Integrating Social Science into the Chesapeake Bay Program

Amy Handen
Habitat Goal Team
April 26, 2023

Chesapeake Bay Program
Science. Restoration. Partnership.

Enhancing Chesapeake Bay Partnership Activities by Integrating Social Science

February 7, 2023

Lisa Wainger, Daniel Reed, Erika Blair
University of Maryland Center for Environmental Science
Chesapeake Biological Laboratory

Chesapeake Bay Program Partnership
Executive Council Charge to the Principals' Staff Committee: Charting a Course to 2025 and Beyond
Adopted October 11, 2022

As the Chesapeake Bay Program (CBP) partnership nears the 2025 date that the partnership set for several of the goals and outcomes under the *Chesapeake Bay Watershed Agreement* (*Watershed Agreement*), there are many successes to celebrate. At the same time, emerging issues and changing conditions (e.g., climate change, growth, new scientific data) have impacted the levels of effort needed to meet our collective restoration priorities. We, as a partnership, remain committed to using the best available science in restoring the Chesapeake Bay as we accelerate toward the deadline and anticipate continued progress post-2025.

Thus, this Executive Council charges the Principals' Staff Committee (PSC) in recommending a critical path forward that prioritizes and outlines the next steps for meeting the goals and outcomes of the *Watershed Agreement* leading up to and beyond 2025. The PSC is to report back to the Executive Council at our 2023 annual meeting with recommendations on how to best address and integrate new science and restoration strategies leading up to 2025. At our 2024 annual meeting, the PSC is to prepare recommendations that continue to address new advances in science and restoration, along with a focus on our partnership for going beyond 2025.

Social Science

"The **conservation social sciences** are a rigorous set of disciplines, theories and methods for systematically understanding and characterizing the human dimensions to facilitate evidence-based conservation."

(Bennett and Roth, 2018)

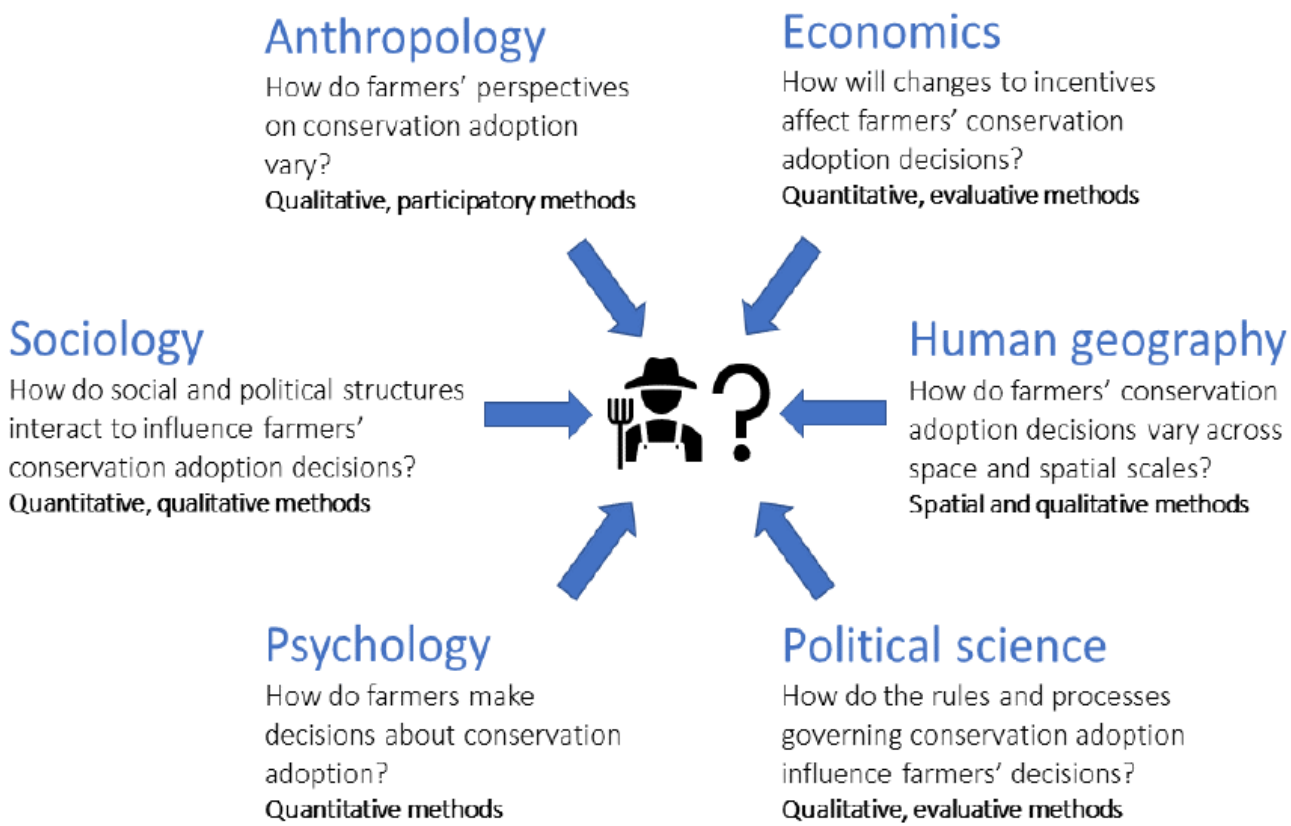


Figure 1. Example research questions and methods used by social science disciplines regarding farmers' adoption of management practices

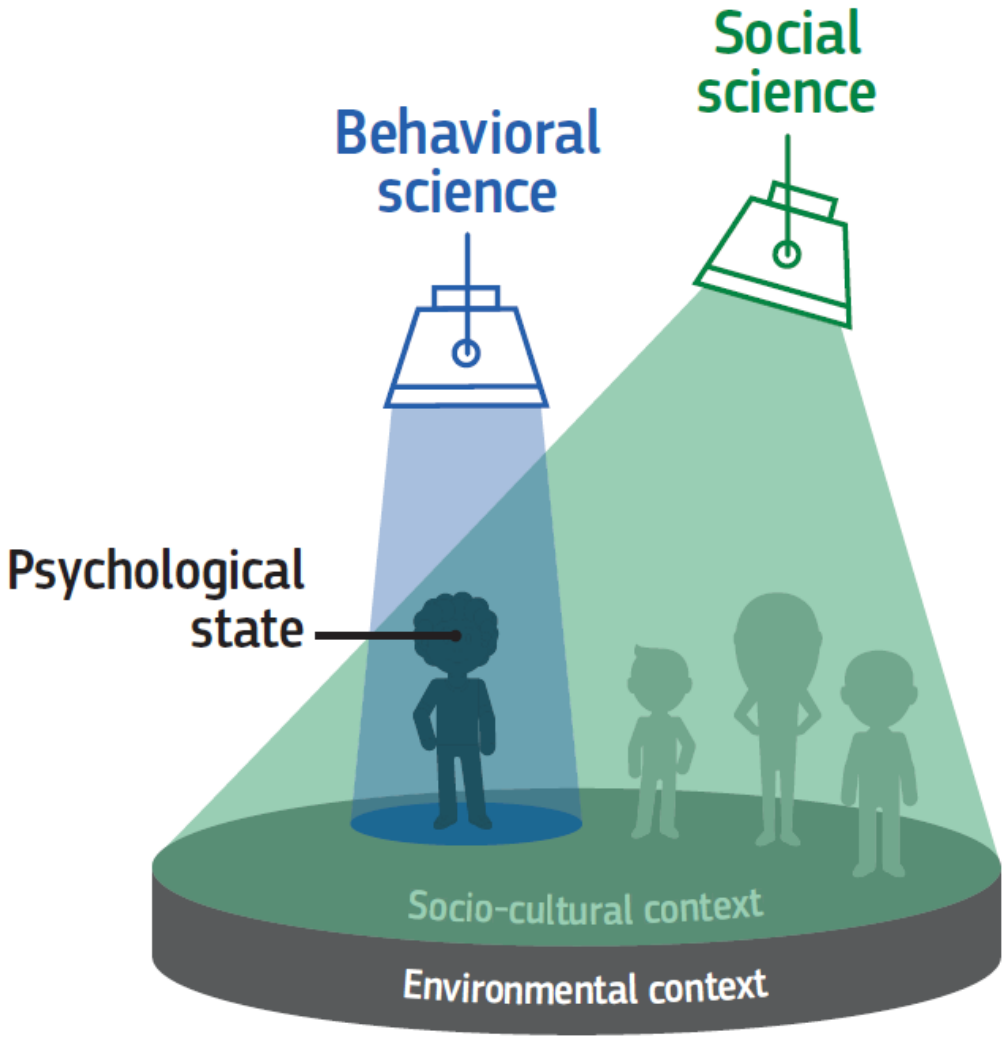
Benefits of Social Science Integration

1. Understand social, economic and cultural contexts to enhance outcomes of conservation
2. Improve governance and decision making
3. Engage and learn local context to shape approaches to conservation
4. Provide big picture insights for large scale efforts

Barriers to Social Science Integration

- Ideology differences between natural scientists and social scientists
- Conservation institutions configured for natural sciences
- Knowledge barriers on how to apply social sciences
- Capacity challenges within conservation organizations

Chesapeake Bay Program Social Science Evolution…



(Bujold et al, 2020)

CBP Social Science Assessment

Social Science Assessment GIT Project -- Project Goals

Evaluate use of and attitudes towards social science application in CBP

Increase understanding of social science theories, applications, and the evidence of effectiveness

Advance a dialogue about strategies to enhance social science capacity

Methods

Current CBP use of Social Science: Review reports and other information produced by the partnership

Evidence of what is working: Literature review & synthesis of behavioral interventions (individuals + policy actors)

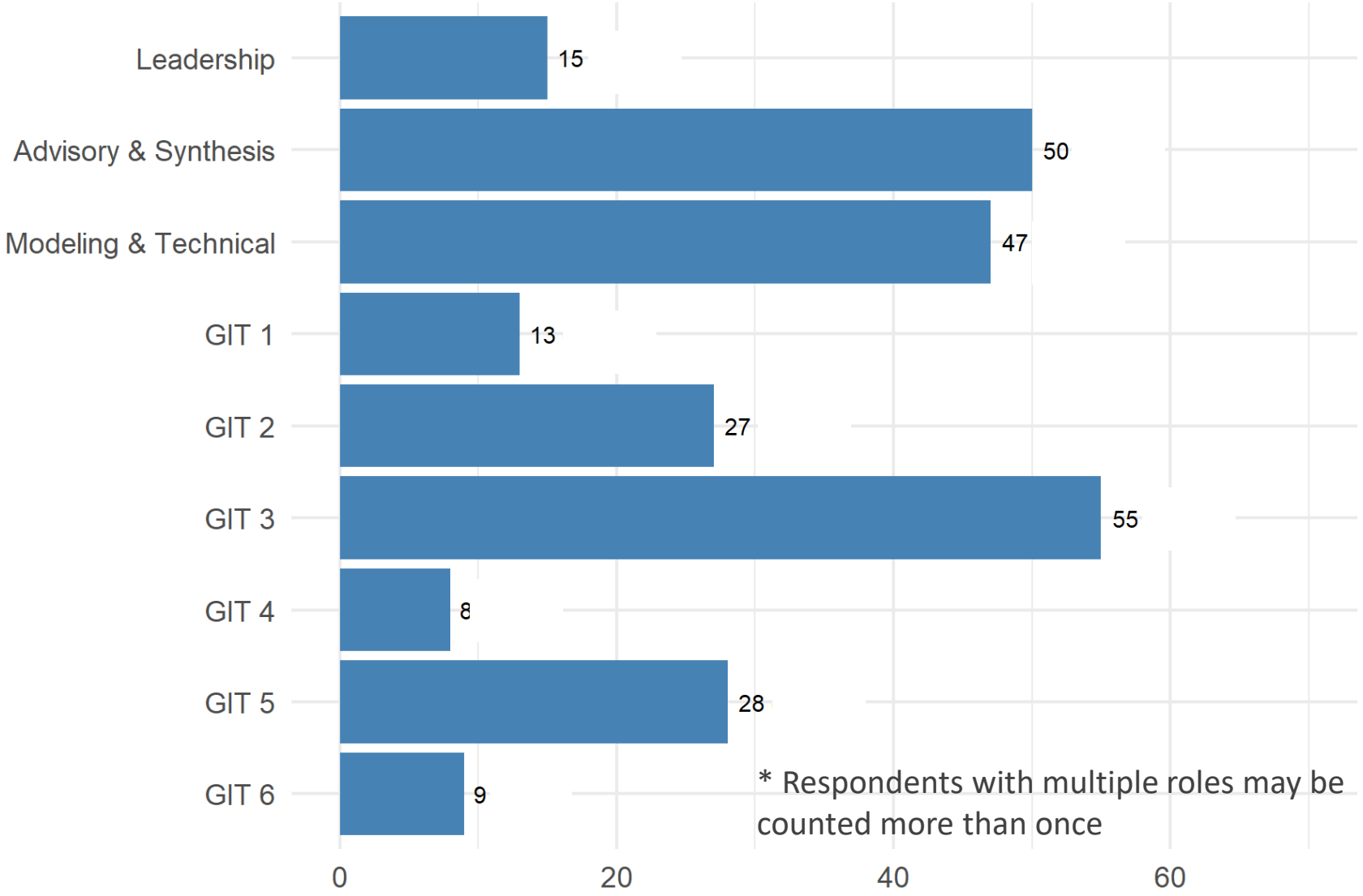
Partnership priorities and decision context: Questionnaire (151) and interviews (30)

Recommendations for building capacity: Synthesize implications of all methods and compare to recommendations for similar institutions

Questionnaire and Interview Results

Questionnaire and Interview Representation

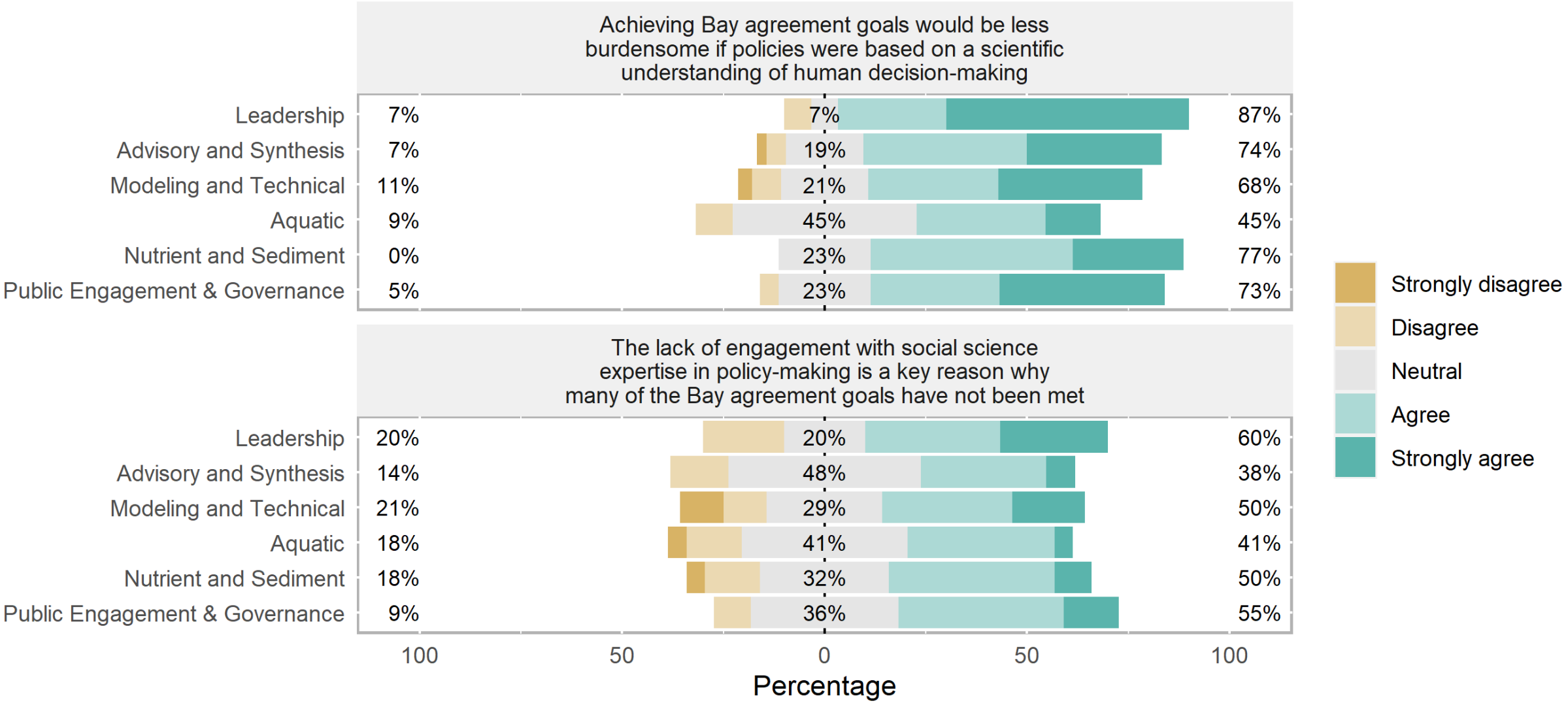
151 respondents (10% response rate)



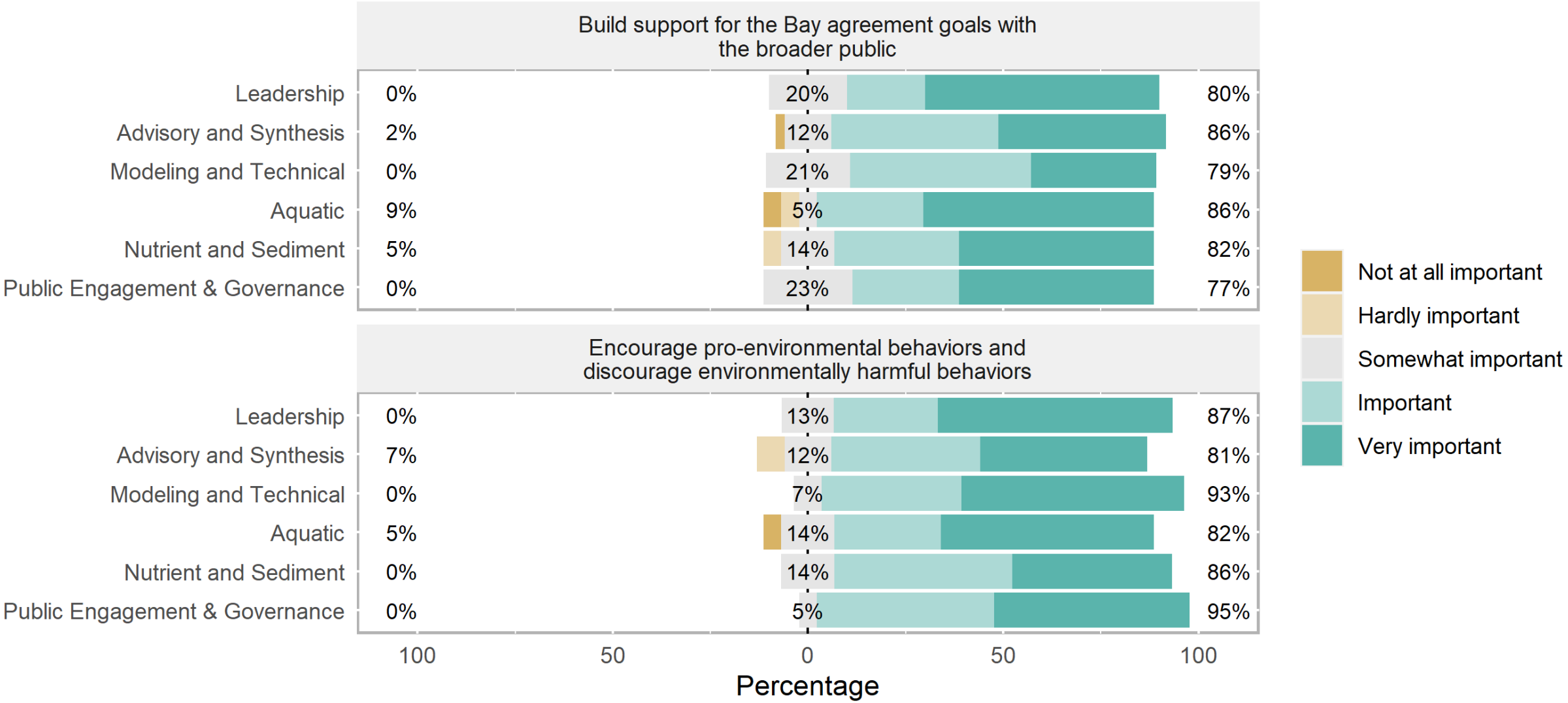
30 interviews

- 20 self-selected
- 10 key informants identified by project managers

How important is social science to achieving Bay restoration goals?



Priority uses of social science in CBP

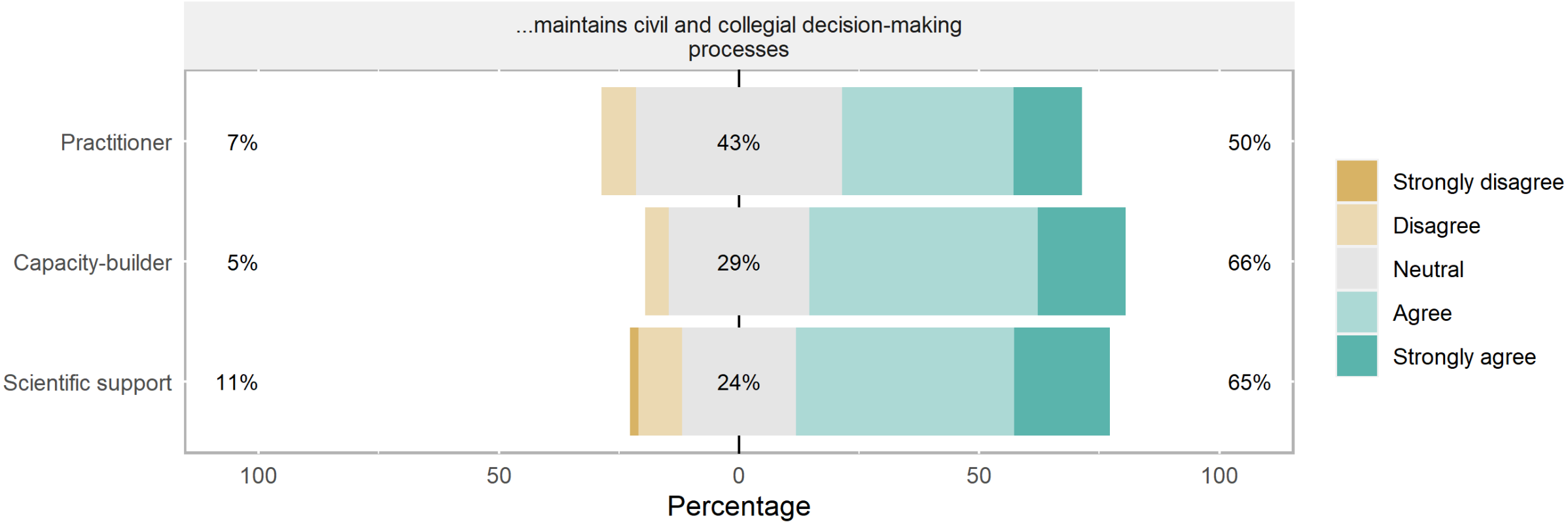


Agreement with goals and effectiveness

The Chesapeake Bay Program...

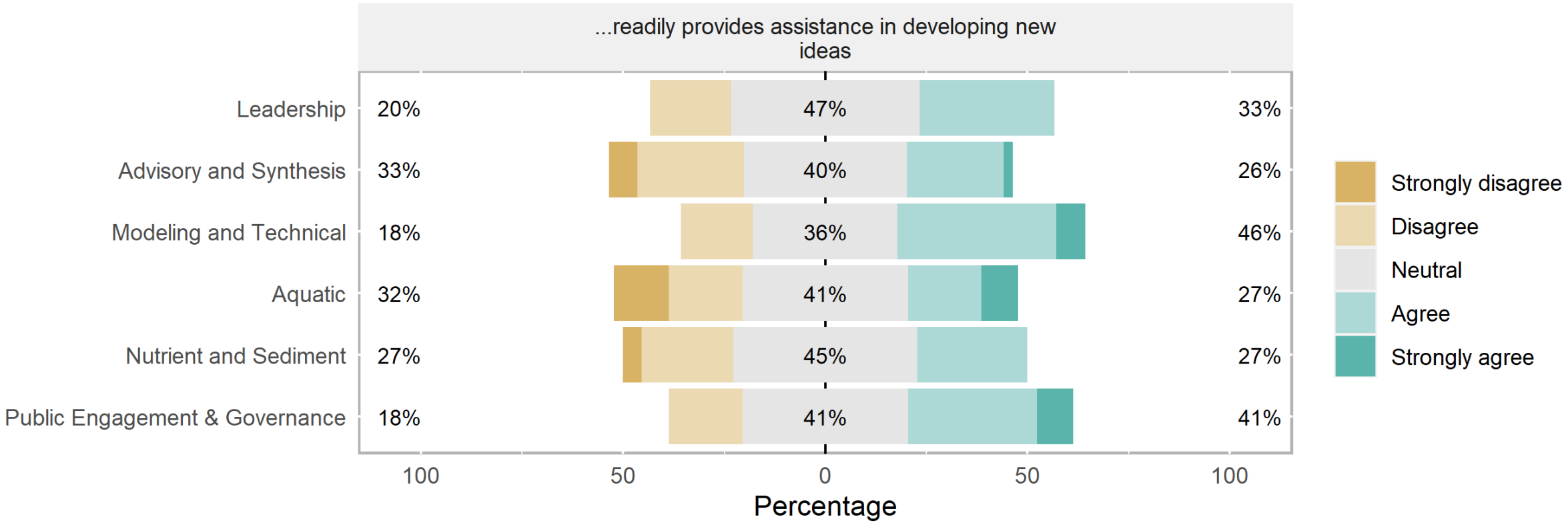
Supportive institutional environment

The Chesapeake Bay Program...



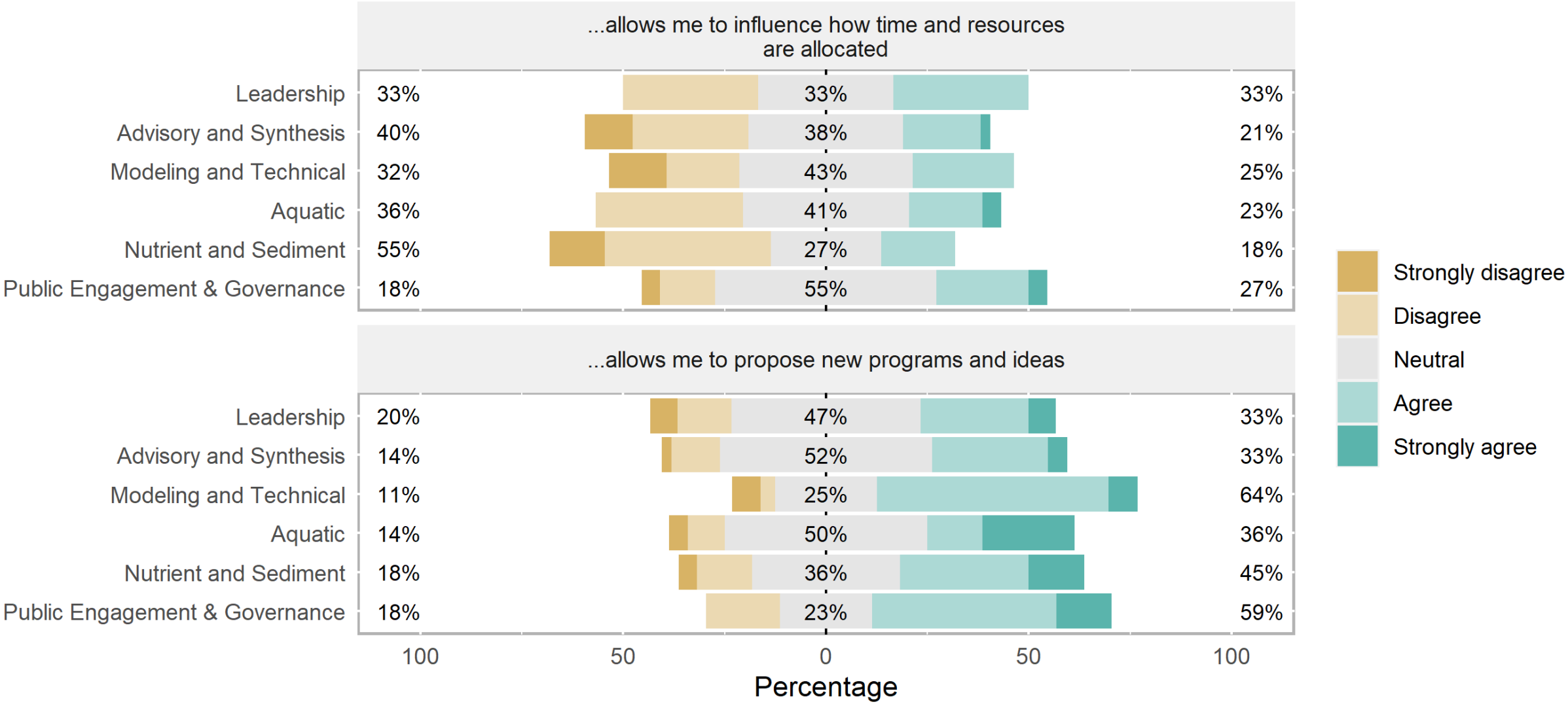
Capacity to learn, innovate, and adapt

The Chesapeake Bay Program...



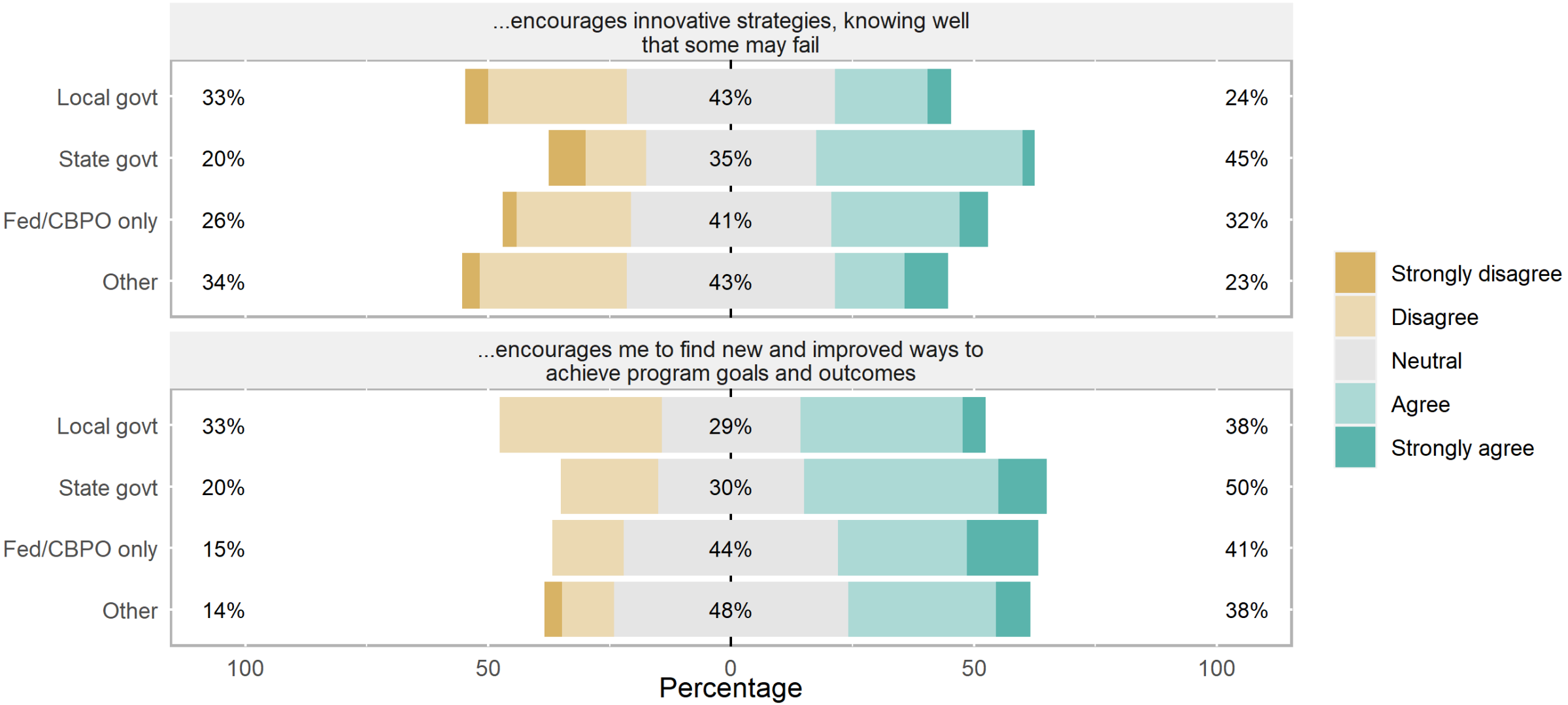
Capacity to adapt

The Chesapeake Bay Program...



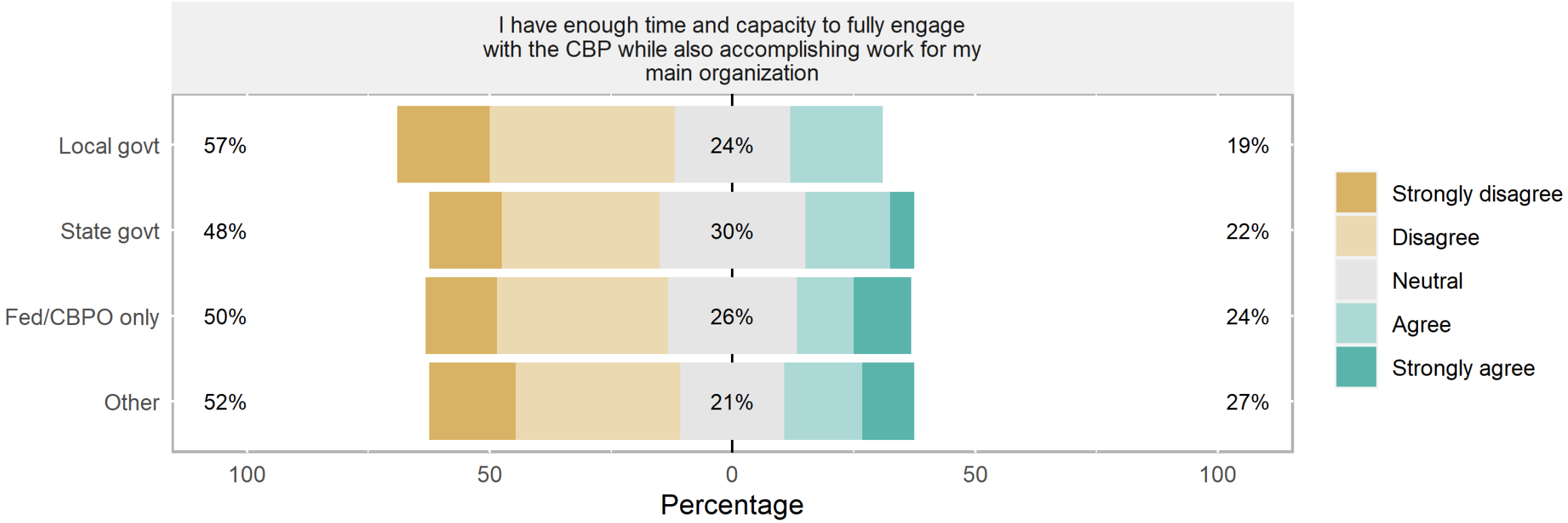
Capacity to innovate

The Chesapeake Bay Program...

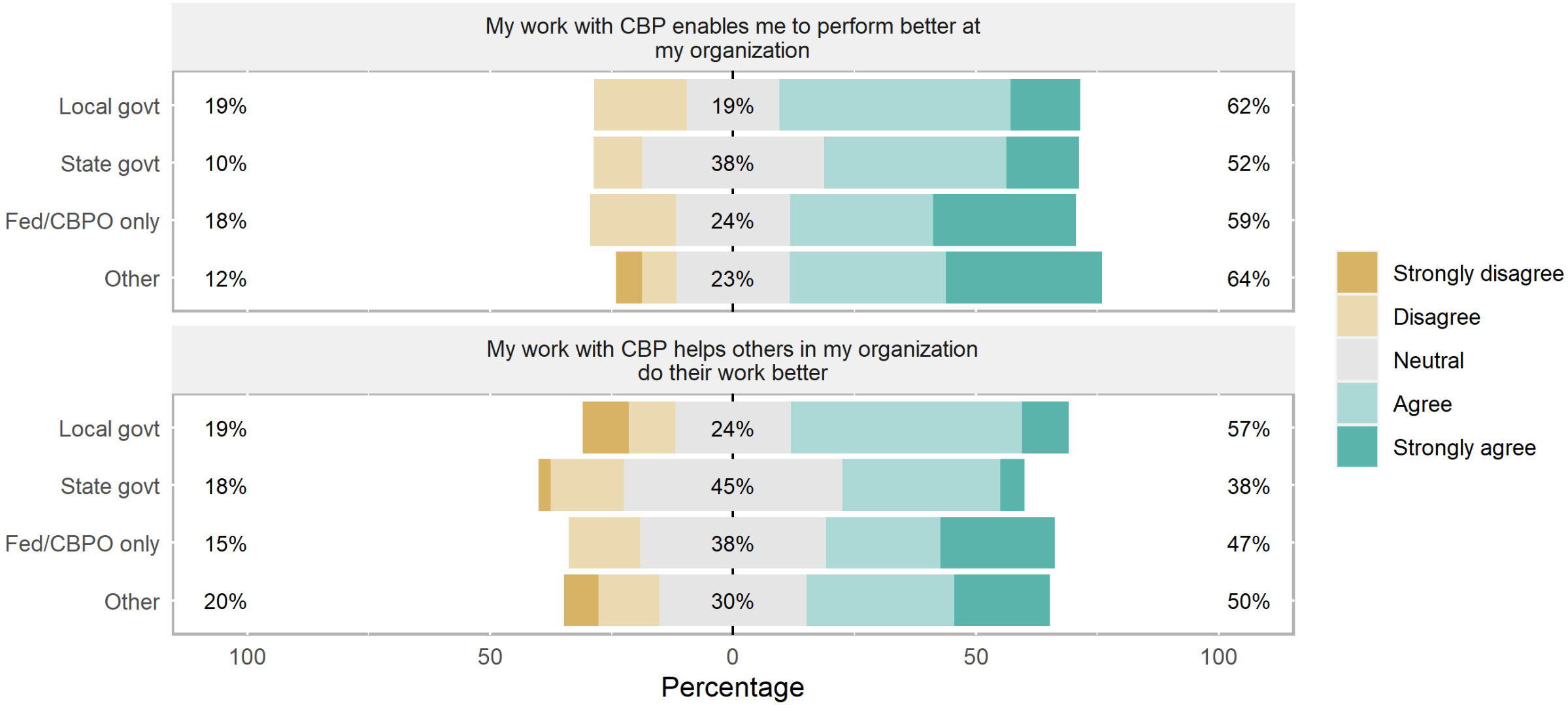


Compatible Incentives

Sufficient time

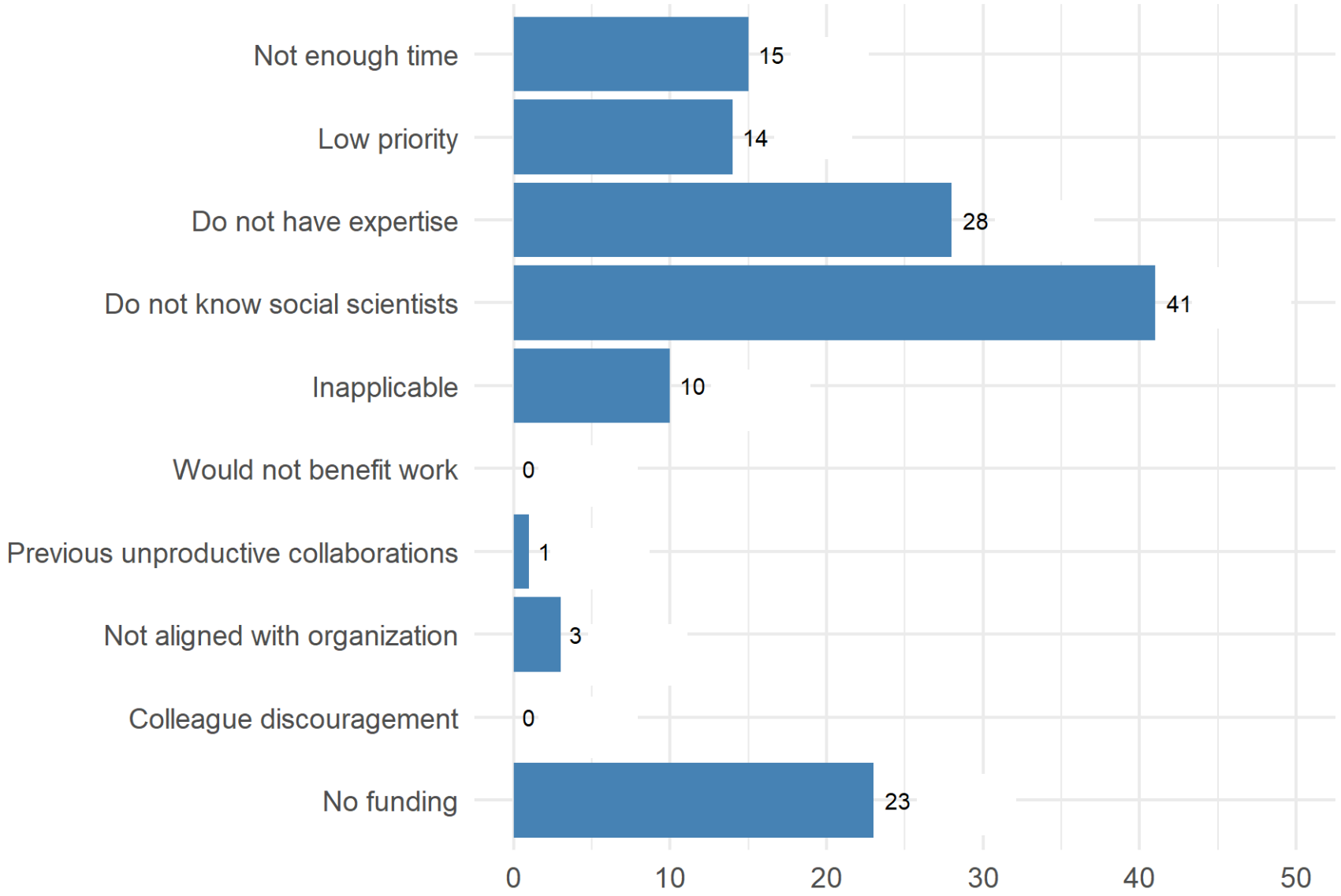


Value to Participants - Spillover Benefits



Reasons for not collaborating with social scientists

(*N* = 70)



Report Findings and Recommendations

FINDING #1	RECOMMENDATION
Broad support for, but incomplete understanding of social science	**Build social science literacy and capacity**
Simple: • Share knowledge through webinars, short courses, workshops • Identify impact pathways & magnitudes (applied theory)	
Advanced: • Invest in internal social scientist positions to promote informal learning & diffusion of ideas • Develop a community of practice to support internal social scientists	

FINDING #2	RECOMMENDATION
Uneven use of behavioral social science evidence and performance tracking	**Enhance the practice of behavioral social science**
Simple: • Continue to fund projects that apply and test theory • Evaluate opportunities for unused but promising techniques, e.g., descriptive norms and defaults • Expand the audience beyond homeowners to business owners and policy actors to increase impact • Design interventions **as experiments** to improve effectiveness over time	
Advanced: • Develop funding sources for rigorous experiments that increase the evidence base	

FINDING #3	RECOMMENDATION
Missed opportunities to apply social science in adaptive management	**Use social science in adaptive management**
Simple: • Develop co-design processes with communities where critical watershed goals are lagging • Adapt institutional processes where barriers have been identified	
Advanced: • Use institutional science to explore options to improve partnership function, particularly with local and regional stakeholders • Improve incentives for goals other than water quality using policy drivers and performance indicators	

FINDING #4	RECOMMENDATION
Lack of strategic planning for social science application	**Foster institutions that strategically apply social science**
Simple: • Develop a detailed strategic plan to enhance the impact of social science funding • Create an organizational structure that effectively implements a social science strategy	
Advanced: • Create a process to periodically update and adapt the social science strategic plan	

	Findings	Recommendations
1.	Broad support for, but incomplete understanding of, social science	Build social science literacy and capacity
2.	Uneven use of behavioral science evidence and performance tracking	Enhance the practice of behavioral social science by using and collecting evidence
3.	Missed opportunities for social science in adaptive management	Use social science in adaptive management
4.	Lack of strategic planning for social science application	Be strategic in social science application

Thank you!

handen.amy@epa.gov