level <sup>b</sup>	1	5	3.961	

<sup>a</sup>Legislative professionalism is measured here using the measure developed by the National Conference of State Legislatures. They split the states up into 5 groups based on what percent of a full-time job the legislatures require of their legislators. Staff capacity, which is highly correlated with full-timeness, of each legislature is also taken into account.

<sup>b</sup>1 = High school, 2 = Some college, 3 = Associates or equivalent degree, 4 = Bachelor’s degree, 5 = Graduate degree.

statistics for the sample, which is broadly representative of the larger population of state legislators, though slightly heavy on females ( $t = 3.754, p < .001$ ).

This study uses writing quality as a proxy for education level. Writing skill can serve this role reasonably as there are two strong links between the two. First, having more education generally makes people better writers (Dowhower, 1989; Ericsson, 2006; Newell & Rosenbloom, 1981). Second, having well-developed writing skills makes individuals more likely to stay in school and attain more education (Graham & Perin, 2007; Mattern & Shaw, 2010; Rasicot, 2012).

Two emails, each asking a simple question about voter registration, were composed—one mail of high quality, with no spelling or grammatical errors (Email A) and one with many errors (Email B). Each of the offices was sent these emails two weeks apart, with order randomly alternated and from generic Gmail accounts.

#### Email A

Dear Senator XXXXX,

My name is Brian Johnson, and I am trying to figure out how to register to vote for the upcoming election. I am new to the area and unfamiliar with the institutions and procedures here. Due to the current antagonistic political climate, and the historic nature of the next round of elections, I want to make sure that I have plenty of time to register.

If you could please let me know who I should call, or where I should go to register, I would really appreciate it. Thank you for your time.

Best,

Brian Johnson

#### Email B

Dear mr XXXXX

I am jakemarshall. I would like to lern to registor to vote for the next electshun. I jus moved here and dont know how to do stuff here. I know that importat stuff is happen in the world and I want to make my voice herd. Where can I go or call for signing up?

Thanks for youre time

Jake marshall

Each legislator was then coded for whether or not they responded to the email (and for the control variables). About 62% responded to the “good” email, while only around 40% responded to the “bad” one.<sup>1</sup> A simple RM-ANOVA was used first in order to test for mean differences in response to the two emails without holding any control variables constant. This analysis shows a significant difference between the mean response rate to the well-written email ( $M = .62, SD = .486$ ) and the poorly-written one ( $M = .45, SD = .498$ ),  $F(1,331) = 30.526, p < .001$ , supporting  $H_1$ .

There was no similar support however for a similar simple test of  $H_2$  or  $H_3$ . A  $\chi^2$  test of independence indicates that party affiliation did not affect the response rates,  $\chi^2(3, N = 332) = .563, p = .905$ . Similarly, the educational attainment of the legislators showed no effect ( $\chi^2(12, N = 332) = 17.517, p = .131$ ).

In order to test the relationship between the email responses and the hypothesized variables while controlling for the variables that previous research indicated may influence response rate, a multinomial logistic regression was estimated using a categorical construction response variable (no response, well-written only, poorly-written only, both). The model shows a significant result, however, of the independent variables used, the variable driving the model is legislative capacity (Table 2). Only one other variable appears to be significant—the gender variable in the last column has a probability value of .05. While the result is in the expected direction (female legislators are

**Table 2. Multinomial logistic regression predicting response to emails**

Variable	Responded to well-written only coefficient (SE)	Responded to poorly-written only coefficient (SE)	Responded to both coefficient (SE)
High school	-.162 (.607)	-.336 (1.146)	.141 (.544)
Some college	-.530 (.520)	.380 (.704)	-.715 (.523)
Associate's degree	-19.183 (52.51)	-.416 (1.149)	-.980 (.694)
Bachelor's degree	-.157 (.358)	.883 (.503)	-.067 (.343)
Graduate degree	-	-	-
Senate	-.002 (.309)	.440 (.432)	-.296 (.292)
House	-	-	-
Democrat	.146 (.320)	-.001 (.440)	.013 (.302)
Republican	-	-	-
Very low leg capacity	-18.937 (.894)**	-19.469 (1.076)**	-18.956 (.680)**
Low leg capacity	-18.945 (.844)**	-19.589 (1.004)**	-19.274 (.637)**
Medium leg capacity	-18.342 (.834)**	-18.696 (.966)**	-18.013 (.609)**
High leg capacity	-17.638 (.719)**	-19.445 (1.279)**	-17.959 (.001)**
Very high leg capacity	-	-	-
Male	.553 (.327)	.233 (.446)	.608 (.311)*
Female	-	-	-
Intercept	18.139 (.867)**	17.087 (1.058)**	18.431 (.657)**
Model $\chi^2$	59.456**		
Number of cases	332		

Note: The contrast variable for the model is the "did not respond to either email" category.

\*Significance level at  $p < .05$ .

\*\*Significance level at  $p < .01$ .

more likely to have responded to both emails), it is possible that this is a statistical artifact—the fallout of running a large model.

This larger model allows us to see that while there was a significant difference in the response rate to the two emails, neither of the hypothesized variables can account for the difference. Rather, legislative professionalism is the only variable that reliably indicates a significant result. This is a bit surprising. Previous research would lead us to expect that legislative professionalism might influence the overall response rates (Freeman & Richardson, 1994; Jewell, 1982; Patterson, 1990; Rosenthal, 1993), however there was nothing in these studies that would indicate this variable as possibly explaining a difference in response rates between the two emails.

#### 4. Study 2

In Study 1, the poorly-written email received far fewer responses than the well-written one. It is possible however that the extreme nature of the email quality was enough to unfairly influence the results (i.e. the "good" email was too good and vice versa). In order to parse this out Study 2 ran with a slightly altered version of the manipulation emails (Emails C and D).

### Email C

Dear Senator XXXXX,

My name is Joseph Anderson. I am moving to your district and I am trying to find out how to register to vote. I want to make sure that I can stay involved there, so if you could please let me know where to go, I would appreciate it.

Thank you,  
Joseph Anderson

### Email D

My name is Michael Peterson. Im moving to the area and Im trying to register for voting. I want to make sure that I be staying involved there, so if you could let me know where to go, I would be grateful.

Thanks,  
Michael Peterson

A new sample of legislators was randomly selected from NCSL using the same method as in Study 1. After attrition (email delivery problems, job turnover), 324 legislators from 33 states remained in the sample. As in Study 1, this sample contains proportionally more females in state legislatures generally, but is broadly representative (Table 3). Additionally, to avoid overusing deceptive methods, for Studies 2 and 3 the sample was split so that half of the legislators were randomly assigned to receive the well-written email and half the poorly-written one.<sup>2</sup>

As hypothesized and consistent with the results of Study 1, the well-written email received a significantly higher response rate than the poorly-written one. Seventy-one percent of the recipients of Email C responded but only 49% of those who received Email D did. A one-way ANOVA using a dummy variable for whether the legislator responded as the factor and a condition variable for which email they received as the dependent variable indicates that this is a significant difference,  $F(1,332) = 17.045, p < .001$ . Clearly tempering the quality of the emails from Study 1 did not diminish the mean difference, and in fact there was even a slightly larger effect than was found before. Again, better writing quality means more responsiveness.

In order to test  $H_2$  and  $H_3$  a binary logistic regression was estimated using the same control variables as were used in Study 1. The logistic regression model was statistically significant,  $\chi^2(6) = 19.785, p = .003$  and correctly classified 62% of cases (Table 4). Holding party, gender, education level, chamber, and legislative professionalism constant, legislators in the sample were more than twice as likely to respond to the well-written email than they were to the poorly-written one. As was found in Study 1, but contrary to the predictions in hypotheses 2 and 3, political party and the education level of the legislator did not significantly contribute to the model.

**Table 3. Univariate statistics for independent variables**

	Minimum	Maximum	Mean	SD
Gender	0 (Male)	1 (Female)	.330	.470
Party	0 (Dem)	1 (Rep)	.560	.497
Chamber	0 (Senate)	1 (House)	.540	.499
Legislative professionalism	1	5	2.730	.977
Education level	1	5	3.960	1.269

**Table 4. Binary logistical regression predicting email response**

	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>DF</b>	<b>Sig.</b>	<b>Exp(B)</b>
Condition	.895	.236	14.362	1	.000	2.448
Party	.230	.253	.828	1	.363	1.259
Gender	.296	.261	1.282	1	.258	1.344
Education	.076	.093	.661	1	.416	1.079
Chamber	-.408	.239	2.926	1	.087	.665
Leg professionalism	-.011	.125	.008	1	.929	.989
Constant	-.401	.548	.534	1	.465	.670

### 5. Study 3

A potential criticism of the previous two studies is that the emails only indirectly tap the key concept of education level. Poor writing may be caused by other things than education per se. Study 3 was conducted with the aim of replicating and validating the results of the first two studies using a manipulation that more directly tests the effect of education on the response rate.

In this study, each email is the same except that one specifies that the writer is a high-school dropout (Email E) and the other has a master's degree (Email F).

#### Email E

Dear Senator XXXXX,

I am worried about unemployment in the United States and in our district. I lost my job six months ago, and have not been able to find a new one. As someone with a Master's degree, this really worries me. I was wondering what our state is doing to help with unemployment.

Thank you very much,  
Andrew Collins

#### Email F

Dear Senator XXXX

I am worried about unemployment in the United States and in our district. I lost my job six months ago, and have not been able to find a new one. As someone who dropped out of high school, this really worries me. I was wondering what our state is doing to help with unemployment.

Thank you very much,  
James Holman

A new sample of legislators was randomly selected from NCSL using the same method as in Studies 1 and 2. After attrition, 321 legislators from 33 states remained in the sample. This group is comprised of 67% males, which is below the national rate of around 76% ( $t = 3.466, p = .001$ ), and 56% Republicans, which is descriptive of the broader state legislator population ( $t = .490, p = .624$ ) (see Table 5). Again, the sample was split so that half of the legislators were randomly assigned to receive the well-written email and half the poorly-written one.<sup>3</sup>

In line with the results of Studies 1 and 2, the well-written email received a significantly higher response rate than the poorly-written one. Seventy-eight percent of the recipients of Email E responded but only 57% of those who received Email F did. A one-way ANOVA using a dummy variable for whether the legislator responded as the factor and a condition variable for which email they received as the dependent variable indicates that this is a significant difference,  $F(1,319) = 15.486, p < .001$ . This finding supports the simple difference of means tests from the first two studies, but

**Table 5. Univariate statistics for independent variables**

	Minimum	Maximum	Mean	SD
Gender	0 (Male)	1 (Female)	.330	.470
Party	0 (Dem)	1 (Rep)	.520	.500
Chamber	0 (Senate)	1 (House)	.520	.500
Legislative professionalism	1	5	2.741	.984
Education level	1	5	3.903	1.308

**Table 6. Binary logistical regression predicting email response**

	B	S.E.	Wald	DF	Sig.	Exp(B)
Condition	.994	.253	15.466	1	.000	2.703
Party	-.391	.259	2.286	1	.131	.676
Gender	-.398	.277	2.069	1	.150	.671
Education	-.091	1.00	.828	1	.363	.913
Chamber	-.166	.251	.439	1	.508	.847
Leg professionalism	-.098	.126	.601	1	.438	.907
Constant	1.462	.590	6.139	1	.013	4.316

rather than relying on writing quality as a proxy for education it provides a clear and direct cue of education level.

A logistic regression model was used to test H<sub>2</sub> and H<sub>3</sub> chamber, gender, party, education level, and legislative capacity as control variables. The model was statistically significant,  $\chi^2(6) = 21.760$   $p = .001$  and correctly classified 70% of cases (Table 6). Holding the control variables constant, legislators in the sample were almost three times more likely to respond to the well-written email than they were to the poorly-written one. Similar to the first two studies presented herein but again contradicting Hypotheses 2 and 3, political party and the education level of the legislator did not significantly contribute to the model.

### 6. Discussion of results

The three studies presented in this paper demonstrate a consistent pattern. Constituents with higher education levels receive a higher response rate than communication from constituents with lower levels. This holds true whether education was measured by proxy through writing level or directly by statement in otherwise identical communication

There was a very low overall response rate. It is possible that for Studies 1 and 2 the topic of the emails was a confound—if the writer was able to contact the legislator, wouldn't he have been able to find the voter registration information? While it is reasonable to conclude that this may account for the low response rate, I contend that it doesn't account for the *difference* in the response rates.

Hypothesis 2 posited that due to voting constituency differences Republicans would be more responsive to the less educated constituents. There was no support for this in the data. In all three studies, legislator party identification failed to discriminate the response rate between the emails, signifying that even if the theory of statistical discrimination holds true for some demographic characteristics, as has been found in the research, education level (perceived or explicit) is not one of the ways in which Democratic legislators dole out their time and attention as compared to Republican legislators (or vice versa). Considering the overall low response rate to the less-educated constituent, statistical discrimination may still be at work—less educated people are simply less likely to turn

out on Election Day, so they become a lower priority for busy legislators, but not more or less so based on political party.

There is also no support for Hypothesis 3 in these data. I had expected that legislators with lower relative levels of educational attainment themselves would be sympathetic to, or identify with, constituents with low education levels—much as the research has indicated happens for gender and for racial minority groups. This does not seem to be the case. In none of the three studies and the tests therein do legislator education levels appear to significantly predict differential responsiveness. This is, perhaps, unsurprising. There are individual characteristics that incite entitativity (race and religion, for example), but there are other characteristics that are simply seen as individual problems. Education may, in fact, be one of the latter.

Marx famously commented that the poor would be infinitely more successful in advocating for themselves if they realized that they are a cohesive group—not just a bunch of individuals with individual problems. He argued that these poor workers simply do not see themselves this way though, and that this accounts for the fact that they were losing the battle of capitalism. Schlozman and Verba (1979) applied this same principle to the unemployed during the recession of the late 1970s and early 1980s, finding that though it is commonplace for some groups to join together in order to spark change, the unemployed do not.

It is possible that some of the same principles are at play in the present studies. Schlozman and Verba discuss several different areas that serve to limit the cohesiveness of the poor: lack of communication between poor individuals (pertaining to action), reluctance to believe that associated problems are relevant to government intervention, and efficacy. Simply put, they found that poor people see poverty as an individual issue, not a societal one. Further, they tend to believe that there is nothing that they can do to effect change on any level greater than their own personal situation. Thus, they do not tend to get together to talk about the issue of poverty and potential remedies at a societal level.

If we apply those conclusions to this paper, and add that all in to the extremely heterogeneous nature of those with lower relative levels of education, it starts to make sense that elected officials who did not attend college are not necessarily more motivated to help others with similar education levels. Education (or lack thereof) is an individual circumstance—a legislator who did not attend college but ended up elected to a state legislature simply may not see James Holman who dropped out of High School as a comrade. While someone with a PhD might feel an immediate comradeship with another doctorate-earner and act or advocate on that person's behalf, the ties that bind at the lower echelons might not be as tight. Commiserating over the suffering of dissertating is more entitative than the lack of that very thing. And of course, because James and all of the other members of his community who also dropped out of High School do not get together to insist that the government take action on their behalf, or support particular candidates because those candidates reflect their identities, there just may not be enough impetus to motivate a differentiated response.

Overall, these studies indicate that not only do significant numbers of legislators not respond to emails that they receive, their response rates differ based on the quality of the initiating email and education level of the emailer. While statistical discrimination may make it logical for legislators to allocate their time by prioritizing those constituents who are the most likely to vote, and to vote for them, there are more serious implications. Individuals with lower levels of education are already participating in politics at lower rates than those with more education. Dissatisfaction from government officials disinclines participation. Discouraging people with low education levels by not responding to their inquiries only continues the cycle in which these individuals do not participate.

These results raise concerns that state legislators—the very people elected to serve their constituents' interests—are willing to shut some citizens out of the political process. The concerns that government is made up of elitists who care not for the well-being, needs, or desires of the average

American may be well founded. It might be surprising to some that harbor this concern that there is no one party that is more responsive than the other. Indeed, state legislators from both sides of the aisle were not particularly responsive.

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#### Notes

1. 26.5% responded ONLY to the “good” email, and 9.3% ONLY to the “bad” email, so while most of the legislators who responded did respond to both constituents, there is significant variation.
2. A series of *t*-tests were performed to test the effectiveness of the randomization and indicated that each group was not statistically different from the whole sample.
3. *t*-testing indicated that the groups were not significantly different from the larger sample.

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