

# *Appendix 1*

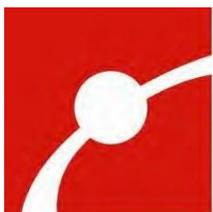
## ***Science Center Public Forums*** **Summative Evaluation Report**

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- Bernice Pauahi Bishop Museum of Science, Honolulu
- Chabot Space & Science Center, Oakland
- Gulf Coast Exploreum Science Center, Mobile
- Museum of Science, Boston
- North Carolina Museum of Life and Science, Durham
- Oregon Museum of Science and Industry, Portland
- Science Museum of Minnesota, St. Paul

We would also like to thank all the participants in the forums. These participants go unnamed, but without their support, the depth of information reported in this document would not have been possible. Additionally, the authors thank Keith Allison, a member of the Museum of Science Research & Evaluation Department, who contributed to this work.

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## EXECUTIVE SUMMARY

The Science Center Public Forums project (Grant Number NA15SEC008005) was led by Arizona State University's Consortium for Science, Policy, & Outcomes and the Museum of Science, Boston, in collaboration with Northeastern University. It was funded by the National Oceanic and Atmospheric Administration (NOAA) through their Environmental Literacy Program. The purpose of the project was to engage citizens in discussions and explorations of NOAA data about climate-related hazards, resilience strategies, and related policies. To engage publics in these discussions, the project team created forum modules about four climate-related hazards, which were used as a part of forum programs at eight museums around the US. Additionally, professional development materials and a workshop encouraged educators to use the forum in their educational settings.

The Research & Evaluation Department at the Museum of Science led the summative evaluation for this project. Pre- and post-surveys were used to gather evaluation data from the forum participants, and a separate survey gathered participant demographic information as a part of the forum application process. A post survey was used to gather data from educators who participated in the professional development webinar.

The evaluation findings are structured around three themes: 1) learning, 2) interest, engagement, and attitudes, and 3) educator outcomes. Data about participant learning showed high levels of prior knowledge about environmental hazards and interactions between human and natural systems; resilience efforts; and the ways science and research evolve and change over time. Despite these high levels of prior knowledge, respondents reported statistically significant learning increases with large effect sizes about each of these topics after the forum.

The second theme was about participants' engagement and interest. During the forum, participants used project materials to consider data, hear others' views, share their own views, and engage in joint decision-making. While respondents had high interest before the forums, they reported that they became significantly more interested in research on climate hazards, societal issues, and ways hazards affect their community. Participants were especially interested in and supportive of local resilience efforts.

Third, evaluators assessed the learning, interest, and confidence of educators who participated in a workshop that trained them about how to use the materials. Fewer educators participated in this workshop than anticipated, leading to a small sample size, but data suggest that the workshop supported increased knowledge about how to use the forums, increased interest in using the forums after the webinar, and growth in confidence for using the forum materials.

Overall, this summative evaluation found evidence that the project met its goals. This included participants reporting increased knowledge, understanding, and awareness, increased engagement and interest, and more positive attitudes. Educators reported learning about the project materials and how to use them, and indicated increased interest and confidence in using the forum materials in their educational settings. As a successful educational effort, this project can serve as a foundation for future work that wishes to expand learners' engagement with content and policy about climate-related hazards and resilience efforts.