

2018 FESTIVAL

# WHERE WILL STEM TAKE YOU?



INTO  
CYBERSPACE



INTO NATURE



INTO THE  
HUMAN BODY

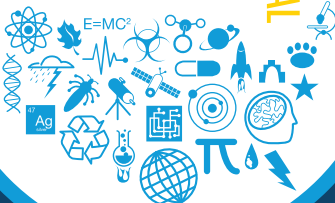


INTO THE  
DEEP BLUE



INTO OUTER  
SPACE

USA SCIENCE & ENGINEERING FESTIVAL



## RECAP REPORT

SATURDAY, APRIL 7: 10am - 6pm • SUNDAY, APRIL 8: 10am - 4pm  
WALTER E. WASHINGTON CONVENTION CENTER | #SCIFEST

PRESENTING EXPO SPONSOR: **LOCKHEED MARTIN**









## 2018 USA Science & Engineering Festival Recap Report

Thank you for your generous support of the 5<sup>th</sup> USA Science & Engineering Festival. This is not just an event - this is a change maker and you have impacted hundreds of thousands of students and families with the work you have done on this project!

Our goal was to create the largest celebration of STEM in the United States, and we think it's fair to say: we did it – with your help! We took over the entire 2.3 million square feet of space at the Walter E. Washington Convention Center and filled it with more than 650 exhibitors doing amazing hands-on demonstrations, over 600 volunteers dedicating their time to make this a success, 50 performers and speakers, hundreds of school buses, 30 ancillary events, national live news coverage, explosions and slime, astronauts, helicopters, drones, space camp, and much, much more!

Based on estimated numbers from the Convention Center, more than **370,000 people** attended over the 4 days (X-STEM and Sneak Peek Friday included), our largest event ever! Many exhibitors reported that roughly 10,000 visitors stopped by their booth over the course of the 3-day Expo, and some said upwards of 70,000 passed through their booth! We had attendees representing 48 states in the U.S., and even had international attendees from over 50 different countries.

Sneak Peek Friday, hosted by Chevron, included **70,000+** students, teachers, military families, government officials and press. Saturday and Sunday brought in **roughly 150,000 people** each day!

Our X-STEM Symposium, sponsored by PwC, NBC4, and NCR, featured stories of inspiration from speakers like Dr. Khatokie Ford, Emily Calandrelli, Dr. J. Marshall Shepherd, Murali Patnam, Dr. Greg Gage and engaging workshops with Steve Wolf, Robolink and so much more. Approximately **3,000 middle and high school students attended X-STEM!**

The Festival hosted its first ever STEM Career Fair, presented by EY, and connected employers with potential recruits and to showcase future opportunities for employment. We had **50+** organizations participate and over **1,000 college students** register for Career Night. We also hosted an inaugural “Girls in STEM” luncheon event, sponsored by Booz Allen Hamilton, which gave **150+ middle- and high-school girls** the amazing opportunity to meet and interact with leading women role models representing a range of STEM fields.





For the first time ever, we brought in a Festival spokesperson – rising marine biologist and TV host Danni Washington, who helped promote the Festival to an even wider audience through videos and social media with the popular 2018 theme of “STEM Can Take You”! She had two high-profile stage appearances during the Expo and conducted interviews "From the Festival Floor" featuring NASA Astronaut Jessica Meir, Dr. Kate Bibberdorf, Steve Spangler plus, she engaged with sponsors including Lockheed Martin (with a cool demonstration of the Exoskeleton) and Chevron.

Over **200,000 people** participated in our Nifty Fifty program, the Traveling Festival, powered by Michigan Tech MindTrekkers, and other pre-Expo events. Special events were held in advance of the Expo, including a private reception in honor of the X-STEM program and a special Sponsor appreciation reception hosted at Deloitte. The event was attended by 150+ sponsors, VIP's and partners.

We hosted many major STEM Professional Events at the Convention Center at the same time as our event, including the [U.S. News STEM Solutions Conference](#) and the [U.S. Environmental Protection Agency \(EPA\) P3](#) college student competition. In addition, we were honored to have the United States Postal Service unveil a new STEM-focused forever stamp series as a part of our opening ceremonies. These are just a few examples of how the Festival Expo has become a national platform for leading STEM organizations to highlight key initiatives and events.

Thank you to our amazing [sponsors](#), including our **Presenting Expo Sponsor** [Lockheed Martin](#), for helping us accomplish all of this and more! The majority of our sponsors also participated as Festival exhibitors and created some truly unforgettable moments for our attendees. Your support has made a lasting impact on so many people, including children who will remember the Festival as an introduction into the vast and exciting world of STEM. Thank you sponsors!

We would like to hear from you if we haven't already through the Exhibitor survey previously sent by email.

Please complete the survey here if you haven't already:

<https://scholarnexus.wufoo.com/forms/exhibitor-feedback-2018/>



### 5<sup>th</sup> USA Science & Engineering Festival – By the Numbers:

- 370,000 attendees over 4 days
- 3,000+ hands on activities
- 50+ live performances by science celebrities, explorers, best-selling authors, entrepreneurs and world-renowned experts
- 650+ participating organizations
- 2,000+ participating schools
- 600+ volunteers
- Stellar STEM shows including our spokesperson Danni Washington, Astronaut Jessica Meir, Steve Spangler, Dr. Kate Bibberdorf, Grand Hank and many more.
- The Festival was attended by key Government and Administration officials such as Richard V. Spencer, Secretary of the Navy; John Fitzsimmons, Office Director for Security Technology, Department of State; Major Ross McKnight, Chief of Air Force National Events Branch; Brigadier General Heather L. Pringle, Commander, 502nd Air Base Wing and Joint Base San Antonio, Texas, and many other notable figures (see below for more).

### Festival Evaluations and Demographics:

The Festival drew a large, diverse audience of all ages, ethnicities and backgrounds, from professionals to novices, from science enthusiasts to the merely curious.

One of the ways we measure the success of the Festival is by gathering extensive feedback from sponsors, exhibitors/performers, volunteers and attendees by conducting formal surveys and analyzing the results, as well as informal outreach for testimonials and reviews to determine how we can improve the Festival in the future. Based on the responses that we collected and analyzed thus far, the 5th Festival was very well received! Below is a summation of the survey results to date:

- Exhibitors – We surveyed the 650 organizations participating to rate the Festival overall (1=poor, 10=fantastic), and the average rating is **9.2** and 80% said they would definitely return.
- Performers/Speakers – We surveyed the 50+ speakers and performers participating to rate the Festival overall (1=poor, 10=fantastic), and the average rating is **9.7**
- Attendees – We surveyed the Sneak Peek teachers (over 1,500) who signed up in advance and the general attendees had the option to complete an online survey. When asked to rate the Festival overall (1=poor, 10=fantastic), the average rating is **9.0**



- Volunteers – We surveyed the 600+ volunteers participating to rate the Festival overall (1=poor, 10=fantastic), and the average rating is **8.7**

We had 81,000 people pre-register to attend the Expo (Saturday/Sunday only). For statistical purposes, we asked for gender and ethnicity, although it was optional. We received a good response and are able to evaluate the breakdown of ethnicities and genders that the Festival served.

As this 10% pre-registration info translates to the 370K attendees, here is a demographic snapshot:

#### **Gender Breakdown of Attendees:**

The breakdown of male to female attendees was just about exactly 50/50.

#### **Ethnicity Breakdown of Attendees:**

- 43% Caucasian
- 26% African-American
- 22% Asian-American
- 9% Hispanic
- .5% Native American
- .5% Pacific Islander

#### **Age Range by Grade:**

10 and Under	26%
Middle School/Junior High	23%
High School	12%
19-25	2%
25+	37%

#### **Geographical Breakdown:**

As in years past, the majority of our attendees came from the Eastern United States, but we had attendance from 48 out of the 50 states! The largest attendance pool (93%) comes from the Atlantic Seaboard from NY down to FL and encompasses the following states - DE, FL, GA, MD, NC, NJ, NY, PA, SC, VA, DC and WV.

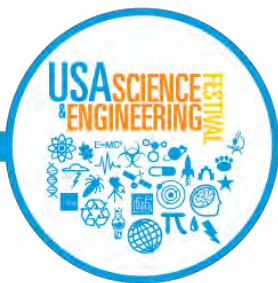
We had representation from 54 countries, including Australia, Bulgaria, China, Denmark, Ethiopia, Great Britain, India, Italy, Kenya, Tanzania and Zimbabwe to name a few.



### Government Relations:

The Festival continues to grow in its role as an advocate for STEM in the Nation's Capital, drawing extraordinary interest from key governmental agencies and officials on Capitol Hill. Roughly 100 government agencies participated in the Expo, including the National Institutes of Health, National Science Foundation, U.S. Department of Homeland Security, U.S. EPA, U.S. Food and Drug Administration (FDA), U.S. Department of State, and many more. The Department of Defense stepped up support as the main stage sponsor and their DoD STEM Pavilion took over 32,000 square feet of space, the 2nd largest footprint outside of Lockheed Martin! NASA also came in big with representation across the various centers, from the Orion spacecraft to the Space Launch System rocket, and NASA astronaut Jessica Meir!

Many major government officials and high level VIPs attended or participated directly in Festival events including Richard V. Spencer, Secretary of the Navy; John Fitzsimmons, Office Director for Security Technology, Department of State; Major Ross McKnight, Chief of Air Force National Events Branch; Brigadier General Heather L. Pringle, Commander, 502nd Air Base Wing and Joint Base San Antonio, Texas; Dr. Anthony Fauci, Director of the National Institute of Allergy and Infectious Disease, NIH; John Burklow, Associate Director of Communication, NIH; Dr. Jon Lorsch, NIGMS Director, NIH; Dr. Griffin Rodgers, Director of the National Institute of Diabetes and Digestive and Kidney Diseases, NIH; Lt Col Janelle Jackson, Commander of the 317th Recruiting Squadron, U.S. Air Force; Dr. Knatokie Ford, former Senior Policy Advisor at the White House Office of Science and Technology Policy (OSTP); Dr. Douglas Terrier, Acting Chief Technologist, NASA; Kristi S. Brown, Deputy Associate Administrator for Education, NASA; Dr. Chavonda Jacobs-Young, Acting REE Deputy Under Secretary & USDA Chief Scientist, Agricultural Research Service Administrator, United States Department of Agriculture; Dr. Sonny Ramaswamy, Director, National Institute of Food and Agriculture, United States Department of Agriculture; Dr. Sonny Ramaswamy, Director, National Institute of Food and Agriculture, United States Department of Agriculture; Richard Yamada, Deputy Assistant Administrator for Research and Development, U.S. Environmental Protection Agency; Fred Hauchman, Director of Office of Science Policy, U.S. Environmental Protection Agency; Mary Ellen Radzikowski, Acting Associate Assistant Administrator and James Gentry, Acting Deputy Director for NCER, U.S. Environmental Protection Agency; Reginald Brothers, former Under Secretary for Science and Technology at the U.S. Department of Homeland Security and current Chief Technology officer at Peraton; Dr. Ellen Stofan, former Chief Scientist at NASA and current Director of the Smithsonian National Air and Space Museum; Dr. Claire Fraser, Director of the Institute For Genome Sciences at the University of Maryland among others. In addition, hundreds of Legislative and White House staff members came to the Expo.



## Marketing, Media & Public Relations

The theme for the 5<sup>th</sup> USA Science & Engineering Festival was *STEM Can Take You*. We developed school materials, videos, t-shirts, social media posts, advertisements, articles and more, exploring how *STEM Can Take You* into the Deep Blue, into Nature, inside the Human Body, into Cyberspace, into Outer Space and Beyond. Visit this [link](#) to our website to learn more.

We brought on noted science communicator, ocean advocate, TV host and eco-entrepreneur Danni Washington to be our official 2018 spokesperson, further amplifying our ability to get the Festival message out. Danni was featured in our NBC4 commercial, Science Channel commercials, videos, social posts, Expo stage shows and she also hosted our [“From the Festival Floor”](#) series at the Expo. In addition, NBC4 joined us again as the official television media partner, extending our reach beyond the Greater D.C. area.

In an effort to increase attendance to the Festival, we developed a media strategy to generate pre-event coverage. Our social media plan, including cross promotional posts with performers and sponsors, secured hundreds of millions of impressions for the Festival name, handles, and #SciFest hashtag. The strategy was highly successful, resulting in significant pre-event and onsite event coverage that helped spark interest in, and awareness of the event.

More than 80 press members checked in over the four days, resulting in broad exposure for the X-STEM Symposium, Sneak Peek Friday and 2-day Festival throughout the local community and beyond.

### Media Stats at a Glance:

<b>500 Mil+</b>	viewership/readership on Festival-related news, advertisements, posts, videos, etc.
<b>700+</b>	stories written about the Festival
<b>100+</b>	postings to electronic calendars and media outlets
<b>20</b>	releases / media advisories written and distributed
<b>80+</b>	reporters covering the Festival in person

*NOTE: Most of these figures should be considered "minimums" as there were undoubtedly instances of postings or other features of which we are unaware.*

### NBC4 Television Media Partnership:

In the weeks leading up to the Festival, our official television media partner NBC4 delivered:

- Custom Production of Festival Awareness Spot, presented by Lockheed Martin





- :30s Awareness Schedule on NBC4: 7.9M Impressions HH (119 Spots)
- Cross Platform Digital Ads: 1.45M Digital Impressions
- :15s Promotional Schedule on NBC4 & COZI-TV: 2.24M Impressions HH (44 Spots)

## **TOTAL 11.59M+ IMPRESSIONS**

### **PLUS EARNED MEDIA**

- News coverage in Lead Up and at Event (on-air & on-line)
- Over 2 dozen on-air, on-line and social media mentions, stories and calls to action

View NBC4 Media Recap [here](#)

### **Metro Ads**

We ran a 3 week 10-second digital advertisement highlighting the Expo at 12 different Metro locations around the Washington, DC area that yielded approximately 6 million impressions.

### **Washington Post**

Partnering again with the Washington Post, we created an 8-page supplement highlighting the *STEM Can Take You* theme with over 15 sections on Festival speakers, performers, exhibitors and sponsors. The supplement was issued on April 4, 2018 and was wrapped around the popular Food section (daily circulation is 325,420). The PDF of the supplement can be viewed [here](#).

### **Public Relations Components**

#### ***Calendars – Online Uploads***

Posted Festival and X-Stem events on over 53 targeted metropolitan area electronic calendars and media outlets. Below is a small sampling:

[10 times](#)

American Towns

Arlington Magazine

[Baltimore Sun](#)

[Baltimore's Child](#)

[Bethesda Magazine](#)

Craigslist

DC Life

[DC Military.com](#)

DC Pages

[DC STEM Network](#)

[Discover Fairfax](#)

[Event Guide](#)

[Eventful](#)

[Events DC](#)

[The Georgetown](#)

[Inside NOVA](#)

[Koddler](#)



[Loudoun Now](#)  
[Middleburg Life](#)  
[Trip Savvy \(Formerly About Travel DC\)](#)  
[Virginia Living](#)

[Washington Family](#)  
[WETA Community Calendar](#)  
[WUSA 9](#)  
[Yelp](#)

### **Local Patch Calendars**

[Annandale](#)  
[Arlington](#)  
[Bethesda – Chevy Chase](#)  
[Burke](#)  
[Centreville](#)  
[City of Fairfax](#)  
[Clarendon](#)  
[Del Ray](#)  
[Falls Church](#)  
[Gaithersburg](#)  
[Georgetown](#)  
[Germantown](#)

[Greater Alexandria](#)  
[Manassas](#)  
[Montgomery Village](#)  
[Mount Vernon](#)  
[North Potomac](#)  
[Oakton](#)  
[Old Town Alexandria](#)  
[Potomac](#)  
[Reston](#)  
[Rockville](#)  
[Tysons Corner](#)

### **Nifty Fifty Programs**

Our Nifty Fifty speaker program generated lots of local buzz in the Greater D.C. area, and resulted in approximately 14 articles that showcased Nifty Fifty and mentioned the Festival. Among these:

[Inside NOVA](#)  
[Inside NOVA](#)  
[Laurel Leader](#) (Baltimore Sun)  
[Ashburn Patch.com](#)  
[Catholic Herald](#)  
[Virginia Connection Newspapers](#)  
[Virginia Connection Newspapers](#)

[Afro American](#)  
[Afro-American](#)  
Prince George's County Post  
[Chesapeake Family](#)  
American Towns (Howard U Physicist)  
American Towns (Alexandria visit)  
[WDVM-TV](#)

### **Radio Interviews**

In advance of the Festival, Crabtree scheduled a variety of community affairs and radio interviews to generate more buzz, including two with WTOP, the region's most listened to radio station. Below is a list of the interviews and links, where available:

- WTOP
  - [Matt Hartings, AU](#), on Chemistry of Cooking
- Steve Wolf, Stunt Engineer, for [NAE show](#)
- WJFK
  - Marc Schulman on Community Affairs show



- Fresh FM
  - Marc Schulman on Community Affairs show
- SportsTalk 1580
  - Marc Schulman on Community Affairs show
- Bloomberg 99.1
  - Marc Schulman on Community Affairs show
- WPFW
  - Marc Schulman live interview on MetroWatch

### ***Morning Shows***

Many of our Festival celebrities and partners, including 2018 spokesperson Danni Washington, appeared on local morning/mid-day shows during the weeks leading up to event, including:

- NBC4 with Danni Washington (view [NBC4 recap](#) for these interviews)
- [NBC4 with Dan Madrzykowski of UL's ExploreLabs](#)
- NBC4 with Marc Schulman
- NBC4 with Chevron's Blair Blackwell
- Fox5 with Danni Washington
- [WJLA with Greg Gage](#)

### ***Tailored Pitching***

Stories about the Festival appeared in a variety of national and local media outlets and beat reporters, including:

- |  |                                   |
|--|-----------------------------------|
| • <a href="#">Washington Post KidsPost Section</a> | • <a href="#">Andrews Gazette</a> |
| • <a href="#">Washington Post Express</a>          | • <a href="#">Circa</a>           |
| • <a href="#">Washington Post Going Out Guide</a>  | • Pentagram                       |
| • <a href="#">NBC4 online</a>                      | • <a href="#">Georgetown</a>      |
| • <a href="#">NBC4 News 4 Your Sunday</a>          | • The Hill Newspaper              |
| • <a href="#">Fairfax Times</a>                    |                                   |





### ***Releases/Advisories***

Developed multiple press lists and wrote, coordinated edits, and released the following press announcements:

- Overall Festival Advisory
- April Fifty Nifty Media Advisory (x12 regional versions)
- X-STEM Press Release
- US News Press Release
- Celebrity Press Release
- Career Fair Advisory
- Sneak Peek Advisory #1
- Sneak Peek Advisory Updated
- Festival Expo Advisory
- Plus, Template Releases for: X-STEM, Expo Exhibitor, Expo Performer, and Expo Sponsor

### ***Sneak Peek/Expo Days***

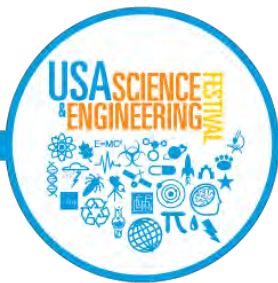
Pitched Sneak Peek as focal point for local press coverage, included dozens of reporters covering the day. Coordinated and staffed onsite press table to ensure that the USA Science & Engineering Festival's story was shared and highlighted during Sneak Peek and the Festival.

Among the results:

- [WJLA: Story that ran in its afternoon/evening news on Sneak Peek day](#)
- [NBC4: Coordinated series of early morning live shots with Lockheed Martin spokespeople, kids, Marc Schulman from the floor](#) on Sneak Peek
- NBC4: Evening news story on Sneak Peek
- NBC4: Scheduled interviews for live shots [for Saturday with Darryl Lee Baynes](#) and [Sunday with Jason Latimer](#)
- [NBC4: Expo via Facebook Live](#)
- WUSA: Covered Expo
- [WTOP](#): Covered Expo

### **Media Partnerships:**

We secured media partnerships with over 20 Organizations, which meant free advertising in TV, radio, web, print and social media. Media partners include Activity Rocket, American Association for the Advancement of Science, American Chemical Society, American Scientist, American Society for Microbiology, Career Communications Group, Inc., Chemical &



Engineering News, Destination DC, DiversityComm, Engineering.com, IEEE-USA, Innovation & Tech, Media Planet, Meredith Parents Network (MPN), NBC4, New Scientist, Parents Magazine and Parents Latina Magazine, Physics Today, Science Buddies, Science Channel, Scientific American, Sigma Xi, Society for the Science & Public, Steer Digital Media, STEM Connector and US News.

The advertising from our generous Media Partners included Commercials, E-Blasts and Online Event Calendar Listings, Facebook and Twitter posts, Full and half-page print ads, Advertorials, Print articles, Radio spots and Web banners. Full and half page ads in media publications, along with the social posts, web banners, editorials and dedicated email blasts exposed the Festival to a readership audience of over 50 million people!

### Social Media

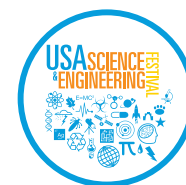
Our successful social media efforts for the 5th USA Science & Engineering once again helped to create awareness about the Expo Finale Weekend and our mission to stimulate and sustain the interest of our nation's youth in science, technology, engineering and math (STEM) by producing and presenting the most compelling, exciting, and educational Festival in the world. Our social media marketing strategies attracted followers with engaging content and promotion of our STEM outreach programs while driving attendance to the Festival Expo Finale.

In addition to our social push, our sponsors and exhibitors also posted on their social media channels in a grassroots effort to spread the word about the Festival. Our high-profile Festival speakers and performers including Danni Washington, NASA Astronaut Dr. Jessica Meir, Dr. Kate Bibberdorf, Steve Spangler, Nickelodeon's Alex Hook and others shared news about the Festival on their social media channels to increase our overall exposure.

**Total Reach for USA Science & Engineering Festival, Social Handles, Snapchat Filter and #SciFest Hashtag on Twitter, Facebook, Instagram, YouTube & Web: 500 Million**

See the following pages for the highlights!

## SOCIAL MEDIA STATS: MARCH 24 - APRIL 24



REACH FOR USA SCIENCE & ENGINEERING FESTIVAL, SOCIAL HANDLES AND #SCIFEST HASHTAG ON TWITTER, FACEBOOK, INSTAGRAM, YOUTUBE AND WEB

**500 M**

REACH

**21 K**

MENTIONS

**10 K**

#SCIFEST TAGS

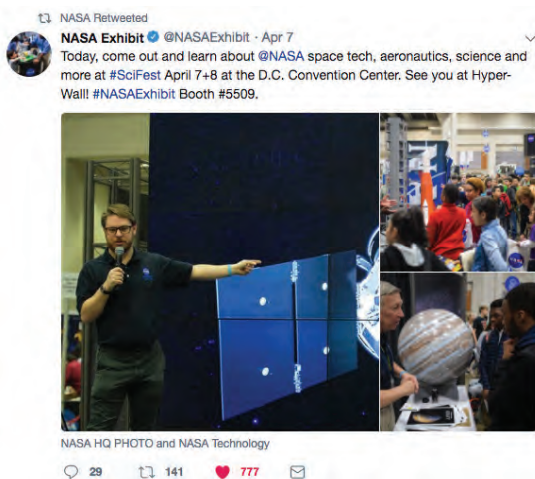
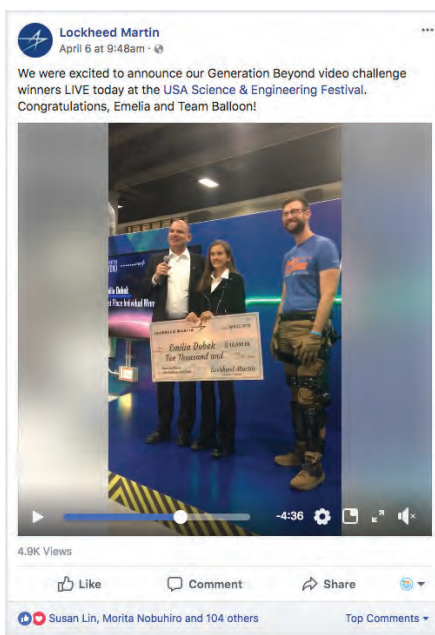
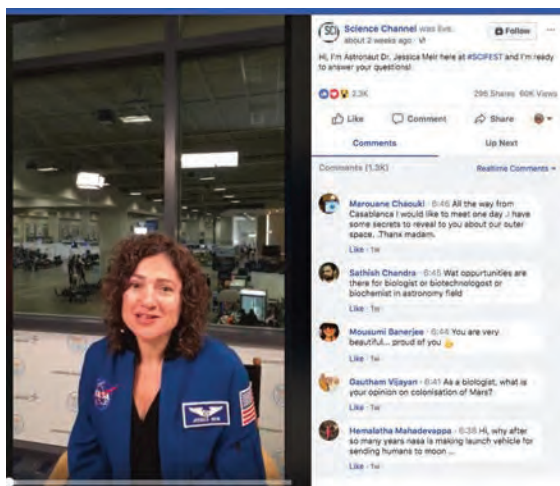
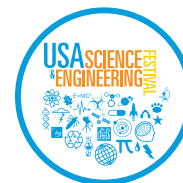
### TOP CONTRIBUTORS

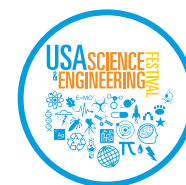
### REACH ACROSS FACEBOOK & TWITTER

1	Science Channel	53 M
2	NASA	48.2 M
3	NSF	41.5 M
4	USDA	15.5 M
5	Scientific American	13.8 M
6	Department of Defense	7.3 M



## NOTABLE MENTIONS





## NOTABLE VIDEOS AND COMMERCIALS



### USA SCIENCE & ENGINEERING FESTIVAL ONE MONTH COUNTDOWN

Rising Marine Biologist, TV Host, and Ocean Advocate Danni Washington counts down to the Festival.

[WATCH NOW >](#)



### FESTIVAL EXPO PERFORMERS SHARE WHERE STEM CAN TAKE YOU!

Expo Performers Danni Washington, Dr. Kate Biberdorf, Jason Latimer, Dr. Jessica Meir, Grand Hank, Emily Calandrelli and Steve Spangler share where STEM can take you!

[WATCH NOW >](#)

## LIVE ON-AIR COMMERCIALS



### THE SCIENCE CHANNEL SHARES WHERE STEM CAN TAKE YOU!

Festival Spokesperson Danni Washington shares how STEM Can Take You Into the Deep Blue at the 5th USA Science & Engineering Festival Expo with the Science Channel.

[WATCH NOW >](#)



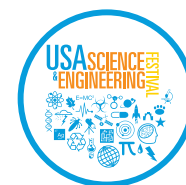
### NBC4 TALKS ABOUT "THE NATION'S LARGEST SCIENCE FESTIVAL"

Space enthusiasts, deep-sea lovers and extra-terrestrial questioners unite this April for the biggest celebration of science in the country.

[WATCH NOW >](#)



## NOTABLE MEDIA MOMENTS



**ON AIR WITH FOX 5:** Holly Morris, Steve Chenevey, Danni Washignton, Wisdom Martin and Maureen Umeh



**ON AIR WITH NBC4:** Danni Washignton and Melissa Mollet



**LIVE ON AIR WITH NBC4:** From the Festival Floor - NBC4's Amelia Draper Interviews Honda's ASIMO



**LIVE ON AIR WITH NBC4:** From the Festival Floor - NBC4's Chuck Bell Interviews Festival Performer Jason Latimer



**LIVE ON AIR WITH NBC4:** NBC4 Meteorologists Amelia Draper and Chuck Bell invite viewers to join Storm Team 4 at the USA Science & Engineering Festival



**LIVE ON AIR WITH NBC4:** From the Festival Floor - NBC4's Molette Green at the Lockheed Martin Pavilion





## School Programs:

### ***Nifty Fifty***

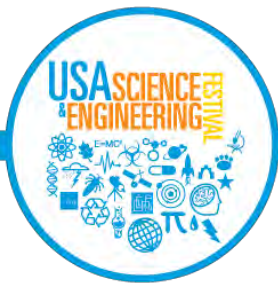
The USA Science & Engineering Festival's Nifty Fifty program featured roughly 100 noted professionals from top science universities, corporations, non-profit organizations and governmental agencies throughout the United States. Nifty Fifty speakers were selected based on their major impact in the field of STEM either through research or through other fields such as law, business, government and public service. Individuals spoke at various elementary, middle and high schools to groups of 150 – 500 students throughout the 2016-2018 school years about their work and career paths, aiming to inspire the next generation of STEM professionals.

Key speakers who spoke at Nifty Fifty school events included delegates from the National Institutes of Health, FDA, U.S. Department of Defense, U.S. Air Force, National Geographic Society, University of Maryland, Caltech University, NASA, Smithsonian National Museum of History, Carnegie Institution for Science, and George Mason University, in addition to many other elite speakers.

The high caliber of speakers included Dr. Reginald Brothers, former Under Secretary for Science and Technology at the U.S. Department of Homeland Security and current Chief Technology officer at Peraton; Dr. Ellen Stofan, former Chief Scientist at NASA and current Director of the Smithsonian National Air and Space Museum; Dr. Claire Fraser, Director of the Institute For Genome Sciences at the University of Maryland; Alvin Drew, NASA Astronaut; Dr. Anthony Fauci, Director of the National Institute of Allergy and Infectious Disease, NIH; Dr. Griffin Rodgers, Director of the National Institute of Diabetes and Digestive and Kidney Diseases, NIH; and Lt Col Janelle Jackson, Commander of the 317th Recruiting Squadron, U.S. Air Force to name a few.

Last year, the Festival created the Student Host role as an opportunity for a student to build on leadership, organizational and social skills. Each school nominated a Student Host, who served as the main point of contact for their Nifty Fifty talk. The Student Host was responsible for engaging with the speaker and handling the onsite logistics of the event, including greeting the speaker upon arrival, introducing the speaker to the audience and taking photos of the event for social media promotion.

The Nifty Fifty Program reached nearly 20,000 students throughout the greater Washington DC and surrounding areas, as well as 1,500 students in Northern & Southern California. We



collected feedback through an electronic survey sent to teachers and Speakers who participated in the program. The overall response was very positive (see survey results below).

Below is a synopsis of the teacher survey results from the Nifty Fifty program.

#### **Teacher Feedback:**

If you had to grade your speaker's presentation and ability to engage the audience, what grade would you give him/her?

Answer / Response Percent:

A	91%
B	9%

Do you think the Nifty Fifty talk was an effective way to get your students more interested in the sciences/engineering?

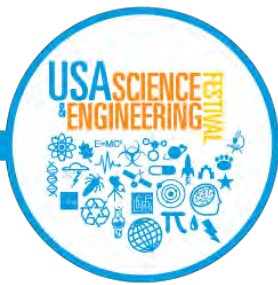
Answer / Response Percent

Yes	91%
To a certain extent	9%
No	0%

#### ***X-STEM Extreme STEM Symposium, sponsored by NCR, NBC4 and PwC***

**The USA Science & Engineering Festival's 5<sup>th</sup> X-STEM Symposium** was held on April 5, 2018 at the Walter E. Washington Convention Center in Washington DC. The 2018 X-STEM Symposium featured over 25 speakers representing top science universities, high tech and life science corporations, non-profit organizations and governmental agencies who spoke to an audience of middle through high school students in a "TED-style" format. This all day event featured multiple presentation sessions and workshops given by some of our nation's most respected individuals in science and engineering who spoke to audiences ranging in size from 100 to 1300. Student attendees had the opportunity to sit in on multiple engaging presentations and hands-on workshops. All X-STEM presentations were professionally filmed and will be downloadable from the Festival website at a later date.

The 2018 X-STEM Symposium was attended by more than 3,000 students, teachers, parents, military families, homeschool families and STEM enthusiasts.



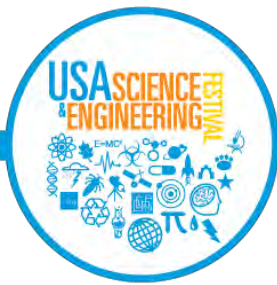
The X-STEM opening ceremony featured a welcome address by Festival Executive Director, Marc Schulman. Additional opening remarks were given by Marija Zivanovic-Smith - Corporate Vice President of Marketing, Communications & Government Relations and Chief of Staff to the Chairman & CEO from NCR Corporation, and Shannon Schuyler - Principal, Chief Purpose Officer and Corporate Responsibility Leader at PwC and President of PwC Charitable Foundation.

Key speakers included delegates from the U.S. Air Force, NASA, National Oceanic and Atmospheric Administration, PwC, National Geographic, Viacom, Pixar, NCR, Mastercard, Carnegie Mellon University and the University of Georgia, in addition to many other elite speakers.

In an effort to celebrate the STEM luminaries participating at the X-STEM Symposium, over 15,000 X-STEM speaker trading cards were distributed to attendees at the event. Students collected and traded cards for their favorite X-STEM speakers. The Festival's concept of using trading cards to generate STEM excitement among kids was published last year in the Washington Post [here](#).

Here is a sampling of X-STEM speakers and their topics:

- **Natalie Batalha, Ph.D.** – This NASA astrophysicist is the former project scientist for NASA's ambitious Kepler Mission – the undertaking that has focused on searching for potentially habitable planets orbiting other stars in the Milky Way galaxy
- **Emily Calandrelli** – This astronautics expert shares her excitement about science and space exploration in many exciting ways -- including as a correspondent on Netflix's *Bill Nye Saves the World* and Emmy nominated producer/host of FOX's *Xploration Outer Space*.
- **Howie Choset, Ph.D.** – This scientist, who serves as Chief Technology Officer of Advanced Robotics for Manufacturing (ARM) Institute, and Professor of Robotics at Carnegie Mellon, is helping to usher in a new breed of robots that are playing a key role in such frontiers as manufacturing, search and rescue, and surgery.
- **Mark Eakin, Ph.D.** – This oceanographer leads NOAA's Coral Reef Watch program to use satellites to monitor and save endangered coral reef ecosystems all over the globe.
- **Danielle Feinberg** – Combining her talents in computer technology and photographic lighting, this Director of Photography at Pixar continues to work her magic on helping to



create some of the most unforgettable animated films – from Toy Story 2 to the Academy Award-winning, Finding Nemo.

- **Knatokie Ford, Ph.D.** – An accomplished biomedical researcher, she is also known as a savvy science communicator who helped reshape the image of STEM as former President Obama’s Senior Policy Advisor in the White House Office of Science and Technology Policy, and now as Founder and CEO of Fly Sci Enterprise, the innovative education and media consulting organization focused on using storytelling to inspire STEM learners of all ages.
- **Limor Fried** – As founder of her groundbreaking enterprise, Adafruit, this MIT-trained engineer and hacker is known as a leading innovator and thinker in the Maker Movement. Learn why she says, “If you can dream it, you can build it”!
- **Brigadier General Heather L. Pringle** – General Pringle serves as U.S. Air Force Commander of the 502nd Air Base Wing and Joint Base San Antonio, TX. The 8,000-person Air Base Wing executes 49 installation support functions to enable the largest Joint Base in the DoD. In addition, the 502 ABW manages and provides oversight for major projects, facilities and infrastructure worth \$37 billion.
- **J. Marshall Shepherd, Ph.D.** – This noted meteorologist and climate scientist at the University of Georgia has also served at NASA and assisted such notables as the White House and the Defense Department with complex meteorological issues. He is also passionate about shedding light on the fascinating high-tech world of his profession with students in STEM.
- **Tierney Thys, Ph.D.** – This National Geographic Explorer is a marine biologist and science media maker who travels the world ocean studying marine megafauna like the giant ocean sunfishes. She collaborates with myriad individuals and groups to inspire stewardship of the natural world from professional dancers to schoolgroups and prison organizations.

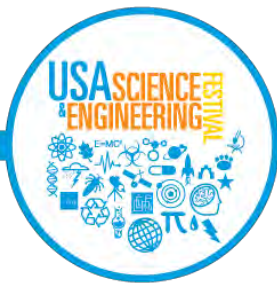
The complete list of speakers can be found [here](#).

**Attendee Feedback** - Below is a synopsis of attendee survey results from the 2018 X-STEM Symposium:

**Please rate speaker's presentation and ability to engage the audience (5 stars = Fantastic, 1 star = Disappointed):**

Five Stars	66%
Four Stars	21%
Three Stars	9%





Two Stars	3%
One Star	1%

**Do you think the X-STEM Symposium was an effective way to get you and/or your students more interested in the sciences/engineering?**

Yes	89%
To a certain extent	10%
No	1%

**Attendee Breakdown:**

*Breakdown of Attendees by School Type:*

Public School	38%
Private School	24%
Other	16%
Home School	15%
Military Family	2%
Science Magnet	1%

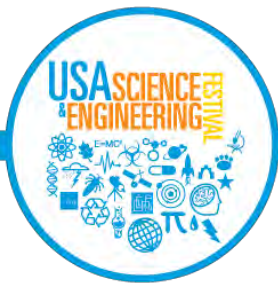
*Breakdown of Attendees by Age/Grade Level:*

MS (grades 6-8)	48%
HS (grades 9-12)	42%
ES (grades 5 and lower)	9%

*Breakdown of Attendees by Region:*

Greater Washington DC	84% (includes DC, MD, VA, WV)
Northeast	9% (includes PA, CT, DE, MA, NE, NH, NJ, NY, OH, RI, VT)
Southeast	3% (includes AL, FL, GA, KY, NC, SC, TN)
Midwest	2% (includes IA, ID, IL, IN, KS, MI, MN, MO, ND, NE, SD, WI)
West	1% (includes AK, CA, CO, ID, HI, AZ, NM, NV, MT, UT, WA)
South	0.1% (includes AR, LA, MS, OK, TX)
International	1%

**Stay tuned for X-STEM videos that will be made available on our website shortly.**



### **Volunteers and Festival Ambassador Program:**

More than 1,900 student leaders, local scientists, engineers, STEM professionals, and parents joined the Volunteer Outreach Team to spread the word about the Festival.

In 2018 we rebranded the X-STEM School program and launched the new Festival Ambassador program in its place, creating a network of student STEM leaders who helped to further spread the message about the importance of the Festival through our Volunteer Outreach program. The goal of the new Ambassador program is to provide K-12 students an opportunity to work together and gain valuable leadership, organizational and social skills, all while helping to increase public awareness of STEM in their own community. You can see a list of active Ambassador groups [here](#). Festival Ambassadors were eligible for free attendance at the 2018 X-STEM Symposium and received credit for community service hours.

Our network of volunteers and student Ambassadors provided outreach to the community by promoting the Festival through their schools, organizations, employers, libraries, and STEM events. Together, they delivered over 75K Festival bookmarks and 2,000 posters through individual conversations with their teachers, administrators, STEM leaders and organizations about the importance of science & engineering in America.

Over 630 volunteers supported the Festival Expo weekend, committing over 5,300 volunteer hours to ensure the Festival's success. Volunteers took on roles as event ambassadors, supported stage shows, manned information booths, sold merchandise and helped attendees navigate the Expo. Nearly 400 of the volunteers were students, between the ages of 13-18, volunteering for school credit, while gaining meaningful experiences. Our outreach team is a grassroots opportunity for concerned students and civic leaders to make a difference in STEM education with community leaders.

### **Volunteer Feedback:**

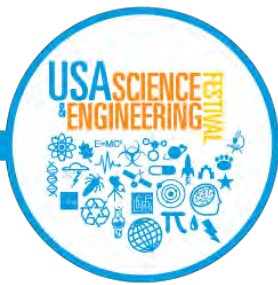
90% of volunteers indicated that their overall experience was an 8 or higher on a scale of 1-10.

Volunteers planning to continue to volunteer for the USA Science & Engineering Festival:

Yes, Definitely! – 90%

Maybe – 9%

No – 1%



### Testimonials:

**Here are just a few examples of thousands of testimonials we received after the Expo:**

"The Festival was an amazing experience for both me and my daughter. My daughter is 10 years old and is just starting to think about her future. Her career aspirations have included being a chef, a fashion designer and an artist. After this event, she is considering Ecology or Engineering fields. I love that this event inspired her to think bigger. She even talked about how she could use new technologies to push the limits of fashion design!"

"This was truly an amazing event, both as an exhibitor and as an attendee, and I could not recommend this highly enough to both friends and colleagues. Whether you are interested in STEM, working a STEM field or just like cool science, this festival has it all."

"The USA Science & Engineering Festival was amazing. There was so much to see. The volunteers and exhibitors were so kind and willing to share their knowledge and talk with the kids. We had only planned to stay for two hours but ended up staying until we were kicked out because they were shutting down for the day!"

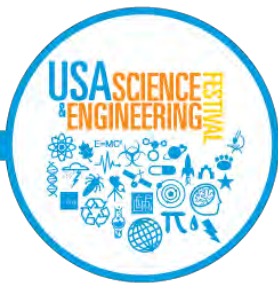
"Our family has attended since the first festival. The 5th USA Science & Engineering Festival has been the best so far! Our focus this year was for our teens to explore career opportunities and ideas. Both teens found lots of great and inspiring information to pursue careers in STEM. We came to the Sneak Peak, and came back on Saturday with friends. It was fun, educational, and entertaining. A great event to make memories!"

"We loved the festival. Getting to see the Explosive Chemist was probably the highlight of the experience. There were so many things to see and do. I just wish it would have lasted longer so we could have seen and done it all! I don't know if I can wait 2 years for the next one!"

"Had an amazing time on Saturday with my 7 year old son. Even got to meet Steve Spangler and sit front row center for his stage Show, "Sick Science." And the live feed from the International Space Station was amazing!"

"INCREDIBLE. We will be back every year. My 6 and 4 year olds looooooved it and didn't want to leave; we were there for 5 hours!!! Absolutely fantastic. Thank you, thank you, thank you!"

"This was my first time to attend. The presenters were fabulous! We learned so much and my son was able to speak with so many different representatives of fields in science that he find



interesting. It was overwhelming in size. My only regret is that we didn't even reach a fraction of what was available."

"I LOVED the Festival and was thrilled to attend this grassroots effort to advance STEM education. As a citizen scientist, I found the exhibits extraordinary, the scientists and engineers were passionate about their work, and the attendees' enthusiasm incredible. It was an energizing experience. Would you consider adding another day?"

"This event is awesome! Clearly too much to do in a day. I deeply appreciate all of the effort on behalf of sponsors, presenters, exhibitors, staff, volunteers, and students to make this one of the most incredible experiences. To think of what these children are exposed to through this event! Wow. Science should be in good hands in the future!"

**You can view pictures of the Expo weekend taken by our professional photographer on our website in the coming weeks; the link can be found here:**

**<https://www.flickr.com/photos/usasef/>**

We can't thank you enough for your tremendous support and look forward to hearing from you!

The Festival Team