Creating a Collaboration for Ongoing Visitor Experience Studies (C-COVES)

White Paper

Research and Evaluation Department
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INTRODUCTION

In the Creating a Collaboration for Ongoing Visitor Experience Studies (C-COVES) project, the Research and Evaluation department at the Museum of Science, Boston (MOS) and our partners aimed to figure out what it would take for science museums to work collaboratively to gather and use data about our visitors and their experiences. This report presents a roadmap to achieve this vision for the science museum field, and a framework of key elements and decision points to guide other types of institutions embarking on similar efforts.

This work represents the insights and suggestions of professionals from diverse science museum contexts across the country who have contributed by participating in discussions, attending the C-COVES forum in August 2013, and providing feedback along the way. What follows is the story of how this project came to be, what we learned along the way, and what we hope to accomplish next.

BACKGROUND

This project was initially driven by a need within our own museum which, in turn, helped us identify a larger field-wide need. In early 2009, MOS began a new effort to systematically collect data on the quality of the visitor experience and visitor demographics: the Visitor Experience Monitoring (VXM) project. We decided to engage in an on-going study rather than conduct several isolated studies several years apart in an effort to have real-time data available to inform institutional decision-making over time, and to have a data collection mechanism that served the coordinated needs of our Visitor Services, Education, and Marketing departments. The first year allowed us to pilot the process, refine our survey, and collect preliminary data from our general public audience. Subsequent years have allowed us to expand this monitoring process to our visiting school groups, as well as make comparisons over time. Over the last five years, the findings provided through our VXM project have become an integral tool in the decision-making process of virtually every department within our institution.

However, several years into the project – once the data had become a point of reference institutionally – we were asked a tandem of difficult questions by management: How do we compare to other museums? How do these data enable us to improve the field of science centers and elevate our work across our industry? Points of reference certainly exist in other sectors – rental car companies and software firms, to name a couple – but few, if any, data points were relevant to the work of cultural institutions such as science museums. Conversations with colleagues at other science centers revealed that this need was shared by institutions across our field.

To this end, we developed C-COVES. This forum project was designed to bring a wide-range of science museum professionals together to discuss the feasibility of establishing a network of museums to study the experience of science museum visitors nationwide. The goals of C-COVES were to:

- initiate a community of practice around the collaborative, ongoing study of visitors and their experiences;
- establish guiding principles and an organizational structure to guide the work and decision-making practices of the multi-institutional collaboration; and
- articulate the objectives and vision for this type of visitor studies collaboration for the science museum field.

The premise of this project is that while several individual institutions already have indicators and instruments in place to study their own visitors' experiences, the infrastructure to support collaboration *across* science museums is currently lacking.

PROCESS

We realized that our existing visitor experience study could be strengthened through comparisons to institutions similar to our own, while also recognizing that, with the right partners, we could improve our measures as well as our communication strategies. This led us to envision C-COVES as a collaborative endeavor that would strengthen our own data collection and decision-making efforts while ideally doing the same for others. This type of partnership would allow us to provide accurate, up-to-date audience data, contextualized within the broader landscape of similar institutions and would provide museum leaders – our own and those of our partners – with clear, powerful insights about their individual institution, and equally importantly, with powerful insights about the field as a whole. Additionally, if successful, this type of collaboration would enable annual analyses across the field, which could identify promising innovations and enrich the collective knowledge of the impacts of science museums and the core challenges facing them.

Of course, we needed to ask for help – after all, this system would need to be designed with the interests of a wide range of science centers in mind, not just our own. It was important for this work to result in a system that would work efficiently and effectively for science museums of all sizes in diverse communities. We assembled a team of six core partners - museum professionals who each represented different types of institutions and different types of expertise - who helped us think through and plan a two-day forum. These core partners were:

- Tania Tiburcio, Senior Manager of External Affairs at the New York Hall of Science, New York, NY;
- Laura Huerta-Migus, Executive Director of the Association of Children's Museums, and former Director of Professional Development and Inclusion for the Association of Science-Technology Centers;
- Meghan Scheidel, Museum Educator, Terry Lee Wells Nevada Discovery Museum;
- Marjorie Bequette, Director of Research and Evaluation, Science Museum of Minnesota; and
- Scott Pattison, Research and Evaluation Strategist, Oregon Museum of Science and Industry and Co-Executive Director, Institute for Learning Innovation.

In addition, in preparation for the two-day forum, we called professionals involved in existing collaborative data efforts, investigated and characterized key elements of existing successful

collaborations within and outside of our field (see Appendix A for a list of related projects we researched as part of this process), and administered a survey to forum participants, and met with our core partners digitally on a regular basis prior to the forum.

Our investigation and conversations revealed that a successful system would need to:

- sustainably provide new resources for gathering and understanding audience data within and across institutions,
- improve the accessibility and use of up-to-date audience information that would allow museums across the country to be more responsive to audience needs, and
- provide museum leadership with the information needed to make data-driven decisions for growth, improvement, and programming.

In short, the collaboration would revolutionize a science center's ability to learn from their visitors, while allowing science centers collectively to learn from one another and improve over time.

Informed by our exploratory research, we focused the forum and other C-COVES activities on two fundamental elements needed to make this project viable, which were:

1. the essential elements of a system to guide interorganizational work, and
2. a coalition with:
    - the conviction and expertise to help museums build capacity to study the experience of their visitors where no capacity currently exists, by leveraging capacity where it *does* exist; and
    - the capability to help individual institutions make sense of gathered evidence to strategically drive decision-making, while also helping to inform the field of science centers as a whole.

After a year's worth of talking with existing interorganizational groups and connecting with potential partners, a two-day forum was held in Boston in August 2013, convening 27 museum professionals from 11 science centers ranging in size, community context, and evaluation capacity, as well as individuals from three consulting or industry organizations (See Appendix B). Over two days, these individuals were able to elaborate the various objectives, outcomes, and potential pitfalls inherent in such a collaboration. These discussions eventually solidified the collective understanding that this type of data effort was not only worthwhile but necessary – for participating institutions and the science center field as a whole.

The resulting C-COVES Plan of Action was built from the collective input of stakeholders from geographically and contextually diverse institutions, including the project team, core partners, and forum contributors.

The following sections outline (1) insights we believe can inform the work of *other* groups of institutions seeking to establish similar collaborations, and (2) our vision and the foundational elements needed to establish multi-institutional, collaborative, ongoing visitor experience studies at science museums.

FRAMEWORK FOR ESTABLISHING A COLLABORATION

Through research and conversations as we set about developing our framework and plan of action, several themes emerged. These six overarching themes represent fundamental principles that can be used to underpin decision-making and practice for all types of institutions interested in establishing a collaborative data collection and analysis program.

1. **Shared ownership and trust:** the developed system must have shared ownership and include clearly-identified processes and systems for sharing data and findings in order for it to be a trustworthy program for participating institutions, the audience being surveyed, and the broader field.
2. **Sustainability:** once developed, the system must be sustainable in order to support the proactive use of data to inform and empower change over a long period of time.
3. **Institutionally relevant and informative for the broader field:** the collection and dissemination of audience-based evidence must be able to efficiently inform improvements and decision-making in individual institutions, while also enhancing understanding of the audience experience within the broader field.
4. **Building evaluation capacity:** the system must build evaluation capacity among participating professionals and their institutions.
5. **Whole-institution focus:** the system must reflect the audience experience at institutions as a whole, rather than the experience at specific programs or projects.
6. **Adaptability:** elements of the system must be designed for adaptation and customizability.

These guiding principles can shape decisions about each of the four essential, interrelated elements of multi-institutional collaborative systems.

- **Decision-making:** how to create and sustain a trustworthy and equitable leadership and management structure.
- **Questions and measures:** what should be studied, and how.
- **Methods and data collection:** how instruments should be developed and data collected.
- **Data analysis and sense-making:** how information should be interpreted and shared.

In the following sections, we unpack and elaborate critical aspects of these essential features, as discussed by C-COVES participants.

DECISION-MAKING

Decision-making and governance structures must establish the system's trustworthiness and credibility to institutions and the broader field. Establishing a trustworthy program requires a governance structure that is representative, well-informed, and efficient. Participating institutions must have confidence that the system will represent their own interests as well as the needs of the broader field, and the institutions must be able to trust that the data that are collected and used in the project will truly serve their best interests. As such, the governance and oversight of the system must be spread across organizations, and no one institution should have sole power

and control over the system or collected data. This will increase the trustworthiness of the system because it will prevent any individual institution from misusing the system.

Collective policies and priorities should be defined by a governing group from diverse institutional contexts with diverse professional roles. The work of the collaboration should be directed, managed, and overseen by multiple stakeholders with a focus on ensuring relevance, efficiency, adaptability, and responsible use.

In establishing decision-making policies and structures, groups of institutions interested in forming a collaboration should consider:

- How will the perspectives of diverse stakeholders and institutions be represented in leadership and decision-making committees?
- Who will lead, administer, and implement the design and analysis work of the collaboration, and how should they be overseen? Where should the locus of control be situated to establish a neutral and trusted perspective?
- How and in what ways can policies be established during the formation of the collaboration so that they can guide ongoing work?
- What financial model for the collaboration can be established to promote shared ownership and responsibility, as well as sustainability?
- How and when should decisions be made to establish methods and key questions? How and when can methods and key questions be updated for the whole system or customized for individual sites?

GOALS AND QUESTIONS

Identifying appropriate guiding questions and measures is vital for focusing and driving both short-term and long-term collective efforts. Guiding questions should be:

- responsive to the collective vision,
- practical to ensure effective incremental progress can be made towards the vision, and
- relevant to meet the contextual needs of individual sites and stakeholders.

In developing appropriate guiding questions, collaborators should consider the following:

- What does the field need or want to improve or articulate?
- Which questions align closely with the purpose and vision of the collaboration?
- What does any individual institution need or want to know? Which evaluation questions are currently being used at each site and which measures are being used to pursue them? What kinds of decision-making needs do institutions share?
- For each question, how and why could cross-institutional collaboration enrich understanding, if at all? Which questions would be simplest to pursue in the short term as the collaboration is getting off of the ground, and which questions have enticing potential to generate insight and drive institutional participation and interest over the longer-term? When and how can periodic review of the system’s questions be used to help adapt the system over time?

- How can sites or groups of sites be enabled to customize the measures to meet institutional priorities and support new understanding? How should this kind of customization be balanced with the needs of comparability?

METHODS AND DATA COLLECTION

Different organizations have different data collection experience and capacity. Thus, the data collection processes designed for this system must be able to work for a broad range of organizations. In addition, the protocols for data collection must be efficient and responsive to the challenges of our institutions. Fundamental questions for this feature of data-based collaborations include:

- How important are generalizability, comparability, and/or rigor with respect to site-to-site convenience and flexibility? How and to what degree can sites customize the methods to meet their own contexts without reducing the usefulness of the data for others in the field? How can individual sites be supported to weigh the benefits and challenges of customization for their own needs and the needs of the broader field?
- How can validity and reliability effectively be established in cross-site measures?
- Who will collect and enter the data, and how will they be trained? How should quality be monitored?
- Who are the respondents? How and when should they be sampled?
- Which data should be shared between institutions and which data should remain anonymous or confidential?
- How should the privacy and rights of respondents and institutions be protected?
- What are the constraints and challenges of representative institutions with respect to evaluation and data collection capacity, and how can the data collection efforts be designed to respect, mitigate, or resolve these challenges?

Effective data collection collaborations require a strong commitment from participating institutions to the vision and purpose of their efforts. Willingness to make these commitments signifies dedication to the collective work of the group and to the expected value of the findings to be yielded through joint efforts. Institutions must be willing and able to:

- conform to using some of the same measures and methods as peer institutions,
- use commensurate methods of data collection and sampling, and
- use shared definitions to identify respondent groups to be sampled.

DATA ANALYSIS AND REPORTING

There are two primary considerations for data analysis and reporting: (1) supporting the effective and responsible use of data, and (2) protecting the rights and confidentiality of respondents and institutions. To these ends, collaborators must consider the following questions:

- Who should analyze the data?
- What analyses should be conducted, and to what degree should they be consistent year to year and site to site?

- How should reports be created and disseminated?
- How and in what ways should findings be shared between institutions?
- How and in what ways should findings be shared to the broader field?
- How should institutions and decision-makers be supported to understand and make use of findings?
- In what ways will the system support institutional customization?
- When and how will periodic review and changes to analysis strategies be implemented in order to keep the system relevant and adaptable?

Data analysis and reporting strategies must be focused on how the data can be used to inform change and decision-making. To this end, the purposes and core questions of the collaborative program must drive the development of data analysis and reporting strategies. This will focus analytical approaches and streamline the communication of findings. Reporting strategies should place a strong emphasis on supporting effective data use for improvement and change.

Analyses and reporting of institutional data must be done in an expedient manner to effectively inform decision-making with timely information. Any comparisons between an individual institution and other sites in the field should be done in such a way as to allow each site to understand itself within the context of others in the field without inviting or suggesting direct institution-to-institution competition.

Most importantly, data analysis and reporting strategies should maintain an explicit goal of developing evaluation capacity and evaluation use within the field. To this end, the development of resources, workshops, or communities of practice are essential components of these types of collective efforts.

Analysis and reporting policies should be transparent and straightforward to garner the trust of participating institutions. At the same time, the confidentiality and rights of participating respondents and institutions must be protected. Creating an analysis protocol that has been thoroughly vetted by experts in the field will support buy-in from institutional stakeholders and the broader field. Further, the collaboration must establish clear and firm policies to govern access, use, and sharing of data and findings.

PLAN OF ACTION

The following plan of action addresses the questions and considerations outlined in the previous section from the perspectives of different stakeholders in diverse science museums. This plan was developed through conversations prior to and during the C-COVES forum and subsequent feedback from our partners and participating individuals.

DECISION-MAKING AND GOVERNANCE STRUCTURES

For science museums, C-COVES participants determined that the decision making process must, first and foremost, be driven by a clear, shared vision and set of values. In addition, all decision-making must be informed and representative of geographically and contextually diverse science museums (including nationally-representative institutions from urban, suburban, and rural areas, including small, medium, and large sizes and a range of evaluation capacities) and varied stakeholders (including museum professionals in positions such as marketing, visitor services, education, museum leadership, research and evaluation, membership, and technology and information services).

Four general decision-making bodies with differing responsibilities were recommended during our discussions, as summarized below:

1. **Governing Body**: The Governing Body is to be a representative, multi-institutional group responsible for overall project direction and oversight. The Governing Body will:
   - establish and maintain the project vision,
   - establish priorities and project goals,
   - define and adapt a sustainable financial/business model for the project to ensure long-term growth and success,
   - direct the project staff teams, and
   - promote the project within and beyond their own institutions.

2. **Measurement Consultants**: The Measurement Consultants will include a small group of individuals external to the project with expertise in research and measurement who can guide and advise the core project team. This committee will not take part in the day-to-day operations of the project, but will provide regular feedback and suggestions to guide the work of the group. The Measurement Consultants will:
   - iteratively review and help to revise the priorities and project goals to ensure responsiveness to the changing needs of the science museum community, and
   - examine and critique project work and recommend changes to ensure that the credibility and trustworthiness of the project is clearly established and maintained.

3. **Project staff:** The project staff will be responsible for carrying out the central work of the collaboration and keeping the project moving forward. Two teams will be established, an *Administrative Team* to administer, coordinate, and grow the collaboration at an institutional and project level, and a *Research Team* to conduct the research and evaluation work.

The *Administrative Team* will:

- manage the system's finances, including writing grants and securing funding to support the establishment of the project's foundation;
- administer and manage Governing Body meetings, trainings, and project communication and dissemination; and
- recruit new institutions and manage relationships with participating institutions.

The *Research Team* will:

- establish and consult expert advisory councils to provide guidance and support for measurement, analysis, data security and privacy, and training;
- identify and refine rigorous measures and data collection protocols, making use of existing measures and other measurement projects to reduce duplication of efforts;
- draft training materials and systems to support rigorous and consistent data collection across sites;
- submit research methods annually to Institutional Review Board review, and ensure that all research is ethically conducted;
- develop or identify a secure information technology infrastructure to allow for storage and appropriate access to institutional data;
- oversee data collection;
- conduct data analysis;
- share and disseminate institution-level and field-wide findings; and
- create trainings, workshops, webinars, or other materials to support data use and interpretation.

4. **Institutional Review Board (IRB)**: The IRB will ensure that all studies are conducted in a way that is respectful of the rights of human subjects. The IRB will review instruments and data collection, data analysis, and data sharing protocols and methods, and will be responsible for making sure that data collection, analysis, and reporting strategies protect the rights and privacy of individuals and institutions.

GOALS AND QUESTIONS

For science museums, C-COVES participants identified several questions that this work could help answer about individual institutions and about the field. Several participants noted that identifying the kinds of decisions and industry concerns shared by institutions was paramount for designing relevant and meaningful questions. Several shared concerns and questions were identified, including:

- How can we sustain our relevance to existing visitors?
- How can we improve the breadth of audiences we serve and make our museum audiences more representative of the socioeconomic and demographic diversity of local populations?
- What can we do to more effectively meet and surpass the needs / interests / expectations of current audiences?
- For traveling exhibitions, what should host institutions do to most effectively market traveling exhibitions to potential audiences? Which types of complementary

programming or services can be offered to most effectively meet the needs and interests of potential audiences?

As noted in the decision-making section, participants felt that priorities should be revisited regularly in order to make relevant and timely changes to the questions as needed. In addition, one of the primary outcomes of the forum related to the questions was that they must provide for flexibility in order to meet contextualized needs of science museums with diverse missions, capacities, sizes, and audiences.

Many of the evaluation strategies can be culled from existing instruments developed by partner institutions or other projects within or beyond the museum sector. Further, connecting with existing systems for gathering contextual data about institutions (such as size, common features, and community context) could improve efficiency and allow institutions to be grouped effectively for the purposes of comparisons and further analyses. Identifying the main questions to be pursued through this work requires balancing the needs and interests of the field and those of different individual institutions; however, much of this groundwork has already been forged by complementary projects within the field.

METHODS AND DATA COLLECTION

For science museums, C-COVES participants discussed methods and protocols that might be used to gather data to answer the identified questions. The group decided that an effective data collection collaboration would require participating institutions to demonstrate commitment to the project through their willingness and ability to:

- conform to using some of the same measures and methods as peer institutions,
- use commensurate methods of data collection and sampling, and
- use shared definitions to identify respondent groups to be sampled.

In addition, data collection strategies will need to balance the desire for rigor with the practicality of conducting research and evaluation work across diverse settings. Rigor is essential because the data collection methods and protocols must be trustworthy and carried out consistently in order for any analyses or findings to be credible within and outside of institutions. However, rigor must not present undue burdens; data collection strategies must consider the needs and capacities of museums with varying levels and experience with in-house evaluation. The training and ongoing engagement of museum staff in data collection activities provides strong opportunities to build both conceptual understanding of evaluation and practical evaluation experience for professionals across the field.

C-COVES participants noted that many data collection protocols and methods for visitor experience studies currently exist within the field. These may be adapted to meet the needs of this collaboration. Adaptation of measures and data collection protocols should be carried out by a trusted committee of technical experts. In order to ensure that this design is informed by the needs and constraints of diverse institutions, the Governing Body will craft a thoughtfully-written charge to guide the work of the committee of technical experts, and an iterative review process will be used to ensure the protocols are developed in a rigorous and responsive manner.

DATA ANALYSIS AND REPORTING

C-COVES participants placed a high priority on responsive analyses and clear, timely reporting. To meet the diverse needs and contexts of different science museums, all analyses and reporting structures must be scalable, flexible, and accessible. In addition, the project must aim to support capacity-building within the museum profession about how to conduct data analysis and understand evaluation findings while allowing for flexibility and access for museums with in-house evaluation expertise.

This work requires design or adaptation of a commercially-available system for centralized storage of collected data for analysis. The creation of example institutional and field-wide reports will be necessary in order to help institutions understand the potential benefits and risks of participating in the collaboration. In addition, after the initial steps have been established, trainings, webinars, and workshops will be developed to help institutions make use and sense of their own data to ensure that the project effectively promotes capacity building and data driven decision-making across institutions.

Clear policies must be established by the Governing Body and Research and Administrative Teams and rigorously assessed by the IRB to guide analysis, use, and access to protect the interests of visitors and science museums. Additionally, the representative Governing Body, in consultation with the Measurement Consultants and Research and Administrative Teams, will establish comprehensive, clear policies for analysis, use, and sharing. These policies will elaborate the benefits and risks of participation in terms of individual and institutional privacy, confidentiality, and rights as research subjects.

NEXT STEPS

Since hosting the C-COVES forum in August 2013, we have made deliberate progress toward the realization of the scalable, sustainable system outlined above. In addition to securing a National Leadership Grant from IMLS to fund the first three years of project work (MG-20-14-0060-14), we have also identified the necessary roles and responsibilities of partners in accordance with the many considerations of our recommended framework. In particular, we have identified the majority of the decision-making groups, including eight Governing Body members representing seven institutions, all of whom were initial C-COVES forum attendees, as well as the three-person panel of Measurement Consultants who will oversee the creation and validation of instruments and help guide the thinking of the larger group. We have also begun to organize the two teams responsible for the central work of the collaboration: the Research Team, which will be housed at and staffed by the MOS Research and Evaluation department, and an Administrative Team, which will be housed at and staffed by members of the Association of Science-Technology Centers (ASTC). Furthermore, nine participating institutions have signed on to participate in and pilot test the system. These institutions were selected based on their participation in C-COVES, previous experience collecting museum visitor data, and their high interest and commitment to the proposed project; additionally, all of the science centers represented by the Governing Body are represented within this group of participating institutions.

In the coming months, while we put in place many of the initial pieces integral to the formation of this system, project teams will begin working on many of the aspects that will serve as the foundation for this collaborative data effort, including:

- thoughtfully and strategically identifying **questions** to be addressed by the collaboration to inform individual institutions and the field, while building in methods for regularly revisiting and revising these questions;
- developing **data collection** strategies and protocols that are clear, efficient, effective, and transferable across diverse contexts, preferably valid for cross-institutional analysis;
- creating **data analysis and reporting** strategies that are expedient, responsive, concise, and driven by the need to inform decisions and contribute to a broader understanding within the science museum field;
- establishing clear **guidelines and policies** to guide the work of the collaboration; and finally
- building data collection and interpretation **capacity** at each of the participating institutions.

If you are a science center and are interested in learning more about our efforts or wish to become a part of this exciting collaboration, we encourage you to contact us directly. We will be actively recruiting institutions interested in participating and hope to solicit involvement from a broad range of institutions and professional roles within those institutions. For more information on our previous or on-going work, please email Ryan Auster (rauster@mos.org) or Elizabeth Kollmann (ekollmann@mos.org).

APPENDIX A: MULTI-INSTITUTIONAL COLLABORATIONS THAT SERVED AS MODELS AND REFERENCES FOR THE WORK OF C-COVES

- American Alliance of Museums Benchmarking Project: http://freshinthefield.files.wordpress.com/2012/12/2012_museum_salary_study.pdf
- American Association for State and Local History's Visitors Count!: http://tools.aaslh.org/visitors-count/
- Building Informal Science Education (BISE): http://informalscience.org/projects/ic-000-000-001-250/Building_Informal_Science_Education:_Supporting_Evaluation_of_Exhibitions_and_Programs_with_an_informalscience.org_Research_Network
- Denver Evaluation Network (DEN): http://archive.informalscience.org/project/show/2114
- Developing, Validating, and Implementing Situated Evaluation Instruments (DEVISE): http://informalscience.org/projects/ic-000-000-001-844/DEVISE:_Developing,_Validating,_and_Implementing_Situated_Evaluation_Instruments
- Great Ape Heart Project: http://greatapeheartproject.org/
- IMLS Museums Count!: http://www.imls.gov/research/museums_count.aspx
- National Survey of Student Engagement (NSSE): http://nsse.iub.edu/html/about.cfm
- Why Zoos and Aquariums Matter (WZAM): https://www.aza.org/uploadedfiles/education/why_zoos_matter.pdf

APPENDIX B: LIST OF C-COVES FORUM PARTICIPANTS

Participant Name	Institution	Position
Phil Katz	American Association of Museums	Assistant Director, Research
Larry Hoffer	Association of Science-Technology Centers	Chief of Staff
Wendy Hancock	Association of Science-Technology Centers	Manager, Professional Development
Debb Wilcox	Center for Nonprofit Management of Nashville	Director of Evaluation
Hank Gruner	Connecticut Science Center	Vice President of Programs
Rie Poirier-Campbell	Connecticut Science Center	Vice President of Advancement
Rita Deedrick	Center of Science and Industry	Director for the Center for Research & Evaluation
Joe Heimlich	Center of Science and Industry/Ohio State University	Senior Research Associate, Professor
Sarah Wolf	Discovery Center Museum	Executive Director
Mike Rathbun	Discovery Center Museum	Associate Director
Neil Gordon	Discovery Museums	CEO
Ilse Allen	Discovery Museums	Director of Visitor Experiences
Carlos Manjarrez	Institute of Museum and Library Services	Director of Officer Planning, Research and Evaluation
Christine Reich	Museum of Science, Boston	Director of Research and Evaluation
Clara Cahill	Museum of Science, Boston	Research and Evaluation Associate
Ryan Auster	Museum of Science, Boston	Research and Evaluation Associate
Heather Calvin	Museum of Science, Boston	Associate Vice President of Visitor Services and Membership
Sandy Fasules	Museum of Science, Boston	Marketing Manager
Marc Check	Museum of Science, Boston	Director of Information and Interactive Technology
Stephanie Iacovelli	Museum of Science, Boston	Research and Evaluation Assistant
Tania Tiburcio	New York Hall of Science	Director, External Affairs and Community Engagement
Brett Turner	New York Hall of Science	Manager of Sales and Promotions
Scott Pattison	Oregon Museum of Science and Industry	Research and Evaluation Strategist
Keith Baich	Oregon Museum of Science and Industry	Membership Manager
Angie Ong	Pacific Science Center	Evaluation Manager
Shannon Schumacher	Pacific Science Center	Director of Annual Giving
Marjorie Bequette	Science Museum of Minnesota	Director of Evaluation and Research

Participant Name	Institution	Position
Beth Varro	Science Museum of Minnesota	Membership Manager
Elisa Israel	St. Louis Science Center	Associate Director, Research and Evaluation
Bert Vescolani	St. Louis Science Center	President and CEO
Meghan Schiedel	Terry Lee Wells Discovery Museum	Curriculum Developer
Emily Reid	Terry Lee Wells Discovery Museum	Visitor Services Manager
John Jacobsen	White Oak Institute	CEO