Inspiring the Next Generation of Scientists
Welcome to the 2018-2019 Science Olympiad Annual Report! We reached several program service milestones that you’ll discover on the following pages: hosted our 35th Annual Science Olympiad National Tournament at Cornell University; held a record-number of tournaments; expanded computer science and coding events; boosted alumni outreach; met goals of diversity, equity and inclusion; grew the Urban Schools Initiative; and recruited majorities of women on teams and across our national leadership.

Two years ago, Science Olympiad developed its first-ever Strategic Plan, which has served as our organization’s guiding document ever since. We outlined Five Key Strategic Priorities, each paired with SMART Objectives which are Specific, Measurable, Achievable, Related to Goals and Time Limited, and use them as a yardstick to gauge success.

We are committed to exhibiting best practices of a well-functioning non-profit organization, and have done extensive work around Board improvement, including rewriting the Science Olympiad Bylaws, outlining a clear succession plan, and developing tools like a Board Handbook, Board Affirmations, Performance-to-Plan Reviews, Fiscal Narratives and On-Boarding Processes.

You’ll also take deep dives into our program service and financials, which represent 35 straight years of growth. None of this could be done without our partners and volunteers.

With the topic of STEM education central to conversations about innovation, global competitiveness, economic opportunity and workforce development, Science Olympiad is well-positioned to continue as a leading voice and provider in the STEM space.

I look forward to ever-increasing organizational success, and I’m proud to share this Annual Report with you.

Regards,

Jenny Kopach
Executive Director
SVP Marketing Communications
Just like an athletic team, Science Olympiad clubs are coached by teachers, improved by mentors and filled with top talent. Each fall, Science Olympiad releases new rules and teams tackle the 23 STEM-aligned events in student pairs, building devices for on-site testing, studying for core knowledge challenges and preparing for rigorous hands-on lab experiments. All Science Olympiad events are aligned to the Next Generation Science Standards (NGSS), allowing teachers to extend their curriculum with engaged learners in an after-school setting.

### Science Olympiad: The Basics

<table>
<thead>
<tr>
<th>DIVISION B (Grades 6-9)</th>
<th>DIVISION C (Grades 9-12)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>8K</strong> Teams in 2019</td>
<td><strong>15</strong> Members on a Team</td>
</tr>
<tr>
<td><strong>450</strong> Invitational, Regional, State and National Tournaments</td>
<td></td>
</tr>
<tr>
<td><strong>23</strong> Events in Each Division</td>
<td><strong>50</strong> State Organizations</td>
</tr>
</tbody>
</table>
“I believe Science Olympiad is the best cross-gender team-based STEM outreach program in the nation. In practices and competitions, I see young girls develop courage and independence, realizing the power they have to solve problems and support their team equal to or better than their peers.”

Enrica Quartini
National Event Supervisor
University of Texas Institute for Geophysics Researcher

Girls in STEM: By the Numbers

While women represent only 1 of every 4 STEM jobs, girls represent

50% of Science Olympiad participants

On average 40% of Science Olympiad National Tournament medalists are girls

WOMEN HOLD MORE THAN HALF of Science Olympiad’s staff, board, advisory committee, state director and rules committee leadership positions

“You have all heard the statistics, that women are under-represented in STEM, especially in industries like engineering, with even fewer minority women pursuing STEM careers. But ever since Science Olympiad was founded, we’ve been inspiring women to shatter the glass ceiling of STEM, and to overturn those negative statistics.”

Dr. Gerard Putz
Science Olympiad President and Co-Founder
Employment in science, technology, engineering and math occupations has grown 79% since 1990, from 9.7 million to 17.3 million today, outpacing overall U.S. job growth. In 2018, 71% of all jobs required STEM skills, according to the Pew Research Center.

In 2018, 71% of all jobs required STEM skills

More than 3 in 4 female students who have a mentor feel they will be successful pursuing a STEM career.

Through rigorous, multi-disciplinary events touching every letter in STEM, Science Olympiad lights pathways to apprenticeships, college and careers while at the same time developing essential employability skills.

According to a LinkedIn survey of hiring managers, the three top soft skills in new employees are communication, organization and teamwork.

STEM extracurricular programs like Science Olympiad provide young adults with a glimpse into the future by providing opportunities for mentoring, achieving results: More than 3 in 4 female students interested in STEM careers who have a mentor feel they will be successful pursuing a STEM career.

"Science Olympiad led me to explore new avenues of science and engineering, but most importantly, I built leadership skills, the ability to work on a team, and better problem-solving approaches. The effects are material when I work on group projects or need to cooperate with other people."

Darren Chang
Cornell University

“We need these Science Olympiad students; this is the future of our country, this is the future of our company, the future of our economy. These students are going to be running our companies and moving us into the next generation of technology. It’s a great opportunity for us to invest in our future.”

R.D. Parpart
Team Leader, Steelworker for the Future, ArcelorMittal
The Science Olympiad Alumni Network is comprised of past participants of the program, stretching back to when the national organization first started registering teams in 1984-1985. Each year nearly 240,000 students join Science Olympiad clubs, adding to the millions with a SciOly background who are entrepreneurs, innovators and leaders in government, industry and academia.

In a recent Alumni Task Force Survey:
48% said they are in contact with or mentoring a local Science Olympiad team
73% said they are currently volunteering with a local Science Olympiad tournament
87% said they intend to continue volunteering with Science Olympiad
92% said they want to network with other Science Olympiad alumni

“Recently, past competitors have started to realize that they have more in common than just memories. They are an alumni network, and they are bringing together the enthusiasm they once had for competition in a new role as active Science Olympiad alumni. I have been inspired by the way that so many alumni have created a new arena to provide elite tournament experiences, networking opportunities, and college exposure to a wider population of students.”

Amanda Baker
Scientific American Budding Scientist writer

“Science Olympiad has taught me to think in engineering design and what it means to be a part of a true team. The way most people feel about sports is how I feel about Science Olympiad. It’s a huge part of who I am.”

Jessie Vander
Sylvain Labs, Brand Strategist

“Write It Do It and Experimental Design help me every day as a scientist. They taught me how to write my methods sections precisely so that others can replicate my findings. Science Olympiad showed me I wanted to be a scientist, and now, I am pursuing that goal in graduate school where I’ve received a National Science Foundation Graduate Research Fellowship.”

Jordann Brandner
Kansas State University Graduate Research Assistant
More than 12,000 students and 900 coaches in Chicago Public Schools have participated in the Urban Schools Initiative since 2007.

In 2006, the Science Olympiad Executive Board determined that increasing minority participation was a program priority, and the first Urban Schools Initiative (USI) was founded in the Chicago Public Schools. Since then, programs have been founded in:

- Austin, TX
- Baltimore, MD
- Birmingham, AL
- Charleston, SC
- Chicago, IL
- Dover, DE
- Gary, IN
- Los Angeles, CA
- Rockford, IL
- Rural Islands, Hawaii
- Philadelphia, PA
- San Francisco Bay Area, CA
- Washington, DC

But the STEM diversity gap persists: only 5% of engineers are Black; 8% are Hispanic. In computer science, both Blacks and Hispanics represent just 7% of employees. Science Olympiad is committed to closing these gaps.

With grants from industry partners and oversight from State Science Olympiad chapters, schools with underserved populations can experience hands-on STEM competition, career prep and standards-aligned teacher training. Perfect for employee mentoring, community outreach and workforce development programs. In many cities, Science Olympiad Alumni Network campus groups are inviting Urban Schools Initiative teams to their invitational tournaments, hosting special enrichment workshops, setting up sister-school peer networks and assisting with materials and resources.
Science Olympiad teams are often celebrated for their STEM success by local politicians, school boards and community partners. United States Senator Gary Peters from Michigan congratulated the Pioneer High School Science Olympiad team from Ann Arbor by calling out their hard work and dedication. The team is pictured carrying in their banner at the Opening Ceremony Parade of States.

Keynote speaker Grant Imahara of MythBusters fame wows the crowd at the 35th Annual National Tournament hosted by Cornell University.

For the past eight years, a Global Ambassador Team from Japan has competed against US teams as guests at the Science Olympiad National Tournament, forging bonds of international friendship and demonstrating a shared love of science with their American peers. Science Olympiad and the Japan Science and Technology Agency have a cooperative agreement to explore the best ways to engage more boys and girls in hands-on science.
Elementary

Science Olympiad’s Division A (Grades K-6) allows students, teachers and families an opportunity to explore the world of STEM in classroom, club, community or competitive settings. Signature Science Olympiad events like Mystery Powders, Gummi Bear Long Jump, Straw Towers, Metric Mastery and Don’t Bug Me bring core science concepts to life using everyday materials. Designed to be inclusive, welcoming and accessible to novice learners and educators, the Common Core and Next Generation Science Standards-aligned Elementary Science Olympiad curriculum will fit the needs of any school, after-school program or library.

There are competitive Division A Science Olympiad teams in 12 states.

The average per-student cost for materials and supplies of an Elementary Science Olympiad community event is LESS THAN TWO DOLLARS.

There are 10K+ elementary schools hosting PTA, community or school-organized Fun Day, Fun Night or Competitive Tournaments in the US.
Number of Science Olympiad Memberships in Secondary Schools Per State, 2019

Maps

States with Science Olympiad Memberships in Elementary Schools, 2019

Total Division A Memberships for 2019

LEGEND

Plus 10,000 K-6 Schools across the US hosting their own Elementary Science Olympiad Fun Days, Fun Nights, Classroom events or mini tournaments annually.
Program Service

Science Olympiad’s national office works with a volunteer force to bring K-12 students the best team STEM experience in the US every year, comprised of:

Content Development
Science Olympiad Rules Committees and Chairs develop Division B and C Rules Manuals containing 46 STEM events annually, which are the foundation for all workshops and tournaments each year, and also produce free resources for the Science Olympiad website.

State Chapter Leadership
Volunteer, part-time and full-time State Directors from K-12 education, universities and industry coordinate all Science Olympiad activities in all 50 states.

Science Olympiad Tournament Supervision
More than 450 Invitational, Regional, State and National Tournaments require up to 300 volunteers each; that equals 1.35M hours of volunteer service at tournaments valued at $34.3 million dollars annually, according to Independent Sector.

Professional Development for Teachers
Science Olympiad experts run and staff more than 50 regional, state and national workshops, including the annual Science Olympiad Summer Institute and National Science Teaching Association (NSTA) sessions.

Public Outreach
Including Elementary Science Olympiad tournaments and Fun Nights, community events, summer camps and partner-hosted events like museum days.

In addition to managing these efforts, Science Olympiad provides direct services to member schools and State Science Olympiad Chapters:

To Schools:
» Digital rules manuals for Divisions B and C
» Sanctioned Invitational, Regional, State and National Tournaments
» Free Educational Resources on the Science Olympiad Website including Rules Clarifications, FAQs and Score Sheets
» Safety and Behavior-Governing Guidelines and Online Volunteer Training
» Science Olympiad TV Videos on YouTube

To State Chapters:
» Annual State Directors Leadership and Event Supervisors Training Meetings
» National Chapter and Club Liability Insurance
» State Medals and Trophies
» Directors Website including the Emergency Test Bank and Event Supervisor Resources
» Public Relations, Marketing, Grant Writing and Sponsorship Materials
» Tuition Awards, Prizes and Scholarships from National Sponsors
» Non-profit Governance Assistance
Key Personnel

National Committees

NATIONAL EXECUTIVE BOARD

Steve Betza  
Board Chair  
Lockheed Martin, ret.

Angela Davis  
Board Vice Chair  
Ohio State University

Dr. Gerard Putz  
Board Treasurer  
Science Olympiad President and Co-Founder

Sharon Putz  
Board Secretary  
Science Olympiad Executive Administrator

Jennifer Kopach  
Science Olympiad Executive Director  
SVP Marketing Communications

Peggy Vavalla  
DuPont Corporation, ret.

Dr. Jon Pedersen  
Dean, School of Education  
University of South Carolina

Renae Cubbin  
VP Tax  
CNH Industrial

Jack Cairns  
Board Member Emeritus  
Science Olympiad Co-Founder

ADVISORY COMMITTEE

CeAnn Chalker  
2017 Tournament Director  
Wright State University

Dr. Ralph Cordell  
Centers for Disease Control  
Georgia

Jamie Cucinotta  
2019 Tournament Director  
New York

Dr. Peter Hung  
State Director  
Southern California

Steve Lovaas  
2018 Tournament Director  
Colorado State University

Dr. Elizabeth Mulkerrin  
Omaha Zoo Educ. Director  
Nebraska

Kelly Nissan  
ArcelorMittal  
Indiana

Dr. Kelly Price  
Forsyth County Schools  
Georgia

Fred Siegel  
State Director  
Washington, DC

Joe Simmons  
Ward’s Science  
Illinois

Donna Young  
NASA Educator  
Arizona

NATIONAL RULES COMMITTEE CHAIRS

Karen Lancour  
Life Personal & Social Science

Dr. Dusty Schroeder  
Earth & Space Science

Dr. Alan Chalker  
Physical Science

Linda Wozniewski  
Chemistry

CeAnn Chalker  
Technology & Engineering

Dan Nichols  
Inquiry & Nature of Science

National Office Staff

Oakbrook Terrace, Illinois

Dr. Gerard Putz  
President and Co-Founder

Sharon Putz  
Executive Administrator

Jennifer Kopach  
Executive Director, SVP Marketing Communications

Deb Mendenhall  
Business Manager

Dr. John Loehr  
Director of STEM Education

Shari Haug  
Elementary Coordinator

Graphic Design by:  
Toolbox, Inc.

Website Design by:  
Xeno Media, Inc.

Science Olympiad Store by:  
Continental Global Solutions, Ltd.

Medals and Trophies by:  
Maxwell Medals, Inc.

Video Production by:  
Equity Studios, Inc.

Two Trans Am Plaza Drive, Suite 310  
Oakbrook Terrace, Illinois 60181  
(630) 792-1251 phone  (630) 792-1287 fax  
www.soinc.org
Financials

Since its founding in 1984 as an entrepreneurial non-profit organization with a single generous sponsor and a handful of dedicated state chapters, Science Olympiad has grown to a multi-partner, 50-state, multi-million-dollar enterprise. No well-functioning non-profit can exist, much less persist, without superior fiscal as well as program management.

Science Olympiad reports to a board that takes its fiscal responsibility role seriously, and we are proud that Science Olympiad has a 35-year history of income outpacing expenses. Science Olympiad operates like a lean start-up, and employees are cross-trained in several task areas. Overhead is kept low, and cost-cutting measures are constantly reviewed. One of the largest line items in the annual budget, the National Tournament, is consistently offset by major in-kind donations from university hosts in recognition of the value and prestige of the event. These savings, along with a healthy investment portfolio, have accrued into a fund balance that will ensure the longevity and future of Science Olympiad.

With three main sources of income – membership, contributions, and sales – Science Olympiad has a diversified revenue stream that serves as a foundation to pursue and fulfill its main mission: improving the STEM experience for students and teachers.

Membership
A decentralized state chapter management plan that goes back to the founding has become a hallmark of Science Olympiad, allowing for local independence while still operating in sync. With the nationally-developed rules, training and content as the playbook, the game is the same across the US. Each state chapter handles its own budget and collects funds from local teams who wish to participate in tournaments and workshops; $60 of each state membership goes to the national office, one of the lowest fees for a STEM competition in the country, and unchanged for 20+ years.

Contributions
Science Olympiad works with a variety of partners from academia, industry and government that help support the mission of improving STEM education; these sponsorships support mentoring and workforce development programs, Urban Schools Initiatives, content, resource production, scholarships and awards.

Sales & Training
Sales revenue comes from educational materials in the Science Olympiad e-commerce Store, from the Science Olympiad Summer Institute and Elementary Science Olympiad workshops, and from sales of official Science Olympiad medals and trophies.

Outside Review
For 24 straight years, Science Olympiad has received the Best in America rating from the Independent Charities of America agency, qualifying for the America’s Best Charities program under the Combined Federal Campaign. In conjunction with our annual external audits and key performance indicators, these accolades underscore Science Olympiad’s excellent financial health.
Financials

Expenses

- Program Services/Wages/Benefits: $663,616
- Tournaments/Scholarships: $539,235
- Educational Resources/Shipping: $427,980
- Training: $185,188
- Investment and Professional Fees: $40,735
- Rent/Utilities/Supplies: $199,744

Total Expenses: $2,056,498

For the year ending September 30, 2018

Revenue

- Memberships: $446,287
- Contribution/Scholarships: $850,056
- Educational Resources/Awards: $577,948
- Training: $144,645
- Interest/Dividends: $117,253
- Net Realized Gains on Investments: $65,136

Total Revenues: $2,201,325

For the year ending September 30, 2018
For the 2019-2020 tournament year, Science Olympiad is privileged to have sponsors who are true partners in our mission. Each of the corporations, associations and groups listed below have a vested interest in improving the quality of K-12 STEM education.

PLATINUM SPONSORS

Cornell University  
wards science  
NASA  
ArcelorMittal  
NC STATE UNIVERSITY

GOLD SPONSORS

Google  
CORTEVA agrosciences  
LOCKHEED MARTIN  
FCF  
NBCUniversal  
Double Good

SILVER SPONSORS

3M  
ACE Hardware  
VWR  
Texas Instruments  
naaee  
IEEE

BRONZE SPONSORS

Investing in Communities  
SkyCiv  
Yale Young Global Scholars

STRATEGIC PARTNERS

The mark “CDC” is owned by the US Dept. of Health and Human Services and is used with permission. Use of this logo is not an endorsement by HHS or CDC of any particular product, service, or enterprise.

MEMBERSHIP

For a complete listing of events, state websites and tournament information, or to learn more about becoming a registered member team, please visit our website soinc.org.

UPCOMING TOURNAMENTS

2020 NC STATE UNIVERSITY  
2021 ASU Arizona State University

2020 DIGITAL ONLINE STORE!

Please visit store.soinc.org to view the digital Division B and C Rules Manuals online for free and to order print and digital versions of CDs, DVDs, Test Packets and other educational materials you can use to prepare for Science Olympiad tournaments and classroom instruction.