Science & Technology Program

Impact Report
Advancing the Innovation Economy.

The San Diego Foundation Science & Technology Program nonprofit partners are closing demographic gaps in educational attainment and strengthening our regional resilience by building an inclusive economy.

Inclusive growth—with a focus on equity—is crucial to sustain a successful, regional economy, especially for our innovation sector, which accounts for the majority of San Diego’s economic activity.

As the San Diego Regional Economic Development Corporation (EDC) and the Brookings Institution outlined in “Future of Growth in San Diego: The Economic Case for Inclusion and Building San Diego’s Talent Pipeline,” San Diego has become an innovation powerhouse. Despite this great potential, not all San Diegans are benefiting from the advances of the innovation economy. The San Diego region needs more highly skilled workers to maintain its competitive edge.

Inclusive economic growth involves the entire region in a vision for prosperity. Not all students have the opportunity to explore and pursue fields related to science, technology, engineering and mathematics (STEM) that lead to innovation economy jobs and a robust, diverse talent pool for local businesses. By focusing on young adults, we have the opportunity to strengthen the workforce of the near future.

Impact in San Diego County

$9.5M
In grants distributed since 1999

937
Promising scientists educated (2013-2020)

33
Nonprofit partners supported since 2016
The regional innovation sector accounts for more than 25 percent of San Diego’s economic activity (GDP). While our local economy is strengthened by STEM industries and jobs, nationally, STEM fields are also an important source of living-wage careers.

However, opportunities for inclusive economic growth are limited by the lack of representation in these fields. According to the National Science Foundation, throughout the United States, women, persons with disabilities, Black, Latinx and indigenous communities are underrepresented in science and engineering fields.

With this knowledge, the Science & Technology Program criteria was reimagined in 2017 to more closely align with regional needs and local initiatives focused on supporting the innovation economy and inclusive economic growth. Today, the Science & Technology Program strengthens San Diego’s innovation economy by building and expanding pathways to success for all San Diegans.

**FY 18-19 Participants by Gender**

- 56% Female
- 44% Male

**FY 18-19 Participants by Race/Ethnicity**

- 43% Hispanic or Latino
- 17% Asian
- 16% White
- 10% Two or More Ethnicities
- 7% Black or African American
- 4% Hawaiian & Other Pacific Islander
- 3% Other

**Two or More Ethnicities**

- 16% White
- 10% Two or More Ethnicities
- 7% Black or African American
- 4% Hawaiian & Other Pacific Islander
- 3% Other
The Blasker-Rose-Miah Fund was established at the San Diego Foundation in 1992 as a legacy endowment fund from Samuel M. Blasker, who wished to benefit humankind through innovative scientific advancements. From this fund, the Blasker Program for Science & Technology was established in 2001 with the first grants awarded in 2003. As the endowment grew over time through prudent investments and, with additional gifts from other donors such as the Reuben H. Fleet Endowment Fund, the initiative was renamed the Science & Technology Program in 2017. Since that time, the vision of Samuel Blasker and the availability of sustained funding has enabled the program to expand and educate a growing number of young scientists, engineers and innovators. With a focus on equity and inclusion, San Diego Foundation inspires all students to believe that a STEM career is within their reach.

Participants Reporting Annual Household Income Less Than $49,999 Per Year

Participants First in Family to Pursue a STEM Field of Study in 2018–2019

Science & Technology Program Individuals Served
By fiscal year (FY)

FY16-17 Participants
By residential zip code

FY18-19 Participants
By residential zip code
Working with local universities, colleges, nonprofits and employers, the Science & Technology Program seeks to expose more high school and college students to careers in STEM, with a focus on equity and inclusion of women and Black, Indigenous and People of Color (BIPOC). Program supports include case management, academic coaching, mentorship, stipend-supported internships and research fellowships.

Ocean Discovery Institute

The experience of Ocean Leaders at the Ocean Discovery Institute program can be illustrated by the impressive accomplishments of program participants such as Jorge. Through placement in a stipend-supported internship, he was ultimately offered a full-time role as a biologist with the company, KP Environmental. Jorge went on to attend UC Berkeley, graduating with a degree in environmental science.

Elementary Institute of Science

The Girls Take Flight program at the Elementary Institute of Science is a drone pilot training and licensing program serving female high school students from low-income metro San Diego communities. Focusing on students in their junior year who will most likely need to work either part- or full-time to attend college, the program helps participants become Federal Aviation Administration (FAA) Certified Drone Pilots which will allow them to pursue flexible employment in a high-growth technical field. Girls Take Flight participants will be prepared to enter the STEM sector through training, internships, completion of the Remote Pilot Certificate and job placement.

RADLab

The Research for Autism and Development Laboratory (RADLab) at University of California San Diego is providing paid internship opportunities to high school graduates with Autism Spectrum Disorder to engage in the development of skills related to computer science, including video game design.

During the program, participants learn to create interactive environments utilizing Unity, a cutting-edge software development platform. These skills will then translate directly into fields such as virtual reality and augmented reality, where San Diego is at the forefront of innovation. According to the San Diego Regional Economic Development Corporation, San Diego is one of the premier U.S. markets for software development and the field represents a $12.2 billion impact on the region’s economy.

With opportunity for growth in the region, this is a field that stands to benefit from the development of more local talent. Individuals with Autism Spectrum Disorder can contribute uniquely and substantially in technical fields, including computer science.

The RADLab environment offers a supportive environment that provides a pathway to career readiness.

UC San Diego PATHS Program

PATHways to STEM Through Enhanced Access and Mentorship (PATHS) is an undergraduate pilot program providing access to multi-tiered mentorship, academic preparation, campus support, internship and service placement for students in STEM at UC San Diego. The program empowers students from underserved San Diego communities by addressing the actual and perceived financial, academic and cultural barriers that inhibit student success. The program includes an 11-week residential summer launch period that provides mentorship, academic preparation and training, and internship placement.
**Student Voices.**

“Being a STEM Community Scholar is more than having academic success; it is about helping our community and fostering a learning culture. We all have diverse backgrounds, face different problems, and study different STEM careers, but we all share a common goal: we want to make an impact in our community. Together we will make a better future.”

Edgard Parra  
San Diego Mesa College  
STEM Community Scholar

“Becoming a STEM Community Scholar is one of the most important achievements I have accomplished so far. It gave me the certainty that I am on the right track and made me feel confident about myself and my goals.”

Fiavla DePlachett  
San Diego Mesa College  
STEM Community Scholar

“This was my first internship experience, and I have learned a lot from it. Before interning at Molecular Assemblies, I was a waitress. The Chemistry team started teaching me how to operate and maintain fast protein liquid chromatography machines. I learned how to make the buffers necessary for each machine to work, and I wrote standard operating procedures for them.”

Randa Kho  
San Diego Miramar College  
Supply Chain Experience Program participant

“Growing up in the Congo, I lived in a place where food was hard to get and where you had to pay for school. I only went to school for five years and it was hard growing up without knowing how to read or write. It made me afraid that I would never succeed. The [Ocean Discovery Institute’s] program taught me what my mom first told me – to really believe in myself...I am an African young man and I will be the 3rd in my family to go to college. I believe that I will succeed.”

Garavous Kouekabakilaho  
ODI program participant

**Impact in Action.**

In 2020, $750,000 was granted to 13 nonprofit partners who are closing demographic gaps in educational attainment and strengthening our regional resilience by building an inclusive economy.

By increasing opportunities for science, technology, engineering and math (STEM) higher education among underrepresented young adults, connecting young adults with local, paid internships and establishing networks of current and prospective scientists, the Science & Technology Program creates a holistic approach to increase equity for all communities and bolsters the regional innovation economy for generations to come.
Building Bridges.

The Science & Technology Program paves the pathway between students and STEM careers. By fostering equity of opportunity in education and real-world experience, program participants take an important step toward becoming the skilled workforce of tomorrow.

The following organizations have hosted internship opportunities for students pursuing STEM careers:

- Access Inc.
- Aquaculture
- Aquaneering
- Assure Controls
- Blue Robotics
- BMT Scientific Marine Services
- Chula Vista Community Collaborative
- Clear Blue Sea
- CSU San Marcos
- Elementary Institute of Science
- Genewiz
- Intellecy Inc.
- International Rescue Committee
- InterOcean Systems LLC
- Love Thy Neighbor
- Maritime Museum of San Diego
- Metacrine Inc.
- MiraCosta College
- Molecular Assemblies
- NanoCeillct Biomedical Inc.
- Nanomed
- Ocean Discovery Institute
- Poseidon Water
- Power of NeuroGaming (PoNG)
- Center at the Qualcomm Institute, UC San Diego
- San Diego Futures Foundation
- San Diego Mesa College
- Scripps Institution of Oceanography
- SeeByte
- SIDUS Solutions LLC
- The Research for Autism and Development Laboratory (RADLab), UC San Diego
- Training Resources Limited
- UC San Diego
- Univision
- Verogen
- Vertex Pharmaceuticals
- Wintriss Technical Schools
- XST Inc.
- Zenobia Therapeutics

Between 2016 and 2019, the following organizations received grants enabling students to participate in stipend-supported internships:

- Access Inc.
- Biocom California Institute
- CSU San Marcos
- Elementary Institute of Science
- Interfaith Community Services
- J. Craig Venter Institute
- The League of Amazing Programmers
- The Maritime Alliance Foundation
- Ocean Discovery Institute
- Palomar College
- Salk Institute for Biological Studies
- San Diego Mesa College
- San Diego Miramar College
- San Diego State University
- San Diego Workforce Partnership
- San Diego Zoo Wildlife Alliance
- Sanford Burnham Prebys Medical Discovery Institute
- The San Diego Natural History Museum
- The Scripps Research Institute
- Tijuana River National Estuarine Research Reserve
- UC San Diego
- University of San Diego

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