

NORTHROP GRUMMAN FOUNDATION



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Foundation



2008 ANNUAL REPORT

A M E S S A G E F R O M T H E P R E S I D E N T

On behalf of the Northrop Grumman Foundation and its Board of Directors, I am pleased to present our 2008 Annual Report.

Each year, the nation's concern with education and our ability to properly prepare today's students for tomorrow's careers grows while the support system for students and teachers continues to diminish. Because of this, the Northrop Grumman Foundation focuses on programs that provide unique experiences related to science, technology, engineering and mathematics for students and teachers.

Inside this report, you will see some examples of how we are working with nonprofit partners to develop programming that enhances the education experience for students and provides teachers with the training and tools they need to be successful in the classroom. Highlights include:

- The Matching Gifts for Education program
- Weightless Flights of Discovery
- Sally Ride Science
- Future programing

Through our commitment and partnerships, we hope to inspire the next generation of scientists, engineers and technicians who will guide us through a whole new world of unimaginable discoveries.

Thank you for supporting the Northrop Grumman Foundation.

Sincerely,



Sandra Evers-Manly, President
Northrop Grumman Foundation

Foundation Overview

The Northrop Grumman Foundation's purpose is to provide support for education opportunities to the nation's youth. The Foundation is committed to supporting diverse and sustainable programs that create innovative education opportunities by providing assistance to national-level science, technology, engineering and math (STEM) programs for students in elementary school through college.

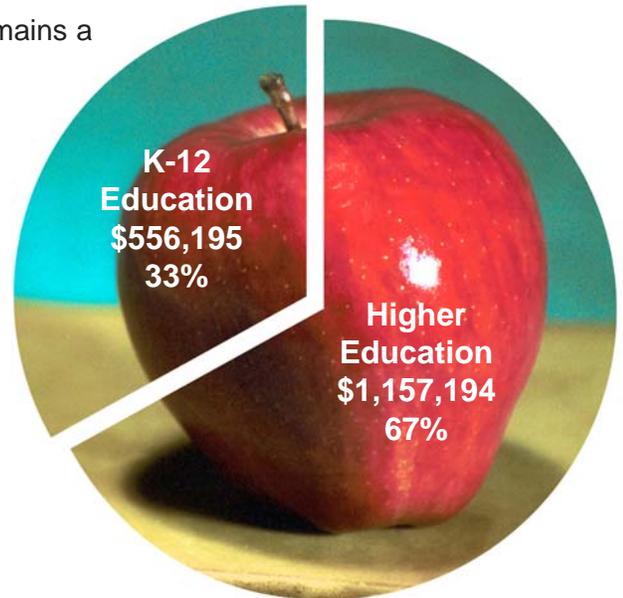
The Foundation has two primary methods for giving - Matching Gifts for Education and Northrop Grumman Foundation grants. All Foundation funding focuses on education and in 2008, nearly \$6 million in Foundation giving supported a variety of education programs.

2008 Matching Gifts

The Northrop Grumman Foundation matching gift program remains a popular way for employees to double their contributions to qualified educational institutions. This year, the Foundation matched 3,133 gifts for a total of \$1,723,389.

Top 10 Matched Institutions/Organizations

Virginia Tech	\$45,730
University of California, Los Angeles	\$41,605
United States Naval Academy	\$41,045
Peninsula Education Foundation	\$30,281
Manhattan Beach Education Foundation	\$29,825
University of Notre Dame	\$22,250
Penn State	\$21,865
Purdue University	\$21,808
Cal Poly, San Luis Obispo	\$20,860
Rensseler Polytechnic Institute	\$20,386



2008 Program Highlights

In 2008, the Northrop Grumman Foundation invested more than \$4 million with a variety of organizations that offer science, technology, engineering and mathematics (STEM) educational programming to the nation's youth. From MATHCOUNTS to Teach for America, each organization provides essential support to student success. Below are highlights from two Foundation-supported programs.

Weightless Flights of Discovery

The Weightless Flights of Discovery (WFOD) is a Northrop Grumman Foundation signature program. It is a unique, nationwide teacher professional development program designed to inspire today's students to pursue STEM education. The WFOD program provides an experience-based learning opportunity that translates STEM-related concepts into concrete understanding for both teachers and students. The program uses hands-on science workshops and parabolic or "zero-gravity" aircraft flights to help educators teach students how STEM principles apply to weightless space environments.

Since 2006 the Northrop Grumman Foundation has flown over 1,000 educators. In 2007, there were eight flight locations: Los Angeles; Colorado Spring, Colo.; Dallas; New Orleans; Newport News, Va.; Washington, D.C.; Bethpage, N.Y.; and Baltimore. In 2008, there were four flight locations: San Jose, Calif.; Chicago; Atlanta; and Space Coast, Fla.

The program targets teachers from schools in underserved communities and those whose schools are underperforming in STEM education. "The Weightless Flights of Discovery program is all about giving teachers the tools and experiences they need to show their students that math and science are not only entertaining, but can also be a basis for a fascinating career," said Sandra Evers-Manley, president of the Northrop Grumman Foundation.

The teachers who participate are evaluated and encouraged to maintain an open dialogue with Northrop Grumman. The findings from the teacher evaluations in 2007 demonstrate the WFOD

teachers are inspired and motivated to improve and enhance their teaching methods. Students showed an immediate increase in interest for mathematics and science content directly related to their teacher's WFOD experience. Flight videos and still images of experiments taken during flights provide critical educational value for the classroom. Because WFOD teachers will utilize their experience to instruct students year after year, a multiplier effect occurs where each teacher may instruct as many as 150 students per year - for the span of their career.



According to an on-line poll of 205 teachers who participated in the 2006 and 2007 WFOD programs shows the initiative is meeting its goals in driving student interest in STEM education.

In the survey, 91.9% of the teachers reported a notable increase in their students' overall interest in science. Additionally, 74.6% reported an increased number of students expressing a desire to continue to study science and math in high school and/or college, with 77.8% of teachers reporting a rise in the number of students who have expressed a desire to pursue a career in a STEM-related field - a key goal of the Northrop Grumman Foundation program.

Nearly two-thirds of teachers (60.7%) also reported more of their students are participating in science club and other related extra-curricular activities. Participants also reported a turnaround in the number of notably disengaged students. According to 83.5% of the teachers, students who were previously uninterested in science and math have shown a new, marked interest as the result of the program. One respondent cited a third grade student with a discipline problem who so enjoyed hearing about his teacher's experience that the student signed up for additional science-related inter-session course, created successful experiments, and has now set his sights on one day being part of the U.S. space program.

Sally Ride Science

For several years, the Northrop Grumman Foundation has enjoyed a wonderful partnership with Sally Ride Science. This year's partnership included sponsorship of several Sally Ride Science Festivals and the TOYchallenge.

Sally Ride Science Festivals bring together hundreds of students. While the target audience is middle school girls, all are welcome for a festive day of science and socializing. While at the festival, students visit booths at the street fair and learn through a variety of hands-on activities, hear a keynote address from an astronaut, and participate in discovery workshops that give them a more in-depth understanding of various science areas.

In 2008, the Foundation and Northrop Grumman volunteers from across the country supported festivals in Dallas; Baltimore; Colorado Springs, Colo.; Los Angeles; and San Diego. Through these festivals, the Foundation was able to reach more than 2,500 students, 250 teachers and more than 500 parents.

"TOYchallenge offers an opportunity to inspire young people to develop through learning and see the value in teamwork," said Sandra Evers-Manly. "This is one way we are connecting with middle-school students to get them excited about math, science and engineering."

The TOYchallenge is a national toy and game design competition for fifth to eighth graders. This is an opportunity for imaginative teams of kids to create a new toy or game while encouraging them to pursue their interests in science and engineering education and careers.

2009 Programming

In 2009, the Foundation will renew its commitment to the Weightless Flights of Discovery program as well as with other partnerships. The Foundation will support two additional exciting programs - **Earthwatch Institute** and **Space Camp**.

The Northrop Grumman Foundation has partnered with Earthwatch Institute, the world's largest environmental volunteer nonprofit organization based in metro Boston, to develop an innovative environmental education program for teachers. Earthwatch has been a world leader in experiential education for nearly 40 years. Educators from Northrop Grumman communities across the country will have the opportunity to participate in an Earthwatch expedition focused on climate change or oceans conservation. This is an invaluable experience intended to be transferred to the classroom and shared with students year after year. The goal of the program is to provide educators with a hands-on professional development opportunity, which will transfer to the classroom and impact students' math and science education and help create the next generation of environmental ambassadors

A partnership with the U.S. Space and Rocket Center in Huntsville, Alabama, will send 48 middle school students and 16 middle school teachers to Space Camp over the summer.

The mission of Space Camp, established in 1982, is to be the premier provider of authentic, inspiring, and entertaining educational experiences in space science and aviation.



The teacher component, called Space Academy for Educators, amplifies that mission by using the excitement of the space program to create an immersive learning environment where teachers learn new ways to present concepts in their classrooms effectively. The classrooms, then, become extensions-or outposts-for the educational mission. The goal for the teacher component of Space Camp is to enhance the quality of instruction in the nation's classroom by improving the way teachers present STEM concepts.

The goal for the student component of Space Camp is to inspire and motivate the next generation of explorers, scientists, teachers, and engineers. The Northrop Grumman sponsorship will provide life-changing experiences to underperforming students who have the unlocked potential to excel with the right support...inspiring them to dream big and to work to make those dreams a reality.

On-line Grants Management

Starting in 2009, all requests for Matching Gifts for Education funding from the Northrop Grumman Foundation will be made on line as part of the Foundation's support to the greenNG efforts. This will enable those seeking funds to save money on paper and postage and will also allow the Foundation to standardize and better track requests while significantly reducing paper storage. Employees will be able to access the system and submit their request from their computer. Additionally, the grant recipient can verify the grant electronically, avoiding a long and time-consuming paper trail.

Additionally, employees will see changes in the matching gifts levels in 2009. The Foundation's ability to support programming is based on the performance of the investment portfolio. Due to recent market trends, the Foundation reevaluated its matching gifts policy; for 2009 gifts up to \$1,000 will be matched.

Northrop Grumman Foundation Board and Staff

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More Information and Contact Us

For additional information on the Northrop Grumman Foundation and the grant application process, visit www.northropgrumman.com and keyword search: foundation.

To contact us directly, e-mail ngfoundation@ngc.com or 1-888-478-5478.