

DoD STEM Education and Outreach



Mr. Louie Lopez
Director, DoD STEM
Basic Research Office
ADC Installation Innovation
01 November 2022

Controlled by: OUSD(R&E)
Controlled by: S&T Foundations
Category: For Public Release
Distribution: A
POC: Louie Lopez



Please go to [Menti.com](https://www.menti.com), CODE 39 60 15

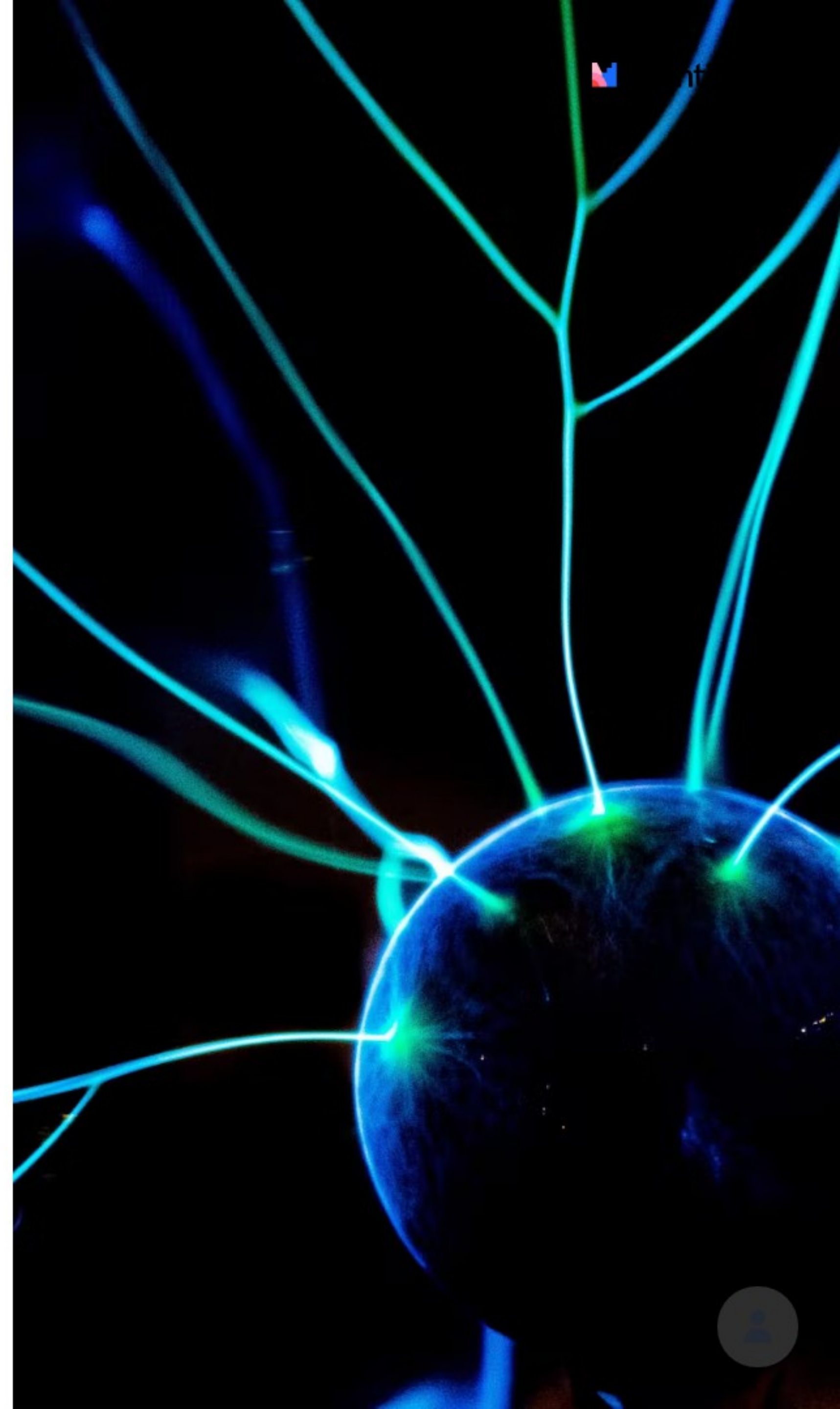
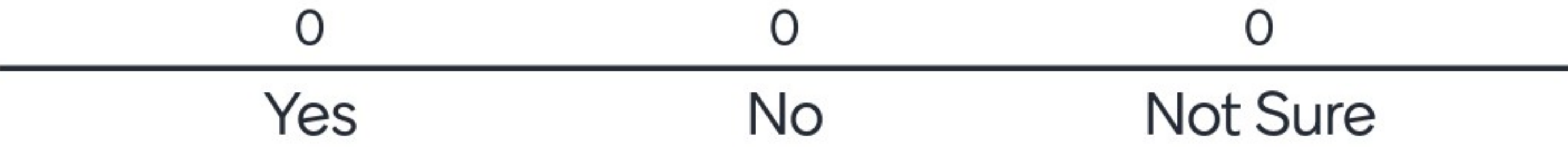




Do you have any children/dependents in school, or family members with children/dependents in school?



Have any of your or your family members' children/dependents participated in STEM education and outreach programs?

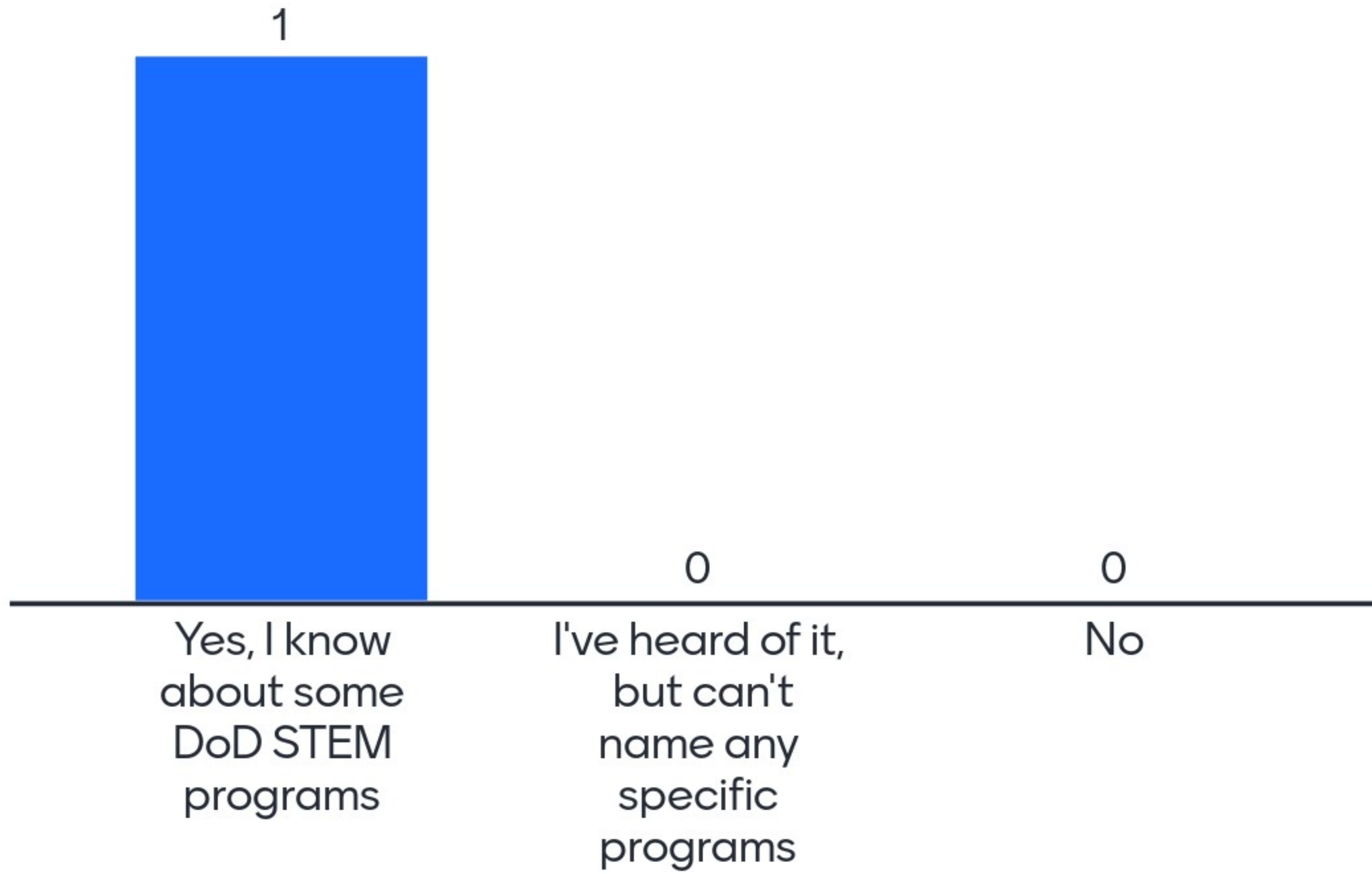




STEM Education Programs Are Vital to the Success of the Department

- **The Department of Defense requires a diverse, high quality, and agile STEM talent**
 - National security makes it imperative that the United States have available a substantial, high quality STEM workforce (*National Academies of Sciences*)
- **The Need for Diversity in DoD STEM Workforce – Diversity Drives Innovation!**
 - Shifting demographics: the U.S. population is projected to be more than 40% minority in upcoming years
- **Preparation of students for future STEM careers starts at K-12**
 - Only 20% of college-bound seniors are ready for courses typically required for a STEM major (*National Science Foundation*)

Are you familiar with DoD STEM?





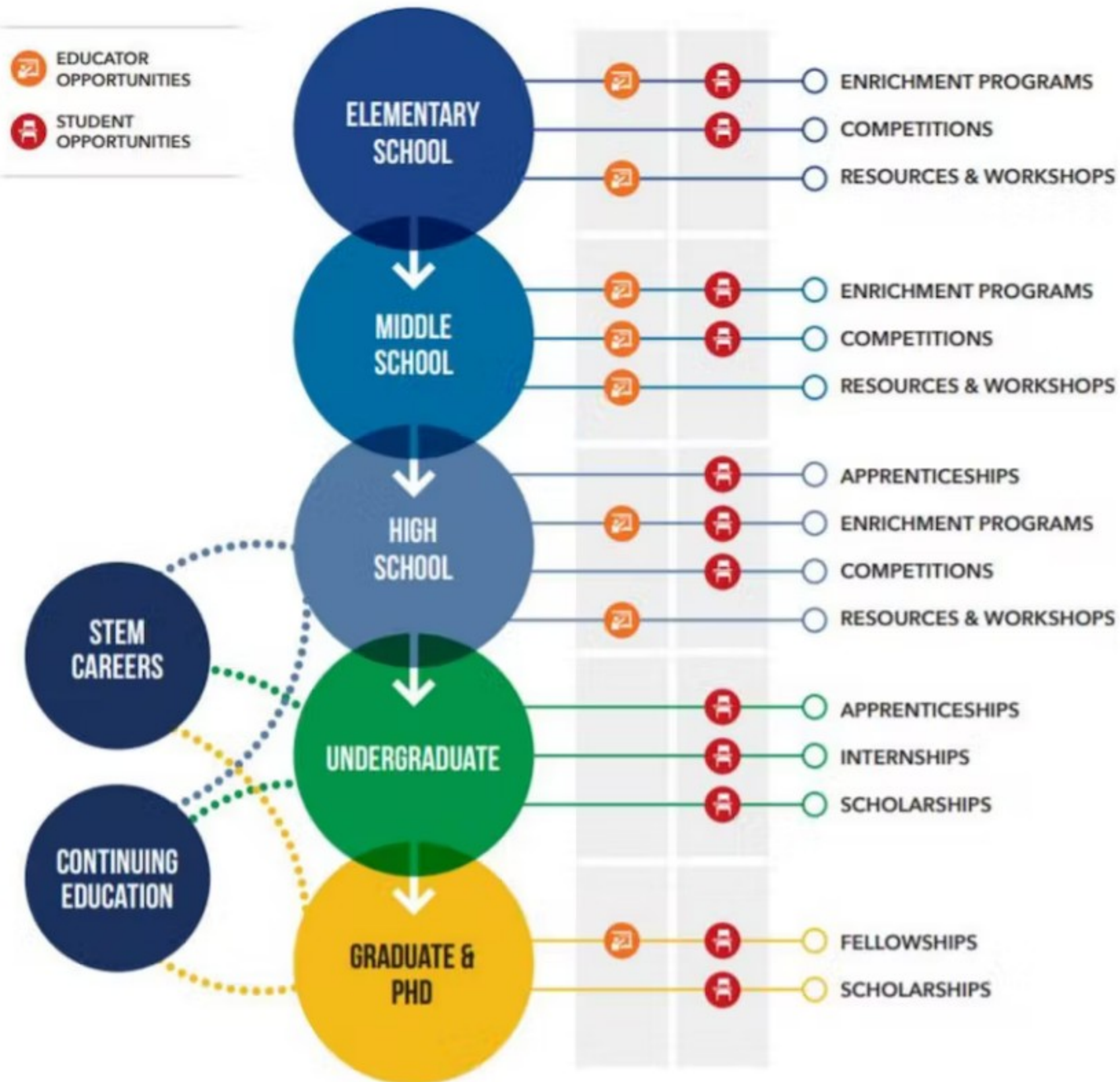
What Encompasses DoD STEM?



DoD STEM is inclusive of Department-wide efforts that aim to *inspire, cultivate, and develop* a diverse and exceptional STEM talent through a continuum of meaningful STEM learning opportunities across the Pre-K-Postdoc continuum. The **National Defense Education Program (NDEP)** is one of the largest STEM efforts in the Department. DoD STEM website – www.dodstem.us & on social media @DoDSTEM.



DoD STEM Programs and Reach



DoD STEM reaches about **1M students (38K Military-connected)** and **31K educators** annually.



In 2020, there were **510** connections with DoD labs, facilities, and installations across DoD STEM education and outreach programs, at more than **260** unique locations.



National Defense Education Program (NDEP)

NDEP is part of the broader Department-wide effort under DoD STEM, which works collectively with partners from academia, industry, not-for-profit organizations, and leverages DoD components, defense laboratory enterprise and other government entities to:

- (1) build strong foundations for STEM literacy;
- (2) increase diversity, equity, and inclusion in STEM; and
- (3) prepare the STEM workforce of the future.

NDEP programs include:

- SMART Scholarship-for-Service Program
- PreK-16 STEM Education & Outreach; Defense STEM Education Consortium (DSEC)
- NDEP grants (intramural and extramural)

SMART

SCIENCE, MATHEMATICS,
AND RESEARCH FOR
TRANSFORMATION

PART OF THE NATIONAL
DEFENSE EDUCATION PROGRAM

What is SMART?

SMART Scholarship-for-Service Program provides a combined education/career opportunity to STEM students that will enhance the DoD civilian workforce.

SMART Scholars Receive:



Full Tuition towards a
BS, MS, or PhD in a
STEM Discipline



Book and Health
Allowance



Summer Internships



Annual Stipend



Experienced DoD
Mentor



Guaranteed Employment at a
Sponsoring DoD Lab/Facility
Upon Graduation

Accepting applications between August 1st and December 1st!

Learn more: <https://smartscholarship.org/smart>

Accepting applications between August 1st and December 1st!

Learn more: <https://smartscholarship.org/smart>

smartscholarship.org

SMART Mentimeter

SCHOLARSHIP-FOR-SERVICE PROGRAM

Defense Created by Scientists and Engineers

BENEFITS FOR SMART SCHOLARS

The Science, Mathematics, and Research for Transformation (SMART) Scholarship-for-Service Program, funded by the Department of Defense (DoD), is a combined educational and workforce development opportunity for STEM students.



Full Tuition

Full tuition, annual stipends, and book/health allowances to students pursuing STEM degrees.



Internships

Receive invaluable experience during summer internships with the Department of Defense.



Career

Pursue full-time employment with the Department of Defense after graduation.

ELIGIBILITY AND PROGRAM REQUIREMENTS



U.S.
Citizen



Minimum 3.0
GPA



Degree in
STEM



18 Years
or Older



Minimum
1.5 Years



Obtain Security
Clearance



Complete
Internship



Accept DoD
Employment



Jennifer Aneke

"I've been able to apply my technical expertise to a variety of areas that aid the Navy's Mission. The SMART Scholarship opened up many doors for professional growth and the ability to better serve our country."



SMART.DoD.Scholarship



@SMART_DoD



SMART Scholarship



SMART.DoD



DoD SMART Scholarship



Defense STEM Education Consortium (DSEC)

DSEC is a collaborative partnership between academia, industry, not-for-profit organizations, and government that aims to broaden STEM literacy and develop a diverse and agile future workforce to power the United States' innovative defense infrastructure.





NDEP Grants

- **2022 NDEP Regional Community College Consortia (RC3):** Enhance the STEM workforce through five regional consortia incentivized through a **cooperative agreement awards of up to \$11M and up to 6 years**, which will develop and encourage STEM ecosystems between 2-year institutions and Community Colleges, and 4-Year Institutions, industry, local education agencies, and others focused on 2-year STEM certifications and 4-year STEM degrees. <https://www.grants.gov/web/grants/search-grants.html?keywords=12.006>
- **2019-2021 NDEP Grant Awards:** To support DoD STEM Education and Workforce Development strategic objectives, forge partnerships, and to cultivate the future STEM talent pool, **28 grants** totaling **\$82M** were awarded to academia, industry, local educational agencies, and community partners. <https://www.dodstem.us/about/partners/>.
- **2020-2021 Internal NDEP Grant Awards:** To encourage the development of innovative programs and activities that expand DoD STEM opportunities, **12 grants** totaling over **\$15M** were awarded to DoD labs and centers.
- **Manufacturing Engineering Education Program (MEEP):** Congressionally added in 2017-2020, this *program established new or enhances existing programs (or collections of programs)* to better position the current and *next-generation manufacturing workforce* to produce military systems and components that assure technological superiority for the DoD. Through ONR FOA, **awarded 13 grants**, close to **\$51M** in total award to academia, industry, and community partners. <https://www.dodstem.us/about/partners/>.



Participate in DoD STEM: dodstem.us

Department of Defense
DoDSTEM
Science · Technology · Engineering · Mathematics

PARTICIPATE ▾ EXPLORE ▾ MEET DOD STEM ▾ ABOUT ▾ FOR THE MEDIA ▾

- Participate in DoD STEM ▾
 - Opportunities ▾
 - Online Resources ▾
 - Calendar ▾
 - SMART Scholarship Program ▾

Inspiring the future

Science, Technology, Engineering and Mathematics, or STEM, is the gateway to a world of wonder. U.S. Department of Defense (DoD) STEM professionals work at the leading edge of our nation's most advanced technological breakthroughs. **STEM is our future.**

[Meet DoD STEM](#) ↻

<https://dodstem.us/participate/opportunities/>

2028
2020

How could DoD STEM programs and resources enhance STEM education partnerships in your region?





Connect with DoD STEM



@DoDstem



@DoDSTEM



@DoDstem



DoDSTEM



DoDSTEM



dodstem.us