





# Where Will STEM Take Them?

2023 Annual Report

### Dear Friends:

Now more than ever, we all seek encouragement. Especially in challenging times, our life goals and passions sustain us in our work and families. What could be more uplifting than knowing our efforts pay off and our goals are achieved? Supporting EIS and seeing its purpose fulfilled has been an honor and a deep source of encouragement for me. I sincerely hope you share these feelings as we witness the success of our students.

For the children in EIS classrooms success is fun exploration and confidence in new STEM subjects. For teachers and parents, success is pride in our students' achievements in school and beyond. For the school district, it is improved grades. For our funders, solid evidence of accomplishment is found in our student's outstanding gains compared to nationally benchmarked studies. And this year, I am more encouraged by our success than ever: EIS was named **California Nonprofit of the Year** for the 79th District through a nomination by Assemblymember Akilah Weber.

While I dedicate my board service to helping EIS, I realize that yet again, I have been lifted up by the experience. Our students and their achievements have inspired me to reflect. I love being a physicist and engineer and I can vividly remember the people who encouraged me. Today's students remind me to recall the events and classes that helped me to see my own capabilities. As a manager of teams, I am aware of how accomplishing things together emboldens us to aspire for even more ambitious plans. In the same way, I hope that you, and all EIS supporters, see this annual report as a gift of encouragement and a moment to appreciate again those who inspired you as you grew. As you do, you can more deeply understand how our students feel when they have the opportunity to participate in our STEM enrichment programs. We are grateful for your contributions and wish to repay you with the gift of knowing that your purpose, and our shared purpose has been well-fulfilled.

#### The EIS mission is to inspire a love of science and create opportunity for diverse children and youth.

Thanks to you we are on it, we are doing it, and the future is brighter for all of us.

In gratitude and encouragement,

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Debra Roy, President Senior Engineer General Atomics Aeronautical Systems, Inc.

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The potential STEM holds for opportunities is part of our daily conversations with students at EIS. Along with understanding scientific subjects and concepts, we want our students to know that STEM education can enrich their lives in countless ways. It's well known that there are a wide range of STEM career options and that the jobs are high paying, providing more economic security and perks. At EIS, students are connected to STEM professionals who share that their work is more than just a paycheck. In the ever-evolving world of science and technology, you always learn and discover new things. STEM fosters innovation, excitement, and creativity. STEM empowers and inspires new generations to look for solutions to climate change, medical breakthroughs, and other challenges in our rapidly changing world. STEM careers are among the most gratifying and rewarding professions where people know their work is making a positive difference.

#### In the 2022-2023 school year, EIS served 2,771 youth from elementary school through high school.

Here are a few examples of the programs we provided.

Science is Elementary, our original afterschool and Saturday program, served 245 students. Fun, hands-on learning continues to spark interest and engage young students in science.

The 2023 STEM All-Stars summer camp served 388 students in two week sessions. Field trips included visiting the Birch Aquarium, Reuben H. Fleet Science Center and weekly guest presentations from regional STEM experts.

Forty-nine high school students volunteered as Lab Assistants earning community service hours and extracurricular activities. Many of our lab assistants attended EIS when they were "kids".

Teen STEAM Café members spent eight months researching Post-Covid mental health issues impacting high school students. They hosted two events – De-Stress at EIS and the Teen STEAM Café Open House, in addition to presenting their project to the Kiwanis Foundation and making public comments to the Behavioral Health Advisory Committee.

Over 30% of the students in southeastern San Diego attend charter schools. In 2023, EIS partnered with two community charter schools, Ingenuity and Holly Drive Leadership Academy, providing Next Generation Science Standard (NGSS) aligned curriculum in our well-equipped labs. It's gratifying to share our facilities and resources with more students and schools.



In June, EIS wrapped up another year of Steps-2-STEM where 1,377 fourth and fifth grade students participated in five weeks hands-on learning that included using structural engineering to build a rollercoaster, DNA extractions, and learning to code a website.

This year we started a new collaboration with the Jacobs Institute for Innovation in Education at the University of San Diego, where students explore mathematical concepts and spatial relationships by creating origami (paper folding) models. The VisMO Project is funded through the National Science Foundation.

EIS students are enjoying the program; two-thirds of the students shared that it helped them feel more positive about mathematics. The evaluation of the VisMO Project showed decreases in student's math anxiety and increased understanding of spatial relationships and math vocabulary.

Embedding math into the curriculum will improve students' confidence in problem solving. Math builds computational skills, quantitative reasoning, and spatial ability that are necessary for understanding mathematical concepts and procedures, used in science, engineering, and economics.

Other Steps-2-STEM partners included the, San Diego Coastkeeper, Realizing Elementary Achievements for Careers in Health (REACH) at UCSD School of Medicine, KidSpark, and BSD Education.

# Student Engagement During Steps-2-STEM is High

EIS surveys teachers from partner schools to rate the program's logistics and organization, curriculum, student engagement, and to provide feedback on how to improve the program. The survey asked teachers to rate program components from 1 to 5, with over 90% responding in the 4 to 5 range.

Here is a sample of comments from teacher surveys:

• The students enjoyed their time at EIS tremendously and didn't see it as a "play time" but as fun learning time. They were excited to share what they had learned with me and their science lab teacher back at school.

• Student engagement and participation were very high. Even students who usually seemed disinterested in our classroom activities were participating appropriately and volunteering to share. EIS does an excellent job in making its curriculum and activities fully engaging.





#### **SOARING TO NEW HEIGHTS**

Girls Take Flight launched its fifth cohort in 2023. The program continues to evolve and excel. We are learning more about the long-term impact of the program. Participants from earlier cohorts have credited their experience in Girls Take Flight with helping to support successful college and scholarship applications. This summer three alumni returned to EIS as instructors for Girls Take Flight and FIRE UP!. In addition to producing close to 20% of the female drone pilots certified before age 18 in the US, Girls Take Flight is building a lineup of diverse, talented coaches and instructors for our robotics programs.

Girls Take Flight helps to create awareness of drone uses and careers through presentations to peers and to younger students in our community and through demonstrations at regional and national conferences. In July, two current Girls Take Flight participants and two alumni presented on a panel at the FAA conference - Droning On: Equity and Gender Diversity in Aviation at the California State University Fullerton. The students shared their perspectives on the importance of representation and reframing outreach efforts to be more inclusive and welcoming to females - in a male-dominated field.

Participants describe Girls Take Flight as motivating and supportive.

• "Participating in this internship has given me something to be excited about weekly. I never thought of myself doing anything with drones or coding because I am not a tech savvy person, but the internship has given me the motivation to learn more about drones.

• "Since participating in this camp I have been thinking more clearly about the career paths I want to take. Previously, I knew I wanted to do something with computer science, but I never knew what exactly. I have been considering working at NASSCO in the future."

• "I learned how to work with others that I'm unfamiliar with, how to be more attentive when listening to people, and to take in what they're actually saying. It opened up my mind to more possibilities of drone careers than what I had known before."



This summer we launched our newest initiative, the San Diego Institute of Science & Technology. We invested two years of planning for the Institute, including community outreach with students and parents, connecting with local STEM companies about internships, and hiring a Director to oversee the Institute and its programs.

In its first year, the Institute has directly impacted 72 high school students at an intensive level ranging from 25 to 160 hours. On a secondary level, including student presentations, service recipients, and assisting elementary-age students in programs, the Institute reached approximately 400 community members.

The Institute provided paid internships for 30 students, which helped them gain work experience, build resumes, and earn wages. It also provided opportunities for students to participate in rich learning experiences including field research with the National Park Service. These students gained knowledge and skills beneficial to college and scholarship applications.

Some highlights from the Institute's first year are:

Twenty-five students worked on a food waste reduction, reuse, and recycling project over nine weeks of summer camp at EIS.

The University of California San Diego CREATE program provided four Institute students with training in STEM, teaching, communications and leadership skills through the Opportunities for Future Researchers, Engineers, & Scientists (OFFERS) Program. The paid nine- week experience included applying their new skills in real-world educational settings. This initiative not only enhanced their knowledge and confidence in STEM but also prepared them for future career opportunities while positively impacting their local communities.

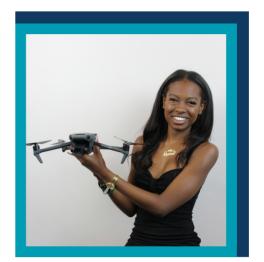
EIS hosted a community service day for the Institute and Vertex Pharmaceutical interns. The interns built an interactive wave model for the annual Southeast San Diego STEM & Art Expo.

In 2024, the Institute will offer more exciting internships and innovative learning experiences. For almost half a century, EIS alums have entered the STEM workforce and excelled as STEM professionals at every level. They are living testimonials to the effectiveness of EIS's approach and methodology. The Institute carries on EIS's long tradition of increasing diversity and excellence in STEM.





"The possibility of me going into a STEM field felt too out of reach until I participated in Girls Take Flight. I was exposed to careers and aviation and found it very interesting. Because of this prgram I was able to earn my Part 107 Drone Certification, which means I am able to fly drones commercially. In addition to that, because of this program I am considering becoming a commecial or private pilot. I enjoy the work done at the Elementary Institute of Science so much that I came back to work here! I now work as a Drone Instructor in the Girl's Take Flight Program. I have loved every minute of it and am so grateful for my time at the Elementary Institute of Science as both a student and an instructor!"



#### Shyanne S.

Girls Take Flight Instructor and Aspiring Journalist, UCSD EIS Alum



"Despite volunteering here as a lab assistant during the 11th and 12th grade, I often find myself learning from the lessons the students are being taught. I remember being able to answer a question in my science class that involved an item having potential due to what I learned from the lesson being taught to the students about a few weeks prior. My favorite memory of my time at EIS was working with the kids in the dark room. I never knew processing photos with chemicals in the dark could be so much fun! A close second is seeing lumpfish in person for the first time during one of the summer camp trips."

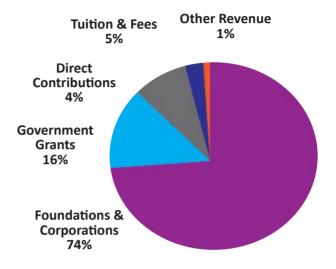
Alfonso R. Aspiring Biologist, UCSD EIS Alum

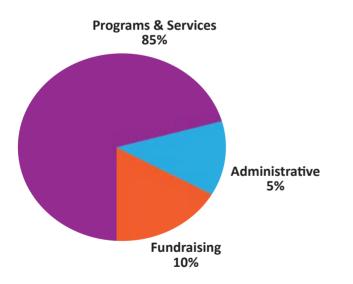
"Attending Teton Science School in 2017 introduced me to the concept of scientific investigation and its methodologies. Through the program, I also learned how to better communicate and present to big audiences. For our end of the summer celebration, we had to present our scientific research and it helped build my foundation of scientific communication. The program solidified my desire to pursue it as a career because I saw that others (our program coordinators) were able to."

#### Janica Mendillo

BS and MS in Earth Systems, Stanford University EIS Alum

Revenue	
Direct Contributions	\$60,876
Foundation & Corporate Grants	\$1,142,023
Government Grants	\$251,385
Program Fees	\$79,812
Other Revenue	\$12,887
Total	\$1,546,984





Expenses	
Programs	\$1,321,520
Administrative	\$79 <i>,</i> 300
Fundraising	\$16,468
Total	\$1.561.289

Financial information is pending the final audit report



#### **Individual Contributors**

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Thank you to all our partners and friends including the law firm Sheppard Mullin, our amazing staff, Board of Directors, Advisory Council, and many community members who support local youth.

#### **MAKE A LASTING IMPACT NOW!**

Just as there many different ways your support helps, there are many different options to support EIS.

Become a **Monthly Donor** or make a one time donation.

Make a **Planned Gift** by including EIS in your estate plans.

Ask your employer if they have an **Employee Matching** program and double the impact of your donation.

Make an **Endowment Gift** to create your own science legacy and help sustain EIS in perpetuity.

Visit eisca.org to make a donation today!



# Inspiring a love of science and creating opportunity for diverse children and youth.



The Elementary Institute of Science 608 51st Street San Diego, CA 92114

619-263-2302 info@eisca.org eisca.org