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What We Don't Know About Public Perceptions of Science

The Trump administration's overhaul of federal science policy will impact all Americans. The availability of novel medical treatments, the assurance of safe food and clean water, and the innovation-based jobs that sustain communities, are just a few examples of areas that will be affected. The US research community has been reacting with alarm, warning that the cuts to science funding and jobs will cause a brain drain, diminish administrative capacity, upend opportunities for early-career researchers, undermine the technological advantage of the United States in emerging sectors like artificial intelligence and biotechnology, and worse. But what does the public think about these changes to federal research budgets and policies?

There has been little effort to gauge Americans' perceptions of the recent changes to science and technology policy, or their concerns looking ahead. In the absence of real-time research on public priorities and values, the scientific and science policy communities have, on occasion, defaulted to familiar narratives about national security and overtly partisan takes including a "war on science." But in the effort to respond to what might appear like an erosion of public support for science, the research community may be overlooking untapped opportunities to connect with the public over its future.

In early April 2025, the Association of Science and Technology Centers (ASTC) conducted a national public opinion survey of 1,017 adults in the United States as an initial step toward building a better understanding of public attitudes about the scientific ecosystem. Our small but informative sample prompts new questions for further consideration. Additional polling and qualitative research on public priorities and values are needed to inform messaging about the role and impact of science, and to ensure messages reach an intergenerational audience. Moreover, if the research and science policy communities are to cultivate trust and broader public support, deeper forms of public engagement are necessary. Listening sessions, town halls, and discussion forums can provide input into policy and build a stronger connection between science and the public.

Taking the pulse of the public

At a high level, public support for science persists. Since the 1980s, polling has indicated that most people believe the benefits of science, medical research, and new technologies outweigh the harms. Our results echoed these sentiments, with 7 in 10 adults agreeing or strongly agreeing that science "benefits people like me." This tells us that support for science isn't just theoretical—people see tangible benefits that connect to their personal experiences. Responses also indicate a high degree of public reliance on scientific information for everyday decisionmaking; 94% of respondents said they use one or more sources of scientific information—including weather forecasts and alerts, nutritional information, economic forecasting, public health updates, and air quality reports—at least weekly.

But when asked to rank top concerns related to cuts to federal science and research budgets, less than 10% of all respondents selected the loss of access to scientific sources of information as a top concern. Instead, top responses were focused on economic impacts, public health preparedness, and food and drug safety. These results prompt questions for further research into the ways the public perceives and

interacts with the federal science infrastructure in connection with broader economic and social dynamics.

Generational differences in responses suggest diverging anxieties: Significantly more baby boomers ranked "the US no longer being a leader in science and technology" as a top concern (27% versus 18% of all other generations), and millennials and Gen Zers ranked concerns about addressing climate change higher than baby boomers (a top concern among 16% vs. 6%).

At the same time, the people we surveyed were only vaguely aware of changes to federal support for science. Seventy-seven percent of respondents said they heard about recent program cuts, cancellations, or changes, but only 15% said they could provide specifics. And a surprising number of respondents trust funding for science and innovation to be resilient to policy changes—nearly half of respondents believe that private entities would be able to adequately fill gaps created by cuts to federal science budgets.

Signals and opportunities

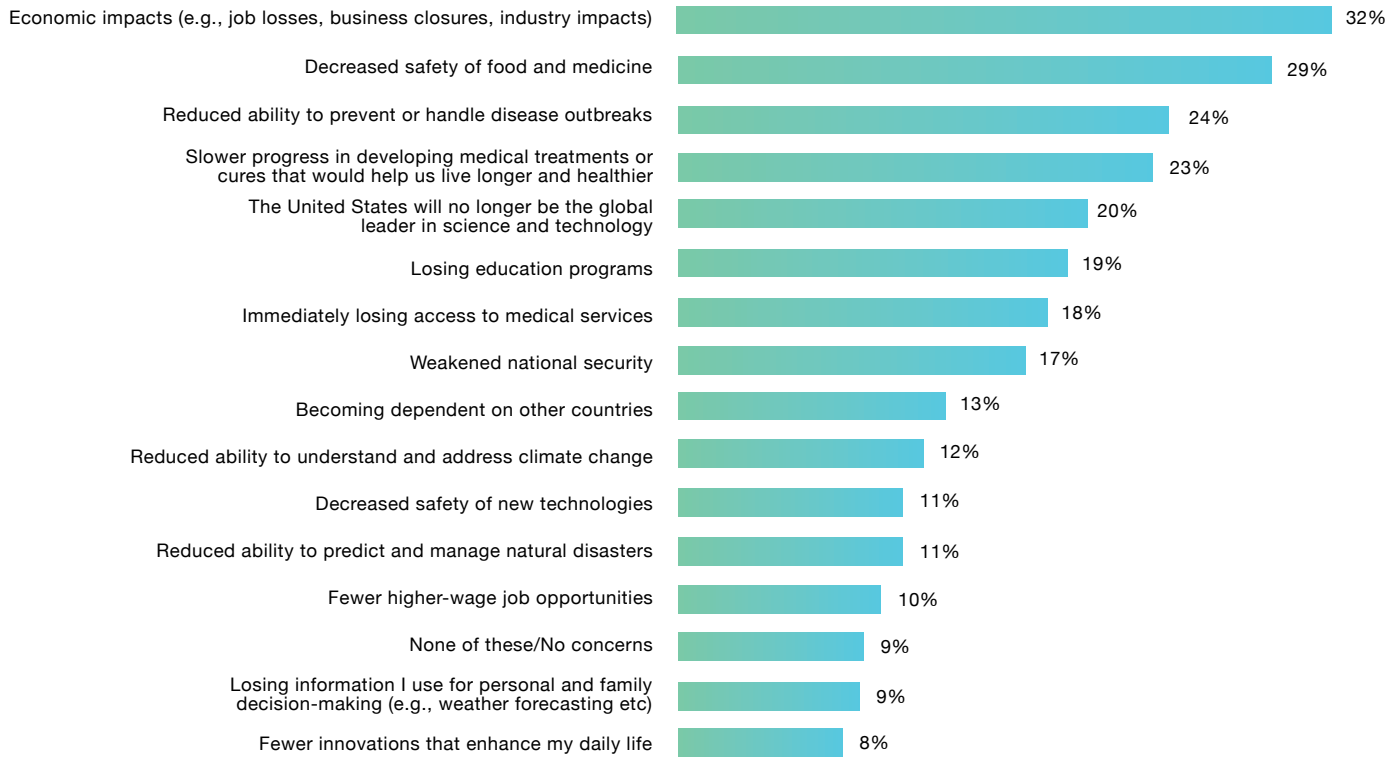
It seems clear that science is valued and broadly supported by the public, but effective advocacy and policymaking requires deeper insights to meet the moment. We don't know enough about public perspectives on a range of issues. Without more comprehensive quantitative and qualitative data, leaders, advocates, and decisionmakers across the science community are left to guess at what kinds of messages might resonate with the public about the impacts of new federal policies, or the types of policies that would better align with their interests.

This is particularly important in the context of the current and future state of the politicization of science. Despite increased focus on the issue in recent years, our results suggest there is no significant "anti-science" coalition. Even in questions where there were significantly different attitudes between Democrats and Republicans, a majority of Republicans still expressed support for science or concerns about cuts. (Polling in early May also reflected continued bipartisan support for science; 6 in 10 adults favored maintaining federal funding for scientific and medical research at colleges and universities).

Scientific polarization is complex and varies across issues, institutions, and messengers. Far more Democrats (91%) expressed awareness and concern that federal policy changes, program cancellations, or budget cuts might affect the United States' ability to attract and/or retain top scientists, versus only 55% of Republicans. During the height of the COVID-19 pandemic, support for science was part of the Democratic identity, so it is possible this response could be an expression of an ideological pro-science sentiment. And Republicans could be indicating a general lack of concern about the scientific workforce. Without more data, it is impossible to know whether this break is about political identity, exposure to scientific advocacy efforts, or a reflection of something else entirely.

Figure 1. **PERCENTAGE OF RESPONDENTS WHO USE SCIENTIFIC INFORMATION AT LEAST WEEKLY, BY TYPE**

Figure 2. **PERCENTAGE OF RESPONDENTS WHO SELECTED THE FOLLOWING AS A TOP-THREE CONCERN ABOUT FEDERAL FUNDING CUTS FOR SCIENCE**



Efforts to uncover better answers to these questions could also serve the public's interest in developing more meaningful engagement on how science shapes society. Sixty-one percent of respondents agreed or strongly agreed that "members of the public should have a say in whether and how new scientific discoveries are introduced in society based on the benefits and downsides of those developments." Seventy-three percent agreed or strongly agreed that "scientists should participate in activities to learn from the public about how their work affects the average person," and 74% agreed or strongly agreed that "federally funded scientific research should be freely available to the public."

The American public wants to participate in the scientific discourse. They don't want to be passive recipients of the outputs of science—they want to be partners in how science shapes our collective future. The scientific community has made progress expanding engagement in recent decades, but it should continue developing more accessible opportunities for public engagement that align with diverse motivations. The resulting insights can then be meaningfully integrated within policymaking and across the scientific enterprise.

This work will require sustained and strategic investment, rigorous research to establish evidence-based methods, and cross-sector collaboration to build more effective opportunities for public participation in science and science policy. Strong engagement practices have the potential to increase the rigor and responsiveness of the scientific enterprise, and to lay the groundwork for public support that is based on deeper connections and mutual understanding between science and society.

Our recent survey provides some insights into a complex set of perspectives and attitudes about science and technology, but it is an insufficient dataset given what's at stake. As institutional leaders and policymakers react to major shifts in support for federal science and research, they need to adopt an evidence-based approach to assessing public values and priorities. To maintain and rebuild a scientific enterprise that serves our diverse society, more robust data, research, and public engagement are needed to inform communication strategies and policy development.

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