2019 ANNUAL REPORT

Inspiring the next generation of innovators, engineers, and creative problem solvers
It’s incredibly heartening to witness young minds transform as they begin to see themselves as engineers and discover the many ways engineering is all around us.

As The Works Museum grows and evolves as an organization, what has given us purpose from the very beginning are the everyday encounters with children participating in our programs – persistently solving challenges and proudly sharing their designs. These seemingly small achievements add up over the course of each year, and each of our 75,000 visitors and participants are the reason we keep engineering and keep inspiring.

In 2019 we made critical strides in increasing our reach and relevance to our increasingly diverse community. The Works Museum is committed to eliminating barriers to our engineering education programs for underserved youth – including many students from populations underrepresented in STEM. In 2019 we served 11,349 people with subsidized programs, including 22% of the Museum’s total school workshop attendance. We know how important our programs are in complementing and strengthening inclusive teaching practices in formal education – especially for under-resourced schools that often cannot fund hands-on student experiences.

Our ability to address these needs within our community is largely because of the many passionate partners and supporters who believe in and share our mission. STEM education truly unlocks opportunities and enriches lives meaningfully, and this is just the beginning for us. There is still much to do, many more partnerships to explore, communities to reach, and young minds to inspire.

Sincerely,

Jill Measells
CEO, The Works Museum
OUR IMPACT: Serving Education Audiences

43,401
Students and teachers from 493 schools participated in hands-on Engineering for All K-6 School Workshops at The Works or at their school, a 26% increase in the schools reached over the previous year.

1,715
Campers participated in our Summer and School Break Camps, featuring 16 new offerings—including new maker camp experiences in our family makerspace, The Workshop.

7,114
Student visitors paid reduced rates through our Gateway program that provides access to low-income students and families—a 9% increase from FY18.

13,567
Students, teachers, and families enjoyed programs in their communities including group workshops, Family Engineering Nights, and teacher professional development.

OUR IMPACT: Serving Families

28,623
Number of public visitors who explored engineering using 22 hands-on gallery experiences.

1,621
Active memberships.

645+
Volunteers donated their time and expertise—from exhibit creation and set-up to program support and special events.

Family Event Attendance:

2,430 GIRL TIME
794 TECH FEST
1,225 ROBOT DAY
7,767 DROP-IN FAMILY ACTIVITIES

Participants from Across Minnesota:

Hennepin County 37% | Dakota County 18% | Ramsey County 12% | Rest of 7-county area 20% | Greater MN/WI 13%
For the past five years, The Works Museum’s girls’ initiative has sought to reach girls with engineering experiences that ignite their passion for STEM. Our Girl Time family event is one way that we do this, and this year we had record-breaking attendance – with 2,430 attendees and 30 presenters!

This year, families at Girl Time had the opportunity to meet female role models in STEM ranging from high school and college students to women in established careers. Student and corporate presenters shared their love of science and engineering with families through hands-on activities and demonstrations. Thanks to support from Firefly Scientists Foundation and Xcel Energy Foundation, girls were also invited to participate in workshops that introduced them to coding concepts and using tools.

Girl Time has seen steady growth each year, but we know there’s still a greater need to fill. Only 53% of 4th grade girls in Minnesota consider themselves interested in science.¹ With our girls’ initiative, we’re working toward closing this gap.

“It’s important for girls to interact with female role models working in a variety of STEM professions, so that they can see the breadth of STEM career paths and experience firsthand what their future in STEM could be,” says Kelly Klein from Girl Time sponsor Emerson Automation Solutions.

As we move into 2020, we’re expanding our girls’ initiative to a year-round program, She Engineers. We’re excited to work with schools, non-profit partners, and corporate partners to expand our programming and inspire the future STEM workforce.

¹ Data (2015) compiled by Minnesota Compass, MNcompass.org.

At our Girl Time signature family event, a staffer asked a departing family if they’d enjoyed the event, and the daughter said, “It was amazing, I never knew engineering was so much fun!” The mom then shared that she was so glad they’d come because she is an engineer and we’d managed to accomplish in one day what she’d been unable to do at home – help her daughter see her career as fun instead of “boring”.
Brick Pixel Pics

A New Addition to Our Gallery

In spring 2019 our new Brick Pixel Pics floor experience opened to overwhelming popularity. This experience incorporates building bricks and technology, encouraging kids to create individual and community art with colorful bricks. In one activity, kids receive a specific pixelated section of an image to create on a flat brick plate. Once complete, they check their piece against a program to find out where it fits in the grid, then place it in the correct place on the community artwork. With each completed square, the image starts to take form.

In a second activity, kids can design their own pixelated brick to display in the art gallery. Kids also have the option to free build and create 3-D art on a brick wall.

STEM Learning with Bricks

Brick Pixel Pics expands on the learning of brick play by providing practice with math standards and mathematics concepts. Kids need to read a grid, practice sorting colors and sizes, use a pattern to create their piece, and then find its location in the larger grid. It also explores the concepts of symmetry and rotation. Kids have so much fun building and designing, they don’t even know they’re building critical STEM skills.

Cooperative, Multi-Age Exploration

This experience delivers on the learning outcomes and engagement we expected, but it’s also resulted in some fun surprises. “We see big kid and little kid pairs working together on pixel art, or collaborating together on the free-build wall,” says Education Manager Marissa Woodruff, who was on the team that developed the experience, “and we see different groups of kids contributing to a scene on the wall. One child may create grass along the bottom of the wall, and then we see others start ‘planting’ flowers and other elements into the scene.” We also see adults engaging in the activities, creating their own pixel squares and art – sometimes even staying to design with bricks after their children have moved on to explore another activity. This multi-age engagement is exactly what we want to see happening in our floor experiences. When kids engineer collaboratively with friends, siblings, and their grown-ups, it enhances their learning. “It’s exactly what we want to see,” says Woodruff. “The best thing is seeing people use the experience as we’d expected and then bring in new ways to make it their own.”

Visit our blog for more information about how Brick Pixel Pics was created and the engineers on the design team.
Greener Lighting, Brighter Futures

The Works Museum was selected as Energy Management Collaborative’s (EMC) legacy partner for 2019. EMC donated and replaced fluorescent lighting with efficient LED bulbs in the Museum’s Experience Gallery, lobbies, and classrooms – not only saving energy, but also an estimated $10,000 annually in utility bills.

EMC also sponsored a field trip for local second graders from Fair Oaks Elementary School in Brooklyn Park to come to The Works Museum. Employees volunteered at the field trip, and other volunteers designed and assembled circuitry kits for students to take home and explore with their families.

Thank you EMC for their support and creativity in this new partnership. We look forward to a bright future working together.

Thank you Excel Energy for your partnership.

This year you may have visited with Xcel Energy employees at Tech Fest or Girl Time, participated in family activities supported by the Xcel Energy Foundation, or experienced the impact of volunteers who helped with painting and cleaning projects during the Xcel Day of Service. Xcel Energy’s long-standing partnership has helped us to create and deliver a number of programs. Here are two highlights from 2019:

- **Pop-Up STEAM and Pop-Up Engineering** – families explored engineering (and art) concepts together with activities such as gravity painting and straw rockets.

- **Drop-in Maker activities in The Workshop** – from basic sewing to stop motion animation, visitors made their own take home projects while learning to work with high-and low-tech equipment.

Thank you Excel Energy for your partnership.
$25,000+
Donaldson Foundation
Firefly Scientists’ Foundation
Flint Hills Resources
Schott Foundation

$15,000 - $24,999
Julianne Prager
Rucker Family Charitable Trust
Richard M. Schulze Family Foundation

$5,000 - $14,999
Barr Engineering
3M
$2,500 - $4,999
Shattuck-St. Mary’s School
Seagate Technology
Nvent Foundation
Margaret and Dr. Ilo Leppik
Katy Kolbeck
Larry and Linda Jodsaas
Hardenbergh Foundation
General Dynamics
Leroy and Ruth Fingerson
Ecolab
Burns & McDonnell Foundation
Boston Scientific
Abbott

$5,000 - $14,999
3M Foundation
Abbott
Boston Scientific
Burns & McDonnell Foundation
Ecolog
Emerson Automation Solutions
Leroy and Ruth Fingerson
General Dynamics
Elizabeth Grant
Hardenbergh Foundation
H.B. Fuller
Larry and Linda Jodsaas
Katy Kolbeck
Margaret and Dr. Ilo Leppik
Nvent Foundation
Propel Nonprofits
Seagate Technology
Shattuck-St. Mary’s School

$2,500 - $4,999
3M
Barr Engineering
BNSF Railway Foundation
Cities 97
Colder Products Company
Digital River
Emerson Women in Stem Group
Kinder Morgan
Margaret Rivers Fund
Steve and Joanne Rempe
Peter and Sara Ribbens
Shaloope Mlwevakantoon Sioux Community
WSB
Anonymous (2)

$1,000 - $2,499
Carol Aegerter
American Engineering Testing
Lillian Wright and C. Emil Berglund Foundation
Bio-Technie
Braun Intertec
Cargill
Jane Casto
Richard and Jean Clarke
EVS
Great River Energy
Kelly and Keith Klein
John Thomas Lee
Magenic Technologies
Nerdery
Parker Hannifin Foundation
Kerry and Erika Rosenhagen
Gene Sieve
Karol and Lila Smith
Smith’s Medical
Stanley Consultants
Tennent
Wonderly Software Solutions

$500 - $999
Marla and Randy Amborn
Architect Mechanical
Best Buy
Bloomington Smiles Dentalist
Don Craghead
Nancy Drake
Envestedt & Christensen, LLP
Ever-Green Energy
Greenberg Trauring, LLP
Beth Haney
HGIA
INCOSE North Star Chapter
Brad & Marcia Johnson
Lab 651
Michaud Cooley Erickson
Minnesota Energy Resources
Mutual of America
PTC
School of Rock Eden Prairie
Schwegman, Lundberg, & Woessner
Senterra
Shepards Talent
Bobby Tarnowski
U of M Center For Transportation Studies
Ultieg
When I Work
Chuck and Lynda Whittemore
Nate and Michelle Witzany
Laura Fingeron
Mark Fingeron
Michael Fischbach
Cary Komoto
Joy & Thomas Martin
Kathleen Mrozek
Megan Tuetken
Jeb Sawyer
Bradley Simon
Cory Simon
Alisa and Mike Skatrud
Katherine Spah
Nancy Starfeldt
Rachel Tellez
Robb and Emily Weidemann
Jill Zullo
Anonymous (1)

$1 - $199
Margaret Aiken
Sunee Arora
Timothy Barrett
Deepak Bhaskar
Timi and Matthew Bliss
Daniel Boyle
Douglas Connell
Ray Conover
Sarah Curtis
Tiffany Daniel
Wayne Conover
Kathy Cuddleson
Mark Dufault
Ryan Drury
Shawn Drury
James Durfee
Sivajai<br>Anonymous (13)

$200 - $499
Brooke and Dominic Allocco
Ronald Bennett
Ann and Jay Boekhoff
Kathy Davis
Joy and Dave Drummond
Linda Haney
Inna Hays
Adriane and Nate Helfin
Peter and Lisa Hoh
Ann Jaspersson
Stacie and Rodolphe Katra
Frances and Theo Knaebel
Deborah Knudson
Soma Krech-Jacobson
Corinne Kuhahan-McKie
Andrew LeTourneau
Colin MacMillan
Scott Mayerle
Jill and Jonathan Measells
Christopher Miller
Patrick Mudd
Dan and Michelle Neinstadt
Kara and Caleb Newby
Justin Nicklla
Cheryl Norton
Hope Palmer
Greg and Naomi Pesky
Barbara Pollard
Kate Poole
Duke Rodda
Margaret and Joshua Roslik
Derek and Diane Rucker
Steve Rutsch
Richard Smith
Jerry and Brenda Sosinske
Andrea Specht
Justin Spencer
George and Betty Stein
Kirsten and Jeff Stone

“Oh it was so great! The structure was perfect and totally accommodated for all our needs and grade levels. The kids had a blast! I think we will come every year.”

– Poplar Bridge Elementary, Bloomington, MN
STATEMENT OF FINANCIAL POSITION

Assets
Cash $180,712
Accounts and Contributions Receivable, Net $12,687
Other Assets $6336
Property and Equipment, Net $2,119,875
Total Assets $2,319,610

Liability and Net Assets
Current Liabilities $134,824
Long Term Notes Payable $1,545,338
Total Liabilities $1,680,162

Net Assets
Unrestricted $522,877
Temporarily Restricted $116,571
Total Net Assets $639,448

Total Liabilities and Net Assets
Audited financial reports are available upon request
kim.hansen@theworks.org

Revenue Total: $1,167,407
- Programs 63%
- Contributions 32%
- Merchandise Sales 1%
- Memberships 4%
- Fund Raising 10%
- Public Programs 32%
- Management and General 8%

Expenses Total: $1,280,704
- Group Programs 50%
- Public Programs 32%
- Fund Raising 10%
- Management and General 8%