"Politicians don't actually care what voters want," trumpeted a July 12 op-ed in the New York Times by two social scientists, Joshua Kalla of Yale and Ethan Porter of George Washington University. Quite a conclusion! Sure, we all know that politicians sometimes value donors over ordinary voters, but they don't care *at all*? This would mean that much well-known political behavior, such as carefully poring over polls and studying focus groups before taking any stand, is actually fictional. So, I studied the article and attached working paper with interest. To summarize my commentary below: The study provided politicians with data on voters' beliefs, and attempted to measure changes in the politicians' perception of these beliefs. No significant effects were found. But there are always many possible explanations for null results! The sensational, headlined explanation defies common sense and contradicts other data in the paper itself, while other explanations are both intuitive and supported by the data.

Here is how the study worked: 2,346 state legislators were selected to be potential subjects. The authors offered each legislator access to information on the policy positions of voters in their district. The information on voters was not in the initial contact email, which rather had a password which could be used to access the information. 89% of the potential subjects ignored the email and never logged in. Subjects were later surveyed to measure whether and how the information altered their views. Survey results were compared across three conditions: The "treatment" group received information about voters in their own district, a "placebo" group received only information across four regions of the country, and a "control" group received no information on the issue before the survey. (There were 8 separate issues, so each subject could be "treatment" for some issues and "control" for others.) Only 55 subjects both looked at the website and responded to the survey, and no significant effects were found on their beliefs about voters in their district.

When no effect is observed, there are always many possible explanations. One natural explanation here is that for whatever reason, the vast majority of legislators did not think an unsolicited email from strangers (albeit brandishing a university affiliation) was likely to lead to information which would help them understand their constituents better, and the 11% who were curious enough to take a look didn't update their beliefs much. The authors, obviously, came to a far different conclusion: that the politicians don't care what their constituents believe! Here is a key passage from the introduction (p.2):

"…the vast majority of legislators in our study failed to access the information we provided them about their constituents' preferences. Moreover, the post-treatment surveys make clear that even the legislators who accessed the information about their constituents were unaffected by it. Not only are most legislators uninterested in what their constituents believe—but even those who access such information are made no more *accurate* as a result." (emphasis mine, more on the dubious definition of *accurate* later.)

The "logical" leap to the last sentence is staggering. Apparently, if someone doesn't put their faith in information from a stranger who claims scientific credentials, we can conclude that they aren't interested in a topic vital to their occupation. At the very least, this is a *non sequitur*, and forms a conclusion contrary to the common sense of anyone who follows politics. Furthermore, information in the authors' own paper severely contradicts their conclusion.

One of the survey questions was: "How do you normally get information about your constituents' policy preferences? Select all that apply." (appendix, p.27). The 124 respondents could choose up to 8 possible replies. The average respondent selected 5 of these. Are these the answers of

people who *don't care* about constituents' policy preferences? No, it suggests that they care *so much* that they have *many* sources of information, and the impact of a new source can easily fall below the level of statistical significance.

Page 17 of the appendix provides email replies from subjects to the initial invitation. Only 16 replies were received, but they are suggestive. All respondents are quite clearly interested in what their constituents think. Some assess the new information as valuable, while others are more critical, for what I generally find to be intelligent reasons. Here, we see that at least some subjects want to know voters' opinions but didn't put much faith in the new information. The conclusion that ignoring the email signifies indifference to constituents cannot be sustained.

A related question is whether the politicians were *wrong* to mistrust the scientists. How had the authors generated district-specific opinion data for 2,346 districts? By polling each district? No, by an estimation process (appendix, p.12), which used data from a national poll of about 65,000 people to estimate opinions for each demographic group, then combined these estimates with census data on the demographics of each district. Obviously, there are many sources of error in these estimates! For instance, religion is not among the demographic variables considered. But, while in one paragraph on page 3 the estimates are properly named as "estimates", no standard errors or confidence ranges are ever mentioned. In the rest of the paper, the estimates are called "information," or "polling data," or "factually accurate political information". Worst of all, the politicians' "accuracy" in their beliefs about constituent preferences are *defined* by how well they match the authors' estimates! In multiple ways, the paper acts as if the estimates have no error. Politicians may be a scurvy, ignorant lot, but I bet most have heard of polling error. Maybe when they saw a screen informing them that 36.3% of constituents support a certain issue (paper, p.5), the lack of any reported standard error reduced credibility. As printed, the estimate appears to claim accuracy to a tenth of a percent, which is impossible: even in a straightforward poll of a population, such accuracy would require on the order of a million respondents. Incidentally, one intelligent politician (or staffer) pointed out by email that there weren't enough data points to actually have much data on each district and correctly guessed what sort of process had been used (appendix, p.17). Provision of standard errors, and perhaps transparency about the estimation process, would have made the information more "factually accurate".

Furthermore, the initial invitation to subjects lied about the researchers' motivations. It says: "As an academic who studies public opinion and relies on the taxpayer-funded National Science Foundation, I want to return the favor by providing this information to elected o□cials across the country." (appendix, p.14-15) To be generous, perhaps the motive described here did exist in the researchers' minds as a possible side benefit of the study, but obviously, their primary motive was to collect publishable data. Was my use of the word "lied" too strong? Surely, stating a disinterested motive which is secondary at best, when one has a strong and clear self-interested motive, is at least "dishonest." Dare I say such behavior is more acceptable among politicians than scientists? Politicians are likely to have a keen nose for such prevarication, and this sentence may well have emitted a suspicious scent which caused them to doubt the reliability of the supposedly disinterested gift of information. If the politicians mistrusted the scientists, they had some good reasons.

Of course, any good statistics student will also have noticed that failing to reject the null does not prove zero effect. The authors claim that the study is "well-powered," suggesting an awareness of the issue, but they do not deal with it adequately, say by displaying confidence

intervals and arguing that they prove the effect is small. It is certainly not obvious that a study in which only 55 of 2,346 potential subjects complied with all phases is actually well-powered. It is interesting that the abstract features “n=2,346” when this is the relevant “n” only for the one question of whether subjects accessed the website from the initial email. For the narrow question of compliance rate, the study is well-powered, but for the analysis of survey responses the power is much less clear. In some other context, the conflation of lack of significance with zero effect would be quite serious; here the reasoning is so faulty, even if one grants that the effect was zero, that I consider it relatively minor.

Lastly, let us observe that the paper is, so far, unpublished. Peer review isn’t perfect, but it would stand a decent chance of preventing such nonsense from polluting the public discourse. Let me suggest that a university, if it values its name as a badge of credibility, should strongly discourage faculty from pursuing mass-media coverage for research which has not been peer-reviewed. Also, the New York Times editors should be wise enough to think twice about publishing an op-ed supposedly validated by unpublished research, especially if the conclusion is bizarre.

Jonathan Weinstein

Washington University in St. Louis