

Basic Scientists Views about Engagement Goals

Executive Summary

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Background

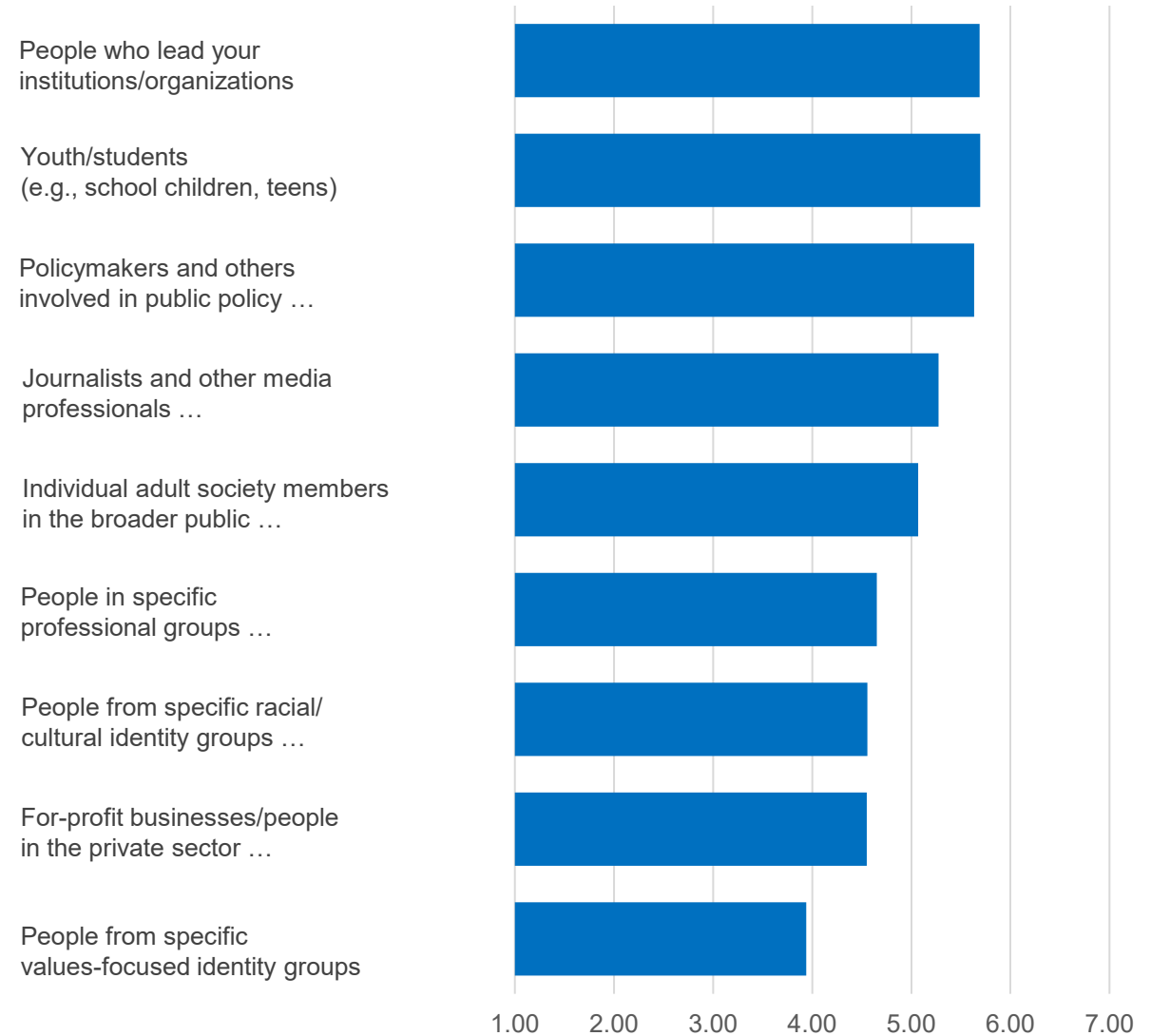
- A Fall 2022 survey examined the public engagement goals of scientists in fields with a high degree of focus on basic science, including the degree to which these goals varied by factors such as degree of focus on basic science rather than applied science, field, and demographics.
- The survey involved an attempted census of corresponding authors of top journals in six fields: astrophysics, atmospheric sciences, chemistry, nanoscience, neuroscience, and particle physics.

Key Results

- Scientists' most highly-rated audiences were internal leadership, youth, and policymakers, although a range of other groups were also rated highly. Values-based groups were rated lowest (see figure, right).
- Scientists' most highly-rated goals were increasing the likelihood that people *consider* scientific evidence when making decisions and ensuring robust funding for science (see figure, next page).
 - Scientists' degree of focus on basic science and field were not substantially associated with perceived goal importance.
 - Scientists demographics (age, gender, race) were not substantially associated with perceived goal importance.

Priority Audiences for Science Communication

Average response to question: "In general, how important or unimportant is communicating with the following type of group for scientists like you?"
(Very unimportant = 1, Very important = 7)



Key Results (cont.)

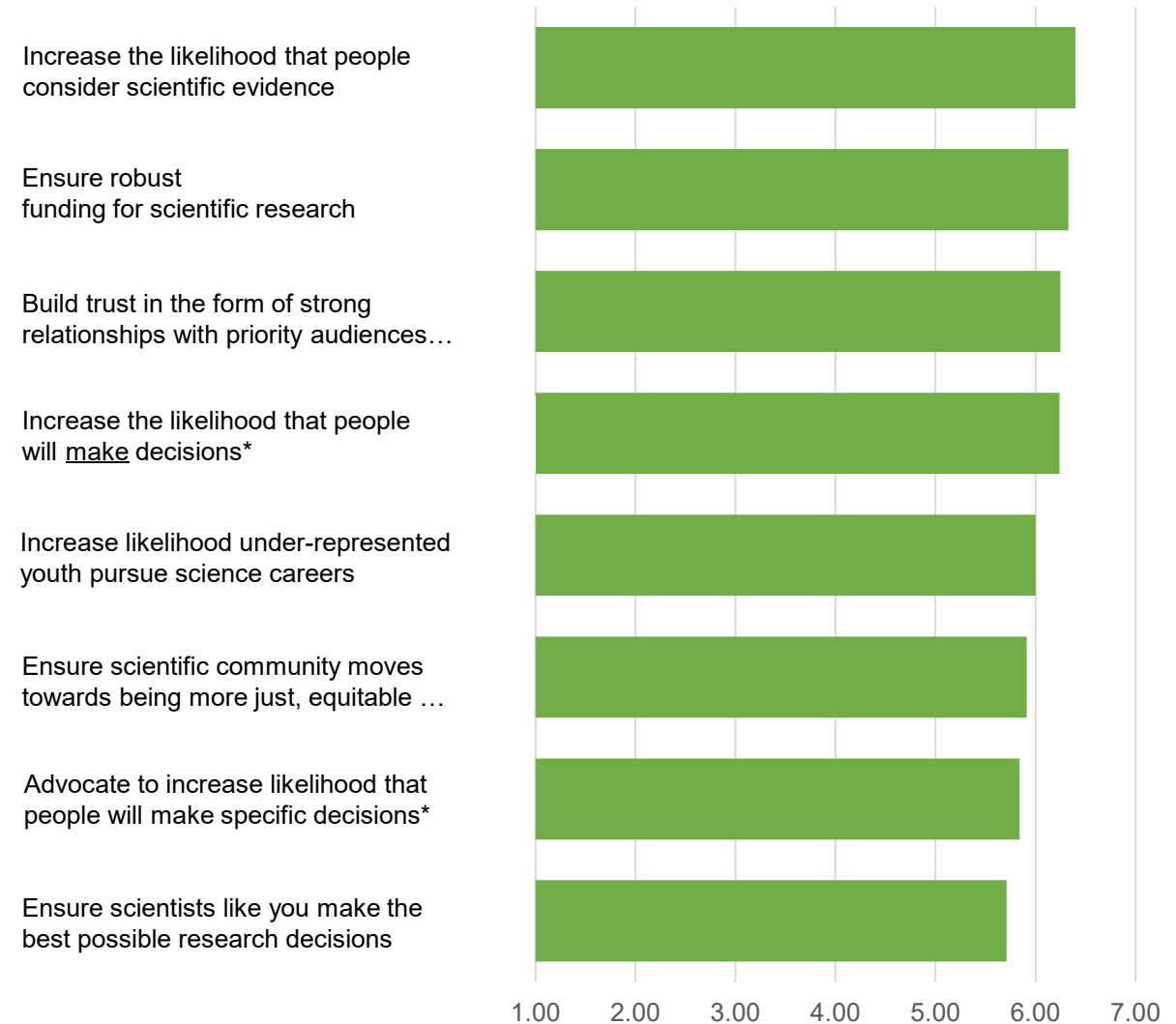
- Scientists were somewhat less likely to support the goal of asking people to consider scientific evidence when the goal was described in terms of “advocacy” for specific decisions (see figure, right).
- In general, scientists say they choose goals based on their own interests rather than based on their organizations’ goals.

Key Conclusions

- Findings do not suggest meaningful differences in how basic vs. applied scientists identify key audiences and behavioral goals for public communication. Anyone seeking to help scientists communicate effectively should work with them to identify and prioritize audience-specific communication goals, regardless of whether they view their research as being more basic or applied.
- A desire to see science used is not limited to applied scientists. Scientists in fields with substantial focus on basic science still want to see other people in society (e.g., youth, policymakers) consider scientific evidence when making decisions.
- The relatively low ranking of the goal focused on communicating to help scientists make better research decisions suggests a need to increase (1) scientists’ prioritization of this goal and (2) efforts to help scientists develop tools to help them listen to other societal actors.
- There is a substantial opportunity for those interested in increasing scientists’ willingness to consider specific behavioral goals to ensure that scientists understand the degree to which pursuing a goal would be (1) beneficial, (2) acceptable to peers, and (3) feasible given available skills and resources.

Priority Goals for Science Communication

Average response to question: “[W]hen choosing to communicate with your priority audience(s), how important or unimportant should the following type of goal be for scientists like you?” (1 = Very low importance, 7 = Very high importance)



See full report for exact question wording and additional analysis.
*Half of respondents saw each version for an embedded experiment