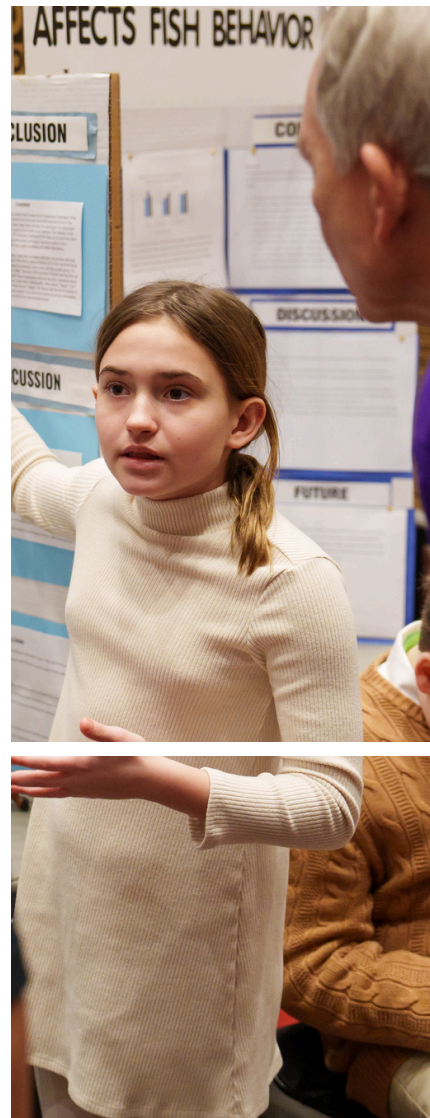


2024

Annual Report

Louisville Regional Science & Engineering Fair



2024 Highlights

Louisville Metro Mayor Craig Greenberg proclaimed March 2 Louisville Regional Science & Engineering Fair Day celebrating the 60th Diamond Anniversary for this annual competition. A special logo and tag line were developed for this year, LRSEF–Sparking Brilliance in Young Minds for Six Decades. LRSEF was held at the Swain Student Activities Center of University of Louisville on Saturday, March 2. The event featured a 60th birthday celebration with special speakers and cake, as well as a Decades Exhibit of posters with highlights of past fairs and student participants.

This competition is nationally affiliated with the Regeneron International Science & Engineering Fair and the Junior Innovators Challenge sponsored by ThermoFischer Scientific.

Hosted by the 100% volunteer Board of Directors, LRSEF 2024 welcomed 26 schools with 220 middle and high school students presenting 200 projects. There were 16 public schools at the event and ten private schools. A total of 216 volunteer judges in teams of two or three interviewed students in two rounds of judging for category awards, while special awards judges met with students throughout the day. LRSEF ensures the safety of the participating students by requesting that all judges and volunteers participate in background checks.

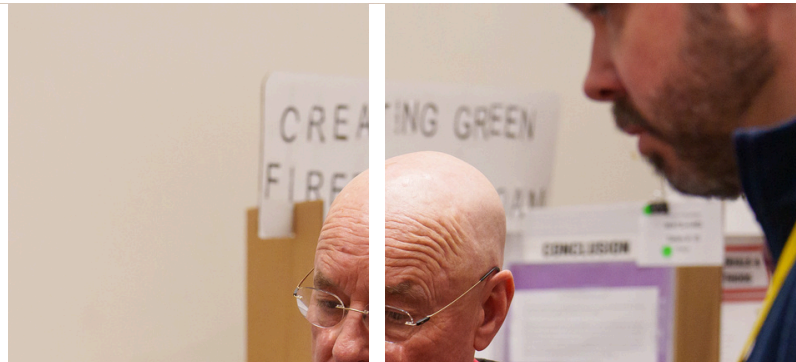


LRSEF 2024: A Sparkling Day

On Saturday March 2, judging interviews took place for Category Awards of 1st, 2nd, 3rd and 4th place in 22 different STEM categories at both the middle and high school levels. All 44 of our category cash awards were sponsored by grants or donations from local companies and donors. Category winners received ribbons and a total of \$7,049 in cash awards. GE Best of Fair Awards of \$2,820 and trophies were given to eight projects: three in middle school and five in high school. The top three schools in both divisions were awarded trophies and \$1,650 for their STEM programs.

Category Awards

\$7,049



SPARKING BRILLIANCE IN YOUNG MINDS
FOR SIX DECADES

2024 LOUISVILLE REGIONAL SCIENCE & ENGINEERING FAIR DIAMOND ANNIVERSARY

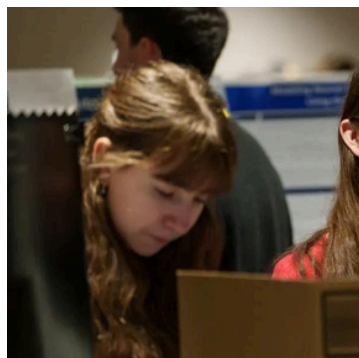
To determine additional winners of over 60 LRSEF Special Awards sponsored by both local and national organizations, over 70 volunteer special awards judges donated their time to LRSEF. Once the judging was complete, a total of \$3,105 was given to the 100 students winning the 2024 Special Awards.

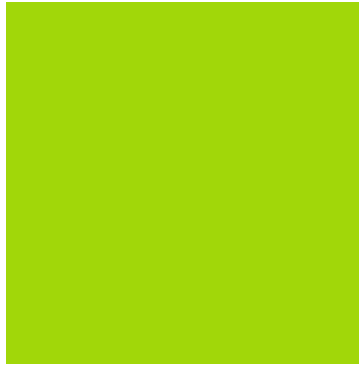
In all, \$11,804 was awarded to students and teachers achieving excellence in the STEM fields at LRSEF 2024. In addition, every student received a commemorative 60th anniversary t-shirt with sponsor GE Appliances logo along with a free backpack, LRSEF lanyard, certificate of participation as well as breakfast and lunch.

The 2024 Awards Ceremony was hosted by LRSEF title sponsor GE Appliances and held on fair day from 4 to 5:30pm to announce the winners. Over 1,000 people from around the region attended to hear the results. Mayor Craig Greenberg was a special guest and kicked off the 60th Anniversary event with memories of his own science fair experiences while he was a student at Ballard HS. Cake and refreshments were served to all guests and door prizes awarded. Hannah Strong, former WDRB meteorologist, was emcee for the event. Special speakers included LRSEF alum Sydney Kessler (former Ballard HS 2016-16 winner, now medical student at UofL) and online speaker renowned author J. Richard Gott, astrophysicist and author of "Welcome to the Universe" Richard is a Louisville native, graduate of Waggoner HS and alum of LRSEF from the 1964-65 era. He was introduced by special guest and former LRSEF participant and board member, Charles Allen.

Special Awards

\$3,104





For the high school division, there were 12 schools participating, nine public schools and three private schools. There were 180 projects presented, 40 were team projects and 106 were solo. The winning schools were 1st Ballard HS, 2nd North Oldham County HS and 3rd Gatton Academy of Science and Mathematics.

The top five high school students were named GE Best of Fair, and their projects were promoted to the Regeneron International Science & Engineering Fair held in Los Angeles, CA May 11-17. Each student also received a signed copy of J. Richard Gott's new book, "Welcome to the Universe," a trophy and a cash prize.

- Asa Ashley, Gatton Academy of Science & Mathematics
- Muhilan Balasubramanian, Ballard High School
- Zahra Chasmawala, Gatton Academy of Science & Mathematics
- Nikil Kumar, Gatton Academy of Science & Mathematics
- Gopalaniket "Aniket" Tadinada, North Oldham High School

LRSEF was also honored to give a First Build Innovation Awards of \$750 to support post-secondary education to Asa Ashley of Gatton Academy. The Amazon Innovation Awards sponsored by a grant from the Kentucky Science & Engineering Fair went to Zaina Al Farra and Mariajose Galindo Chavez of North Oldham HS and Adja Gueye of Central HS.

Total Cash Prizes

\$11,804



For the middle school division there were 14 schools participating with six public schools and four private schools. There were 148 projects presented, 142 were solo and six were team projects with 155 total middle school students in the event. Winning schools were 1st Saint Francis of Assisi, 2nd Nur Islamic School and 3rd St. Pius X Edgewood KY.

These top three projects were named GE Best of Fair with each student receiving a trophy and cash prize:

- Isaiah Bertram – Home School
- Graham Centimole – Saint Francis of Assisi
- Elli Keeley-Fine – Saint Francis of Assisi

Also, 15 middle school scientists were named as nominees for the Thermo Fisher Scientific Junior Innovators Challenge (JIC) national competition and two outstanding projects received special national awards.

Vera Naidu of Saint Francis of Assisi was named Lemelson Early Inventor and Home Schooler Isaiah Bertram was awarded the Department of Defense Leadership Prize.

The Amazon Innovation Awards, supported by a grant from KYSEF went to Zainab Fatima of Nur Islamic School of Louisville and Estefany Juan-Menchu of Saint Francis of Assisi.



Thank you to Strategic Partners Asia IMPACT and Science Policy and Outreach Group

The Asia IMPACT group is a volunteer affinity group of engineers and STEM professionals at GE Appliances, a Haier company. Since 2014, LRSEF has been one of the Asia IMPACT group's nonprofit charity partners. Three members of this group serve on the LRSEF Board of Directors. Throughout the year, AI raises funds for LRSEF through sponsored events; members volunteer in outreach sessions at regional schools and coordinate the LRSEF Special Awards program. Leading up to the annual fair day, AI recruits volunteer judges for the event, plans the Special Award judging and the Awards Ceremony. At the fair, AI volunteers serve as judges for Category and Special Awards and help with set up and clean up, registration, and back of house computer functions. The GE Appliances volunteers host the Awards Ceremony.

The Science Policy and Outreach Group (SPOG) at University of Louisville is a graduate student organization with the purpose of connecting STEM researchers with the community and government officials to mutually benefit all. Volunteering at LRSEF is one of SPOG's largest outreach efforts, with members interacting with area students and encouraging them to become involved in STEM fields. For 2024, SPOG President Easton E. Ford served on the LRSEF Board of Directors and the Education and Outreach committee. During the school year, SPOG members volunteer to visit schools in the region to help students and teachers brainstorm project topics for LRSEF. Many SPOG members are involved in research and understand the anxiety students have presenting to judges at LRSEF. Therefore, SPOG wants to ensure that LRSEF participants have additional opportunities to discuss their project on fair day. For LRSEF 2024, SPOG recruited and coordinated 28 volunteer SPOG STEM Ambassadors to talk with and inspire students throughout the day of the fair.

LRSEF Students at KYSEF

LRSEF promoted 95 winning projects to compete in the 22nd annual Kentucky Science and Engineering Fair (KYSEF) held at Eastern Kentucky University on Saturday, March 23, 2024. Being promoted by a regional fair is the only way students can compete at KYSEF.

On that day, 37 of the 95 projects won Category Awards at KYSEF. LRSEF students won fifteen 1st place awards, ten 2nd place awards and twelve 3rd place awards. Eleven different schools were represented among the LRSEF Category winners at state, St. Francis of Assisi, Noe MS, Sacred Heart Model School, J. Graham Brown MS, Home School, South Oldham MS, as well as Ballard HS, Central HS, North Oldham HS, Nur Islamic HS and Gatton Academy of Science and Mathematics. In the middle school competition, LRSEF students won top awards in 20 of the 22 categories, with St. Francis of Assisi winning all three awards in the Translational Medical Science Category. Eight students from LRSEF won Special Awards, with another eleven additional LRSEF students named as Junior Innovators Challenge nominees. Three LRSEF students won Amazon Awards at KYSEF.

The KYSEF MS Physical Science Best of Fair were all from LRSEF—1st Amelia Prizant (SFA), 2nd Helen Bai (Noe) 3rd Vera Naidu (SFA). Graham Centimole (SFA) was 1st place Best of Fair in Life Sciences. For the HS division, LRSEF student DaYou Choi from Eminence HS won 2nd in Physical Sciences and a trip to the Regeneron International Science & Engineering Fair (ISEF).



Regeneron International Science & Engineering Fair

LRSEF promoted five high school projects to the annual ISEF competition, including one female and four males from three different high schools. (See above) Each participant received a grant to support their registration, all expenses and travel to Los Angeles for the week-long competition. LRSEF also supported LRSEF Vice President of Education & Advocacy and Physics teacher Michael Moreland from the J. Graham Brown School as our chaperone. One additional LRSEF student DaYou Choi, a winner at KYSEF and her teacher Jennifer Gilbert from Eminence High School made the trip to ISEF with TEAM KY which included 20 students and seven teacher/chaperones from across the Commonwealth.

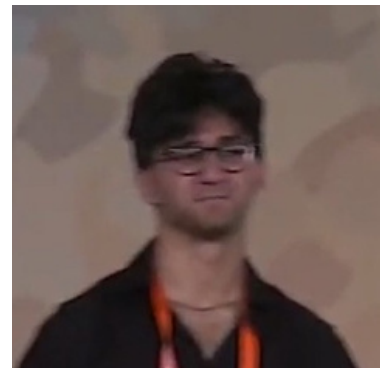
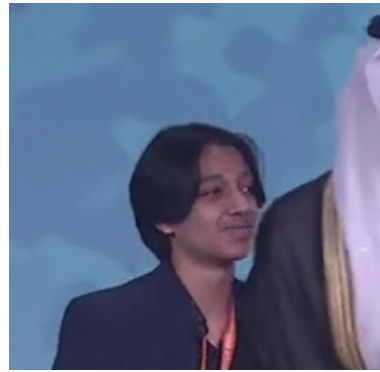


A Regeneron ISEF-affiliated science fair (such as LRSEF) is a research-based, high school competition that is a member of Society for Science & the Public's affiliated fair network. This year the ISEF competition in Los Angeles featured nearly 2,000 young scientists representing 49 states and 70 countries across the world. Top finalists are honored during a Special Awards ceremony and a Grand Awards ceremony with Category awards ranging from \$500 to \$5,000. At these events students hear the announcement of the top prize of \$75,000.

This year, TEAM Kentucky was honored to have the winner of the top prize - Grace Sun, Paul Laurence Dunbar HS in Lexington. In total, more than \$9 million was awarded to the finalists, who were evaluated based on their projects' creativity, innovation, and level of scientific inquiry.

LRSEF is proud to announce that all five of our attendees at ISEF were winners!

- Muhilan Balasubramanian, Special Award from the Drug Chemical and Associated Technologies Association - \$5,000
- Aniket Tadinada, 4th place Biomedical Engineering - \$500
- Zahra Chasmawala, 4th place Computational Biology - \$500
- Nikhil Kumar, 4th place Physics and Astronomy - \$500
- Asa Ashley, 4th place Energy: Sustainable Materials and Design - \$500



Middle School National Competition

LRSEF is honored to become a part of the national competition for middle schoolers called Junior Innovators Challenge (JIC) sponsored by Thermo Fischer Scientific. The online application asks questions about student's science or engineering fair project and understanding of science and engineering in everyday life.

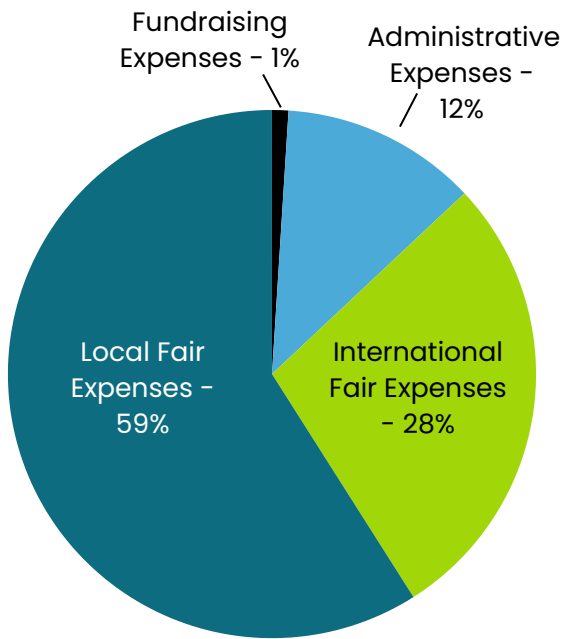
Fifteen LRSEF students were eligible to submit applications by the June deadline to be officially in the 2024 national competition. For LRSEF, 10 students completed the applications. Another eleven from LRSEF were selected at KYSEF. These students received t-shirts, bumper stickers, and other prizes. The entries are judged during the summer and 300 finalists will be announced in September. From these projects, 30 winners with their parent/guardian will win an all-expense-paid trip to the national finals in October in Washington, DC to compete for more than \$100,000 in awards and prizes and showcase their projects.



LRSEF By the Numbers

LRSEF Program Year	2021-2022	2022-2023	2023-2024
Date of Fair	05-Mar-22 (virtual fair)	04-Mar-23	02-Mar-24
KY counties eligible	52	52	59
KY counties represented	4	5	7
Number of high schools represented	10	12	12
Number of middle schools represented	10	10	14
Number of high school students participated	177	180	89
Number of middle school students participated	116	155	131
Number of middle school students nominated for Thermo Fisher JIC	15	15	15
Number of projects nominated for KYSEF	93	93	95
Number of high school student projects eligible to send to ISEF	5	5	5
Number of Amazon grant supported URM students or/qualify for free lunch	48 (16%)	40(12%)	34(15%)
Number of Categories sponsored (of 44 possible)	35	32	44
Number of Special Award Sponsors (local)	19	19	20
Number of Projects Judged on fair day	253	294	200
Total number MS & HS students at fair day	293	335	220
Number of board members (voting)	23	27	24
Number of sponsors	112	118	171
Total Number of Judges	185	215	216
Number of Special Award Judges (approx.)	(60)	(65)	74
Number of volunteers (Kiwanis & SPOG)	45	53	40
Total Income and funds raised	\$56,953	\$58,659	\$64,297
Total Expenses	\$42,357	\$58,691	\$60,335

LRSEF Income & Expenses



Total Income **\$64,297**

Interest \$4,495

Fundraising \$53,742

Local Fair \$5,335

International Fair \$705

Total Expenses **\$60,335**

Administrative \$7,476

Fundraising \$413

Local Fair \$35,826

International Fair \$16,260

Net Difference **\$3,962**



LRSEF 2024 Board Members

Officers

Dr. Vanita Mani – President

Sr. Director of Engineering Productivity and Development, GE Appliances, a Haier Company

Michael Moreland – Vice President for Education and Outreach

Chemistry & Physics Teacher, J. Graham Brown School, Jefferson County Public Schools

Jonathan (Jon) Hodge – Vice President for Business & Legal

Attorney, Hodge & Smither PLLC

Meredith Jones Pritchett – Secretary

Chemical Engineer II, LG&E/KU

Theresa H. Mattei – Treasurer

Community Volunteer

Keri Meador – Immediate Past President

Science Teacher, Central High School, Jefferson County Public Schools

Fair Co-Directors

Frederick J. Whitaker – Science Teacher, St. Francis of Assisi School, Archdiocese of Louisville

Keri Meador – Science Teacher, Central High School, Jefferson County Public Schools

Board of Directors

(Jefferson County resident, unless noted)

Joseph “Frank” Abell – Kiwanis Representative and Community Volunteer, Retired from Metro Corrections and Courier Journal

Natalia Alisha Blagaia – Principal, Nur Islamic School of Louisville

Karen R. Bowie – Reliability Engineer, BP Whiting

Kumar Chellappan – Program Director, Cross Product – Finishes, & Representative of Asia Impact, GE Appliances, a Haier Company

Eboni Neal Cochran – Community Member

Joe Erskine – Support Analyst, RFX Technologies

Easton E. Ford – President of SPOG, LRSEF Representative from Science Policy Outreach Group and PhD/MD student at Department of Microbiology and Immunology, University of Louisville

Carson Garrett – Site Quality Manager at American Synthetic Rubber Company (ARSC), wholly owned by the Michelin Group

Corinne M. Greenberg, CHMM – Environmental Manager, Carbide Industries, LLC

Ravishankar Jayaram – Senior Manager, DT & Representative of Asia Impact, GE Appliances, a Haier Company



LRSEF 2024 Board Members

Glenda Jones - Science Teacher at Ballard High School, Jefferson County Public Schools

Kaya A. K. Muller - Professor of Chemistry, KCTCS - Jefferson Community & Technical College

Dr. Beth Quinn - Director of Education for the Doctor of Physical Therapy Program, Bellarmine University

Cheryl Kirby-Stokes - Academic Opportunities Coordinator, Gatton Academy of Mathematics and Science at Western Kentucky University (Warren County)

Jennifer Vermillion - Teacher, Valley High School, Jefferson County Public Schools

Catherine Werner - Principal, ESG-EHS Services, LLC

Dr. Stuart Williams - Professor Mechanical Engineering, Speed School, University of Louisville (Oldham County)

Dr. Cassandra Woolley - MD Student/PhD in Microbiology and Immunology, University of Louisville

Student Advisor

Ifrah Shaik - J. Graham Brown School

Board of Directors - Emeritus Members

Thomas Beard - Retired from Jefferson County Public Schools

Keith Cole - Retired from Dover Corporation, former Kiwanis Clubs Representative

Ronda K. Fields - Retired Science Educator from Jefferson County Public Schools & former LRSEF Fair Director

Mark Garman - Retired from LRSEF Board after 10+ Years of Service, Kiwanis Representative

Dr. Tina Gibson - Former LRSEF Science Fair Director, Currently at Mississippi State University

Dr. Lawrence Gettleman - Professor of Prosthodontics & Biomaterials, Emeritus, University of Louisville School of Dentistry

Joel Gittelsohn - Retired Engineer from General Electric Appliances, former LRSEF Fair Director

George McNair - Retired from Radio Sound Inc., Vice President of Manufacturing

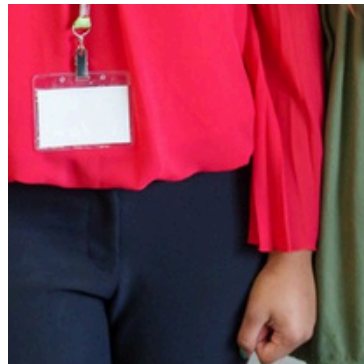
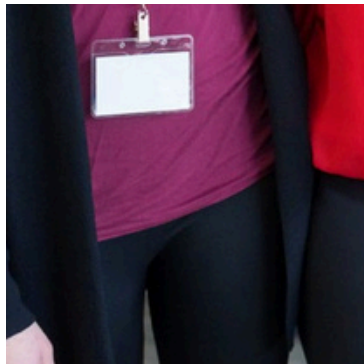
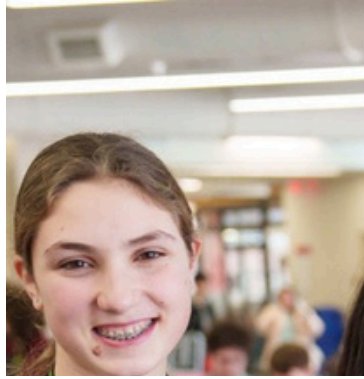
Bob Olsen - Retired Mathematics Professor, KCTCS- Jefferson Community & Technical College

Terry Roach - Retired from LRSEF Board after 10+ Years of Service, General Manager, Carrollton Utilities

Deborah Shwab Fuller - Retired Science Educator from Jefferson County Public Schools

John Gary Spanyer - Evergreen Environmental, Professional Engineer (PE)





Thank You

Thank you to all of the students, parents, teachers, sponsors, judges, volunteers and board members who've made the last 60 years of LRSEF possible. Here's to 60 more!

✉ info@lrsef.org

📍 PO BOX 8184, Louisville, KY 40257

🌐 lrsef.org