



# Engineers & Scientists Acting Locally

## Civic Engagement Survey

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Engineers' and Scientists' Attitudes Toward Local  
Government Engagement

Summary  
June 2018

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## Summary

In fall 2017, ESAL administered a Civic Engagement Survey to assess levels of engagement with local government by people with backgrounds in science, technology, engineering, and math (STEM). Our findings indicate a need to increase awareness of engagement opportunities and increase understanding of policy issues at the city, county, and state level. In particular, the following broad action items are critical to facilitate greater engagement:

- Increase knowledge of opportunities for local engagement
- Increase understanding of state and local policy issues
- Increase awareness of the role of state and local government in addressing national policy issues

## Background

Engineers and Scientists Acting Locally (ESAL) is a nationwide organization whose mission is to increase local engagement by professionals with backgrounds in science, technology, engineering, and mathematics (STEM). This survey was created to understand the audience we reach through our existing communication channels. The survey focused on local engagement specifically via government interaction. In particular, we aimed to (1) establish our audience and their baseline level of government understanding and civic participation, (2) identify bottlenecks in the engagement pipeline, and (3) optimize ESAL activities. Three categories were used to classify government engagement:

**Election participation:** election-related activities such as voting, donating to candidates, or campaigning for candidates

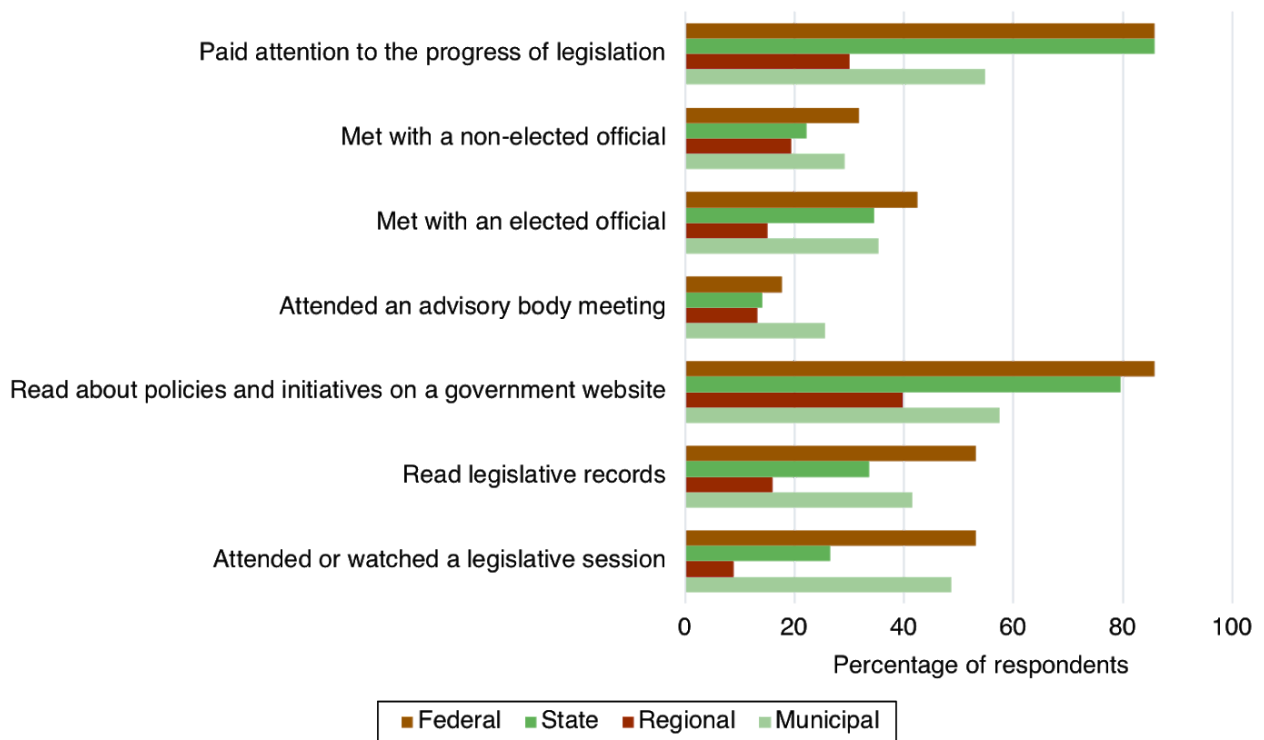
**Knowledge gathering:** activities aimed at increasing understanding of local government such as reading about initiatives or observing legislative sessions

**Direct engagement:** proactive outreach to government such as providing public comments or serving on an advisory board

## Federal level engagement exceeds local level engagement

The highest self-reported engagement was at the federal level and the lowest at the regional (e.g. county) level. Overall, knowledge gathering and election participation rates at the state level were similar to those at the federal level, though for each specific type of activity, engagement was usually highest at the federal level (see Figures 1-3). The most common knowledge gathering activities were reading about policies and initiatives on a government website, tracking the progress of legislation, and attending or watching a legislative session.

### Knowledge gathering activities at different levels of government

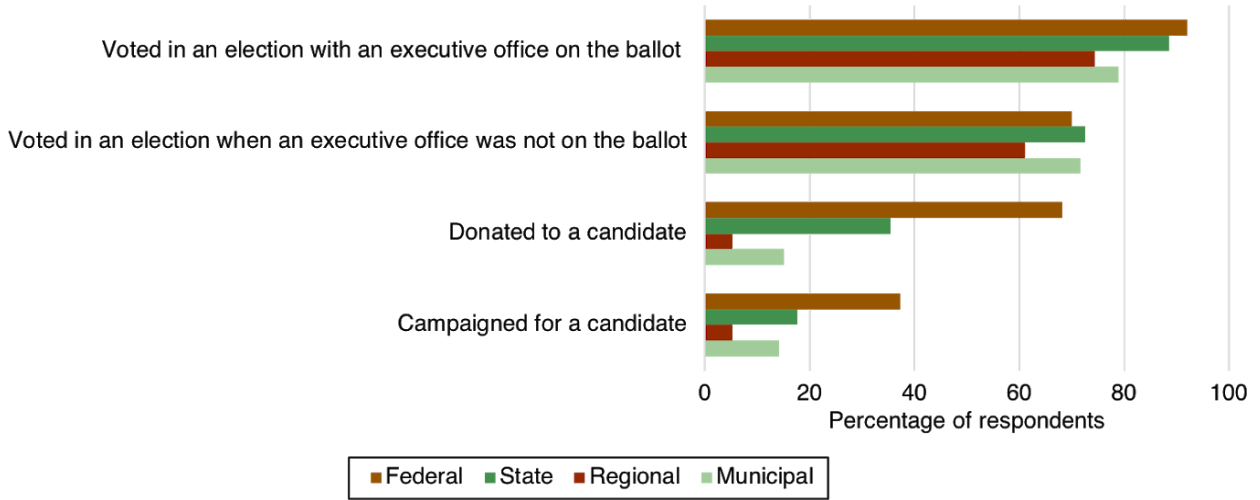


**Figure 1.** Engagement in knowledge gathering activities with municipal, regional, state, and federal governments. Bars show percentage of respondents that reported engaging in each activity at each level of government.

Rates of direct engagement were notably lower than those of knowledge gathering and election participation. The top forms of direct engagement at the municipal and regional levels were advocating for a government policy, providing public comments on a proposed policy, participating in an advisory board, and counseling the government as an expert (see Figure 2). These activities were also popular at the federal and state levels with the exception of advisory board

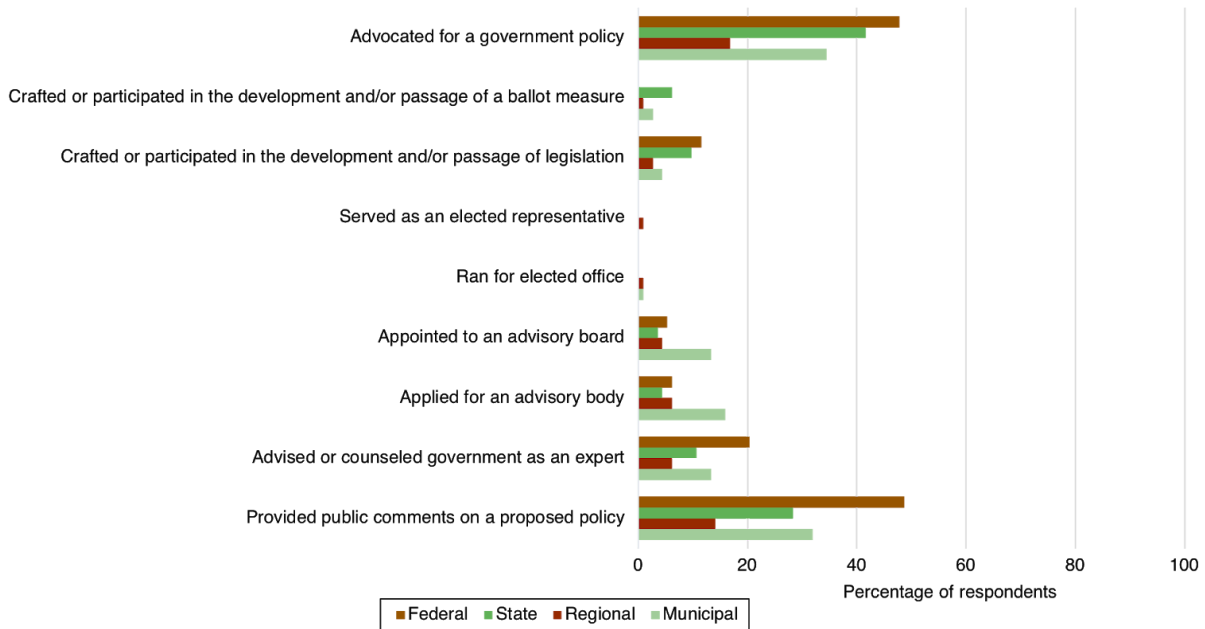
participation. Drafting or shepherding the passage of legislation was reported more at the state and federal levels than at the municipal and regional levels.

### Election participation at different levels of government



**Figure 2.** Engagement in election participation activities with municipal, regional, state, and federal governments. Bars show percentage of respondents that reported engaging in each activity at each level of government.

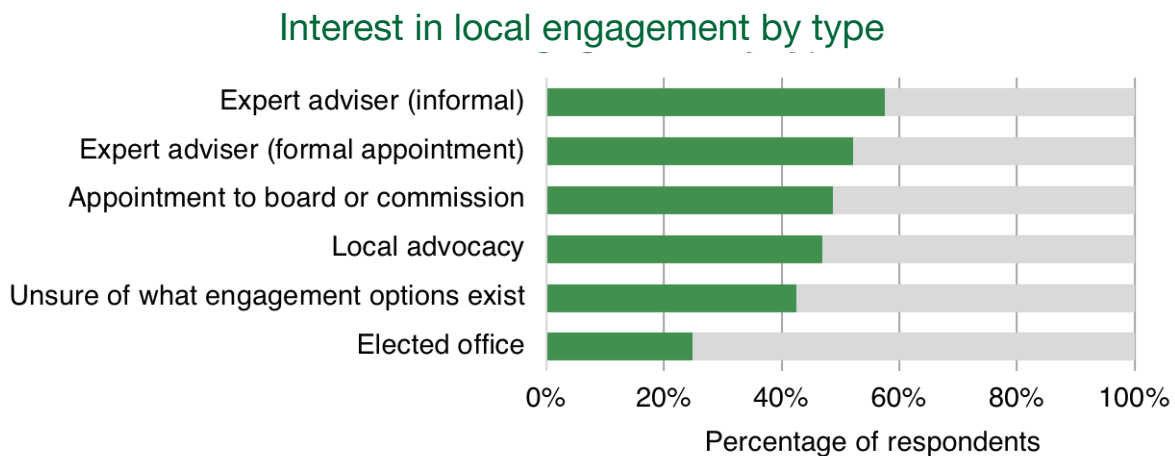
### Direct engagement at different levels of government



**Figure 3.** Direct engagement with municipal, regional, state, and federal governments. Bars show percentage of respondents that reported engaging in each activity at each level of government.

## Interest in local level civic involvement is high

When asked if they were interested in becoming more involved in their city, regional, or state government, 63.7% of respondents replied in the affirmative. Various avenues for direct engagement—in particular, becoming an expert advisor, board or commission member, or local advocate—were of greatest interest. Furthermore, nearly a quarter of respondents indicated interest in running for an elected office.



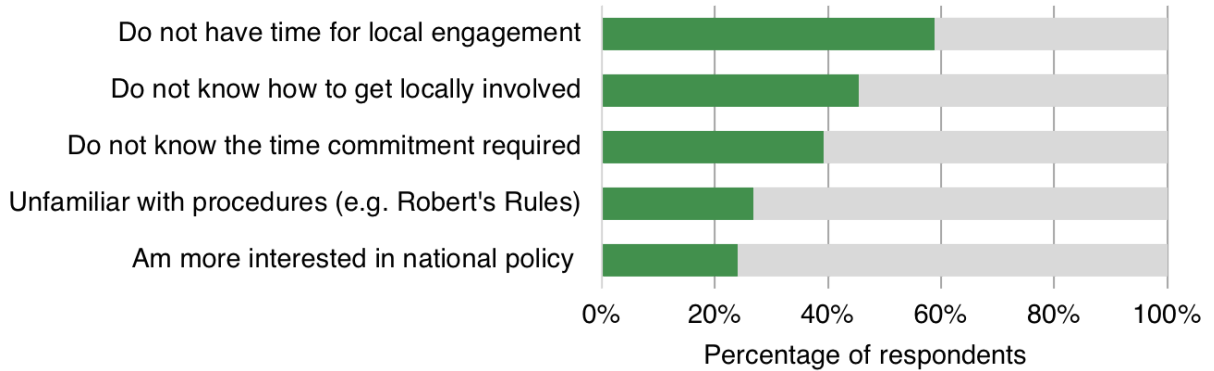
**Figure 4.** Interest in various forms of local engagement. Bars show percentage of respondents who indicated being interested in each type of local engagement.

## Limited time and knowledge gaps are major roadblocks to engagement

Respondents cited lack of time (58.9%) as the number one barrier to involvement in local government, but 39.3% also professed a limited understanding of the required time commitment (see Figure 5). Moreover, 45.5% of those surveyed were not aware of the options for local engagement.

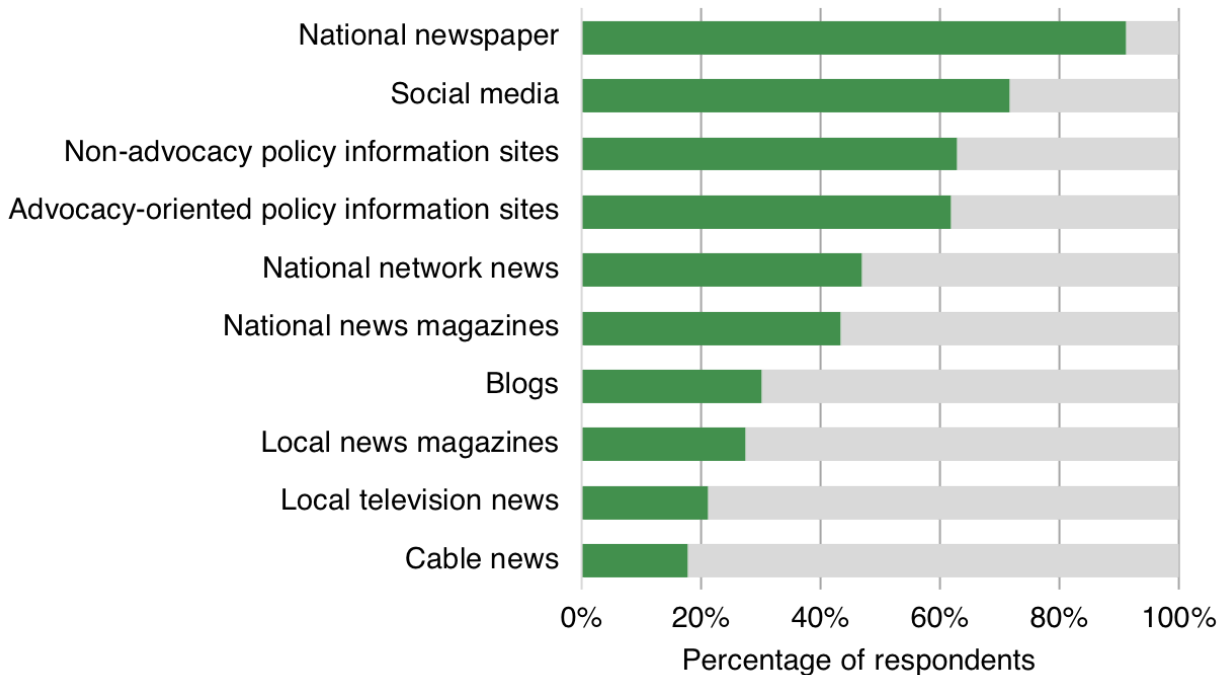
Self-reported knowledge of issues at the federal level was notably higher than at other levels of government, as shown in Figures 6 and 7. Participants primarily found information about government initiatives from national news outlets and social media, although both neutral and advocacy-oriented policy information websites also ranked highly. Less than 30% of respondents identified local television or local news magazines as sources of information.

## Barriers to greater involvement in local government



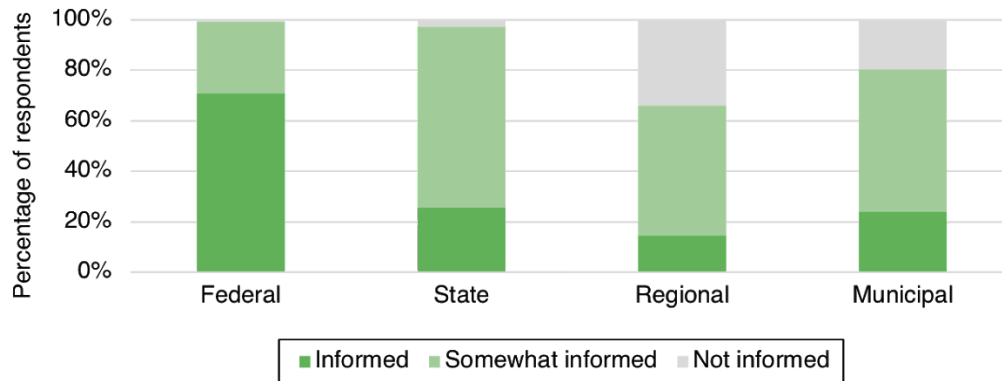
**Figure 5.** Factors that prevent greater involvement in local government. Bars show percentage of respondents that identified each factor as a barrier that prevents them from becoming more involved in local government.

## Information sources for knowledge gathering



**Figure 6.** Common information sources used to learn about municipal, regional, state, and federal policies and initiatives. Bars show the the percentage of respondents that identified each outlet as a source they use to learn about government policies and initiatives.

## Knowledge of policies and initiatives at different levels of government



**Figure 7.** Reported level of knowledge about municipal, regional, state, and federal policies and initiatives. Bars show the the percentage of respondents that considered themselves informed, somewhat informed, or not informed about government policies and initiatives at different levels of government.

## Bright spots: Paving a pathway to facilitate engagement

The 2017 Civic Engagement Survey demonstrates strong interest in increased engagement with local government by ESAL’s core audience. In particular, respondents reported high levels of interest in direct engagement as an expert adviser (see Figure 3).

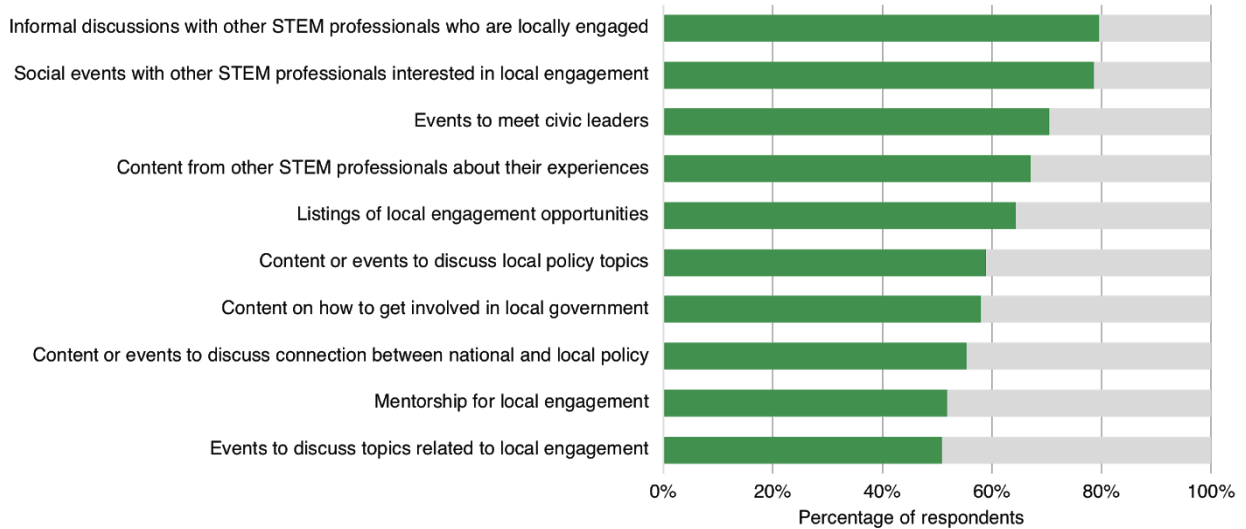
Low understanding of local government participation mechanisms and their required time commitments are readily addressable barriers. Many respondents did not know about engagement possibilities or the best sources for information gathering. Thus, providing a framework for civic participation is a key value proposition for ESAL. The self-reported shortage of free time suggests that ESAL could offer support by reducing the time necessary to learn how to impact local policy and by highlighting lower time-commitment opportunities. Simply offering clear information about the time-commitment required for various activities may also address these concerns. Finally, respondents showed an eagerness to attend events focused on local civic engagement. Based on these findings, ESAL is currently focusing its activities on:

- sharing experiences and advice from engineers and scientists who are engaged locally,
- providing readily digestible and focused informational content about local engagement, and



- aggregating information about local government involvement and volunteer opportunities.

## Resources to boost local engagement participation



**Figure 8.** Interest in local government participation-boosting resources. Data show the percentage of respondents that indicated that each activity would be of interest to them.

## Methods

Data are available upon request at [info@esal.us](mailto:info@esal.us).

## Survey design and implementation

The survey was developed by the organizing members of ESAL and the full questionnaire can be found at [survey.esal.us](https://survey.esal.us).

Respondents were asked 36 multiple choice and open-ended questions designed to assess their (1) engagement with and experience in government and (2) educational, professional, and personal background. We are unaware of any other evaluation of local engagement by STEM professionals.

Distribution via our personal and professional networks, including by social media channels targeted at STEM professionals with interest in government and policy work, was the primary mechanism of dissemination. Because of this distribution mechanism, we note that the results likely reflect higher levels of overall interest in and

engagement with government than that of the broader STEM community. For similar reasons, the responses are also heavily skewed toward respondents with doctoral levels of education and those working in academia. Nonetheless, the range of activities and opinions among professionals with backgrounds in STEM most interested in government provides some insight about a broader audience.

## **Respondent demographics**

Results reported here are based on 113 complete survey responses collected on the surveygizmo platform between September 1, 2017, and December 31, 2017. Respondents were primarily distributed across the United States and 87.3% self-identified as Caucasian. Roughly half of respondents identified as female (53.2%) or were 35 years of age or younger (51.9%).

The majority of respondents held a PhD (62.8%), obtained their highest degree within the past 10 years (61.2%), and studied science (62.5%) or engineering (27.7%). Top employers were academic institutions (41.4%), private for-profit organizations (30.8%), and the government (15.9%); 81.4% of respondents report currently working in a STEM or STEM-related field.

While less than half of the respondents indicated that they had ever worked for the federal government (38.4%), this value is nearly double that reported for local government work (19.5%).