

Participants were asked to collaborate on a list of solutions and ideas that they have used or seen to address some common barriers to participation at museums and science centers. Here are the compiled lists:

BARRIER: Language

- Pointing menus
- Multilingual signage
- Multilingual audio tours
- Icons, translated text panels
- Prioritize staff/volunteers who are multilingual and have them translate existing exhibits!
- Taking inspiration from simple English Wikipedia for explanatory signage
- Occasional late child-oriented IMAX films (time of day usually reserved for Hollywood adult-oriented films)
- Work in community partners (food bank, employment programs, etc.)
- Ensure AV is multilingual
- Collaboration with universities for free or low-cost staff training on sign language
- Translate signage into common languages in your area (my museum does English, Spanish, and Vietnamese)
- Dual language signage
- Everything bilingual
- Biggest challenge is live presentation –how?
- Use Microsoft translator app for over 60 languages
- Dioramas and AR apps allow for non-verbal inference of information; app can be multilingual
- We have created a database of employees who speak language other than English. If a guest comes who needs interpreting, we can easily find an employee who might be able to help
- Use translation signs similar to those found in waiting rooms, that have many languages listed and people can point to the one they need
- Pins/buttons for staff who speak different languages
- Using pictures on labels instead of words works well in our interactive gallery to show visitors how to use the exhibits
- Employee Resource List –a laminated “go-to” resource card that lists employee languages/special skills/health or mental health training
- Our app (Space Center Houston) has parallel platforms in multiple languages. This app includes schedules, exhibit information, and interactive maps

BARRIER: Time

- Free evenings
- Member nights
- Extended summer hours

Nichelle O’Saurus, Volunteer Coordinator, Natural History Museum of Utah | nosaurus@nhmu.utah.edu

Raquel Stewart, Jr. Inclusion & Engagement Specialist, OR Museum of Science & Industry | RStewart@omsi.edu

Dee W. Perry, Floor Manager, Lawrence Hall of Science | dustin.perry@berkeley.edu

Sandra Bonnici, Senior Diversity Fellow AAM, Independent Consultant | sandrabonnici65@gmail.com

ASTC 2019 Addressing Barriers to Participation: Making the Museum of the Future Equitable, Inclusive, and Accessible | Session Notes

- Family Science Night programs for specific schools to attend throughout the year (collaboration with Title 1)
- Outreach and send staff to places where people already need to be (library, WIC office, etc.)
- Flexible hours and programs that meet needs of families in need
- Cut parents some slack if they are on their phones
- In-school programming
- Adult-focused evening events
- Weekend hours
- Extended (late night) hours one day per week
- Improve wayfinding/orientation so people don't waste their time finding where to go/what to do!
- Kind of money related, but partnering with local bus transit to offer free transportation for elementary-aged kids
- Community partners, pass program, specific evenings open late

BARRIER: Hours of Operation

- Have a day maybe once a month with extended hours (i.e. third Thursday stay open late)
- We open until 8pm on Wednesdays
- Early open; we open early to a limited audience 4-6 times a year for low-sensory mornings
- We are open late Thursdays and Fridays with discounted pricing
- Opened until 8pm one evening a month and holidays, with free admission and special programs outside open hours
- Late family nights!
- Open until 8pm every day
- Family Science Nights –collaborated with schools for night programming
- Open on holidays when people tend to have off work (Labor Day, MLK, etc.)
- We go out to the community's PTA meetings, community events, school science fairs, etc.
- Outreach! Send staff/collections offsite during off hours (library, WIC office, etc.)
- Online activities, games and print-outs can introduce families to museum content and plan later visits!

BARRIER: Cost

- Free passes that can be “checked out” from the library
- Museum free day 2:00-7:00pm at least monthly
- Access evening or pass programs
- Partnership with local libraries
- Community days (free to all)
- Days with free access and special themes to appeal to different groups

Nichelle O'Saurus, Volunteer Coordinator, Natural History Museum of Utah | nosaurus@nhmu.utah.edu

Raquel Stewart, Jr. Inclusion & Engagement Specialist, OR Museum of Science & Industry | RStewart@omsi.edu

Dee W. Perry, Floor Manager, Lawrence Hall of Science | dustin.perry@berkeley.edu

Sandra Bonnici, Senior Diversity Fellow AAM, Independent Consultant | sandrabonnici65@gmail.com

ASTC 2019 Addressing Barriers to Participation: Making the Museum of the Future Equitable, Inclusive, and Accessible | Session Notes

- Museums For All (formerly Open Access Policy)
- Free (included with admission) public programming workshops
- \$2 Tuesdays in August
- Free public programs
- Free outreach
- Community membership (50%)
- Community free hours (weekdays after school)
- City pass –discount when accessing several city attractions
- Meet directly with families and communities to alleviate their concerns; had very positive results
- Low cost student-aimed membership program
- Free admission for homeschooling parents
- Community nights: where every month we have a free admission for anyone to come to the museum, 5-8pm. Transportation: we discount parking. Opportunities to see theater shows and live science shows
- Free day passes distributed by community orgs
- Youth fund: wave fees for camps, admission, transportation
- Free day
- Library passes that include discounted admission
- Warm welcome program
- Free 5-8pm once a month
- Business cards that are also discounted rate coupons (just need to show card to get rate!) –Science Museum of Minnesota
- Community partner membership: FREE access through grants
- \$5 family memberships distributed by community agencies

BARRIER: Transportation

- We offer outreach programming for families at schools that are eligible for Title 1 parent involvement funds –schools can ask us to drive them so families without reliable transportation don't have to get to us
- Transit partnership
- Bus scholarships for field trips
- Ride share vouchers (Lyft, Uber, taxi)
- Shuttle bus between regular bus stops and museum
- Provide public transit cards for participants in youth programming (grant-funded)
- Send staff/collections to where those folks have access (libraries, WIC office, etc.)
- Partnership with community organizations that distribute discounted memberships to folks they work with
- Our programs provide bus fare for participants
- Communicating bus schedules and routes on program flyers, websites, and other ads
- Work with your city to become a public bus stop

Nichelle O'Saurus, Volunteer Coordinator, Natural History Museum of Utah | nosaurus@nhmu.utah.edu

Raquel Stewart, Jr., Inclusion & Engagement Specialist, OR Museum of Science & Industry | RStewart@omsi.edu

Dee W. Perry, Floor Manager, Lawrence Hall of Science | dustin.perry@berkeley.edu

Sandra Bonnici, Senior Diversity Fellow AAM, Independent Consultant | sandrabonnici65@gmail.com

ASTC 2019 Addressing Barriers to Participation: Making the Museum of the Future Equitable, Inclusive, and Accessible | Session Notes

- Family nights with specific clubs or organizations that offer free bus transportation
- We go to you!
- Museum youth fund helps pay for transportation
- Providing rideshare spots in our parking lot
- Partner with organizations like hop-on/hop-off
- Providing free subway passes to students and families
- Museum bus stop
- Coordinate special events/times with partners that have a charter bus coming from cultural/community centers

BARRIER: Physical or Cognitive Ability

- Pre-visit content (maps, lobby description, etc.) on website
- For deaf/hard of hearing: closed captioned media, interpreters at lectures, Deaf Awareness Day programming
- “Au-some” evenings for families with kids on the spectrum
- Sensory Sundays and weekdays
- Staff training with community organizations ahead of sensory days
- 18+ sensory nights
- Multi-modal exhibits and programs
- Programming that can be easily adapted for visitors w/ exceptionalities or language barriers (e.g. content that is rich but can be accessible without reading and without overly abstract concepts)
- Offering sensory objects to supplement exhibits
- For people with autism: pre-visit resources, map with designated quiet areas
- Updated signage
- Sensory bags
- Sensory-friendly science
- Online and onsite: photo guide/social stories, sensory guides, picture vocabulary
- Accessible education opportunities
- Additional resources added to traveling exhibits to improve accessibility
- Partner with community organization for training/program delivery
- App that goes over what to expect in each exhibit (structurally, sensory component, etc.)
- Create spaces and events that address those needs (i.e. sensory Sundays for visitors with sensory processing needs)
- Tactiles in butterfly house for low-vision guests
- We have early (and late) open events once a month for people living with autism. Exhibits and noises are set to lower levels (example of one change made for this event) –Pacific Science Center
- Tactiles available
- Accessible app for low-vision visitors

Nichelle O’Saurus, Volunteer Coordinator, Natural History Museum of Utah | nosaurus@nhmu.utah.edu

Raquel Stewart, Jr., Inclusion & Engagement Specialist, OR Museum of Science & Industry | RStewart@omsi.edu

Dee W. Perry, Floor Manager, Lawrence Hall of Science | dustin.perry@berkeley.edu

Sandra Bonnici, Senior Diversity Fellow AAM, Independent Consultant | sandrabonnici65@gmail.com

Participants had in-depth group discussions about some of the more complex barriers to participation at museums and science centers. They used the O.R.I.D. discussion technique ([click here for more details](#)). Here are the notes from those discussions:

BARRIER: Not seeing yourself, your family, or your values reflected in the staff, activities, or values of the organization

What is this barrier about? What event from the past year in your institution has exemplified/magnified this barrier?

- Bias –mainly old, white men
- Influx of Syrian refugees
- Autism community
- They tell us they don't see themselves reflected in staff/exhibits
- Our audience and staff diversity is different than our city demographics
- Photos/marketing are of young, white people
- Representation –both in staff members and in connections to content
- Differences in family expectations in roles, supervision, learning

How does this make you feel? How do you think the affected communities feel?

- Lack of diversity in community
- Lack of points for connection
- Frustrated, ignored, unwelcomed, isolated
- Burden on staff of color when they are constantly flagging problems
- Grateful that programs exist to try to include diverse youth; so impactful when done right
- Frustrated that they don't see themselves
- Hearing others/organizations/directors acknowledge failure is important
- Intimidating, unwelcoming, isolating, helpless, frustrated, and personally very sad!
- People may feel judged or uncomfortable with roles or family structure

How has your institution created or perpetuated this barrier? What are you and/or your institution doing right now to address this barrier or work with this community?

- Inviting autism groups to use space
- Access restricted by membership
- Outreach to schools
- Sunday science school
- Lack of full-time permanent staff positions
- "Science" is white-washed and settler-oriented
- No allocated funding
- More diverse collateral
- Authenticity is an issue
- Use community resources to find the gaps
- HR opinion: "they don't apply," "we hire the best people"

Nichelle O'Saurus, Volunteer Coordinator, Natural History Museum of Utah | nosaurus@nhmu.utah.edu

Raquel Stewart, Jr. Inclusion & Engagement Specialist, OR Museum of Science & Industry | RStewart@omsi.edu

Dee W. Perry, Floor Manager, Lawrence Hall of Science | dustin.perry@berkeley.edu

Sandra Bonnici, Senior Diversity Fellow AAM, Independent Consultant | sandrabonnici65@gmail.com

ASTC 2019 Addressing Barriers to Participation: Making the Museum of the Future Equitable, Inclusive, and Accessible | Session Notes

- Problem: “we’re doing the best we can”
- Community orgs that serve minoritized communities giving staff PD
- Tell the truth about where the barriers are, and how things are changing
- Question our assumption of what learning looks like
- Respect people’s family structures, enable people with language, range of experiences, etc.
- These are societal issues that we’ve never had to deal with before

How has this conversation changed your thinking about this barrier or this community?

What can you do differently going forward to address this barrier?

- Changing Human Resources
- Sharing the work across staff; mandatory all-staff trainings on these issues
- Need org statement: why does diversity matter? Be explicit about why we are doing this
- Change HR policy: xx% of candidates must come from diverse pool or hiring cannot happen
- Career jobs need to exist
- Ask what they need and build relationships in those communities
- Staff need to be able to prioritize issue, sustain this work, and have resources allocated to it
- We need to think of new ways to light the spark for our guests, and to never dampen it
- Question assumptions of what learning looks like
- Invite ways for people to engage in a variety of ways
- Invite people to come in groups to feel in majority, create events for identity groups for evenings, etc.
- Create community partnerships
- Talk to our leadership; get buy in with “peer pressure” by sharing that other orgs are already doing this

BARRIER: Not understanding what is expected, and feeling judged for not being able to decode expected behaviors

What is this barrier about? What event from the past year in your institution has exemplified/magnified this barrier?

- Social service \$5 annual membership, but still scared to come
- “What is that?” Don’t know what it is
- May not be coming to the museum
- Confusion at entry –where to go next?
- “Can I talk to those people?” “I don’t want to trouble them.”
- Expectations! Guest not getting support offered
- Not making it clear what is expected AND making staff aware there are different ways visitors get excited in non-traditional ways

Nichelle O’Saurus, Volunteer Coordinator, Natural History Museum of Utah | nosaurus@nhmu.utah.edu

Raquel Stewart, Jr. Inclusion & Engagement Specialist, OR Museum of Science & Industry | RStewart@omsi.edu

Dee W. Perry, Floor Manager, Lawrence Hall of Science | dustin.perry@berkeley.edu

Sandra Bonnici, Senior Diversity Fellow AAM, Independent Consultant | sandrabonnici65@gmail.com

ASTC 2019 Addressing Barriers to Participation: Making the Museum of the Future Equitable, Inclusive, and Accessible | Session Notes

- Community surveys: community felt they were not welcome, offered incentives to groups that were not coming to the museum
- Cultural idea of who belongs because of systematic ideas

How does this make you feel? How do you think the affected communities feel?

- Angry, hurt, frustrated
- Some teachers default to judging the students
- Community members can feel a burden (anxiety, etc.), especially at institutions that are new (zoos, museums, etc.) because of unknowns, which can cause additional stress

How has your institution created or perpetuated this barrier? What are you and/or your institution doing right now to address this barrier or work with this community?

- Not clearly getting expectations to those who need it
- Not creating conversations, providing resources, or providing training to facilitators
- Signs in museum that say “don’t” –look at those signs and see how you can change them

How has this conversation changed your thinking about this barrier or this community?

What can you do differently going forward to address this barrier?

- Uniform idea: vest over own clothes to make a more approachable staff
- Go to them to develop relationship, then invite them to your museum
- Train community members at community events to build skills and create employment ladder
- Advice from the maritimes: be so friendly that not smiling is weird
- Training (for everyone!), frontloading guests, accountability
- Accessibility information on website, all-staff trainings from day one
- Buy-in from the top helps multi-cultural activities
- Keep conversations happening
- Keep in mind, “who gets invited to the meetings?”
- Community of practice –work with institutions in area to create welcoming environment in all places in the area

BARRIER: The value of the museum is not a value to the audience

What is this barrier about? What event from the past year in your institution has exemplified/magnified this barrier?

- Unable to see science as part of “my” life
- Museums are static, old, non-relevant
- If I don’t know science, feel uneducated, then museums are not for me
- Museums are one-sided; ask people to come in
- Age, CEO focus on adults

Nichelle O’Saurus, Volunteer Coordinator, Natural History Museum of Utah | nosaurus@nhmu.utah.edu

Raquel Stewart, Jr. Inclusion & Engagement Specialist, OR Museum of Science & Industry | RStewart@omsi.edu

Dee W. Perry, Floor Manager, Lawrence Hall of Science | dustin.perry@berkeley.edu

Sandra Bonnici, Senior Diversity Fellow AAM, Independent Consultant | sandrabonnici65@gmail.com

ASTC 2019 Addressing Barriers to Participation: Making the Museum of the Future Equitable, Inclusive, and Accessible | Session Notes

- Value of leadership
- Misunderstanding of relevancy (timing)
- Name of institution is not what audience expects (how to share your mission/message beyond name?)
- Science is seen as exclusive
- Museums can be static, communities and values are changing
- Often leadership is not representative of the community, often assuming our curators setting a content direction
- The experience audiences want or value is not well reflected

How does this make you feel? How do you think the affected communities feel?

- Sad; museums could add value for a person and they are missing out
- Powerless to change the museum to help people find value
- Angry, not understood
- Families are confused, feel neglected
- Disconnected from audience
- Confusion for staff and audience
- Community wants to see institution reaching out, need accessible language/content approach
- We don't always know how the community sees us
- Frustrated

How has your institution created or perpetuated this barrier? What are you and/or your institution doing right now to address this barrier or work with this community?

- Not accessing the under-served community they way they need it
- Having special Latin programming
- Discounted annual membership through community partnerships
- Weekend morning tours for parents so they can see the value for their families
- Institution making fast decisions
- New values replacing old ones
- Institution making assumptions and solutions without community input
- Unwelcoming building, too prestigious
- Outreach to schools with approachable science lessons
- Have more highly trained people on the floor to have conversations with the public, break down science barriers
- How you're communicating with community members, what mechanisms best reach people?
- Zip code collection to see who is being reached regionally in order to identify gaps

How has this conversation changed your thinking about this barrier or this community?

What can you do differently going forward to address this barrier?

Nichelle O'Saurus, Volunteer Coordinator, Natural History Museum of Utah | nosaurus@nhmu.utah.edu

Raquel Stewart, Jr. Inclusion & Engagement Specialist, OR Museum of Science & Industry | RStewart@omsi.edu

Dee W. Perry, Floor Manager, Lawrence Hall of Science | dustin.perry@berkeley.edu

Sandra Bonnici, Senior Diversity Fellow AAM, Independent Consultant | sandrabonnici65@gmail.com

ASTC 2019 Addressing Barriers to Participation: Making the Museum of the Future Equitable, Inclusive, and Accessible | Session Notes

- Authentic community engagement; meet people where they are and how they need (language, space, food, cultural competence, etc.)
- Asking the (white, male) leadership to not attend events that they did not plan (so that they can avoid making attendees uncomfortable with phrases like “this is so diverse, let’s put it on social media”
- Encourage audience feedback
- Added family-friendly activities and programs to match needs
- Social listening for solutions
- Connect with like-minded staff
- Sponsors to lower cost barriers, including special shows in admission price
- Cross-departmental process for public-facing products
- Data collection and evidence can help start change and gain investment from others

BARRIER: Having to report low-income status (especially in front of children)

What is this barrier about? What event from the past year in your institution has exemplified/magnified this barrier?

- Guests have to show their WIC card and ID
- Having to show “bridge” card for discount
- Wearing stickers that ID them as a discounted group
- Having a 3rd party identify the family’s need
- Having to show bridge card (low-income, gets discounts)

How does this make you feel? How do you think the affected communities feel?

- Frustrated (we are)
- Shame, disappointed, embarrassed (we think they might feel)
- Pitied/pity
- Challenged for justifying to account where/who received funding and why
- Feeling of accountability
- Shame
- Will choose free, more private options
- Accessibility

How has your institution created or perpetuated this barrier? What are you and/or your institution doing right now to address this barrier or work with this community?

- One museum is looking for free parking solutions to pair with free general admission
- Partnering with service organizations to provide access
- Tracking and learning
- Identified the importance of running the same programming at the same level on “free” day
- Have free events more often if you could

Nichelle O’Saurus, Volunteer Coordinator, Natural History Museum of Utah | nosaurus@nhmu.utah.edu

Raquel Stewart, Jr. Inclusion & Engagement Specialist, OR Museum of Science & Industry | RStewart@omsi.edu

Dee W. Perry, Floor Manager, Lawrence Hall of Science | dustin.perry@berkeley.edu

Sandra Bonnici, Senior Diversity Fellow AAM, Independent Consultant | sandrabonnici65@gmail.com

ASTC 2019 Addressing Barriers to Participation: Making the Museum of the Future Equitable, Inclusive, and Accessible | Session Notes

- Pay by donation vs. setting a fee
- Across the board access for different groups
- Expensive admission, need the funding
- Library passes
- Free nights once per month
- Once a week pay by donation

How has this conversation changed your thinking about this barrier or this community?

What can you do differently going forward to address this barrier?

- Ways to avoid shame
- Don't project your assumptions onto others
- Think a lot more as we put forward well intentioned programs
- How do we measure the success of a program
- Library passes seem to bring in immigrant families
- Anonymous donations allow funding without being judged

Nichelle O'Saurus, Volunteer Coordinator, Natural History Museum of Utah | nosaurus@nhmu.utah.edu

Raquel Stewart, Jr., Inclusion & Engagement Specialist, OR Museum of Science & Industry | RStewart@omsi.edu

Dee W. Perry, Floor Manager, Lawrence Hall of Science | dustin.perry@berkeley.edu

Sandra Bonnici, Senior Diversity Fellow AAM, Independent Consultant | sandrabonnici65@gmail.com