

Interdisciplinary Collaborations: Strategies for emphasizing and optimizing significance and broader impacts of proposals

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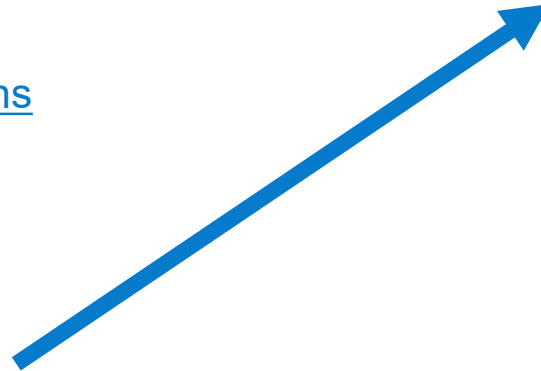
What we will cover today

- I. Current funding landscape
- II. Evolution of collaborative research
- III. Expertise areas of social scientists
- IV. Approaches for building relationships and collaborations
- V. Strategies to conceptualize and articulate societal impact



Current funding landscape

- The move towards collaborative and engaged research continues, despite recent topic specific attacks
 - [Publishing sees rise in co-authorships indicating the importance of team science](#)
 - [COVID pandemic shows the importance of research collaborations](#)
 - [Funders are shifting strategies to support engaged research](#)
 - Ex. [NSF FIRE Program](#)
- [Administration funding priorities](#) have narrowed focus
- Greater focus on [societal impacts](#) from Congress



[NSF priorities](#) [NIH priorities](#) [USDA priorities](#)
[DOE priorities](#) [NASA priorities](#) [DOEd priorities](#)
[DOT priorities](#) ([Grantmaking public agencies](#))



How can we shape the landscape?

- Goal still to address complex issues
- Diverse expertise is valuable
- Ask where is complementation



Evolution of collaborative research

- In the era of big science, collaboration has become increasingly vital for driving major scientific breakthroughs, addressing complex research challenges, fostering cultural understanding, enhancing research efficiency, advancing excellence and innovation, and facilitating the shared use of scientific and technological resources (Andrade et al., 2009)
 - More dynamic research questions ➡ increased societal impact
- Strong collaboration in scientific research facilitates capital flow and boosts research productivity, thereby supporting the effective advancement of academic careers (Sheng et al., 2023)
 - Often published in multidisciplinary scientific journals = greater visibility
- Collaborative research takes advantage of specialized knowledge, shared resources and stresses the need of taking into account diverse perspectives (Bansal et al., 2019).
 - Hence, collaborative research is by definition, more prone to be inclusive and diverse.

Effective collaboration ^{with social scientists} increases...



- ability to address society's most pressing issues
- capability for problem-solving
- understanding of complex phenomena involving humans
- Innovation
- culturally responsive practices

Areas of expertise for social scientists

- Social scientists study human behavior, social interactions, and societal structures to understand patterns, inform policies, and address social issues.
 - The expertise social scientists bring is essential for addressing complex, real-world problems.
- **Expertise:** Cognition, Behavior, Context, Recruitment and Retention, Methodology, and Statistical Analysis.

Key Disciplines: Psychology, Sociology, Anthropology, Political Science, Economics, Linguistics, and Geography

Areas of complement

- Environment and Sustainability Research
- Urban Planning and Infrastructure
- Public Health
- Climate Change and Policy
- Disaster Risk Reduction
- Education and Science Communication
- Technology and Society
- Ethical, societal, and governance dimensions of emerging technologies
- Public perception/trust/engagement
- Resilience
- Cyber preparedness
- Workforce development/broadening participation
- Open science/access
- Policy design/development





Examples of funding opportunities where social science is critical

Federal Opportunities

- **National Science Foundation**
 - FINDERS Foundry (NSF-26-507)
 - TechAccess: AI Ready America (NSF 26-508)
- **Department of Health & Human Services**
 - Almost all agencies and institutes fund projects where social scientists is critical
 - NIH, SAMSHA, CDC

Private Opportunities

- **Ford Foundation**
 - Technology and Society
 - Natural Resources & Climate Justice
- **Burrough Wellcome Fund**
 - Climate Change and Human Health Seed Grants
- **Mozilla Foundation**
 - Responsible Computing Challenge



Benefits of partnering with social scientists



- Connections
- Inclusion
- Strength
- Engagement
- Advancement



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Audience Question

Do you have experience with, or knowledge of, successful collaborations (particularly those that involve social scientists)?



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Approaches for building relationships and collaborations

- **Recognize** importance of the social aspects of pressing issues of the day
 - Environmental
 - Health
 - Engineering
- **Look to others** who successfully built and maintain collaborations
 - [Hawaii Data Science Institute](#)
 - [Montana tribal communities & climate plans](#)
- **Build in the time** for relationship building
 - Look for planning or conference/workshop grants
 - What supports exist at your institution
- **Coproduction** of knowledge ([Danielson et al 2026](#); [Chythlook et al 2022](#))
 - [Bridging knowledge systems to guide natural resource decision-making](#) and [Research networking activities](#)
 - [Building Adaptive Communities--Claflin U.](#)

“The most important ingredient in making collaborations work is commitment: to producing research that is relevant, and to understanding many angles and perspectives.”

-Yvonne Lewis and Richard Sadler

[Nature Comment](#)

“We’ve learned this, we’ve got to share it with you, so we can move together.”

-Gerald Wagner [Montana tribes combine traditional ecological knowledge with western science in climate plan](#)

“Long-term investment in institutional capacity is vital.”

-Danielson et. al

[Bridging knowledge systems](#)



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Strategies to conceptualize and articulate *Significance and Broader Impacts*

- **Know** where your work fits into the larger picture of agency-specific priorities
 - [QEM National Science Foundation Critical Updates Webinar with Erin Lynch](#)
 - Write to the program description
- **Align** your strategy with your strengths and interests
 - Focus on assets
 - HBCUs & long-standing community connections
- **Benefit** from institutional resources
 - [HBCU Climate Change Consortium | Deep South Center for Environmental Justice, Inc.](#)
 - [Broader Impacts Toolkit](#) (collaboration between Advancing Research Impact in Society (ARIS) and Rutgers University)
- **Use** storytelling techniques



- ☐ What need or problem is being addressed?
- ☐ How will you address the need or problem?
- ☐ Why can your group address this need or problem?
- ☐ What are the anticipated benefits or outcomes of your solution?
- ☐ How will you know your solution was successful?

Summary points



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