Process Evaluation:
Affiliate Involvement in *Places of Invention* Exhibition

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Washington, D.C.

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SUMMARY AND RECOMMENDATIONS

INTRODUCTION

This summary presents key findings from a process evaluation of Smithsonian Affiliates' involvement in the National Science Foundation-funded exhibition, *Places of Invention (POI),* conducted by Randi Korn & Associates, Inc. (RK&A) for the Lemelson Center for the Study of Invention and Innovation at the Smithsonian's National Museum of American History (NMAH). Affiliates are working with community partners to create digital content for the Interactive Map featured in the exhibition, and using *POI* core concepts to create local programming in conjunction with the exhibition. This summary highlights the successes and challenges of the first cohort of Affiliate and community partnerships and provides recommendations for how to support project partnerships moving forward.

HISTORY OF THE *PLACES OF INVENTION* AFFILIATE PILOT PROJECT

The Lemelson Center's 2009 *POI* NSF proposal included a pilot project to work with Smithsonian Affiliates and their community partners to research and document invention and innovation in their communities. The grant proposal requested funds for conducting a training workshop at NMAH plus subawards of $10,000 per each of the six pilot project Affiliates to assist them and their partners in bringing the ideas behind *POI* into their communities via multiple deliverables, including local public programs and the co-creation of exhibition content for an Interactive Map at the center of the *POI* exhibition (then scheduled to open in 2012 at NMAH). The NSF proposal included commitments from the following six museums selected with guidance from Smithsonian Affiliations: American Museum of Science and Energy, Oakridge, TN; American Textile History Museum, Lowell, MA; Senator John Heinz History Center, Pittsburgh, PA; The Women's Museum, Dallas, TX ; The Works: Ohio Center for History, Art, and Technology, Newark, OH; and The York County Culture and Heritage Commission, Rock Hill, SC. The grant proposal included a process evaluation of the pilot project and an opportunity to increase the number of Affiliates over time.

Between the time of the NSF proposal and its award approval, the Lemelson Center learned that two museums needed to withdraw from the program: one museum closed in 2011 (The Women's Museum) and another had major staff cutbacks (The York County Culture and Heritage Commission). The Lemelson Center also learned that delays in the NMAH's West Wing Renovation would push the *POI* exhibition opening to 2015. By the time the NSF subaward agreements went out in early 2012, the Museum of History and Industry in Seattle, WA, and the Peoria Riverfront Museum in Peoria, IL, had signed on as replacements.

The *POI* Affiliate project's official kick-off and training took place at NMAH in Washington, DC, on June 15, 2012. The day-long event was led by the Lemelson Center and Dr. Lorraine McConaghy, *POI* Project Consultant and Public Historian at the Museum of History and Industry. The *POI* Project Director, newly-hired Affiliate Project Coordinator, NSF Officer, and other Smithsonian colleagues met and worked with representatives from all six teams: one person from the Affiliate museum and one person from the community partner. [Since the Senator John Heinz History Center's education manager was leaving and no suitable staff substitute was available, a Smithsonian Affiliations' National Outreach Manager stepped in to work with the Heinz's community partner during the workshop and followed up with a detailed written report to the Heinz.] Dr. McConaghy took the teams through

in-depth research exercises to help narrow potential topics and provided a "tool kit" of research-related resources for those in need. The training included an overview of the ideas behind the *POI* exhibition and the important role of Affiliate video/digital content for the Interactive Map. All deliverables and deadlines outlined in the March 2012 NSF subaward agreement (see Appendix B) were discussed, including the challenges and opportunities inherent in any pilot project—particularly one in which content is being created for an exhibition still being designed. These deliverables and associated deadlines have remained the same throughout the project but their lead-time and flexibility have proved challenging for museum staff with high turn-over rates and competing priorities from the top down.

From kick-off to fall 2013, the Lemelson Center stayed in contact with each team, requiring two written updates and scheduling conference calls and visits when appropriate. The Affiliate Project Coordinator visited each site in the first year—the Heinz History Center in Pittsburgh, twice—to go over deliverables, facilitate relationships within and outside the museum, tour collections and communities, help develop and/or participate in public programs, and more. A complete list of site visits and events can be found in Appendix C.

Due to government sequestration and lack of funding/institutional support, the American Museum of Science and Energy had to drop out of the *POI* project in spring 2013. Fortunately, the US Space & Rocket Center in Huntsville, AL was able to join in its place. Because it joined in the fall of 2013, the Center is not included in this report.

THE EXPERIENCE OF THE MAJORITY

The majority of project partners have had similar experiences thus far. Project partners in Newark, OH, Peoria, IL, Seattle, WA, and Lowell, MA readily connected their project topic with the thesis of the *POI* exhibition—that invention and innovation are everywhere and sparked by unique combinations of people, ready resources, and inspiring surroundings. For example, project staff in Newark, OH described their story about the mass production of Fiberglas as important for highlighting that "invention and innovation are everywhere" including small towns like Newark, OH. And, project staff in Peoria, IL discussed the "ready resources" (laboratory space) and "combinations of people" (scientists primarily studying mold and yeast as a result of nearby farming communities and the extensive brewing and distilling industry) available at the National Center for Agricultural Utilization Research (AGLab), which together made Peoria the perfect place for English scientists to bring penicillin for mass production. Thus, findings suggest that these four partners feel confident in the alignment of their selected invention with the *POI* exhibition.

PERCEIVED STRENGTHS

These four partners also perceive their projects to have similar strengths. Two-thirds of interviewees said the greatest strength of their partnership is that they are able to engage their communities by sharing relevant and interesting stories of invention. In other words, the project has provided opportunities for Affiliates to engage with the community to develop local stories, as well as demonstrate that individual members of the community will find the community-centric invention stories compelling. Other strengths include the opportunity to partner with the Smithsonian Institution and the passion the Affiliate museums and individual staff members bring to the project. While the mention of the former may not be surprising since the project extends Affiliates' exposure, the latter—a universal passion for the project shared among the individuals who are tasked with propelling it forward—is often acknowledged as a key component of successful and sustainable partnerships. A lack of, or even lukewarm, passion can spell the demise of partnerships. On some level this is common sense; after all, museum visitors attend exhibits that pique their interest. Therefore, it is reasonable to

think that museum and other professionals also will attend to (and nurture) projects that pique *their* interest, even if they already have full workloads.

Interviewees also perceived the resources and personnel available from the Smithsonian Institution and the Lemelson Center as a significant strength. Interviewees characterized much of this support as open communication, with timely responses when they had questions or issues. Open communication cannot be oversold as a key component of a successful collaboration and seems particularly important in the case of the *POI* Affiliates' projects, given the geographic distance among the Affiliates and the Smithsonian, as well as the evolving nature of the projects themselves.

The other significant avenue of support provided by the Smithsonian and Lemelson Center was the Affiliate workshop facilitated by Dr. McConaghy. Participants perceived the primary benefit of the workshop as the opportunity to meet people from other Affiliates and community partner organizations and hear about the different projects that are part of *POI*. Participants with little knowledge of how to conduct historical research also appreciated the opportunity to develop these skills through the workshop (though the majority of participants felt they already had a good handle on these skills). Given the geographic distance of the Affiliates and their community partners, it may not be surprising that they valued the opportunity for face-to-face interaction; further, the lack of face-to-face interaction as the project has progressed is perceived by many interviewees as a continued challenge (see below).

PERCEIVED CHALLENGES

Two types of challenges were mentioned—those internal to the partners and their individual organizations and those involving collaboration with the Smithsonian and the Lemelson Center. Internal challenges are not uncommon—lack of time and staff turnover (resulting in staff members who are less familiar with the project). In many ways, these challenges are outside the control of the Smithsonian and Lemelson Center, and interviewees acknowledged that finding time would be a challenge for any project because they are already working at capacity. While open communication was noted as a strength, one-third of interviewees said the project expectations were unclear, and also Affiliates were challenged by the perceived changing of deadlines, which was not necessarily the case. All collaborations are complicated, requiring all parties to be flexible and adaptable, and *POI* is an enormous collaborative project. For some, the perceived lack of structure and consistency of project deliverables and deadlines have proved frustrating, in particular for maintaining project momentum and credibility with community partners.

One-third of interviewees suggested having more opportunities for direct contact among project partners, and many of these interviewees suggested a monthly or bi-monthly conference call to give Affiliate staff and community partners the chance to hear about other projects and discuss problems and questions with others. Basecamp (an online communication tool) has been the primary method for project sharing thus far; however, very few partners have taken advantage of it. Project partners cited two main reasons for not engaging with Basecamp—lack of time and not understanding the purpose or value of doing so. About one-third of interviewees said they do not have time to check Basecamp regularly and think of it as "just one more thing" to do. RK&A has found similar challenges when collaborators are expected to use online platforms for sharing and communication. Often, individuals rely on their existing methods of sharing and prefer not to have to integrate a new platform into their way of working. Further, RK&A has found that sharing has to be facilitated throughout the project; spontaneous sharing is less common without a specific reason, invitation, or requirement to do so.

THE EXPERIENCE OF THE MINORITY

As detailed in the body of the report, the experience of the Affiliate and its community partner in Pittsburgh, PA has been distinctly different from the experiences of the other four partnerships. Two distinctions are worth mentioning here as they highlight the importance of certain project elements to the success of *POI* partnerships. Both distinctions are the result of: 1) significant changes in the staff at the Affiliate museum; and 2) the changing role of the original community partner who departed from his base institution due to lack of funding. First, no one from the Affiliate museum attended the Affiliate workshop where a new project topic was selected. As a result, there was less overall interest among staff and buy-in from the museum. Second, the departure of the original community partner (a long-time partner of the Affiliate museum) from his organization required that he be named an official project consultant and a new community partner be selected. A community partner known to the Heinz History Center was suggested by the Smithsonian and Lemelson Center. This situation is unique to the Pittsburgh Affiliate, as the other four *POI* partnerships (the majority) have exercised control over the selection of their topic and community partner. Findings from interviews with the Pittsburgh partners highlight the importance of attending the Affiliate workshop (the original community partner was the only one present); Affiliate staff from Pittsburgh described feeling somewhat isolated and off track as a result of not being able to attend. At the same time, findings from interviews with Pittsburgh partners also suggest they share several similarities with partners in the other four partnerships. They, like the other Affiliates, suggested that passion is a key ingredient for a successful partnership and have experienced similar challenges with perceived changes in project expectations and deadlines, as well as few opportunities for face-to-face communication and sharing since the Affiliate workshop. The fact that staff members from Pittsburgh did not attend the workshop and have the opportunity to network or create any connections with other Affiliates exacerbates the Pittsburgh situation.

RECOMMENDATIONS

RK&A has several recommendations—some have emerged from interviewees and others are alluded to in the interview findings.

- ♦ Offer an "on-hold" option for institutions that are selected for participation and then undergo organizational change (such as large-scale staff turnover). These institutions can join a future cohort of *POI* Affiliates without penalty.

- ♦ Consider video-recording the Affiliate workshop, which addresses historical research and provides a project overview, so staff or partners who join "mid-stream" have access to the information and can hear the discussion rather than relying on PowerPoint slides.

- ♦ As much as possible, set clear expectations for project elements and deliverables while maintaining the flexibility to be creative. These expectations may need to include clear guidelines for the technical and potential programmatic requirements, as well as potential expertise needed for deliverables.

- ♦ As much as possible, identify criteria for the role of Affiliates and community partners, including expected capacity and time commitment, as well as their role in sharing with other Affiliate partnerships. Use a Memorandum of Agreement (not only with the Smithsonian and Lemelson Center but between the Affiliate and community partner) to communicate important concepts.

- ♦ Consider explicitly defining the purpose of sharing across project partnerships and facilitating this sharing through quarterly video-conference calls among partners. Then, consider using Basecamp as a bridge between conference calls, explicitly inviting individual partnerships to share progress (or other project materials or deliverables) on a rolling basis.

INTRODUCTION

The Lemelson Center for the Study of Invention and Innovation at the Smithsonian's National Museum of American History (NMAH) contracted Randi Korn & Associates, Inc. (RK&A) to conduct a process evaluation for Smithsonian Affiliates'[1] involvement in *Places of Invention (POI),* an exhibition funded by the National Science Foundation. Affiliates are working with community partners to create digital content for the Interactive Map featured in the exhibition, and using *POI* core concepts to create local programming in conjunction with the exhibit.

Specifically, the objectives of the evaluation are to explore:

♦ Distinct characteristics of each Affiliates' project, including the topic, approach, community partners, and how this work relates to the thesis of the *POI* exhibition—that invention and innovation are everywhere and sparked by unique combinations of people, ready resources, and inspiring surroundings;

♦ Successes and challenges of each Affiliate team, including what they have learned about working with institutional and community partners;

♦ Successes and challenges of working with the Lemelson Center and Project Consultant Dr. Lorraine McConaghy, including Affiliate teams' opinions of the workshop (how it has supported their project work, barriers to using what they learned, other information they would like to see included);

♦ Affiliates' suggestions for improving their collaboration with the Lemelson Center, Smithsonian Affiliations, and the broader Smithsonian on the *POI* project;

♦ Successes and challenges of sharing their work with other Affiliates working on the project (what are the barriers to doing so and what tools/strategies can be used to improve sharing); and

♦ Affiliates' learning about how to conduct historical research, including the skills and steps needed for doing so.

METHODOLOGY

RK&A conducted in-depth, open-ended telephone interviews with project stakeholders, including Affiliate staff and community partners working on five different Affiliate projects in the first cohort, two Smithsonian Affiliations staff, and the Project Consultant Dr. Lorraine McConaghy. RK&A selected interviews for this evaluation because they encourage and motivate project participants to describe their experiences, express their opinions and feelings, and share with the evaluator the successes and challenges of the process. Lemelson staff provided RK&A staff with contact information for potential interviewees, and RK&A staff contacted interviewees via email to set up a mutually agreeable time for the telephone interview. RK&A conducted all interviews during October 2013. Interviews were audio recorded with the participants' consent and transcribed to facilitate analysis.

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[1] Smithsonian Affiliates are non-profit or publicly-operated museums, arts/culture/science centers, or educational organizations who formally partner with the Smithsonian through their Affiliations program (https://affiliations.si.edu/MainPage.Asp).

DATA ANALYSIS AND REPORTING METHOD

The data are qualitative, meaning that results are descriptive. In analyzing the data, the evaluator studied the transcripts for meaningful patterns and, as patterns and trends emerged, grouped similar responses. The objectives of the study as well as our professional experience informed the analysis. Findings are reported in narrative and with exemplary quotations. In quotations, the evaluator's questions or comments are presented in parentheses.

During analysis, the evaluator identified a distinct division between the experiences of the Project Consultant and four Affiliates, versus the experiences of one Affiliate. As such, RK&A has organized the findings by the "majority" and "minority" to respect the larger trends of the majority, but also the experiences of the outlier. The minority's experiences can only be understood in the context of the Affiliate's situation, yet provide great insight to project recommendations.

PRINCIPAL FINDINGS

INTRODUCTION

RK&A interviewed 16 stakeholders in the *Places of Invention (POI)* Affiliate project. Ten interviewees work for Affiliate institutions. Four interviewees are community partners working with the Affiliate institutions. Two interviewees work for the Smithsonian Affiliations division. One interviewee is the Project Consultant.

EXPERIENCES OF THE MAJORITY

Interviewees from four of the five Affiliate projects, two Smithsonian Affiliations staff, and the Project Consultant had similar experiences with the *POI* Affiliate project. The larger trends from their experiences are described below.

OVERVIEW OF AFFILIATE PROJECTS

Affiliates are focusing on a range of inventions, from the tangible to the intangible. Of the Affiliates interviewed for this evaluation, two are focusing on manufacturing inventions (Fiberglas in Newark, OH and penicillin in Peoria, IL), and two are focusing on cultural innovations (video gaming in Seattle, WA and architectural re-use and urban planning in Lowell, MA). All Affiliates have hosted visits by the Lemelson Center's Affiliate Project Coordinator Anna Karvellas, and many Affiliates also were visited by their Smithsonian Affiliations National Outreach Manager. Three Affiliates already have completed the public program requirement set forth in the subaward agreement.

These four projects relate to the larger idea of the *POI* exhibition in different ways, but all of the stories feature unique combinations of people, ready resources, and inspiring surroundings. In all cases, the inventions and innovations that are highlighted grew out of industries and companies that were already in place.

- ♦ Newark, OH (The Works: Ohio Center for History, Art and Technology, Owens Corning, Holophane): The glass industry was the main area of manufacturing in Newark, OH in the 1920s. With the onset of prohibition, glass manufacturers had to develop new products to remain relevant and in business, which led to the introduction of glass fiber. "Fiberglas," as it was patented, played a key role in American manufacturing in World War II. Given the small size of Newark, OH, this story also highlights the fact that invention and innovation do not just happen in big cities. In August 2013, the Newark project group hosted Documenting Newark, a research event designed to recruit community volunteers. The event featured a presentation on the Lemelson Center, the *POI* exhibition, and the Affiliates project, and Lemelson Center and Smithsonian Affiliations staff attended.

- ♦ Peoria, IL (Peoria Riverfront Museum, Peoria Historical Society, and USDA-National Center for Agricultural Utilization Research): Although penicillin was discovered in England, scientists there could not determine the best way to mass produce the mold. The National Center for Agricultural Utilization Research (Ag Lab) was built in Peoria, IL in the 1930s because of the many farming communities nearby and the extensive brewing and distilling industry that existed in Peoria at the time. Due to the farm communities, much of the research at the Ag Lab focused on molds and yeasts. This knowledge, and the availability of laboratory space, made Peoria the perfect place for experimentation to mass produce the English penicillin. Lemelson Center and Smithsonian Affiliations staff met with the project team in May 2013, and in August 2013 the Museum hosted a community day called "Science Rocks! Celebrating Peoria as a Place

of Invention." The event drew 1,690 people of all ages and featured hands-on activities for kids and a lecture on Dr. Andrew Moyers, who led the Ag Lab in the 1940s. Ag Lab scientists also worked with Museum staff to explain to visitors Peoria's importance in the mass production of penicillin and the role it played in World War II. The partnership between the Museum and the Ag Lab, specifically the *POI* project, allowed the Ag Lab to reunite with the Peoria community. After 9/11, site visits to the lab were discontinued at the request of the Department of Homeland Security. The Museum hopes to make community days presented in partnership with the Ag Lab a yearly event as a way to "inspire young scientists" and "make sure that local people have an opportunity to know about history in the making."

♦ Seattle, WA (Museum of History and Industry, Bootstrap Video, Project Consultant Lorraine McConaghy): Best known as the home of Microsoft and Amazon, Seattle, WA has also been adopted by video game designers in the past five or ten years. This Seattle story focuses on inventions and innovations in the technology sector that are still developing, looking at the contemporary, cutting edge of gaming innovations rather than the history of an invention. In August 2013, the project team participated in a *POI*-themed panel at PAX Prime, the world's largest gaming convention. Over 300 people attended the panel, *A Byte of Seattle: The Rise of Seattle's Gaming Industry*, in which Ed Fries (Former VP of Microsoft Game Studios), Kim Swift (Creator of Airtight Games), Andrew Perti (Founder, Seattle Interactive Media Museum), and Julia Swan (MOHAI) sat on the panel. Since joining the *POI* project, MOHAI staff have discovered other ways for the topic to grow at the Museum and the project has expanded as a result.

♦ Lowell, MA (American Textile History Museum, Lowell National Historic Park, Lowell Telecommunications Corporation): Lowell, MA has reinvented itself several times since its heyday in the textiles industry in the 1820s. Buildings erected as manufacturing plants and worker housing have been recreated over the years, serving new purposes as the city brings in new manufacturers and cultural organizations. Although Lowell has not hosted a public program prior to November 2013, Lemelson Center staff met with the project team in August 2013 to review the project status and working plan for all necessary deliverables, facilitate and mediate relationships with local stakeholders, and discuss plans for a small *POI*-related exhibition at the American Textile History Museum.

COLLABORATION BETWEEN COMMUNITY PARTNERS AND AFFILIATE INSTITUTIONS

HOW COLLABORATIONS BEGAN

Affiliate staff and community partners were asked how their *POI* partnerships began. More than two-thirds of interviewees talked about having previous relationships with their project partners (see the first quotation below). Less than one-third said they are connected to their partner organizations through mutual contacts and networking (see the second quotation). A few also said that the partnership makes sense topically (i.e., the community partner is an organization that supports the innovation being explored). Two also said that the community partner was chosen to provide skills or knowledge that the Affiliate did not possess (see the third quotation). In some cases, partners were selected for the *POI* project for more than one of the reasons addressed above.

> They're a great partner for us; we work with them for lots and lots of programming, so we actually just reached out to an engineer that we work with all the time. . . . When they heard the idea, they thought that it was a great idea and they wanted to be able to share that story. [Affiliate staff member]

I also attended a number of meet-up events, so sort of informal and formal networking events for people in the gaming industry. I started attending those just to become aware of what the community was talking about [and] who the community was. [Affiliate staff member]

As we were looking at what we wanted to produce for this, we realized we don't know how to make videos. We don't have the equipment. . . . We've been looking for a project to do with [the partner organization], and since this is a video production project, it made a lot of sense. [Affiliate staff member]

Several Affiliate staff members and community partners also talked briefly about the nature of the partnership, which differs at each location. In some instances, Affiliate staff and community partners work together closely and continuously, whereas in other instances, community partners volunteer a specific set of skills or connections as necessary. In at least one instance, the nature of the partnership has changed over time based on the availability of the community partner (see the quotation below).

I worked with [the community partner] over the course of a few months last fall and this winter to identify as broad and diverse a range of folks as we could that we felt really represented the breadth of [the industry] here in the area. And so we came up with a top ten list of individuals that had really made significant impact on [the industry in the area]. And then using [the community partner's] leverage with his contacts within the industry, we reached out to our top people and then were able to line up six oral histories. . . . I think since he agreed to be our community partner, his workload has increased . . . he sort of realized that his time was more limited. We just sort of recalibrated a little bit in terms of what my expectations of him were going to be. . . . Scaling back what he was able to do, but [we were able to] really focus on the most pressing need that I felt I had of him. [Affiliate staff member]

STRENGTHS OF COMMUNITY/MUSEUM PARTNERSHIPS

More than two-thirds of interviewees said the greatest strength of the partnership is the partnership's ability to engage the community by developing and sharing interesting community stories. Interviewees talked about this in different ways based on their individual partnerships and the relationship among the Affiliate, the community partner, and the community. But, overall, Affiliate staff and community partners welcomed the opportunity to further engage with the community while telling a robust story of invention (see the first quotation below). More than one-third said that partnering with the Smithsonian Institution is the greatest strength because their stories will be told on a national stage. More than one-third said the greatest strength is the passion the organizations and individuals bring to the project (see the second quotation).

I think the greatest strength has just been our ability to reach out into the community, into our networks, and keep getting ideas and keep engaging the community. [Community partner]

I think one of the main things is that the [community partner] is full of incredibly passionate people and the Museum is full of incredibly passionate people. And, as we've chatted, we both have, as part of our mission, to essentially provide educational opportunities and [build] interest in the STEM disciplines. [Affiliate staff member]

CHALLENGES OF COMMUNITY/MUSEUM PARTNERSHIPS

Less than one-half of interviewees said finding time in the schedules of Affiliate staff and community partners is challenging. These interviewees recognized finding time would be a challenge of any project because they are already working at capacity. Smithsonian Affiliations staff also recognized this as a challenge, addressing the fact that for Affiliate staff and community partners, *POI* was one more project on their plate, rather than the only project, and that in some cases, the work being done was on a

volunteer basis, outside the scope of a community partner's day-to-day job. More than one-third said that evolving expectations from the Lemelson Center have made it difficult to authoritatively engage with partners. At least one of these interviewees said the long lead time associated with Lemelson Center deliverables has made it difficult to maintain project momentum and partners' involvement and interest. Less than one-third said the greatest challenge is staff turnover and other institutional changes over time, which have affected the project team (see the first quotation below). A few said it is challenging to understand the project expectations and then tailor project team expectations accordingly (see the second quotation).

> The turnover was exhausting for us because it has meant in a number of cases that the people trained in the first class aren't there anymore. So, you know, we've done some very hasty sort of pushing the bricks back in the wall, trying to retrain people who are brand new at their institutions. [Affiliate staff member]

> We have sheaves of research, and we have a general idea of what we want to include in that script. But, then, just whittling that script down to three or four, you know four-minute or less pieces, has been the biggest challenge, to really just see, 'okay, let's make these high-quality deliverables with the information we have.' [Community partner]

IMPACT ON FUTURE PARTNERSHIPS

More than one-third of interviewees said that, because of their experience with the *POI* project, they are hoping to continue partnerships developed for the project or reach out to new partners as they take on new institutional projects (see the first quotation below). Almost one-third said that for future partnerships, they will make sure there are clear project expectations so each partner organization knows what needs to be done and by when (see the second quotation). Almost one-quarter recognized the importance of having director-level buy-in and the knowledge that they are partnering with an *organization* rather than an individual. One person said that hiring specific staff for a large partnership is something that would be considered moving forward. One person talked about the importance of open and honest communication among partners, and one person talked about having universal enthusiasm for the project from all partners.

> I hope they continue the relationships with the [community partner] even though we won't have a requirement to do so when the grant is over. I think they're an amazing resource and I think that we've proven with this collaboration that we can work well with them. . . . I think [this collaboration] might make us feel more comfortable reaching out to other community groups and just seeing what we can do with them, because we have struggled in the past to do that. [Affiliate staff member]

> I think the first thing I would do is really clarify the role from the outset in writing and all that. . . . I think just have an agreement, person to person, and say, 'You are going to be in charge of all this, I am going to be in charge of all this,' and make that a little bit clearer. [Community partner]

COLLABORATION WITH THE LEMELSON CENTER AND DR. MCCONAGHY

STRENGTHS OF THE COLLABORATION

More than three-quarters of interviewees said the strength of the collaboration with the larger project team comes from the resources and personnel available to Affiliate teams from the Smithsonian Institution and the Lemelson Center. Many of these interviewees talked about instances in which Anna Karvellas and Dr. McConaghy helped answer questions and talked Affiliate staff through the planning of events (see the first quotation below). Additionally, several interviewees talked about how helpful it

was to have Anna Karvellas and Smithsonian Affiliations staff members visit their individual institutions and community partner organizations in an effort to gain a better understanding of the project and keep the project moving forward. In a few instances, these interviewees also talked about how these visits helped grow the project team, as Ms. Karvellas was able to bring additional partnership support onboard (see the second quotation).

> [The Lemelson Center] helped us get everything planned for the event. So, we came up with a general outline and then. . . . Anna and I spent lots of time back and forth, building the schedule, building the plan out, [and] preparing the presentations. [Affiliate staff member]

> Anna did actually get a chance to come visit and she helped to really, you know, pull in [another organization] in even more. I think she could see that we needed more on-the-ground support to get the project completed. And she met with somebody over at [another organization] and just said, you know, are you available to help with this, can they call you, and really brokered that relationship with us, even made it a little deeper than it was. So I think that's been really helpful. [Community partner]

Smithsonian Affiliations staff also played a role, although this did not come up as often in interviews with Affiliate institutions and community partners. However, one Smithsonian Affiliations staff member acknowledged that his/her job was to push the project teams forward, helping them to stay on track and assisting with the procurement of necessary resources. Almost one-third also said that communication between the larger project team, Affiliate institutions, and community partners is a strength of the collaboration, citing quick responses to emails and telephone calls. Less than one-quarter said that the cachet of the Smithsonian Institution name is also a strength of the collaboration. Less than one-quarter also said the collaboration is stronger because many voices from around the country will be included in the exhibition, in addition to the core stories that comprise the exhibition (see the quotation below).

> I thought it was great that the [*POI*] exhibition was so inclusive. . . . I think there are six communities that are a real focus, but then the map which we're on, so people can see that innovation is happening in every state across the Nation. I think that's really great, people like to see that. [Affiliate staff member]

CHALLENGES OF THE COLLABORATION
Almost one-third of interviewees said the main challenge of the collaboration is having what they perceive as unclear expectations and changing deadlines from the Lemelson Center. Although interviewees understand that this perceived fluctuation may be due to the pilot nature of their involvement, they have found adapting to changing expectations and timelines difficult (see the first quotation below). Less than one-quarter said the lag time between deliverables and the slow-moving bureaucratic system through which the project sometimes has to move is challenging, in part because this slow pace has made it more difficult to maintain excitement for, and commitment to, the project (see the second quotation). Less than one-quarter also said the lack of ongoing face-to-face contact among Affiliate institutions, the Lemelson Center, and Dr. McConaghy is challenging. Again, interviewees recognized that this was the nature of the project, but often spoke of how wonderful it was when Smithsonian personnel had visited the Affiliate institutions and gained a greater understanding of the individual projects.

> It seemed as though what [the Lemelson Center] wants from the Affiliates has been in development. . . . One of the things we were told is that one of the outcomes of our projects should be the videos with certain requirements, but I think those requirements have changed.

And that makes sense because they're in the process of developing the exhibition, figuring out what actually makes sense for them, but I think it's been a little tricky for me to plan appropriately to create this video when requirements for it have been in flux a bit. . . . (Can you explain to me a little bit about what some of those changes in requirements have been?) For example, the original description of what they wanted out of this video that goes into their Interactive Map was something like…[a] four minute video, and that was information given to us over a year ago, like, summer of 2012, I guess. And so that's been what I've been kind of thinking about and planning and had talked to a video production crew about doing. And then this summer when I was actually in DC, actually meeting with Anna in person, their requirements were changing, and it was kind of like, 'well, actually, a two minute video, or maybe you could have more than one video.' And it just seemed like they're [the Lemelson Center] not a hundred percent sure what they want and so it's been hard for me to really understand what they want me to produce. [Affiliate staff member]

It goes back to the scheduling thing. These deadlines get put out, you know, 12 months in the future, and it's like, 'well okay, I'm just not going to do this for a while because it's way out in the future.' Or, sometimes we've got something, and we're looking for feedback and it takes a while for the feedback to come back. [Community partner]

SUGGESTIONS FOR IMPROVING COLLABORATION

More than one-third of interviewees suggested that the Lemelson Center provide Affiliate institutions with a set of clear expectations and guidelines so that all parties understand the deliverables and timeline from the beginning of the project (see the quotation below). One of these interviewees suggested that a more detailed timeline, which included due dates for everything from deliverables to progress reports, would help ensure that the project stays top-of-mind, and also allow the Affiliate institutions to work with community partners in a more deliberate way. Additionally, this interviewee said the timeline could include approximate dates when Affiliate institutions would hear back from the Lemelson Center on progress reports, which would eliminate some of the frustration associated with lag time in the project. Another of these interviewees suggested including examples of deliverables so that Affiliate institutions have a strong understanding of what is expected.

It took me a while to understand that we were being asked to only provide something that was going to come up when you touched a map. I think my people also had a hard time understanding what the video was supposed to include. . . . [It was] just a little bit vague, and so maybe [it] needed to be delineated a little more clearly. . . . Maybe [the Lemelson Center was] trying to leave the product flexible enough that each individual organization could sort of put their own twist on it. But we needed to know exactly what we were doing.
[Affiliate staff member]

Almost one-third suggested providing more opportunities for direct contact among partner Affiliates. Many of these interviewees suggested a monthly or bi-monthly conference call to give Affiliate staff and community partners the chance to hear about other projects and discuss issues and questions with others (see the quotation below). Two interviewees suggested speeding up the process so that more of the work is completed at the beginning of the timeline, when Affiliate staff and community partners are excited about the project and have just learned about project expectations at the Affiliate workshop. Two interviewees also suggested a stronger vetting process for participating Affiliates to ensure that the institutions involved have the resources and passion to participate in the process. One of these interviewees wondered whether it would be possible to pull participants from a larger pool of institutions rather than limiting the project to the Smithsonian Affiliations network. Interviewees who talked about the vetting process and the inclusion of non-Affiliate museums were interested in ensuring

that "diamonds in the rough"—smaller institutions that could benefit greatly from the support of the Smithsonian—were included in the process as well.

> I think if there was a conference call maybe every other month or something like that, that we could participate in on Skype. Or, maybe if we were partnered with another organization where we could just have a conversation like, 'Oh, this is going really well, this I'm not clear on. What are you guys doing?' That might be helpful, too. [Community partner]

AFFILIATE WORKSHOP AND INTERACTION

BENEFITS OF THE AFFILIATE WORKSHOP

Almost one-half of interviewees said the benefit of the Affiliate workshop was the opportunity to meet people from other Affiliate and community-partner organizations and hear about the different projects that are part of *POI* (see the first quotation below). About one-third said the benefit of the Affiliate workshop was the opportunity to learn how to conduct historical research and other concrete skills needed to complete projects. Many of these interviewees are community partners who do not have experience conducting historical research or other museum skills such as planning public programs. One interviewee said the Affiliate workshop allowed her to see the big picture and provided a greater understanding of how Affiliate work fits into the *POI* exhibition. One interviewee, a Smithsonian Affiliations staff member, said the Affiliate workshop informed Affiliate staff members and community partners of the resources that already exist, both locally and through the Smithsonian, spurring the realization that the project did not have to be built from scratch (see the second quotation).

> For me the biggest benefit was not so much in learning how to document local history or how to work with partners, because that was something that was pretty much what I was already doing. To me the benefit was meeting the other Affiliates, being at the Smithsonian, meeting the people that ran the Lemelson Center, just benefitting from that networking and from that culture of professionals. [Affiliate staff member]

> [The workshop] was eye-opening in terms of, here are all the resources you probably already have access to that you can pull together for a project like this. What I was hearing from my Affiliates was, 'Oh, okay, you know, we don't have to create this thing from scratch. We can use, we've got archives, we've got photography collections, we've already got oral histories or we know somebody who is already doing oral histories, or we can use university students, the history class that would do this work.' So, it was that kind of thing where [Lorraine McConaghy] was reminding them of all the resources they have at their disposal to make this project successful. [Smithsonian Affiliations staff]

CHALLENGES OF IMPLEMENTING AFFILIATE WORKSHOP KNOWLEDGE

Overall, interviewees mentioned very few barriers to using the knowledge they acquired at the Affiliate workshop. Less than one-quarter of interviewees said that finding time to implement the new skills when they returned to their institutions has been difficult. A few interviewees said that staffing changes after the workshop made using the information difficult because other staff did not have the context and skills provided by the workshop. One interviewee suggested including a video or having another conference for staff and other participants who join the project after the Affiliate workshop has already taken place (see the first quotation below). One interviewee said it would be easier to use the information if the focus of her project had been more defined prior to attending the workshop. One interviewee said that she found the workshop confusing at times, because the Affiliates were all at different places in the process (see the second quotation).

I think making [the workshop] content required was a good thing, but because [some participants] couldn't be there [due to staff changes], I don't know whether it would have been useful to have a follow-up video conference with [new participants] or a follow-up something with them. Or maybe just to make sure that they got the key principles of the program. [Smithsonian Affiliations staff]

[The workshop] was a little difficult in some regards because we were all at different places in the project. Some of us were already well into designing exhibits in our facilities that went well with this project. Some folks were literally starting at page one and hadn't done any research yet. So, I know the presentation of some of the material, the support material, could be a little confusing at times because you're trying to figure out, 'oh, did we already do that step or do we need to go back and start over again?' So, to be able to have material that addresses each Affiliate in terms of where they are in the process [would be helpful]. [Affiliate staff member]

MISSING FROM THE WORKSHOP

Almost one-quarter of interviewees said they would have liked a longer workshop with more hands-on learning and application of skills, such as completing oral histories. Almost one-quarter wanted supplemental information in the workshop, including technical information such as baseline standards of video production (e.g., required graphics, etc.), and information on developing public programs and incorporating the work done for *POI* into Affiliate institutions. Almost one-quarter wanted more community-building opportunities among the Affiliate staff and community partners from different project teams. One of these interviewees talked about a desire to spend more time talking about how different project teams could best share their progress and stay in touch after the workshop. One interviewee said that she wanted to be pushed more to narrow the focus of the project.

SHARING INFORMATION WITH OTHER AFFILIATES

BENEFITS OF SHARING INFORMATION

Very few interviewees have shared their work with other Affiliates. Of those who have, many engaged in passive sharing by uploading documents to Basecamp. A few have been asked to share their experiences in different ways, including presenting at the Smithsonian Affiliates National Convention that took place in June 2013 and writing a blog post for the Lemelson Center's *Bright Ideas* blog series. Very few of these interviewees talked about the benefits of sharing information; one interviewee talked about the benefit of having her organization nationally recognized.

BARRIERS TO SHARING

Interviewees cited many reasons for not having shared their work with other Affiliates. More than one-third of interviewees said they do not have time to check Basecamp regularly and think of it as "just one more thing" to do (see the first quotation below). More than one-third said they are unsure of the benefits of sharing. These interviewees talked about the vast differences between projects, the fact that each Affiliate is at a different step in the process, and that the value of sharing has not been made clear to them (see the second quotation). Two interviewees said that other people in their organization might have shared information with other Affiliates, but their role in the project has not put them in touch with other Affiliates or with the Lemelson Center directly. One interviewee had not attended the Affiliate workshop and therefore did not have the same connection to other Affiliate staff, having never met them. One interviewee said she had not shared anything because none of the deliverables are completed and therefore not worth sharing.

For me, [Basecamp] ended up being one more thing I had to do rather than a way of effectively communicating what I was doing. [Affiliate staff member]

We're probably all caught up in our little worlds. . . . It's just not natural to go, 'Oh, I wonder how the people doing a totally different subject in a totally different situation are doing on their [project].' [Community partner]

STRATEGIES TO IMPROVE SHARING AMONG AFFILIATES

Interviewees did not differentiate steps that the Lemelson Center can take to encourage sharing from steps that individual Affiliates can take. Rather, interviewees talked about overarching ideas for improving information sharing among Affiliates. More than one-half talked about scheduling monthly or quarterly conference calls or reports to share progress, since finding time to check a Basecamp site that may or may not yield useful information is not a priority (see the first quotation below). A few of these interviewees also mentioned other ways of sharing information, such as the creation of a *POI* listserv that would allow institutions and community partners to solicit help and feedback from other participating institutions. One interviewee suggested gathering together all of the participating Affiliates at the Smithsonian Affiliates National Conference. Other suggestions were idiosyncratic. One interviewee recommended that institutions involved in the first cohort mentor institutions in the next phase of the project. Another interviewee said that sharing would be easier if there was a clear purpose (see the second quotation). One interviewee said that it would be easier to understand Basecamp postings if all postings were clearly labeled with explanations so participants could easily locate the most relevant documents.

> I don't know if there might be a chance to either do a quarterly or even just an annual Skype or conference call, just to chat with your other partners. . . . To at least have the opportunity to Skype with each other a little, a couple times a year would be cool just to check in with each other and potentially facilitate those relationships. [Affiliate staff member]

> What is it that we really want people to commune about? Is it the idea of innovation, is it that they are Affiliates of the Lemelson Center and that is the nature of the community? . . . I think we would need to be better informed and dig more deeply about what the purpose of that community is. [Affiliate staff member]

KNOWLEDGE OF CONDUCTING HISTORICAL RESEARCH

Many interviewees involved in the *POI* Affiliate projects have worked in history museums or have history backgrounds, and therefore, the information presented about conducting historical research was not new to them. However, many interviewees, regardless of their background, talked about acquiring new skills as a result of their project involvement. Less than one-quarter of interviewees said they learned about needing many sources when conducting historical research, and the importance of collaborating with others to find source materials. Two interviewees said they learned about completing oral histories (see the first quotation below), and two interviewees learned best practices for translating research from notes to video (see the second quotation).

> It has been a great experience in gaining experience and skill in oral history techniques, how to conduct a good oral history interview. [Affiliate staff member]

> The new aspect for us is the video aspect and interviewing people, and the lights and the sound and the cameras and things. And understanding how that changes the kind of research [and] the kind of story you can tell. [Affiliate staff member]

EXPERIENCE OF THE MINORITY

As noted previously, interviewees from one Affiliate project had a distinctly different experience than the rest of the interviewees. The Heinz History Center in Pittsburgh, PA has had a unique experience with the project due, in part, to staffing changes that took place shortly after the institution was asked to participate in the first round of the *POI* project and partly because of the relationship between the History Center and the community partner. We have separated the findings of this Affiliate project from the rest to provide necessary context. While the experiences of Pittsburgh are in the minority, they still provide great insight to the *POI* projects' successes and challenges.

OVERVIEW OF AFFILIATE PROJECT

The Senator John Heinz History Center is partnering with the Manchester Craft Guild Jazz organization (MCG Jazz) for the *POI* project. The History Center's project is focused on "The Pittsburgh Sound," a specific type of jazz that was developed in the city. Given the city's location at geographical crossroads in the early days of train travel, trains from Chicago, St. Louis, New Orleans, and New York stopped in Pittsburgh, and travelers on these trains often had to transfer to different rail lines to continue their trips. These rail lines were often traveled by musicians who brought the unique jazz sounds of their home cities to Pittsburgh. Local musicians were able to hear from, learn from, and play with American jazz greats as they traveled through Pittsburgh. The city's geography also played a role in the emergence of the "Pittsburgh Sound." The hilly city allowed for many different, often isolated and independent, neighborhoods to grow. These different neighborhoods produced different jazz sounds, which together comprise the "Pittsburgh Sound."

Thus far, Lemelson Center staff have traveled to Pittsburgh twice. In February 2013, Lemelson Center and Smithsonian Affiliations staff helped the project team negotiate challenges inherent in the unique situation at the History Center and encouraged the project team to utilize the resources available at the Smithsonian and those offered by the partnership with MCG Jazz. In September 2013, Lemelson Center staff were on hand at the 2013 Induction of Pittsburgh Jazz Legends at MCG Jazz. During this visit, the project team expanded, with the recruitment of the History Center's Director of African American Programs and jazz curator to the *POI* project. Also in September 2013, MCG Jazz and the History Center agreed to do at least two performances together, setting the stage for future project collaboration. The project team has tentatively agreed to complete a public program in 2015 to coincide with the centennial birthday celebration of a Pittsburgh jazz great.

COLLABORATION BETWEEN COMMUNITY PARTNERS AND THE AFFILIATE

EVOLUTION OF COMMUNITY PARTNERSHIPS

The development of the project and the project topic pre-dates the arrival of both staff at the History Center who are currently involved with the *POI* project; neither individual attended the Affiliate workshop where the idea of focusing on the "Pittsburgh Sound" first emerged. According to History Center staff, the original intent was to focus on the rivers and bridges of Pittsburgh, which led the original staff at the History Center to reach out to the Young Preservationists Association (YPA). Students involved in the organization were going to be responsible for creating the videos required for the Interactive Map. The change of topic from the rivers and bridges to the "Pittsburgh Sound" and the desire to incorporate a concert as the required public program led to a change in community partners. At the Smithsonian's suggestion, the History Center partnered with the Manchester Craftsmen Guild, a jazz organization (MCG Jazz). The History Center continues to work with the YPA, but the YPA's role in the project is smaller than originally anticipated.

When asked about the strengths of the partnership, Museum staff spoke about MCG Jazz partners' and History Center staff's passion for the topic (see the first quotation below). Museum staff also talked about the possibility for future work with MCG Jazz moving forward, saying that the partnership that is developed for the purpose of the *POI* project could grow and benefit the mission of both organizations moving forward through the creation of a more permanent exhibition on jazz music in Pittsburgh. Smithsonian Affiliations staff also said that the History Center's strong history of participating in Affiliations projects is a project strength (see the second quotation).

> I think it brings out [the] passion [of] people who are interested in jazz on staff, and [I think] MCG Jazz are inherently interested in jazz, they are musicians. . . . I'd say the director of our library and archives is very passionate about jazz, as is our curator of African-American programs. And so we were able to bring in colleagues who were not initially intended to be part of the project, but who have been helping because [the subject] speaks to their hearts. [Affiliate staff member]

> I work with the Heinz Center so, so closely that I know that in the end they're going to produce something absolutely fantastic because they always do. No matter what project we throw at them, they come out with flying colors which is what makes them a flagship Affiliate. [Smithsonian Affiliations staff]

CHALLENGES OF THE COMMUNITY/MUSEUM PARTNERSHIPS
Many of the challenges of the partnership between the History Center and the YPA and the partnership between the History Center and MCG Jazz stem from changing expectations and pre-existing relationships.

YPA's former director attended the Affiliate workshop in 2012 where he helped select the topic of Pittsburgh jazz. After leaving YPA, he remains involved in the project as a consultant, although his understanding of his changing role with the Heinz Center has not been completely clear. He has worked with the History Center to create a walking tour of historic locations in the Pittsburgh Hill District. Although he has done a lot of work on the project for the History Center, the former YPA staff member said the benefit to their organization is not clear and it is difficult to donate time without receiving financial compensation.

MCG Jazz has a pre-existing relationship with the Smithsonian and contact between MCG Jazz and the Smithsonian has, from time to time, created challenges for the History Center. For example, in a few instances, MCG Jazz has received information about the *POI* project from contacts at the Smithsonian rather than contacts at the History Center. Additionally, in at least one instance, a volunteer group working with one part of the History Center approached MCG Jazz for information that the *POI* History Center team asked for later. In all instances, staff at the History Center said they have worked to create clear lines of communication to ensure a smooth partnership. However, there is confusion about the work being done by MCG Jazz as part of its pre-existing relationship with the Smithsonian and work being done by MCG Jazz in partnership with the History Center for the *POI* project.

IMPACT ON FUTURE PARTNERSHIPS
Interviewees offered similar input as interviewees at other sites regarding lesssons learned that could positively impact future collaborations: namely, partners need buy-in from high-level staff to ensure that a project stays top-of-mind and is given the time and attention it requires, and clear expectations are key (e.g., time commitment required). Another interviewee said having consistent project goals is important for future partnerships (see the quotation below).

I [want to] know exactly what they want us to do. And I don't [want to] feel like the goals are being moved around on me, the communication on that, it's sometimes delayed, but [that] it's at least clear when it gets to me. [Affiliate staff member]

COLLABORATION WITH LEMELSON CENTER AND DR. MCCONAGHY

The History Center staff have enjoyed a positive relationship with Anna Karvellas at the Lemelson Center, acknowledging that she is always available to answer questions and address concerns; they also recognize that Anna has gone out of her way to help make the project a success in Pittsburgh. One challenge the History Center said they have had to address is changing expectations from the Lemelson Center about deliverables, specifically about the video that will be produced and populate the *POI Interactive Map*. While the History Center is confident that such a video can be made, the perception that more rigorous video guidelines have been put in place means that the staff member overseeing the project is no longer best suited for the job. Additionally, staff said changes to deliverables and expectations have made it difficult to talk with partners, as the History Center does not want to come across as uninformed or unprepared (see the first quotation below). Staff also worries that the requirements for the deliverables have become grander, but the budget and timeline have remained the same (see the second quotation). The History Center staff said they are still working to address these problems.

> Because the information has changed, it's actually hard to get rolling on their project. I don't want to approach our partner with the expectations at hand, since they have already changed so much in February and June. . . . I am hesitant to even approach our partner with expectations in hand, if there's opportunity for them to change again. [Affiliate staff member]

> I think [the challenge] is just being in the first phase of the pilot, [the Lemelson Center does not] know exactly where it [the exhibition] was all going; that's been our challenge, trying to keep up with that, and the ever-evolving, what it would seem to us to be an ever-evolving, need. And the project seems to be just getting bigger and bigger, and the budget has stayed the same, and that's a challenge as well. [Affiliate staff member]

SUGGESTIONS FOR IMPROVING THE COLLABORATION

History Center staff expressed a desire to maintain relationships with other Affiliates participating in the project. One staff member said some of these connections may have been forged by other Affiliates at the Affiliate workshop, but that he or she, as a new staff member joining the project after the workshop, felt isolated. One interviewee said that beyond a clear list of deliverables, having well-articulated technical expectations is also important (see the quotation below).

> I think we're feeling a little overwhelmed by everything that we're being asked to do. And frankly a little unclear of what we're asked to do. . . . So I think maybe minimizing some of the deliverables and having very clear technical requirements. [Affiliate staff member]

AFFILIATE WORKSHOP AND INTERACTION

Staff from the History Center did not attend the workshop, and there was not an opportunity for a follow-up workshop. Materials from the workshop were sent to History Center staff with the option to revise, but they did not do so; given the changes that had taken place, History Center staff said they have had a difficult time reconciling what they read in the materials with what they were trying to do. One History Center interviewee suggested that, given the nature of a pilot program, it might have been helpful to wait until expectations and requirements were clearly defined before sending the materials. History Center staff also acknowledged that, in retrospect, it would have been beneficial for the History Center to send someone from their staff to the workshop, even if the information was to be shared with

the project manager second-hand. Given that the workshop was the point at which the Pittsburgh project team initially selected a topic, having input from the History Center would have been vital (see the quotation below).

> [Attending the workshop] may have helped things. I don't know. It's hard to say. I don't think we would've picked jazz as our topic in retrospect, to be perfectly honest. (Why is that?) Just because we don't necessarily have the collection and the resources to really address that fully, and [we] probably would have chosen a different topic. [Affiliate staff member]

SHARING INFORMATION WITH OTHER AFFILIATES

Sharing information with other Affiliates has also been difficult for History Center staff. The History Center posted documents to Basecamp, as instructed by the Smithsonian, but postings from other Affiliate institutions are not present on Basecamp. One History Center interviewee suggested a conference call with all of the Affiliates to allow staff at other institutions the opportunity to share information. He or she also suggested a conference call could open lines of communication and encourage Affiliate staff working on the *POI* project to reach out with problems and questions in a more organic way (see the quotation below).

> What I really think would be helpful here is a conference call for all of us to [meet] each other over the phone. . . . If we could have that, a larger call with all these people who are also engaging in this work, it takes away the sense that maybe I'm bothering somebody [by reaching out and calling them]. If we all agree, like, 'hey, call me, it's cool.' [Affiliate staff member]

KNOWLEDGE OF CONDUCTING HISTORICAL RESEARCH

Affiliate staff and community partners had previous knowledge of conducting historical research; however, given the format the project has taken at the History Center, the historical research for this project will be completed by History Center curators rather than education staff.

APPENDIX A

Removed for proprietary purposes

APPENDIX B

SAMPLE *PLACES OF INVENTION* AFFILIATE PILOT PROJECT SUB-AWARD AGREEMENT

SENATOR JOHN HEINZ
HISTORY CENTER
IN ASSOCIATION WITH THE SMITHSONIAN INSTITUTION

1212 Smallman Street | Pittsburgh, PA 15222-4200 | 412-454-6000 | www.pghhistory.org

November 6, 2009

Monica Smith, Project Director
Tricia Edwards, Project Educator
The Lemelson Center for the Study of Invention and Innovation
National Museum of American History
Smithsonian Institution
P.O. Box 37012, MRC 604
Washington, DC 20013-7012

Dear Monica and Tricia:

We're very excited about the opportunity to work with the Smithsonian's Lemelson Center on the Place of Invention project to develop our expertise and scope of public programming related to inventors and innovators. We opened our major exhibition, *Pittsburgh: A Tradition of Innovation* in November 2008 and have had record-breaking attendance ever since. Our audiences, especially school students, are intrigued by inventors and what makes them succeed.

Our research for *Pittsburgh: A Tradition of Innovation* raised many questions for us about the environment in which invention and innovation occurs and what causes it. We've engaged key members of the Pittsburgh community as part of our work on the exhibition and are eager to expand those connections to develop public programs. The Place of Invention pilot project to work with Smithsonian Affiliates is a perfect match for us. Our next step is to learn more from our audiences about what they want to know about invention and innovation in America and how Pittsburgh played an important role in that national story and then provide those museum learning experiences – on-site and virtually.

The Places of Invention project will provide opportunities for developing a broader community of museum professionals working on this relevant topic – especially as we work to fulfill our mission to make relevant connections between the past and present so our visitors can make good decisions for the future. We offer our full support for this project and will look forward to hearing from you that the NSF has awarded the project grant funds.

Sincerely,

Andrew E. Masich, President and CEO

Anne P. Madarasz, Museum Division Director/*Pittsburgh: A Tradition of Innovation*, project director and chief curator

WESTERN PENNSYLVANIA
SPORTS MUSEUM
AT THE HISTORY CENTER

LIBRARY & ARCHIVES
AT THE HISTORY CENTER

MEADOWCROFT
ROCKSHELTER AND
MUSEUM OF RURAL LIFE

Subaward Agreement

Institution/Organization ("Smithsonian")	Collaborator
Name: Smithsonian Institution	**Name:** Historical Society of Western Pennsylvania (The Senator John Heinz History Center)
Address: 2011 Crystal Drive, Suite 352 Arlington, VA 22202	**Address:** 1212 Smallman Street Pittsburgh, PA 15222

Prime Award No. DRL-1010776	Subaward No. 12-SUBC-000025378 9

Awarding Agency	US Federal Gov. Funds	CFDA No.
NSF	☒ Yes ☐ No	47.076

Subaward Period of Performance (start and end dates)	Maximum Amount Funded	Est. Total (if incrementally funded)
3/26/12 - 8/31/14	$10,000	

Project Title

Places of Invention

Reporting Requirements/Deliverables: See Appendix 3

Terms and Conditions

1) Smithsonian hereby awards a cost reimbursable subaward to Collaborator. The subaward is subject to the terms and conditions of the Prime Award, which is attached hereto as Appendix 1. By signing below, Collaborator agrees to comply with the terms and conditions and makes the certifications and assurances shown in Appendix 2, and assures that it will comply with applicable statutory and regulatory requirements specified in the Research Terms & Conditions Appendix C found at http://www.nsf.gov/bfa/dias/policy/rtc/terms.pdf.

2) The Scope of Work, Reporting schedule and Budget for this subaward are attached in Appendix 3. Collaborator will perform the work described in Appendix 3 with the standard of professional care and skill customarily provided in the performance of the type of work described in the Appendix. In its performance of the work, Collaborator will be an independent contractor and not an employee or agent of Smithsonian.

3) For work performed under this subaward, Smithsonian will pay Collaborator up to the Maximum Amount Funded. Payments will be made not more often than monthly for allowable costs (as determined by OMB circulars A-21, A-87, A-122 or other applicable US Federal cost principles) approved by Smithsonian's Technical Representative, as named in Appendix 4. All invoices will be submitted no more often than monthly and no less often than quarterly using Collaborator's standard invoice, but must include current and cumulative costs (including cost sharing if applicable) listed according to the cost categories in the budget, be in US dollars, include this subaward number, and certification as to the truth and accuracy of the invoice. Upon request of Smithsonian, Collaborator will provide supporting documentation substantiating the payment and allowability of amounts set forth in any invoice or report. Invoices and questions concerning payments should be directed to the appropriate party's Financial Representative, as named in Appendix 4.

4) A final invoice marked "FINAL," must be submitted to Smithsonian's Technical Representative NOT LATER THAN (30) days of the end date of this agreement. The final invoice will constitute Collaborator's final financial report. The final invoice must include current and cumulative costs (including cost sharing if applicable) listed according to the cost categories in the budget, be in US dollars, include this subaward number, and certification as to the truth and accuracy of the invoice.

5) Upon request of Smithsonian, Collaborator will refund any amounts determined to be unallowable expenditures as a result of an adverse audit finding against Collaborator.

6) Matters concerning the technical performance of this subaward and any technical reports should be directed to the appropriate party's Technical Representative, as named in Appendix 4. Technical reports are required as shown above, "Reporting Requirements/Deliverables".

7) Matters concerning the request or negotiation of any changes in the terms, conditions, or amounts cited in this subaward agreement, should be directed to the appropriate party's Administrative Contact, as named in Appendix 4. Any changes made to this subaward agreement require the written approval of each party's Authorized Official, as named in

Appendix 4.

8)   Each party will be responsible for its negligent acts or omissions and the negligent acts or omissions of its employees, officers, directors or agents and will indemnify, defend and hold harmless the other party (including employees, officers, directors or agents) for any loss resulting from such negligence, to the full extent allowed by law.

9)   Either party may terminate this subaward with thirty (30) days prior written notice to the other party's Administrative Contact, as named in Appendix 4. In the event of termination of the Prime Award, Smithsonian may terminate this subaward immediately. Upon receipt of termination notice, Collaborator will make no further commitments under this subaward and take reasonable steps to cancel outstanding obligations. Smithsonian will pay Collaborator for allowable termination costs and uncancellable obligations through the date of termination, up to the Maximum Amount Funded.

10) No-cost extensions require the approval of the Smithsonian. Any requests for a no-cost extension should be addressed to and received by the Administrative Contact, as shown in Appendix 4, not less than thirty (30) days prior to the desired effective date of the extension.

11) Collaborator provides to Smithsonian an irrevocable, royalty free, non-transferable, non-exclusive right and license to use, reproduce, make derivative works, display, and perform publicly any copyrights or copyrighted materials (including any computer software and its documentation and/or databases or other proprietary materials) first developed and delivered under this subaward for educational, research, promotional, scholarly, exhibition, or other standard museum purposes. If an assignment of rights is required to meet Smithsonian's obligations under the Prime Award, Collaborator hereby transfers and assigns to Smithsonian any and all such copyrights, trademark, and other proprietary rights in the materials. Collaborator will execute and deliver to Smithsonian an assignment or other instruments of transfer of copyright and take such other action as Smithsonian may request or require for Smithsonian's rights to the works.

12) Collaborator grants to Smithsonian the right to use data created in the performance of this subaward for the purpose of education and research or other standard museum purposes and to the extent required to meet Smithsonian's obligations under the Prime Award.

13) Collaborator will maintain any insurance policies required by the Prime Award covering its work under this subaward.

14) Collaborator agrees to give Smithsonian, or a duly authorized representative, access to and right to examine any directly pertinent books, documents, papers and records of the Collaborator involving transactions related to this subaward for a period of three (3) years after the end date of this subaward. If the Prime Award requires these records to be retained for longer than three (3) years from the end date of this subaward, Collaborator will retain the records and allow Smithsonian access to and right to examine for the period required in the Prime Award. Unless Collaborator agrees otherwise, examination will be made during Collaborator's regularly established business hours.

15) Except as required by law, neither party will use the name of the other party or its officers, directors, employees or agents in any advertisement, press release, publicity, or for any other purpose, without the prior written approval of the other party.

16) Any conflict in the terms in this subaward will be resolved by giving precedence in the following order: 1) this subaward; 2) Appendixes; 3) the Prime Award; and 4) applicable local, state and federal laws.

17) If any term of this subaward is held invalid or unenforceable, it will be stricken and the remainder will be valid and enforceable.

18) Collaborator agrees that any subaward of funds under this subaward requires the prior approval of Smithsonian's Administrative Contact, as named in Appendix 4, and Collaborator will require any subrecipient of funds under this subaward to comply with the terms of this subaward and the Prime Award.

19) The foregoing, along with the Appendixes, which are incorporated by reference, constitutes the entire agreement between Smithsonian and Collaborator. By signing below Collaborator agrees to the terms contained in this subaward.

By an Authorized Official of SMITHSONIAN:	By an Authorized Official of COLLABORATOR:
[signature] 5/9/12 Date	*[signature]* 5-2-12 Date
J. Scott Robinson, CRA	

Appendix 1
Subaward Agreement – Prime Award

From:	OSPMail
Sent:	Thursday, September 16, 2010 2:55 PM
To:	Twitty, Ahoua
Subject:	FW: Award Id : 1010776, PI: Smith
Follow Up Flag:	Follow up
Flag Status:	Completed

-----Original Message-----
From: pahawkin@nsf.gov [mailto:pahawkin@nsf.gov]
Sent: Thursday, September 16, 2010 2:48 PM
To: OSPMail
Cc: dgaawd@nsf.gov; dparks@nsf.gov; adesena@nsf.gov
Subject: Award Id : 1010776, PI: Smith

Award Date: September 16, 2010
Award No.   DRL-1010776
Proposal No.   DRL-1010776

Scott Robinson
Sponsored Research Officer
Smithsonian Institution
Office of Sponsored Projects
2011 Crystal Drive, Suite 352
Arlington, VA 22202-3709

Dear Mr. Robinson:

The National Science Foundation hereby awards a grant of $2,581,919 to Smithsonian
Institution for support of the project described in the proposal referenced above as
modified by revised budget dated June 21, 2010.

This project, entitled "Places of Invention Exhibition Project," is under the direction of
Monica M. Smith.

This award is effective September 15, 2010 and expires August 31, 2013.

This grant is awarded pursuant to the authority of the National Science Foundation Act of
1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTC,
dated July 2008) and NSF RTC Agency Specific Requirements (dated January 2010) available at
http://www.nsf.gov/awards/managing/rtc.jsp and the following terms and conditions:

Funds provided by this award include support for "Informal Science Education (ISE)" in
accordance with the NSF program solicitation 09-553.

The Foundation authorizes the awardee to enter into the proposed contractual arrangement and
to fund such arrangement with award funds up to the amount indicated in the approved budget.
Such contractual arrangement should contain appropriate provisions consistent with Articles
8.a.4 and 9 of the NSF Grant General Conditions (GC-1) (dated 1/4/10) or Articles 5 and 40 of
the Research Terms and Conditions (dated July 2008) and any special conditions included in
this award.

1

No human subjects may be involved in the project until the protocol has either been declared exempt or the protocol has been reviewed and approved by the organization's Institutional Review Board, and certification has been submitted to the cognizant NSF Program Officer.

The exhibit and all other materials produced as part of the project, including electronic components such as World Wide Web pages, must include a clear indication of the source(s) of support (both NSF and any other contributors), and must include the NSF logo, all in a manner to be approved by NSF. NSF funding credit and logo also must be displayed at the beginning of any group presentations on the project, including professional or other meetings.

All promotional material for the project produced under the control of the grantee must include NSF funding credit.

Subawardees TBD for the design and production of the exhibition and Web site must be approved by NSF.

PIs are required to (1) submit the Summative Evaluation of the project for posting to the web site http://www.informalscience.org (or other sites designated by ISE) as part of submission of the Final Report; and (2) provide project data via the ISE program online project management system. Final reports will not be approved before a summative evaluative is posted for the project. PIs may be requested to provide additional project data for ISE program analysis and evaluation.

The attached budget indicates the amounts, by categories, on which NSF has based its support.

Please view the project reporting requirements for this award at the following web address [https://www.fastlane.nsf.gov/researchadmin/prsLoginHome.do?awdID=1010776].

The cognizant NSF program official for this grant is Alphonse T. DeSena, (703) 292-5106
The cognizant NSF grants official contact is Laura A. Buckley, (703) 292-4817.

Sincerely,

Pamela A. Hawkins
Grants and Agreements Officer

CFDA No. 47.076
ospmail@si.edu

DRL-1010776   000
SUMMARY PROPOSAL BUDGET

Person MOS	cal	acad	sumr	Funds granted By NSF
A. (0.00) Total Senior personnel	0.00	0.00	0.00	$0
B. Other Personnel				
1. (0.00) Post Doctoral associates	0.00	0.00	0.00	$0
2. (0.00) Other professionals	0.00	0.00	0.00	$0
3. (0.00) Graduate students				$0
4. (0.00) Secretarial-clerical				$0
5. (0.00) Undergraduate students				$0
6. (6.00) Other				$242,614

2

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Total salaries and wages (A+B)                          $242,614
C. Fringe benefits (if charged as direct cost)          $70,116
Total salaries wages and fringes (A+B+C)                $312,730

D. Total permanent equipment                            $0
E. Travel
    1. Domestic                                         $86,400
    2. Foreign                                          $0
F. Total participant support costs                      $0
G. Other direct costs
    1. Materials and supplies                           $63,750
    2. Publication costs/page charges                   $0
    3. Consultant services                              $1,760,000
    4. Computer (ADPE) services                         $0
    5. Subcontracts                                     $200,235
    6. Other                                            $0
Total other direct costs                                $2,023,985
H. Total direct costs (A through G)                     $2,423,115
I. Total indirect costs                                 $158,804
J. Total direct and indirect costs (H+I)                $2,581,919
K. Residual funds / Small business fee
    1. Residual funds (if for further support of
        current projects AAG I.D.2 and I.D.3)           $0
    2. Small business fee                               $0
L. Amount of this request  (J) or (J-K1+K2)             $2,581,919
M. Cost sharing                                         $0
```

3

Appendix 2
Subaward Agreement – Federal Funds

Certifications/Assurances
1. By signing this subaward Collaborator makes the certifications and assurances specified in the Research Terms and Conditions Appendix C found at www.nsf.gov/bfa/dias/policy/rtc/appc.pdf.

General terms and conditions:

1. The restrictions on the expenditure of federal funds in appropriations acts are applicable to this subaward to the extent those restrictions are pertinent.
2. OMB Circular A-110 or 45 CFR Part 602 as applicable.
3. Proposal and Award Policies and Procedures Guide, including addenda in effect as of the as of the beginning date of the period of performance.
4. Research Terms and Conditions found at < http://www.nsf.gov/bfa/dias/policy/rtc/terms.pdf> and Agency Specific Requirements found at http://www.nsf.gov/pubs/policydocs/rtc/nsf_110.pdf , except for the following:
    a. The right to initiate an automatic one-time extension of the end date provided by Article 25(c)(2) is replaced by the need to obtain prior written approval from the Smithsonian;
    b. The payment mechanism described in Article 22 and the financial reporting requirements in Article 52 of the Research Terms and Conditions and Article 9 of the Agency-Specific Requirements are replaced with Terms and Conditions (1) through (4) of this agreement; and
    c. Any prior approvals are to be sought from the Smithsonian and not the Federal Awarding Agency.
5. Title to equipment costing $5,000 or more that is purchased or fabricated with research funds or collaborator cost sharing funds, as direct costs of the project or program, shall unconditionally vest in the Collaborator upon acquisition without further obligation to the Federal Awarding Agency subject to the conditions specified in Article 34(a) of the Research Terms and Conditions.

Appendix 3
Subaward Agreement – Scope of Work, Reporting Schedule and Budgets

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DELIVERABLES:

Historical Society of Western Pennsylvania (The Senator John Heinz History Center) will submit reports and/or deliverables to the Smithsonian Technical Representative (as named in Appendix 3) according to the following schedule:

Deliverable/Report	Date Due
Annual progress report	5/1/13
Submission of final products to the POI Interactive Map project	8/31/14
Submission of final plans for POI-related programming at Affiliate site	8/31/14
Final progress report	10/15/14

SCOPE OF WORK:

Overview
The Senator John Heinz History Center will participate in a pilot project for the Lemelson Center's in-development *Places of Invention* (POI) exhibition project. As part of a grant from the National Science Foundation (NSF), the Lemelson Center has funding to cover costs, which are outlined in this Scope of Work, to collaborate with the Senator John Heinz History Center and five (5) additional Smithsonian Affiliates for this POI Affiliates Pilot Project.

The Senator John Heinz History Center will designate Sandra Smith to serve as primary contact for all communication related to the POI Affiliates Pilot Project. This person should be involved in the content as well as logistics of the project.

Training Workshop: June 15, 2012
The key staff person from The Senator John Heinz History Center accompanied by the primary content representative from their community partner organization, Young Preservationist Association will participate in a one-day professional development workshop in Washington, D.C. about conducting research and documentation for the POI Affiliates Pilot Project. The workshop will be held Friday, June 15, 2012 at the National Museum of American History.

The Lemelson Center, using separate NSF grant funds (i.e. above and beyond the $10,000 direct funding outlined above), will financially support the travel of one key staff member from The Senator John Heinz History Center plus one Young Preservationist Association representative to the workshop. In accordance with Federal Government travel regulations and policies, costs that may be covered include: government airfare to/from Washington, D.C.; local Washington, D.C. transportation (e.g. metro, taxis); 1-2 nights' lodging in Washington, D.C. (up to maximum government rate of $224 per night); and government Per Diem as appropriate for travel days to/from Washington, D.C. and the June 15 meeting (per diem covers any meals not provided by Lemelson Center as well as incidental expenses). Lemelson

Center staff will work with The Senator John Heinz History Center on travel-related arrangements, including processing paperwork through the GovTrip travel management system.

Project Deliverable: *Places of Invention* **Interactive Map**
One of the central interactive experiences in the exhibition will be the POI Interactive Map, which will highlight innovative places and communities across the United States. The POI Interactive Map will be the primary location in the physical exhibition for featuring research and documentation-based deliverables produced by The Senator John Heinz History Center and the other five (5) Affiliates participating in the POI Affiliates Pilot Project. Both past and present places of invention may be represented. Places may be regions like Silicon Valley, towns/cities, or specific locations (e.g. a bicycle factory in Hartford, Connecticut).

The Senator John Heinz History Center will work closely with POI Project Director, Affiliates Coordinator, and project consultant Dr. Lorraine McConaghy to develop products to submit to the POI Interactive Map. The Lemelson Center will provide limited technical consultation.

For quality control purposes, here are a few guidelines for the products listed below: length of final edited products for POI Interactive Map should be maximum four (4) minutes; images must be scanned at minimum 300 dpi; narratives should be maximum 400 words; videos should be saved as Quicktime files, and selections of five (5) to fifteen (15) second clips work best; and background music, if desired, should be rights free and instrumental (a good online source is http://www.incompetech.com/).

The Senator John Heinz History Center will develop at least three (3) products from among at least two (2) of the following categories:
1. Video(s) documenting a place of invention including interviews, photographs, graphics and other elements. The Senator John Heinz History Center should submit to Lemelson Center copies of both the full draft video and an edited version.
2. Audio and/or video-taped in-depth oral history interview(s) with inventor(s), innovator(s), and/or other key community members about their place(s) of invention. The Senator John Heinz History Center would submit to Lemelson Center copies of both the full oral history interview and an edited version.
3. Audio and/or video podcast interview(s) with inventor(s,) innovator(s), and/or other key community members about their place(s) of invention. The Senator John Heinz History Center would submit to Lemelson Center copies of both the full podcast interview and an edited version.
4. Images montage (minimum 20 images) – could be photographs, sketches, artwork, advertisements, document excerpts, and/or other graphics –documenting historic or current place of invention.
5. Other product that may be proposed by The Senator John Heinz History Center as suitable for incorporation into the POI Interactive Map and then approved by the Lemelson Center.

Please note that after the POI exhibition design firm (TBD) is hired in Spring 2012 and begins working with the Lemelson Center, additional product deliverables may be proposed and/or recommended.

The Senator John Heinz History Center will submit draft plans for products they develop for the POI Interactive Map to the Lemelson Center. Deadline for drafts will be six (6) months prior to deadline for submission of final products for the POI Interactive Map. The Lemelson Center, in consultation with project consultant Dr. Lorraine McConaghy and the exhibition design firm, will provide feedback and approval within three (3) weeks of draft submission.

Project Deliverable: *Places of Invention* **Public Program/ Event**
The Senator John Heinz History Center will host at least one public program or event in their museum or community focusing on their place(s) of invention. The Senator John Heinz History Center has latitude to determine program format(s) and audience(s), and may consult with Lemelson Center staff on program content as desired. The Senator John Heinz History Center will submit draft program plans to the Lemelson Center Affiliates Coordinator three (3) months prior to deadline for submission of final plans for POI-related programming at Affiliate site. The Lemelson Center will provide feedback and approval within two (2) weeks of draft submission. The Senator John Heinz History Center is highly encouraged to include the Young Preservationist Association in the program, as well as to offer program participants the opportunity to add or nominate additional places of invention for the POI Interactive Map.

The Senator John Heinz History Center will submit to Lemelson Center for review drafts of all press and other publicity-related materials that mention the Smithsonian, the Lemelson Center, and the POI project. Lemelson Center will review and provide feedback within two (2) weeks of submission.

Conference Calls and Internal Project Shared Site
The Senator John Heinz History Center will participate in conference calls arranged and hosted by the Lemelson Center with the Smithsonian Affiliations Office, project consultant Dr. Lorraine McConaghy, and other project partners as appropriate to report on the status of the project, including content and timeline, address any questions or concerns, and exchange ideas. These conference calls will occur on an ad hoc basis throughout the period of this Subaward Agreement.

The Senator John Heinz History Center will also participate in conference calls and possibly site visits with POI project evaluator Randi Korn and Associates, Inc. (RKA), which the Lemelson Center Affiliates Coordinator will arrange per the Lemelson Center's contract with RKA. The Senator John Heinz History Center will also receive the final report about the POI Affiliates Pilot Project evaluation conducted by RKA.

The Senator John Heinz History Center will have access to a shared POI Basecamp project site developed by the Lemelson Center so they can share information, resources, questions, and ideas with all the other POI Affiliates Pilot Project participants.

	FOR NSF USE ONLY	
ORGANIZATION	PROPOSAL NO.	DURATION (months)
Historical Society of Western Pennsylvania		Proposed Granted
PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR	AWARD NO.	
~~Natalie DeRiso~~ Sandra Smith	**1010776**	

A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)	NSF Funded Person-months			Funds Requested By proposer	Funds granted by NSF (if different)
	CAL	ACAD	SUMR		
1. **Natalie DeRiso**	0.00	0.00	0.00	0	
2.					
3.					
4.					
5.					
6. ( ) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)	0.00	0.00	0.00	0	
7. (**1**) TOTAL SENIOR PERSONNEL (1 - 6)	0.00	0.00	0.00	0	
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)					
1. (**0**) POST DOCTORAL SCHOLARS	0.00	0.00	0.00	0	
2. (**0**) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.00	0.00	0.00	0	
3. (**0**) GRADUATE STUDENTS				0	
4. (**0**) UNDERGRADUATE STUDENTS				0	
5. (**0**) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)				0	
6. (**0**) OTHER				0	
TOTAL SALARIES AND WAGES (A + B)				0	
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)				0	
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)				0	
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5,000.)					
TOTAL EQUIPMENT				0	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSESSIONS)				0	
2. FOREIGN				0	
F. PARTICIPANT SUPPORT COSTS					
1. STIPENDS $ ——————— 0					
2. TRAVEL ——————— 0					
3. SUBSISTENCE ——————— 0					
4. OTHER ——————— 0					
TOTAL NUMBER OF PARTICIPANTS (**0**) TOTAL PARTICIPANT COSTS				0	
G. OTHER DIRECT COSTS					
1. MATERIALS AND SUPPLIES				**6,000**	
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION				**1,000**	
3. CONSULTANT SERVICES				0	
4. COMPUTER SERVICES				0	
5. SUBAWARDS				0	
6. OTHER				**3,000**	
TOTAL OTHER DIRECT COSTS				**10,000**	
H. TOTAL DIRECT COSTS (A THROUGH G)				**10,000**	
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)					
TOTAL INDIRECT COSTS (F&A)				0	
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)				**10,000**	
K. RESIDUAL FUNDS				0	
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)				**10,000**	
M. COST SHARING PROPOSED LEVEL $ **0** AGREED LEVEL IF DIFFERENT $					

PI/PD NAME	FOR NSF USE ONLY		
Natalie DeRiso	INDIRECT COST RATE VERIFICATION		
ORG. REP. NAME*	Date Checked	Date Of Rate Sheet	Initials - ORG

C *ELECTRONIC SIGNATURES REQUIRED FOR REVISED BUDGET

Appendix 4 Subaward Agreement	
Smithsonian Contacts	**Collaborator Contacts**

Administrative Contact
 	
Name/Title: Maria Scaler, Grant and
               Contract Specialist
 	
Address: Smithsonian Institution
            Office of Sponsored Projects
            P.O. Box 37012, MRC 1205
            Washington, DC 20013-7012
 	
Telephone: (202) 633-7098
Fax: (202) 633-7119
Email: scalerm@si.edu
	Administrative Contact
	
	Name/Title: Sandra Smith, Director of
	               Education and Visitor Services
	
	Address: The Senator John Heinz History
	            Center
	            1212 Smallman Street
	            Pittsburgh, PA 15222
	
	Telephone: (412) 454-6373
	Email: sasmith@heinzhistorycenter.org

Technical Representative
 	
Name/Title: Monica Smith (PI)
               Exhibition Program Manager
 	
Address: Smithsonian Institution
            National Museum of American
            History
            P.O. Box 37012, MRC 604
            Washington, DC 20013-7012
 	
Telephone: (202) 633-3449
Email: smithm@si.edu
	Technical Representative
	
	Name/Title: Sandra Smith, Director of
	               Education and Visitor Services
	
	Address: The Senator John Heinz History
	             Center
	             1212 Smallman Street
	             Pittsburgh, PA 15222
	
	Telephone: (412) 454-6373
	Email: sasmith@heinzhistorycenter.org

Financial Contact
 	
Name/Title: William Reynolds
 	
Address: Smithsonian Institution
            National Museum of American
            History
            P.O. Box 37012, MRC 604
            Washington, DC 20013-7012
 	
Telephone: (202) 633-3315
Email: reyoldsw@si.edu
	Financial Contact
	
	Name/Title: Scott Frazier, Controller
	
	Address: The Senator John Heinz History
	            Center
	            1212 Smallman Street
	            Pittsburgh, PA 15222
	
	Telephone: (412) 454-6383
	Email: safraizer@heinzhistorycenter.org

Authorized Official	**Authorized Official**
Name/Title: J. Scott Robinson	Name/Title: Betty Arenth, Vice President and CFO
Address: Smithsonian Institution Office of Sponsored Projects P.O. Box 37012, MRC 1205 Washington, DC 20013-7012	Address: The Senator John Heinz History Center 1212 Smallman Street Pittsburgh, PA 15222
Telephone: (202) 633-7113 Fax: (202) 633-7119 Email: OSPmail@si.edu	Telephone: (412) 454-6320 Email: bmarenth@heinzhistorycenter.org

APPENDIX C

- **PEORIA, IL. Peoria Riverfront Museum, Peoria Historical Society, and USDA-National Center for Agricultural Utilization Research (aka "The Ag Lab").** In May, Anna Karvellas and Aaron Glavas, Smithsonian Affiliations national outreach manager, met with Affiliate team staff and their colleagues to discuss deliverables, tour the museum, labs, and historic sites, and generally advise. The team finalized plans for an August 3 *POI*-related community day called **"Science Rocks! Celebrating Peoria as a *Place of Invention*"** which drew 1,690 people of all ages. From hands-on activities for kids to lectures, Ag Lab scientists worked with museum staff to explain to visitors Peoria's importance in the mass production of penicillin and the role it played in World War II. The general public, especially the significant number of living World War II veterans, were encouraged to attend and share their penicillin stories in the museum's new Oral History Center. *POI* makes possible an opportunity to reunite the Ag Lab with the community. After 9/11, site visits to the lab were stopped by Homeland Security.

- **LOWELL, MA. American Textile History Museum, Lowell National Historic Park, Lowell Telecommunications Corporation**. In August, Anna Karvellas visited Lowell to review project status and the working plan for deliverables, facilitate relationships with local stakeholders, and discuss plans for a small *POI*-related exhibition at the ATHM. Highlights included curator/ historian held tours of ATHM collections as well as several sites at the Lowell National Historic Park, including the Boott Cotton Mills Museum, the Boardinghouse, the Tsongas Industrial History Center, and an innovation tour of Lowell's Pawtucket Canal and locks harnessing the power of the Pawtucket Falls with the Merrimack River.

- **NEWARK, OH. The Works: Ohio Center for History, Art, and Technology, Owens Corning, Holophane.** In August, Anna Karvellas and Aaron Glavas visited Newark to tour the town, museum, local Holophane factory, and Owens Corning Tech Lab. They also met with Affiliate team members and led an advertised research event designed to recruit community volunteers. The event, **Documenting Newark**, received local radio coverage and provided an opportunity to make valuable new contacts with men who played key roles in the Fiberglas industry during the period being studied. These men agreed to become project participants by advising on subject development, participating in oral histories, and donating archival materials. The event also allowed key constituents at Owens Corning, Holophane, Ohio State University, Denison University, and the Licking County Library to come together and pool resources with The Works to achieve project and community goals.

- **SEATTLE, WA. Museum of History and Industry (MOHAI), Bootstrap Video, Project Consultant Lorraine McConaghy.** In August, Anna Karvellas met with MOHAI staff and videographers about *POI* deliverables and the extension of *POI* themes into public programs and exhibitions in the museum's new Bezos Center for Innovation. On August 30, she participated in a *POI*-themed panel at **PAX Prime,** the world's largest gaming convention. Over 300 people attended the panel, *A Byte of Seattle: The Rise of Seattle's Gaming Industry*, in which Ed Fries (Former VP of Microsoft Game Studios), Kim Swift (Creator of Airtight Games), Andrew Perti (Founder, Seattle Interactive Media Museum), and Julia Swan (MOHAI) also participated. Fries, Swift and the founders of PAX are the subjects of two-hour oral histories conducted by Julia Swan for *POI*.

- **PITTSBURGH, PA. (TWO VISITS) Senator John Heinz History Museum, MCG Jazz**
    - In February, Anna Karvellas met with Senator John Heinz History Center staff and MCG Jazz staff to discuss POI themes and deliverables to complement the Center's Pittsburgh innovation-themed galleries focused on jazz. She met with History Center

staff and Dan Holland, from the Young Preservationists Association of Pittsburgh to tour jazz sites in the Hill District—a proposed *POI*-themed public program.

❖ In September, Karvellas returned to Pittsburgh to represent the Lemelson Center, Smithsonian Jazz Oral History Project, Smithsonian Jazz Masterworks Orchestra, and NMAH Archives at the 2013 Induction of Pittsburgh Jazz Legends at the Manchester Craftsmen's Guild. Inductee Ahmad Jamal performed. Anna interviewed musicians and their family members, as well as local jazz enthusiasts about the innovation of the Pittsburgh jazz sound, the subject of the History Center's *POI* project. She made important connections with the Strayhorn family about Billy Strayhorn Centennial *POI* concerts in Pittsburgh and NMAH and recruited the Heinz History Center's Sam Black, Director of African American Programs and jazz curator, to the *POI* Project. She worked with MCG Jazz and the Heinz to do at least two performances together. Another important outcome was the decision to use *POI* funds to scan the Joe Negri papers at the Heinz History Center and help make this underutilized collection accessible to the public.