# Advocating Science through Outreach

If scientists don't care, does everyone lose?

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# Abstract

As part of a broader science advocacy program, Sigma Xi, The Scientific Research Society, intiated a yearlong pilot study from May 2000 to May 2001 to survey its membership and identify relevant science and technology policy issues among a large (>70,000 members), multi-disciplinary community of scientists and engineers (herein referred to collectively as scientists). As part of this project, 5001 members in Alaska, Delaware, Ohio, and Texas were polled via e-mail with four separate, but similar, surveys. The aggregate response rate was 41%. Initial success of this project justified an ongoing polling initiative to provide timely and relevant science and technology policy data for more than 500 local chapters. Conceptually, these data could be used as talking points for delegations of scientists and engineers during visits with government representatives at the federal, state, and/or local level(s).

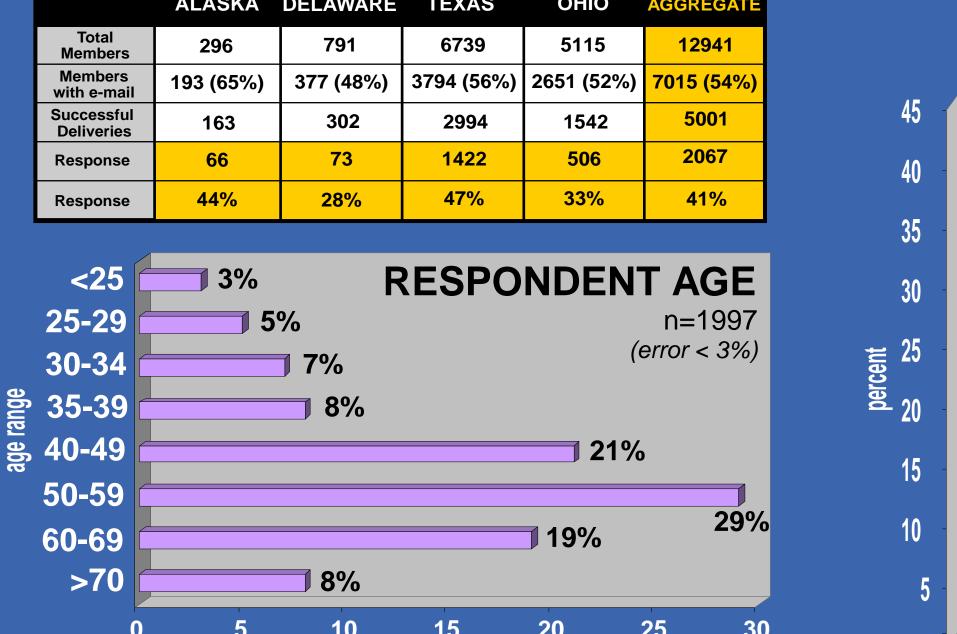
In addition to interaction with lawmakers, effective science policy also relies on the dissemination of accurate and trustowrthy information on scientific and technical issues to the general public. Given four possible outlets for this information (academic institutions, corporations, the internet, and the media), scientists ranked both the media and the internet as the least trustworthy and least accurate source and ranked colleges and universities as the most trustworthy and most accurate source. Over half of the survey respondents were affiliated with a research university or four-year college, yet data indicate that almost half of this same population were not actively involved in science advocacy through outreach. Those that were involved tended to focus their efforts on social gatherings and/or schools (specifically K-12), venues that may not be the most effective use of limited time and resources to achieve policy goals. When asked what kept scientists in general from becoming involved in technical outreach, almost 80% of respondents identified a lack of time as well as not being asked or invited. Over one third of respondents considered limited involvement in outreach to be related to apathy, lack of incentive(s), concern(s) over public misunderstanding (and related liability), and lack of knowledge of effective outreach techniques.

These trends suggest a potential paradox: scientists feel that their professional community is the most qualified to inform the general public about the issues related to science and technology, yet many are not actively involved in outreach. Therefore, it is hopeful that the scientific community, including professional societies and academic leaders, can use these data to help reassess and/or redefine the role of the scientist in the science policy process. If even a third of the scientific community, as indicated here, continues to display self-proclaimed traits of being passive, apathetic, and ignorant towards scientific outreach, it can be effectively argued that everyone loses.

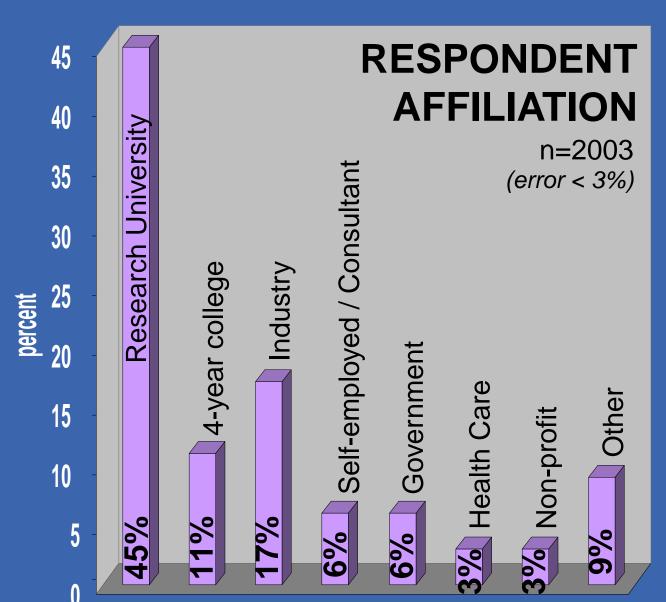
# Survey Response

Four separate, but similar, 5001 surveys were distributed succesfully via e-mail to Sigma Xi members in AK, DE, TX, and OH using Decisive Technology's Decisive Survey software (v. 2.0, 1000 respondent edition).

#### RESPONSE RATE



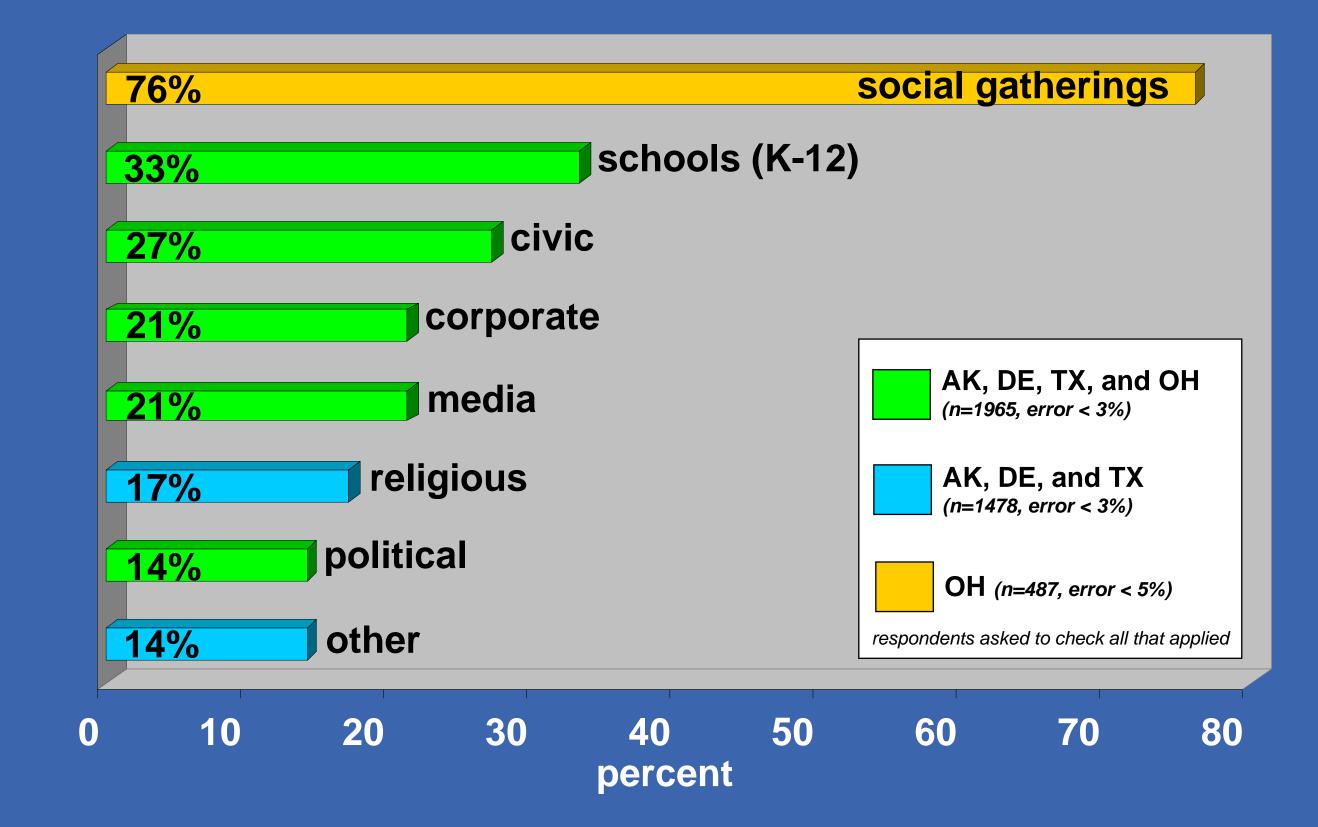




# Results

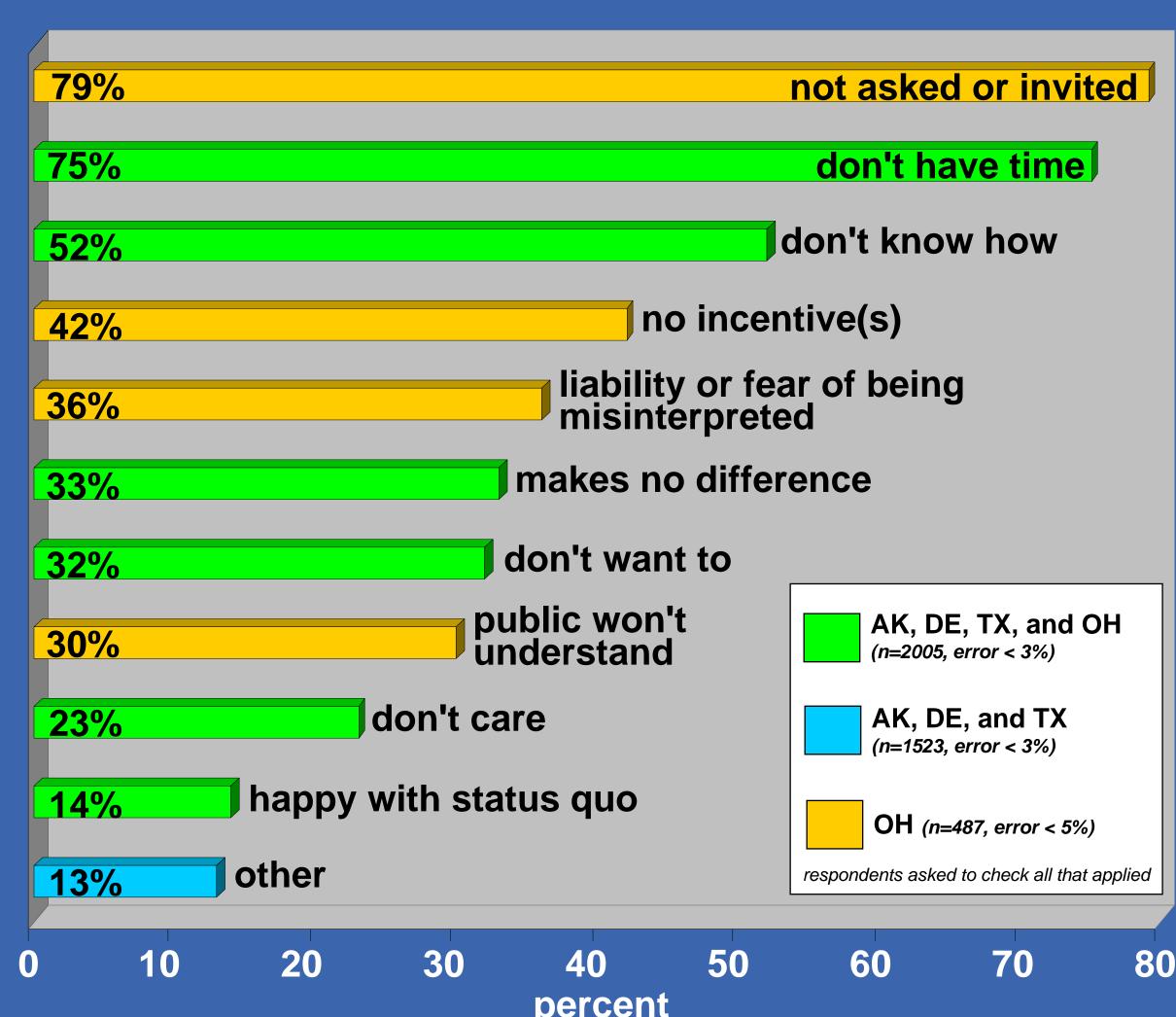
Outreach is defined here as the process of scientists talking to non-scientists about the work they do or the about the scientific enterprise in general. One third of respondents had not been involved in outreach during the past twelve months.

Those involved in outreach cited the following venues where they had personally been active:

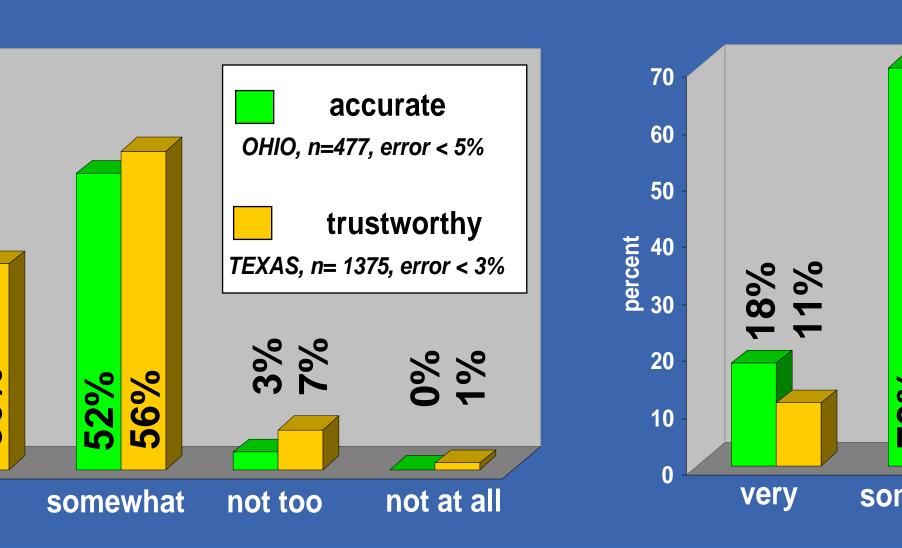


The following sources were rated for accuracy and trustworthiness with regard to the dissemination of scientific and technical information:

The following reasons were chosen for why scientists in general felt their colleagues were not involved in outreach:

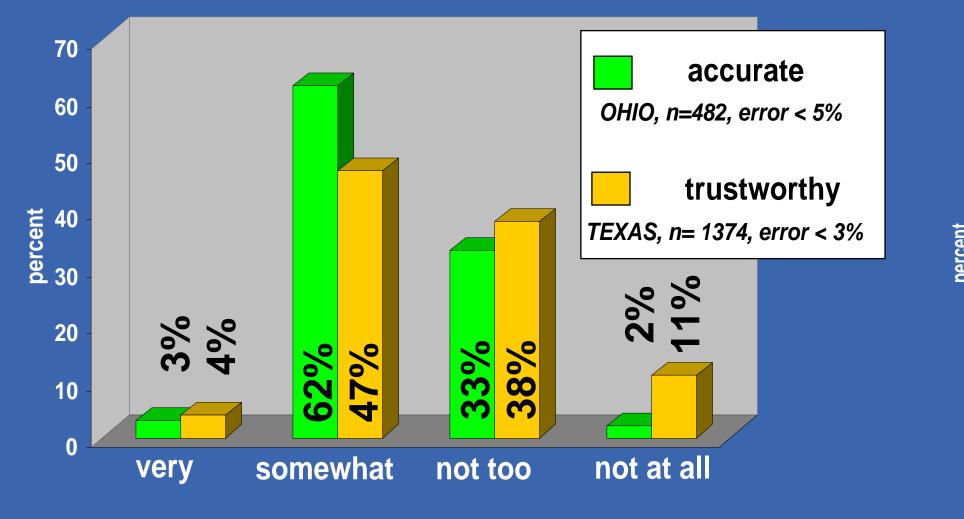


#### ACADEMIA CORPORATIONS

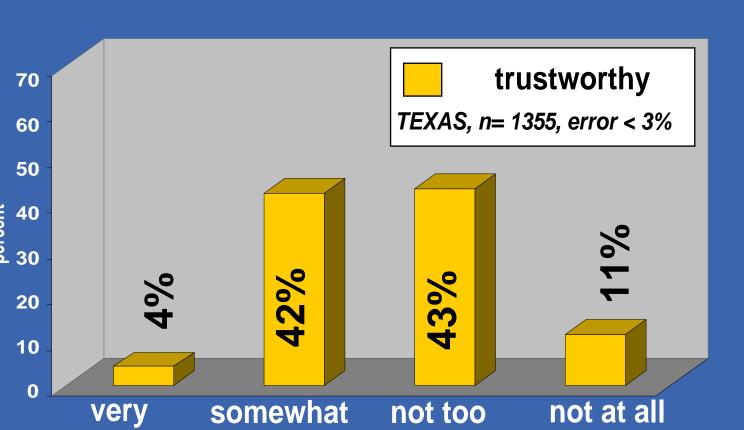


#### MEDIA

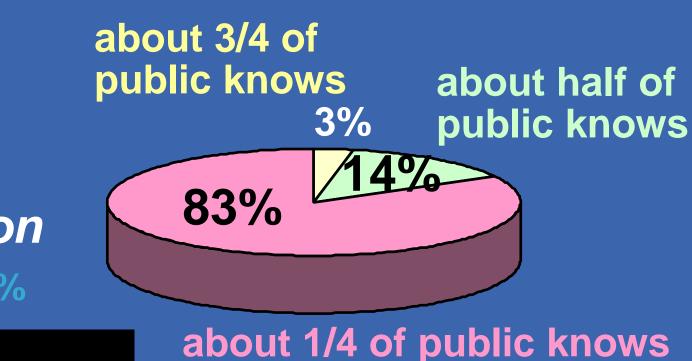
accurate



#### INTERNET



Most scientists felt that the majority of the general public did not know how to find accurate scientific and technical information on the internet. OHIO n=474, error < 5%



### Conclusions

One third of respondents had not been involved in outreach during the past 12 months.

Social gatherings were the most common form of outreach and schools (K-12) were second.

Outreach in the political arena (e.g., letters and visits to elected officials) was the least common among respondents.

Scientists believe the lack of outreach among their community is due to a lack of time and a lack of invitation.

Half of respondents felt that scientists did not know how to conduct outreach.

Scientists felt that academic institutions provided the most accurate and trustworthy source of sci/tech information and that the media and internet were the least accurate and trustworthy.

The majority of scientists felt that only one quarter of the general public knew where to find accurate sci/tech info on the internet.

## Acknowledgments

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