

APRIL 20-23, 2021

Virtual Interactive Speaker Series

RECAP REPORT

PRESENTED BY:





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

X-STEM All Access was broadcast live on April 20-23, 2021. The free virtual interactive conference series, presented by [AstraZeneca](#), the [U.S. Air Force](#) and the [U.S. Department of Defense DoD STEM](#), was designed to showcase diversity and inspire students about careers in the STEM fields with the ultimate goal to help bridge the STEM workforce gap.

The online conference was presented as a series of four daily 60-minute livestream events, each one featuring multiple STEM role models centered around a shared topic. The program was targeted to students in middle and high school (grades 6-12), but kids and adults of all ages were welcome to attend. All four live events were immediately made available for [on-demand viewing](#) at any time.

More than 26,000 students, teachers, parents, military families, and STEM enthusiasts registered to attend the four-day conference series. Many of the registrants were educators who incorporated the program into their classroom learning curriculum.

We put outreach efforts into regions outside of the DMV area (VA, MD, DC) to achieve a more nationally balanced attendee base and we are encouraged by the results. See breakdown by region below.

This year we launched the [Next Steps in STEM](#) page as a resource for students to build-on and enhance their X-STEM experience and overall STEM journey. Nearly 60% of registrants surveyed visited the Next Steps page after the event.

Attendees were given the opportunity to provide questions in advance and during the program using an online form. All of the episodes featured video questions that were pre-submitted by kids and targeted to specific speakers.

To further engage students and help educators better utilize the program as an educational resource, we provided educators with speaker-specific worksheets to use as classroom tools.

X-STEM All Access featured some of our nation's top STEM role models covering a broad range of topic areas and representing top life science universities, high tech, and life science corporations, non-profit organizations, and governmental agencies.

We partnered with [Passage Productions](#) to deliver high-quality and professional programming

X-STEM ALL ACCESS

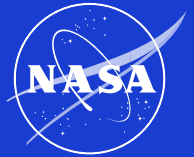
Speaker Lineup



Moderated by **Justin Shaifer**,
Mr. Fascinate

Combining STEM Superpowers

Dr. Tracy Fanara, Ocean Scientist & Environmental Engineer, NOAA
Tamara Robertson, Chemical & Biomolecular Engineer & TV Host
Brain Break by NASA



Exploring our Minds

Dr. Kafui Dzirasa, Brain Engineer, Duke University
Dr. Kay Tye, Neuroscientist & Professor, Salk Institute
With special appearances by **Dr. Ann Taylor**,
Astrazeneca's Chief Medical Officer, and
Dr. Francis Collins, NIH Director



High Altitude Inspiration

Major Jay Park, U.S. Air Force Aviator
Captain Barrington Irving, Aviator & Founder
of Flying Classroom
**Brain Break by David "Mr. D" Landix &
LaMar "Mr. Q-U-E" Queen, Music Notes**
With Video Spotlight by **Dr. JihFen Lei**,
U.S. Department of Defense



Deep Sea Science

Chris Fischer, OCEARCH Founding Chairman & Expedition Leader
Dr. Mike Heithaus, Florida International University Marine Biologist
**Brain Break by Roy Moye III, Aerospace Engineer
& Musician, STEMusic**



BREAKDOWN OF REGISTERED ATTENDEES BY REGION

	<u>2021</u>	<u>2020</u>
Northeast	40%	56%
Southeast	29%	26%
West	14%	10%
Midwest	11%	6%
Southwest	6%	2%

We also had representation from 54 countries including Albania, American Samoa, Argentina, Australia, Bangladesh, Botswana, Brazil, Cameroon, Canada, Cayman Islands, China, Colombia, Costa Rica, Dominican Republic, Ecuador, Egypt, El Salvador, France, Georgia, Germany, Ghana, Honduras, India, Indonesia, Iran, Jamaica, Japan, Kenya, Malaysia, Maldives, Mexico, Morocco, Myanmar, Pakistan, Paraguay, Peru, Philippines, Romania, Saudi Arabia, Singapore, Slovakia, South Africa, Spain, Sri Lanka, Taiwan, Thailand, Trinidad and Tobago, Turkey, Uganda, United Arab Emirates, United Kingdom, Venezuela, Yemen, and Zimbabwe.

6.9% of attendees were from outside of the United States.

BREAKDOWN OF REGISTERED ATTENDEES BY GRADE LEVEL

ES (grades 5 and lower)	26%
MS (grades 6-8)	46%
HS (grades 9-12)	17%
18 and over	7%
Declined to answer	4%

BREAKDOWN OF REGISTERED ATTENDEES BY SCHOOL TYPE

Public School	75%*
Private School	14%
Science Magnet	5%
Home School	4%
Other	2%

***58% of public school groups registered are Title 1 schools**

BREAKDOWN OF REGISTERED ATTENDEES BY GENDER

Female	40%
Male	38%
Prefer not to say	22%

BREAKDOWN OF REGISTERED ATTENDEES BY ETHNICITY

Asian	5%
Black or African American	17%
Hispanic or Latina/Latino	15%
Native American or Alaskan Native	1%
Native Hawaiian or other Pacific Islander	<1%
White	20%
Other	<1%
Prefer not to say	41%

ATTENDEE FEEDBACK

On a scale of 1-10, how would you rate X-STEM All Access overall?

(One = poor, Ten = fantastic)

Ten	43%
Nine	27%
Eight	23%
Seven	6%
Six	1%

Do you think X-STEM All Access was an effective way to get you and/or your students more interested in STEM?

Yes	89%
To a certain extent	11%

MEDIA AND PROMOTION

The event was promoted heavily on our website and to our newsletter list of over 100k teachers and parents. Promotional offers extended included a free subscription to *Diversity in STEAM Magazine* and a free downloadable *Seekers of Science* STEM comic book.

This year we endeavored to promote X-STEM to Title 1 schools across the country. We reached out to approximately 300 school districts that represent high concentrations of Title 1 schools. As stated in the demographics above, 58% of the public school groups registered were Title 1 schools.

[NBC4 DC](#) featured X-STEM All Access during their News 4 Your Sunday segment on April 19, 2021. News4's Molette Green spoke with speakers Dr. Tracy Fanara, Tamara Robertson, Mike Heithaus, moderator Justin Shaifer, and Brain Break performer Roy Moye III. The full segment can be viewed [here](#).



SOCIAL MEDIA

The event and speakers were heavily promoted across all of our social media platforms. Speakers and their organizations also touted speaker participation on social media. During the event, we launched a social media campaign called Show Us How You STEM with a goal to engage our audience and increase awareness for the program. The following pages illustrate the campaign and the event reach on social media.

X-STEM All Access Social Media Reach

#XSTEM

Facebook, Twitter, Instagram & LinkedIn:

9.7M impressions*

SAMPLE SOCIAL POSTS:



#ShowUsHowYouSTEM Campaign

Facebook, Twitter, Instagram & LinkedIn:

255K impressions*

SAMPLE SOCIAL POSTS:



*Impressions generated from Keyhole

X-STEM All Access Social Media Reach

Accounts of those who shared X-STEM posts with large followings:

Twitter:

Dr. Franics Collins: 169.1k

OCEARCH: 137.3k

AstraZeneca: 80.2k

Tracy Fanara: 13.8k

Justin Shaifer: 3,674



Instagram:

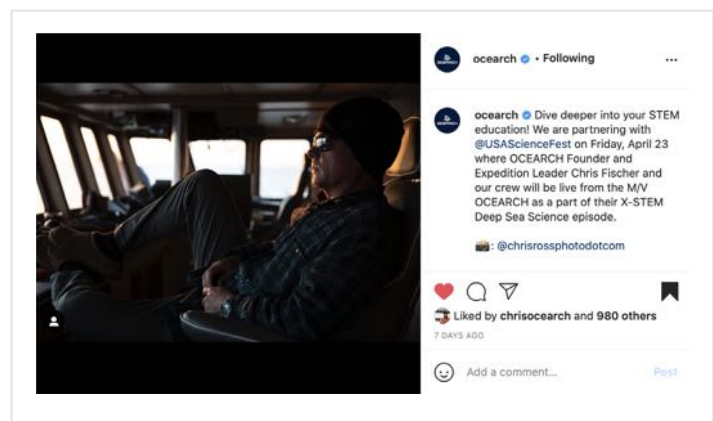
OCEARCH: 236k

Justin Shaifer: 17.4k

Tracy Fanara: 11.1k

Tamara Robertson: 7,898

FIUCASE: 2,500



Total Impressions:

Twitter: 286,447

Linkedin: 2,956

Instagram: 2,693,785

Facebook: 2,017,039

ATTENDEE QUOTES

Educator from Ontario, CA: “This has been a great week for my students to see scientists and engineers of all different fields and representing lots of different ethnicities speaking about their passions and determination. I am impressed by the responses I have seen on my students' reflections regarding their level of interest and what stood out most to them. It was definitely a worthwhile experience for my students.”

Educator from Alexandria, VA: “This was a great way to create a higher level experience for some of my students who were ready for a new challenge in class. It was also a great way to connect my students with careers of interest to them.”

Parent from Bowie, MD: “This was an amazing event for students. My students are in 4th and 5th grades and the content was appropriate and engaging. The speakers, slides, and resources provide lots of useful information that sparked interest and curiosity in my students. The brain breaks were a hit and a great model of what we should be doing in classrooms when delivering a lot of content.”

Educator from Riverview, MI: “I'm planning to use the archived sessions and worksheets for when I have unanticipated substitutes in my room, so that the learning time is not lost and the students are engaged.”

Student from Washington, DC: “X-STEM All Access experience was very interesting and engaging. I really learned a lot, and it was put in a format where it was easy for me to understand what the speaker was trying to say.”

Educator from Takoma Park, MD: “X-STEM All Access is an awesome way to get the next generation of STEM professionals some exposure to what it is like to work in a STEM Career. I love that they include a diversity of professionals, professions, and types of questions. I am sure to get my students involved in this amazing opportunity every year!”

Parent from Universal City, TX: “I was so excited to learn about this resource! My homeschool students are both interested in engineering and the program was fun, entertaining, and informative for them.”

Student from Al Qusais, Dubai: “What an amazing event! It was such a blast! The speakers were so enthusiastic and I absolutely loved the Brain Break.”

Educator from the U.S. Virgin Islands: “The XSTEM All Access was extremely informative, engaging, interactive, and fun! My students greatly enjoyed the live virtual series. I was able to incorporate several aspects of the content into my STEM lesson plan. My students will utilize some of the things they learned from the speakers, for their final exam research presentation, which is focused on STEM careers.”

Parent from Hacienda Heights, CA: “This was an incredible and inspiring series! I wish I had participated and viewed such a program growing up.”

Student from Chambersburg, PA: “I really enjoyed this event and I thought the speakers and topics were very interesting.”

Educator from Norman, OK: “I am so excited to have found this program for my students and for me! I have learned with my students which is so important to demonstrate that learning should be a life long habit.”

Educator from Baltimore, MD: “I have always loved going to DC for the STEM festival - but this new virtual experience offers so much more flexibility. I was always sad when I had to miss one speaker to hear another -- this way I get to watch them all!”

Grandparent from Marion, IA: “It was awesome...thanks for such informative content!! You have inspired new astronaut enthusiasts!!!”

Student from Washington, DC: “I thought the videos provided and sessions were very entertaining. They were creative and very entertaining in the way they presented the information to the audience. This made it easier to not get distracted. I was more engaged than I expected because of the presentation of the content.”

Student from Gwynedd Valley, PA: “I have enjoyed learning about the different areas and fields that I can pursue. It was great to here how Dr. Tracy Fanara experienced unhealthy water in her community as a kid and as a kid that clean water for everyone is something that is very important to me as well. It was also pretty exciting to hear about their comic book which I am too creating. As a girl, I don't usually see females as the lead characters or comics written by girls, science comics specifically... What made the event really exciting was the Q&A. Mr. Fascinate is always fun to watch!”

Educator from Durham, NC: “My 6th grade daughter and I loved the program. We were impressed with the high caliber and very accessible speakers. It was generous of them to spend time educating children... Fun, interesting, timely, inviting. Thanks!”

Educator from Baltimore, MD: “I enjoy visiting the USA Science & Engineering Festival every year. It took a lot of planning to pull of this year's all virtual platform, but they did it. My students and I enjoyed the highly engaging activities as always. Thanks for all you do to promote STEM innovation for our students.”

Student from Texas: “Very interesting and cool... We only watched the last two videos live, but we later went back and watched the rest. I want to get my degree in Mechanical Engineering or Materials Joining Engineering, but this expanded my horizon on options. Thank y'all for a fun AND educational video series.”

Educator from Valmeyer, IL: “X-STEM provided a unique and engaging career exploration week for students. We can't wait for the next experience!”

Educator from Washington, DC: “This was a great experience!!! I presented the presentations to my students as a field trip. They were excited to see their classmates ask questions, and they learned so much about different types of STEM careers. The worksheets got the students engaged and invested in the presentations. I used the worksheets as a quiz.”

Parent from PA: “X-STEM is an informative and engaging way to get our homeschool daughter excited about STEM. As a junior scientist our daughter was able to use X-STEM's excellent online STEM experiences of hosting series of daily livestream events. She was so inspired by Tamara Robertson and Dr. Tracy Fanara who both have and are researching and pursuing many of her interests now.”

Parent from CA: “My children who want to be scientists when they grow up found this seminar to be incredibly inspiring! The guest speakers give insight to kids they otherwise would not know. I wish we could reach out to these speakers and ask them if they'd be willing to mentor my children or allow us to meet them during one of their expeditions.”

Parent from Stephens City, VA: “Loved that it was immediately available on demand. It worked very well in my schedule. Keep the variety & diversity coming.”

Student from Elizabethtown, KY: “I really loved this series!! I was excited to log in every day and hear the speakers - even if what they were talking about wasn't up my alley, they were so passionate and informative that I loved listening to them. Can't wait for next year :D”

Parent from Houston, TX: “Thank you for offering this programming that we can use as a part of our school day. Continue what you are doing... All of the content has been very informative and we take something beneficial away each time we watch. Thank you for additional resources in the Next Steps section!”

The X-STEM All Access series can be viewed on-demand [here](#).

We thank you for your generous support of this program and look forward to working together again.

- The USA Science & Engineering Festival Team

