

COLLABORATIVE SCIENCE FOR ESTUARIES

WEBINAR SERIES



James Arnott

*Aspen Global Change
Institute*



Leah Fisher

*California Strategic
Growth Council*



Charlotte Hudson

Lenfest Ocean Program



Jen Read

*NERRS Science
Collaborative*



Sybil Seitzinger

*Pacific Institute for
Climate Solutions*



Ariela Zycherman

*NOAA Regional
Integrated Sciences
and Assessments
(RISA) Program*



Moderator:

Doug George

*NOAA Office for
Coastal Management*

Putting 2020 in the Rear View: Understanding the Impact of COVID-19 on Collaborative Research



National Estuarine
Research Reserve System
Science Collaborative

Date: Wednesday, December 16, 2020
Time: 2PM ET – 3:30PM ET

Webinar Agenda:

- 2:00 PM ET Housekeeping
- Introduction to topic (Doug George)
- Summary of research findings (James Arnott)
- Panel discussion
- Q&A
- 3:30 PM ET Adjourn

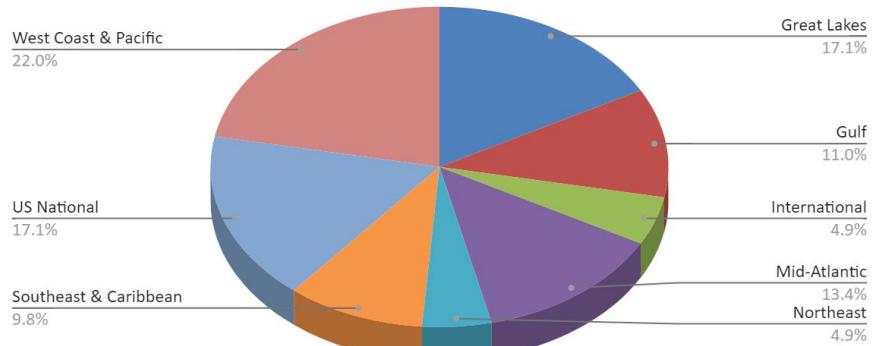


National Estuarine Research Reserve System



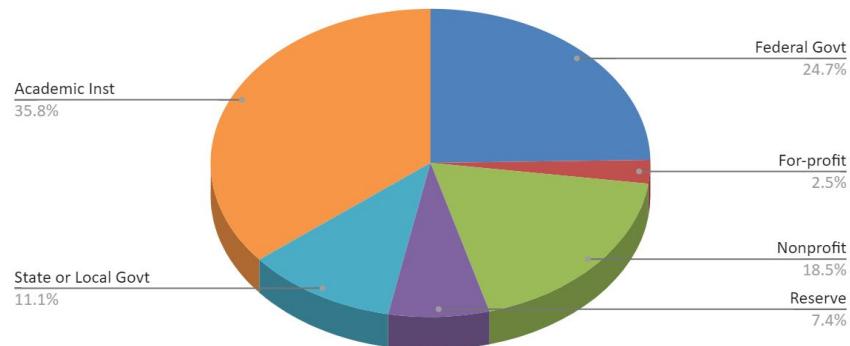
Who registered for today's webinar

Registration by Region



By region

Registration by Org Type



By organization type





Doug George

*NERRS Science
Collaborative Program
Manager
NOAA Office for Coastal
Management*



**National Estuarine
Research Reserve System
Science Collaborative**



Photo credit: Aimee Good



James Arnott
Executive Director
**Aspen Global Change
Institute**



**National Estuarine
Research Reserve System
Science Collaborative**

Collaborative Research in a Virtual World:

The Implications of COVID-19 Social
Distancing for the Co-Production of
Environmental Knowledge & Solutions

Collaborative
Science for
Estuaries Webinar

James Arnott
Aspen Global Change Institute

December 16, 2020

Acknowledgements

- **Patrice Russell** (AGCI & U of Toronto)
- **Lisa Maillard** (University of Michigan)
- ★ **Sybil Seitzinger** (Pacific Institute for Climate Solutions)
- **Hannah Teicher** (Pacific Institute for Climate Solutions)
- ★ **Leah Fisher** (CA Strategic Growth Council)
- **Cristina Echeverria** (CA Strategic Growth Council)
- ★ **Doug George** (NOAA, NERRS)
- ★ **Jennifer Read** (NERRS Science Collaborative)

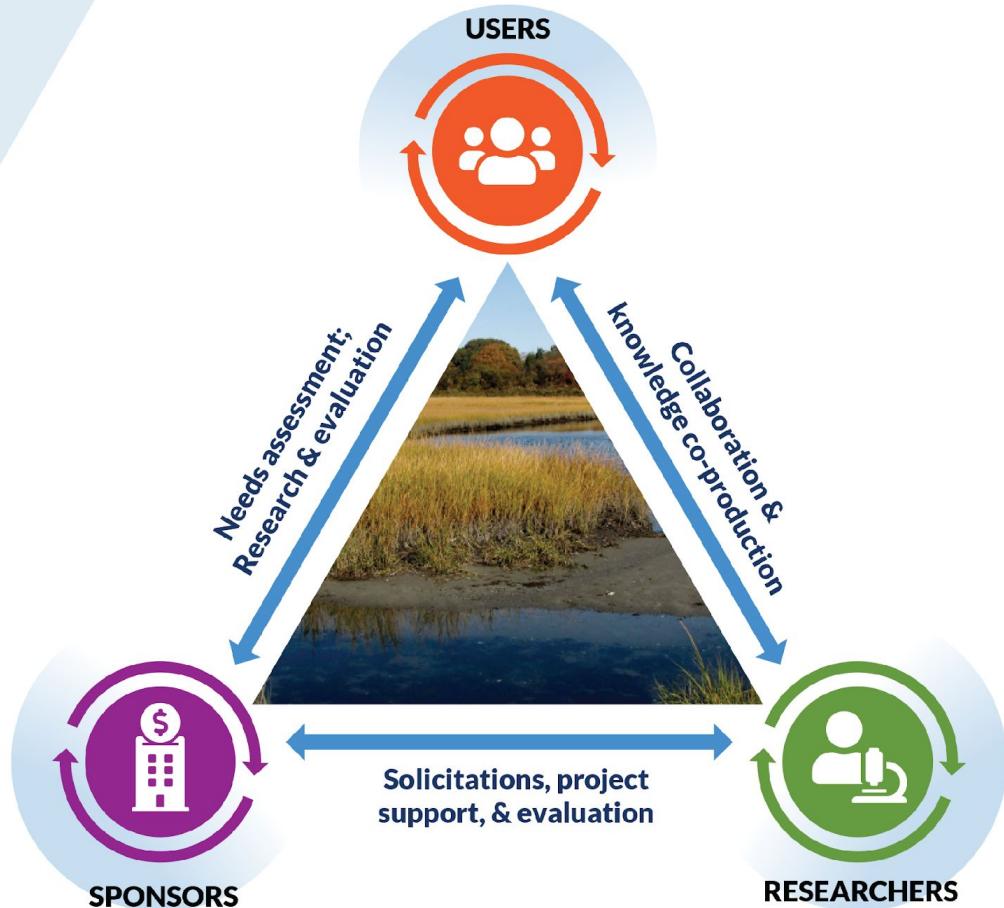
- **Nick Soberal** (NERRS Science Collaborative)
- **Lynn Vacarro** (NERRS Science Collaborative)
- **Maeghan Brass** (NERRS Science Collaborative)
- **Susanne Moser** (NERRS Science Collaborative & Independent Researcher)
- **Angela Bednarek** (Pew Charitable Trusts, Lenfest Ocean Program)
- ★ **Charlotte Hudson** (Pew Charitable Trusts, Lenfest Ocean Program)
- **Chelsea Combast-Friedman** (NOAA RISA)
- **Sean Bath** (NOAA RISA)
- ★ **Ariela Zycherman** (NOAA RISA).

★ On today's webinar

A. Traditional Funding Model



B. Impact-oriented Funding Model



Is closer always better?

Research prior to pandemic was already beginning to explore the impact of virtual interactions on collaboration and research use.



For example, see Lemos et al. 2019; Kettle & Trainor 2015



Study Objectives

Learn from the COVID-19 shock to research collaboration with practitioners/users/stakeholders...

- Compare modes and intensities of interaction pre/post pandemic onset
- Qualitatively assess benefits, constraints, and potential strategies
- Identify questions for future research & evaluation

Methods

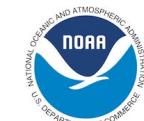
- **Rapid response partnership** between 5 funders + 1 boundary organization.
- Distributed co-designed survey to grantees performing collaborative research
 - *Projects w/ 6 months pre/post* = 35
 - *All responses* = 45
- Survey data analysis & qualitative content analysis



CALIFORNIA STRATEGIC
GROWTH COUNCIL



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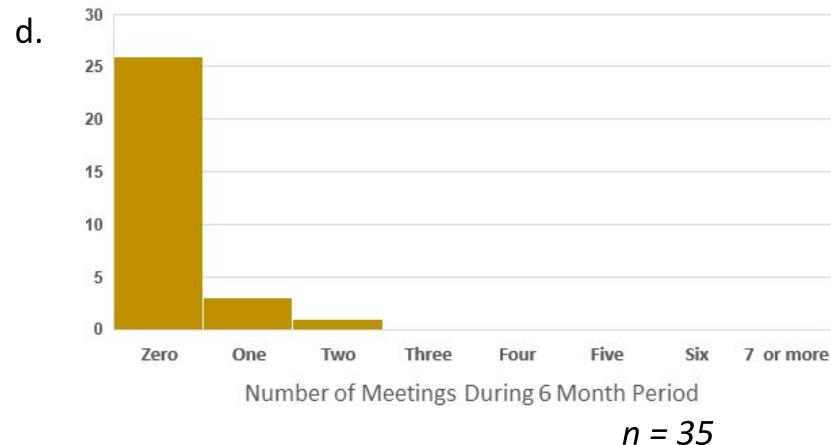
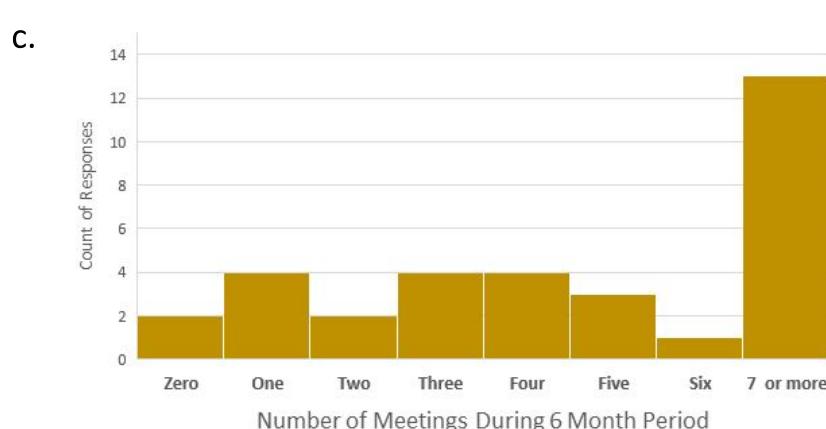
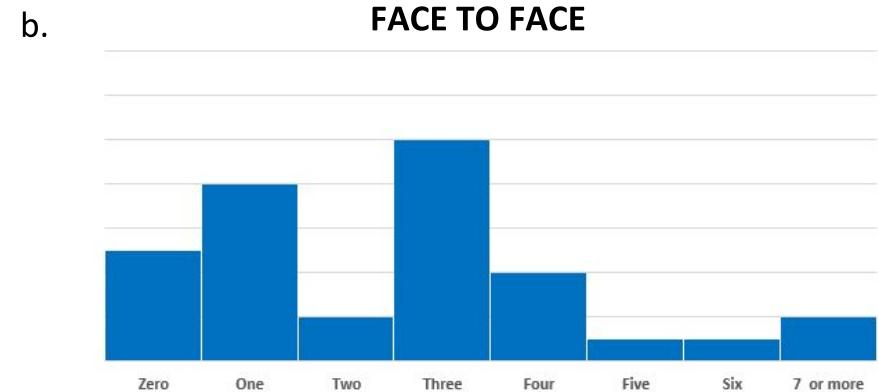
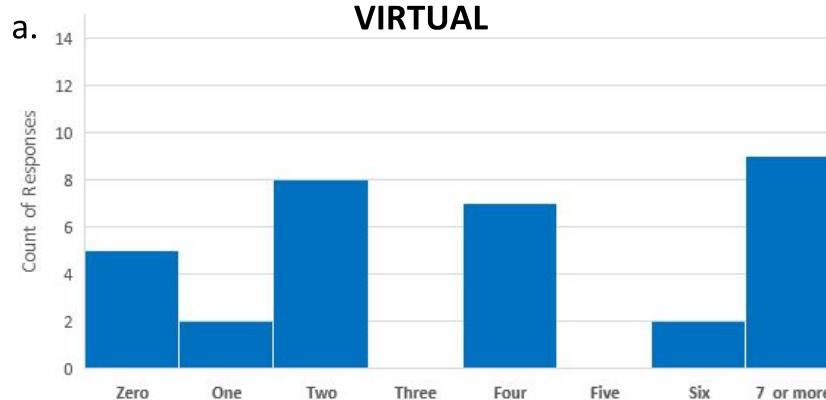


RISA
Regional Integrated
Sciences and Assessments



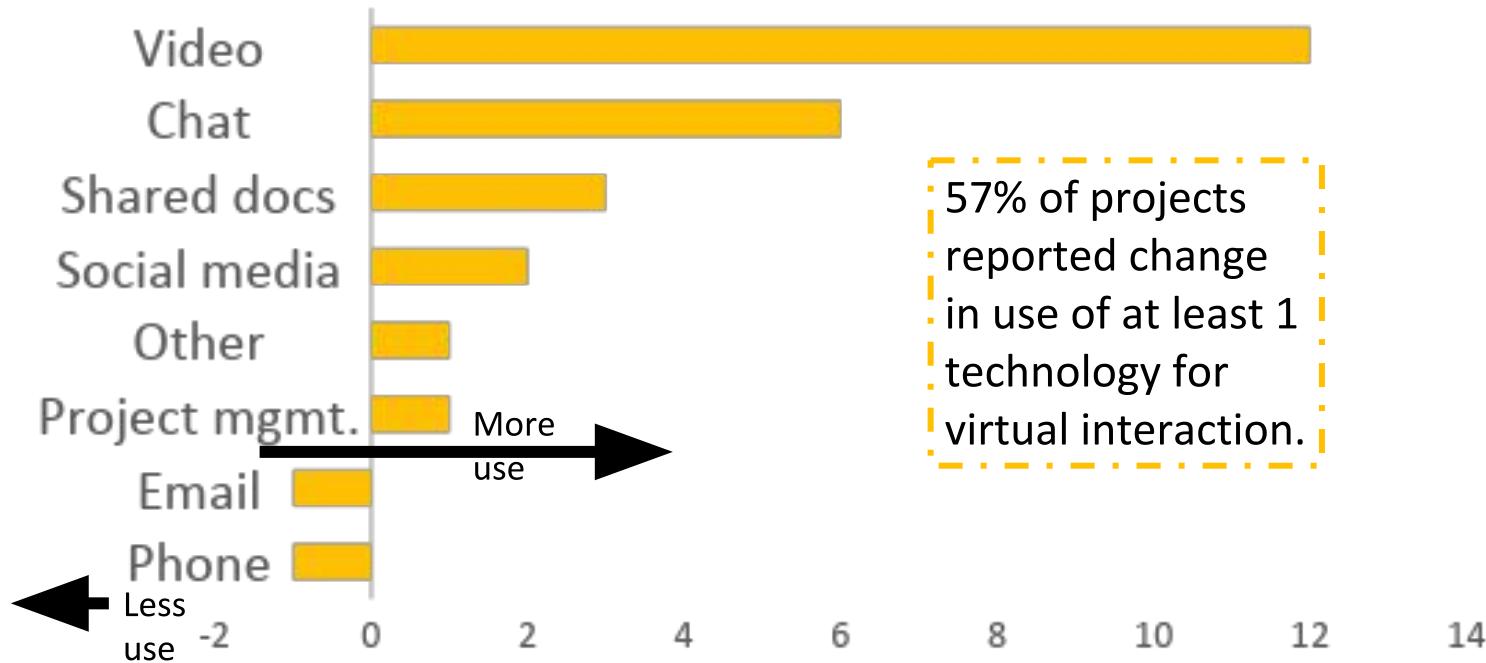
Results (Preliminary)

Nearly all interactions have gone virtual



Many projects are using new tools

Change in technology use Mar - Aug 2020, relative to Sep 2019 – Feb 2020



Participation? It depends...

Typical Number of Participants (n=34)	Pre-Pandemic Sept. 2019 – Feb. 2020	Post Pandemic Onset Mar – Aug 2020
Average ↑	10.29	18.26
Median ↓	9	6.5
Standard Deviation ↑	7.26	46.16

“People are more comfortable using online platforms since most are moving to virtual platforms to continue their work”

“[d]ifficulty in getting adequate attention from management, policy and wider stakeholder groups (e.g., fishers and NGOs). These people are dealing with wider virus issues.”

Challenging the essence of collaborative research

Ability to **cultivate trust**



Ability to build **new relationships**



Level of **productivity**



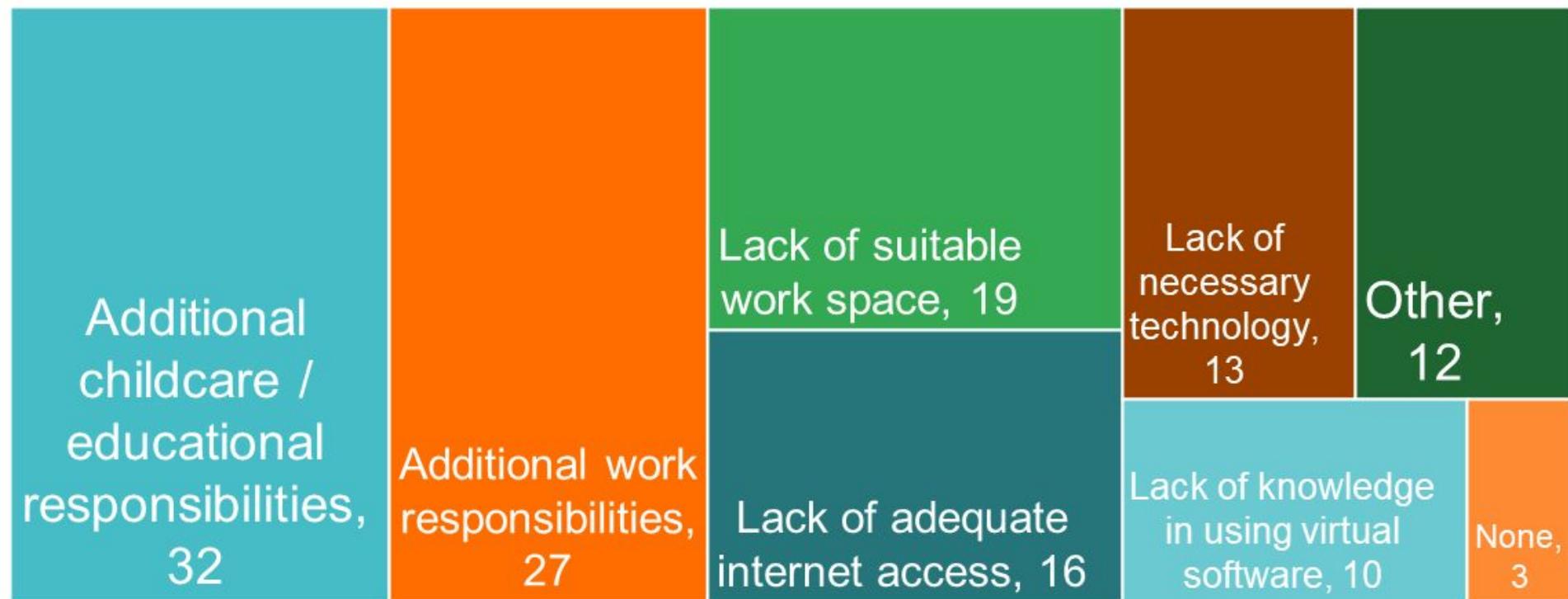
Level of **engagement**



■ Significantly decreased ■ Moderately decreased ■ No change ■ Moderately increased ■ Significantly increased

n = 35

Pandemic-related challenges dominate technical



Constraints

What constraints (if any) have you experienced in using modes of virtual engagement in your project?

- “Less opportunity for spontaneous discussions.
No opportunity for direct connection...”
- “Low-income community engagement is extremely hard to do through virtual tools.”
- “Distractions, both generally in the work day and specifically in virtual meetings, created challenges for group work.”
- “peoples’ schedules are becoming ever more filled with Zoom meetings.”

Theme	Frequency of mention
Barriers to social interaction & relationship building	19
Partner’s access & bandwidth	9
Technology challenges	9
Fatigue & distraction	8
Elimination of place-based work	7
Coordination challenges	5
Conceptual challenges	5
Reduced productivity	4
<i>Lack of constraints</i>	6

Benefits

What benefits (if any) have you experienced in using virtual modes of engagement in your project?

- “It has made connecting with people across our large study area [...] easier because people are more willing to join virtually since that's all we're doing now.”
- “Greater accessibility to potential new partners”
- “presenting information in different ways...offering alternatives to engage stakeholders.”
- Pandemic “has made the [virtual] technology more accessible and commonplace.”

Theme	Frequency of mention
Increased convenience & efficiency	14
Broadening participation	10
Improved interaction & group dynamics	5
Learning opportunities	4
Increased frequency	3
Sustainability	1
<i>Skepticism, or none to report</i>	6

Strategies

- Zoom dominates the lexicon
- Chat-style, “quick communication”
- “Shorter time blocks, much more active facilitation.”
- “...Accepting that work cannot continue business as usual.”
- “Repeated electronic connection.”
- "Still working on this... Not sure."

Theme	Frequency of Mention
Use of specific tools	11
Changes to meeting duration, format, & facilitation	9
Being adaptive, flexible, or responsive	7
Project management and planning	5
None (yet)	4

III Conclusions

1. Collaborative research since pandemic has been **(nearly) all virtual**, with many projects adopting **new virtual tools**.
2. **Virtual tools have helped collaborative projects continue**, but essential features of collaborative research are (often) hamstrung (e.g., relationship building, engagement)
3. Pandemic and related distractions (childcare, etc.) feature more prominent than technology challenges. **We expect benefits/constraints to continue to evolve.**
4. Uneven playing field apparent (e.g., partner access/knowledge/trust in virtual technologies). **We wonder about those not surveyed and the questions we didn't ask.**
5. Virtual collaborative research amid a pandemic reminds us of **underlying factors that have long influenced who is able to participate and how.**

Thank you!

James Arnott
Executive Director
Aspen Global Change Institute
jamesa@agci.org
[@jcarnott](https://twitter.com/jcarnott)

Clarifying Questions

Q: Can you elaborate on the accessibility comments in your conclusion?

- **A:** If we think collaborative research is impactful, it's important to think about who's involved in shaping that impact in the real world. Virtual tools bring forward factors of how some types of project partners have limited capacity to engage. There are also broader factors that affect how researchers and end users develop trust with each other.

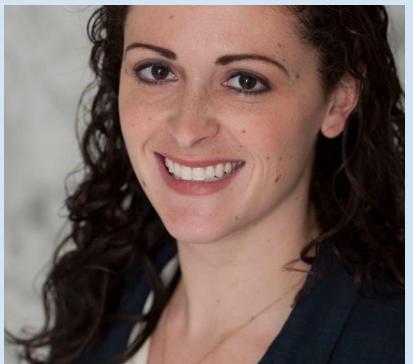
Q: Did the study respondents give any indication of what (if any) new tools or collaboration modes they intend to continue to use after the pandemic?

- **A:** We didn't ask about that specifically. Reading between the lines for the responses, it does seem like video technology is here to stay for a lot of project teams. Some found it helpful for faster and more frequent meetings, and may complement the use of chat features that maybe move people away from email. One lesson I've learned is that it's probably very important to have a discussion up-front about which technology to use or not use during a project.

Q: Could you share more details on who completed the survey?

- **A:** The survey was distributed by the five funders represented in today's webinar. Each distributed the survey to their grantees that were midstream through performing collaborative research. In some cases the projects were large enough that multiple facets responded. We erred on the side of flexibility in responses rather than a single response type for each project.





Leah Fisher
*Senior Advisor for
Research & Innovation*
**California Strategic
Growth Council**

National Estuarine
Research Reserve System
Science Collaborative





Charlotte Hudson
Director
Lenfest Ocean Program
at the Pew Charitable
Trusts



**LENFEST
OCEAN
PROGRAM**

Lenfest Ocean Program

Supporting Science and Communicating Results



National Estuarine
Research Reserve System
Science Collaborative



Jen Read
Program Director
**NERRS Science
Collaborative**



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Science Collaborative





Sybil Seitzinger
Executive Director
**Pacific Institute for
Climate Solutions**

The PICS way



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Ariela Zycherman
*Social Scientist and
Program Manager*
**Regional Integrated
Sciences and
Assessments Program,
NOAA Climate Program
Office**



RISA

Regional Integrated Sciences and Assessments

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Discussion

1. Sharing stories from grantees.

2. What is a lesson that you've learned from the last year about either virtual engagement or that will help us scale our work?

3. Moving forward, what are some next steps you'll take in running your program, or in working with grantees?

Moderator



Doug George
NOAA Office for
Coastal Management

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James Arnott
Aspen Global
Change Institute



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California Strategic
Growth Council



Charlotte Hudson
Lenfest Ocean Program
at the Pew Charitable
Trusts



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NOAA Regional
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Assessments Program

Q&A

Answers have been shortened and lightly edited for clarity. To see full responses, watch the [Q&A section of the webinar recording](#).

Q: What features in future grant application processes do you see living on past the pandemic, and which should fade out?

- **A:** To the extent we can, we're looking toward more virtual panels and review processes. We're also exploring ways to foster more diversity, equity, and inclusion in our system, and some of these virtual methods may open new doors for this.

Q: I know the n was small, but did you find any differences between the different programs or are the findings consistent across funding programs?

- **A:** There was some variation in terms of the number of responses from each program but, for the most part, findings were largely consistent across programs.

Q: What are some ways you suggest being more reciprocal in time and effort with our project partners?

- **A:** Understand partners' needs. Identify ways to move forward while being respectful of their time. Think of ways to meet them where they are. It's important to understand colleagues' unique situations and figure out ways to work with them.
- **A:** From the start, bake in the necessary components to treat collaborators as full partners, rather than making time to check in with them only at the beginning of the project.
- **A:** Structure budgets to compensate partners fairly.



Q&A

Q: One mode of engagement I've seen in workshops is physically mailing a project or materials to work through during the virtual meeting. What's the capacity for funding this kind of thing, which would require RVSPs and collecting mailing addresses, to work effectively?

- **A:** I think there can be a lot of value in having some form of shared object, distributed by mail. Speaking from personal experience, this helps to add a bit of gravity to the virtual meeting and makes it more than "just another zoom." If the shared object is something practical that can be used in the meeting such as a snack or a coffee cup, I've seen it add camaraderie to the occasion. Regarding funding, this is a difficult one as different funders and administrators will have different sensibilities about flexibility in moving money across accounts. But, generally speaking, one can put together a nice mailing package for less money than the tax on a hotel room in a big city so I think the return on investment is worth pursuing it.

Q: Have your grant grading metrics changed since the pandemic, and how you see them changing as the vaccine works its way through the public?

- **A:** I wouldn't say our metrics have changed, but the grantees we're working with now have a harder time because we're asking them challenging questions to really clarify their strategies for engagement.
- **A:** We're looking to see tangibility in the next year, and we're asking PIs to test out new methods that may or may not work, and tell us about their experiences to help us evaluate as we go forward.



Comments

- *Thank you so very much everyone! I truly appreciate your collaboration with Solution Seekers who are able to provide support from the field as Citizen Scientists.*
- *I am on a Subcommittee for Education and Community Engagement for Climate Change Plan. Data Sets, AI, Visualization and GitHub Repositories for Computer Literacy on Machine Learning, AI, Algorithms are Virtual Engagement I am sharing with students and individuals in transition*
- *As a Citizen Scientist, I use Slack Channels for various organizations I am affiliated with to connect with Private Chats/Zoom Rooms for better efficiency of data and time management.*



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Thank you for joining us

Please complete the short survey at the end of the webinar, and
look out for the preprint publication!