

MUSEUM

SOCIAL IMPACT MUSEUM TOOLKIT



Utah Division of
Arts & Museums



INSTITUTE of
Museum and Library
SERVICES

<https://museumsocialimpact.org>

CONTENTS

INTRODUCTION	4
WHY USE THE MUSEUM SOCIAL IMPACT TOOLKIT?	4
BACKGROUND	5
LITERATURE REVIEW	5
LOGIC MODEL	6
BACKGROUND	6
SURVEY DESIGN	7
BEFORE YOU BEGIN	8
PUT A PLAN IN PLACE	12
COLLABORATE	12
TRANSLATIONS	12
Before You Begin Materials: Social Impact Placemat Activity	13
Before You Begin Materials: Getting Started Guide	15
STEP 1: PARTICIPANT RECRUITMENT	20
WHAT SHOULD YOU CONSIDER WHEN RECRUITING PARTICIPANTS?	21
CREATING A PROSPECTIVE PARTICIPANT RECRUITMENT FORM	22
ACCEPTING PARTICIPANTS	23
NOTIFYING PARTICIPANTS	23
Step 1 Materials: Participant Recruitment	25
STEP 2: PREPARE TO WELCOME PARTICIPANTS	30
TRAINING FRONT-OF-HOUSE STAFF	30
PUNCH CARDS	31
CHOOSE YOUR TRACKING SYSTEM	31
Step 2 Materials: Prepare to Welcome Participants	33
STEP 3: STUDY OPEN	39
ABOUT THE STUDY OPEN PERIOD	39
REMINDER EMAIL CONTENT	39
SCHEDULING REMINDER EMAILS	40
OTHER COMMUNICATIONS CONSIDERATIONS	40
Step 3 Materials: Study Open	41

CONTENTS

STEP 4: SOCIAL IMPACT SURVEY	43
WHEN TO SEND THE SOCIAL IMPACT SURVEY	43
PREPARING THE SOCIAL IMPACT SURVEY	44
EMAILING THE SOCIAL IMPACT SURVEY	44
TRACKING SURVEY COMPLETION	45
FULFILLING INCENTIVES	45
Step 4 Materials: Social Impact Survey	46
STEP 5: ORGANIZING, ANALYZING, AND INTERPRETING DATA	55
QUANTITATIVE DATA: DESCRIPTIVE STATISTICS	56
QUANTITATIVE DATA: PREPARING DATA FOR A PAIRED SAMPLE T-TEST	57
QUANTITATIVE DATA: RUNNING AND INTERPRETING A PAIRED SAMPLE T-TEST	58
QUANTITATIVE DATA: REPORTING RESULTS OF A PAIRED SAMPLE T-TEST	58
QUALITATIVE DATA: TYPES OF ANALYSIS	58
FINAL THOUGHTS	60
QUALITATIVE DATA: RELIABILITY	60
QUALITATIVE DATA: REPORTING RESULTS	60
Step 5 Materials: Analyzing Quantitative Data	61
Step 5 Materials: Analyzing Qualitative Data	68
STEP 6: SHARE YOUR FINDINGS	71
PREPARING REPORTS	71
AUDIENCES	72
USING SOCIAL IMPACT FINDINGS AT YOUR MUSEUM	72
COLLABORATION	73
ACKNOWLEDGEMENTS	74
ABOUT THE AUTHORS	75
APPENDIX A: MOMSI HOST MUSEUMS	76
APPENDIX B: IRBS AND PROTECTING PARTICIPANTS	77
APPENDIX C: QUALITATIVE ANALYSIS CODEBOOK	78
APPENDIX D: MOMSI REPORT	81
APPENDIX E: SPANISH TRANSLATIONS	98
APPENDIX F: SIMPLIFIED CHINESE TRANSLATIONS	106
APPENDIX G: REFERENCES	116

INTRODUCTION

This toolkit is a guide for your museum to collect and analyze social impact data. Throughout the toolkit, you will find summaries of tasks, checklists, best practices, language and materials to use, and tips for success. The journey to measure museum social impact requires time and commitment, likely from numerous employees or volunteers and across departments. We recommend that you read the toolkit in its entirety and familiarize yourself with the tasks before beginning this work.

This museum social impact toolkit was developed as part of the Measurement of Museum Social Impact (MOMSI) research study, and was informed by the experiences of the study's host museums from across the United States. Tips for success and perspectives included in the toolkit represent the experiences of museums of various sizes, scopes, and regions.

MOMSI was funded by the Institute of Museum and Library Services (mg-245336-oms-20). The views, findings, conclusions or recommendations expressed in this toolkit do not necessarily represent those of the Institute of Museum and Library services.

WHY USE THE MUSEUM SOCIAL IMPACT TOOLKIT?

Compared to economic and educational impact, social impact is elusive and challenging for museums to measure. Here are some questions to guide you in thinking about why you should use this toolkit and measure social impact at your museum.



- Does your leadership talk about the impact your museum has on its community? Is there data or evidence to support those claims?
- How do you document and show the value of your museum to your board, elected officials, and/or your community?
- Do you need impact data to receive funding or to report as a result of funding?

When the museum community was asked why they would use the social impact toolkit, here's what they had to say:

- The social impact survey has been tested and validated in the field.
- Museums can develop and use shared language around "museum social impact," as agreed upon and written in this toolkit.
- Using the toolkit could help identify new partners and potentially reach new audiences.

BACKGROUND

The Utah Division of Arts & Museums and Thanksgiving Point Institute, with funding from the Institute for Museum and Library Services (IMLS) facilitated the Measurement of Museum Social Impact (MOMSI) study between 2020-2023. MOMSI sought to understand if the survey instrument developed during two pilot projects to measure museum social impact was valid and reliable at a national level. Working with 38 museums across the United States (see Appendix A), MOMSI collected and reported social impact data and produced a validated museum social impact survey instrument.

LITERATURE REVIEW

The issue of measuring museums' impact has been a recurring challenge for museums. In 2003, Weil observed that "over time, the museum field will need to develop a vast arsenal of richer and more persuasive ways to document and/or demonstrate the myriad and beneficial outcomes that may occur for their individual visitors and have impact on the community beyond." Museums have struggled to demonstrate their impact, and as such have struggled at times to receive support from their communities.

Over a decade later, Lee and Linett pointed out that while we have no shortage of data, "the field seems to be approaching an inflection point, where the long-term health, sustainability, and effectiveness of cultural organizations depends critically on investment in and collective action around enhancing the field's capacity for using data strategically and thoughtfully to inform decision-making."

The issue persisted when Jacobsen (2016a) stated that "the field needs to adopt a shared framework and language because we still lack an accepted way to measure our impact." The MOMSI study sought to address

this need by researching the social impact that museums have on individual members of museums' communities. Jacobsen (2016b) identified 1,025 indicators to measure museum impact and performance. While our work has been informed by Jacobsen's, it is also narrower and deepens the focus on social impact, reflecting on insights from literature in the public administration field.

A first and most important step in measuring social impact is to define it. We recognize that there are multiple ways to define social impact, highly nuanced by the fields in which it is researched. We chose a definition put forward by Philips and Wong (2016) for its plausibility to ways museums contribute to social impact: "The effect of an activity on the social fabric of a community and the wellbeing of the individuals and families who live there." Next, we explored factors that make communities places where people want to live.

Communities with residents who like where they live are generally more successful, attracting and retaining a talented workforce, which leads to a growing local economy. Drivers of these factors have been studied extensively, and we drew upon survey findings from Knight Foundation and Gallup (2010) and a systematic review by McMillan and Chavis (1986) to, again, consider plausible factors in terms of how museums might impact social well-being.

Two "drivers" were identified by the Knight Foundation and Gallup: education and community openness. The prior aligns to museum missions, and hence the Continued Learning and Engagement construct. The latter refers to how open or welcoming a community is to different types of people. These concepts support and inform our Valuing Diverse Communities construct.

McMillan and Chavis discuss a multifaceted "integration and fulfillment of needs", implying a sense of meeting the needs of the 'whole person'. We drew upon these ideas to develop our Strengthened Relationships

and Increased Health and Well-Being constructs. At multiple points of the project leading up to and including MOMSI, the survey instrument was subject to validity and reliability measures including expert review and scale reliability analysis of both the State and MOMSI responses.

LOGIC MODEL

Inputs	Activities	Outputs	Short-Term Outcomes	Intermediate Outcomes	Long-Term Outcomes/ Impacts
US Museums <ul style="list-style-type: none"> • Staff and volunteers • Visitors and communities 	Invite visitors to participating museums Provide access to: <ul style="list-style-type: none"> • Lifelong learning opportunities • Arts/History • STEM Topics • Culture 	Access to museum exhibits and programs	Content Knowledge School success Making interpretations Personal application	Stimulate inquiry, wonder, curiosity, and interest Critical thinking Conservation	Continued learning and engagement
			Restorative Self esteem Participating in community activities	Recharge Positive outlook Involvement in community	Increased health and well-being
			Altruism Empathy Communication Perspective	Connection to community (belonging, perspective, place, sense, etc.) Empathy	Valuing diverse communities
			Positive time spent with others Care and concern for others	Strengthened social relationships Strengthened family relationships	Strengthened relationships

Figure 1. Measurement of Museum Social Impact (MOMSI) logic model.

Figure 1 shows the logic model that informed the MOMSI research study. MOMSI, and the social impact survey included in this toolkit, measures four long-term outcomes, or impacts: continued learning and engagement, increased health and well-being, valuing diverse communities, and strengthened relationships. Each long-term outcome is based on and guided by short and intermediate outcomes. These short and intermediate outcomes provided the basis for the statements participants respond to on the social impact survey.

SURVEY DESIGN

The museum social impact survey used in MOMSI and included in this toolkit uses a retrospective pre-then-post test (RPT) design. Using this approach requires only one administration of the survey, which for this study is after the participant has visited the museum for the last time during the study period.

In social science research, the RPT is a popular way to assess learners' self-reported changes in knowledge, awareness, skills, confidence, and attitudes or behaviors. Benefits of using RPT include:

- It takes less time than asking participants to complete two surveys (a pre and a post survey).
- It is less burdensome because participants only take one survey.
- It minimizes pretest sensitivity (sensitizing the participant to what to think about during their visits).
- It avoids response shift bias (inaccurate pretest ratings because participants' understanding of survey questions changes because of the visit).

Like any tool, limitations to RPT exist, including:

- RPT survey questions require a different way of thinking that most people are not used to experiencing when taking a survey.
- Inaccuracies in memory when the recall period is long. In the case of this project, participants are asked to recall up to six months prior.
- Self-reporting in any kind of survey is vulnerable to bias.



BEFORE YOU BEGIN

Getting institutional buy-in is an important first step in measuring your museum's social impact. Not only will the social impact data be helpful for staff across departments, but having multiple stakeholders involved will increase the likelihood of successfully recruiting participants and obtaining useful results. Use the questions and insights listed in the Introduction to frame the conversation for using this toolkit in your museum.

You may also consider using the **Social Impact Placemat Activity** included in this toolkit. This interactive, guided activity engages participants to think through what social impact means, what the data might mean for your museum, and how the questions the survey seeks to answer might align with some existing programs. Use the prompts on the placemat as conversation starters, having participants think and respond individually and then as a group. We suggest about one hour for this activity.

For best results, plan to complete this social impact study within a 12-month period. Think about your busy season, or when most people would wish to visit (especially if an outdoor museum), as well as any special exhibits, construction, or other factors that might influence a regular museum visit. This study, however, is not limited to 12 months. It might take your museum longer to fulfill all the parts of this study – and that's okay!

Figure 2 shows the list of activities, outlined by month, that you need to complete as part of this museum social impact toolkit. Use the Getting Started Guide at the end of this section to help you – and others in your museum – prepare to start this study.

SOCIAL IMPACT STUDY



During the MOMSI study, the timeline shifted many times, especially to accommodate a longer time frame to recruit participants or for participants to complete their visits to the museum. Build in a buffer, and know that your timeline might not match the timeline presented here.

Activities	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Propose Study to Leadership												
Complete the Getting Started Guide												
Finalize Budget												
Recruitment Participants												
Study Open Period												
Close Study												
Data Analysis												
Share Findings												

Figure 2. List of activities to successfully complete this study. The shaded boxes show an estimated timeline for completion.

EXPECTATIONS

There are five expectations to consider before you begin using this toolkit. Agreement and support from museum leadership is imperative. Keep in mind that some of these expectations may require monetary support.

- 1. Accept at least 125 participants into the study. Ideally, you will recruit that many or more. While this number might seem high, most MOMSI host museums (big and small) were able to meet this requirement.**

There will be some attrition among participants over the course the study, so it is important to start with enough to still have a hearty data set in the end.

2. Waive admission fees for study participants. MOMSI (and the pilot studies) required participating museums to offer free admission to study participants and one guest for three separate museum visits, equaling six free admissions per participant.

Some MOMSI host museums chose to offer free admission for up to four people during each visit. This allowed participants to bring a family unit or multiple children to the museum for the study.

3. Offer an incentive for completing the social impact survey. The free admission is one incentive; however, incentivizing the completion of the survey ensures you get something in return for all those waived admission fees. The incentive should be something that works for your museum, budget, and staff. You might also consider waiving parking fees, helping with transportation costs, offering a discount in the gift shop or museum cafe as an incentive to participate.

Identify an incentive early on and include language about that incentive in communications to participants. This helps keep participants engaged throughout the course of the study. The social impact survey included in this toolkit includes language for participants to opt-in to receive that incentive.

Here are some examples of incentives MOMSI host museums used:

- **Membership, either to everyone who completed the survey or a few offered through a drawing;**
- **VISA gift cards valued at \$25-\$100;**
- **\$50 gift cards to a national company; gift cards to local restaurants;**
- **gift baskets offered through a drawing;**
- **free tickets to special features at the museum.**

4. **Protecting participants.** You may wish to obtain approval from an ethics board (Institutional Review Board, or IRB). If you are part of a university or other similar governing structure, they may require you to have an IRB in place to complete this study. For most non-profits, an IRB is best practice but is not required if you will only use the results internally (as opposed to publishing them in a journal or other source). See Appendix B for more information about IRBs and resources for best ethical practices.
5. **Some activities require an online survey platform, such as SurveyMonkey, Qualtrics, or Google Forms.** These may be free or paid, so spend time to determine what your museum might already have access to or is willing to purchase in order to conduct this study.

Partnering with a university for this study might give you access to a paid survey platform. When considering a partnership, ask the right questions to see what they could provide. The right university partner (i.e., a social science or public administration graduate student or program) might also assist with data analysis.



PUT A PLAN IN PLACE

Having a plan in place helps your museum succeed in collecting and using social impact data. Use the **Getting Started Guide** to help you think through all the steps and identify the right people to see this project through to completion. You may wish to identify where different departments, staff, volunteers, or board members can help complete the various tasks. This not only distributes the work, but also ensures a succession plan along with buy-in across the museum.

Museums of different sizes, in different communities, and with different staff capacities will identify certain challenges in completing this study. Some steps may take longer for some museums than for other museums to complete. For this reason, it is hard to estimate the time requirement needed for successful completion of each step in the study; however, we estimate the total project will require 150 hours across all staff and steps from start to finish.

The **Getting Started Guide** is comprehensive and covers all the steps of the study. You may need to return to the guide at several points throughout the study, or read through the toolkit before determining how you'll proceed with each step. The guide is designed to help you be successful and make thoughtful decisions. We encourage you to share your plan with others in the museum and keep the guide in an accessible place for reference throughout the study.

COLLABORATE

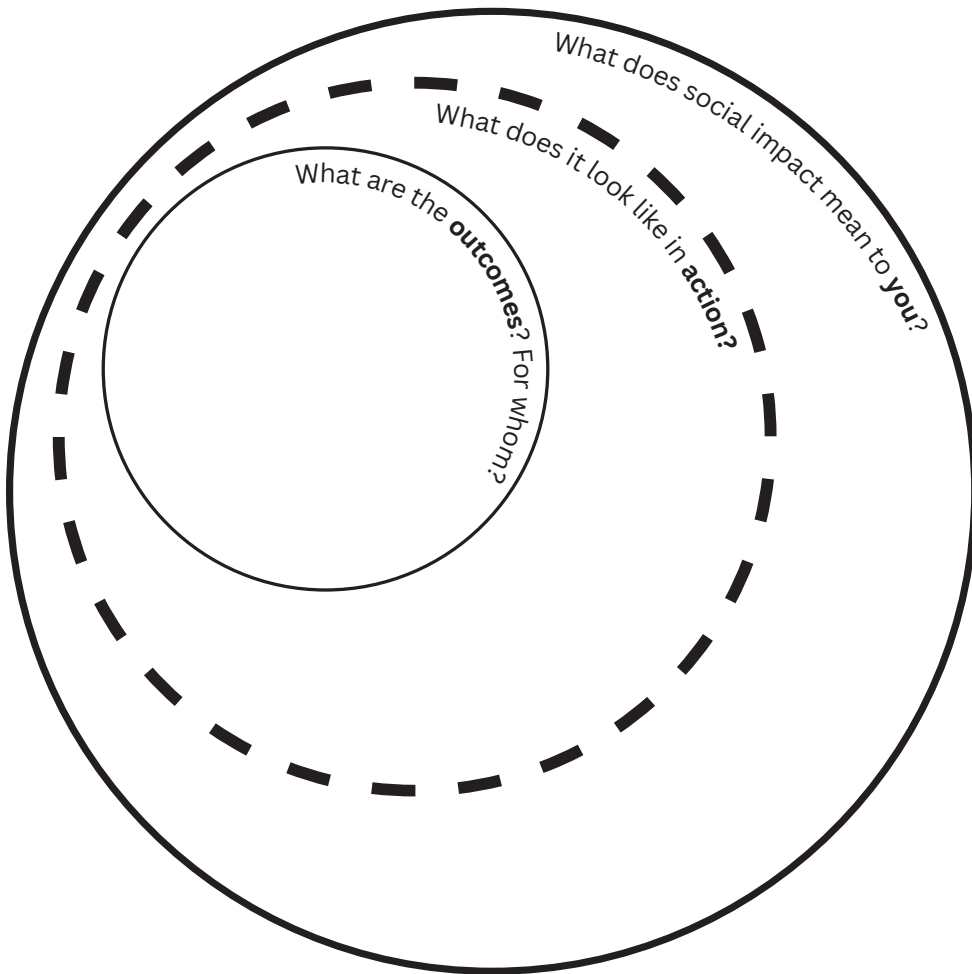
Use this time to collaborate with other museums in your city, state, region, or even nationally. As part of the effort, establish a community of practice so you can help one another through challenges and solutions. This connection to peers was valuable during the national study, even just to bounce ideas around. However, the community will also allow you to connect with peers in a new way and develop new skills. If you choose to work with museums in the same city or same content focus area, you might consider discussions about similarities and differences in your data and findings.

TRANSLATIONS

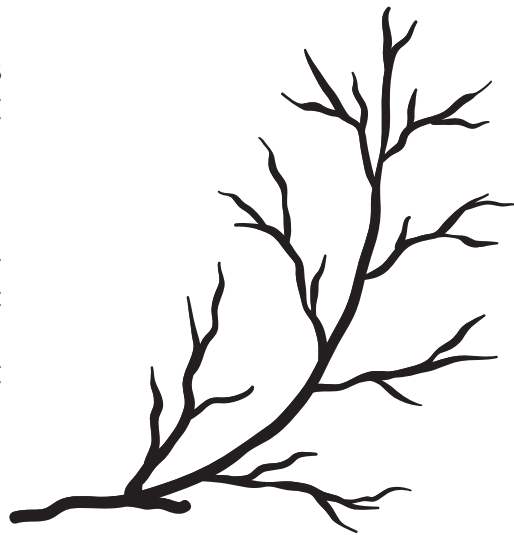
Included in the Appendices (F, G) are Spanish and Simplified Chinese translations for participant recruitment, visitor communications, and the social impact survey. You may need to work with a translator on any language specific to your museum, for additional materials, or for translations into other languages.

Museum tip: Form a social impact committee within your museum, including many (or all) of the people who need to fulfill the different steps of the project. Check in regularly to make sure you're meeting your target goals and still on track to finish the study.

Before You Begin Materials: Social Impact Placemat Activity



This activity is designed to guide you and your team as you think about museum social impact. You can use this activity before collecting social impact data or after you have data as a way to test assumptions.



What might your data say about your audience? Who do these statements resonate with?



Before You Begin Materials: Social Impact Placemat Activity

LEARNING & ENGAGEMENT

- I wonder about how things work.
- I experiment to create new ways of doing things.
- I can see how exploration leads to learning.
- I regularly ask thought-provoking questions to get at the root of the problem.
- I ask insightful 'what if' questions that provoke exploration of new possibilities.
- My mind is actively engaged in new ideas.
- I challenge the way things are currently done.
- I regularly visit local museums (could also include zoos, gardens, and aquariums).
- I incorporate recently learned information into my day-to-day life.
- I appreciate the value of museums (could also include zoos, gardens, and aquariums).

HEALTH & WELL-BEING

- I manage my emotions effectively.
- I am able to bounce back from adversity.
- I regularly volunteer in my community.
- I am open to new ideas.
- I am content with my life.
- I often contemplate the positive aspects of my life.
- I am confident in my ability to generate creative ideas.
- My life feels in control.
- I am motivated to maintain my physical health.
- I take time to relax.
- I often feel the stress of life.
- I have difficulty concentrating.
- I often compare myself to others.
- I become defensive when others try to give me feedback.
- I often criticize others.
- I am confident in contributing my opinion to a conversation.

Who might you **share** your data with? How?



VALUING DIVERSE COMMUNITIES

- I learn new things from people who are different from me.
- I am able to see things from the point of view of others.
- I am concerned for the well-being of others.
- When interacting with others, I recognize their deeply held beliefs.
- My values are based on the collective well-being and not on my own gains.
- I am open to multiple perspectives.
- I understand how cultures are similar and different.
- I can adapt when working with others of different cultural backgrounds.
- I am aware of the challenges faced by others with backgrounds different than my own.
- I enjoy meeting people who are different from me.

STRENGTHENED RELATIONSHIPS

- I build strong and supportive relationships with a variety of people.
- I keep my commitments to others.
- I make it a point to spend time with my friends and/or family.
- I often engage in meaningful conversations with my friends and/or family members.
- I help my friends and/or family members explore their hopes and dreams.
- I am aware of the challenges my friends and/or family members face.
- I turn to my friends and/or family when I face challenges.
- I learn new things from my friends and/or family members.
- I recognize the importance of my friends and/or family members in my life.
- I am excited when something good happens to a friend and/or family member.
- I get upset at friends and/or family members when they make mistakes.
- It is easy for me to develop social relationships.

The Measurement of Museum Social Impact study was made possible in part by the Institute of Museum and Library Services.

Review the museum social impact indicator statements.

Put a ★ by statements that resonate with you, your work, or your team.

Are there statements that your museum already measures? Underline them.

Before You Begin Materials: Getting Started Guide

Before We Begin

Getting Started Guide

Before We Begin

Name of project manager:

Identify a second person who can support and/or step up to lead the project, if needed:

What is our allocated budget for this project?

Be sure to consider the waived admission (plus waived admission for the number of guests participants are allowed to bring), an incentive for completing the survey, and any other incentives we might offer (free parking, discount at gift shop, etc.).

Review each task and set a timeline (i.e., March-May) for our completion of each. Use the recommended timeline outlined in the toolkit, but set goals that feel right for our museum.

Getting Started:

Recruitment:

Study Open:

Close Survey:

Data Analysis:

Reporting:

Before You Begin Materials: Getting Started Guide

Before We Begin

Review this list of tasks. What departments need to be involved in each step? If possible, identify an individual who we will work with to achieve that step.

	Activity	Department	Individual
	Budget		
Participant Recruitment	Create Participant Applicant Form		
	Draft Recruitment Language		
	Share Recruitment Language		
	Communicate with Partners		
	Track Recruitment		
	Communicate with Participants		
Welcoming Participants	Print Participant Materials (optional)		
	Train Staff		
	Create System for Free Tickets		
	Create System for Tracking Participants		
	Track Participant Visits		
	Draft Schedule for Communications		
Collecting Data	Create Survey in Desired Platform		
	Share Survey with Participants		
	Track Survey Completion		
Analyzing Data	Qualitative Analysis		
	Quantitative Analysis		
	Write Reports		
	Share Findings		
Incentives	Additional Incentives Offered		
	Identify Incentive for Survey		
	Distribute Incentives to Participants		

Before You Begin Materials: Getting Started Guide

Before We Begin

Recruitment

What platform will we use for the participant recruitment form?

How many participants will we strive to recruit into the study?

Consider a minimum of 125.

What demographic groups, if any, are we hoping to recruit?

What questions might we need to add to the recruitment form that will help us identify those groups?

If we recruit more than our desired number, how many will we select to participate?

If we do not select everyone who applies to participate, how will we make a selection? Will it be a randomized list? Certain demographics?

How many guests can each participant bring? See the toolkit for suggestions.

Besides free admission, what (if any) additional incentives will we offer participants during each of their visits?

What incentive will we offer participants who complete the social impact survey?

Will we allow participants to use their free admission on evening or special events? If so, describe the parameters.

Before You Begin Materials: Getting Started Guide

Before We Begin

Outline 2-3 methods we will use to recruit participants.

If we are recruiting through partners, list those partners and the museum staff who will communicate with each partner.

Preparing to Welcome Participants

How will participants receive free admission?

How will we train staff on welcoming study participants?

Study Open

What method will we use to track participation?

How often will we send reminder emails?

What date will we send the final reminder email?

Before You Begin Materials: Getting Started Guide

Before We Begin

What platform will we use for the social impact survey?

Data Analysis

What staff feel comfortable analyzing qualitative data?

What staff feel comfortable analyzing quantitative data?

If we do not have staff for data analysis, who might we reach out to for help?

Reporting

What resources might we need for reporting? Think about presentations, report templates, meetings to prepare.

With whom will we share our findings?

Who will be responsible for sharing findings?

STEP 1: PARTICIPANT RECRUITMENT

Once you are ready to begin the social impact study at your museum, you need to think about recruiting participants. These participants will apply to participate in the study, will visit your museum up to three times with the number of guests you identify, and will then complete the social impact survey.

There are a few specific tasks required during this step of the study. More detail about items in this checklist is included below. Refer to the **Getting Started Guide** to help you outline and manage these tasks.

Checklist for step 1:

- Create a prospective participant recruitment form in an online survey platform
- Draft recruitment language, or edit the provided language
- Decide on the incentive your museum will offer participants
- Post recruitment
- Contact partners, if applicable
- Track recruitment
- Contact people accepted into the study

Museum tip: Recruit more participants than you think you will need for a good sample or representation. Even with a built-in buffer, it's better to have more data than not enough.

To have strong statistical significance, you need 40-60 completed surveys. As with any social (human) studies, people will sign up to participate and then drop out (referred to as attrition). Studies typically experience 40-60% attrition, so recruiting a higher number of participants helps ensure you end up with enough completed surveys.

WHAT SHOULD YOU CONSIDER WHEN RECRUITING PARTICIPANTS?

- **Locals versus tourists:** Because participation allows visitors to complete three visits, we suggest recruiting a local audience. Data collected from a local audience will also speak more to the social impact your museum has to your direct communities and city. If your audience is mostly tourists, we encourage you to think strategically about what your data might say and with whom you will share the findings.
- We recommend recruiting, or at least accepting, a minimum of 125 participants into the study, though you are welcome to exceed that number. If you ultimately recruit fewer, that's ok! We will share how to handle different data sizes later in this toolkit.
- We recommend recruiting adults (18+ years of age) only. If you recruit minors, you will need to consider ethics, including if they need parent/guardian consent to participate.
- Think about who you want to recruit into this study, and whose social impact data will be useful to your museum. You might consider:
 - Certain demographic groups. For instance, you might consider income, race, zip code, college student, etc.
 - Non-visitors
 - Lapsed members
 - Friends of "friends"
- What partners does your organization have that can help your museum recruit?

Museum tip: Ask members, social media followers, and your regular visitors to recruit on your behalf. They can share their love for your museum with their friends, who get free admission through the study, provide a new perspective, and may one day become members or "friends" themselves.

Depending on your audience, your museum might want to consider how you support transportation costs or barriers to your museum.

This might include waiving parking fees or providing public transit tickets in advance to participants so they can get to the museum more easily.

CREATING A PROSPECTIVE PARTICIPANT RECRUITMENT FORM

In the Materials section, use the **Prospective Participant Recruitment Form** to create an online form for prospective participants. You will need an online survey platform (i.e., Qualtrics, SurveyMonkey, Google Forms) to complete this step. Feel free to add questions that your museum will find helpful, especially if you wish to recruit and accept a certain sample. Consider if you want to be able to text participants reminders about the study. If so, add an optional question to collect their phone number. Clearly state how you will use that information. Some prospective participants might appreciate text reminders; others will not.

Museum tip: The audience you define should match your recruitment methods. This might mean that recruitment takes longer than you expect. Be open to pivoting and changing your methods as needed or piloting all new methods of recruitment. If you find a method that works, share your experience with your community of practice!

Use a link to the participant recruitment form, or create a QR code, to include with recruitment materials.

Identify who will communicate with participants and what email address they'll use. You may wish to set up an email address specific to the project so multiple staff can access it during the study. Include language at the end of the form, or on the "submission complete" page of the form, asking prospective participants to add that email address to their contacts. This will help prevent your future communications from landing in their spam or junk folders.

OPENING RECRUITMENT

Use the **Recruitment Language** found in the Materials section to begin recruiting. This includes e-newsletter and social media posts; however, during the MOMSI study, host museums were also provided a flier with recruitment language and a QR code that linked to the prospective participant recruitment form. Here are some places and ways to recruit participants, and might help you reach people who do not regularly visit your museum:

- Reach out to home school families
- Email members, non-members, lapsed members
- Use the Next Door app to reach your neighbors
- Post recruitment flyers
- Have a table at different community gatherings (ie, farmer's markets, community festivals or concerts, holiday events or programs)

Flyers can be available at your front desk or off-site events, shared with community partners, posted in libraries or other community gathering spaces, or provided to schools to send home with students or shared with caregivers.

Museum tip: Some of your prospective participants might not be tech savvy. Consider having tablets or a computer identified for those participants to use to complete the recruitment form and social impact survey.

Included in this toolkit are recruitment materials in Spanish and Simplified Chinese. Feel free to use these resources as needed, though recognize you might have other language needs in your community. Once you identify additional language(s), find a translation service who can help fill that need.

During the national study, the form was completed by bots. This might have been because the form was shared publicly through numerous channels, both by our team and host museums. We caution you to watch for spam in your form. These cases were identified because the email addresses were generic and often a mix of numbers and letters and did not match the name provided in any way. These submissions were also made at off hours (overnight) and in large batches.

ACCEPTING PARTICIPANTS

You may wish to accept everyone who applies to participate, or you may wish to accept a target audience (i.e., first-time visitors or certain demographic groups, as you previously identified). Form fields will provide you with information about prospective participants to help make those decisions. Here are some things to watch for:

- Duplicate applications
- Multiple participants from the same household
- Incomplete applications

We recommend only accepting one adult per household. Depending on how your form is config-

ured, some people might not complete an application or you might find duplicates. Check for incomplete applications and duplicates and then ensure you have reached your desired number before closing the form.

This toolkit includes language to send to accepted participants. Consider if you will:

- Accept people on a rolling basis, and email them directly after submitting the form; or,
- Wait until you have a certain number of applicants and then select study participants all at once.

In either case, you may want to include language in the form or send a follow-up email letting prospective participants know when they will hear if they are accepted into the study or not.

NOTIFYING PARTICIPANTS

The final step in recruiting for the study is notifying participants. Edit the Notifying Participants language included in the Materials section to fit your museum and the parameters you set in place. Be sure to include the following important information when communicating with participants:

- The check-in process, or how to get their free admission/tickets (see next section)
- Any parameters for their visits (for instance, if special events or evening events are included in the free admission they receive as a participant)
- How many guests they can bring for each visit
- The timeline to finish their visits

MUSEUM**SOCIAL
IMPACT**

CASE STUDY:

One MOMSI host museum had a specific audience in mind for recruitment. Working with community partners and relying on demographic data in the prospective participant recruitment form, the museum was able to recruit and accept participants from various socio-economic backgrounds and racial identities.

However, they were concerned that, even though people opted in to the study, they would not see the notifications or fail to complete the study's requirements. This would ultimately take the spot away from someone else who would complete the requirements.

Working with the project team, the museum tested a confirmation process. When sent the notification email, each participant was required to send a response by a specific deadline agreeing to complete three visits to the best of their ability and complete a social impact survey. If the team didn't hear from a participant, the next participant on the list was selected.

Looking back, this was a good way to combat some attrition. The museum didn't have every participant complete all three visits, but more than 80% of participants remained in the study. Instead of an email response, you might use a Google Form or other link.

While there are benefits to this method, it did require more staff time to continue reaching out to prospective participants.



Step 1 Materials: Participant Recruitment

Prospective Participant Recruitment Form

Thank you for your interest in helping [MUSEUM] measure social impact. If selected to participate, you will visit the museum with a friend or family member 3 different times. You will then complete a 30-minute survey to share how your experiences at the museum impacted various outcomes. If you do not have internet access, we may be able to provide a computer and a space for you to take the survey or recommend options for access.

The [MUSEUM] may use quotes or other responses from the social impact survey in reports and publications. Any personal information will be kept confidential.

Your participation in the study is completely voluntary. You may withdraw at any time or refuse to participate entirely. There will be no penalty if such actions are taken except that you will forfeit your opportunity to attend the museum for free.

As part of your participation, you and a guest will be given free admission to the [MUSEUM]. Additionally, you will have the option of entering yourself into an opportunity drawing if you complete the social impact survey, which will be emailed to you after completing 3 visits.

I am 18 years of age or older. Yes/No

I have read and agree to the above and desire to participate in the social impact study at [MUSEUM]. Yes/No

[If yes, direct the form to the following questions.]

In a normal year, how often do you visit [MUSEUM]?

- I have never attended this museum
- I have attended this museum 1-2 times in a regular year
- I attend this museum regularly (3+ times a year)

Are you a member of the museum selected above? Yes/No

Personal Information - The following information will only be used for the purpose of this study. We will not share or distribute any of the following information.

- First and last name
- Email address
- City, State, Zip

Step 1 Materials: Participant Recruitment

Prospective Participant Recruitment Form

What is your gender?

- Male
- Female
- Another category – please specify
- Prefer not to say

With which racial or ethnic group(s) do you identify? (Select all that apply.)

- American Indian or Alaskan Native
- Asian
- Black or African American
- Hispanic or Latino
- Native Hawaiian or Pacific Islander
- White or Caucasian
- Another category – please specify
- Prefer not to say

What is your age?

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65-74
- 75 or older

Step 1 Materials: Participant Recruitment

Prospective Participant Recruitment Form

What is your annual household income?

- I prefer not to say
- Below \$10,000
- \$10,000-\$19,999
- \$20,000-\$29,999
- \$30,000-\$39,999
- \$40,000-\$49,999
- \$50,000-\$59,999
- \$60,000-\$69,999
- \$70,000-\$79,999
- \$80,000-\$89,999
- \$90,000-\$99,999
- \$100,000-\$109,999
- \$110,000-\$119,999
- \$120,000-\$129,999
- \$130,000-\$139,999
- \$140,000-\$149,999
- \$150,000 or higher

Recruitment Language

Draft Newsletter Language

The [MUSEUM] seeks to evaluate the social impact we have on our communities, and we are seeking individuals to participate in the study.

Step 1 Materials: Participant Recruitment

Prospective Participant Recruitment Form

Draft Flier Language

We are seeking participants to assist [MUSEUM] in evaluating the social impact we have on our surrounding communities. If you are interested in participating, please visit [FORM].

Draft Social Media Language

The [MUSEUM] is looking to measure the impact our work has on our community, and we are looking for participants to visit our museum and tell us about their experience.

For information and to apply, visit [FORM].

Draft Social Media Language 2

We are looking for participants to help in a social impact study.

Apply to participate

Visit the museum 3 times

Take a survey

Learn more here

Notifying Participants

For those you are accepting

Congratulations! You have been selected to help [MUSEUM] measure social impact. Thank you for agreeing to be part of this study, which will tell us more about the value this museum brings to your life.

As a part of this study, we ask that you visit the museum a total of three times between [DATES] and take a survey upon the completion of your visits. We encourage you to bring a guest to the museum who will also be granted free admission.

[ADD ANY ADDITIONAL INCENTIVE LANGUAGE]

When you arrive at the museum for each of your visits [EXPLAIN CHECK IN PROCESS].

Options:

- Upon your first visit, bring this email (printed or on your phone) to the front desk staff and they will give you a card that identifies you as a study participant. You will be responsible for holding on to this card throughout the duration of the study. The card expires August 31st, 2022, so please plan your visits accordingly.

Step 1 Materials: Participant Recruitment

Prospective Participant Recruitment Form

- When you arrive at the museum for each of your visits, look for the graphic copied below. Scan the QR code with your smartphone or tablet and complete the form by typing your name. Don't forget to hit "Submit." This checks you in for one of your three required visits. Be sure to follow this step for each visit!
- Before you visit the museum, please reserve a ticket online at **[link]**. When reserving your ticket, use **[ABC123]** in the promo code on the upper left-hand corner at checkout after you've selected a date. You'll know that the code has been successfully redeemed when the balance is zero dollars. If it doesn't accept your promo code, please email me.

Please note that the museum may collect your email address during this process. By proceeding, you consent to them having access to that information.

Follow the museum's instructions for checking in with your e-ticket. Upon your first visit, notify the front desk staff of your participation in this project and they will give you a card that identifies you as a study participant. You will be responsible for holding on to this card throughout the duration of the study. The card expires August 31st, 2022, so please plan your visits accordingly.

If you have any questions or concerns, now or during the study, please reach out to **[STAFF and CONTACT INFORMATION]**.

Thank you again for participating! We appreciate your time and your feedback.

For those you are not accepting

Thank you for your interest in participating in the social impact study at **[MUSEUM]**.

Explain decision, options include:

- Due to the number of applicants for this site, you were not selected as a participant.
- Our research project asks that only one person per household participate; therefore, you were not selected as a participant. If there was an error, and you do not live in the same household as another participant, please let me know.

We hope that you continue to support and visit **[MUSEUM]** in the future.

STEP 2: PREPARE TO WELCOME PARTICIPANTS

As participant recruitment concludes, prepare museum staff to welcome participants. Managing the study requires you to set up a system for tracking participant visits so you know when a participant has completed the three visits and can receive the social impact survey. At this step in the project, more people (and likely more departments) are involved; therefore, ensure everyone is knowledgeable about the study and knows what to expect when participants arrive.

Remember, participants and their guest(s) receive free admission for each visit. There are specific tasks required during this step of the project, some of which are optional or may change based on needs. More detail about items in this checklist is included below.

Checklist for step 2:

- Decide if you will use punch cards. If so, get the cards printed in time for participants' first visit.
- Train staff, primarily those who work an admissions desk.
- Decide on, and set up, a system for tracking participants' visits.
- What should you consider when recruiting participants?

TRAINING FRONT-OF-HOUSE STAFF

It is important that all staff interacting with participants in the study are aware of the study, what incentives participants receive as part of the study, and the steps for tracking participation. Before you begin to train staff, you will first need to identify how you will track your visitors (see options below). Then, train front of house staff on:

- Checking in study participants
- Waiving the admission fee for the participant and their guest(s)
- How many guests each participant can bring per visit
- If add-on paid experiences (i.e., planetarium shows, carousel rides, special exhibits, etc.) are waived for participants or not
- Tracking visits
- Who on staff to reach out to if either front of house staff or participants have questions

Refer to the **Front-of-House Quick Guide for Social Impact Study** that is included in the Materials section. You can edit the information provided and leave a printed copy at the admissions counter. It's likely that you are not able to train all front-of-house staff at one time. If that is the case, you might wish to assemble a quick training video that staff can watch when best for their schedule. Included in the Materials section is a **Training Video Script**. Of course, edit it to include information relevant to your museum's processes.

The logo for Museum Social Impact features the word "MUSEUM" in white, uppercase letters, oriented vertically on the left side of a dark teal rectangular background. To the right of "MUSEUM", the words "SOCIAL" and "IMPACT" are stacked in large, bold, white, uppercase letters.

PUNCH CARDS

If you wish, use the **Punch Card Template** in the Materials section to create a reminder punch card for participants. Add your logo, website, and an email address in case participants have questions. On each participant's first visit, punch the first hole and mark the visit in your tracking system. Either the museum or the participant hold on to the card.

If desired, print the participant's name on the card. You could then ask for identification for each subsequent visit to make sure participants are not sharing the free admission.

Museum tip: Keep the cards at the museum's admission desk instead of having participants hold on to them. This ensures they do not get lost and acts as an in-place tracking system. This worked especially well at a small museum.

CHOOSE YOUR TRACKING SYSTEM

Tracking visits informs you when participants have completed their three visits and are ready to receive the survey. It also identifies which participants you need to email to remind them of participation in the study. We used multiple tracking systems during the national MOMSI study, meeting the needs of the project while also finding the best fit for each museum. Here are some options for tracking visitors:

- **Punch cards:** Punch the card for each visit. When a participant receives their third punch on the punch card, send them the social impact survey. In this case, it might be best to keep the card at the museum and print participants' names on their respective cards.
- **Printed spreadsheet:** Basic but does the job! Simply print a spreadsheet with each participant's name and a box for each of the three visits. As participants check in for a visit, staff simply check or fill the box next to the appropriate visit number. See the **Sample Visitor Tracking Spreadsheet** in the Materials section for an example.
- **Digital spreadsheet:** Similar in setup to the printed spreadsheet, but kept digitally. This document might be a shared document that many can access and update live.
- **Link tracking with online tickets:** Assign a discount code to online tickets, or create a special ticket for study participants. Use that code/ticket to track the names assigned and participants' visits.

STEP 2: PREPARE TO WELCOME PARTICIPANTS

Museum tip: Create a system where, even if the tickets are free, the check-in process at the museum is the same. This gives study participants the same experience as paid admission visitors.

- **Provide a membership:** Instead of waiving admission for three visits, consider providing a membership to participants at the start of the study. Tag the memberships as study participants, and then regularly pull a report of study participant members who visited in a given timeframe.

Museum tip: Use this method with caution. While it lessens the burden on staff needing to learn a new system or take extra steps to track study participant visits, participants might not equate the membership to participation or may visit after the study period is over.

- **Sign with QR code:** Post a sign with the study logo, brief description, and a QR code that directs participants to an online form. On the form, have participants type in their name. The form will automatically timestamp the submission. Edit the **Visitor Check-in Form** included in the Materials section. Use this tracking method in conjunction with a spreadsheet to note dates of visits for each participant. You may wish to include a link on the sign in case participants cannot scan the QR code.

Museum tip: For free museums, or free museums with multiple gates and no admissions staff, directing participants to watch for these signs and self report their visits worked well. Even with staff, simply direct study participants to scan the QR code.

Examples of the above ideas are included in the Materials section. When it comes to tracking participant visits, consider what works best with your museum's existing ticketing system and what will be easy for staff to deploy, as well as what your accepted participant needs may be.

Step 2 Materials: Prepare to Welcome Participants

Front-of-House Quick Guide for Social Impact Study

What to do when a social impact visitor walks into your museum

On their first visit:

1. Search for the participant in the participating visitor log to make sure they are a study participant.
2. Distribute their participant punch card, if using. Your museum may write their name or any other information on the card.

Each time they visit your museum for the project:

1. Search for the participant in the participating visitor log.
2. Make sure they have not already completed 3 visits. If they have, your museum does not have to provide another free admission as part of this study.
3. Find their name and in the next available column, mark the date of their visit.
4. Punch or mark their participant punch card, if using.
5. Grant them and the allowed number of guests free admission to your museum.
 - a. Your museum may be allowing more than one guest to accompany the participant. Please ask internally if you are unsure.
 - b. Free admission covers regularly available exhibits and programs, and may not include special exhibits or fee-based programs. Please check with your supervisor.

On their final visit:

1. Remind them this is their third and final visit that includes free admission as part of the project.
2. Let them know to watch for a survey from the museum in the next couple of weeks.

If questions remain:

1. Staff should send participants to the website for more information (if applicable), or provide the project manager's name and email address.

Step 2 Materials: Prepare to Welcome Participants

Training Video Script

Intro:

This training is designed to help you, as museum front-of-house staff, and your museum be successful in measuring social impact at the museum. I'll share a bit about the project and the role you will play in making it successful.

Social Impact:

First, what is social impact? We are using the definition that social impact is the effect of an activity on the social fabric of a community and the wellbeing of the individuals and families who live there. This is measured through four long-term outcomes: continued learning and engagement, increased health & wellbeing, valuing diverse communities, and strengthened relationships.

What's Happened So Far?

- People in your museum's surrounding area have completed an application to participate in this social impact study.
- From those applicants, we have selected people to participate and visit the museum three times.
- We have [x number] of participants.

Let's dive into what the project looks like and your role in it.

What to Expect?

- Participants will be notified that they were selected for the project and told they are welcome to start visiting the museum.
- We will have a list of participant names so you know who to expect.
- Each visitor is asked to visit THREE times and they are allowed to bring [one] guest for each visit.
- Each visit, the participant and their guest(s) receive free admission to your museum. They are instructed to visit during regular hours, and your museum is not required to waive admission for special exhibits or fee-based programs.
- The project manager will send visitors a link to the social impact survey.

Step 2 Materials: Prepare to Welcome Participants

On Their First Visit:

- Confirm the participant is in your log. The log may have been shared digitally, and you should have access to it, or it may be printed out for you.
- If their name is on the list, provide them with a punch card, making sure to punch one hole for their first visit.
- In the spreadsheet, mark the date of their visit.

Remember, MOMSI visitors are welcome to bring one guest. Their guest's name will not appear on the log and does not need to be recorded.

On Future Visits:

- Continue tracking participant visits per the tracking system in place. It is incredibly important to track every visit and accurately complete the log.

On Their Final Visit:

Participants are welcome to complete their three visits on days/times convenient to them, so some may come regularly at first, others may spread their visits out.

- Notify the participant that it is their final visit and that they will receive a link to the social impact survey in the next couple of weeks.

Always good information:

- Ask them to show a welcome email from the museum that identifies them as a participant. That email should clearly state they are a participant and list your museum. If they do not have that email, but insist they are a participant, follow your museum's guest services guidelines.
- If using a digital spreadsheet, we recommend you print or save the file to a desktop in case the internet fails. Alternatively, write participant names down on a list and upload the information at a later time.

Step 2 Materials: Prepare to Welcome Participants

Visitor Check-in Form

Participant Name	Visit 1	Visit 2	Visit 3	Sent Survey
Participant 1				
Participant 2				
Participant 3				
Participant 4				

Please use this form if you are a participant in the social impact study at **[museum name]**.

Please type the name of the person participating in the study who is visiting the museum today. This would be the person who submitted an application and received emails from our team.

Date

I understand that I have to complete this form during each of my three visits to this site.

Step 2 Materials: Prepare to Welcome Participants

QR Code Sign Example



Are you a participant in the social impact project?

Scan the QR code below with your smart phone. You will be directed to a short form to report your visit.

Alternatively, visit [link] to complete the form



Step 2 Materials: Prepare to Welcome Participants

Punch Card Template



1
2
3

MUSEUM SOCIAL IMPACT

Once you have completed your three visits, please take the survey at:
> museums.utah.gov/impactstudy

Thank you for your participation!



STEP 3: STUDY OPEN

Once you have notified participants, they are welcome to begin completing their three free visits as part of the study. By this time, you should have your tracking system in place and staff trained on processes.

Below are tasks to complete during this step of the project, which will help you be successful throughout the several-month stretch of the study open period. Examples to help you with these tasks are outlined here.

Checklist for step 3:

- Draft reminder emails.
- Create, or reference an existing, schedule for sending reminder emails. Check in with the staff who will see that task through.
- Publish an FAQ webpage, or write standard responses for FAQs.
- Read through Step 4: Social Impact Survey and make sure you are prepared to complete that step concurrently with this step of the study.

ABOUT THE STUDY OPEN PERIOD

Participants are welcome to visit at their leisure, stay as long as they would like, and explore what interests them. Be sure you agreed upon and communicated what, if any, special events are included as part of their participation.

This portion of the study is the longest to complete. It is a fine balance between giving participants enough time to complete three visits and keeping them engaged in the study. If you have special exhibits scheduled, or if your museum is primarily outdoors (garden, zoo, etc.), you may want to schedule the study open period around those times.

Museum tip: A museum where admission is always free may need to identify a different type of incentive to bring participants into the museum. Consider offering small incentives to participants during each visit. For instance, for the first visit a \$5 gift card, a \$10 gift card for the second visit, and a \$15 gift card for the third. Then, offer a larger incentive for completing the survey.

REMINDER EMAIL CONTENT

Inevitably, participants will forget about their participation in the study or will need a reminder to visit. Sending reminder emails is a good way to keep participants engaged and ultimately increases participation in the study.

Your reminder emails should include the following information:

- The deadline for completing visits, creating a sense of urgency.
- Incentive offered to them as participants in the study. Be sure to mention free admission for participants and their guest(s), the incentive participants can opt into after completing the social impact survey, and any other incentives you offer along the way (i.e., parking, public transportation, or gift shop discounts).
- Any special events or programs included with admission on certain dates.
- New exhibits, events, or other pertinent information.

Review the **Reminder Email Language** included in the Materials section for inspiration while crafting your own reminder emails. Edit the language for your museum, and determine a schedule for when to send the reminder emails, especially the final reminder.

SCHEDULING REMINDER EMAILS

Sending reminder emails might seem overwhelming, but this task likely only needs to be completed 2-3 times during the Study Open period. During the national study, reminder emails were sent to participants every 6-8 weeks. We recommend outlining a schedule for sending reminder emails and blocking off the time at the start of the project. You might also consider drafting a standard communication, only editing important or new information such as events or new exhibits opening.

Work with your communications team at the museum regarding the schedule. Be sure reminders to study participants don't overlap with other communications, so as to not overwhelm participants' inboxes.

OTHER COMMUNICATIONS CONSIDERATIONS

In the Before You Begin section of this toolkit, we recommended assembling a committee in your museum to navigate this study. If you formed that committee, or even if you didn't but identified multiple employees to help with the study, now is a good time to check in with one another. The Study Open period is one of the most passive and longest parts of the study.

During this time, participants will likely ask many questions. Be prepared with standard responses or a frequently asked questions webpage. You can find **Example FAQs** in the Materials section. These are based on common questions received during the national study.

If participants opted in to receive text messages from your museum reminding them about participating in the study, alter the reminder language and create a schedule for text message reminders.



Step 3 Materials: Study Open

Reminder Email Language

Ending Soon: FREE Visits to [Museum]

Hello friend,

Thanks for participating in the social impact study at the Museum. Remember, we ask that you complete up to three visits to the museum before the end of May 2022.

As a thank you for your participation, after completing three visits and the post-visit social impact survey, we are thrilled to offer all participants a FREE year of Household Membership to the Museum! Good for two adults and children under 18 until the end of 2023.

Want to see something new for your final visit? On May 21 a new exhibition opens...

Make a day of your visit by including a stop to the outdoor café. The café is open Tuesdays-Sundays, 11:30am-2:30pm for you to enjoy a delicious lunch on the veranda

We can't wait to welcome you to the Museum as spring blossoms. Plan your visit now and we'll see you soon!

Visit FREE Today: [Museum]

Hello,

This is a friendly reminder that you were selected as a participant in the social impact study at [Museum]. More information about your visits and reserving your free admission passes is included below.

As a part of this study, you will be required to visit the museum a total of three times and take a survey upon the completion of your visits. We encourage you to bring 1 guest to the museum who will also be granted free admission. The holiday season is a great time to visit with friends and family, and there's much more to see and do in 2022!

New exhibitions are coming your way, including ...

Engaging programs also count towards your visits, including:

When you arrive at the museum for each of your visits, please stop by the front desk to let them know that you are there as a part of this study.

Each time you visit, there's even more in store for you. Earn gift cards to Starbucks, Kroger and one a favorite eatery. Check-off all three visits, and enter to win a fantastic gift basket.

Step 3 Materials: Study Open

Example FAQs

What is the expected timeline to participate in MOMSI?

- Visitor Recruitment: Open through **[Date]**
- Notification of Acceptance into Study: **[Date]**
- Study Open Period: From **[Month]** to **[Month]**

What is expected of participants?

Participants are asked to visit the same museum three times and then complete a social impact survey. The survey will take approximately 30 minutes to complete. You will be asked about your experience at the museum and to respond to prompts that measure social impact.

I completed a visit to the museum. Where do I find the survey?

You will only complete the social impact survey one time, and it will be emailed to you about two weeks after your third and final visit as part of this project or when we close the study in **[month]**, whichever comes first.

When will I receive the social impact survey?

We ask that you visit the museum three times. Shortly after your third visit (estimated two weeks), you will receive an email from our team with a link to the survey.

I can no longer visit the museum three times. Can I still participate in the study?

We understand life events happen. If you were able to visit the museum at least one time, our team will send you a link to the social impact survey.

STEP 4: SOCIAL IMPACT SURVEY

Though we have outlined it here as a sequential step, it is important to know that sending the social impact survey to participants really happens concurrently with step 5: study open period. Because participants complete their visits on their own time, some will finish sooner than others, requiring you to send the survey sooner. Be sure to read through this section and make sure you are prepared to send out the survey within the first month of the study open period.

Checklist for Step 4:

There are specific tasks required during this step of the project, some of which might require more time to complete.

- Recreate or import the social impact survey in the online survey platform of your choice.
- Draft email language to send to participants with the link to the survey.
- Prepare for and fulfill incentives for participants who opt-in after completing the survey.

Use the tracking system you already have in place to monitor which participants have received the social impact survey, and the date you sent it to them.

WHEN TO SEND THE SOCIAL IMPACT SURVEY

We recommend that you email the social impact survey to participants approximately two weeks after their third visit to the museum. This allows participants to have time to reflect on their full and multiple museum experiences, not just what is most recent.

While the study asks participants to complete three visits, it is likely you will have participants who only complete 1-2 visits during the Study Open Period. The national study sent the social impact survey to anyone who completed at least one visit during this time period. One question in the survey asks participants to self-report the number of times they visited – information that might be useful when analyzing data. You will send the survey to these participants when the study open period closes, which is a date you determine at the start of the study and is included in reminder emails to participants.

The process of emailing the social impact survey to participants over a long period of time and based on individual preferences for visiting the museum is why tracking participants' visits is so important.

PREPARING THE SOCIAL IMPACT SURVEY

You will find the full **Social Impact Survey** in the Materials section. The survey uses a retrospective pre-then-post design. In the Materials section is an image of the **Retrospective Pre-then-Post Design**. Depending on the survey platform you use, which is likely the same as what you used for participant recruitment, it may take some time to develop the survey. Once you have the survey prepared, send it to colleagues to test. Be sure to delete any of their responses so they do not alter your findings.

We do not recommend editing the survey, as it is a valid and reliable instrument. This means the survey measures what it intends to measure and consistently measures the same thing, no matter who takes it. The only exception is the content-specific questions. If those do not seem pertinent to your museum, you may wish to leave them off the survey. You can, however, add open-ended questions or demographic questions, and those will not influence results.

If you have a Qualtrics account, use the .qsf file Social Impact Survey - Qualtrics included in the Materials section. Importing this file will format the question layout and logic; however, you will need to update language specific to your museum.

EMAILING THE SOCIAL IMPACT SURVEY

Included in the Materials section is a draft of **Survey Email Language**. Both the email and the social impact survey state the survey will take approximately 20-30 minutes for participants to complete. In your email, be sure to include language about the incentive your museum is offering to participants who complete the survey.

Like the study open period, you will need to send the survey link numerous times to some participants. **Survey Reminder Email Language** is included in the Materials section. Social science research regularly sees a 40-60% return rate for surveys, though the national social impact study averaged an 80% return rate. However, the attrition at this stage is why we recommend recruiting more participants than needed – the more surveys completed, the stronger your statistics.

The language drafted and included in the toolkit references museums helping participants who may not have a computer or tablet to take the survey. We understand that the assistance museums might provide will look different based on your size.

TRACKING SURVEY COMPLETION

The social impact survey is anonymous unless participants opt in to receive the incentive; therefore, it is challenging to know who completed the survey and who needs follow-up reminder emails.

If participants provide their contact information for the incentive, you know they have completed the survey and can remove them from your reminder list.

Otherwise, you need to rely on the participant informing you they have completed the survey. The reminder emails include language asking participants to respond to the email if they have completed the survey, which is another way you can monitor completion and remove them from your email list.

More sophisticated survey platform allows you to import an email list and the platform will generate a unique code for each email address. This built-in tracking system allows you to know when an email address has completed the survey.

During the national study, our team emailed participants the social impact survey three times – the initial social impact survey email and then two reminder emails over 2-3 months. Be sure to build in time for participants to complete the survey and for you to obtain as many completed surveys as possible. However, be sure to officially close your survey on your agreed upon date.



Add a column on your tracking sheet indicating a participant has completed the survey. That way, you do not continue to email them.

FULFILLING INCENTIVES

Create a new spreadsheet to track participants who opted in to receive the incentive. The spreadsheet should include participant information collected on the survey (we recommend name, email address, and phone number).

Contact participants with the details on how they will receive their incentive, which depends on which incentive you choose. Once the incentive is dispersed to the participant, mark it as fulfilled in the spreadsheet.

If you are holding a drawing for an incentive, email participants who have opted in and let them know when the drawing will take place.

Participant contact information should be kept separate from a participants' survey responses to maintain confidentiality, with only the necessary staff being able to connect data with a participant's name.

Step 4 Materials: Social Impact Survey

Introduction

Thank you for taking the time to participate in this study! Your responses to this survey will help **[museums]** better understand our social impact.

This survey will take approximately 20-30 minutes and will ask questions directly related to your experience before and after visiting the museum.

If you have any questions, please contact **[staff name and email]**.

Background

How many times did you visit the museum between **[month]** and **[month]**?

[FOR SURVEY PREP: Select one option. List of options: 1, 2, 3, 4 or more]

Impact

To help the museum better understand your experience, please read each statement below, and provide a response for each section.

In the section labeled "Before attending" check the circle that best describes your level of agreement before attending the museum.

In the section labeled "After attending" check the circle that best describes your level of agreement after attending the museum.

[FOR SURVEY PREP: All of the following statements are scored, both before and after, on a scale of 1-7 where 1= Strongly disagree, 4=Neutral, and 7=Strongly agree]

[FOR SURVEY PREP: Continued Learning & Engagement]

I wonder about how things work.

I experiment to create new ways of doing things.

I can see how exploration leads to learning.

I regularly ask thought-provoking questions to get at the root of the problem.

I ask insightful 'what if' questions that provoke exploration of new possibilities.

Step 4 Materials: Social Impact Survey

I can see how exploration leads to learning.

I regularly ask thought-provoking questions to get at the root of the problem.

I ask insightful 'what if' questions that provoke exploration of new possibilities.

My mind is actively engaged in new ideas.

I challenge the way things are currently done.

I regularly visit local museums (could also include zoos, gardens, and aquariums).

I incorporate recently learned information into my day-to-day life.

I appreciate the value of museums (could also include zoos, gardens, and aquariums).

[FOR SURVEY PREP: Increased Health and Well-Being]

I manage my emotions effectively.

I am able to bounce back from adversity.

I regularly volunteer in my community.

I am open to new ideas.

I am content with my life.

I often contemplate the positive aspects of my life.

I am confident in my ability to generate creative ideas.

My life feels in control.

I am motivated to maintain my physical health.

I take time to relax.

I often feel the stress of life.

I have difficulty concentrating.

I often compare myself to others.

I become defensive when others try to give me feedback.

I often criticize others.

I am confident in contributing my opinion to a conversation.

Step 4 Materials: Social Impact Survey

[FOR SURVEY PREP: Valuing Diverse Community]

I learn new things from people who are different from me.

I am able to see things from the point of view of others.

I am concerned for the well-being of others.

When interacting with others, I recognize their deeply held beliefs.

My values are based on the collective well-being and not on my own gains.

I am open to multiple perspectives.

I understand how cultures are similar and different.

I can adapt when working with others of different cultural backgrounds.

I am aware of the challenges faced by others with backgrounds different from my own.

I enjoy meeting people who are different from me.

[FOR SURVEY PREP: Strengthened Relationships]

I build strong and supportive relationships with a variety of people.

I keep my commitments to others.

I make it a point to spend time with my friends and/or family.

I often engage in meaningful conversations with my friends and/or family members.

I help my friends and/or family members explore their hopes and dreams.

I am aware of the challenges my friends and/or family members face.

I turn to my friends and/or family when I face challenges.

I learn new things from my friends and/or family members.

I recognize the importance of my friends and/or family members in my life.

I am excited when something good happens to a friend and/or family member.

I get upset at friends and/or family members when they make mistakes.

It is easy for me to develop social relationships.

Step 4 Materials: Social Impact Survey

[FOR SURVEY PREP: Content-specific Questions]

I have an appreciation for art.

I have conversations with others about history.

I am motivated to learn about history.

I have an appreciation for history.

I have conversations with others about science and the natural world.

I am motivated to learn about science and the natural world.

I have an appreciation for science and the natural world.

I have conversations with others about conservation.

I am motivated to learn about conservation.

I have an appreciation for conservation.

[FOR SURVEY PREP: Open-ended Questions]

What about your visits surprised you?

How does this museum benefit your community?

How did participating in this study change your perspective of museums/cultural sites?

What, if anything, did you dislike about your experience at the [Museum]?

In what ways, if any, did [Museum] change the way you interact with others?

Is there anything else you would like to share?

Step 4 Materials: Social Impact Survey

Demographics

Were you a member of the museum in the year prior to your participation in this project?

Yes/No

What is your gender?

Male

Female

Another category – please specify

Prefer not to say

With which racial or ethnic group(s) do you identify? (Select all that apply.)

American Indian or Alaskan Native

Asian

Black or African American

Hispanic or Latino

Native Hawaiian or Pacific Islander

White or Caucasian

Another category – please specify

Prefer not to say

What is your age?

18-24

25-34

Step 4 Materials: Social Impact Survey

Another category – please specify

Prefer not to say

What is your age?

18-24

25-34

35-44

45-54

55-64

65-74

75 or older

What is your annual household income?

I prefer not to say

Below \$10,000

\$10,000-\$19,999

\$20,000-\$29,999

\$30,000-\$39,999

\$40,000-\$49,999

\$50,000-\$59,999

\$60,000-\$69,999

\$70,000-\$79,999

\$80,000-\$89,999

Step 4 Materials: Social Impact Survey

\$90,000-\$99,999

\$100,000-\$109,999

\$110,000-\$119,999

\$120,000-\$129,999

\$130,000-\$139,999

\$140,000-\$149,999

\$150,000 or higher

Incentive

Would you like to have your name entered to receive a prize from the museum you visited?

Yes/No

Please type in your contact information. Your contact information inserted here will only be used to contact you regarding the prize.

Name

Email address

Phone number

Step 4 Materials: Social Impact Survey

Retrospective Pre-then-Post Design

	Before attending \$(e://Field/MuseumName)							After attending \$(e://Field/MuseumName)						
	Strongly Disagree	Neutral				Strongly Agree	Strongly Disagree	Neutral				Strongly Agree		
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
I manage my emotions effectively.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to bounce back from adversity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I regularly volunteer in my community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am open to new ideas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am content with my life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often contemplate the positive aspects of my life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident in my ability to generate creative ideas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My life feels in control.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Image from 6.1: Retrospective Pre-then-post design image

Depending on the survey platform you use, a side-by-side design might not work. In this case, you may have a block of statements and the scale for “Before” followed by a block of the same statements for “After.”

Step 4 Materials: Social Impact Survey

Survey Email Language

Thank you for participating in the Social Impact study at [museum]. Now that you have completed your visits, we ask that you take a survey about the impact the museum has had on you and your life. The survey will take 20-30 minutes and your feedback is very valuable to us.

Click here to take the survey.

For the best experience, we recommend taking the survey on a computer, laptop, or tablet. If you need access to a computer or tablet to take the survey, please let me know and we can coordinate assistance.

At the end of the survey, you will be given the opportunity to opt-in to receive an incentive from the museum.

Thanks for your time and feedback,

Survey Reminder Email Language

Don't forget to complete the social impact survey!

Thanks for visiting the [museum]! Please help the museum better understand its impact on you and your life by completing a 20-30 minute survey. The final date for you to complete the survey is **[date]**.

Click here to take the survey.

If you have already taken the survey, please let me know and I will remove you from our email list.

For the best experience, we recommend taking the survey on a computer, laptop, or tablet. If you need access to a computer or tablet to take the survey, please let me know and we can coordinate assistance.

At the end of the survey, you will be given the opportunity to opt-in to receive an incentive from the museum.

Thanks for your time and feedback,

STEP 5: ORGANIZING, ANALYZING, AND INTERPRETING DATA

Once you have finished collecting your data you need to determine how you will organize, analyze, and interpret the information to derive meaning and drive action. This might be work you, or others at your museum can and will do; however, this is a step that many may feel is the least approachable. Rely on partners or students at local universities, or determine if there is room in your budget to hire a consultant to help with data analysis. Use national museum professional organizations to help you find consultants.

These processes will differ depending on the type of data collected. From the survey, you will have both quantitative (numeric) and qualitative (text) data. Quantitative data is typically captured in surveys using closed-ended questions with limited response options such as the responses to a question on a 7-point scale (where 1 = strongly disagree and 7 = strongly agree; like the statements in the social impact survey) or responses to demographic questions that have fixed categories. Qualitative data is typically captured in surveys using open-ended questions where visitors respond to a prompt in their own words, with no predefined response options.

Broad steps for organizing, analyzing, and interpreting both types of data are elaborated below. However, these steps may be adapted based on your organization's goals, existing knowledge and theory, and professional experience and judgment. For example, you may have questions such as:

- Who completed our survey?
- What are the perceived social impacts of our museum from the perspective of survey participants?
- Are there differences between these visitors' pre-visit and post-visit perceptions of the social impact of our museum?
- Do these differences vary based on their membership status or the number of visits they make?
- What changes could we make to improve the perception of social impact at our museum?

Answering these questions will require different approaches from different sources of data collected in your survey.

STEP 5: ORGANIZING, ANALYZING, AND INTERPRETING DATA

Checklist for Step 5:

Below are the tasks you might wish to complete for data analysis. Information to help you complete quantitative and qualitative analysis is included here and in the Materials sections.

- Use descriptive statistics to understand frequencies, averages, or percentages in social impact data and/or your participants.
- Prepare your social impact data in order to run a Paired Sample t-test, and run the statistical test.
- Analyze data from open-ended questions.
- Summarize and report findings in various ways.

You might wish to use descriptive statistics if you are interested in the percentage of survey respondents who identified as a certain demographic category or to determine the average score on a specific social impact indicator.

QUANTITATIVE DATA: DESCRIPTIVE STATISTICS

Quantitative data you receive from the social impact survey included in this toolkit can be analyzed using descriptive statistics (e.g., frequencies, averages, etc.) or simple tests that explore relationships between two variables or between a single variable measured at different time points.

Descriptive statistics are a way to summarize and describe a set of data in a simple and meaningful manner. They provide a quick overview of the information contained in the data without getting into complex calculations or analysis. Think of descriptive statistics as a snapshot

or a summary of the important features of the data.

Below are other examples of using descriptive statistics with the data you collected:

- A percentage of visitors who were accepted into the study compared to a percentage of those who completed the study (survey attrition).
- A percentage of visitors who received a link to the survey compared to a percentage of those who completed the survey (survey response rate).
- The average number of museum visits made by survey participants (visitation frequency).
- The percentage of visitors who identify as members compared to a percentage of visitors who identify as non-members (membership status).
- The average score on each of the four social impact indicators or each item within a single indicator, for both pre- and post-visit measures (museum performance).
- The percentage of survey respondents who identify as a certain gender, race, age, etc. (survey demographics).

If your sample was small (you had less than 40 surveys returned), you may wish to only use descriptive statistics or trends, such as the percentage of participants that increased their understanding of individual social impact statements. A small sample does not mean you cannot run a t-test, but the power in the statistic might not be as strong with a smaller sample size.

In the Materials section, you will find more information on **Calculating Descriptive Statistics**.

QUANTITATIVE DATA: PREPARING DATA FOR A PAIRED SAMPLE T-TEST

In addition to describing your survey respondents and providing information about average scores on social impact statements, you will likely want to demonstrate that the difference between scores for the post-visit measures and pre-visit measures are real or significant, or that the difference is not just by chance. One statistical test that can help you to make that determination is a Paired Sample t-test.

A Paired Sample t-test, sometimes called a dependent t-test, is used to compare the mean, or average, of two paired measurements, such as measurements collected at two different time points for the same individual. Even though the social impact survey included in this toolkit measures pre and post in the same instrument (using the retrospective pre-then-post design), it does measure two points of time – before and after their visit(s) to the museum.

The purpose of the test is to statistically determine whether the mean difference (a post-visit mean minus a pre-visit mean) of the paired measures is significantly different from zero. If the means are significantly different from zero, you can have greater confidence that the difference you are observing is real and not occurring by chance.



The paired measures for this instrument is the mean of the before score and the mean of the after score for each social impact statement (i.e., “My mind is actively engaged in new ideas.”).

Most survey platforms will export your data into a spreadsheet that can be opened in Microsoft Excel. From the survey platform, export the data as a .csv or .xlsx file. Once exported, you need to (1) make sure your data is arranged properly to run a t-test, (2) identify and deal with any missing data, and (3) check the data for outliers.

If you are new to statistics, or need a refresher, review Preparing Data for a Paired Sample t-test included in the Materials section for how to complete these three steps.

Missing data is normal! It is typically indicated by an empty cell in your spreadsheet and can occur for a variety of reasons. You might have missing data due to attrition (i.e., someone just stopped taking the survey) or because a participant did not complete a specific portion of the survey. In the latter case, they may have simply missed a question or just did not want to respond.

STEP 5: ORGANIZING, ANALYZING, AND INTERPRETING DATA

QUANTITATIVE DATA: RUNNING AND INTERPRETING A PAIRED SAMPLE T-TEST

Once your data is prepared, you are ready to run a paired sample t-test. You can use either Microsoft Excel or Google Sheets for this statistical test. This toolkit outlines steps in Excel, but several online tutorials exist for completing this task in Google Sheets.

Once you have data, you can begin the process of interpreting the results. Data interpretation refers to the process of reviewing the results of your analysis to answer research questions, confirm or reject hypotheses, and/or draw conclusions about your data. These interpretations come from the statistical tests provided and are interwoven with theoretical and practical explanations of your analysis.

Review running and interpreting a paired sample t-test in the materials section for a step-by-step guide on this process.

QUANTITATIVE DATA: REPORTING RESULTS OF A PAIRED SAMPLE T-TEST

The results of a Paired Sample t-test are typically presented in both table and narrative formats and include the indicator statement (from the social impact survey), the mean differences, the critical t-statistic, and the p-values. Results from quantitative analysis might also be presented visually, either through graphics or summary tables. Choose a method of reporting findings that works best for the audience, recognizing that different audiences likely have different needs. See examples in **Reporting Results of Quantitative Analysis** in the Material section. You can see another example reporting findings in the **Measurement of Museum Social Impact Report** (the full study description and results, Appendix D).

QUALITATIVE DATA: TYPES OF ANALYSIS

Qualitative data analysis can be overwhelming as you contemplate how to get from a mass of unorganized and unstructured responses to a map of the central themes in the data. There are many methods to support the process of qualitative data analysis. Two more common methods in evaluation research are content analysis and thematic analysis.

An example of content analysis would be if several guests use a phrase such as “museums are too expensive,” content analysis would identify the word “expensive” and the number of times it was used across all responses.

Content analysis simply counts words that are repeated most often in the data. Words that are mentioned more frequently are believed to be more important or representative of the data. Content analysis is typically visually represented in either a table or word cloud, where more frequently repeated words are represented with larger/darker text in the cloud. The other common method is thematic analysis. Thematic analysis requires you to apply a code to represent a unique idea or sentiment and then look to see if there are patterns or clusters of similar codes that would reflect larger themes occurring in the data. Thematic analysis is usually presented in the form of a narrative or thematic map of overarching concepts.

An example of thematic analysis would be if several guests use a phrase such as “museums are too expensive,” and several other guests use a phrase such as “I don’t have time to visit museums.” You might identify two codes (Cost and Time) representing each of these ideas. You might then wish to cluster those codes under a theme of Barriers to Museum Attendance.

STEP 5: ORGANIZING, ANALYZING, AND INTERPRETING DATA

We recommend trying qualitative data analysis for yourself. While it might seem like a daunting task at the start, it is rewarding to read the words of your participants deeply and carefully. This toolkit elaborates on thematic analysis since it is the more complex of the two approaches. One of the most well used Thematic Analysis approaches is Braun and Clarke's **Six Step Thematic Analysis Process**, included in the Materials Section.

Using Braun and Clarke's process, three of our team members met several times over the course of a month, and came to consensus on the themes and descriptions for a sample of the data. We were then able to divide the analysis of the full data set, knowing we agreed upon the themes and how to code responses.

To strengthen your confidence in the findings you have presented, you could involve more than one person in the analysis process. In this situation, analyzers can meet periodically to share their codes or themes, typically with the goal of reaching some consensus regarding which codes or themes are more representative of the visitors' perspective.

The national study used thematic analysis for three of the open-ended questions:

- How does this museum benefit your community?
- How did participating in this study change your perspective of museums/cultural sites?
- In what ways, if any, did **[Museum]** change the way you interact with others?



Appendix C is the qualitative analysis codebook that was developed through our process with data from the national study. This codebook outlines the themes that emerged in our data set for each of the questions above. It also describes how we define, or operationalize, each of those themes and provides example quotes from the study's sample. You may wish to use our codebook in your analysis, or you might see similar themes emerge from your data.

STEP 5: ORGANIZING, ANALYZING, AND INTERPRETING DATA

QUALITATIVE DATA: RELIABILITY

Oftentimes, people assume qualitative data and analysis is subjective and question the results that are presented. To help overcome this, researchers will quantify the number of preliminary codes that were similar (or different) and present a score that represents the reliability (or consistency) of the analyzers.

QUALITATIVE DATA: REPORTING RESULTS

Qualitative data can be reported using the themes you developed. Simply count the number of times a theme emerged in the data and report that number in a table next to the theme. Best practice is to also include sample quotes from participants that are representative of each theme, usually in a narrative format, to support the claims you make in the report. See **Qualitative Report Table** in the Materials section. For an example of reporting qualitative data in full (tables, counts of themes, examples, and a narrative), review the **Measurement of Museum Social Impact Report**.

FINAL THOUGHTS

Quantitative and qualitative data each have their own strengths and weaknesses. They are both valuable when reporting to stakeholders. Quantitative data is typically viewed as being more objective and can highlight the scale/scope of your impact while qualitative data, with all of its wonderful subjectivity, can highlight the relevance and nuance of your impact. In many cases, quantitative data tells us what is happening and qualitative research helps clarify how and why it is happening. When paired together, these two types of data can tell a more complete story that resonates with diverse audiences.

To calculate reliability, consider the following. If your survey had 200 responses and two people identified the same (or similar) codes for 160 of those responses, then you might say you reached 80% agreement. You could either present the findings with those different codes in place or engage in discussion to bring the other 20% of codes into agreement and provide a description of how that agreement was reached. Usually, the best defense for a code or theme is that there is ample evidence (quotes from the visitors) to support that code or theme.



Step 5 Materials: Analyzing Quantitative Data

Calculating Descriptive Statistics

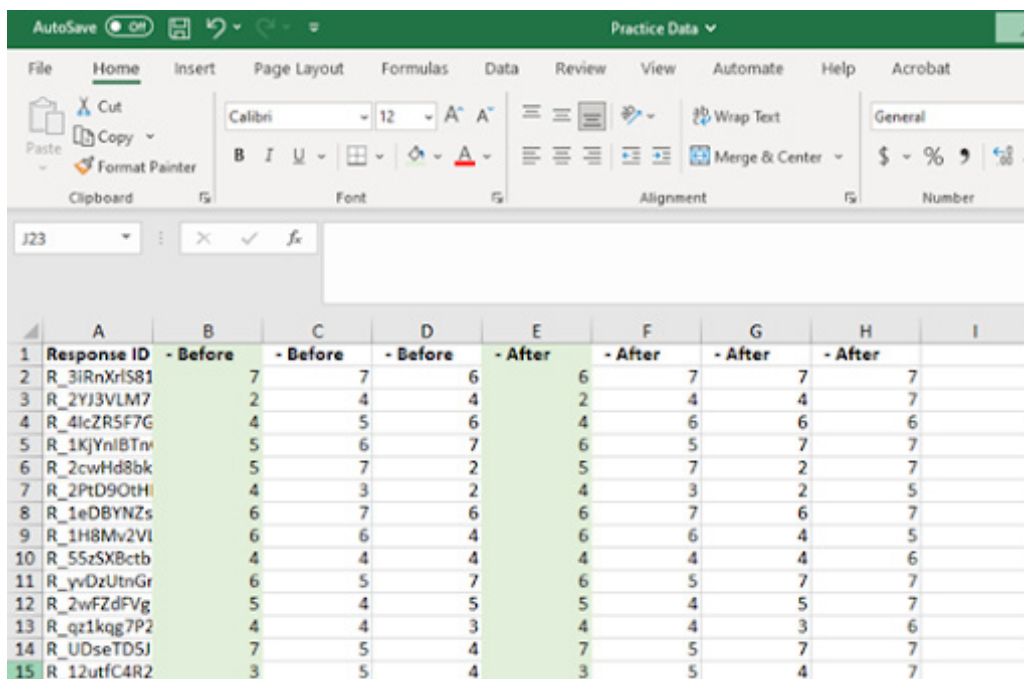
In Microsoft Excel, you can quickly calculate these descriptive statistics either using Excel functions (for example, =Sum() - adds all numbers in a range of cells, =Frequency() - calculates how often values occur within a range of cells, =Mode() - returns the most frequently occurring value in a range of cells, etc.) or the descriptive statistics tools (Nelson & Nelson, 2014).

Numerous video and text tutorials are available online and within excel explaining how and when to use these functions and tools; however, typically you can just type the "=" symbol into a cell followed by the letters of the function you are trying to utilize (e.g., "mode") and the function will appear in a drop down list (Nelson & Nelson, 2014). You can then select the function, insert the range of cells you are interested in learning more about (and any other criteria required) and click enter (Nelson & Nelson, 2014).

Preparing Data for a Paired Sample t-test

How do I prepare my data to perform a Paired Sample t-test?

To perform the paired t-test, make sure your data is arranged so that each row represents a single individual, and each column represents their responses to the pre and post (before and after) visit measures, as shown in Figure 1 (Foster, 2008). It is also important to note that some response items may have been reverse-coded in the survey. When a question is reverse coded in a survey, the scale or scoring for that particular question is reversed compared to other



	A	B	C	D	E	F	G	H	I
1	Response ID	- Before	- Before	- Before	- After	- After	- After	- After	
2	R_3IRnXrlS81	7	7	6	6	7	7	7	
3	R_2YJ3VLM7	2	4	4	2	4	4	7	
4	R_4lc2R5F7G	4	5	6	4	6	6	6	
5	R_1KJYnlBTn	5	6	7	6	5	7	7	
6	R_2cwHd8bk	5	7	2	5	7	2	7	
7	R_2PtD9OtHI	4	3	2	4	3	2	5	
8	R_1eDBYNZs	6	7	6	6	7	6	7	
9	R_1H8Mv2VI	6	6	4	6	6	4	5	
10	R_5SzSXbctb	4	4	4	4	4	4	6	
11	R_yvDzUtnGr	6	5	7	6	5	7	7	
12	R_2wFzdFVg	5	4	5	5	4	5	7	
13	R_qz1kqg7P2	4	4	3	4	4	3	6	
14	R_UDseTD5J	7	5	4	7	5	7	7	
15	R_12utfC4R2	3	5	4	3	5	4	7	

Figure 7.1-1 Sample Spreadsheet for analysis

Step 5 Materials: Analyzing Quantitative Data

questions. Higher values on a reverse-coded question indicate lower levels of agreement or endorsement, while lower values indicate higher levels of agreement or endorsement (Kent University, 2023a). We see this most in the health and wellbeing items of the social impact survey. For example, we hope responses to the statement “I am open to new ideas,” will have higher scores in the “after” visit response section. In contrast, we hope responses to the statement “I feel the stress of life,” will be lower in the “after” visit response section. In the case of the “I feel the stress of life” statement, the responses will need to be adjusted before analysis so that the scale or scoring is the same as the other questions in the survey. This ensures that the interpretation of responses aligns consistently across all questions, by standardizing the scoring direction so that higher values always represent the same underlying construct (i.e., “strongly agree”). In the social impact survey, which uses a 7-pt scale, dealing with reverse-coded items is as simple as changing 1s to 7s, 2s to 6s, and 3s to 5s. This approach effectively reverses the scoring of the item while maintaining the same relative distance between the values. It is important that you document the reversal or flopping of the scale for transparency in your analysis. Once your data file is set up correctly, you can review it for missing data.

How do I identify and deal with missing data?

To conduct a paired t-test, you need to have a matching number of complete responses on the pre and post visit measures, so missing data must be addressed.

There are several strategies to manage missing data, however, the two simplest methods are deletion and imputation (Little & Rubin, 2019). These strategies are most appropriate when your data is missing completely at random. When data is not missing completely at random, there may be valid reasons for the missing values such that removing those values could bias the results of your analysis. For example, you may find that guests who identify as female are more likely to skip a subset of questions in the survey. By removing those missing responses, you would be changing the gender composition and subsequently the representativeness of your data.

While there are statistical tests that can determine the randomness of your missing data, you can also do this manually by sorting your file based on different demographic or behavioral characteristics and visually scanning for patterns that might suggest the data is not missing completely at random.

The two most common methods of deleting missing data:

- Simply delete a whole row representing an individual from your spreadsheet if it has any missing values. While this is the most efficient way to deal with the problem of missing data, if you delete too many of these cases you could end up with a small sample size, which could reduce the validity and meaningfulness of your results; or,
- Rather than deleting an entire row of data, you include rows in some analyses but exclude them in others. For example, if a guest completed the pre and post visit measures for two of four indicators, you would include them in the analysis for the two completed indicators and exclude them from the analysis of the two incomplete indicators. This allows you to maintain a larger sample for some analyses, but also results in different samples and sample sizes for each t-test you perform.

Step 5 Materials: Analyzing Quantitative Data

- Identify the average for a specific indicator and input that average into the missing cells in that column. You could also do this with the median or mode instead of the average, or mean. This can be a useful strategy if you have few missing values, but can result in a loss of variation in the data set if you have a large pool of missing values; or,

Identify an individual who responded similarly on measures that were completed by both individuals, copying the more complete values from the first individual into the missing values of the other individual.

After addressing missing data, you would check your complete data set for outliers.

How do I check my data for outliers?

Outliers are extreme values or values that are substantially different from other values in your data set (Howell, 2012). They can skew the results of your analysis and should be identified and either removed or retained based on their most likely cause.

Outliers that represent true values should typically be retained in your dataset because they represent the real variations in your sample of guests (Howell, 2012). For example, a participant from a marginalized community may report lower responses than other participants because they don't feel like their community is well represented in the museum or they may feel that their community is not impacted in the same way as other guest communities. This participant perspective represents a real perspective that exists in your museum and, therefore, should either be included in the analysis or excluded from analysis but included later in the interpretation and reporting of results.

Outliers that don't represent true values may appear due to human error. For example, a participant may misinterpret a question and provide all 1's (strongly disagree) when in reality they meant to provide all 7's (strongly agree). You can use other data points in your dataset to verify whether a response like this occurred in error. One way to look at this is through other data provided by the participant. If all of this participant's open-ended responses reflect a positive sentiment or if other similar closed-ended responses were rated positively, you can reasonably assume that this person's extreme negative response was made in error and can either remove or repair their response.

There are several other ways you can check for outliers. The most basic method is the sorting method. Using this method, you can sort your quantitative measures from low to high and visually scan for values that seem abnormally high or low. You can also use visualizations such as scatterplots, box plots or box-and-whisker plots, and statistical tests to identify outliers (Howell, 2012); however, those strategies will not be discussed here.

Running and Interpreting a Paired Sample t-test

Before performing a Paired Sample T-test in Microsoft Excel you need to ensure that you have loaded and activated the [Microsoft Excel Analysis ToolPak](#). This is a free tool that can be installed from within the Excel program. Once activated, you can access more complex analysis tools by clicking on Data Analysis in the Analysis group on the Data tab, as shown in Figure 2. This test can also be performed in Google Sheets, as [shown in this video](#).

Step 5 Materials: Analyzing Quantitative Data

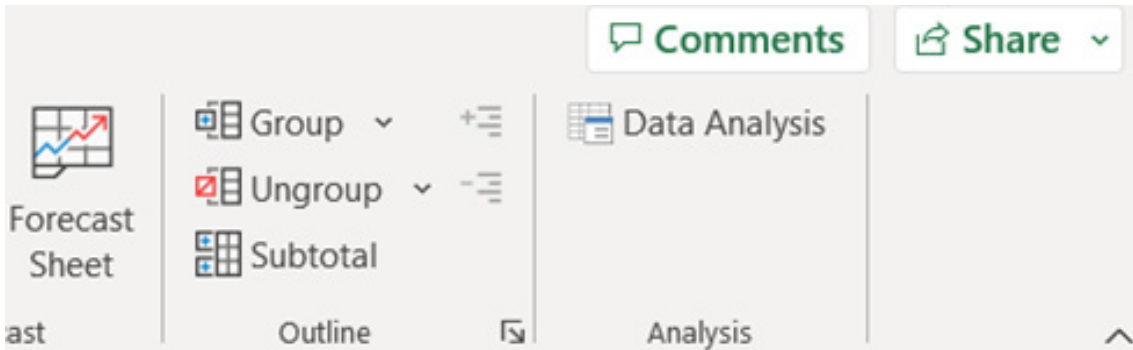


Figure 7.1-2. View of the data analysis group in Microsoft Excel.

Once your data is prepared for analysis, you can proceed with the following steps (Nelson & Nelson, 2014):

1. In Excel, click Data Analysis on the Data tab.
2. In the Data Analysis window (see Figure 3), choose t-Test: Paired Two Sample for Means.
3. Under Input, select the ranges for both Variable 1 (the pretest scores for a single indicator) and Variable 2 (the posttest scores for that same indicator).
4. Under Hypothesized Mean Difference you'll typically indicate zero. This assumes there is no difference between the two means. The t-test will confirm or reject this assumption.
5. Check the Labels checkbox to include the name of the variable in the output. Ensure you include the label row in your range in step #3.
6. Verify that the default Alpha is 0.05.
7. Click OK

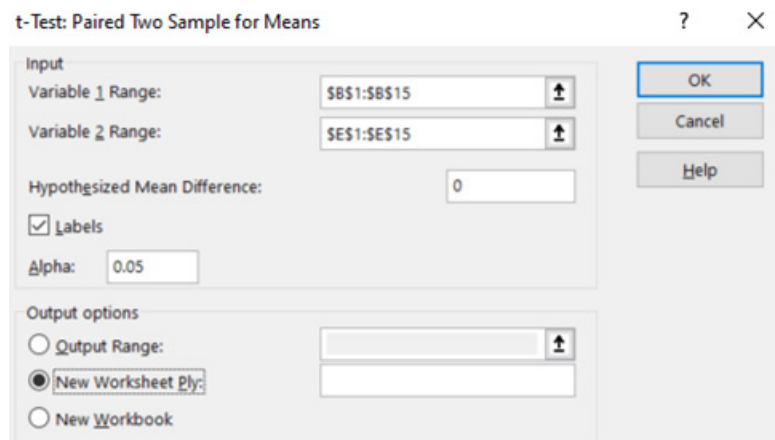


Figure 7.1-3. View of the data analysis window for a Paired Sample t-test.

Step 5 Materials: Analyzing Quantitative Data

t-Test: Paired Two Sample for Means		
	- Before attending [Field-MuseumName] - I manage my emotions effectively.	- After attending [Field-MuseumName] - I manage my emotions effectively.
Mean	5.5	5.545454545
Variance	1.651162791	1.649048626
Observations	44	44
Pearson Correlation	0.958360222	
Hypothesized Mean Difference	0	
df	43	
t Stat	-0.813350147	
P(T<=t) one-tailed	0.210249149	
t Critical one-tailed	1.681070703	
P(T<=t) two-tailed	0.420498297	
t Critical two-tailed	2.016692199	

Figure 7.1-4. Example Paired Sample t-test output.

Once you click OK in the Data Analysis window, an output of your analysis will be automatically inserted into your spreadsheet, as a new sheet unless otherwise specified, as shown in Figure 4.

This output will include a mean value for both your pre- and post-visit survey responses, several test-statistics, and the number of observations included in the analysis. If the two-tailed p-value is less than the p-value designated in step #3 above (0.05), the difference between these two means is statistically significant. This means we reject the stated hypothesis or the assumption that the mean difference is zero. Doing so suggests that a real change, positive or negative, has occurred between the pre- and post-visit survey responses, or that the visits to the museum impacted the participant for that particular statement.

Reporting Results of Quantitative Analysis

Results from the Paired Sample t-test might be presented in a table (Figure 5) or as a narrative (Figure 6). You may wish to take the results from the t-tests and create different types of visualizations. Figure 7 shows graphs for long-term outcomes. Each graph represents the percentage of indicator statements that showed a statistically significant positive change. Another way to visualize the data is shown in Figure 8. This table reports the mean for each indicator statement for both before (pretest) and after (posttest) museum visits. The shaded cells are those that the t-test reported a significant change.

Step 5 Materials: Analyzing Quantitative Data

CONTINUED LEARNING AND ENGAGEMENT					
Statement	T-value	P-value	Mean Difference	Mean After Visiting	Mean Before Visiting
I wonder about how things work.	1.0807	0.2806	0.1335	5.4761	5.3426
I experiment to create new ways of...	3.3480	0.0009*	0.4082	4.7380	4.3298
I can see how exploration leads to learning.	4.5551	0.0000*	0.7264	5.7857	5.0593
I regularly ask thought-provoking questions...	2.6049	0.0096*	0.2038	5.3571	5.1533
* Significant at the p < 0.05 level					

Figure 7.1-5. Example Paired Sample t-test results table.

The results of the paired sample t-test suggest that participants who visited museums during the course of the study reported statistically significant increases in their continued learning and engagement as it relates to experimenting ($t = 3.348$, $p < 0.05$), exploring ($t = 4.555$, $p < 0.05$), and asking questions ($t = 2.605$, $p < 0.05$), but did not report significant change related to wondering ($t = 1.081$, $p = 0.28$).

Of the four indicators measured, three (75%) had a statistically positive increase. On average the post-visit indicators were 0.5 points higher than the pre visit indicators.

Figure 7.1-6. Example Paired Sample t-test results narrative.

Step 5 Materials: Analyzing Quantitative Data

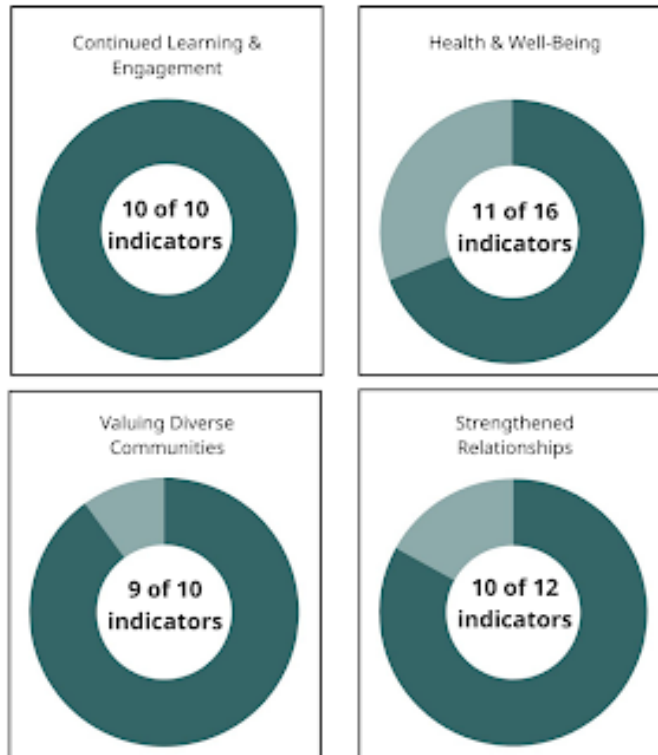


Figure 7.1-7. Example Paired Sample t-test results presented visually for each outcome.

	I wonder about how things work	I experiment to create new ways of doing things.	I can see how exploration leads to learning.	I regularly ask thought-provoking questions to get at the root of the problem.	I ask insightful 'what if' questions that provoke exploration of new possibilities.
Before	5.317*	4.859	6	5.381	5.397
After	5.483*	5.293	6.448	5.655	5.741

*Note: Green cells indicate significance

Figure 7.1-8. Table visualization for pretest and posttest means and t-test statistical significance.

Step 5 Materials: Analyzing Qualitative Data

BRAUN AND CLARKE'S SIX STEP THEMATIC ANALYSIS PROCESS

Step 1: Familiarize yourself with the data

In this stage, the person analyzing the data reads through the qualitative responses several times to capture high level impressions of what visitors are saying.

Step 2: Assign preliminary codes to the data

In this stage, the person begins to assign codes to unique ideas represented in the data. "Coding" is the process of labeling or organizing qualitative data to identify patterns or themes in the set of responses. A single label, or "code," could be applied to a phrase within a sentence, an entire sentence, or multiple sentences (sometimes called meaning units). More than one code can be applied to a single meaning unit.

For example, if a visitor said, "museums help me feel connected with other members of my community and help me learn more about the world around me", you might assign two codes, one for each part of the sentence. Specifically, the code 'connection' could be applied to the first part of the sentence and the code 'learning' could be applied to the second part of the sentence. These codes can be reviewed and refined as new meaning units are analyzed. The codes are typically documented in a code book (a table with a list of codes, a brief description of the code, number of instances of each code, and sample quotes or locations in the dataset of each code).

Step 3: Search for patterns or themes in your codes

After all of the data has been assigned codes, the person analyzing the data would begin to look for similar, or "like," codes and cluster them together into categories, or themes.

For instance, using the examples from Step 2, while these might seem like distinct codes, they could be clustered into narrow themes such as Social Impacts of Museums and Cognitive Impacts of Museums, respectively, or into a broader theme of Benefits of Museum Visitation.

Step 4: Review themes

In this stage, the person reviews the themes to determine the accuracy and inclusiveness of the themes. One might check to see if the themes are inclusive (all the codes fit into or are represented by a theme) and exclusive (each theme represents a concept that is distinct from the other themes). One might also check to see if the themes seem to reflect the general essence of the data based on the familiarization, coding, and theming steps. If any themes don't seem to align with the codes or underlying responses from visitors it might need to be updated, or a code may need to be clustered under a different theme.

Step 5 Materials: Analyzing Qualitative Data

BRAUN AND CLARKE'S SIX STEP THEMATIC ANALYSIS PROCESS

For example, say you have themes about Barriers to Attending Museums and Benefits of Attending Museums; yet, there are several survey responses about the cleanliness of the bathrooms. Those responses don't seem to fit either of these themes, and you may need an additional theme, such as Museum Experience Factors, that captures these comments.

Step 5: Define and name themes

In this stage, the themes are assigned a name that best represents the essence of the codes and responses they are named for, and defined so that those who were not involved in the coding process understand the theme and the ideas it represents. You may, for example, have clustered several codes around the idea of Barriers or Constraints and could name this theme: Barriers to Attending Museums. You could define, or operationalize, this theme by including a statement like: "Visitors identified multiple barriers, or factors that would prevent them from visiting the museum. These barriers may be structural (e.g., lack of transportation), interpersonal (e.g., lack of friends to visit with), or intrapersonal (e.g., lack of interest in museums) in nature."

Step 6: Write up your findings

In this final step you would organize and present your themes (and sub themes) by providing the theme names, definitions, summaries of codes, and key/representative quotes using the visitor's voice. The goal in this stage is to ensure that the consumer of the researcher understands what you learned from your survey respondents, how you arrived at those conclusions (i.e., how did you get from your raw data, to your codes, to your final themes), what actions should be taken as a result of your findings (i.e., implications for museum professionals, ideas for future research), and limitations associated with your research (i.e., small sample size, biased sample via recruitment of members only, etc.).

Step 5 Materials: Analyzing Qualitative Data

QUALITATIVE REPORT TABLE

Theme	Total Number of Responses
Centering/Restorative	96
Conversation catalyst	272
Did not change	389
Negative	13
New connections with others	108
Not applicable	245
Shared experience	367
Social emotional experience	261

Figure 7.2-1. Example report table for qualitative coding of responses to the question In what ways, if any, did [Museum] change the way you interact with others?

STEP 6: SHARE YOUR FINDINGS

Now that you have your social impact findings, it's time to share the results. You might wish to do this through written reports, presentations, or more formally through press releases. Consider all of the audiences you want to engage in conversations around your social impact data – staff, board members, elected officials, granting foundations, the public, your study participants, etc. Sharing findings should happen at the end of the study; however, how your museum will use the results will be an ongoing conversation.

Checklist for Step 6:

Below are tasks you might wish to complete as a way of sharing your results. More information and resources are provided to help you fulfill these tasks.

- Write a report showing your social impact results.
- Create a presentation highlighting the study and findings.
- Share your findings with various stakeholders.

PREPARING REPORTS

Be prepared to share different report styles with different audiences. For instance, you may wish to have a short summary of findings for grant applications, a longer report to share with your board, and a presentation to share with community members and staff.

Appendix D includes a short report from the national study, which you can use as a template for how to write your own report. The Measurement of Museum Social Impact Report is a longer version of a report and includes more information.

In a longer report you might wish to include who you partnered with, specific recruitment methods, methods on how you analyzed the data, and implications (or how you plan to use the findings). All the elements from a written report should be included in a presentation.

See **Example Presentation** in the Materials section.

A longer report can also serve as good documentation of how you conducted the study, should you wish to repeat it down the road and need to remember what was done and lessons learned the first time.

AUDIENCES

Your first step might be to share the results internally with staff, especially so people involved can recognize the importance of the work and effort they put into making the study a success. Work with your director, board, or other leaders to determine the best audiences and timeline for sharing findings.

Other audiences might include new staff, advocates for your museum, and elected officials. Depending on the governing structure of your museum, some of these audiences might be a higher priority than others. The goal here is to use results both internally to drive decisions in your museum, and also externally to engage new and existing audiences.

USING SOCIAL IMPACT FINDINGS AT YOUR MUSEUM

Throughout the course of our team's time measuring museum social impact, we have seen museums use the results in numerous ways. These include:

- Advocating for and successfully completing a capital campaign project.
- Incorporating feedback from the study into master, strategic, and interpretive plans.
- Developing a marketing structure based on experiences of those in the study.
- Considering what programs that have been on hold should be brought back.
- Guiding conversations around other research in the museum, primarily empathy, belonging, and cohesiveness.
- Starting diversity, equity, inclusion, accessibility, and justice conversations and considering new audiences and approaches to the work.
- Including findings in grant applications to show the museum is committed to measurable impact work.



Museum tip: Think about how to share the results outside of your museum. Consider writing a press release and inviting press to visit your museum and share the results more publicly. Or, highlight relationships you built as a result of the study as evidence of engagement and experience at your museum. Finally, invite the public to your museum and share findings as a way to start a conversation with local communities.

We recognize that things cannot change overnight as a result of your findings. The goal is to continue to have conversations with the results (good or bad) at the center and guiding your conversations. No study is perfect, though, so directly call attention to what might be missing from your data and findings.

Appendix A lists the museums that participated in the national Measurement of Museum Social Impact (MOMSI) study. Contact one from your content area, region, or state to see how you might collaborate.



COLLABORATION

As your study comes to an end, reach out to peers in the museum field either locally or nationally. Share your findings with them and encourage them to use the social impact toolkit. As more museums in your area of interest or in your region have social impact data, the stronger the case you can collectively make for the impact of museums in your communities.

Establish a community of practice or a mentor program for museums who have either completed or are starting to use this toolkit. Think about your lessons learned, what you would do differently, or how you could support others in this work.

ACKNOWLEDGEMENTS

The authors of this social impact toolkit would like to thank all of those involved in the Measurement of Museum Social Impact (MOMSI) study. Along with a core project team, this study would not have been possible without the support of other State of Utah staff in the Department of Cultural and Community Engagement and the Division of Arts & Museums, and without the partners at Thanksgiving Point Institute.

Nearly 100 museum staff, from front-line to executive directors, participated in the MOMSI study through our host museums. These staff members provided engaging conversations, pushed the study in new directions, and contributed significantly to this toolkit. Without their efforts and thoughtfulness, neither the study nor this toolkit would be possible. You can find a list of MOMSI host museums in Appendix A.

We would also like to thank our Advisory Committee, including Elizabeth Bolander, Dr. John Falk, Dr. Melanie Hwalek, Megan Lantz, and Dr. Eva Witesman. These advisors guided the study with their extensive knowledge and expertise in the museum field.

We would also like to thank the many state, regional, national, and international museum organizations who gave us space to present this study and engage attendees. The ongoing conversations and feedback those spaces provided were critical throughout the study.

These professional organizations include (in no particular order): California Association of Museums, Visitor Studies Association, American Association of State and Local History, American Alliance of Museums, American Public Gardens Association, CoMuseum Conference, Association of Science and Technology Centers, Montana Museum Association, Museum Association of New York, Association of Academic Museums and Galleries, Utah Museums Association, Council of American Jewish Museums, Western Museum Association, Visitor Experience Conference, New England Museum Association, Association of Children's Museums, and Observatori dels Públics del Patrimoni Cultural de Catalunya.

ABOUT THE AUTHORS

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Kari Ross Nelson is the Research and Evaluation Associate at Thanksgiving Point Institute, Lehi, Utah and served as a research partner on the MOMSI project. While her work is now dedicated to research and evaluation in informal learning contexts, Kari previously worked for a dozen years as a museum educator. Kari has an MA in Museum Studies (San Francisco State University), an MS in Instructional Psychology and Technology (Brigham Young University) and is currently pursuing a PhD in Learning Sciences (Utah State University.)

APPENDIX A: MOMSI HOST MUSEUMS

HOST MUSEUMS, MEASUREMENT OF MUSEUM SOCIAL IMPACT (MOMSI)

- Arkansas State University Museum: <https://www.astate.edu/a/museum/>
- Atlanta History Center: <https://www.atlantahistorycenter.com/>
- Bellevue Botanical Garden: <https://bellevuebotanical.org/>
- Calaboose African American History Museum: <https://www.calaboosemuseum.org/>
- Carter County Museum: <https://cartercountymuseum.org/>
- Chazen Art Museum: <https://chazen.wisc.edu/>
- Conner Prairie: <https://www.connerprairie.org/>
- Cradle of Aviation Museum and Education Center: <https://www.cradleofaviation.org/>
- Crystal Bridges Museum of American Art: <https://crystalbridges.org/>
- Desert Botanical Garden: <https://dbg.org/>
- Florence Griswold Museum: <https://florencegriswoldmuseum.org/>
- Franklin Park Conservatory and Botanical Garden: <https://www.fpconservatory.org/>
- Fresno Chaffee Zoo: <https://www.fresnochaffeezoo.org/>
- Gallery One: <https://www.gallery-one.org/>
- Greensboro History Museum: <https://greensborohistory.org/>
- Jackson Hole Children's Museum: <https://www.jhchildrensmuseum.org/>
- Jule Collins Smith Museum of Fine Arts at Auburn University: <http://jcsm.auburn.edu/>
- Kemper Museum of Contemporary Art: <https://www.kemperart.org/>
- Los Angeles Zoo and Botanical Gardens: <https://www.lazoo.org/>
- Minneapolis Institute of Art: <https://new.artsmia.org/>
- Minnesota Historical Society, Minnesota History Center: <https://www.mnhs.org/historycenter>
- Molly Brown House Museum: <https://mollybrown.org/>
- Montshire Museum of Science: <https://www.montshire.org/>
- Museum of Science, Boston: <https://www.mos.org/>
- National Aquarium: <https://aqua.org/>
- Oklahoma City Zoo and Botanical Garden: <https://www.okczoo.org/>
- Pérez Art Museum Miami: <https://www.pamm.org/>
- Plains Art Museum: <https://plainsart.org/>
- Queens Botanical Garden: <https://queensbotanical.org/>
- Rochester Museum and Science Center: <https://rmsc.org/>
- Rockwell Museum: <https://rockwellmuseum.org/>
- San Diego Chinese Historical Society and Museum: <https://sdchm.org/>
- St. Louis Zoo: <https://www.stlzoo.org/>
- The Children's Museum of Indianapolis: <https://www.childrensmuseum.org/>
- The Glazer Children's Museum: <https://glazermuseum.org/>
- The Morton Arboretum: <https://www.mortonarb.org/>
- University of Michigan Museum of Natural History: <https://lsa.umich.edu/ummnh/>
- Utah Museum of Contemporary Art: <https://www.utahmoca.org/>



APPENDIX B: IRBS AND PROTECTING PARTICIPANTS

What is an Institutional Review Board, or IRB?

An institutional review board, or IRB, is a group of people who review research studies and ensure participant ethics are not breached. An IRB will review social-behavioral research and evaluation studies. Their goal is to protect the rights, welfare, and privacy of humans participating in research.

Do I need an IRB to complete this social impact study?

The short answer is “no,” you do not need an IRB to complete this social impact study, especially if you do not plan to publish or share your findings outside of your museum. If you are a university museum, or have another governance structure where IRBs are often used, check with the Research Office to see what might be required.

If I wanted to obtain an IRB, how might I go about that?

There are several commercial IRBs you can use for project oversight. These IRBs, often independent, charge a fee (usually about \$1,000 per project).

What if an IRB is a cost barrier? Should I still complete this study?

Yes! While you do not need an official IRB on record for this study, we strongly recommend that you follow best ethical practices. For a small fee, one person at your museum might consider completing CITI’s Social-Behavioral-Educational ethics course. The most important thing to consider when asking people for information is that you are doing so with good reason, are taking every assurance to protect their identity and information they provide, that you treat them justly, and that their participation is voluntary and they consent to participate. You can learn more about guiding principles at this website.

How else might I protect participants?

Consider including language for participants to opt-in to receiving emails or text messages from your museum. When they complete the prospective participant form, they are opting in to receive emails about the project. However, you should ask the participants to consent before including them on other mailing lists. You might also ask participants to opt in for you to share their quotes anonymously.

Consider how long you will store the data collected through this study. Traditionally, data is kept for three years. Your organization (or university or governing structure) might have a timeframe in which you are required to keep data. They might also have an existing system for proper disposal of data. Data should always be stored on a secure computer, and access to raw data should be limited to a few individuals.



APPENDIX C: QUALITATIVE ANALYSIS CODEBOOK

QUALITATIVE ANALYSIS CODEBOOK - NATIONAL STUDY

Each question we analyzed has its own codebook. Below are each of the codebooks for the three questions we analyzed.

How does this museum benefit your community?

Theme	Key Concepts	Example Quote
Continued learning and engagement	Learning or education; programs or activities museums offer; experiencing wonder; exploring the museum/grounds; intent to visit	"Providing lessons of history about the minority people"
Increased health and wellbeing	Physical and mental health; stress; emotions; relaxation	"In addition to introducing various artists, the grounds provide a wonderful place to walk around enjoying beautiful views."
Not applicable	These responses didn't really address the question.	
Other	The "other" category will change based on the museum, but is included to capture recurring themes that come up case-by-case that do not fit into another category. For instance, equity because a museum is free; preserving a local history; or having a collection that can't be found elsewhere	
Strengthened relationships	Relationships with friends or family and the importance of relationships; spending time together	"It provides a space for children to play and learn and a place for parents and families to connect."
Valuing diverse communities	Different backgrounds or cultures; people who are different than me; collective rather than individual; other perspectives; considering age diversity	"it allows people of all backgrounds to experience cultural and intellectual stimulation and knowledge"



APPENDIX C: QUALITATIVE ANALYSIS CODEBOOK

QUALITATIVE ANALYSIS CODEBOOK - NATIONAL STUDY

How did participating in this study change your perspective of museums/cultural sites?

Theme	Key Concepts	Example Quote
Appreciation - Internal	For the museum and the work that goes into making the museum; the number and/or types of programming; importance of collecting and preserving; museums aren't static	"I am beginning to understand better why they are so expensive to create, maintain and develop."
Appreciation - External	The work of museums impacts the community; the value museums bring to the community; a place of equity and inclusion; desire to fundraise	"Gained appreciation for museums and what they offer community"
Did not change	This category includes any response where participants stated their interactions didn't change. If a response has "It didn't but..." and provides a way their perspective changed, code the response into other categories as much as possible. If it doesn't fit another category, code it here.	
Health and well-being	Wellness benefits - emotional, physical, mood	"Before the study I was not focused on ways visiting [museum] impacts my attitude, mood and overall wellness as a person."
Increased interest	Respondent expressed increased interest and intention for visiting more or other museums; exploring other cultural institutions in their community	"I really enjoyed it and made me want to visit these type of places more regularly."
Museums as spaces for family and children/youth	Both in the space and outside of it.	"I now hold this museum in much higher regard. After experiencing the great programming they have for the children I am amazed at all they have going on."
Negative	Negative perspectives	"When my children were growing up we regularly visited [museum]. Now I wonder how I would feel about taking them to these places if I felt I had to combat propaganda."
Not applicable	These responses didn't really address the question.	
Places of learning	Respondent talks about what they learned. May use words like explore, curious, etc. May mention connection to specific content or representation; access to new information; seeing galleries or spaces of the museum they haven't visited	"I got a better understanding of different cultures and the experiences of people in the past. It was better than just reading about it in a book."
Reaffirmed existing feelings	Respondent indicates they had an existing appreciation and may state that visiting for the study reminded/reinforced this. Participants may express that coming out of the pandemic and being able to visit museums again reminded them how much they enjoy these spaces.	"I don't think it changed my perspective very much. May have solidified my thoughts about these institutions being very important."

APPENDIX C: QUALITATIVE ANALYSIS CODEBOOK

QUALITATIVE ANALYSIS CODEBOOK - NATIONAL STUDY

In what ways, if any, did [Museum] change the way you interact with others?

Theme	Key Concepts	Example Quote
Centering/ Restorative	Inward facing; respondent describes a change in their mood that in turn benefitted interactions. May have nuances of health & wellbeing. Examples include that the museum visit slowed them down, became more meditative, changed how they interacted, or gave more confidence after COVID closures.	"It had a very relaxing effect on everyone I was with. The meditative, calm moods continued throughout the day"
Conversation catalyst	Provided topics for conversation, with friends/family, peers, or professionals. Sparked a conversation with another.	"maybe just provided more conversations points with the information and things I saw there."
Did not change	This category includes any response where participants stated their interactions didn't change. If a response has "It didn't but..." and provides a way interactions changed, code the response into other categories as much as possible. If it doesn't fit another category, code it here.	"No change"
Negative	Negative experiences with the museum, or others as a result of their visit.	"Negative ways since their refusals of accepting the corrective suggestions."
New connections with others	This includes person-to-person connections, and refers to folks who are "like-minded" or have similar interests as well as new community or new friends that participants have joined/want to join.	"It's opened a new door to meeting people who are learning just like me"
Not applicable	These responses didn't really address the question.	
Shared experience	The physical space provided opportunities to interact with others, to have shared experiences. Examples include spending quality time together and encouraging others to visit.	"I don't notice a change in how I interact with others. I did attend the museum with a family member twice and we spent quality time together"
Social-emotional experience	Outward facing; respondent describes a positive change in how they connect with others. This includes empathy for others and being more inclusive.	"It helps build sympathy and empathy for other living beings."

APPENDIX D: MOMSI REPORT



MEASUREMENT OF MUSEUM SOCIAL IMPACT:

RESULTS FROM THE NATIONAL STUDY AND IMPLICATIONS FOR THE MUSEUM FIELD

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The Measurement of Museum Social Impact study was funded by the Institute of Museum and Library Services (MG-245336-OMS-20). The views, findings, conclusions or recommendations expressed in this publication do not necessarily represent those of the Institute of Museum and Library Services.



APPENDIX D: MOMSI REPORT

INTRODUCTION

When museums talk about impacts, they often refer to the educational, economic, and social dimensions of impact. Of the three, social impact is perhaps the most difficult and elusive to measure with data-based evidence. At this pivotal time in history, advocating for museums, their staff, their collections, and their programs is more important than ever. To do that successfully, though, we cannot simply *say* museums have a social impact based on our gut instinct and intuition. We need to *measure* and demonstrate with data the impact museums have on visitors and their communities. The Measurement of Museum Social Impact (MOMSI) study filled that need.

In 2020, the Utah Division of Arts & Museums, in partnership with Thanksgiving Point Institute, was awarded a National Leadership Grant from the Institute of Museum and Library Services (IMLS) to support the MOMSI research study. Over the course of the three-year grant, MOMSI met three primary goals. First, validate a museum social impact survey. The social impact survey had been used in two pilot studies (Ashton, et al. 2019) and was found to be reliable and valid in Utah. With national data, we tested the survey's validity further. Second, measure museum social impact nationally. The study captured social impact data at 38 museums across the United States. Third, develop and publish a museum social impact toolkit. This toolkit is free for download for museums to use to measure social impact on their own.

To reach these goals, the MOMSI team recruited museums across the U.S. to serve as host museums, and ultimately selected 38 museums into the cohort (Appendix). The experiences and results presented here are aggregated from those 38 museums.

LITERATURE REVIEW

The issue of measuring museums' impact has been a recurring challenge for museums. In 2003, Weil observed that "over time, the museum field will need to develop a vast arsenal of richer and more persuasive ways to document and/or demonstrate the myriad and beneficial outcomes that may occur for their individual visitors and have impact on the community beyond." Museums have struggled to demonstrate their impact, and as such have struggled at times to receive support from their communities.

Over a decade later, Lee and Linett pointed out that while we have no shortage of data, "the field seems to be approaching an inflection point, where the long-term health, sustainability, and effectiveness of cultural organizations depends critically on investment in and collective action around enhancing the field's capacity for using data strategically and thoughtfully to inform decision-making."

The issue persisted when Jacobsen (2016a) stated that "the field needs to adopt a shared framework and language because we still lack an accepted way to measure our impact." The MOMSI study sought to address this need by researching the social impact that museums have on individual members of museums' communities. Jacobsen (2016b) identified 1,025 indicators to measure museum impact and performance. While our work has been informed by Jacobsen's, it is also narrower and deepens the focus on social impact, reflecting on insights from literature in the public administration field.

APPENDIX D: MOMSI REPORT

A first and most important step in measuring social impact is to define it. We recognize that there are multiple ways to define social impact, highly nuanced by the fields in which it is researched. We chose a definition put forward by Philips and Wong (2016) for its plausibility to ways museums contribute to social impact: “The effect of an activity on the social fabric of a community and the wellbeing of the individuals and families who live there.” Next, we explored factors that make communities places where people want to live.

Communities with residents who like where they live are generally more successful, attracting and retaining a talented workforce, which leads to a growing local economy. Drivers of these factors have been studied extensively, and we drew upon survey findings from Knight Foundation and Gallup (2010) and a systematic review by McMillan and Chavis (1986) to, again, consider plausible factors in terms of how museums might impact social well-being.

Two “drivers” identified by the Knight Foundation and Gallup were education and community openness, with the latter particularly referring to how open or welcoming a community is to different types of people, and hence our *Valuing Diverse Communities* construct. The prior driver, education, aligns to a core value of the museum field (American Association of Museums, 1992), and leads to the *Continued Learning and Engagement* construct. McMillan and Chavis discuss a multifaceted “integration and fulfillment of needs” (p.9), implying a sense of meeting the needs of the ‘whole person’ and hence our *Strengthened Relationships* and *Health and Well-Being* constructs. At multiple points of the project leading up to and including MOMSI, the survey instrument was subject to validity and reliability measures including expert review and scale reliability analysis of both the State and MOMSI responses.

METHODS

RECRUITING HOST MUSEUMS

In January, 2021 the MOMSI team opened a call for host museums to participate as research sites. The call was posted across platforms, including in blogs and listservs through national and regional museum professional organizations (i.e., American Alliance of Museums, American Association of State and Local History, Association of Zoos and Aquariums, etc.). We shared the call widely across the profession in an effort to have a diverse cohort of host museums – meaning we wanted museums that represented various staff and budget sizes, various content-focus areas, and every region of the U.S.

The 71 applications we received were reviewed by a panel composed of people both internal and external to the study. Panelists scored applications based on the diversity of criteria outlined above. We also took into account whether the applicant museum had an internal research and evaluation department (or staff member) and their admission price. While the IMLS proposal only required the study to accept 30 museums into the cohort, we ultimately accepted 38 museums due to the depth of the applicant pool.

The 38 museums selected as host sites were required to fulfill study expectations, including (1) being open to the public by fall 2021, (2) recruiting at least 100 participants into the study from their community, (3) allowing participants, and at least one guest of each participant, to visit the museum three times free of admission, and (4) offer an incentive to

APPENDIX D: MOMSI REPORT

participants who completed the social impact survey. These were not easy “asks” from host museums given ongoing financial and staff constraints due to the COVID-19 pandemic.

RECRUITING PARTICIPANTS

After a brief training with the MOMSI team, each host museum set out to recruit at least 100 participants into the study at their museum. Recruitment needed to be a local effort. The MOMSI team supplied draft language for e-newsletters, social media posts, and flyers along with the project logo and images, which the host museums could then use to recruit in their city and communities. All host museums were provided a link to an online form, written and managed by the MOMSI study team, to share when recruiting participants. People interested in being part of the study completed that form, which required them to consent to participate in the study, select the host museum they wished to visit as a study participant, and enter their name and contact information. The MOMSI team worked closely with each host museum providing recruitment updates. Each museum received a list of participant names, but other contact information was kept confidential and not shared with host museums. As the MOMSI study was considered human-subjects research, Independent Review Board ethics approval was obtained from an independent IRB service.

Each host museum managed recruitment efforts, with some using traditional means of newsletters and social media and others using apps like Nextdoor or attending community events. One museum recruited by reaching out to lapsed members, another invited friends-of-friends (using the museum’s regular visitors to invite their friends to participate in the study), and yet another worked with existing partners to recruit through their channels. Larger museums, sometimes with international followers on social media, had to focus efforts locally, using flyers at libraries, sending information home with students at Title 1 schools, and emailing participants from museum program lists.

There was no single identified way for museums to recruit participants, nor did the study want to set parameters on *how* or *whom* museums recruited to participate in the study. Some museums attempted to reach first-time visitors, some were focused on racial or socio-economic diversity. These choices were determined by the museums themselves, as the MOMSI team recognized that museums are in different places, both geographically and in their diversity, equity, and inclusion (DEI) initiatives. Therefore, what worked for one museum in this cohort would not necessarily work for another.

Overall, museums recruited between 18 and 1,725 participants. The median number of participants museums selected into the study was 125. The spread of prospective participants recruited at museums is quite large. Of course, not all museums reached the 100 participant threshold the study asked for. That was expected, and helped the MOMSI team understand challenges museums might face when completing a study like this on their own. Seven (18%) of host museums recruited fewer than 100 participants, and many of these museums were in small, more rural communities.

APPENDIX D: MOMSI REPORT

PARTICIPANT ENGAGEMENT

There are two elements to consider here: (1) participants visiting the museum up to three times, and (2) participants receiving and completing the social impact survey. We'll turn first to participant visits to the museum.

Participants were asked to visit their respective museum up to three times during the study period (September 2021-August 2022). The study period was not consistent across all host museums, mostly due to some museums requiring extra time for recruitment. Several outdoor museums (i.e. zoos and gardens) were in the cohort, and opted to extend the study period through the summer months for increased likelihood of participants visiting in more favorable weather.

As indicated above, personal information of participants (specifically email address) was not shared with host museums. Therefore, it fell to the MOMSI project manager to communicate with study participants at each of the 38 museums. Working with museums on language, especially pertaining to how participants would receive free admission (showing their participant status at the gate, through a discount code for online tickets, etc.), the project manager emailed participants first when they were selected as a participant, and then several times throughout the study period with reminders and updates.

Sending reminder emails to participants was an effort to reduce attrition. Still, across all 38 host museums, the MOMSI sample experienced about 75% attrition between the time of participants submitting the form to making their visits and finally completing the social impact survey. This high attrition might be a result of either the emails landing in participant's "junk" inboxes or participants choosing not to visit the museum due to ongoing COVID-19 surges. In some instances, participants expressed the latter. However, the reasons leading to high attrition remain unknown.

As in the previous pilot studies, MOMSI asked participants to visit the same museum up to three times during the study period. MOMSI was designed with three visits in mind for a few reasons. First, we wanted to give participants an opportunity to visit the museum with different guests. The participant might experience different parts of the museum depending on whom they attended with. Second, we wanted participants to have multiple "touch points" with the museum, not just a one-off visit. Finally, visiting numerous times allowed participants to experience any changes in the museum. For instance, a new exhibit or even a different season and weather. Host museums were responsible for tracking participants' visits to their museum, though the MOMSI team created various tracking systems and worked with each museum to make this as streamlined as possible for the host museums.

The second element to consider regarding participant engagement is asking the participants to complete the social impact survey. Like the recruitment form, the MOMSI team created the survey and the project manager was responsible for distributing the social impact survey to participants. A link to the online survey was sent in an initial email to participants, who were then reminded numerous times to complete the survey.

APPENDIX D: MOMSI REPORT

SOCIAL IMPACT SURVEY

The MOMSI museum social impact survey (see the Measurement of Museum Social Impact Toolkit for the full survey) uses a retrospective pre-then-post test (RPT) design. Using this approach requires only one administration of the survey, which for this study is after the participant has visited the museum for the last time during the study period. In social science research, the RPT is a popular way to assess learners' self-reported changes in knowledge, awareness, skills, confidence, and attitudes or behaviors (Klatt and Taylor-Powell, 2005).

Benefits of using RPT include:

- It takes less time than asking participants to complete two surveys (a pre and a post survey).
- It is less burdensome because participants only take one survey.
- It minimizes pretest sensitivity (sensitizing the participant to what to think about during their visits).
- It avoids response shift bias (inaccurate pretest ratings because participants' understanding of survey questions changes because of the visit).

Like any tool, limitations to RPT exist, including:

- RPT survey questions require a different way of thinking that most people are not used to experiencing when taking a survey.
- Inaccuracies in memory when the recall period is long. In the case of this project, participants are asked to recall up to nine months prior.
- Self-reporting in any kind of survey is vulnerable to bias.

Based on feedback from the study's advisory committee, and supported by Falk (2022), the MOMSI project manager emailed the social impact survey to participants approximately two weeks after their third visit to the museum or at the end of the study period, whichever came first. Because many participants only completed 1-2 visits, and we felt it was still important to collect data from them, anyone who completed at least one visit to the museum during the study period was emailed the survey. The survey asked participants to self-report the number of times they visited the museum during the study.

The museum social impact survey was emailed to 2,562 participants, who were asked to respond to 48 social impact indicator statements on a scale of 1-7, where 1= strongly disagree and 7= strongly agree. With the RPT design, participants submitted responses for both before and after their visit to the museum. These indicator statements each align with one of four long-term outcomes: continued learning and engagement, increased health and well-being, strengthened relationships, and valuing diverse communities. In addition to these social impact indicators, participants responded to 12 content-specific questions and six open-ended questions. Included at the end of the survey were demographic questions, including gender, race/ethnicity, age, household income, and zip code.

Along with free admission, each MOMSI host museum identified an incentive to offer study participants who completed the survey. This ranged from a membership to gift cards to gift baskets, and some museums offered the incentives to every person who completed the survey while others facilitated a drawing and announced one or more winners. Participants were given the opportunity to opt-in for the incentive at the end of the social impact survey. At this point in the study, the names and contact information of participants who opted in to

APPENDIX D: MOMSI REPORT

receive the incentive were shared with the host museums. Host museums, then, dispersed the incentives to their respective participants.

DATA ANALYSIS

Of the 2,562 participants who received the survey, 2,042 completed the survey (79% return rate). However, some of those surveys were incomplete. The social impact indicator statements and content-specific questions were analyzed using a Paired Sample t-test in Microsoft Excel. Each host museum received a report of how many indicator statements in each long-term outcome showed a statistically significant (p -value = <0.05) positive change. Indicator statements that were negatively worded were reversed for analysis.

The MOMSI team analyzed three of the six open-ended questions. These open-ended questions were more closely tied to measuring social impact and we agreed could draw trends shared nationally, while the other questions were more host museum-specific and tied directly to experiences at that one museum (i.e., visitor satisfaction). The three questions our team analyzed were:

1. How does this museum benefit your community?
2. How did participating in this study change your perspective of museums/cultural sites?
3. In what ways, if any, did [museum] change the way you interact with others?

Thematic analysis was used for each question. A team of three first reviewed responses from a sample of the data. This sample included 20% of *each host museum's* responses, to alleviate biasing the sample with museums who had larger study samples. After identifying codes, the team met to review the codes and come to a consensus on and define themes emerging for each question. During this process, the team established a codebook. Another 20% sample was drawn to test the codebook. Inter-rater reliability was tested using Fleiss' Kappa and results showed there was strong agreement between raters ($\kappa = .767$, $\kappa = .745$, and $\kappa = .806$, respectively for the questions above).

Each host museum received access to their data, with participant information removed, for further analysis.

RESULTS

SURVEY VALIDATION

To meet the first goal of MOMSI, using the data from the national study, we performed psychometric analysis using two different tests for internal consistency reliability, or how closely related a set of items are as a group. Cronbach's Alpha is one measure of this internal consistency. Gutman Split Half looks at half of the data at a time, and assumes that the two halves of the test should yield similar true scores and error variances. For both statistics, acceptable values range from 0.7 to 0.9. Table 1 shows the Chronbach's alpha and Gutman split-half statistics for each long-term outcome for both the pre (before visiting the museum) and post (after visiting the museum) scores.

APPENDIX D: MOMSI REPORT

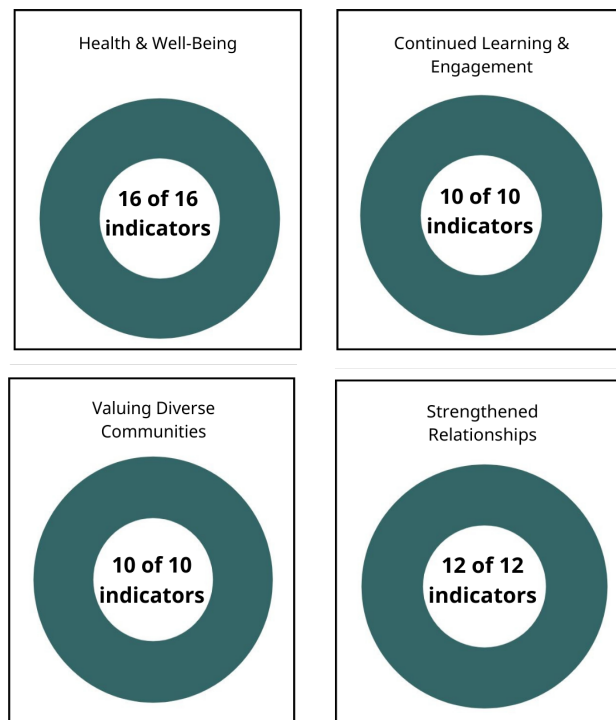
Table 1. Chronbach’s alpha and Gutman split-half statistic for each long-term outcome.

Survey Segment	Statistic
Continued Learning & Engagement	
Cronbach’s Alpha Before / After	.859 / .826
Gutman Split-Half Before/After	.793 / .783
Health and Well-Being	
Cronbach’s Alpha Before / After	.845 / .825
Gutman Split-Half Before/After	.734 / .691
Valuing Diverse Communities	
Cronbach’s Alpha Before / After	.911 / .903
Gutman Split-Half Before/After	.849 / .850
Strengthened Relationships	
Cronbach’s Alpha Before / After	.870 / .858
Gutman Split-Half Before/After	.862 / .847

QUANTITATIVE FINDINGS

In the aggregate, all social impact indicator statements show a statistically significant positive change (Figure 1) after visiting a museum. The large sample size likely influences these results, in the sense that with more data it is easier for the test to find significance.

Figure 1. Charts show all indicator statements have a positive change after visiting a museum.



APPENDIX D: MOMSI REPORT

At the time this report is published, the team is completing statistical analysis to determine if there is a difference in social impact based on participants completing one versus three visits; regional differences; and content-area differences (i.e., art museums, zoos and aquariums, public gardens, science museums, history museums, etc.). These additional results, with lower sample sizes, will help us make meaning out of the social impact museums have on individuals in ways this aggregate data cannot.

QUALITATIVE FINDINGS

As mentioned above, the MOMSI team analyzed the aggregate responses for three open-ended questions. Table 2 shows results for the question “How does this museum benefit your community?” During thematic analysis, the team used an inductive approach; however, it became evident in analyzing responses to this question that the four long-term outcomes of the social impact survey were the themes that emerged.

Table 2. The number of responses coded for each theme in response to the question “How does this museum benefit your community?”

Theme	Number of Responses (n=1651)
Continued Learning and Engagement	1110
Other	435
Valuing Diverse Communities	331
Strengthened Relationships	300
Increased Health and Well-being	206
Not Applicable	79

It is not surprising that *Continued Learning and Engagement* had the most responses – this is by nature what museums do, and is often written into their mission statement. Here, participants mentioned specific things they learned through their visits or exhibits they experienced. Responses often reflect this participant’s response, “This museum provides important history and context of the black population in the area. All cultures should be familiar with this information.”

Over 400 responses were coded into the *Other* theme. As team members started analyzing individual host museum data, certain themes emerged that were specific to that museum – or a small handful of museums in the cohort – that felt important to capture but could not be accurately captured in the aggregate in a way different than grouping them into an *Other* category. Included in these are: free admission, economics and/or bringing tourism, preserving history (i.e., building or what the area used to be), and offering a safe space. As evident from these examples, subcodes of *Other* changed depending on the museum.

Participants also mentioned elements of *Valuing Diverse Communities*:

“It is so important to understand the stories of yesterday that impact us today. The stories being shared at the museum are a gift to the community and a space

APPENDIX D: MOMSI REPORT

of togetherness where we can not only acknowledge our unique differences, but the things that we share in common as well.”

Strengthened Relationships were responses that included bringing the community together, or the museum being a community gathering space, as well as strengthening relationships between parents and children, family groups, or friends.

“It provides a place for the community to gather, hold it's history, and work together to overcome challenges.”

Increased Health and Well-being was evident across museum types, but particularly in those that provided outdoor spaces (i.e., gardens, zoos, or art museums with nature trails). This theme showed up in the data through responses that mentioned both physical and mental health, and the museum providing a space to relax or reflect on life. For instance,

“A fantastic place to go and relax, walk the grounds, and trails.”

“Gives children an escape.”

“It's a wonderful sanctuary from the pressures of every day life.”

Table 3 shows results from analysis of the question “How did participating in this study change your perspective of museums/cultural sites?” Again, the concept of learning emerges in the theme *Places of Learning*. As one participant said,

“Museums are so much more than just an outing with the family. It connects you to new experiences, people and things that we do not see in our daily lives. This is crucial for connecting the community with each other and understanding a different perspective.”

Another theme that emerged from analyzing this question was *Appreciation*. This showed up in two ways: *Internal* and *External*. Responses were coded for the former when they mentioned staff and the work that goes into making the museum what it is. For instance, “It gave me a better understanding of the passion it takes to make a museum run and function” and “I see how hard the staff works to create fun and engaging events that really fit well with the home and history.”

Participating in this study also *Reaffirmed Existing Feelings* – they already liked museums and this study reaffirmed those feelings. In some cases, participants commented on reaffirmed feelings with the absence of visiting museums due to the COVID-19 pandemic. In essence, they had been waiting to visit museums again and this study helped set them on the path. In other cases, participating in the MOMSI study *Increased Interest* in visiting museums. For instance, “Visiting more frequently than normal made me want to continue visiting frequently and to seek out other cultural sites.”

APPENDIX D: MOMSI REPORT

Table 3. The number of responses coded for each theme in response to the question “How did participating in this study change your perspective of museums/cultural sites?”

Theme	Number of Responses (n=1613)
Places of Learning	407
Appreciation-Internal	321
Reaffirmed Existing Feelings	294
Increased Interest	238
Appreciation-External	234
Did Not Change	187
Not Applicable	121
Museums as Spaces for Children/Youth	101
Health and Well-Being	67
Negative	27

Table 4 shows results from analysis of the question “In what ways, if any, did [museum] change the way you interact with others?” As the table shows, the highest number of responses was *Did Not Change*.

Table 4. The number of responses coded for each theme in response to the question “In what ways, if any, did [museum] change the way you interact with others?”

Theme	Number of Responses (n=1545)
Did Not Change	389
Shared Experience	367
Conversation Catalyst	272
Social-Emotional Experience	261
Not Applicable	245
New Connections with Others	108
Centering/Restorative	96
Negative	13

However, other common themes included *Shared Experience*, where participants explained how they shared the museum experience with others. In some cases participants mentioned who they visited with, and in other cases they mentioned interactions in the museum, either within their own group or with other visitors. For example,

“The [museum] allows children to play and create art in a safe and comfortable environment. This allowed my nephew to interact with other children his age

APPENDIX D: MOMSI REPORT

while visiting different art stations inspired by different art styles and nature.”

“It allowed us to get out and spend time together that we would otherwise not do.”

Participants also mentioned that visiting the museum was a *Conversation Catalyst*, providing them new and interesting things to talk about when interacting with others, both during and after their museum visits. Participants also commented on *Social-emotional Experiences*, including

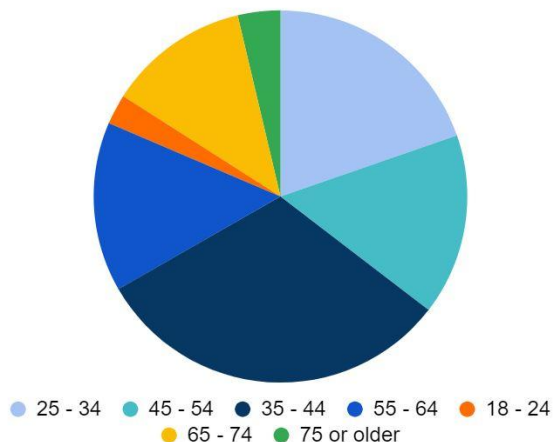
“We all come from different backgrounds. But seeing kids all play together after just meeting each other, it's a great example of how we should all be.”

“It helped me to unwind and relax and with a relaxed mindset it indirectly helped me to calmly react to situations which I would've been a little passive aggressive.”

PARTICIPANT DEMOGRAPHICS

As part of the social impact survey, participants were given the option to report demographic information, and we collected demographics from 1,709 participants. Of those who completed the survey, 75% were not members at the museum they visited. Eighty-three percent (83%) identified as female, 15% identified as male, 0.6% identified as another category, and 1% preferred not to respond. Thirty-one percent (31%) of those who completed the survey were between the ages of 35-44. Ages are shown in Figure 2 below.

Figure 2. Age distribution of participants who completed the social impact survey.



The survey also captured race/ethnicity (Figure 3), which shows the majority (70%) identified as White or Caucasian. Finally, household income was reported by participants who completed the survey. Household incomes were reported below \$10,000 to \$150,000 or higher (Figure 4), with just over about half (53%) reporting a household income of at or under \$89,999.

APPENDIX D: MOMSI REPORT

Figure 3. Race/Ethnicity of participants who completed the social impact survey.

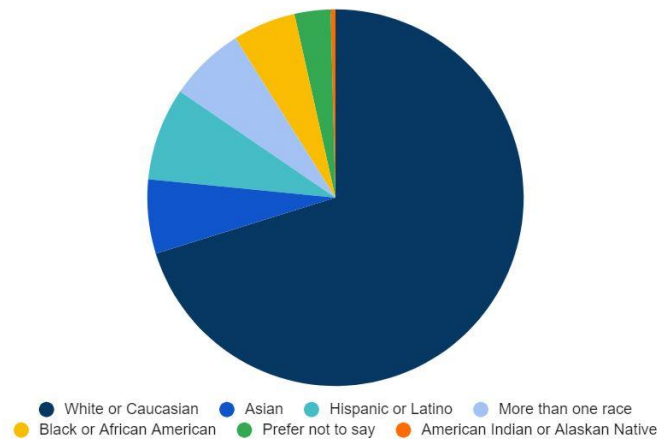
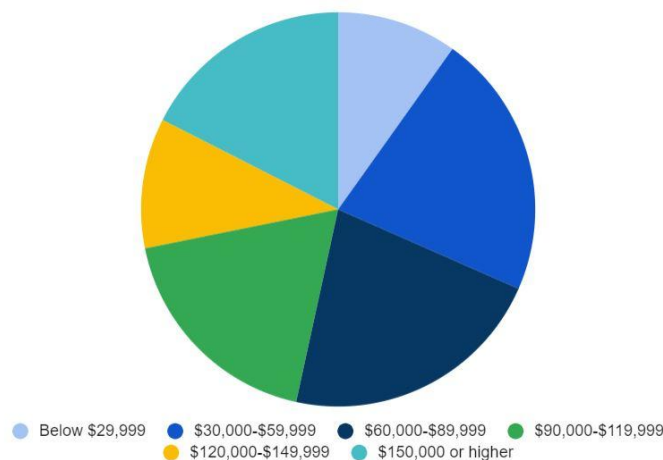


Figure 4. Household income of participants who completed the social impact survey.



CONCLUSIONS

Working with 38 museums across the United States, MOMSI was able to not only validate a social impact survey but also generate data about the social impact museums have on individuals. Results show that museums have a positive impact on visitors' learning and engagement, health and well-being, relationships, and valuing diverse communities. All indicator statements in these four long-term outcomes showed statistically significant positive change.

MOMSI participants were also able to articulate the benefit the museum has to the community, how their perspectives about museums/cultural sites changed as a result of participating in this national study, and how their interactions with others changed as a result of

APPENDIX D: MOMSI REPORT

the study. Overwhelmingly, participants identified that museums support learning. This is through specific exhibits or programs. Alongside that learning, are the interactions participants had with others, either within their own group, with museum staff or volunteers, or with other visitors. These shared experiences are not only a benefit of museums but also factor into the social impact museums have on individuals and communities through strengthened relationships.

Museums play an important role in providing spaces for individuals to relax, reflect, and exercise – supporting mental and physical health. Those experiences would not be possible without the dedicated staff in museums, an appreciation which was specifically called out by MOMSI participants.

Results from this national research study on museum social impact indicates that museums do have a social impact on visitors. Of course, data for each of the 38 host museums shows more nuance than the large sample and aggregate data represented here.

Along with measuring social impact, MOMSI evaluated the experience of staff from the host museums navigating this research study. Participating in a national study increased capacity for staff to engage in audience research and evaluation while supporting efforts to collect rigorous data. While each host museum faced unique challenges, they felt supported by the project team and fellow cohort museums. Host museums also have plans to act on the social impact results for their individual organizations, with some beginning to share results internally and externally to community members. Plans to use the social impact data for strategic and interpretive planning, DEI efforts, and more are already in the works.

The successes and challenges identified by both the MOMSI team and the host museums are captured in the Measurement of Museum Social Impact Toolkit. This toolkit, a direct result of the funding and the study, guides museums on how to measure social impact, and includes tips, resources, and the validated social impact survey.

As this work continues to progress, we look forward to seeing how – with social impact data – museums can improve their practices and leverage funding to continue this kind of socially strengthening work.

LIMITATIONS

Every study has its limitations. We recognize MOMSI, and the social impact survey, is not perfect. This is our attempt at a shared definition and practice for museums to *measure* social impact, something long talked about but never achieved at this scale. During the national study, the phrasing of one long-term outcome, Valuing Diverse Communities, was changed (previously Intercultural Competence). We continue to reflect on the language we use in the field and in audience research; therefore, it is worth noting that some indicator statements may or may not resonate with certain audiences. Additionally, indicator statements were not rooted in prior vetted instruments, but rather articulated through an iterative process of literature familiarity, expert consultation, host museum review, and psychometric analysis. We encourage the museum field to take what has been created here and challenge it, continue to improve upon the work, and ultimately make an even better instrument.

There are some limitations to how this study was managed, one of those being tracking participants. This required, especially at museums with free admission, participants to indicate

APPENDIX D: MOMSI REPORT

they were part of the study, and for staff to know and use the tracking system in place. There was a lot of room for error in this phase of the study, which might have caused us to overlook participants who were engaging but we did not have an indication that they were.

Having the MOMSI project manager communicate with participants was another limitation. This decision was made based on the Institutional Review Board (IRB); however, participants might have responded differently if the emails about the study, completing visits, and completing the social impact survey were coming from a museum-based email address as opposed to a project email address.

At the time of this report, we are still working on analyzing segmented data. As those results are discovered and shared, the conclusions we draw here might change based on the number of visits, content-focus area, and region.

IMPLICATIONS

The MOMSI research study reached its three goals. Not only did we give a glimpse of what museum social impact looks like on a national level, we validated a museum social impact survey, and published a social impact toolkit. The latter two pieces are critical in advancing the museum field's work in this area. We hope that museum staff feel inspired and use the social impact toolkit after reading this report and seeing the possibilities.

APPENDIX D: MOMSI REPORT

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APPENDIX E: SPANISH TRANSLATIONS

SPANISH TRANSLATIONS

Prospective Participant Recruitment Form

Asistirá al museo con un amigo o familiar en 3 ocasiones diferentes. Luego, completará una encuesta de 30 minutos para compartir cómo sus experiencias en el museo afectaron varios resultados. Si no tiene acceso a Internet, el museo local que visite puede proporcionarle una computadora y un espacio para que llene la encuesta o le recomendará opciones de acceso.

La Museos puede utilizar citas u otras respuestas del estudio de impacto en el informe final y en posibles publicaciones. Toda la información personal se mantendrá confidencial.

Su participación en el estudio es completamente voluntaria. Puede retirarse en cualquier momento o negarse a participar por completo. No habrá penalización si se toman tales acciones, excepto que perderá su oportunidad de asistir al museo de forma gratuita.

No recibirá ninguna compensación monetaria como parte de su participación en este estudio. Sin embargo, usted y un invitado tendrán entrada gratuita al museo al que elija asistir. Además, tendrá la opción de participar en un sorteo si completa la encuesta sobre su experiencia al final del estudio.

Tengo 18 años de edad o más: Sí/No

He leído y acepto el consentimiento anterior y deseo participar en el estudio de impacto social que está llevando a cabo la Museo. Sí/No

- En un año normal, ¿con qué frecuencia visita
- Nunca he ido a este museo
- He asistido a este museo 1-2 veces en un año regular
- Asisto a este museo con regularidad (más de 3 veces al año)
- ¿Eres miembro de []? Sí/No

Información personal: la siguiente información solo se utilizará para el propósito de este estudio. No compartiremos ni distribuiremos la siguiente información.

- Nombre y apellido
- Dirección de correo electrónico
- Ciudad, estado, código postal



APPENDIX E: SPANISH TRANSLATIONS

Cuál es su género?

- Masculino
- Femenino
- Otra categoría (especifique)
- Prefiero no decirlo

¿Con qué grupo(s) racial(es) o étnico(s) se identifica? (Seleccione todas las opciones que correspondan).

- Indio americano o nativo de Alaska
- Asiático
- Afrodescendiente o afroamericano
- Hispano o latino
- Nativo de Hawái o de las islas del Pacífico
- Blanco o caucásico
- Otra categoría (especifique)
- Prefiero no decirlo

¿Cuántos años tiene?

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65-74
- 75 años o más

¿Cuál es su ingreso familiar anual?

- Prefiero no decirlo
- Menos de USD 10.000
- \$10,000-\$19,999
- \$20,000-\$29,999
- \$30,000-\$39,999
- \$40,000-\$49,999
- \$50,000-\$59,999
- \$60,000-\$69,999
- \$70,000-\$79,999
- \$80,000-\$89,999
- \$90,000-\$99,999
- \$100,000-\$109,999
- \$110,000-\$119,999
- \$120,000-\$129,999

APPENDIX E: SPANISH TRANSLATIONS

- \$130,000-\$139,999
- \$140,000-\$149,999
- USD 150.000 o más

Recruitment Language

Draft Newsletter Language

[] para evaluar el impacto social que los museos tienen en sus comunidades, y estamos buscando personas para participar en el estudio.

Los participantes recibirán entrada gratuita para ellos y un invitado para visitar [] tres veces entre []. Después de su visita final, se le pedirá que complete una encuesta en línea de 30 minutos sobre su experiencia.

Hay un número limitado de oportunidades para participar en este estudio, y los participantes serán seleccionados por orden de llegada. Aquellos que completen la encuesta participarán en un sorteo para un premio fenomenal.

Tanto los visitantes por primera vez como los visitantes habituales son bienvenidos a participar. Comparta esta oportunidad con amigos y familiares que puedan estar interesados en visitar [] y participar en este estudio.

Envíe una solicitud a [].

Draft Flyer Language

Estamos medir el impacto de nuestra organización en la comunidad circundante. Si está interesado en participar, visite [] para postularse.

Draft Social Media Language

Nuestra organización busca medir el impacto que nuestro trabajo tiene en nuestra comunidad, y estamos buscando participantes que visiten nuestro museo y nos cuenten sobre su experiencia.

Para obtener información y presentar la solicitud, visite [].

APPENDIX E: SPANISH TRANSLATIONS

Draft Social Media Language 2

[] está buscando participantes para ayudar en un estudio de impacto social.

Solicite participar

Visite el museo 3 veces

Llene una encuesta

Notifying Participants

For those you are accepting

¡Felicitaciones! Usted ha sido seleccionado para participar en el estudio de Impacto Social de [museo]. Gracias por aceptar ser parte de este estudio, que nos contará más sobre el valor que este museo aporta a su vida.

Como parte de este estudio, se le pedirá que visite el museo un total de tres veces y realice una encuesta al finalizar sus visitas. Le recomendamos que traiga un invitado al museo, a quien también se le otorgará entrada gratuita.

[ADD ANY ADDITIONAL INCENTIVE LANGUAGE]

Cuando llegue al museo para cada una de sus visitas, [EXPLAIN CHECK IN PROCESS].

Options:

- En su primera visita, traiga este correo electrónico (impreso o en su teléfono) al personal de recepción y le darán una tarjeta que lo identifica como participante del estudio. Usted será responsable de mantener esta tarjeta durante toda la duración del estudio.
- Cuando llegue al museo para cada una de sus visitas, busque el gráfico copiado a continuación. Escanee el código QR con su teléfono inteligente o tableta y complete el formulario escribiendo su nombre. No olvide presionar "Enviar". Esto lo registra para una de sus tres visitas requeridas. ¡Asegúrese de seguir este paso para cada visita!
- Antes de visitar el museo, reserve un boleto en línea en [enlace]. Al reservar su boleto, use [ABC123] en el código promocional en la esquina superior izquierda al momento de pagar, después de haber seleccionado una fecha. Sabrá que el código se ha canjeado correctamente cuando el saldo indique cero dólares. Si no acepta su código promocional, envíeme un correo electrónico.

APPENDIX E: SPANISH TRANSLATIONS

Tenga en cuenta que el museo puede recopilar su dirección de correo electrónico durante este proceso. Al proceder, usted acepta que tengan acceso a esa información.

Siga las instrucciones del museo para registrar su entrada con su boleto electrónico. En su primera visita, notifique al personal de recepción sobre su participación en este proyecto y le darán una tarjeta que lo identifica como participante del estudio. Usted será responsable de mantener esta tarjeta durante toda la duración del estudio.

Si tiene alguna pregunta o inquietud, ahora o durante el estudio, comuníquese con [STAFF and CONTACT INFORMATION].

¡Gracias de nuevo por participar! Agradecemos su tiempo y sus comentarios.

Reminder Email Language

¡No olvide terminar sus tres visitas al [museo]! Recuerde que usted y 1 invitado (2/3/4 invitados) obtienen entrada gratuita para visitar este museo desde ahora hasta [].

¡Termine sus visitas y la encuesta de impacto social para tener la oportunidad de obtener un gran premio/membresía del museo/tarjeta de regalo!

¿Está cansado de estar sentado en casa? ¿Busca una actividad divertida para el fin de semana? ¡No olvide visitar el [museo] como parte de su participación en el proyecto Impacto Social de los Museos!

¡Se acaba el tiempo! Termine sus visitas al [museo] para tener la oportunidad de proporcionar comentarios sobre el impacto que el museo tiene en su vida, su familia y su comunidad.

Social Impact Survey

¡Gracias por tomarse el tiempo de participar en este estudio de investigación!

Esta encuesta durará aproximadamente de 20 a 30 minutos y hará preguntas directamente relacionadas con su experiencia antes y después de visitar [].

Si en cualquier momento tiene alguna pregunta, no dude en ponerse en contacto con [staff name and email].

APPENDIX E: SPANISH TRANSLATIONS

¿Cuántas veces visitó [] dentro [] []?

- 0 visitas
- 1 visita
- 2 visitas
- 3 visitas
- 4 o más visitas

Para ayudar a los organizadores de este estudio a entender mejor su experiencia, lea cada declaración a continuación y proporcione una respuesta para cada sección.

En la sección titulada “Antes de asistir al []”, marque el círculo que mejor describa su nivel de acuerdo antes de asistir al [].

En la sección titulada “Después de asistir al []”, marque el círculo que mejor describa su nivel de acuerdo después de asistir al [].

[FOR SURVEY PREP: Antes de asistir al [.] Muy en desacuerdo, Neutral, Totalmente de acuerdo]

[FOR SURVEY PREP: Continued Learning & Engagement]

Me pregunto cómo funcionan las cosas.

Experimento para crear nuevas formas de hacer las cosas.

Puedo ver cómo la exploración lleva al aprendizaje.

Regularmente hago preguntas que invitan a la reflexión para llegar a la raíz del problema.

Hago preguntas reflexivas de “qué pasaría si” que provocan la exploración de nuevas posibilidades.

Mi mente participa activamente en nuevas ideas.

Desafío la forma en que se hacen las cosas actualmente.

Visito regularmente museos locales (también podría incluir zoológicos, jardines y acuarios).

Incorporo información aprendida recientemente en mi vida diaria.

Aprecio el valor de los museos (también podría incluir zoológicos, jardines y acuarios).

[FOR SURVEY PREP: Increased Health and Well-Being]

Manejo mis emociones de manera efectiva.

Soy capaz de recuperarme de la adversidad.

Regularmente soy voluntario en mi comunidad.

Estoy abierto a nuevas ideas.

Estoy satisfecho con mi vida.

A menudo considero los aspectos positivos de mi vida.

Confío en mi capacidad para generar ideas creativas.

Siento que mi vida está bajo control.

Me motiva mantener mi salud física.

Me tomo el tiempo para relajarme.

APPENDIX E: SPANISH TRANSLATIONS

A menudo siento el estrés de la vida.
Tengo dificultades para concentrarme.
A menudo me comparo con los demás.
Me pongo a la defensiva cuando otros intentan hacerme algún comentario.
A menudo critico a los demás.
Tengo confianza para aportar mi opinión en una conversación.

[FOR SURVEY PREP: Valuing Diverse Community]

Aprendo cosas nuevas de personas que son diferentes a mí.
Puedo ver las cosas desde el punto de vista de los demás.
Me preocupa el bienestar de los demás.
Cuando interactúo con los demás, reconozco sus creencias profundamente arraigadas.
Mis valores se basan en el bienestar colectivo y no en mis propios beneficios.
Estoy abierto a múltiples perspectivas.
Entiendo cómo las culturas son similares y diferentes.
Me puedo adaptar cuando trabajo con otras personas de diferentes orígenes culturales.
Soy consciente de los desafíos que enfrentan otras personas con antecedentes diferentes a los míos.
Me gusta conocer gente que es diferente a mí.

[FOR SURVEY PREP: Strengthened Relationships]

Construyo relaciones sólidas y de apoyo con una variedad de personas.
Mantengo mis compromisos con los demás.
Me propongo pasar tiempo con mis amigos y/o familiares.
A menudo mantengo conversaciones significativas con mis amigos y/o familiares.
Ayudo a mis amigos y/o familiares a explorar sus esperanzas y sueños.
Soy consciente de los desafíos que enfrentan mis amigos y/o familiares.
Recurso a mis amigos y/o familiares cuando me enfrento a desafíos.
Aprendo cosas nuevas de mis amigos y/o familiares.
Reconozco la importancia de mis amigos y/o familiares en mi vida.
Me emociona cuando algo bueno le pasa a un amigo y/o familiar.
Me molesto con los amigos y/o familiares cuando cometen errores.
Me resulta fácil desarrollar relaciones sociales.

[FOR SURVEY PREP: Content-specific Questions]

Tengo conversaciones con otras personas sobre arte.
Me motiva aprender sobre arte.
Aprecio el arte.
Tengo conversaciones con otras personas acerca de historia.
Me motiva aprender sobre historia.
Aprecio la historia.

APPENDIX E: SPANISH TRANSLATIONS

Tengo conversaciones con otras personas sobre la ciencia y el mundo natural.

Me motiva aprender sobre la ciencia y el mundo natural.

Aprecio la ciencia y el mundo natural.

Tengo conversaciones con otras personas acerca de la conservación.

Me motiva aprender sobre la conservación.

Aprecio la conservación.

[FOR SURVEY PREP: Open-ended Questions]

¿Qué le sorprendió de sus visitas?

¿Cómo beneficia este museo a su comunidad?

¿De qué manera la participación en este estudio cambió su perspectiva de los museos/sitios culturales?

¿Qué, si acaso hubo algo, no le gustó de su experiencia en []?

¿De qué maneras, si las hubo, [] cambió la forma en que interactúa con los demás?

¿Hay algo más que le gustaría compartir?

¿Fue miembro de [] el año anterior a su participación en este proyecto? Sí/No

[FOR SURVEY PREP: Enter demographics]

¿Le gustaría que su nombre participara para recibir un premio del museo que ha visitado? Sí/No

Escriba su información de contacto. Su información de contacto insertada aquí solo se utilizará para ponerse en contacto con usted en relación con el premio.

Nombre

Correo electrónico

Teléfono

Survey Email Language

Ahora que ha completado sus visitas, le pedimos que realice esta encuesta sobre el impacto que el museo ha tenido en usted y en su vida. La encuesta tomará aproximadamente 30 minutos y sus comentarios son muy valiosos para nosotros y para el museo que visitó.

Haga clic aquí para realizar la encuesta.

Para obtener la mejor experiencia, recomendamos realizar la encuesta en una computadora, computadora portátil o tableta. Si necesita acceso a una computadora o tableta para realizar la encuesta, hágame lo saber y podemos coordinar la asistencia.

APPENDIX E: SPANISH TRANSLATIONS

Al final de la encuesta, se le dará la oportunidad de optar por recibir un incentivo (una membresía/tarjeta de regalo/paquete) del museo.

Gracias por su tiempo y comentarios,

Survey Reminder Email Language

¡No olvide completar la encuesta de impacto social! Gracias por visitar el [museo] y ayudarnos a comprender mejor el impacto que tiene en usted y su vida. El paso final es que realice una encuesta de 30 minutos, que encontrará aquí.

Haga clic aquí para tomar la encuesta de 30 minutos sobre el impacto que las visitas al [museo] tuvieron en usted y su vida.

APPENDIX F: SIMPLIFIED CHINESE TRANSLATIONS

Simplified Chinese Translations

Prospective Participant Recruitment Form

Our goal is to evaluate your museum experience after multiple visits and see if there is a positive social impact as a result.	活动目标是评测您多次参观博物馆后的亲身体验，了解博物馆是否发挥着积极的社会影响。
You will attend the museum with a friend or family member 3 different times.	与亲朋好友参观博物馆三次。
You will then complete a 30-minute survey to share how your experiences at the museum impacted various outcomes.	然后完成 30 分钟问卷调查，分享您的博物馆参观体验，关注它会如何影响不同的调查结果。
If you do not have internet access, the local museum you visit may be able to provide a computer and a space for you to take the survey or recommend options for access.	如果您无法上网，您参观的当地博物馆可能会提供一台计算机及场地，方便您参加问卷调查，也可能建议您如何能够参加问卷调查。
The [Museum] may use quotes or other responses from the impact study in the final report and in potential publications.	[博物馆] 可能会在最终报告和可能的出版物中引用影响研究的引述或其他回应。
Any personal information will be kept confidential and stored on state protected networks.	任何个人信息按机密信息对待，在州安全网络上存储。
Your participation in the study is completely voluntary.	您参加调查活动完全出于自愿。
You may withdraw at any time or refuse to participate entirely.	您随时可以退出调查活动，也可以完全拒绝参加调查活动。
There will be no penalty if such actions are taken except that you will forfeit your opportunity to attend the museum for free.	上述行为不会产生任何处罚后果，但您也因此不能免费入馆参观。
As part of your participation in this study, you will not receive any monetary compensation.	参加调查活动没有任何经济报酬。
However, you and a guest will be given free admission to the museum you choose to attend.	不过，您和随行人员可以免费参观您选择参观的博物馆。
Additionally, you will have the option of entering yourself into an opportunity drawing if you complete the end-of-experience survey at the conclusion of the study.	另外，在调查活动结束时，您如果完成了观后问卷调查，则可以参与抽奖活动。
I am 18 years of age or older.	我年满 18 周岁以上。
Yes/No	是/否
In a normal year, how often do you visit [MUSEUM]?	正常情况下，您多久去一次 [MUSEUM] ?
I have never attended this museum	我从来没去过这家博物馆
I have attended this museum 1-2 times in a regular year	我通常一年去这家博物馆 1-2 次



APPENDIX F: SIMPLIFIED CHINESE TRANSLATIONS

I attend this museum regularly (3+ times a year)	我定期去这家博物馆（一年 3 次以上）
Are you a member of [MUSEUM]?	您是[MUSEUM]会员吗？
Yes/No	是/否
Personal Information - The following information will only be used for the purpose of this study.	个人信息 - 以下信息仅在调查活动中使用。
We will not share or distribute any of the following information.	我们不会分享和分发以下任何信息。
First and last name	姓名
Email address	电子邮件地址
City, State, Zip	市、州、邮编

Demographic Questions

What is your gender?	您的性别是什么？
Male	男
Female	女
Another category – please specify	其他 - 请说明
Prefer not to say	不愿透露
With which racial or ethnic group(s) do you identify?	您的种族或族裔是什么？
(Select all that apply.)	(选择所有适用项。)
American Indian or Alaskan Native	印第安人或阿拉斯加原住民
Asian	亚裔
Black or African American	黑人或非裔美国人
Hispanic or Latino	西班牙裔或拉美裔
Native Hawaiian or Pacific Islander	夏威夷或其他太平洋岛屿原住民
White or Caucasian	白人
Another category – please specify	其他 - 请说明
Prefer not to say	不愿透露
What is your age?	您多大年纪？
75 or older	75 岁以上
What is your annual household income?	您的家庭年收入是多少？
I prefer not to say	不愿透露
Below \$10,000	10,000 美元以下
\$150,000 or higher	150,000 美元以上

APPENDIX F: SIMPLIFIED CHINESE TRANSLATIONS

Recruitment Language

Draft Newsletter Language

The [MUSEUM] seeks to evaluate the social impact we have on our communities, and we are seeking individuals to participate in the study.	[博物馆] 旨在评估我们对社区的社会影响, 我们正在寻找个人参与这项研究。
Participants will receive free admission for themselves and one guest to visit [MUSEUM] three times between August 2021 through May 2022.	活动参加者会收到免费门票, 在 2021 年 8 月至 2022 年 5 月间可以持票与一位随行人员参观 [MUSEUM] 三次。
After your final visit, you will be required to complete a 30 minute online survey regarding your experience.	最后一次参观结束后, 需要就自己的参观体验完成 30 分钟在线问卷调查。
There are a limited number of opportunities to participate in this study, and participants will be selected on a first-come-first-served basis.	调查活动参加人数有限, 先来先得。
Those who complete the survey will be entered into a drawing for a phenomenal prize.	活动参加者完成问卷调查后, 还可以参加抽奖, 有机会赢大奖。
Both first-time visitors and regular visitors are welcome to participate.	不论是首次参观博物馆, 还是经常参观者, 都欢迎参加调查活动。
Please share this opportunity with friends and family who might be interested in visiting [MUSEUM] and participate in this study.	请转告亲朋好友, 他们或许愿意参观[MUSEUM] 并参加调查活动。
Submit an application at [URL].	请访问 [URL] 递交申请。

Draft Flyer Language

We are participating in a national museum social impact study to measure our organization's impact on the surrounding community.	我们正在参加一项全国性的博物馆社会影响调查活动, 希望评测此类文化机构对周边社区的影响。
If you are interested in participating, please visit [URL]	如果您愿意参加调查活动, 请访问 [URL]

APPENDIX F: SIMPLIFIED CHINESE TRANSLATIONS

Draft Social Media Language

[MUSEUM] is participating in a national museum social impact study and we need your help!	[MUSEUM]正在参加一项全国性的博物馆社会影响调查活动，希望您能助我们一臂之力！
Our organization is looking to measure the impact our work has on our community, and we are looking for participants to visit our museum and tell us about their experience.	我们希望评测我们的工作对社区的影响，目前正在招募活动参加者参观博物馆，然后跟我们分享他们的参观体验。
For information and to apply, visit [URL]	要了解有关信息及申请参加调查活动，请访问 [URL]

Draft Social Media Language 2

[MUSEUM] is currently looking for participants to help in a national museum social impact study.	[MUSEUM]目前正在招募活动参加者，希望开展一场全国性博物馆社会影响调查活动。
Apply to participate	申请参加
Visit the museum 3 times	参观博物馆三次
Take a survey	参加问卷调查

Notifying Participants

Thank you for agreeing to be part of this study, which will tell us more about the value this museum brings to your life.	感谢您同意参加本次调研。通过调查活动，我们会更进一步了解这家博物馆给您的生活带来的价值。
As a part of this study, you will be required to visit the museum a total of three times and take a survey upon the completion of your visits.	在调查活动中，我们要求您去这家博物馆共三次，之后再完成一项问卷调查。
We encourage you to bring a guest to the museum who will also be granted free admission.	我们鼓励您带人参观这家博物馆，随行人员也可以免费参观。
At this museum, you are welcome to bring 2/3/4/5 guests who will also receive free admission.	您可以带 2/3/4/5 人参观这家博物馆，随行人员也可以免费参观。
When you arrive at the museum for each of your visits, please stop by the front desk to let them know that you are there as a part of this study.	每次去这家博物馆的时候，请告知前台服务人员您的来访目的是参加调查活动。
Upon your first visit, bring this email (printed or on your phone) to the front desk staff and they will give you a card that identifies you as a study participant.	首次到访时，请向前台服务人员出示这封电子邮件（可以打印出来，也可以出示手机），服务人员会给您一张出入卡，说明您是调查活动参加者。
You will be responsible for holding on to this card throughout the duration of the study.	您负责在调查活动期间妥善保管出入卡。

APPENDIX F: SIMPLIFIED CHINESE TRANSLATIONS

When you arrive at the museum for each of your visits, look near [LOCATION/GATE] for the graphic copied below.	每次去这家博物馆的时候，请注意 [LOCATION/GATE] 附近的图片，如下所示。
Scan the QR code with your smartphone or tablet and complete the form by typing your name.	请使用智能手机或平板电脑扫描二维码，输入姓名并填好表格。
Don't forget to hit "Submit."	不要忘记点击“提交”。
This checks you in for one of your three required visits.	完成后即表示您已经签到一次，总共需要签到三次。
Be sure to follow this step for each visit!	每次到访务必完成上述步骤！
Before you visit the museum, please reserve a ticket online at [URL].	去博物馆前，请通过 [URL] 在线订票。
When reserving your ticket, use the code [ABC123] for you and your guest's free admission.	订票时，请使用 [ABC123] 代码为您和随行人员免费获得门票。
Please note that the museum may collect your email address during this process.	请注意，在订票过程中，博物馆会收集您的电子邮件地址。
By proceeding, you consent to them having access to that information.	如果继续订票，即表示您同意博物馆收集您的电子邮件地址信息。
Follow the museum's instructions for checking in with your e-ticket.	进入博物馆时，请按照博物馆使用电子门票进馆的说明操作。
Upon your first visit, notify the front desk staff of your participation in this project and they will give you a card that identifies you as a study participant.	首次到访时，请告知前台服务人员您是项目活动参加者，服务人员会给您一张出入卡，说明您是调查活动参加者。
You will be responsible for holding on to this card throughout the duration of the study.	您负责在调查活动期间妥善保管出入卡。
The card expires August 31st, 2022, so please plan your visits accordingly.	出入卡有效期至 2022 年 8 月 31 日。请酌情安排参观博物馆的日程。
If you have any questions or concerns, now or during the study, please reach out to	如果您现在或者在调查活动期间有任何疑问或问题，
Thank you again for participating!	再次感谢您参加项目！
We appreciate your time and your feedback.	感谢您抽出宝贵时间参加调查活动并提供反馈意见。

APPENDIX F: SIMPLIFIED CHINESE TRANSLATIONS

Reminder Email Language

作为博物馆社会影响测量项目的一部分，不要忘记参观三次 [museum]！请记住，即日起至2022年5月8日，您和1位客人(2/3/4位客人)可免费参观这家博物馆。

完成您的参观和社会影响调查，就有机会获得丰厚的奖品/博物馆会员资格/礼品卡！

厌倦了坐在家中的生活？正在寻找有趣的周末活动？作为您参与博物馆社会影响测量项目的一部分，不要忘记参观 [museum]！

时间不多了！参观 [museum]，就有机会针对博物馆对您的生活、家庭和社区的影响提供反馈。

Social Impact Survey

Your responses to this survey will help us better understand the social impact museums, gardens, zoos, and other cultural organizations have on the communities they serve.	您对本次调查的回复将有助于我们更好地了解博物馆、花园、动物园和其他文化组织对其所服务社区的社会影响。
This survey will take approximately 20-30 minutes and will ask questions directly related to your experience before and after visiting your museum, garden, zoo, or other cultural organization.	本项调查大约需要 20-30 分钟，并会在参观博物馆、花园、动物园或其他文化组织前后询问与您的体验直接相关的问题。
If at any time you have any questions, please feel free to contact	如果您有任何疑问，
How many times did you visit [] within the time period of this study?	在本项研究期间，您访问了 [] 多少次？
0 visits	0 次访问
1 visit	1 次访问
2 visits	2 次访问
3 visits	3 次访问
4 or more visits	4 次或更多次访问
To help the organizers of this study better understand your experience, please read each statement below, and provide a response for each section.	为了帮助本项研究的组织者更好地了解您的经历，请阅读下面的各项表述，并就各个部分给出答复。
In the section labeled “Before attending the [],” check the circle that best describes your level of agreement <i>before</i> attending the [].	在标有“参加 [] 之前”的部分中，勾选最能描述您参加 [] 之前的同意程度。
In the section labeled “After attending the [],” check the circle that best describes your level of agreement <i>after</i> attending the [].	在标有“参加 [] 之后”的部分中，勾选最能描述您参加 [] 之后的同意程度。

APPENDIX F: SIMPLIFIED CHINESE TRANSLATIONS

Your responses will be kept confidential, so please answer frankly and honestly.	对于您的回复我们会予以保密，因此请坦率如实作答。
<i>Before</i> attending []	参加 [] <i>之前</i>
Strongly Disagree	强烈不同意
Neutral	中立
Strongly Agree	非常同意
I wonder about how things work.	我想知道事情是如何运作的。
I experiment to create new ways of doing things.	我尝试创造新的做事方式。
I can see how exploration leads to learning.	我可以看出探索对学习的促进作用。
I regularly ask thought-provoking questions to get at the root of the problem.	我经常问一些发人深省的问题，以找出问题的根源。
I ask insightful 'what if' questions that provoke exploration of new possibilities.	我问了富有洞察力的“假设”问题，激发了对新可能性的探索。
My mind is actively engaged in new ideas.	我的思想在积极思考新的想法。
I challenge the way things are currently done.	我对目前的处理方式提出质疑。
I regularly visit local museums (could also include zoos, gardens, and aquariums).	我经常参观当地的博物馆（可能还包括动物园、花园和水族馆）。
I incorporate recently learned information into my day-to-day life.	我将最近学到的信息融入到我的日常生活中。
I appreciate the value of museums (could also include zoos, gardens, and aquariums).	我很欣赏博物馆（可能还包括动物园、花园和水族馆）的价值。
I manage my emotions effectively.	我有效地管理自己的情绪。
I am able to bounce back from adversity.	我能够从逆境中恢复过来。
I regularly volunteer in my community.	我经常在社区做志愿者。
I am open to new ideas.	我乐于接受新的想法。
I am content with my life.	我对自己的生活感到满足。
I often contemplate the positive aspects of my life.	我经常思考生活中积极的方面。
I am confident in my ability to generate creative ideas.	我相信自己拥有创意能力。
My life feels in control.	我的生活感觉在掌控之中。
I am motivated to maintain my physical health.	我有动力保持身体健康。
I take time to relax.	我花时间进行放松。
I often feel the stress of life.	我经常感受到生活的压力。
I have difficulty concentrating.	我难以集中精力。
I often compare myself to others.	我经常把自己和别人比较。
I become defensive when others try to give me feedback.	他人想给我反馈时，我会心存戒心。
I often criticize others.	我经常批评别人。
I am confident in contributing my opinion to a conversation.	我自信地在对话中发表自己的观点。

APPENDIX F: SIMPLIFIED CHINESE TRANSLATIONS

I learn new things from people who are different from me.	我从与自己不同的人身上学到新知识。
I am able to see things from the point of view of others.	我能够从别人的角度看待事物。
I am concerned for the well-being of others.	我关心别人的福祉。
When interacting with others, I recognize their deeply held beliefs.	在与他人互动时，我认可对方根深蒂固的信念。
My values are based on the collective well-being and not on my own gains.	我的价值观基于集体福祉，而非个人利益。
I am open to multiple perspectives.	我乐于接受多种观点。
I understand how cultures are similar and different.	我明白文化表现出的相似和不同。
I can adapt when working with others of different cultural backgrounds.	与其他具有不同文化背景的人一起工作时，我可以适应。
I am aware of the challenges faced by others with backgrounds different than my own.	我清楚背景与自己不同的人所面临的挑战。
I enjoy meeting people who are different from me.	我喜欢见到与我不同的人。
I build strong and supportive relationships with a variety of people.	我与各种各样的人建立牢固和支持性的关系。
I keep my commitments to others.	我信守对他人的承诺。
I make it a point to spend time with my friends and/or family.	我非常重视与朋友和/或家人共度时光。
I often engage in meaningful conversations with my friends and/or family members.	我经常与朋友和/或家人进行有意义的对话。
I help my friends and/or family members explore their hopes and dreams.	我帮助朋友和/或家人探索他们的希望和梦想。
I am aware of the challenges my friends and/or family members face.	我清楚朋友和/或家人所面临的挑战。
I turn to my friends and/or family when I face challenges.	在面对挑战时，我会求助于朋友和/或家人。
I learn new things from my friends and/or family members.	我从朋友和/或家人身上学习新知识。
I recognize the importance of my friends and/or family members in my life.	我认识到朋友和/或家人在生活中的重要性。
I am excited when something good happens to a friend and/or family member.	在朋友和/或家人有好事发生时，我感到非常开心。
I get upset at friends and/or family members when they make mistakes.	在朋友和/或家人犯错时，我会心生难过。
It is easy for me to develop social relationships.	发展社交关系对我来说很容易。
I have conversations with others about art.	我和其他人谈论关于艺术的话题。
I am motivated to learn about art.	我有动力去学习艺术。
I have an appreciation for art.	我很欣赏艺术。
I have conversations with others about history.	我和其他人谈论历史。

APPENDIX F: SIMPLIFIED CHINESE TRANSLATIONS

I am motivated to learn about history.	我有动力去学习历史。
I have an appreciation for history.	我很欣赏历史。
I have conversations with others about science and the natural world.	我和其他人谈论科学和自然世界。
I am motivated to learn about science and the natural world.	我有动力去学习科学和自然世界。
I have an appreciation for science and the natural world.	我很欣赏科学和自然世界。
I have conversations with others about conservation.	我和其他人谈论保护问题。
I am motivated to learn about conservation.	我有动力学习关于保护的知识。
I have an appreciation for conservation.	我对保护表示赞赏。
What about your visits surprised you?	您的访问在哪些方面让您感到意外？
How does this museum benefit your community?	这个博物馆如何为您的社区造福？
How did participating in this study change your perspective of museums/cultural sites?	参与这项研究让您对博物馆/文化遗址的看法有了哪些改变？
What, if anything, did you dislike about your experience at []?	如果有的话，您对于在 [] 的经历所不喜欢的方面是什么？
In what ways, if any, did [] change the way you interact with others?	[] 以什么方式（如果有的话）改变了您与他人互动的方式？
Is there anything else you would like to share?	您还有什么要分享的吗？
How many times did you visit this museum?	您去过这个博物馆多少次？
Were you a member of [] in the year prior to your participation in this project?	在参与这个项目的前一年中，您是否是 [] 的成员？
Yes/No	是/否
Would you like to have your name entered to receive a prize from the museum you visited?	您是否想输入您的名字来领取您参观博物馆的奖品？
Yes/No	是/否
Please type in your contact information.	请输入您的联系信息。
Your contact information inserted here will only be used to contact you regarding the prize.	您在此处输入的联系信息将仅用于就奖品事宜与您联系。
Name	姓名
Email	电子邮件
Phone	电话

APPENDIX F: SIMPLIFIED CHINESE TRANSLATIONS

Survey Email Language

您已经完成了参观，我们邀请您参与这项关于博物馆对您和您的生活的影响的调查。调查大约需要 30 分钟，您的反馈对我们和您所参观的博物馆非常宝贵。

点击此处进行调查。

在调查结束时，您将有机会选择接受博物馆的奖励(会员/礼品卡/套餐)。

不要忘记完成社会影响调查！感谢您参观 [museum] 并帮助我们更好地了解它对您和您的生活的影响。最后一步是进行 30 分钟的调查，您可以在此处找到该调查。

博物馆社会影响测量项目的最后一步

点击此处进行有关 [museum] 参观对您和您的生活的影响的调查，调查需要花费 30 分钟。

APPENDIX G: REFERENCES

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<https://museumsocialimpact.org>

