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| REPORT | Landscaping Overview of Organizational Supportfor Public Engagement from Scientific Societies**Topline Takeaways from Society Key Actors** |

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**Overview of Organizational Support**

**for Public Engagement among Scientific Societies**

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| **KEY ISSUE** |

Scientific societies serve important roles in the development of scientists’ individual careers. One such role is through helping its members enhance their public engagement acumen. However, only a limited amount of research has paid attention to how societies view and support public engagement. Understanding the roles a range of societies play in science-focused public engagement can help uncover common strengths, unique differences, and opportunities for improvement.

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| **BACKGROUND** |

While scientific societies play an important role in scientists’ professional development, they also provide a platform for helping scientists to share new knowledge and build relationships with potential stakeholders. As the value of scientist-public engagement becomes more widely embraced, scientific societies may increasingly provide engagement-related support. This support might include training in engagement skills and strategy, as well as efforts to facilitate engagement opportunities. Societies may also use incentives such as awards to encourage desired behavior. The ultimate goal of this project is to help reveal how societies view the concept of “public engagement” and to provide an empirical understanding of the availability and prevalence of tools that societies currently use to support engagement efforts. Crucially, this baseline knowledge will help guide future efforts to identify and settle on shared best practices, diversify reach, and help form fruitful collaborations among key members within scientific societies and with researchers who study science engagement.

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| **PROJECT DESCRIPTION** |

This project provides an empirical overview of scientific societies’ role in supporting scientists’ public engagement efforts from a set of two exploratory studies conducted from November 2017 to February 2018. The project included a survey component with extensive use of both close- and open-ended questions, and semi-structured phone interviews with some of the survey respondents.

The online survey was designed to understand insights from key actors in societies about numerous issues related to public engagement support from societies, including (1) how public engagement is being viewed by societies, 2) the extent to which societies engage the public (3) the goals and objectives that underlie these efforts, and (4) the current engagement infrastructure within societies.

We contacted key actors at 277 scientific societies initially identified by the American Association for the Advancement of Science (AAAS) and supplemented this sample with targeted online searches. After 4 rounds of invitation, 76 societies participated in the survey (a 27% response rate). Respondents were either the leaders of societies, such as executive directors, or staff who in charge of public engagement or outreach. Responses are from societies that serve various disciplines and have an array of sizes (e.g., membership rates from less than 500 to over 100,000).

We further conducted semi-structured phone interviews with 10 survey respondents who indicated a willingness to been interviewed. These interviews aimed to provide an additional, more in-depth understanding of the opportunities and barriers that society leaders face with respect to public engagement. Questions attempted to capture how respondents were thinking about the specific resources societies have available for members, the demand from members, interactions with other societies, and similar topics. The societies represented in the interviews came from a range of disciplines.

The results that follow represent initial “topline” findings from both the survey and interviews. The findings should be viewed as tentative as they are based only on initial analyses that need to be supplemented by deeper analyses in the future.

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| **OVERALL IMPRESSIONS** |

The findings from both the survey and interviews show that scientific societies recognize the value of public engagement, with many of them addressing it as part of their societies’ mission statements. However, while the importance of engagement is frequently acknowledged, only about half of the societies surveyed facilitated some type of engagement activity within the last year.

While societies’ support for public engagement efforts appear to be driven by society mission, very few societies have identified and prioritized specific engagement goals. Therefore, most societies do not evaluate their overall engagement efforts and may only evaluate specific activities. A lack of clear goals, in this regard, appears to limit the opportunity for evaluation against such goals.

The amount and nature of engagement varies by society. Activity appears to be shaped by the primary focus of the societies, as well as the members’ characteristics. As might be expected, funding and resources are similarly associated with mission and membership.

Societies whose members are in policy relevant areas, in particular, seem to put focus more on engagement with policy makers and attempting to play an important role in decision-making. Other societies focus more on obtaining media coverage or producing their own content, often in an attempt to clarify perceived misconceptions.

Science communication related training is the most common support societies provide for members. Such training is typically either initiated by societies or proposed by members. Most training is organized by the societies themselves and focused on helping members develop specific communication skills for interacting with the public.

Members in societies that had more engagement activities also seem to be more involved and seek more engagement support. In other words, it appears that societies can help create a culture of engagement by providing initial engagement support.

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| **MAJOR FINDINGS** |

1. **Past Engagement**.

Among the completed responses, about 47% (27 of 57) of the surveyed societies reported being engaged with one or more public engagement activities within the last year. Conversely, 53% of societies (30 of 57) indicated they had not participated in any types of engagement in the previous year.

We asked about four different types of engagement in the survey: Face to face communication engagement with the public; mediated engagement such as interviewing with journalists; online engagement via Internet or social media channels; direct engagement with policy makers. The results also showed that surveyed societies had relatively less engagement with policy members but more face-to-face or online engagement.

When it comes to future willingness to engage, societies expressed very positive attitudes toward all four types of engagement (average ranks from 4.43 to 5.16, on a 7-point scale where 1 indicated no willingness and 7 indicated a great deal of willingness). Online engagement received the highest interest from societies.

1. **Goals/Objectives for Public Engagement**

In the survey we provided a list of goals and objectives and asked societies to say how much scientific societies such as theirs would prioritize these goals and objectives using 1-100 scales, noting that not everything can be the most important goal or objective. We defined goal as the ultimate end point that communicators seek to achieve through engagement, and objectives as the specific outcomes that societies attempt to achieve as a direct result of their communication efforts.

The results showed that societies most value the goal of increasing the use of scientific evidence in policy- or decision-making processes, and lease value the goal of using public engagement to fulfill a duty to society.

Societies prioritized communication objectives differently than individual scientists that were surveyed in a previous set of studies. Specifically, unlike scientists, societies do not assign the highest priority to scientific knowledge-related objectives, such as “helping to inform people about scientific issues and processes”. Instead, society respondents prioritized a more diverse set of communication objectives, with “showing the scientific community’s ability to help solve real problems”, “framing research implications” and “showing that scientific community cares about social well-being” emerging as their top three priorities.

1. **Infrastructure Support**

In this section we further split the data by societies whose respondent said that their society was not involved in any type of public engagement activities (labeled as “never”, N=30), and societies that were involved in at least one type of public engagement activities (labeled as “engaged”, N=27). In general, as might be expected, “engaged” societies reported more infrastructure support for public engagement.

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| **Staff** | **Total** | **Never** | **Engaged** |
| 0 people | 12% | 22% | 0% |
| About 1 person as part of their other duties | 42% | 35% | 48% |
| About 1 person, full time | 8% | 17% | 0% |
| 1-2 people | 20% | 13% | 28% |
| 3-5 people | 10% | 13% | 8% |
| More than 5 people | 8% | 0% | 16% |

**3.1 Personnel.** All “engaged” societies surveyed said they have at least one staff member that is dedicated to public engagement activities either part time or full time. More than one third of engaged societies said they have more than one staff member responsible for public engagement or related activities. However, ‘never engaged’ societies reported substantially fewer personnel support; about one fifth of them said they did not have anyone response for public engagement.

**3.2** **Training Effort.** Overall, about one third of surveyed societies responded that they do not provide any kind of trainings for members, and another 7% indicated that they plan to in the future. Nearly half (41%) of the societies said they provide a small amount, 14% provide a moderate amount, 5% provide a lot, and 2% provide a great deal of public engagement training. “Engaged” societies provide significantly more training support than “never engaged” societies.

Among societies that indicated that they provide training for members, the results showed that societies mostly focus on practical skills. For example, many of them indicated that “public speaking or making public presentation” and “writing for public/media” were the primary focus of training, but very few consider “understanding news values” or “training in theories/models of communication/strategy”.

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| **Others** | **Overall** | **Never** | **Engaged** |
|  | YES | YES | YES |
| Social network support for members | 40% | 25% | 56% |
| Awards available for members | 48% | 38% | 56% |
| Engagement effort evaluation | 22% | 9% | 36% |

**3.3** **Others.** We also inquired about other forms of infrastructure support. Less than half of surveyed societies said they provide social network support for members who seek for public engagement opportunities, with more support provided by “engaged societies”. Similarly, slightly less than half of surveyed societies offer engagement related awards for members with more engaged societies being more likely to report awarding recognition to engaged members.

Only a very small proportion of societies formally evaluated their engagement effort.

1. **Members’ Demand**

Overall, more than half (55%) of surveyed societies said that their members were demanding public engagement support. This number is slightly higher with engaged societies (60%), but respondents from never engaged societies also indicated that more than half (50%) of their members demanded it as well.

More specifically, the amount of demand is higher from members in engaged societies but some never engaged societies have members who request a great deal of support for public engagement. The change overtime in demand for public engagement from members also shows that members in “engaged” societies have more interest and demand than members from “never engaged” societies.

Demand from members

Demand change over time

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| **ADDITIONAL FINDINGS FROM INTERVIEWS** |

1. **Conversations about Public Engagement in Societies.**

Most society respondents indicated that they see public engagement as one of their key objectives, and the major way for them to connect with the public and raise visibility of their disciplines or scientists. Several societies have also included public engagement as one of their missions.

*So part of our mission and vision statement is to support our members in advancing their own efforts in becoming better educators and better spokespeople for the profession and for [discipline – redacted] more generally, and to provide professional development opportunities and other kinds of support for our members to then go out and do these things (Society 2).*

Respondents said their societies place a high value on public engagement. While they said that engagement may not be the primary focus, the topic is taken seriously. Societies also shared the changes regarding public engagement over time.

*I guess the difference is, in the past we've come at this idea of public engagement from the perspective of, we need to make sure that we get funding, that funding opportunities are protected and that universities can get research dollars. And now it's more of an existential need to engage the public because we're like, "wait a minute, people are anti-science now, suddenly." (Society 9)*

Respondents also said that they think their members value public engagement. Society respondents indicated that they devote their engagement effort to “*present findings in a way that are accessible to the general public”, “get visibility for our field and the research that's being done*”, “*promote connections within the field”*, etc. However, respondents said that their members sometimes disagree on engagement priorities.

*So people might think that we should work on some issues and not others, so there can be disagreements there. One thing we do not do, we've only done it once in my memory, but we do not take positions on issues of public policy importance. And the one time that we did it was a few years ago, and we definitely had disagreement from our members about that. Some of them felt we simply should not have done that, should not have been involved in that activity. (Society 2)*

*I think there are differences in opinion about whether scientists should do certain kinds of public engagement. Especially as it starts to approach more towards engaging with policy makers. (Society 6)*

1. **Types of Infrastructure support.**

**Media support**. Respondents described a range of different types of support that their societies provide to members. For instance, many societies indicated that they use their website, social media channels, and/or digital magazines to communicate about their field with public audiences and noted that these channels are also available to their member scientists to communicate their research.

*We have a publication called [redacted]. It's a digital magazine. It's basically like our blog. We solicit authors to share personal stories about their journeys in science, then also stories about their research. Not only do we provide a platform for them to publish, but we also provide tremendous editorial support, which essentially is often professional development training hands on for writing and science communication. But that's on an individual basis. (Society 3)*

*We have a network of graduate students called [redacted] that publish, every day they publish an article suitable for lay people about journal articles that are being published and we have the same network of graduate students puts on science communication workshops every year.*

**Training support.** Very few respondents indicated that they provide grants or awards for members regarding public engagement, but the majority of societies provide science communication or related training to members. Most of these trainings are organized by societies, some of them partner with external trainers. Among these trainings organized by societies, some are initiated by societies and some are proposed or volunteered by members. Trainings include various content but the majority of them focus on enhancing members’ communication skills, including writing or interview skills. Trainings often are organized during annual meetings.

*We train 30 early career [scientist type – redacted] in effective strategies and where to find resources and tools for public engagement. So we've been doing that for, I think the workshop we just had was our sixth winter workshop. We also give a workshop at one of our planetary sciences meeting. So we've trained about 200 members in effective strategies and techniques, tools and resources for public engagement in the past five years. (Society 2)*

*What to do when a journalist calls you. Here are five tips you can take five minutes and jot down your thoughts. Or have your talking points ready. The workshop talks about how to craft a message. How to take complex ideas and turn them into lay person friendly talking points. And then the how to write a blog. How to get your name out there. How to tweet effectively. How to talk to policy makers. So that's one the things we've done. I had mentioned, we've been working in the past year on an interview series where members talk about how they engage, why they engage, tips that they have. We did one I think the last one was with a scholar who appears on local TV frequently and he talked about that. (Society 8)*

**Expert database**. Another type of support mentioned by some society respondents is the expert database. Societies create a database with members who are either willing to speak with the public or be interviewed by journalists.

*We have an expert database where we invite our members to sign up to be available to the media. And if the media, we get inquiries from journalists sometimes saying, "We're looking for someone who can speak to gerrymandering in Wisconsin. Can you recommend some scholars?" And we go to our database and can give them three or four names of people that have signed up and said, "Their area of expertise are these topics." (Society 8)*

**Effort evaluation.** We received mixed responses about how society respondents evaluate or measure their engagement effort. Some societies have not yet evaluated their effort because no specific objective was set up. Some stated that they send out surveys after the training or workshop, some also monitor the traffic of their websites or social media accounts.

1. **Goals of supporting engagement.**

Many society respondents shared similar goals for public engagement, the first prioritized goal is to expand awareness and the visibility of the society. Other goals including advancing science for the benefit of all, effectively advocating for science and sharing the excitement with the public, inspiring members internally, and helping public or policy-makers better understand the issues.

*I said about the idea of raising our national profile and voice so that external audiences will begin to see that there are scientists from diverse communities that conduct science. But honestly, a lot of it also has to do with trying to inspire and motivate our existing members internally. By seeing people share their personal stories and their science, our goal is that it helps inspire the younger members and students to continue in their own paths. (Society 3)*

1. **Members’ interest.**

Society respondents said that their members are generally interested in public engagement. Members also strongly believe in the benefit of public engagement. Moreover, society respondents have also observed an increasing amount of interest over time.

*It increases as they get older because they run into so many situations where they see there'd be obvious benefits to increased public engagement. When you're young, I think you're focused on school or getting a job and family issues and are not thinking so much of the world at large but after you get out and are trying to have a career … it becomes apparent pretty quickly that you need to be involved in public engagement. (Society 1)*

The types of interest from members vary. About half of the society respondents indicated that their member have very general interest. “I*t tends to be pretty general. They look to the society to help them understand how best to engage in public engagement activities*” (Society 2). Some society respondents shared that their members have very specific interest in certain types of engagement activities.

*I think it's fairly sophisticated. I think that there's a lot of [scientist type – redacted] who are very active on Twitter or on Facebook. Engaging directly with the public. There are quite a few who do regular science writing, for magazines or op-eds in the newspaper, things like that. Or get engaged around events like eclipses or bright comets and things of that sort. So there's quite a few who are well engaged and do it that way. (Society 4)*

When asked to describe the similarity among members who receive or take advantage of the support societies provide, the answers are very consistent across societies that junior or young members are more interested in public engagement and take advantage of support. However, some leaders also shared that junior members may be more interested in public engagement activities that may help with their research or grant writing.

*As I said, at all career stages we probably see more people in the graduate student, post doc, early career researcher segments. But we certainly almost always have mid-career and senior level faculty and researchers participating as well. (Society 6)*

1. **Changes to be better?**

When asked to describe what changes in society would like to improve public engagement, society respondents shared various aspects, including funding and volunteer support. It is worth noting that several society respondents shared that they would like to start with “identifying what are those goals for us” (Society 7), and finding the priority for engagement (Society 9).

*It would be very good to really take more initiative from the internal organization and start thinking about this and developing some routinized or mechanized channels for our program. (Society 6)*

1. **Interactions with other societies or actors**

Almost all society respondents reported that they have active interactions with other societies, universities, or external training programs. The goals of these interactions include: building networks with other organizations, collaborating to learn engagement from others, gaining awareness about related disciplines, etc.

*I take advantage of expertise that we don't have, because of our limitations in size and other resources. But mostly it's just a way of being able to do more than we could do by ourselves, by doing it in partnership with other people, other organizations. (Society 4)*

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| **MORE QUESTIONS** |

Conducting, re-reading, and analyzing the survey and interviews prompted the following additional questions that were not answered in the current project:

1. To what extent have societies integrated their missions with public engagement objectives? And how can societies best identify their key engagement objectives, allocate appropriate support and resources, and design effective evaluations?
2. Unlike scientists, societies do not have a dominant focus on education-related engagement objectives. How can this difference be leveraged to help broaden the communication objectives scientists prioritize for their engagement efforts?
3. How can societies best address the increasing amount of member demand for engagement support? What are some accessible, sustainable, and scalable mechanisms societies can adopt to begin providing support?
4. Given that most societies’ training support focuses on imparting communication skills, to what extent does that focus sufficiently reflect the broader engagement goals they commonly identify as being their priorities?

---THE END---