



2022 PTIE Conference Abstract

Title: Modernizing the Relationship between Academia and the Public

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Abstract:

The COVID19 pandemic has underscored the pressing need for the science community to better engage the public that supports its work. The author will describe pilot projects and pathways forward to accelerate the uptake of graduate education coursework to prepare scientists to better understand the public context of their work and to communicate much more effectively.

Modernizing the Relationship between Academia and the Public

Author: Mary Woolley

Institution: Research!America

The COVID-19 pandemic has pushed science to the forefront of public attention, and the attention has not all been favorable. It is new for most scientists, as well as most non-scientists, to watch science in essentially ‘real time’ in the public eye, with all its uncertainty and surprises. Scientists are not trained to engage the public in real-time situations, or, for that matter, to engage about science in any situations beyond their peers. This is a situation that calls for attention and action.

Attention is also warranted to public opinion data that illustrates the severity of declining public confidence in the relevance of higher education^{1,2} and of public expectations for scientists to communicate to the public and elected officials³.

Abraham Lincoln’s maxim pithily summarizes the importance of public regard:
“...public sentiment is everything. With public sentiment, nothing can fail; without it, nothing can succeed.”

We propose adding public engagement as a component of the growing PTIE⁴ movement. (Thus, a second “E”.) Academic recognition of the value of proficiency in public/community engagement can be achieved alongside proficiency in innovation and entrepreneurship. In many ways, they all reflect a similar imperative: meeting public expectations. Rather than continuing in one-off fashion, as is the case in some universities, where workshops and other optional learning experiences are available outside the curriculum, we propose normalizing the key tenets of proficiency in public engagement, including communication skills, and knowledge of the public/societal/political contexts of publicly supported research and innovation.

If training in these and related skill sets remain outside the curriculum, and thus outside consideration for promotion and tenure, academia cannot meet its dual obligations to students who wish to learn to obtain this proficiency, and to the public which expects delivery on its expectations of, and investment in, higher education.

To meet public expectations, graduate students in the sciences, social sciences very much included, should be required to enroll in a ‘public context of science’ course during their first-year curriculum. We further suggest that, with the engagement of leaders in humanities who share a commitment to meeting public expectations, a parallel course geared to those majors be developed as well.

An example of a path forward for the academic community in overcoming declining public regard is provided in a recommendation for one federal agency – the NIH – to require training in the public context of science as part of all NIH training grant curricula.⁵

The time for incrementalism is gone; it is time for systemic change. As the late, former Congressman, John Edward Porter, often said, “You can change the image of things to come. But you can’t do it sitting on your hands.” Let’s not wait a moment longer to act!

References

1. Americans’ Confidence in Higher Ed Drops Sharply.
<https://www.chronicle.com/article/americans-confidence-in-higher-ed-drops-sharply>
2. Half in U.S. Now Consider College Education Very Important.
<https://www.gallup.com/education/272228/half-consider-college-education-important.aspx>
3. Research!America 2022 January National Survey Results.
<https://www.researchamerica.org/wp-content/uploads/2022/07/2022-January-National-Survey-Results-1.pdf>
4. Innovation, entrepreneurship, promotion, and tenure.
<https://www.science.org/doi/10.1126/science.abj2098>
5. Beyond 2020: A Vision and Pathway for NIH. Recommendations for a Healthier Future.
<https://www.coalitionforlifesciences.org/beyond-2020-a-vision-and-pathway-for-nih/>



Modernizing the Relationship Between Academia and the Public

July 26, 2022

Mary Woolley, PTIE Conference, Oregon State University

Percent of Americans who said colleges have a positive effect on the way things are going in this country:

2020	2021	2022
69%	58%	55%

Author: Karin Fisher. Printed in Chronicle of Higher Education.

<https://www.chronicle.com/article/americans-confidence-in-higher-ed-drops-sharply>

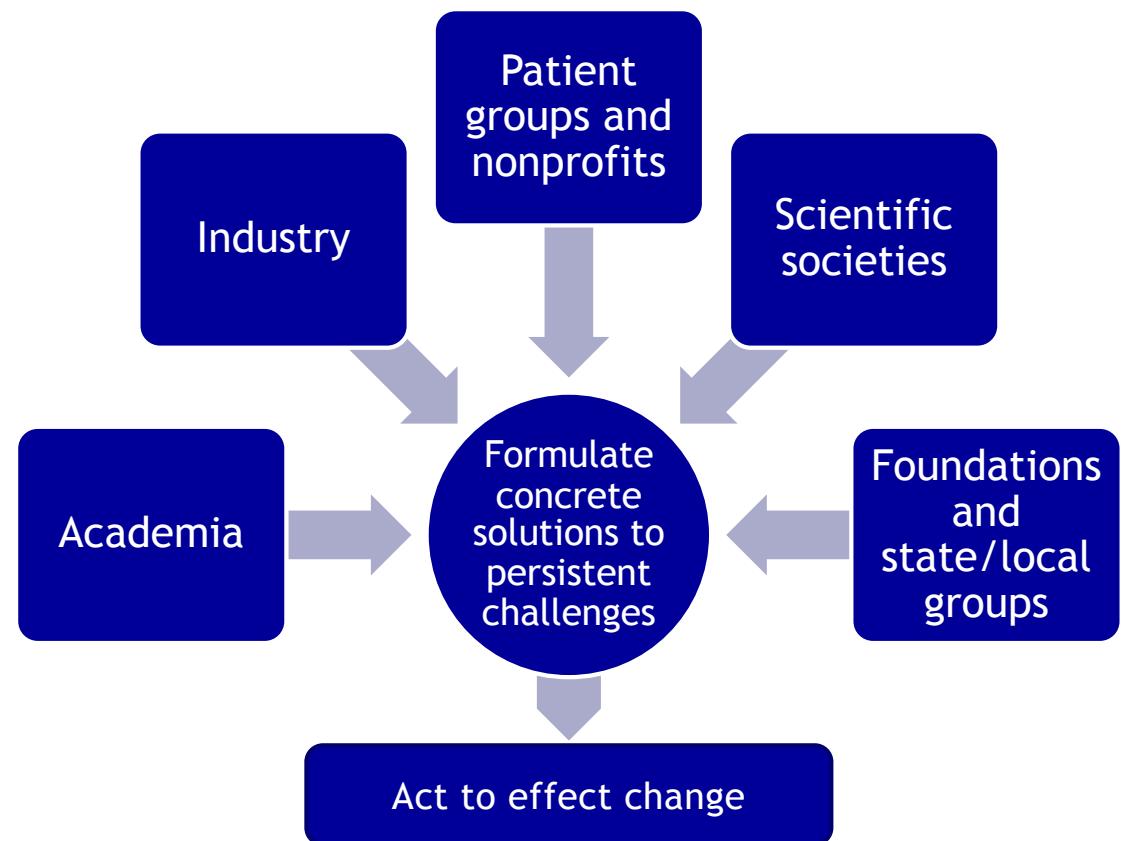
Article Date: July
26, 2022

Americans' Confidence in Higher Ed Drops Sharply

Research!America Alliance

Established 1989

We bring stakeholders together in our work to heighten the priority of research and to help assure scientific progress and the health and vitality of the scientific enterprise.



Research!America is an innovator in advocacy for research

Meeting the Pandemic and Social Justice Moment

Landscape

- Campaigns to stop mis- and dis-information have limited effects.
- Programs based on the discredited “deficit model” are still prevalent.

Problem

- Recognition of innovation, entrepreneurship and public engagement is limited and poorly supported by academic institutions.
- Faculty and especially students need validation – not sanctioning -- and support from their academic advisors and departments.

Solution

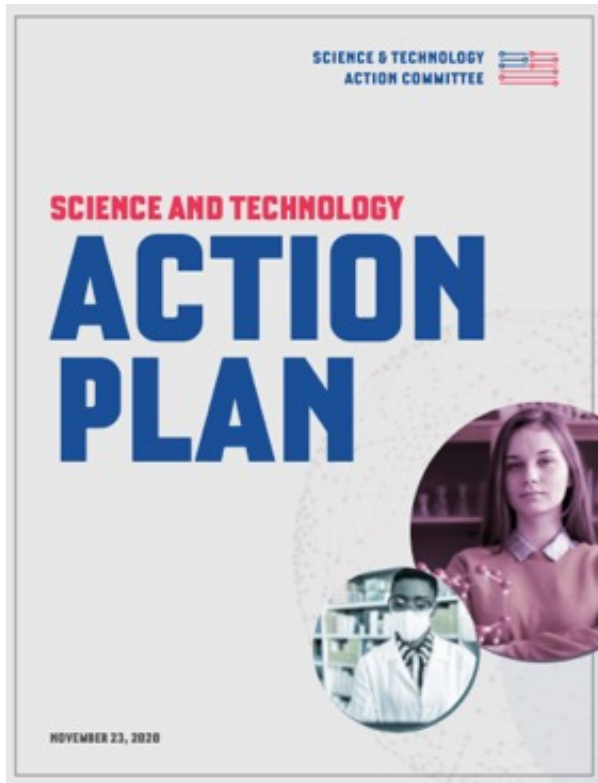
- Leaders within academia are positioned to meet the moment and drive systemic change.
- Restructuring tenure and promotion to include public engagement, as well as innovation and entrepreneurship is timely and important.



“You can change the image of things to come. But you can’t do it sitting on your hands.”

Research!America Chair,
Former Congressman John Edward Porter (1935-2022)

Science and Technology Action Committee: A National Plan



LEADERSHIP

- Elevate the Science Advisor to the President/Director of OSTP, to Cabinet level
- Ensure science has a prominent voice in the Administration

COORDINATION

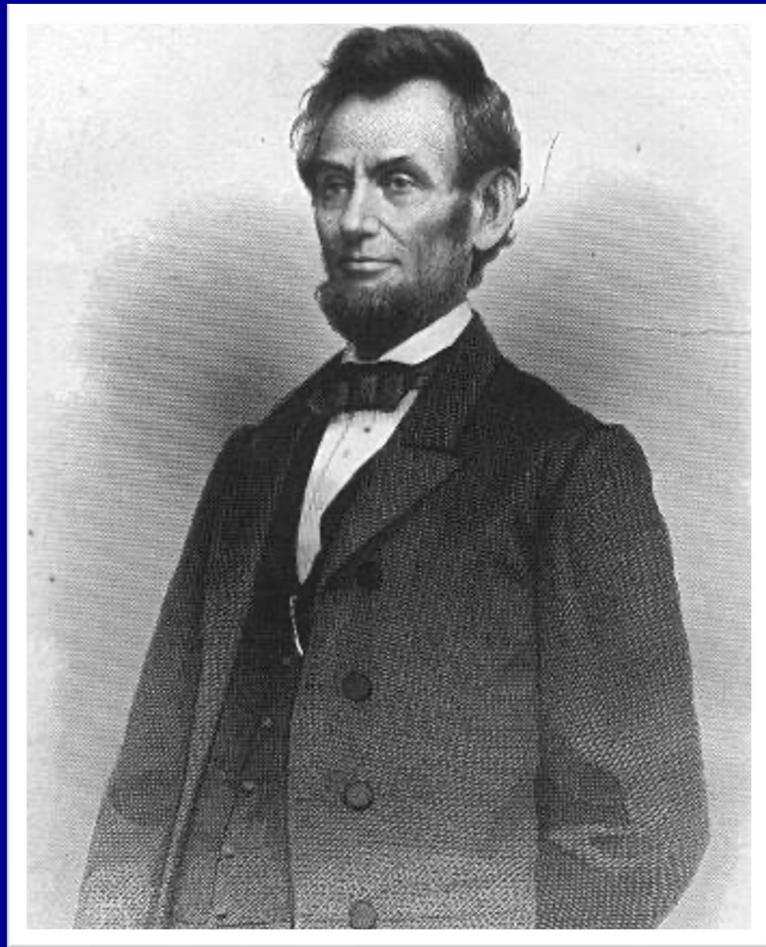
- Empower the NSTC/OSTP with new funding to coordinate strategy and innovation to meet large-scale, long-term, existential challenges
- Challenge Areas: Public Health & Healthcare; Environment & Climate Change; Food & Water Security; Energy Production, Utilization & Storage

INVESTMENT

- Double federal expenditures for R&D and STEM education over a five-year period, to 1.4% of GDP
- Invest new funds in four sectors: research, technology and manufacturing, infrastructure, education and human capital

<https://sciencetechaction.org/>

The Committee acknowledges and thanks the Kavli Foundation, Bloomberg Philanthropies, IBM, Simons Foundation International, and Schmidt Futures for their support of this project.



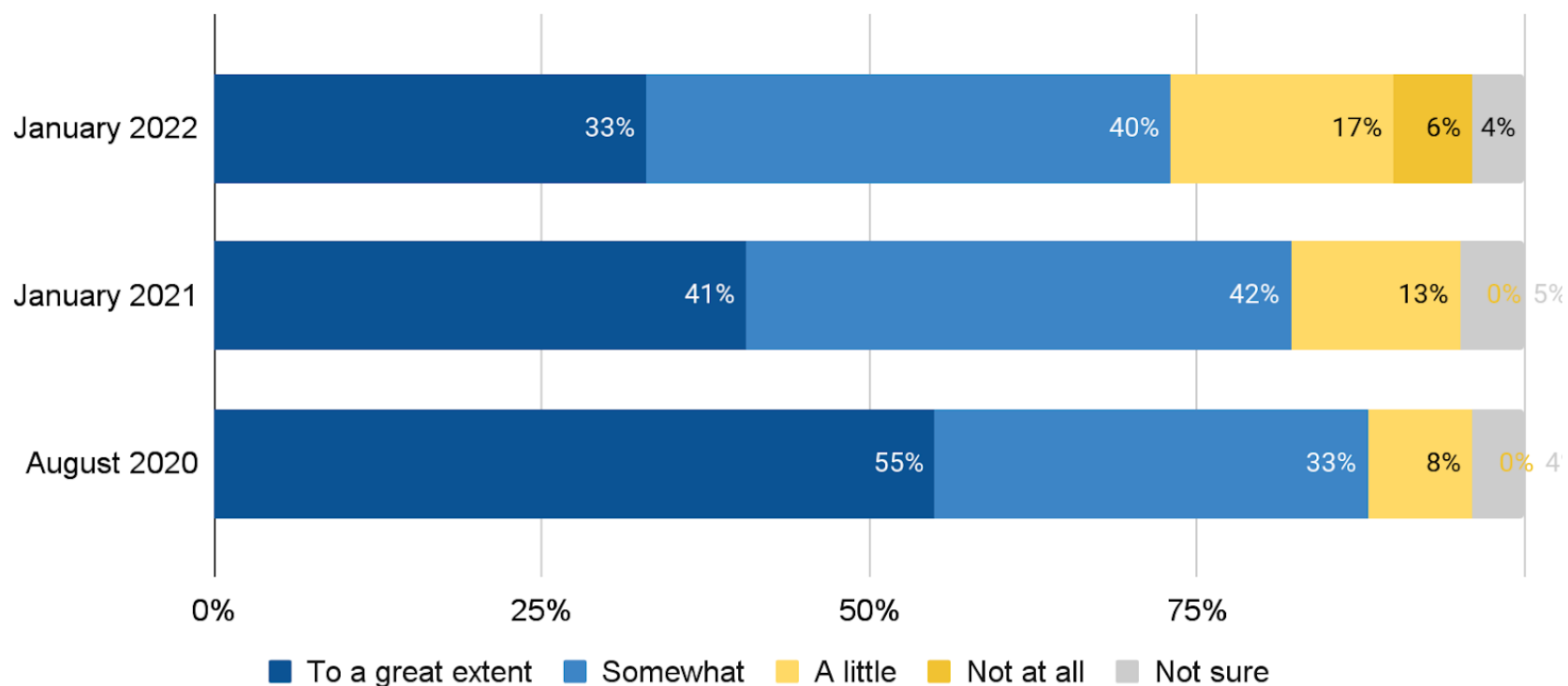
Keep a finger on
the public pulse:

“...public sentiment
is everything. With
public sentiment,
nothing can fail;
without it nothing
can succeed.”

President Abraham Lincoln

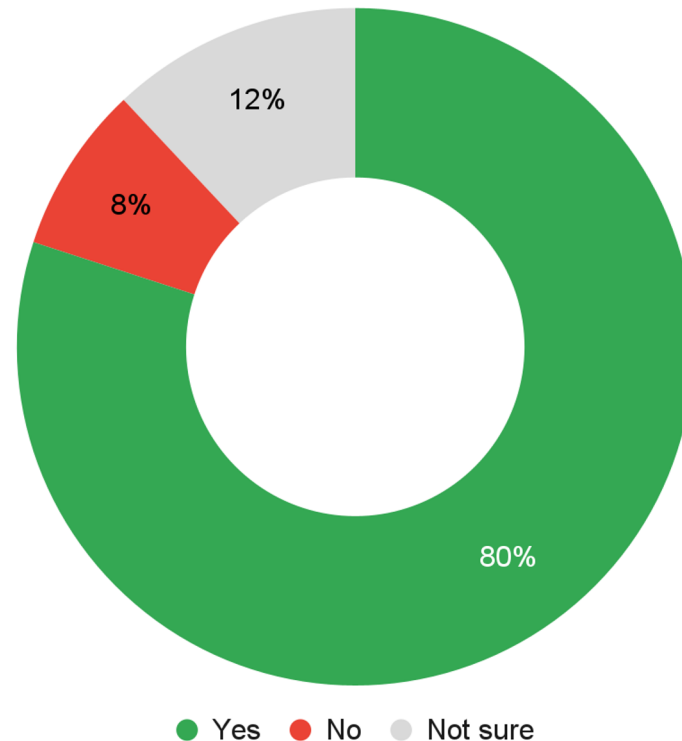
Three quarters think the work of scientists benefits them, but percentages are slipping

In general, do you think the work that scientists do benefits you?



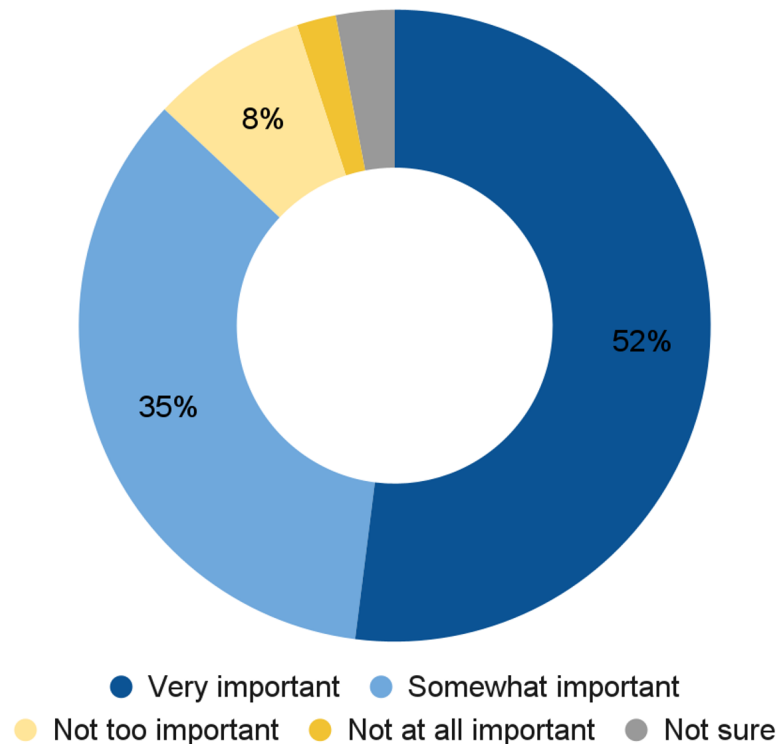
8 in 10 say scientists' job should include communicating their research to the public

Should scientists consider it part of their job to inform the public about their research and its impact on society?



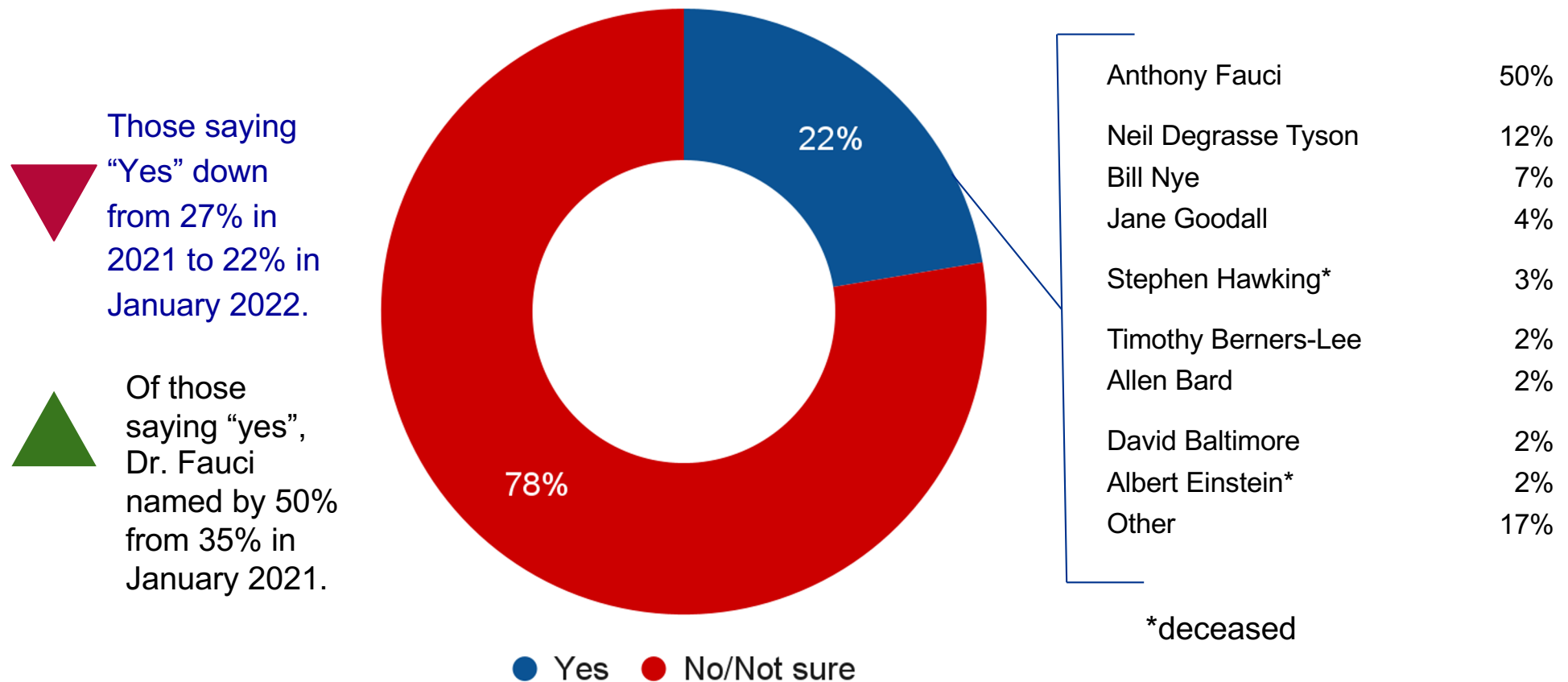
87% say it's important that scientists inform elected officials about their research

How important is it for scientists to inform elected officials about their research and its impact on society?



Most Americans cannot name a living scientist

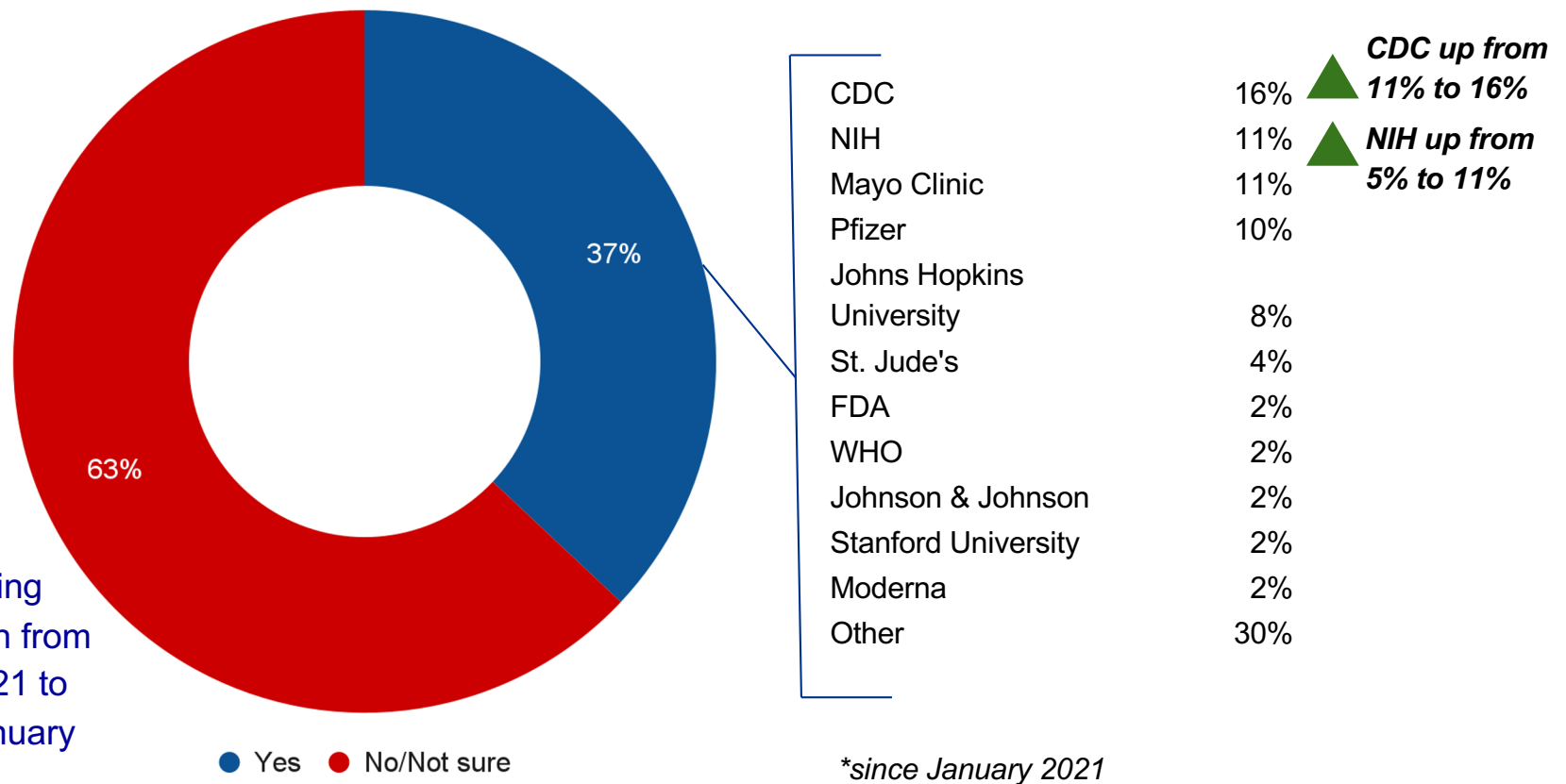
Can you name a living scientist?



Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2022.

2 in 3 cannot name a medical or health research institution

Can you name any institution, company, or organization where medical or health research is conducted?



Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2022.

Key to overcoming invisibility and
drive public support

The most important four
words a scientist (and by
extension a university) can
say and convey are ...



"I work for you."

Research funded by the public should be shared with the public by the scientists who are conducting the research

We must ensure that the NIH-trained workforce is fluent in the public context of science.



Recommendation

NIH Director should require training in the public context of science as part of all NIH- training grant curricula.

Science
communication

Public context
of science in
society

Role of stakeholders
(e.g. legislators, patient advocacy
groups, industry, government.)

A New Model for Academia

Public Trust is Slipping and Young Scientists want change

Communication and civic engagement protects research (and research dollars)

Interfacing with the public strengthens research, innovation and entrepreneurship



What can you do?





Take the lead!

Support public engagement training and events on campus and with your local community

Normalize science communication and public engagement by students, postdocs, and faculty



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