Thank you for supporting X-STEM NOVA, a program of the USA Science & Engineering Festival.

X-STEM NOVA was held on October 26, 2022 at the Dulles Expo Center in Chantilly, Virginia. The free conference - presented by Airbus and the U.S. Air Force - was designed to showcase diversity and inspire middle and high school students about careers in the STEM fields.

The all day event, emceed by Hip Hop M.D. Maynard Okereke, featured multiple presentation sessions given by top STEM role models covering a broad range of topic areas including space, robotics, forensic science, and entomology. Each presentation was followed by a Q&A session, giving students the opportunity to directly interact with speakers. Five hands-on and interactive workshops were hosted by leading STEM-focused organizations. Workshop topics ranged from satellite technology to marine life conservation to engineering design and manufacturing. Students had the opportunity to sit in on four speaker presentations and one hands-on workshop. During lunch, students visited booths hosted by our partner organizations, gathered for group photos in the branded photo stations, and mingled with speakers. Maximus generously provided reusable swag bags for every student in attendance.

Attendees were primarily from the DC metro area, Virginia, and Maryland. Other attendees came from Georgia, North Carolina, Pennsylvania, West Virginia, including a bus load of students from New Jersey.

The X-STEM NOVA conference marked the Festival's first return to in-person programming in the DMV since the start of the COVID-19 pandemic.

View and download photos from X-STEM NOVA here. A list of participating speakers and workshop presenters can be found below.
Dr. Stacey Dixon, Principal Deputy Director of National Intelligence
Welcome Address

Dr. Matt Buffington, USDA Research Entomologist
Undescribed species? Whatever do you mean?

Dr. Tracy Fanara, Environmental Engineer & NOAA Research Scientist
Reimagining the Possible

Professor Kelly Knight, Forensic Scientist
The Real CSI: Using Science to Fight Crime

Capt Sophia Schwalbe, Air Force Research Laboratory, Space Vehicles Directorate
Space Weather - the STEM Bridging Air and Space (Forces)

Dr. Thomas Statler, NASA Planetary Scientist
How to Move an Asteroid

Snowball, Common Objects Robot
Charlie Robb, Common Objects CRO
Paige Thompson, Common Objects SVP of Sales and Marketing
Morgan Keese, Airbus U.S. Space & Defense, Inc. Chief of Staff
Robotics in Action: Airbus Mission Critical Communications & Common Objects
Escape from Measurement Island

The Wonderful World of Satellites!

Spark-E’s Last Minute Flight

Mission H2.0: Operation Water Purification

Sea Turtle Snacks
PROMOTION AND SOCIAL MEDIA

X-STEM NOVA was promoted heavily on our website and to our newsletter list of over 100k teachers and parents.

Priority invitations were extended exclusively to Title 1 schools to provide the best possible opportunity for students from underserved communities to attend. Overall outreach included 112 schools across the DC metro area made up of public, charter, and private schools.

The combination of outreach to Title 1 schools and our strong following in the DC area resulted in a pre-registration interest list of over 8,400 students.

A media advisory was sent to five local news outlets. The event was covered by NBC4 News Washington and aired the day of the event. The full segment can be viewed here.

The event and speakers were heavily promoted across all of our social media platforms. Speakers, workshop presenters, and partners also touted their participation on social media. With a goal to engage the audience and increase awareness for the program, we encouraged attendees to share about their experience during the event using #XSTEM.

The following page illustrates the campaign and reach through our partners and on social media.
X-STEM NOVA By the Numbers

REACH ON USAESEF SOCIAL ACCOUNTS & NEWSLETTER

147K Impressions

INSTAGRAM ACCOUNTS WHO SHARED X-STEM NOVA:

Hip Hop MD - @hiphopscienceshow - 16.1k
Dr. Tracy Fanara - @inspectorplanet - 15.9k
Kelly Knight - @kellythescientist - 13.2k
Dr. Yasmine Daniels - @classychemist - 11.1k

EDUCATOR FROM WESTERN HIGH SCHOOL:

“It was amazing!! My students were very much excited and engaged the entire time we were there!!”

X-STEM NOVA Stats:

2,400 students, teachers, and parents attended

85% thought X-STEM was an effective way to get students more interested in STEM

46% of attendees were ethnically diverse

Sample Posts
### BREAKDOWN OF REGISTERED ATTENDEES BY GRADE LEVEL

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS (grades 6-8)</td>
<td>50%</td>
</tr>
<tr>
<td>HS (grades 9-12)</td>
<td>50%</td>
</tr>
</tbody>
</table>

### BREAKDOWN OF REGISTERED ATTENDEES BY SCHOOL TYPE

<table>
<thead>
<tr>
<th>School Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public School</td>
<td>60%</td>
</tr>
<tr>
<td>Private School</td>
<td>19%</td>
</tr>
<tr>
<td>Charter or Science Magnet</td>
<td>13%</td>
</tr>
<tr>
<td>Home School</td>
<td>8%</td>
</tr>
</tbody>
</table>

**26% of registered attendees are from Title 1 schools**

### BREAKDOWN OF REGISTERED ATTENDEES BY GENDER

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>34%</td>
</tr>
<tr>
<td>Male</td>
<td>28%</td>
</tr>
<tr>
<td>Prefer not to say*</td>
<td>38%</td>
</tr>
</tbody>
</table>

### BREAKDOWN OF REGISTERED ATTENDEES BY ETHNICITY

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>4%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>27%</td>
</tr>
<tr>
<td>Hispanic or Latina/Latino</td>
<td>12%</td>
</tr>
<tr>
<td>Native American or Alaskan Native</td>
<td>1%</td>
</tr>
<tr>
<td>Native Hawaiian or other Pacific Islander</td>
<td>1%</td>
</tr>
<tr>
<td>White</td>
<td>14%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
</tr>
<tr>
<td>Prefer not to say*</td>
<td>40%</td>
</tr>
</tbody>
</table>

*Many educators with large groups noted that they did not know the ethnicities and/or gender of the attendees at the time of registration.*
ATTENDEE QUOTES

Homeschool Educator: “My son enjoyed learning about the different career paths available, while learning from experts in their fields, and hearing how they do their fieldwork.”

Student from St. Andrew Apostle: “I overall thought that the X-STEM experience was interesting and interactive. We got to ask questions and learn more about STEM. They explained some of the more difficult to comprehend jobs that they had, cracked jokes, and made it fun and interesting.”

Educator From EL Haynes School: “Our scholars made wonderful connections at the XSTEM conference to their learning and real world lives. They had a great time learning and even making model satellites. We look forward to bringing our scholars back next year!”

Student from St. Andrew Apostle: “If you love science, you'll love LOVE the X-STEM event. This event is just for you to learn more about science, robotics and so much other cool stuff.”

Student Attendee: “The experience was great and I will come again next time!”
Scenes From Around X-STEM NOVA