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<http://fermilabfriends.org>

**Fermilab Friends for Science Education supports science innovation programs at Fermilab.
Its mission is to:**

Enhance the quality of precollege science education in public and private schools.
Encourage young people to pursue careers in science and engineering.
Promote a broader public awareness and understanding of science.



Fermilab Friends' graphics incorporate an image of one of Robert Wilson's best known sculptures, Möbius Strip. Slicing a Möbius strip lengthwise results in two interlinked loops, an appropriate metaphor for the relationship between FFSE and the Fermilab Office of Education and Public Outreach: separate, yet tightly linked.

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FERMILAB DIRECTOR

Dear Fermilab Friends for Science Education,



Nigel S. Lockyer
Director of Fermilab

A handwritten signature in blue ink that reads "Nigel S. Lockyer". The signature is fluid and cursive, written on a white background.

Thank you for a wonderful year of celebration. The Fermilab Family Open House brought nearly 4,000 visitors to the lab to experience our science and outdoors. You also hosted a STEM Career Exposition with involvement from over 50 Chicagoland organizations. Thank you for providing scholarships to teachers, students and families to engage in field trips, workshops, and attend Science Adventure classes.

Our scientists and staff reach out every year to classrooms throughout Northern Illinois, impacting the lives of thousands of students. My personal favorite is the recognition of exemplary high school students in the area. This surely fuels their enthusiasm for pursuing science and engineering as a career. It is highly rewarding to reflect upon the fact that the Fermilab name is associated with STEM throughout Illinois due to the generosity of our volunteers and neighbors from the community. Thank you to all the people who donate their time, gifts, and ideas because they believe in the Fermilab mission.

Fermilab celebrated its 50 years of discovery history last year. There were a multitude of events and opportunities to share the pride we have in the laboratory and its accomplishments. One example that was highlighted throughout the year was the Lederman Science Center with its broad reach, its innovative teaching methods, and modern science exhibits that were the center of excitement for so many students. It is an icon of what we at Fermilab attempt to share with the community.

The entire Fermilab community is proud and amazed at what you have accomplished. Thank you very much, once again, on behalf of Fermilab as we look forward together to our next 50 years of science education and outreach.

FROM THE FFSE PRESIDENT

Dear Friends,

I hope you found a way to participate in the yearlong celebration of Fermilab's 50th anniversary during 2017. It certainly was a banner year! None of the preparations for the community-wide day of celebration on September 23 would lead us to imagine we would be celebrating on one of the hottest days of 2017!

Fermilab Friends for Science Education took the opportunity to give tokens of thanks to volunteers. The blue aluminum water bottles with FFSE and Fermilab 50th logos were appreciated. We still see FFSE blue insulated lunch bags which were given to visitors. They are in the hands of "friends" in the community and on the Fermilab campus. We hope these are nice tokens of our appreciation and a reminder of FFSE's role at Fermilab.

The programs we fund to fulfill our mission are so much a part of Fermilab history that we recognize we need to make our not-for-profit organization better known for what we do. We keep working on it! This year I was asked to speak to the Fermilab Employee Advisory Group about FFSE. They wanted to know who we are, about our notable projects, our volunteers and our challenges. I also spoke to the Vision for Education and Public Outreach (VEPO) panel convened by Nigel Lockyer, Fermilab Director, to inform him of suggestions for a new vision and future for education and public outreach. I was able to sit in on the briefing panel. After the Directorate considers the recommendations, they will determine next steps. We hope to be involved in the future discussions. Stay tuned.

Two new efforts supported by FFSE that began in 2017 include the Professional Development Provider Institute for our program leaders and program instructors. (Read more on page 11.) This effort will lay a strong foundation of best practice in Next Generation Science Standards and professional development standards within our programs. Thanks to a contribution from the American Institute of Physics through Don Lincoln, we have a donation which will fund innovative ways to bring Fermilab science to educators who may find it difficult to come to Batavia. Utilizing existing YouTube videos, virtual tours, Google Hangouts and new tools and resources, we will offer exciting new ways to engage students and teachers with Fermilab science. As Amanda Early conducts surveys and needs assessments, we will collaborate with educators to develop program resources that serve their needs.

With your help, we hope to continue to make better inroads into making Fermilab Friends for Science Education recognized for the support and work we offer. Thank you for your continued interest and support.



Susan M. Dahl
President, Fermilab Friends for Science Education

A handwritten signature in blue ink that reads "Susan Marie Dahl". The signature is written in a cursive style and is positioned above a thin horizontal line.

PROGRAMS IN 2017

FERMILAB FAMILY OPEN HOUSE

Sponsored by Fermilab Friends for Science Education, the 2017 Family Open House may boast the biggest held at Fermilab with an estimated 3,700 attendees. The event activities and participants filled the atrium, One West and Ramsey Auditorium with exuberant science aficionados spanning all ages.

The atrium provided opportunities to learn physics concepts via science demonstrations about magnetism, gravity and electricity led by students, scientists and docents. Groups of students from six different high schools developed and presented 13 different hands-on activities for the Physics Carnival. IMSA students helped guide guests and run Education Office exhibits.

Tours of the Remote Operations Centers, the Linac and Main Control Room, as well as driving tours around the Fermilab site were enjoyed. Approximately 500 attendees took tours of the Fermilab site and Linac/X-Gallery. A total of 150 attendees took virtual tours of the Sanford Underground Research Facility in Lead, South Dakota, home of the future DUNE far detector.

Also featured were screenings of short films in the 15th floor theater and a special session of Ask-a-Scientist. Due to the crowds, the always entertaining Mr. Freeze conducted an unprecedented third show. A new demonstration, Dynamic Forces, took place in One West.

Principals or department heads nominated six area teachers to be recognized for their contributions to science education.

The Fermilab Family Open House was made possible through the generosity of an anonymous FFSE donor.



STEM CAREER EXPO



The natural curiosity of youth frequently translates to areas of interest and even passion. But what is the best way to channel that interest and curiosity beyond the classroom and into one's lifework? Over 500 students and their parents get answers directly from over 140 working STEM professionals from organizations such as ANGUS Chemical Company, CB&I, Nicor Gas, Nokia, Praxair and many others. Students, provided with prompting questions for discussion, could speak with the professionals representing careers such as an acoustics engineer, actuary, computer security professional, meat scientist, accelerator operator and neutrino physicist to structural or mechanical engineer, in either a one-on-one situation or listen to several professionals' experiences and backgrounds

during any of five panels. The STEM Career Expo is organized by the Fermilab Education Office in partnership with local educators from Batavia, Elmhurst, Geneva, Glen Ellyn, and Bartlett schools with funding from an anonymous donor to FFSE. This tenth year of the STEM Career Expo is very well received by parents, students and professionals alike.

FFSE VAN

This is one HOT vehicle! Fermilab Friends for Science Education acquired their cargo van in 2008. The van carries equipment, materials and presenters to various schools, public libraries and other sites for science education outreach. In recognition of Fermilab's 50th year anniversary, the van received a spiffy, head-turning facelift. Fermilab and FFSE can be proud to show off this stunning vehicle in facility parking lots all over the Northern Illinois area.

See the listing of classroom presentations on page 8 and visit http://ed.fnal.gov/trc_new/demos/ to learn how your school or library can request a free presentation.



FFSE PROGRAM SCHOLARSHIPS

PROGRAM SCHOLARSHIPS

FFSE scholarships aid teachers, students and families in their quest for STEM experiences by providing funds for teacher workshops, bus transportation and Science Adventures. Teacher workshops offer experiences in a variety of science disciplines including physics, chemistry, biology, ecology and more. As it becomes more difficult to obtain school district funding for professional development and funding field trips, the FFSE program scholarships are helping to meet a critical need within our schools. Likewise, many families are experiencing increased fees and other financial burdens, making Science Adventure programs a luxury.

FFSE assistance brings the world of science to students and families that might not otherwise be able to participate. Applications are available in late fall and are due in early March. Check the FFSE website for applications and specific dates. In 2017, **6** families received Science Adventure scholarships, **1** school received a bus transportation scholarship for a Fermilab field trip, and **5** teachers received teacher workshop scholarships: **Jane Cunningham**, Summer Secondary Biology Institute; **Peggy Hernandez**, Summer Secondary Physics Institute: Waves, Sound and Optics; **Ely Leon**, Summer Secondary Physics Institute: Modern Physics, Fermilab and NGSS; **Michelle Milligan**, Beauty and Charm; **Elisabeth Pluth**, Summer Secondary Physics Institute: Waves, Sound and Optics.

FERMILAB SCIENCE AWARD FOR HIGH SCHOOL STUDENTS

Every year FFSE underwrites an award program for outstanding science students attending high schools in DuPage and Kane Counties.

Nominated by school faculty, each winner receives a certificate and a book at their school's award ceremony. This year's winners were:

Batavia High School, **Matt Grendzinski, Kayla Little**; Benet Academy, **Andrea Cruz, Max Graham, Paul Severino**; Central High School, **David Akins, Shaaz Syed**; Downers Grove North High School, **Robert Falconer, Emma Moravec**; Downers Grove South High School, **Vanessa Copeland, Nicholas Rohl**; Dundee-Crown High School, **Andrew Liebmann, Amy Merkelz**; Elgin Academy, **Daniel Ethan Basa**; Elgin High School, **Makena Tisor**; Geneva High School, **Ryan Belloli, Ally Mullen**; Glenbard East High School, **Muhammad Arsalan Farooqi, Alexandra Vargas**; Glenbard North High School, **Max Patel, Ravi Patel**; Glenbard South High School, **Yusuf Baggia, Sophie Bair**; Hinsdale Central High School, **Julia Clarke, Harrison Wang**; Hinsdale South High School, **Tanner Andrulis, Katarin Martinet, Jimmy Zhang**; IC Catholic Prep, **Quinn Bigane, James Kenneally**; Illinois Mathematics and Science Academy, **George Moe, Soomin Park**; Lake Park High School (East Campus), **Josie Pike, Ryan Pries**; Larkin High School, **Jonathan Unger, Layla Wisser**; Lisle Senior

High School, **Andrew Sima, Julia Ullmann**; Marquette Manor Baptist Academy, **Alexander Raddatz**; Montini Catholic High School, **Tajh McKelvy, Gabriella Rossi**; Neuqua Valley High School, **Zachary Hernandez, Siddharth Jaiswal**; St. Charles East High School, **Grace Malone, Michael Rothslog**; St. Charles North High School, **Paul Karas, George Ressinger**; St. Francis High School, **Ethan Caesar, Lauren Von Bampus**; Streamwood High School, **Nicholas Hall-Skank, Christopher Veltkamp**; Waubonsie Valley High School, **Rajath Salegame, Serena Zhu**; West Aurora High School, **Allyson Bartell, William Isiminger**; West Chicago Community High School, **Cameron Jayson, Harsh Patel**; Westminster Christian School, **Benjamin Bertsch, Cameron Hoyt**; Wheaton Academy, **John Heredia, Emily Renn**; Wheaton North High School, **Elizabeth Schuessler, Shane Warland**; Wheaton Warrenville South High School, **Elsa Barron, Brandon Luna**; York Community High School, **Kamil Nocon, Amelia O'Halloran**.

THE YEAR AT A GLANCE: CELEBRATING SUCCESS THROUGH THE SEASONS

WINTER

- 13th Annual Fermilab Family Open House was held on February 12 and was enjoyed by approximately 3,700 participants.
- FFSE funds a docent-facilitated experience during the first Saturday of each month, "Get to Know the LSC." Explore the hands-on exhibits with experienced assistance.

SPRING

- FFSE selected recipients for teacher workshop, Science Adventure and transportation scholarships. 12 scholarships were awarded.
- STEM Career Expo on April 19 (See mini-story on page 6.)
- FFSE Annual Meeting on May 16
- Fermilab high school science awards presented to promising science scholars in DuPage and Kane Counties. (See list of recipients on page 7.)

SUMMER

- FFSE Board members and friends met summer teacher workshop participants and supplied snacks to raise awareness and promote membership in FFSE.
- Docents and FFSE volunteers took part in the Fermilab 50th anniversary celebration on September 23, 2017. An FFSE station was staffed by the Lederman Science Education Center. Information and water bottles were provided for visitors.

FALL

- FFSE van took scientists and physics equipment for classroom presentations throughout the school year.
- FFSE program scholarship applications opened on November 1.
- A new initiative, Professional Development Provider Institute (PDPI), was begun. (See mini-story on page 11.)

FFSE SUPPORTS EDUCATION PROGRAMS AND OUTREACH EFFORTS DIRECTLY AND IN COLLABORATION WITH OTHERS THROUGHOUT THE YEAR.

PHYSICS AND PRAIRIE FIELD TRIPS

1,302 middle school students from **24** schools participated in physics programs in 2017.

625 middle school students from **14** schools participated in field trips for Beauty and Charm.

677 middle school students from **10** schools participated in field trips for Phriendly Physics.

4,016 students traveled to Fermilab's prairie:

- **2,920** students from **36** schools for Energy and Ecosystems (middle level)
- **285** students from **5** schools (including a special camp) for Prairie – Our Heartland (late elementary)
- **360** students from **7** schools for Insects at Work (early elementary)
- **451** students from **7** schools for High School Life Science

SUMMER TEACHER PROGRAMS

86 teachers and new docents participated in **9** workshops including:

- Beauty and Charm
- Energy and Ecosystems
- Insects at Work in our World
- Phriendly Physics
- Prairie – Our Heartland
- Summer Secondary Biology Institute
- Summer Secondary Physics Institute
- Teacher Research Associates Program

SCOUTS

452 scouts from **36** troops participated in **23** badge programs.

LSEC CASUAL VISITORS

3,900 visitors signed the guest book at the Lederman Science Education Center. Many visitors neglect to sign but spend time perusing the displays and interactive exhibits, many of which were procured and are maintained with FFSE support.

SCIENCE ADVENTURES

382 children participated in **34** adventures including: Lego Engineering; Nanotech Investigations; Kid Inventors; Fireflies, Sea Monsters and Glow Sticks; Chemistry at Your Fingertips; Wild and Wonderful Weather; Club Invention (Primary and Intermediate); Hands-on Engineering; Design and Create: Be an Engineer; Survival Science; Dynamic Duo; Making Waves with Medical Imagery; Dinosaur Hunt; Games, Magic and the Brain; Crystal Connections; Wondering Why? Magnetic Magic; What Makes You So Special? Playing with Your Food; Spiders: Spinners of Silk; Code Cracking, Cryptograms and Other Mysteries; Best Games Ever! Your Own! Nature's Energy; Flight and Fashion; Primary Physical Science.

CLASSROOM PRESENTATIONS

18,794 students plus five sessions of Mr. Freeze in September enjoyed **139** locations including:

- Charge! Electricity and Magnetism
- Forces and Motion
- Space, Time and the Universe
- Light and Color
- Physics of Sports
- Physics in the Real World (career talks)
- Cryogenics Show/Mr. Freeze
- Computational Thinking

OTHER OUTREACH

Participants

- | | |
|------------------------|-------|
| • Summer Sunday Tours | 169 |
| • Ask-a-Scientist | 870 |
| • Get to Know Fermilab | 1,593 |
| • DZero | 150 |

TOTAL: 2,782

Hands-on Science equipment was loaned 18 times to schools/libraries serving thousands of people.

OUR TEAM

THE SUCCESS OF THE 2017 FFSE EDUCATION PROGRAMS RESTS WITH THESE OUTSTANDING PROGRAM LEADERS.

Michael Bachrodt, Fremd High School, Palatine • **James Browne**, Amboy High School • **Sue-z Bruno**, Gates Elementary School, Aurora
Jill Burke, Franklin Park School District 84 • **Daniel Caldwell**, Northside College Preparatory, Chicago • **Scott Campbell**, Rochelle Township High School • **John Chamberlain**, Glenbard North High School, Carol Stream • **Kelly Chapman**, Willow Creek Elementary School, Woodridge
Trudi Coutts, Naperville Community Unit School District 203 • **Karl Craddock**, Fremd High School, Palatine • **Larry Cwik**, Seton Academy, South Holland • **Jason English**, Fremd High School, Palatine • **Todd Ernst**, Valley View School District 365U • **Michelle Fabian**, Batavia High School • **Patricia M. Franzen**, Germantown Hills • **Bill Gardner**, York High School, Elmhurst • **Michelle Gattuso**, Carl Sandburg High School, Orland Park • **Barbara Greenberg**, teacher, retired • **Bill Grosser**, Oak Park and River Forest High School • **Milton Harris**, Clarendon Hills Middle School • **Jill Holubetz**, Yorkville High School • **Mary Ann Janiak**, teacher, retired • **Randy Jones**, Glen Ellyn School District 41
Elizabeth Karnik, Western Springs School District 101 • **Steve Keefe**, teacher, retired • **Nicole Kitzmiller**, Rotolo Middle School, Batavia • **Mike Knapp**, Marquardt Middle School, Glendale Heights • **Ellen Kohlmeir**, biomedical scientist • **Ken Kohnke**, Cass Junior High School, Lisle • **Lee R. Marek**, University of Illinois at Chicago • **Mike McHale**, Byron High School • **Amy Miller**, Johnson Elementary School, Warrenville • **Stefany Montgomery**, Larkin High School, Elgin • **Radomir Niewrzol**, Glenbard North High School, Carol Stream • **Mary Sue Offut**, SciTech and Field Museum volunteer • **Glenda Peck**, teacher, retired • **Jeff Pettera**, Christian Life High School, Rockford • **Mike Runge**, West Aurora High School • **Susan Sanders**, Glenbard School District 87, Glen Ellyn • **Heather Saylor**, York High School, Elmhurst • **Darwin Smith**, Quincy Notre Dame High School, Quincy • **Marsha Stierwalt**, Alice Gustafson Elementary School, Batavia • **Patrick Swanson**, Hoffman Estates High School
Dave Torpe, James B. Conant High School, Hoffman Estates • **Tricia Warren**, Geneva High School • **Wayne R. Wittenberg**, teacher, retired

MANY FERMILAB SCIENTISTS GIVE THEIR TIME GENEROUSLY TO EDUCATION PROGRAMS THROUGHOUT THE YEAR.

Corey Adams • Mark Adams • Michael Albrow • Gerard Altayo • Cindy Arnold • Wayne Baisley • Maurice Ball • Dennis Barak • Jana Barker
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Will Wester • Chris White • Herman White • Katherine Woodruff • Meiqin Xiao • Jim Zagel • Sam Zeller • Jerry K. Zimmerman • Bob Zwaska

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Shelly A. Helms, Administrative Support Assistant • **Maureen Hix**, Education Program Leader • **David J. Hoppert**, Laboratory Technician
Kimberly McDaniel, Lederman Science Center Storekeeper • **Gayle Millman**, Administrative Support Assistant • **Spencer L. Pasero**, Manager • **Elizabeth K. Quigg**, Computer Specialist

DOCENTS FACILITATE STUDENT FIELD TRIPS AND OTHER EDUCATION OFFICE ACTIVITIES AND SUPERVISE THE LEDERMAN SCIENCE CENTER.

Julie Albert • Donna Blankenship • Mary Campbell • Muriel Cease • Janet Chaterji • Susan Dumford • Vida Goldstein • Jane Gravelle • Lori Haseltine
Helen D. Huie • Jacqueline J. Krock • Nancy Lanning • Steve Masters • Talitha Mueller • Mary Jo Murphy • Paula Mytych • Dave Orleans • Laura Paterno
Gail Poisson • Bob Shaw • Adele Southcott • Sue Styer • Felicia Svoboda • Anne Mary Teichert • Yvonne Twomey • Vicki Williams • Dorothy Yurs

REVENUES AND EXPENSES

	2017 (audited)	2016 (audited)
Revenues (\$000)		
Contributions/Foundations	\$ 32.2	\$ 24.6
Membership	5.3	12.8
Other	7.2	4.9
Total Revenue	\$ 44.7	\$ 42.3
Expenses		
Program Services	\$ 32.3	\$ 23.5
Management & General	19.4	20.0
Total Expenses	\$ 51.7	\$ 43.5
Change in Net Assets	\$ (6.9)	\$ (1.2)
Prior Period Adjustment		\$ (2.5)
Net Assets – End of Year	\$ 117.8	\$ 124.7

ACKNOWLEDGMENTS

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United States Department of Energy
Fermi Research Alliance, LLC
Amazon Smile
Anonymous Donor
Batavia High School
Geneva High School
Invent Now, Inc.
St. James Catholic School (Rockford, IL)
Village of Montgomery
Yorkville High School

PROFESSIONAL DEVELOPMENT PROVIDER INSTITUTE

NEW in 2017! Prompted by recent staff turnover in the Fermilab Office of Education and Public Outreach and our key program instructors, the Professional Development Provider Institute (PDPI) was proposed. PDPI offers an opportunity to develop a cohesive philosophy and understanding of high-quality professional development based in the concepts of the Next Generation Science Standards. The PDPI, led by staff from the internationally known and highly respected BSCS Science Learning, will consist of four four-day institutes. PDPI offers a three-tiered approach to the standards from the perspective of the learner, teacher, and professional development provider.

This professional development provider training is held at Fermilab. FFSE supports the expense of the institute for program instructors; the Fermilab Office of Education and Public Outreach covers the expense for new program leaders Amanda Early and Maureen Hix. Argonne National Laboratory was invited to have participants from their educational programming as well. This initiative will establish an outstanding foundation for our teacher leaders and staff for years to come. "This is such a unique and powerful opportunity for instructors to be in the same room with the same foundation yet directed toward their unique program perspectives as ranging as a grade 3–5 program of life sciences to a high school chemistry institute. We hope the conversations will be as unique and rich as our impressive instructors." – Susan Dahl The four-institute cycle will be completed within two years. For more information on the program, please see this site: <https://bscs.org/pdpi>.



"The PD that we participated in was a great mix of immersing ourselves in an NGSS classroom as students and gaining a deeper understanding of how to plan and create lessons that embody the instructional shifts. In playing the role of a student we got a chance to experience how to participate in the practices while building an understanding of foundational content. This looked so different from the traditional classroom as we worked collaboratively to talk through our own understandings, uncover misconceptions and build new knowledge together. We strayed from the traditional route of following a procedure that moves us all together toward content not fully understood to manipulating materials and understandings to figure out the why behind a known phenomenon. At the end of a series of lessons we really understood the why behind the phenomena that we worked with.

In the teacher role we worked to piece together a plan of how to recreate these learning experiences in the classroom. We talked through how to be sure our teaching was three dimensional and how to invite students to think through all the dimensions. We highlighted teaching and learning strategies that we used and how to tweak them to fit the instructional shifts of these new standards. We articulated how skills build upon each other and how to differentiate the content and skills used within one classroom. In playing the role of the student we understood better the vital role planning takes as a teacher." – Nicole Kitzmiller, E&E instructor

APPRECIATION TO OUR FRIENDS

Liz Quigg

2017 Fermilab Computing retiree Liz Quigg has been a significant contributor to FFSE programs for decades. She served on the FFSE Executive Board as membership chairman and had great fun with other board members working the Wilson Hall cafeteria to “buttonhole” people. Membership dramatically rose during that period as few could resist Liz’s enthusiasm. Liz and husband Chris have been longtime financial patrons, generously supporting the work of FFSE. As a Fermilab employee, Liz’s computer genius was renowned. She created web pages, set up the online store and overall PayPal system for FFSE memberships and donations. Additionally, Liz helped migrate the membership data to the new online cloud-based system. Liz’s contributions on several FFSE fronts have been greatly appreciated. While she will be missed as a daily figure on the Fermilab campus, it is our hope to see her frequently.



Sue Sheehan

Sue Sheehan was a fixture at the Lederman Science Education Center for many years before becoming one of three education program leaders. Sue remembers the support of FFSE in many aspects of her job, including assistance for the Department of Natural Resources ENTICE workshops, funding the preparation and mounting of several specimens from the Fermilab grounds for the LSC science lab, and providing docents for the Friday Night Lecture Series at Wilson Hall. Many programs overseen by Sue benefited from FFSE, including outfitting the pioneer wagon which is used by the prairie programs as well as serving as a Fermilab visitor attraction. The Fermilab Outdoor Family Fair, held most years in the summer, is a product of FFSE generosity. Sue stated that FFSE provided opportunity for science discovery and served to encourage creativity and innovation when designing new learning opportunities. In Sue’s words, “I could not have done it without the support and encouragement of FFSE.” Sue may have retired from her full-time job at the Lederman Science Center, but she is not about to give up her role as a regular volunteer on the Fermilab prairies nor as an ongoing member of FFSE.



Sue Dumford and Mary Campbell

Longtime docents Sue Dumford and Mary Campbell both retired this year from their roles as co-coordinators of the Fermilab Family Open House after planning and executing eight events. In 2017, approximately 3,700 participants enjoyed the fruits of their labor. Sue coordinated the exhibits and Mary orchestrated the docents and volunteers, including high school students from IMSA. Masterminding this extraordinary event each year took tremendous planning and cooperation of many Fermilab staff members as well as a myriad of volunteers.

Sue and Mary note that beyond the Family Open House, FFSE has been instrumental in supporting the Outdoor Family Fair and many other efforts. Additionally, they thanked Susan Dahl for her excellent ideas. Thanks to her direct involvement, more people are becoming aware of the mission of FFSE. (See the mission statement on the inside cover.)

Both Sue and Mary extol the spirit of creativity and team spirit encouraged by FFSE. Mary refers to FFSE as their “Ace in the hole,” and Sue states, “FFSE is an amazing organization capable of stretching resources in so many ways to touch so many people.” Sue continues to be an exceptional Fermilab docent. Mary will return to attend events when possible.