

2019 ANNUAL REPORT



I am pleased to present the 2019 Northrop Grumman Foundation Annual Report. Throughout the year, we supported many fantastic organizations and programs focused on STEM education for students and teachers. Our employees helped to strengthen these partnerships and were eager to volunteer. This was evident with the employee engagement in our new virtual mentoring program with TryEngineering Together. During the pilot year of this program, 113 Northrop Grumman employees mentored middle school students.

We provided a grant to North Carolina A&T Foundation to develop aerospace and astronautics activities and the Northrop Grumman Foundation Engineering and Computer Science Scholars program. In addition, we developed some new partnerships and expanded existing ones to support STEM initiatives for students of all abilities.

On behalf of the Northrop Grumman Foundation and our board of directors, thank you for supporting our Matching Gifts for Education program and your continued interest in our partnerships and initiatives.

Sandra Evers-Manly
President, Northrop Grumman Foundation

Foundation Overview

The Northrop Grumman Foundation is dedicated to expanding and enhancing sustainable science, technology, engineering and mathematics (STEM) education opportunities for students globally. With an emphasis on middle school and university level students, our engineering and technology-based partnerships are designed to excite, engage and educate students as they defend cyber networks, engineer autonomous vehicles, explore space and more. In addition, we provide workforce-relevant professional development to middle school educators to advance their competence in teaching STEM subjects, in turn, inspiring students to explore STEM careers and increasing their STEM skills proficiency.

TryEngineering Together

The Northrop Grumman Foundation launched a new eMentoring program in partnership with TryEngineering Together. The program pairs students in grades six through eight with Northrop Grumman volunteers who mentor students virtually. Employees share their STEM expertise with students as they collaboratively work through high-quality curriculum and discussed hands-on activities. The program uses a safe and secure two-way digital platform allowing employees to effectively provide valuable advice, lessons, and feedback to students, regardless of where they are located.

The TryEngineering Together eMentoring program offers teachers a series of units on current standards-aligned STEM topics. Throughout the unit, students



"I believe my mentee expanded her understanding that engineering isn't just about building things. Engineers also research, plan, design, and build to solve problems. She did a great job asking questions and providing feedback on every article we read."

– Sheanavia Reese
Northrop Grumman
Software Engineer

and eMentors exchange emails discussing what they are learning, posing and answering questions, and seeking advice about how to integrate the designs they put together for their hands-on activities. In addition, eMentors are encouraged to share information about their educational backgrounds, careers, and passion for STEM.

We are our committed to ensuring students have the skills they need to succeed in STEM careers. To that end, we expanded and added new partnerships to support students of varying abilities.

Gallaudet University

This bilingual, diverse, multicultural institution of higher education ensures the intellectual and professional advancement of deaf and hard of hearing individuals through American Sign Language and English.

Gallaudet offers exemplary education at every level - from graduate degrees to programs for students in high school, elementary school, and infancy.

The Northrop Grumman Foundation partnered with Gallaudet University to help incorporate STEM curricula from early childhood, K-12 and undergraduate

programs. Support was provided for youth programs, such as summer camp and Battle of the Books. We also contributed to middle and high school programming focused on materials, equipment, classroom/lab space for STEM students and helped create a career development area. At the university level, funding was used to develop enhancements to the curricula for undergraduates to include the topics of cybersecurity data analytics and artificial intelligence.

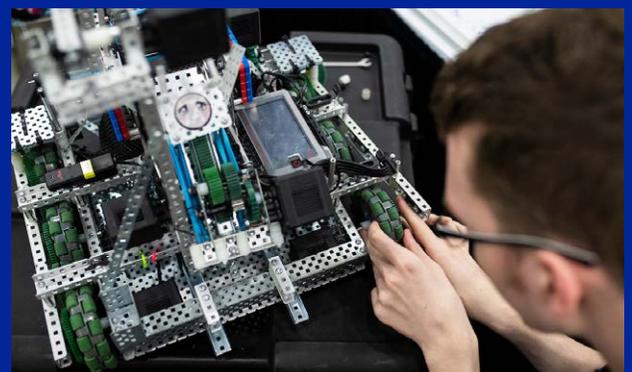
CSforAll Accessibility Initiative

CSforALL's mission is to make high-quality computer science an integral part of the educational experience of all K-12 students and teachers and to support student pathways to college and career success. Many emerging platforms in computer science education are partially or fully inaccessible to students with disabilities. To address this gap, they launched the CSforALL Accessibility Pledge to rally computer science education content creators, program providers and educational institutions to take immediate steps to achieve accessibility for existing efforts and future designs.

The REC Foundation – VEX Robotics

VEX Robotics is a global nonprofit educational organization that provides elementary, middle school, high school and college students with unique opportunities to participate in high-quality and affordable STEM-based robotics programs and competitions using the VEX Robotics platform. In 2019, REC created a new initiative to increase affordability and accessibility of teams for deaf and hard of hearing communities and we are pleased to have contributed to this endeavor.

We also continued as the title sponsor of the VEX Robotics Competition World Championship and teams. Through our grant we supported teams in Australia, Japan, South Korea, and the United Kingdom. Our support in the U.S. helped to establish 126 teams, which included the development of new teams in under-resourced schools.



City Year

Too many students risk not completing high school. Early warning indicators that a student may be at risk of dropping out include poor attendance, disruptive behavior, and course failure in English or math. By improving upon these indicators in elementary school, City Year can help change a student's trajectory and future academic success.

Our 2019 grant was allocated to sponsor the Whole School Whole Child program at Kimball Elementary School in Ward 8 of Washington D.C. City Year placed a highly-trained team of AmeriCorps members at the school to serve as Student Success Coaches who help students improve academic outcomes and succeed in school and life. Coaches provided academic tutoring, attendance support, social emotional skill development, and school-wide programming.

The Northrop Grumman employee resource group, African American Task Group, volunteered at City Year's annual Martin Luther King Jr. Day of Service. Employees honored this day by painting and beautifying Stuart-Hobson Middle School in Washington, D.C.

In addition, the Northrop Grumman Foundation was recognized for our longstanding partnership and commitment to education and was honored with the Idealism in Action Award at City Year Washington, D.C.'s Idealist Gala.



MATHCOUNTS

The Northrop Grumman Foundation provided support for the creation and dissemination of materials for the National Math Club (NMC). NMC is a free program open to all U.S. students in grades 6-8. The club's goal is to make math fun and pressure-free so as to reach students intimidated by this subject. Club materials include games with simple instructions and everyday supplies like dice, cards and game boards. Students of every level can understand, play and win club games. Just by playing, students build problem-solving skills. The games are supplemented with mini lessons exploring the math used in the games, plus extension ideas and ways to differentiate for advanced or struggling learners.



This grant also included funding for teachers to attend conferences as well as the development of targeted communications to recruit new schools in low-income areas.

Northrop Grumman has hosted a regional competition at the Space Park facility in Redondo Beach, CA for 34 years. In 2019, 380 students and 52 coaches from 45 schools in the LA County were involved. Over 100 volunteers proctored the exams and ran the competition. The winners from the event moved forward to the State competition.

"I support MATHCOUNTS because of the critical skills it helps students to develop, including logic, discipline, and patience. It also teaches them to think broadly and test hypotheses to drive to answers."

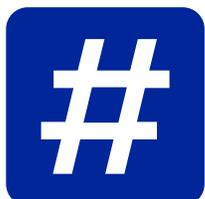
— Ann Lotti
Northrop Grumman, Industrial Engineer

Foundation Giving Highlights



\$14,496,111

Total Giving
Includes Matching Gifts



1,628
Grants Given



• **Da Vinci School /
Cal Poly SLO**
• **MIT Zero Robotics**
Pledges Fulfilled



\$9,255,864
K-12 Education



\$4,140,247
Higher Education



\$1,100,000
Military and Veterans



\$1,006,608
Matching Gifts
for Education
Amount included in the break outs above



1,097
Matching Gifts
Participants



774
Organizations
Receiving Matching Gifts

Foundation Board

President
Sandra Evers-Manly

Secretary
Tiffany King

Treasurer
Dan McGovern

Board Members
Ben Abrams
Peter Brooks
Sheila Cheston
Aaron Copeland

Foundation Staff
Manager
Carleen Beste
Administrator
Lisa Flanagan