

Perceived values, obstacles, and incentives for public outreach of scientists and science administrators in academia – a pilot analysis.

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Introduction:

If the science research and education community is to increase the number and degree of commitment of scientists who participate in public engagement activities, we must understand their perceptions of values, obstacles, and incentives in the science academic environment. Below is a preliminary distillation of the results of two surveys (2012, 2014) that begins the process of understanding attitudes of science academics and science administrators.

Academic Scientist Survey:

We sent an online survey to all faculty, post-docs, and graduate students at the University of Utah's College of Science (931 total). A 26% return of surveys (257 total, 30% tenured faculty) revealed that **a majority of respondents agreed or strongly agreed that public engagement is valued by their professional and personal circles**, and that there are important reasons for scientists to participate in public engagement. These are: a) **to convince the public of the value of science (92%)**; b) **as a duty of scientists (81%)**; c) to gain research funding (54%); and d) because non-scientists can provide new perspectives on research (46%).

The majority of respondents rated public engagement as *medium priority*. **Most (85%) have previously participated in public engagement**. Over 55% indicated they would be willing to participate in more outreach if opportunities were easier to find. Over half agreed they would participate in more public engagement if there were money to support participation (62%), and if opportunities were easier to find (57%).

Providing public engagement with scientifically underserved audiences is compelling to these scientists: many are interested in working with **political activists or policy makers (43%)**, **with prisoners (39%)**, and **with church groups (30%)**. Respondents also indicated a high degree of **interest in participating in communication training in oral presentation skills (64%)**, **graphics (57%)**, **website design (44%)**, and **social media (36%)**.

Academic Science Administrator Survey

Because the perceived and real opinions of academic administrators may affect attitudes about public engagement of faculty, postdocs, and graduate students, we carried out a complementary survey of senior science administrators (Chairs, Deans, and Provosts of science departments) at 200 academic institutions, stratified by geographical region, size, and institutional type (Carnegie Institution Classification system, graduate vs. undergraduate liberal arts). We had a 38% return rate (76 surveys).

Administrators' perception of the proportion of the time the scientists in their department spend on communicating their work to the public was very small: **75% estimated it as being less than 5%**; only 1% of the administrators assessed this as being more than 20%.

Most administrators (64%) "agreed" or "strongly agreed" with the statement that scientists "are skilled at talking to lay people". Administrators described the amount of emphasis they perceive that scientists receive to communicate with the public: slightly over half (54%) stated that there is "little" or "no" emphasis for scientists to communicate within the department, and only 27% said that the institutional priority on public understanding of science is high. **Only 3% said scientists in their department are currently compensated for time spent doing public outreach**, and only 6% said there is time and space to pursue public outreach.

Hi all:

Attached to this message are the condensed results of two surveys relevant to the topic of our workshop on how ISE professionals can connect with scientists, and scientists connect with ISE professionals.

The first portion presents results of a survey of scientists that reveals interesting trends about their attitudes and their current work with public engagement.

The second part presents results of another survey that reveals information on the attitudes and understanding of academic administrators at universities and colleges about public engagement by scientists.

We will refer to these results during our workshop.

See you soon.

--Nalini Nadkarni