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# Political issues, evidence, and citizen engagement: The case of unequal access to affordable health 

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#### Abstract

Some social and economic problems do not gain broad awareness. Yet others become prominent (and perhaps are alleviated) in part because they successfully engage the wider citizenry. In this paper we investigate how the evidence used to describe problems affects public engagement. Using disparities in access to affordable health care -- a focal aspect of economic inequality in the United States -- as our main issue, we conduct a series of survey and field experiments showing how some forms of evidence hinder attitudinal and behavioral engagement while other forms increase them. Our results challenge common arguments about political communication and behavior, while also shedding new light on a central question in the study of politics: What determines when citizens become concerned about a social problem?


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## Introduction

A key part of politics involves identifying, prioritizing, and addressing social and economic problems. Foremost among these are ills that involve material hardship, such as people not being able to afford health care, facing unemployment, and living in poverty. ${ }^{1}$ While some people learn about these ills from personal experience, heightened income and residential segregation in the United States (Reardon and Bischoff 2011) means that mass communication is an increasingly vital way in which people are exposed to information about them. For instance, political communication by the news media (Iyengar and Kinder 1987, Scheufele and Tewksbury 2007), interest groups (Kollman 1998, Berry 1999, Baumgartner et al. 2009), and candidates (Vavreck 2009) can powerfully shape citizens' perceptions of what problems should be prioritized on the political agenda.

In this paper we contribute to this literature by asking a related question that has not yet received as much attention: When does communication not only change people's attitudes about a social or economic problem, but also motivate broader engagement (i.e. motivate them to voluntarily spend scarce resources of money and/or attention focused on the issue)? In addressing this question, we follow past work on the framing of social ills (Iyengar 1991, Gross 2008, Aaroe 2011, Ostfeld and Mutz 2014) and argue that the answer depends upon the evidence used to describe the problem. Indeed, in a rich informational environment, even prominent coverage does not guarantee that people will perceive a topic to be important and worth paying attention to (Neumann 1990; Neumann et al. 2014). What matters is not only
${ }^{1}$ While we are mindful of Wlezien's (2005) argument against assuming that all important issues are necessarily problems, in this paper we use the terms "issues", "problems", and "ills" interchangeably as the topics we focus on are typically made salient only when people consider them to be ills/problems that should be reduced. Moreover, although we are focused on problems that involve people experiencing material hardship (i.e. not having the material resources they need to live a productive, fulfilling life), we acknowledge that this is only a subset of the possible concerns that citizens might consider to be problematic.
the availability of information, but the way people understand and interpret it.
One potential way to capture attention, increase the perceived importance of an issue, and motivate political action may be to communicate evidence of its maximal scope (Pingree et al. 2013). Yet evidence that simply conveys the overall size of the problem - such as the total number of people affected - may also undermine engagement by leading people to conceptualize it in terms of large masses of nameless and faceless individuals (Kogut and Ritov 2005). Instead, people become more engaged with a social or economic problem when the evidence brings to mind thoughts of an individual or small group of individuals experiencing it (Slovic et al. 2000, Slovic 2007). In this paper we argue that two kinds of evidence - that which highlights sympathetic case studies as well as one form of statistical evidence that communicates the percentage of people affected by a problem - can be engaging because they produce individualized conceptualizations.

Our empirical approach entails using a series of field and survey experiments to examine the impact of issue evidence on several types of engagement (both behavioral and attitudinal). Throughout, the problem we focus on is one aspect of heightened economic inequality in the United States: disparities in access to affordable health care. In one study we measure the impact of evidence on a traditional measure of political participation: monetary donations to an interest group working to reduce the problem (Verba et al. 1995). In other studies, we rely on another measure of behavior that indirectly captures people's willingness to seek out and pay attention to new information related to the problem (i.e. willingness to click on an email; cf Ryan 2012). Finally, we also conduct a survey experiment in which we compare the effect of evidence on the priority that people attach to the issue as well as their personal concern about it (the latter being an important precursor to behavior in its own right; see Visser et al. 2003). We then conclude the paper by considering the broader implications of our findings, particularly in light of research showing that the political agenda and, ultimately, policy change are more responsive to public opinion when it is accompanied by organized issue advocacy (e.g. Gilens 2012, Druckman and Jacobs 2015).

## Theory

Mass communication about a social or economic problem often first identifies the problem and then presents evidence for it. As issues garner more and more attention, journalists, interest group leaders, and others writing about them often seek to diversify the types of evidence they provide (Boydstun 2013). Following past work, here we distinguish two common types of evidence: case study and statistical. Case study evidence highlights "concrete exemplars of social problems" (Ostfeld and Mutz 2014:53), which typically includes the experience of one identified individual or a small group of identified individuals such as a family. This kind of evidence has received various labels in existing scholarship, including "episodic frames" (Iyengar 1991, Gross 2008, Aaroe 2011), "identified victims" (Kogut and Ritov 2005, Small et al. 2007, Slovic 2007), and "exemplars" (Lyon and Slovic 1976, Levendusky and Malhotra 2015). In contrast, statistical evidence uses quantitative information to focus on the likelihood that a problem is occurring and/or the total number of people affected. Here again previous literature has used a variety of terms, including "thematic" evidence (Iyengar 1991, Gross 2008, Aaroe 2011), "statistical victims" (Kogut and Ritov 2005, Small et al. 2007, Slovic 2007), and "base rate information" (Lyon and Slovic 1976). ${ }^{2}$

What are the consequences of being exposed to either case study or statistical evidence? The immediate consequence is that people use the evidence to form conceptualizations of the problem - that is, what comes to mind when people think about it (Peterson and Aaroe 2013; Small et al 2007; Slovic 2007). When people receive case study evidence - stories of a particular, identified person or family facing a problem - they quite naturally form conceptualizations of the problem in terms of an actual person or small group of people facing it (Slovic 2007). However, conceptualizations formed in response to statistical evidence are more conditional, depending upon whether it is presented in raw numbers or as a percentage
${ }^{2}$ Iyengar's (1991) use of the term "thematic evidence" encompasses quantitative information as well as evidence about changes in public policy (either way, it would not include the kinds of individual stories that would be considered case study evidence).
of people facing a problem. For example, note how rhetoric designed to increase concern about poverty can offer evidence like " 45.3 million Americans live below the poverty line" or it can offer evidence that " $14.5 \%$ of Americans currently live below the poverty line". ${ }^{3}$ Although the distinction between offering the raw number or offering the percentage may seem - at most - stylistic, research on social judgment suggests that this particular difference can have important consequences. Slovic (2007) finds that statistical information presented in terms of raw numbers (i.e. the total number of people facing a problem) naturally leads people to conceptualize the problem in terms of a large group of nameless, faceless people. These conceptualizations are quite abstract. In contrast, statistical evidence conveyed in terms of percentages (i.e. the proportion of a set of people that are facing some problem) generates a conceptualization similar to that produced by case study evidence - that is, in terms of a single person or a very small group of (identifiable) individuals (Slovic et al. 2000; Slovic 2007, Fetherstonhaugh et al 1997). The reason is because, when people receive evidence strictly in the form of percentages, they tend to neglect the denominator implicit in the percentage and instead focus on the relationship between the percentage itself and the upper and lower bounds of the scale (Fetherstonhaugh et al 1997; Slovic et al. 2000). This leads them to process the percentage by focusing on the chance that a single individual is more or less likely to be facing a problem (Slovic et al. 2000).

The images people form in their heads to conceptualize a problem can be politically consequential because they affect issue engagement. When people conceptualize a problem in terms of a struggling individual or small group, they are more likely to view it in concrete and affect-driven ways, which motivates increased engagement. ${ }^{4}$ In contrast, conceptualizing a problem in terms of large groups of people fails to motivate engagement. "Numerical
${ }^{3}$ Source: US Census, Income and Poverty in the United States, 2013, Current Population Report, pg 12.
${ }^{4}$ Here we are assuming that the portrayal is sympathetic. In future work it would be reasonable to relax this assumption, but as we'll describe in our empirical section this assumption makes the most sense given our partner organization.
representations of human lives do not necessarily convey the importance of those lives," writes Slovic (2007:86), noting that as a result people lack the necessary motivation to pay more attention and become emotionally invested in the problem.

We can map these differences onto the different types of evidence for social ills discussed earlier. Raw numerical evidence, by referring to the thousands or millions of people affected by a problem, will not motivate heightened issue engagement. In contrast, case study evidence will motivate it, given that it produces individualized conceptualizations of the problem.

Percentage evidence leads people to conceptualize issues in individual terms, though its motivational impact will hinge on the percentage itself. When the percentage is high, people conceptualize the problem in terms of an individual that is highly likely to be facing it, which increases engagement (Slovic et al. 2000). This process, however, produces a different result when the percentage is low. In that case, even if people think about an individual facing a problem, ignoring the denominator leads people think about an individual who is highly unlikely to be experiencing the problem. This latter conceptualization fails to motivate heightened engagement (Slovic et al, 2000; Fetherstonhaugh et al 1997).

Given the foregoing considerations, we now present our two core predictions, in which high and low percentages refers to a high or low likelihood of facing a problem, and in which engagement refers to both attitudinal and behavioral engagement (described in more detail in the following sections):

Prediction 1a: Case study evidence and high percentage evidence will motivate increased issue engagement.

Prediction 1b: Raw numerical evidence and low percentage evidence will not motivate increased issue engagement.

## Empirical Analyses

In our analyses our focal problem is one aspect of economic inequality. In recent decades, the economic well-being of middle and lower-income Americans has increasingly diverged
from that of the wealthy. This divergence includes many facets, such as objective income and wealth, but also diminished job security, more expensive health care, and heightened retirement insecurity (Piketty and Saez 2003, Hacker 2006, Kalleberg 2012, Levine 2015). For purposes of this paper, we focus on disparities in access to affordable health care, a topic of critical importance even in the wake of the 2010 Affordable Care Act (Brill 2015).

## Field Experiments

To analyze the relationship between evidence and various measures of behavioral engagement, we rely a series of field experiments. They vary in context and measured outcomes. The first study is a direct mail study that compares the effect of case study and high percentage evidence on one type of engagement: monetary donations to an organization working to address the problem. The other two are email studies to existing members of that same organization, in which one compares high percentage evidence to raw numerical evidence and a second compares low percentage evidence to raw numerical evidence. While an ideal experimental design might wish to compare all types of evidence to a control group at the same time, resource and feasibility constraints in each of the field experiments (due to attributes of our partner organization, the size of its main catchment area, and the nature of our email studies) did not allow it. We do, however, compare all types of evidence to a control group in a national survey experiment described later.

To conduct our experiments we partnered with the Ithaca Health Alliance (IHA), a 501(c)3 organization based in Ithaca, NY that serves the residents of Tompkins County, NY. IHA focuses on access to health care and has four major components: it funds a free health clinic, provides small grants for health services, engages in financial advocacy to reduce medical and dental bills to manageable levels, and develops and hosts free education programs for the community (related to current events that affect their health, as well as new research related to healthy living).

It is worth underscoring that, due to its tax designation, IHA is not a political organization in the same way as an election campaign or political action committee. It does not engage
in any lobbying activities nor does it endorse candidates seeking elected office. Nonetheless, testing hypotheses about issue engagement using field experiments in partnership with IHA is advantageous for two main reasons. First, a key part of its mission is to engage in voter education programs that are allowed within its 501(c)3 status, especially making community members aware of policy changes that might impact their personal health. ${ }^{5}$ Second, the kind of rhetoric that IHA uses to describe disparities in access to affordable health care is very similar to what other organizations use and what appears in broader national conversations.

Collectively, our three field experiments will focus on the kinds of engagement that IHA often seeks to foster within the broader community: monetary donations to help fund its operations and increased attention to health care-related concerns. Donation requests are usually made via direct mail solicitations, and the organization brings issues to people's attention via its email list. IHA does solicit volunteers (for both its day-to-day activities and its community outreach), but the overall number of volunteers is low. Thus, while we acknowledge that volunteering time is a critical way in which people take action in response to social and economic problems, especially during electoral campaigns (Enos and Hersh 2015), we do not use volunteering as an outcome measure in this paper.

## Direct-Mail Study

In cooperation with IHA we fielded a direct mail experiment in March 2015 that consisted of a single donation request sent to a set of likely new donors. Each mailing consisted of a single-sided solicitation letter signed by the organization's Executive Director and Board President, along with a self-addressed envelope with a donation pledge card.

Recipients were randomly assigned to receive one of three solicitation letters. Our control group received a letter that was very similar to IHA's standard solicitation letter for potential new donors. It introduced the organization, briefly mentioned the problem of people facing
${ }^{5}$ The ability to engage in voter education is one of the major reasons why 501(c)3's are a common organizational vehicle for issue entrepreneurs who wish to identify and redress social and economic problems, while also accepting tax-deductible donations.
unaffordable health care (couched in terms of how "disparities in access to affordable health care are wide"), and discussed its general goals. The letter did not mention any specific evidence for the problem of unaffordable health care beyond a few generic sentences at the beginning.

The other two experimental groups received letters that included additional language inserted in the middle, providing specific evidence regarding health care disparities that the organization is working to address. Our first treatment group (the percentage evidence group) received information stating that " $57 \%$ [of uninsured working-age adults] reported a cost-related barrier to getting the care they need" and then describing some of the possible barriers in more detail. While we do not expect a stark cut-off between what counts as "high" for the purpose of our theoretical expectations, we expected that a percentage greater than $50 \%$ would likely lead to an individual conceptualization that included someone affected by the problem rather than not.

Our second treatment group (the case study evidence group) received similar information about the uninsured experiencing cost-related barriers to getting health care they need, though here the evidence focused on the situation of one uninsured individual that was facing this situation. The person described was based on a real-life client of IHA, and the qualitative language we used to describe her situation was as close as possible to what appeared in the percentage evidence group. The exact text of all three solicitation letters appears in the appendix.

Relative to the control group we expect that both treatment groups will increase donations. In total, we mailed donation solicitations to 7,998 registered voters. Following Miller and Krosnick (2004) we directed our mailings toward a set of people that, based on the organization's previous experience, had the highest likelihood of responding to cold donation solicitations. Specifically, we targeted females who were not current donors and were not registered as Republicans. We also limited the geographic reach to three proximate towns that, on average, have the highest income in the county (thus ensuring that our respondents were unlikely to be reminded of their own personal economic insecurity upon reading our letter,
which would have reduced their willingness to donate; see Levine 2015). Lastly, following the organization's previous experience, we closed data collection eight weeks after the letters were mailed, at which point responses to our mailing had stopped anyway. Approximately $3.3 \%(\mathrm{~N}=267)$ of our solicitations were returned as undeliverable, leaving us with a sample of 7,731 .

We present the results in Table $1 .{ }^{6}$ We consider our results in several ways: the range of donations, the number of people entering the donor pool, and the size of the average donation. As a first step, we simply look at the range of the donations. We see that across all three conditions the range is similar, with the exception of one larger donation in the condition that received a mailer with percentage evidence.

Next we compare the number of donations across the three groups. The results in Table 1 (Row 2) are based on tests of proportions between the control group and each of the two treatment groups. As expected, both types of evidence produced significantly more donations than our baseline. Moreover, since not all conditions yielded more than 10 donations, we were concerned that an approximating assumption of normality for the proportion of donations in each condition would lead to inaccurate assessments of our treatment effects. While an exact test was not possible in our case, we did verify that the results from Table 1 hold using randomization inference. ${ }^{7}$
${ }^{6}$ Our low absolute response rates are consistent, if not higher, than other cold mailings (Miller and Krosnick 2004).
${ }^{7}$ Randomization inference allows us to generate a p-value for evidence against the null of no treatment effect nonparametrically, by resampling treatment assignments under the assumption that all treatment effects are identically zero (Gerber and Green 2012). Under randomization inference, the conservative Rosenbaum (2002) two-sided p-value was approximately 0.02 for the case study to control comparison, approximately 0.01 for the percentage to control comparison, and approximately 0.63 for the comparison of the two treatment groups. Thus, all of our conclusions from the tests of proportions in Table 1 continue to hold.

As a final comparison we also consider the average donations. Again, the results show that both types of evidence led to a significantly higher average level of donations than the control group (Table 1, Row 3$)^{8}$ and these results are robust to using randomization inference. ${ }^{9}$ In sum, as expected our results show that the mailer with case study evidence and the mailer with (high) percentage evidence both motivate higher levels of engagement relative to the baseline.

Table 1: Patterns of Engagement (Direct Mail Study)

|  |  | Control (Basic Mailer) | Case study Evidence | Percentage Evidence |
| :---: | :---: | :---: | :---: | :---: |
| $(1)$ | Range of Donation | $\$ 0.00$ to $\$ 100$ | $\$ 0.00$ to $\$ 100$ | $\$ 0.00$ to $\$ 100$ <br> + one $\$ 250$ donation |
| $(2)$ | Number of Donations | 5 | 19 | 17 |
|  |  |  | $z=2.86, p=0.004$ | $z=2.56, p=0.01$ |
| $(3)$ | Average Donation | $\$ 0.07$ | $\$ 0.057$ <br> $t=2.06, p=0.04$ | $t=2.02, p=0.05$ |

All statistical significance calculations are two-tailed.
All comparisons are to the IHA basic mailer group.
${ }^{\text {a }}$ Without the outlier donation the average donation in this group is $\$ 0.43$

## E-Mail Studies

In order to compare the effects of percentage-based evidence with raw numbers, we next conducted two studies over email. Subjects in our email experiments were members of IHA's existing electronic mailing list, all of whom had proactively joined the list in order to hear about recent news related to the organization and/or receive updates about health care and public health-related topics. The mailing list had 1,017 people at the time of our first email experiment.
${ }^{8}$ Although not our primary focus, it is worth also noting that (consistent with the idea that both types of evidence produce similar conceptualizations of the problem), we see no differences in the number of donations $(z=0.33, p=0.74)$ or average donation levels $(t=1.29, p=0.20)$ across the two treatment groups.
${ }^{9}$ Randomization inference generates p-values as follows: 0.05 for the case study to control comparison, approximately 0.05 for the percentage to control comparison, and approximately 0.22 for the comparison of the two treatment groups.

The content of our emails drew upon findings from the 2014 Commonwealth Fund Biennial Health Insurance Survey, which includes a nationally-representative sample of uninsured adults ages 18 to 64 . A focal aspect of this survey concerned the reasons why the uninsured do not have insurance as well as what they do when they need medical care. Two key findings stood out. One was that the large majority of the uninsured (79\%) reported not having insurance because they did not believe they could afford it (as opposed to not having it because they think it is unimportant, or some other reason). A second is that approximately one-quarter ( $26 \%$ ) reported skipping care even when it was needed.

In each of these experiments our key treatment is the subject line of the email. In our first experiment we randomly assigned members of IHA's mailing list to receive an email with a subject line that mentioned the $79 \%$ figure or a subject line that mentioned the numerically equivalent raw number ( 22.8 million uninsured). ${ }^{10}$ The body of the email was the same in both cases - only the subject lines differed between groups (see the full text of the email body in the appendix). In our second experiment, we randomly assigned people to receive either a subject line that contained the relatively-low $26 \%$ figure or an equivalent raw number ( 7.5

[^0]million uninsured)..$^{11}$ Again, the body of the email was the same for both groups. ${ }^{12}$
Note that, unlike in the direct mail study (or the survey experiment we discuss later) there was no "true" control group here, as the organization was (understandably) unwilling to send an email that did not have a reasonably informative subject line. Thus, here our primary comparisons will be simply between the two types of evidence. We expect to observe higher engagement in response to the high percentage evidence relative to the raw numerical evidence, and the reverse when comparing the raw numerical evidence with low percentage evidence.

The subject lines for the emails read as follows:

## Email Study 1:

Please help! 22.8 million uninsured still can't afford insurance
Please help! $79 \%$ of the uninsured still can't afford insurance

Email Study 2:
Please help! 7.5 million uninsured skip needed care
Please help! $26 \%$ of the uninsured skip needed care

We sent the two emails within two weeks of each other, one at the end of July 2015 and
${ }^{11}$ Expecting that, at most, no more than $20 \%$ of respondents would likely pay enough attention to our emails to even consider opening them, we were conservative with our $a$ priori power analysis and wanted to ensure that our total sample size was sufficiently large to detect very small differences (assuming, at the very least, $\alpha=0.9$ and power=0.9). Even for a difference between two means, this meant that we would need a total sample size of $\mathrm{N}=858$. For this reason, we decided to conduct separate email studies rather than do one study at the same time with four experimental groups.
${ }^{12}$ While the body of our emails did include a link to the Commonwealth Fund survey, the content was designed to be self-contained. Thus, the links were presented in terms of "if you want more information" rather than stating that respondents would need to click in order to get the main point (moreover, the emails did not contain any other fundraising or volunteer appeal that encouraged clicking). It's not surprising, therefore, that very few of our respondents (approximately 1\%) actually clicked on a link in any of the emails.
one at the beginning of August 2015. The first one was sent to all 1,017 respondents on the mailing list, of which 6 emails bounced back and are thus not included in our final results. The second was then sent to 1,011 remaining respondents, and this time there were another 6 emails that bounced back. During the short time period between the two emails the topic of health insurance was not at the top of the political agenda (either nationally, or locally in Tompkins County NY), and thus we have no reason to believe that any such broad contextual factors would be affecting our results in a measurable way. ${ }^{13}$ Indeed, the fact that the Commonwealth Fund survey was not receiving very wide press was one of the primary motivations for why IHA was interested in communicating with its members about the findings in the first place.

Given that our primary manipulation is the subject line of the email, we focus on the act of opening the email as our main outcome measure. We acknowledge that email open-rates are not an extremely common measure of issue engagement, as opening an email seems largely effortless and costless. And, to be sure, we are by no means arguing that opening an email involves the same degree of commitment to scarce resources as other forms of behavioral engagement. Nevertheless, opening an email does suggest that people are at least willing to spend some scarce resources of attention and time focusing on its content (and not paying attention to other possible matters at that moment). Indeed, scholars analyzing web-based health interventions have tracked email open-rates as proxy evidence of the effectiveness of, and engagement with, the information (Franklin et al. 2006; Poirier 2012). Meanwhile, marketing research assumes that opening an email is a necessary and pivotal component to disseminating information (Balakrishnan and Parekh 2014). A similar logic applies in our case: it is quite reasonable to believe that the content of the email might inform later thoughts and conversations about the topic (not to mention responses to subsequent donation
${ }^{13}$ We randomized subjects separately for the first and second emails, in order to avoid contextual effects. Even still, we also tested for interactive effects in the results of our second email study - that is, whether people's responses were a function of the email they received in the first study - and found no evidence for this.
or volunteer requests). To this end, if one of the biggest barriers to issue engagement is simply getting people to pay attention (Druckman 2014), then it seems reasonable to suppose that an individual is unlikely to pay attention to and engage with new information if he or she is not even willing to open an email. ${ }^{14}$

Table 2 displays the mean differences in open rates for both experiments. In both cases we see a statistically significant difference in open rates between those who received subject lines with raw numerical evidence versus those who received percentage evidence. Yet, the direction of this effect is reversed across the two experiments. Those who received information that a high percentage of the uninsured could not afford insurance were 4.0 percentage points more likely to open the email than those who received numerically-equivalent information in terms of the raw number of uninsured people (or, put differently, 96 recipients opened the email with a high percentage subject line versus 77 otherwise). In contrast, subjects who received a subject line telling them that a low percentage of the uninsured skipped needed care were 3.4 percentage points less likely to open the email than those who received a subject line that focused on the raw numerical equivalent (or, put differently, 62 recipients versus 78).

## Survey Experiment: Changes in Attitudinal Engagement

Taken together, the field experiments provide a set of evidence consistent with our expectations about the motivational influence of case study and high percentage evidence. Our final step is to examine whether they motivate heightened levels of attitudinal engagement
${ }^{14} \mathrm{We}$ acknowledge that open rates are imperfect measures of the objective number of recipients that chose to view our emails, as email programs differ in how they record whether the recipient has actually read the email. Nevertheless, open rates are an extremely common and useful metric when they are used in a situation like ours: having two groups in which recipients are randomly assigned to receive different subject lines and the purpose is to test whether one subject line leads to higher engagement than the other.

Table 2: Patterns of Engagement (Email Studies)

|  |  | Open Rate | N |
| :---: | :---: | :---: | :---: |
| Email | Stats-N | $15.1 \%$ | $\mathrm{n}=510$ |
| Study 1 | High \% Evidence | $19.1 \%$ | $\mathrm{n}=504$ |
|  | Difference | $\mathbf{4 . 0}$ |  |
|  | (S.E.) | $\mathbf{( 2 . 3 )}$ |  |
|  | two-sided p-value | $\mathbf{0 . 0 9}$ |  |
| Email | Stats-N | $15.6 \%$ | $\mathrm{n}=499$ |
| Study 2 | Low \% Evidence | $12.2 \%$ | $\mathrm{n}=508$ |
|  | Difference | $\mathbf{- 3 . 4}$ |  |
|  | (S.E.) | $\mathbf{( 2 . 1 )}$ |  |
|  | two-sided p-value | $\mathbf{0 . 1 0}$ |  |

as well. Here we consider the effect of evidence on beliefs about the political agenda (i.e. issue priorities) and also levels of concern about the problem.

We evaluate the relationship between evidence and attitudinal engagement using a survey experiment. Relying on a survey experiment is not only beneficial because it allows us to examine different outcome measures, but also because it features an entirely different setting and thus provides one reasonable test of the external validity of the field results (Druckman and Kam 2011). Moreover, in a survey experiment we are unconstrained in two ways. First, we can compare the effect of all three evidence types (case study, high percentage, and raw numerical) to a reasonable control group at the same time. Second, we can include at least one measure of attitudinal engagement that is explicitly political and about citizens' views of the political agenda: the degree to which people believe that the government should prioritize dealing with problems related to health care (and, more generally, economic disparities) relative to other potential issues.

The participants in this survey experiment $(\mathrm{N}=825)$ were recruited using SSI in January and February of 2016 (see appendix for a comparison of our demographics across experimental groups). SSI is a survey company that maintains a panel of participants that are randomly selected to participate in studies. This sampling approach has been used in numerous political science experiments (see, for example, Berinsky et al. 2014; Bullock 2011). ${ }^{15}$
${ }^{15}$ As Berinsky et al. (2014) explain, although SSI's recruitment method does not produce a probability sample, the sample is more nationally diverse than convenience samples.

Participants were randomly assigned to receive one of five short descriptions of health care disparities that closely mirrored the text in our direct mail study, though were designed for a non-local audience (i.e. did not mention Tompkins County NY or IHA). The first group served as the control group in which subjects received a short passage noting that many people can't afford needed health care and that "disparities in access to affordable health care are wide". In addition to this passage, each of our treatment groups received additional evidence of the problem of unaffordable care. The second group (case study group) received case study evidence that mentioned the same 35 year-old widow as in the direct mail solicitation. A third group (high percentage group) received additional high percentage evidence that also mirrored the direct mail study: the fact that $57 \%$ of uninsured adults face a cost-related barrier to receiving affordable health care. A fourth group received additional evidence that referred to the equivalent raw figure (raw N group): 29.5 million adults who were uninsured facing this kind of health care insecurity.

The fifth group (raw $\mathrm{N}+$ denominator group) allows for a supplemental analysis using a form of evidence that we have not yet explored. Here we are interested in seeing what happens when evidence facilitates a percentage-based conceptualization, but uses raw numbers to do it. This group received evidence containing two sets of raw numbers - the 29.5 million people who face cost-related barriers to healthcare - as well as the relevant denominator the 51.8 million total uninsured. So, in this treatment participants were informed that the 29.5 million is "out of a total of 51.8 million."

Next participants received several measures of public opinion. One question measured their beliefs about policy priorities (a common and important measure of public opinion; Baumgartner and Jones 1993, Druckman and Jacobs 2015) by providing a list of six different issues (each of which were considered top concerns according to Gallup at the time of our survey) and then asking them to rank which issue they thought elected leaders should prioritize the most, then which issue the second most, and so on. Appearing on the list of issues were two that reflected the text of our treatments: "the cost of health care" and the "gap between the rich and everyone else". The other questions drew from Cameron
and Payne (2011) and measured how concerned respondents were about the fact that some people lack access to affordable health care. This battery included four questions that, in this context, serve as reasonable indicators of attitudinal engagement with the problem (and also, as noted at the beginning of the paper, serve as important precursors to behavioral engagement; see Visser et al. 2003).

The full text of the treatments and all subsequent questions appears in the appendix. Overall, given the kinds of conceptualizations brought about by different forms of evidence, we expect that adding case study and high percentage evidence to the control group language will increase attitudinal engagement, whereas the raw numerical evidence will have no effect. Lastly, we do not make sharp predictions about the raw numerical with denominator evidence.

## Survey Experiment: Results

We present the results in Table 3. The first column reports the proportion of people stating that the cost of health care should be the top priority. The second column reports the proportion of people stating that either the cost of health care or disparities between the rich and everyone else should be a top priority. This latter result is of interest especially given that each of our messages mentioned not just that some people can't afford care, but also did so by noting that many others don't have such concerns. Finally, we calculated the average value of the responses to the four questions tapping issue concern, and report these averages in the third column.

Overall, the results reinforce the patterns we observe in our field studies. Relative to the control group, adding case study and high percentage evidence regarding the problem increased the degree to which people listed either health care or inequality as the top priority for elected officials. Moreover, there is suggestive evidence of a positive effect when looking only at whether they prioritized health care (though this difference falls just short of conventional levels of statistical significance). Looking at the third column, we also observe that both forms of evidence increased concern about the problem. Admittedly the absolute
size of these latter effects is not very large, though this is largely because responses cluster in the top region of the scale even in the control group. Put simply, most people do not wish to live in a society in which others are unable to obtain needed health care. Nevertheless, despite the high baseline we do observe statistically significant increases in response to both of these forms of evidence.

In contrast to these patterns, we see no evidence that adding raw numbers to the baseline increased engagement across any of our public opinion measures. Finally, there is only suggestive evidence that adding raw numbers with a denominator makes a difference, which likely reflects the fact that some respondents might "calculate" the percentage in their head (and thus be led to think in percentage terms, which would foster an individualized conceptualization of the problem) but others will not (and so for them the evidence more closely resembles raw numerical evidence, which does not lead to an individualized conceptualization). Thus, based on our data, we would not conclude that the "problem" with raw numerical evidence (from the perspective of citizen engagement) is simply the lack of a denominator. If the goal is to provide evidence that increases issue engagement, using raw numbers with a denominator does not seem appropriate for a broad audience.

## Conclusion and Implications

In his book on political language, Edelman (1977) notes how elite rhetoric designed to raise the salience of social and economic problems is often divorced from the lived experiences of the people facing those problems. This attribute makes it difficult to engage the wider citizenry. Our results echo his remarks, though also show how processes of agenda-setting like what he's describing depend upon the evidence provided. Forms of evidence that encourage individual-level conceptualizations of the problem - case study and high percentage evidence - can increase citizens' attitudinal and behavioral engagement. In contrast, evidence that encourages people to conceptualize the problem in terms of a very large group (or in terms of an individual unlikely to be facing the problem) does not spur engagement.
Table 3: Patterns of Issue Engagement (SSI Study)


In some ways, our results mirror past work in political science that also looks at the effect of case study and statistical evidence, and finds that the former is more likely to spur engagement. Yet in other ways we make important new contributions to this line of work. First, arguably our main contribution is theoretical - pointing out the critical link between evidence and how people conceptualize the problem in their own heads. The key implication of this link is that not all forms of statistical evidence are alike, and in particular there is good reason to expect (high) percentage and raw numerical evidence to have divergent effects on citizen engagement. Second, most of this work (especially in political science) focuses on various measures of public opinion as the relevant outcomes, yet we compare the effect of evidence on both attitudinal and behavioral measures of issue engagement.

While our empirical investigation focused on the link between evidence and engagement, an immediate question arises about the broader consequences of this engagement. We can examine this topic by looking both within the context of our field experiments (and thus think specifically about the effects within the context of 501(c)3 organizations like IHA) and then also extrapolating from our specific studies to think about potential effects of evidence-based communication on the broader political process.

On the first point, our decision to investigate evidence in the context of a 501(c)3 organization raising awareness about a social problem is interesting from a policy feedback perspective (Campbell 2003, Mettler 2005). IHA's work both directly and indirectly provides the kinds of resources that allow people who are personally affected by health care insecurity to engage in politics. Directly, its free clinic, health grant, and financial advocacy programs free up financial, monetary, and cognitive resources that could potentially be used for political engagement. Indirectly, the voter education programs can do the same. These are important because it is hard to focus on political activity when you are worried about getting or paying for health care. ${ }^{16}$ Thus, although IHA is not explicitly a political organization, one of the major consequences of its work is to free up the kinds of resources that

[^1] reduce people's willingness to devote resources to politics.
are necessary for people to be politically active (Verba et al. 1995).
Beyond the context of IHA and potential policy feedback effects among the set of people directly affected by its work, our results also suggest broader links between evidence and the political process. A long line of research finds that, while public opinion can sometimes change the political agenda and, ultimately, change policy, that link is not automatic. Instead, these changes are more likely to arise when organized action (or at least a credible threat of organized action) accompanies public opinion (Jacobs and Shapiro 2000, Bartels 2008, Hacker and Pierson 2010, Gilens 2012).

When a problem involves material hardship, the people who are most likely to become active are those who are not personally affected (Levine 2015). For them, the kinds of mass communication that we feature in our experiments can be critical sources of information. And, moreover, all of the outcome measures we investigated (being concerned, wanting a problem to be prioritized, donating money to a cause, and paying attention to information) are important in their own right and may also serve as gateways for other forms of policy activism such as talking with friends about a problem, contacting legislators about it, and joining organizations (including both service-providing organizations and those engaged in lobbying). Even if people do not necessarily become activists themselves, making these problems salient can affect how people vote and the types of candidates they opt to support at other moments in the political process. These electoral outcomes are important - as Bartels (2008:294) notes, there is "considerable evidence that 'have-nots' benefit when their party wins."

Our results also have implications for elite strategy, especially for issue entrepreneurs who wish to raise the salience of a social or economic problem (Walker 1991). While we found that both case study and (high) percentage evidence are motivational, in many cases there is good reason to suspect that elites might prefer to use the latter. One reason is because of the possibility that an audience will not view a chosen case study as sympathetic, and so the appeal might backfire (Ostfeld and Mutz 2014). In addition, oftentimes case study evidence simply takes longer to present, and so in cases where there is limited time and space
to get people's attention (e.g. in email subject lines) a well-crafted piece of percentage-based evidence may be preferable. Although statistical evidence is generally thought to be less persuasive for a broad audience than case study evidence (e.g. Slovic 2007), our results reveal important reasons why a particular form of statistical evidence may be valuable.

Lastly, our results point to several promising areas for future research, such as other ways of presenting case study and/or statistical evidence. One question is what would happen if people were exposed to visual stimuli instead of written ones. For example, as Prior (2014) notes, people store knowledge both visually and verbally (and interest groups, news media, and other elites use visual along with verbal information when engaged in agendasetting). Thus, as a next step it seems especially useful to test whether visual stimuli (such as a graph, or a picture of an individual/family instead of just a description) elicit similar responses to what we observed in our experiments. Along these same lines, it would also be interesting to gauge responses when raw numerical evidence is presented dynamically (e.g. as a change from a previous state of the world), which itself would also be conducive to a visual presentation.

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## Supplementary Information

# Appendix 1: Direct Mail Study 

## Appendix 1A: Example of Mailing

Figure 1: Solicitation Mailing as It Appeared to Recipients


February 28, 2015

## Dear Community Member,

Did you know that thousands of local residents cannot afford to see a doctor for routine visits or even urgent health problems? Did you know that such challenges remain, even with the Affordable Care Act? That's why it's critical that many of our friends and neighbors can depend upon the Ithaca Health Alliance.

Disparities in access to affordable health care are wide. Some people have insurance with low out-of-pocket costs. They don't think twice about seeing a doctor. Yet for thousands of uninsured Tompkins County residents, cost-related concerns weigh heavily.

It's no wonder that the demand for the Ithaca Health Alliance's Free Clinic has remained high for the past four years.

The Clinic provides non-emergency health care to thousands of uninsured Tompkins County residents who, just like many other Americans, would otherwise face prohibitively high costs. We are able to do this thanks to a dedicated volunteer staff that includes physicians, registered nurses, registered dieticians, acupuncturists, chiropractors, herbalists, massage therapists, social workers and occupational therapists. We also offer employment physicals so that individuals can get or keep their jobs.

In addition to the Clinic, the Alliance provides free health education through our newsletter and community programs open to all. Topics relate to personal health as well as issues of broader concern to the community, such as healthy eating and gas drilling. We also offer financial advocacy and assistance for emergency medical and dental services through the Ithaca Health Fund.

To accomplish all this, the Alliance depends upon financial contributions from local residents like you for over half of its annual operating budget. We invite you to join us in making a tax-deductible gift. All donations will be acknowledged with a letter of receipt as a record of your generosity.

With gratitude,


Abbe Lyons
Executive Director

## Cluolite

C. Kelly White

President, Board of Directors

## Appendix 1B: Text of Direct Mail Solicitations

Control Group
Dear Community Member,
Did you know that thousands of local residents cannot afford to see a doctor for routine visits or even urgent health problems? Did you know that such challenges remain, even with the Affordable Care Act? That's why it's critical that many of our friends and neighbors can depend upon the Ithaca Health Alliance.

Disparities in access to affordable health care are wide. Some people have insurance with low out-of-pocket costs. They don't think twice about seeing a doctor. Yet for thousands of uninsured Tompkins County residents, cost-related concerns weigh heavily.

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With gratitude, [signatures of directors]

## Case study Evidence mail solicitation

Dear Community Member,
Did you know that thousands of local residents cannot afford to see a doctor for routine visits or even urgent health problems? Did you know that such challenges remain, even with the Affordable Care Act? That's why it's critical that many of our friends and neighbors can depend upon the Ithaca Health Alliance.

Disparities in access to affordable health care are wide. Some people have insurance with low out-of-pocket costs. They don't think twice about seeing a doctor. Yet for thousands of uninsured Tompkins County residents, cost-related concerns weigh heavily.

Consider the following real-life situation. A 35-year-old uninsured widow starts having abdominal pain and migraines. At first, the pain is not debilitating, though taking care of her young son becomes difficult. She would love to see a doctor immediately, but she shudders to think about the potential out-of-pocket expenses for treatments and/or prescription drugs. She feels sicker and sicker each day, yet remains terrified of what will happen if she's not well enough to take care of her son. She hopes things will get better on their own. But in the end her illness gets more serious and her treatments and drugs end up costlier. Moreover, she is forced to spend more time away from her son.

Given stories like her's, it's no wonder that the demand for the Ithaca Health Alliance's Free Clinic has remained high for the past four years.

The Clinic provides non-emergency health care to thousands of uninsured Tompkins County residents who, just like many other Americans, would otherwise face prohibitively high costs. We are able to do this thanks to a dedicated volunteer staff that includes physicians, registered nurses, registered dieticians, acupuncturists, chiropractors, herbalists, massage therapists, social workers and occupational therapists. We also offer employment physicals so that individuals can get or keep their jobs.

In addition to the Clinic, the Alliance provides free health education through our newsletter and community programs open to all. Topics relate to personal health as well as issues of broader concern to the community, such as healthy eating and gas drilling. We also offer financial advocacy and assistance for emergency medical and dental services through the Ithaca Health Fund.

To accomplish all this, the Alliance depends upon financial contributions from local residents like you for over half of its annual operating budget. We invite you to join us in making a tax-deductible gift. All donations will be acknowledged with a letter of receipt as a record of your generosity.

With gratitude,
[signatures of directors]

## Percentage Evidence mail solicitation

## Dear Community Member,

Did you know that thousands of local residents cannot afford to see a doctor for routine visits or even urgent health problems? Did you know that such challenges remain, even with the Affordable Care Act? That's why it's critical that many of our friends and neighbors can depend upon the Ithaca Health Alliance.

Disparities in access to affordable health care are wide. Some people have insurance with low out-of-pocket costs. They don't think twice about seeing a doctor. Yet for thousands of uninsured Tompkins County residents, cost-related concerns weigh heavily.

Consider this statistic. In 2014, among working-age adults who were uninsured at some point over the previous year, $57 \%$ reported a cost-related barrier to getting the care they need (Source: Commonwealth Fund Biennial Health Insurance Survey). Cost-related barriers can include having a medical problem but not seeking care, not filling a prescription, not seeing a needed specialist, and/or skipping a recommended follow-up because of the cost. For this $57 \%$, it's natural to hope things will get better on their own. But in the end delaying care due to cost concerns often leads to more serious illnesses with more expensive treatments and more time away from family.

Given this percentage, it's no wonder that the demand for the Ithaca Health Alliance's Free Clinic has remained high for the past four years.

The Clinic provides non-emergency health care to thousands of uninsured Tompkins County residents who, just like many other Americans, would otherwise face prohibitively high costs. We are able to do this thanks to a dedicated volunteer staff that includes physicians, registered nurses, registered dieticians, acupuncturists, chiropractors, herbalists, massage therapists, social workers and occupational therapists. We!also offer employment physicals so that individuals can get or keep their jobs.

In addition to the Clinic, the Alliance provides free health education through our newsletter and community programs open to all. Topics relate to personal health as well as issues of broader concern to the community, such as healthy eating and gas drilling. We also offer financial advocacy and assistance for emergency medical and dental services through the Ithaca Health Fund.

To accomplish all this, the Alliance depends upon financial contributions from local residents like you for over half of its annual operating budget. We invite you to join us in making a tax-deductible gift. All donations will be acknowledged with a letter of receipt as a record of your generosity.

With gratitude,
[signatures of directors]

## Appendix 2: Email Studies

## Email Study 1 (High \% Study): Body of email (subject lines are mentioned in the main text)

## Ithaca Heaith Allance <br> IthacaHealth.org

We all know that Obamacare did a lot to reduce the number of Americans without health insurance.

But, across the United States and right here in Tompkins County, many of our friends and neighbors remain uninsured.

Thanks to recent data collected by the Robert Wood Johnson foundation, which includes a national sample of uninsured Americans, we know a lot more about why that is.

The biggest barrier? Cost
Indeed, the study finds that "most of the uninsured point to the costs of health insurance as the main reason they do not have it currently."

The study also finds that those without insurance believe that it's important to be insured, but when push comes to shove they simply can't afford it

That's why it's critical that our friends and neighbors can rely upon the Ithaca Health Alliance. You already know about our Free Clinic and Health Fund. But did you also know that IHA's Ithaca Health Fund does financial advocacy work as well? Last year we helped 81 people achieve more than $\$ 110,000$ in medical debt reduction.

Many people don't know about IHA and the work we do. They also don't know that there are many uninsured people that still can't afford health insurance, even after Obamacare. Please help us spread the word to your friends, family, and neighbors about this Robert Wood Johnson study (click here to see infographics from the study!). And, as always, please stay up-to-date by joining the IHA conversation on Facebook. Together, we are better.

```
\(\sim\) Your IHA team
```

Email Study 2 (Low \% Study): Body of email (subject lines are mentioned in the main text)


A couple of weeks ago we told you about a recent survey of the uninsured in America, conducted by the Robert Wood Johnson foundation. This is a rare, but sobering, look at what it's like to be uninsured in our country today.

One of the survey's most striking findings is that, while Obamacare did a lot to reduce the number of uninsured, many remain uninsured and "most of the uninsured point to the costs of health insurance as the main reason they do not have it currently."

But what happens when they need care anyway, perhaps due to unexpected emergencies? Here the study finds that many "cope by ... skipping care."

That's why it's critical that our friends and neighbors can rely upon the Ithaca Health Alliance. Indeed, almost half of our clients last year (556 of 1208) stated that they would not have sought care for fear of medical expenses were it not for our services.

Many people don't know about IHA and the work we do. They also don't know that there are many uninsured people that still can't afford health insurance, even after Obamacare. Please help us spread the word to your friends, family, and neighbors about this Robert Wood Johnson study (click here to see infographics from the study!). And, as always, please stay up-to-date by joining the IHA conversation on Facebook. Together, we are better.
$\sim$ Your IHA team

## Appendix 3: Survey Experiment

## Appendix 3A: Treatments

## Control Group

Did you know that many people cannot afford to see a doctor for routine visits or even urgent health problems? Did you know that such challenges remain, even with the Affordable Care Act?

The fact is, disparities in access to affordable health care are wide. Some people have insurance with low out-of-pocket costs. They don't think twice about seeing a doctor. Yet for the many Americans who lack health insurance, cost-related concerns weigh heavily and prevent them from seeking medical care.

## Case study Evidence

Did you know that many people cannot afford to see a doctor for routine visits or even urgent health problems? Did you know that such challenges remain, even with the Affordable Care Act?

The fact is, disparities in access to affordable health care are wide. Some people have insurance with low out-of-pocket costs. They don't think twice about seeing a doctor. Yet for the many Americans who lack health insurance, cost-related concerns weigh heavily and prevent them from seeking medical care.

Consider the following real-life story. A 35-year-old uninsured widow starts having abdominal pain and migraines. At first, the pain is not debilitating, though taking care of her young son becomes difficult. She would love to see a doctor immediately, but she shudders to think about the potential out-of-pocket expenses for treatments and/or prescription drugs. She feels sicker and sicker each day, yet remains terrified of what will happen if she's not well enough to take care of her son. She hopes things will get better on their own. But in the end her illness gets more serious and her treatments and drugs end up costlier. Moreover, she is forced to spend more time away from her son.

## Percentage Evidence

Did you know that many people cannot afford to see a doctor for routine visits or even urgent health problems? Did you know that such challenges remain, even with the Affordable Care Act?

The fact is, disparities in access to affordable health care are wide. Some people have insurance with low out-of-pocket costs. They don't think twice about seeing a doctor. Yet for the many Americans who lack health insurance, cost-related concerns weigh heavily and prevent them from seeking medical care.

Consider the following. In 2014, among working-age adults who were uninsured at some point over the previous year, $57 \%$ reported a cost-related barrier to getting the care they
need (Source: Commonwealth Fund Biennial Health Insurance Survey). Cost-related barriers can include having a medical problem but not seeking care, not filling a prescription, not seeing a needed specialist, and/or skipping a recommended follow-up because of the cost. For this $57 \%$, it's natural to be terrified of the potential out-of-pocket expenses and what might happen if you're too sick to take care of loved ones. It's also natural to hope things will get better on their own. But in the end delaying care due to cost concerns often leads to more serious illnesses with more expensive treatments and more time away from family.

## Raw Number Evidence

Did you know that many people cannot afford to see a doctor for routine visits or even urgent health problems? Did you know that such challenges remain, even with the Affordable Care Act?

The fact is, disparities in access to affordable health care are wide. Some people have insurance with low out-of-pocket costs. They don't think twice about seeing a doctor. Yet for many Americans who lack health insurance, cost-related concerns weigh heavily and prevent them from seeking medical care.

Consider the following. In 2014, 29.5 million working-age adults who were uninsured at some point over the previous year reported a cost-related barrier to getting the care they need (Source: Commonwealth Fund Biennial Health Insurance Survey). Cost-related barriers can include having a medical problem but not seeking care, not filling a prescription, not seeing a needed specialist, and/or skipping a recommended follow-up because of the cost. For these 29.5 million folks, it's natural to be terrified of the potential out-of-pocket expenses and what might happen if you're too sick to take care of loved ones. It's also natural to hope things will get better on their own. But in the end delaying care due to cost concerns often leads to more serious illnesses with more expensive treatments and more time away from family.

## Raw Number + Denominator Evidence

Did you know that many people cannot afford to see a doctor for routine visits or even urgent health problems? Did you know that such challenges remain, even with the Affordable Care Act?

The fact is, disparities in access to affordable health care are wide. Some people have insurance with low out-of-pocket costs. They don't think twice about seeing a doctor. Yet for many Americans who lack health insurance, cost-related concerns weigh heavily and prevent them from seeking medical care.

Consider the following. In 2014, 29.5 million working-age adults who were uninsured (out of a total of 51.8 million) at some point over the previous year reported a cost-related barrier to getting the care they need (Source: Commonwealth Fund Biennial Health Insurance Survey). Cost-related barriers can include having a medical problem but not seeking care, not filling a prescription, not seeing a needed specialist, and/or skipping a recommended follow-up because of the cost. For these 29.5 million folks, it's natural to be terrified of the potential
out-of-pocket expenses and what might happen if you're too sick to take care of loved ones. It's also natural to hope things will get better on their own. But in the end delaying care due to cost concerns often leads to more serious illnesses with more expensive treatments and more time away from family.

## Appendix 3B: Balance Check

To ensure that random assignment was successful, we conducted a balance test. For this test, we compared our experimental groups using the following characteristics: proportion male (coded $1=$ male, $0=$ female), average age (Coded from 1-8, in approximately ten year increments), average education level (coded from 1-6: Did not complete a high school degree, High school degree, Some college, Associates degree, Bachelors degree, Graduate or professional degree), and income (Coded from 1-13, from "Under \$10,000" to "195,001 and above").

Table 4 shows the averages for each experimental group along with the results from a oneway ANOVA test that compares the means across the groups. In no case do we find evidence of imbalance, as none of the F-values are statistically significant. Based on these results, we are confident that random assignment was successful and that, as a result, we can make meaningful comparisons across groups.

Table 4: Balance statistics across control and treatment groups

|  | Control | Case Study | Percent | Raw N | N+Denom | ANOVA test |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Male | 0.47 | 0.49 | 0.42 | 0.47 | 0.47 | 0.38 |
| (N) | $(159)$ | $(160)$ | $(162)$ | $(163)$ | $(158)$ |  |
| Age | 5.06 | 5.04 | 4.84 | 4.93 | 5.05 | 0.68 |
| (N) | $(159)$ | $(160)$ | $(162)$ | $(164)$ | $(158)$ |  |
| Education | 3.85 | 3.87 | 3.85 | 4.04 | 4.03 | 0.54 |
| (N) | $(159)$ | $(160)$ | $(162)$ | $(164)$ | $(157)$ |  |
| Income | 4.74 | 4.89 | 4.85 | 5.02 | 4.77 | 0.92 |
| (N) | $(159)$ | $(159)$ | $(162)$ | $(162)$ | $(157)$ |  |

One-way ANOVA test column reports the probability that the F score exceeds the critical value at the $95 \%$ confidence level.

## Appendix 3C: Measures

Importance Measure While the information you read earlier focuses on health care, the fact remains that our country faces many different problems and our elected leaders can't deal with all of them at once. Please rank the following issues in terms of how you think that our elected leaders should prioritize them.

- The federal budget deficit/federal debt
- Unemployment/jobs
- Gap between the rich and everyone else
- The cost of health care
- Immigration/illegal aliens
- Ethics/moral and religious decline

Issue Concern Measures (based in part on Cameron and Payne 2011)

1. How concerned are you personally about the issue of health care costs?
2. How much do you value the welfare of people who have trouble affording health care?
3. How important is it to you that people who have trouble affording health care be happy?
4. How important is it to you that people who have trouble affording health care do not suffer?

[^0]:    ${ }^{10}$ This was based on $11.9 \%$ of adult Americans being uninsured as of spring 2015 (http://www.gallup.com/poll/182348/uninsured-rate-dips-firstquarter.aspx), and the adult population estimated at 242,753,600 in 2013 (http://quickfacts.census.gov/qfd/states/00000.html). Based on these figures, we estimated the total uninsured adult population as approximately 28.9 million Americans. $79 \%$ of that group is 22.8 million people.

[^1]:    ${ }^{16}$ See Levine 2015 for several examples of how economic insecurity-related concerns can

