The Reason Why Scientists and The Public Do Not See Eye To Eye

By Julianna LeMieux — February 22, 2017

Having spent the weekend at the American Association for the Advancement of Science (AAAS) meeting in Boston, with a theme of science policy, I have been immersed in a four-day, non-stop conversation about the relationship between scientists and "the public."

In thinking about the gap that exists, at least anecdotally, between the public and scientists on scientific issues, I looked for data on exactly how wide that gap is.

The Pew Research Center, a nonpartisan fact tank that conducts polling and collects data, asked scientists and non-scientists their opinions on various scientific topics: GMOs, global warming, pesticide usage, etc. The results are not surprising - there is a big gap between what those two groups think. The question is - why? And, what can be done to shrink the gap?

The degree of difference between the scientists and non-scientists is significant. In this case, "scientists" means members of the AAAS and "public" means non-members.

- The topic with the largest gap (51 points) is the debate about the safety of GMOs - with 88% of scientists voting that they are safe versus 37% of the public.
- The second largest gap (42 points) was in the use of animals in research with 89% of scientists and 47% of public favoring their use.
- The third largest gap (40 points) was a topic that also pertains to our food - with 68% of scientists considering it safe to use pesticides on food, compared with 28% of the public.
- A close fourth was the topic of global warming, with 87% of scientists agreeing that the earth is getting warmer due to human activity as compared with 50% of public - a 37 point gap
- Evolution is agreed upon by 98% of scientists and only 65% of the population - a 33 point gap
The results can be viewed in the figure below and also seen online at this link [1]. On the website, the data can be sorted by gender, age, race, education, ideology, degree, political affiliation, etc.

Although the reasons for this gap are many and varied, the failure of scientists to communicate must be near the top of the list. The bottom line is that we, as scientists, are not doing enough to get our evidence based messages as far as they need to go. Most people are interested in what makes up their food. And, the words "genetically modified" sound scary. If we could get rid of the jargon, remove the stigma associated with GMOs and pesticides and talk to our friends, neighbors, relatives, church groups, book clubs, etc. in a way that breaks down the barriers between facts and fiction - these gaps would certainly be smaller. Of course, we work to do that here at ACSH and will continue to try to shrink the gap.
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