

FY23 ANNUAL REPORT
Arts and Cultural Heritage Fund
Legacy Amendment

Science Museum of Minnesota



**Science
Museum**
of Minnesota®

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The Science Museum of Minnesota is pleased to submit an annual report for the work we are doing with the generous appropriation of \$1.3 million for fiscal years 2021-2023 from the Arts and Cultural Heritage Fund of the Minnesota Legacy Amendment. This report details accomplishments in FY23 (July 1, 2022 – June 30, 2023) related to the following statutes: M.S. 3.303, Subd. 10, and M.S. 129D.17, Subd.2 (d). We are grateful for your support of our programs.

Statewide School and Community Initiative

July 1, 2022–June 30, 2023

FY23 Report, 8 FTE

In FY23 the Science Museum of Minnesota has remained committed to being a statewide asset for science and education centered in equity. We continue to see the lasting effects of the pandemic in our community but we have continued to push to ensure our audiences can see themselves in science. This report describes what we were able to accomplish in a post pandemic environment.

We continue to serve the changing needs of our audiences, amplifying and expanding our access to research and collections, and developing the next generation of digital and in person programs for families groups and schools, as well as build the capacity of schools and communities to address access and equity in STEM learning.

What we accomplished:

1. Realigned program offerings that meet the needs expressed by Minnesota residents.

Through conversations with Minnesota residents (prioritizing voices for equity), SMM will imagine and create new activities and educational offerings centered around SMM's collection that address the current needs expressed by Minnesotans.

a) Number and location of community meetings; number and demographics of participants in each meeting.

In FY23, SMM held **45 meetings, distributed between remote and in person, with 56 participants representing professional groups: social service organizations focused on low income households and immigrants and refugees, and educators.**

Great Partner conversations: In FY23, museum staff held individual meetings with contacts from Twin Cities metropolitan area social service organizations. These organizations were selected from the ninety-five which identified as Great Partners to the Science Museum. Great Partner organizations work with or provide services to Minnesotans with low household incomes, defined by the museum as households making less than \$50,000 annually. In total, museum staff held **thirty-eight meetings with 45 participants from our Great Partner contacts.**

Great Partner Organizations represented: Cornerstone, Open Cities Health Center, Think Small, Ramsey County Financial Assistance, Union Gospel Mission, Greater Minneapolis Council of Churches, Catholic Charities Families Services, Project SUCCESS, PRISM, St. Croix County DHHS - Family & Children's, Northside Achievement Zone, Northeast Youth & Family Services, Neighborhood House, Ramsey County Workforce Solutions, Imhotep Science Academy, Ujamaa Place, Literacy Minnesota, Lutheran Social Service of Minnesota, Simpson Housing Services, United Community Action Partnership Head Start, BES ISD 191, District 196 ABE - Dakota Valley Learning Center, Turnquist Child Enrichment Center, Wayside Family Treatment, Metro North Adult Education, Jeremiah Program, Urban Roots, Hennepin County Medical Center, People Incorporated, Macalester-Groveland Community Council, Esperanza United, Anoka County Community Action Head Start, St. Paul PHA, Academia Cesar Chavez, Hubbs Center, YWCA Children's Center at Abbott NW Hospital, La Oportunidad, Bolder Options

New Neighbor Membership exploration: Additionally, museum staff held meetings with **seven representatives from five organizations** that provide supportive services to immigrants and refugees. These thirty to forty-five minute meetings took place with staff from Saint Paul Public Housing Agency, Esperanza United, District 196 ABE - Dakota Valley Learning Center, Arrive Ministries, and Alight.

Educator Listening Sessions: The FY23 Educator Listening Sessions allowed SMM staff to connect directly with individuals working in education. Hearing directly from educators across Minnesota is essential to inform the Museum's work and ensure that programming is relevant, accessible, and beneficial. In these sessions, educators shared the current challenges they're facing, identified opportunities for support, and reflected on future possibilities. Across these two sessions, staff were able to hear real life examples that supported what we already know about teachers, and learn about new opportunities to support and engage with the educator community. **Two 90-minute sessions with four educators** were held in the late spring of 2023. Individuals working in education who had previously engaged with an SMM offering (a field trip, a professional development opportunity, an outreach program, etc.) were invited to participate.



b) Summarized community meeting documentation for all sessions, with implications for new program development.

The three meeting types described above served different purposes within this project. We summarize the findings from each meeting group below; deeper reports are available for each one.

Great Partner Meeting Summary

The purpose of the meetings was threefold: 1) Meet with current Great Partner organizations to review the Great Partners program making sure participating partners know how to use it; 2) Provide partners with a clear understanding about the mission and audience of participating partners; 3) Explore areas of potential partnership and collaboration.

A synthesis of all the meeting notes resulted in three categories of focus: barriers to access; learning content areas of interest; and potential partnership and collaboration ideas.

The main barriers of access that were presented were language, digital literacy, cost, transportation, availability, awareness, childcare, operating hours, and sensory experiences. The areas of interest people shared were hands-on learning, STEM activities, learning as a family, literacy, wellness, representation, equity and inclusion, environmental education and expanding learning capacity. With this knowledge we then explored areas for potential partnerships and identified those as museum guides, field trip information and awards, afterschool & summer programming, Science Fairs, kit availability, college and other discounts and supporting events (presence, activity, vouchers).

New Neighbor Conversations summary

The purpose of these meetings was to gather feedback from organizations that engage with immigrant and refugee communities as the museum explores developing a new, free membership. Through these conversations museum staff learned more about the audiences each organization works with and explored accessibility and invitation and communication strategies for connecting with the aforementioned audiences.

Following is a summary of what we learned:

Accessibility: better understanding language needs; creating new digital and print resources to support navigating a museum visit; utilize digital technology to support language access.

Communication: drawing on existing network of organizations providing services to these groups to get the word out about this opportunity; connect visits with existing programs offered by these organizations; developing clear, understandable processes for accessing this program.

Educator Listening Sessions

The listening sessions were structured around 3 themes. Each theme focused on a key question:

- What are the program needs expressed by the communities?
- What do schools look for in forming partnerships?
- What do the communities say is coming next?

Following is a headline summary of what we learned:

Schools and students are still struggling.

A recurring theme amongst participants was that educators and students are still recovering from years of disrupted schooling. It feels important to educators that their partners and the community are aware of these challenges.

Teachers need accessible, high quality, and relevant support.

Educators expressed a need for resources that provided them with straightforward help in the classroom.

Programs and resources should be developed in partnership with educators who understand the current demands of the classroom, and these partnerships should be communicated.

Educators shared that programs and resources should be vetted by teachers who are in schools right now, navigating the unique challenges of the space. It is key to communicate not only what resources and programs are available to teachers, but how they were developed in partnership with educators.

Schools and teachers agree to partnerships to help students, when it's feasible, and when they have adequate support in place.

Participants reflected on the key levers that influence decisions around partnerships both for students and for professional development opportunities.

The museum identified possible next steps:

- Piloting a program-review process: The museum will refine the ways that teachers can play advisory roles for general program development. These sessions provided tangible examples and outcomes directly from potential participants which are key to informing what this type of feedback system may look like for collaborative program development.
- Additional listening sessions: These sessions were informative for planning, yet remained broad. A potential next step includes additional sessions to obtain more specific feedback on offerings using this now-established format, and reaching a broader range of educators. A deeper understanding of how educators are feeling, how we can support them, and what isn't working, is always a priority and will only improve the programs and offerings the museum provides.
- Connecting community support: Educators shared the ongoing interest and desire for a sense of community and frequently referenced the PAGE program as an example. This could be an opportunity to connect PAGE participants with the variety of existing STEM Ed resources (residencies, kits, online resources, etc.) for opportunities to continue engaging with SMM in their classrooms or education space. Similarly, there may be opportunities to connect teachers who use resources with the PAGE program and provide them with an opportunity to build community connections.

c) Program development plan for FY 22 & 23; Number of new programs or activities developed as a result of this process.

The new Community Curators program was developed in response to listening session participants' desire for community members to have a more active role in the interpretation of objects in the collections. We identified seven community curators who worked with the collection in FY23 to select an object (or several) and create a small curated display with text that was displayed in the museum lobby on a monthly basis beginning in January 2023.

Engineering Automata kit work focused on distributing pre-existing Hmong story kits, developing and distributing new Maya story kits and beginning development of a new Ojibwe story kit. New development was done in close collaboration with Maya and Ojibwe storytellers, illustrators and animators.

Findings from all meetings more generally informed other programs beyond the Community Curator and Engineering Automata kits, and will continue to inform our work, including new program development and program refinement, for years to come.

Proposed Outcome Achievement

- **Achieved proposed outcomes (Achieved 100% of outcomes)**
- Achieved most of the proposed outcomes (Achieved greater than 50% of proposed outcomes)
- Achieved some of the proposed outcomes (Achieved less than 50% of proposed outcomes)
- Achieved none of the proposed outcomes (Achieved 0% of proposed outcomes)
- Outcomes data not yet available

2. Increased access to the SMM collection for all Minnesotans.

Increased access to the SMM collection for all Minnesotans. Increased access happens through the digitization of catalog records, sharing the digitized records online, and making the portal known as a resource.

a) Number of objects imaged and catalog records digitized.

In FY23 SMM researchers and collection professionals digitized both Minnesota ethnographic and archaeological collections. The digitization of the collections aims to increase access and knowledge of the objects cared for by the museum. The majority of the ethnographic digitization focused on the museum's seed or ethnobotany collection. We chose the seed collection both in response to what we learned from the [Community Listening Sessions](#) conducted in FY22 and requests from our Dakota and Ojibwe partners who are interested in the seeds. In order to respond to the requests, we needed to know more about the current state of the collection. The digitization process provided the museum with a strong inventory in addition to the digitized records.

The archaeological digitization focused on material from two different areas in MN with active collection sites. The St. Croix River Valley and the Pedersen Site, an island in Southwestern Minnesota. Both of these active collection sites and object processing are funded through other projects. At the same time the Legacy funding allows these resources to be added to the collections database making these Minnesota cultural collections more accessible.

FY2023 Collection Digitization			
Collection	Records	Images	Objects
Ethnobotany Seed	491	491	85,610+
Minnesota Archaeology	3,466	400	10,755

b) Description of revisions to the portal and access system for viewing the collection.

The [Collections Online Portal](#) is now active on the museum's website. The newly developed system allows the database administrators, front-end designers, and collections experts to share a common language about the fields we wish to show to the public about each object. And, while it is still a work in progress it will continue to evolve and improve through other funding sources.

As mentioned last year, the creation of the Portal proved to be more complex than anticipated. One area of particular focus is who can see which objects: some objects should only be accessible to descendant communities and not the general public. Often this happens with ceremonial objects, or higher quality photos or views might be limited to prevent cultural appropriation. The determination of what can be shared is made through consultation with external content experts. We continued to work through the roadblocks and developed methods using an authentication layer on the database API so that we can restrict access to the database depending on the viewer. This will allow us to ensure we are only publishing the appropriate information about each object, while allowing elevated access to researchers or community members via a private API. For example, through research and consultation with community members, seven objects in the Dakota and Ojibwe collections that we hold were marked as culturally sensitive and taken off of our collections online portal.

The Portal now integrates well with the museum's current content management system. It took more time than anticipated to connect the older Collections Management System with our more modern technical stack. This additional time was well spent building a robust platform that is easier to manage now and into the future. Now we are focusing on the user experience and improving the use of the Portal.



c) Description of online use of the collection: number of page views, location of online visitors (as possible), description of how online visitors access the collection.

The [Online Collection Portal](#) currently hosts images and information about nearly 4500 objects in the museum's collections. At the moment only objects related to Minnesota anthropology are found in the portal. Since launching the portal at the end of FY23 there have been nearly **12,800 search** inquiries using the Portal - **this is an average of 1,825 searches per month.**

It became apparent during the FY22 Community Listening Session that museum staff didn't have a good understanding of the collections the museum holds, the research being conducted, and other aspects of work in the Center for Research and Collections. This presented another opportunity to increase access to the museum's research and collections, this time internally. To increase knowledge and access around museum collections, we restarted regular SMM staff tours and conducted workshops to give staff a hands-on learning experience related to the work done. These events were not directly funded by the Legacy Project, but were a direct result of Legacy Project work and support the project's goals. This programming continues with a different funding source.

Proposed Outcome Achievement

- **Achieved proposed outcomes (Achieved 100% of outcomes)**
- Achieved most of the proposed outcomes (Achieved greater than 50% of proposed outcomes)
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3. Relevant STEM programming provided through broad access to SMM programs.

Relevant STEM programming provided through broad access to SMM programs: New and existing high quality programs will be delivered to Minnesota schools, families, and communities, in line with the current needs as gathered through outcome #1 and other sources.

A key component that Legacy pays for is a Minnesota-specific teacher list for the purpose of expanding the reach of our program offerings to teachers across the state. This effort will complement our in-person outreach and allow us to regularly communicate with teachers across the state. Museum programs are available for educators in all 87 counties and it is incumbent upon us to market our opportunities broadly.

We describe in the greatest specificity the programs that are solely supported by Legacy funding.

a) Number of new and existing programs delivered as a result of this project.

In total, 10 new programs (6 community curator offerings, 3 automata kits, and 1 assembly) were developed and delivered, and 3 existing programs (2 professional development, and field trips) were delivered.

Community Curator Program

The Community Curator Program was developed in response to the FY22 Community Listening Sessions and was funded by the Legacy Project. During our collections access listening sessions, we heard that community members wanted to have more access to the collections and a more active role in the interpretation of objects in the collections. Our goal was to recruit 4–6 individuals with identities represented within the collections to become Community Curator Fellows. Ultimately 7 individuals, recruited from the listening sessions and through our existing networks, joined this pilot program.

- Rebekah Crisanta de Ybarra - enrolled tribal citizen Maya-Lenca Nation
- Jamie Barton AKA Juana Maria Alvarado - Guatemalan Maya
- Dej Txiag Ntsim Yaj Yang and Ger Xiong - Hmong
- Afton Delgado - enrolled member of the Oglala Lakota Tribe and a descendant of the Sisseton Wahpeton Oyate and Santee Sioux Tribe
- Mallory Glynn - descendant of the Ihantowan Oyate or the Yankton Sioux Nation of South Dakota
- Joe Vital - enrolled member of the Red Lake Nation and proud Mexican

The Community Curators worked with staff from our Collections, Museum Access & Equity, and Museum Experiences departments to create displays of objects from the collections along with personally created interpretation. The Community Curators gained access to work within the collection for several hours and then created an exhibit display in the museum lobby highlighting their objects and interpretation. Each Community Curator received a \$1,500 stipend to compensate them for their work.

Each Community Curator provided a free, public talk in conjunction with their curatorial display. Information about each curator and links to the recordings of their talks are available on the museum website here (<https://new.smm.org/exhibits-experiences/community-curators>).

Automata: Engineering Storytelling Kits

We distributed two different culturally significant automata kits sharing Hmong and Maya stories. We began development of Ojibwe story content. We continued to invest in MN standards aligned STEM learning kits to increase access to our learning experiences as schools continue to navigate decision making with very limited budgets and our ability to send SMM instructors out to schools remained limited this year.

- In late April and May we distributed 990 Hmong and 1330 Maya story kits to 18 schools in Minnesota along with a free, bilingual suite of educator resources on our website (<https://new.smm.org/educators/interactive-lessons/automata-storytelling>). We contracted with Minnesotan Hmong and Maya storytellers, illustrators, and translators to select stories, make the artwork, and translate them into Hmong and Spanish.

Dinos Assembly

The STEM Education department, in collaboration with staff from the Center for Research and Collections and Visitor Experience continued development of a new school assembly program focused on dinosaurs, paleontology, and the nature of science for grades 3 to 5. We hosted an internal mini symposium in October 2022 attended by 30-35 staff and volunteers with speakers sharing relevant paleontology research and learnings from the assembly development process. Sessions from this day were recorded and integrated into the assembly resource documentation. The first assembly program preview with all the demonstrations in place was held in early November 2022. Feedback from staff on this helped as development entered the final stages. Additional previews were held through February 2023 as we iterated and refined the assembly script and demonstrations, integrating feedback from STEM Ed instructors as well as other SMM staff. External pilots with two schools occurred in March and April 2023. Recordings of these pilots as well as survey data from the audiences were integrated into additional revisions and set us up for the final development in the fall of 2023.

The assembly was designed to use paleontology content to help students understand the nature of science. Learning goals for this assembly included:

- Students will identify weaknesses in explanations based on evidence presented
- Students will look at multiple sources to evaluate the merit and validity of claims
- Students will see how scientists revise interpretations based on new evidence and using new technologies

Professional Development

The IDEAL (Inclusion, Diversity, Equity, Access and Leadership) Center continued with virtual programming that was adopted in FY23 to engage a variety of adult teacher/educator audiences through equity-focused professional development programs. These programs continued to utilize modifications put in place last year to support a virtual environment. The PAGE Leadership Program occurred over the course of 11 days for a total of 73 hours of professional development. SMM also offered virtual community gathering and professional development opportunities to PAGE (Peer and Gender Equity) Leadership Program veterans.

In response to learnings from the FY22 Community Listening sessions, the IDEAL center adapted a STEM educator professional development for Center for Research and Collections staff at the Science Museum of MN. The purpose of this programming was to grapple with what it means to center equity in research and collection work. The workshops took place over 4 days in January and February with online and in-person activities. Participation was voluntary and 25 or 30 staff members participated in at least one day of programming. 70% of participants reported that their understanding of science had changed in response to the programming. This work continues outside of the Legacy Project with ongoing professional development and changes to processes and procedures.

Field Trips

Field trips are a long-standing, highly-popular program for K-12 audiences to visit the museum and explore its offerings with teachers and classmates. Partway through the winter of 2023, we noticed that teacher and chaperone surveys indicated that schools needed extra logistical support on site, particularly with arriving at the museum, setting up for a positive experience, eating lunch, and departures. We are particularly sensitive to logistics for field trips because we know that they can be challenging settings for teachers and chaperones. Legacy funding was used at times through the late winter and spring to support additional SMM staff who were available to support schools beyond what we had in place. (We are not certain if this need is due to longer-term consequences of the COVID-19 pandemic, as some students might have been on fewer field trips than normal). Legacy funding does not pay admissions to the museum (which are already a special reduced rate for all schools and even lower for schools with 50% or more free and reduced lunch enrollment).

b) Number, location, and demographics of new and existing program participants.

The 10 new programs were developed and shared with an estimate of over two hundred thousand people, and the 2 existing programs were delivered to 60 people. Specific demographics for each program, where available, are described below.

Community Curator program participants

This program was shared through a display in the museum lobby and through talks at the museum (later shared online). Between January and June 2023, five of the community curators' work was displayed in a case placed in the museum lobby. In that time period 265,891 people visited the museum and had the opportunity to view the work. The remaining two community curators' work was displayed after this reporting period. We gather demographics for all museum visitors using random sampling as groups exit the museum. Most relevant demographics are included here:

- 71% of groups include adults and children, while 29% are adults in groups or lone adults.
- 67% of groups consider themselves "local" to SMM, 18% include local and out-of-town, and 15% are out-of-town only. Many of the out-of-town guests are from Minnesota or the Upper Midwest.
- The majority (73%) of the children visiting the museum are between 4 and 12 years old.
- Over half (63%) of adult visitors are under 45 years old.
- Over a quarter (27%) of visitors identify as BIPOC.



Kit program participants

Kits were intentionally distributed to public and charter schools with a particular focus on Hmong culture and language, and/or a high number of Hmong students or Spanish language speaking students.

School	Total Boxes	Total Kits Per School	City	ZIP
Hmong International Academy	2	65	Minneapolis	55411
Noble Academy	6	175	Brooklyn Park	55445
Mississippi Creative Arts	6	175	Saint Paul	55117
Hmong College Prep Academy	8	245	Saint Paul	55108
New Millennium Academy	4	110	Brooklyn Center	55329
Phalen Lake Hmong Studies Magnet	7	220	Saint Paul	55106
Total Hmong Kits	33	990		
Hiawatha Academies	4	115	Minneapolis	55407
Emerson Dual Language School	6	175	Minneapolis	55403
Richfield Dual Language School	3	80	Richfield	55423
Valley View Elementary School	7	200	Columbia Heights	55421
Northside Elementary School	3	90	St. James	56081
Green Central Elementary	4	120	Minneapolis	55408
Ella Baker Global Studies and Humanities Magnet School	4	120	Minneapolis	55405
Roosevelt Elementary	2	65	Faribault	55021
Mountain Lake Elementary	3	95	Mountain Lake	56159
Nellie Stone Johnson Community School	2	60	Minneapolis	55411
Robbinsdale Spanish Immersion School	1	35	New Hope	55427
Greenvale Park Elementary	6	175	Northfield	55057
Total Maya Kits	45	1330		

Dino assembly program participants

The new assembly program was tested with 362 students at 2 schools, Valley View Elementary in Bloomington and Bel-Air Elementary in New Brighton. Valley View's overall student population includes 82% of students receiving free and reduced lunch, 81% identify as BIPOC, and 40% are English Language Learners. At Bel Air, 37% receive free or reduced lunch, 41% are BIPOC, and 14% are ELL.

Professional Development program participants

There were 34 K-12 program participants from Anoka, Dakota, Hennepin, Mower, Nobles, Otter Tail, and Ramsey counties. No demographics were gathered in FY23 about this group.

For the internal professional development, 25 of 30 staff members participated in at least one day of programming.

Field Trips

We report field trip participation and demographics for the whole year. We estimate that Legacy funding supported about a third of these trips.

- In FY23, we reached 65 counties through field trips.
- There were 451 public schools that attended field trips at SMM; 19% of public schools in the state.
- About 6% of public school students in Minnesota came on a field trip at SMM in FY23.
- There were 67,111 total engagements through field trips.

Table 7. Summary of field trip engagements

	# of student engagements	# of educator engagements ₁	Total
All Field Trips	60,400	6,711	67,111
Great Schools	18,213	3,630	21,843
Science is All of Us Field Trips	906	101	1,007
Vikings Voyage Field Trips	318	35	353

- Just over 44% of public school students who came on a field trip identified as BIPOC, higher than the proportion of BIPOC students in the state.
- About 42% of public school students who attended SMM with a field trip group received free or reduced lunch, the same as the statewide percentage of students who receive free or reduced lunch.
- Slightly more than 11% of field trip attendees from public schools were English Language Learners, a higher percentage than seen statewide.

Just under half (48%) of public school students who came on a field trip identified as girls, relatively close to the state number.

c) Evaluation findings from new and existing programs around enjoyment, relevance, and learning, wherever possible.

Community Curator

We did not gather specific feedback from the public on the object displays or the talks in FY23.

Automata

The kits were distributed late in the school year, and we received limited survey responses from the educators who received the kits. Of the 17 responses we received, 10 did not have time to use the kits this school year and will instead use them in the 2023-24 school year. Of the 7 responses from educators who were able to use the kits we received some of the following feedback:

- *“The stories perked their interest so it was easy to keep that momentum going when explaining the engineering/physics piece.”*
- *“My Hmong students loved the culture connection and the fun activities”*
- *“They enjoyed putting these together and seeing how they work, but the student instructions were still hard for them to follow and many needed extra help. I made examples of each kind which helped some students be more independent.”*
- *“ALL of my students are Hmong and loved the kit. They related and were able to tell me more about their culture”*

Other SMM engineering kits received more extensive feedback (the new kits draw on the existing kits and mostly differ in the addition of the cultural story). Feedback from teachers who received all kits can be reported with quantitative results, and provides greater insight into the likely impact that these new kits will have on students:

Educators agreed that kits were relevant and effective at engaging students in engineering

- Over 80% of respondents rated their experience with the kit as excellent or outstanding (see Figure X).
- All respondents agreed that their students learned something new from the kits, and just under three quarters of respondents strongly agreed.
- Similarly, all respondents agreed that the kits were relevant to their students, and almost 80% strongly agreed.

Figure X. Overall experience rating among kit recipients (n=23)



¹ Educator engagements are estimated on a 1 educator per 10 students ratio based on chaperone recommendations.

Dinos Assembly

In FY23, STEM Ed staff were also able to pilot the brand new Dinos 3-5 assembly with two schools. The assembly was designed to use paleontology content to help students understand the nature of science. Learning goals for this assembly included:

- Students will identify weaknesses in explanations based on evidence presented
- Students will look at multiple sources to evaluate the merit and validity of claims
- Students will see how scientists revise interpretations based on new evidence and using new technologies

Evaluation staff conducted brief, formative surveys onsite with adults at the two assembly pilots. We received responses from 12 educators present at the assemblies.

Educators shared reflections on the length of the program, how the different elements worked, and noted areas to improve the assembly for learners. This process helped STEM Ed instructors refine and revise the assembly to be officially launched in FY24.

Overall, respondents agreed that students learned something new from the program.

Two-thirds of respondents strongly agreed that students saw examples of how the scientific process works, and that students learned about the different ways scientists solve problems.

IDEAL Center Programming

In FY23, PAGE program participants provided insights and reflections overall on their experience at the close of the program; no closed-ended items were used.. These reflections provide insight into what they learned from the program:

"My core knowledge of oppression and systems has grown so much...I am operating from a different view in interactions with people, the way I approach a situation, how I problem solve, and how I plan. The biggest actionable idea for me is that no matter how small a step I take it will have an impact."

"I have a greater understanding of systems of oppression and how interactions at different levels are beneficial to some and harmful to others. It's easier for me to reflect on what I'm observing and consider systems using different lenses, and I understand how critical it is to involve many people from a variety of standpoints to conversations about change."

How they felt after participating:

"[I am feeling] Empowered... I really enjoyed having these conversations with people I work with, and people in different organizations. I only wish there were more days! I appreciate you all and this work so much. This experience has truly shaped who I will be as a [science educator], and how I will work to support other educators in the state. Nimiigwechiwendam - I am so thankful."

"I am feeling invigorated. I feel like I have more tools in my toolbox to help make my community and district a better place."

What makes PAGE (Peer and Gender Equity) special:

"Thank you for your thoughtful facilitation and careful planning. I have never been part of a session where I have felt the love, care, and support in the way I have with this team. It's been a unique and engaging experience, and I appreciate all of the work that has gone into making this program what it is!"

"I appreciate the way this training was structured. We had time to learn and listen, reflect, and then apply the knowledge. The breakout rooms to process and discuss were invaluable in my learning. Listening to others always stretched and deepened my own understanding. The facilitators are so caring and encouraging."

Data were gathered from the internal professional development for process improvement, but we did not gather permission to make this information shareable beyond the CRC and IDEAL Center teams. Overall, findings suggested that there was promise to the work and provided specific insights for future internal professional development.

Field Trips

Highlights of the field trip evaluation are provided here; additional details are available in the [School Audience Report](#).

Evaluation staff gathers data on the field trip experience through post-field trip surveys. These surveys are sent via email to the individuals who booked the field trip, as well as to adult chaperones who attend. In FY23, there were 509 responses to the post-field trip survey.

Majority of educators find field trip programs excellent or outstanding

- Overall, 83% of respondents rated their field trip experience as excellent or outstanding.

Survey respondents agreed that field trips were educational, relevant, and they would attend future trips.

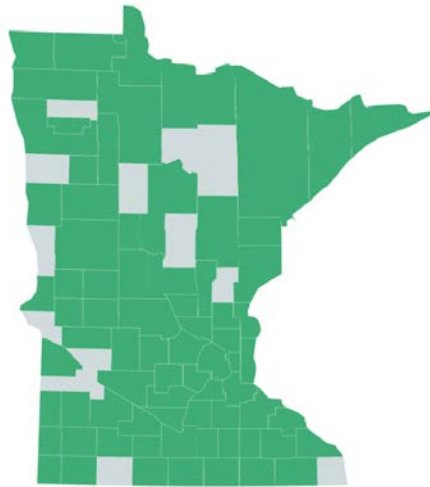
- Nearly all respondents (98%) agreed that their students learned something new from the field trip.
- The majority of respondents (98%) agreed that the field trip experience felt relevant to their students, and 90% of respondents agreed that students saw a broad representation of people who participate in STEM.
- Almost all respondents (94%) agreed or strongly agreed they were more aware of objects in the museum's collections after attending an SMM field trip.
- Three-quarters of respondents strongly agreed they would attend another field trip like this one.

In general, respondents agreed that field trip logistics operated smoothly.

A positive field trip experience is highly connected to a positive experience with field trip logistics. Across all field trips, surveys ask respondents to share their experience about arrival, departure, lunch, and staff. Providing a smooth experience for adults managing their students is foundational to creating an overall positive experience with an SMM field trip.

- Overall, the majority of respondents strongly agreed that arrival, lunch, and departure processes went smoothly.
- Nearly three-quarters of respondents strongly agreed that museum staff were helpful during their visit.

And, thus, as a result of the Legacy funding for these specific programs and our broader marketing that Legacy supports, we supported almost all the counties in Minnesota. This was a big increase from what we were able to achieve in FY22.



Proposed Outcome Achievement

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- Outcomes data not yet available

Information | July 1, 2022–June 30, 2023

The Science Museum of Minnesota gratefully submits this report on the work supported by the Arts and Cultural Heritage Fund of the Legacy Amendment in FY2023. The museum's staff, Board of Trustees, and dedicated volunteers are proud of the work supported by Legacy project funding and look forward to continuing these important initiatives. The Museum welcomes the opportunity to provide tours of the museum to legislators and staff highlighting our world-class exhibits, school services, and collection vault! We would also be happy to answer any additional questions. Please contact Jon Severson for additional information at jseverson@smm.org or 651-221-9499. Legacy project information is accessible online at: <http://www.smm.org/legacy>

<https://www.legacy.mn.gov/funds/arts-cultural-heritage-fund/reports/science-museum-minnesota>

SCIENCE MUSEUM OF MINNESOTA

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