Cybersecurity Education and Training Assistance Program

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The Cybersecurity Education and Training Assistance Program (CETAP) equips K-12 teachers across the country with cybersecurity curricula and education tools. The curricula is comprised of the Cyber Interstate – a robust library of cyber-based curricula that provides opportunities for students to become aware of cyber issues, engage in cybersecurity education, and enter cybersecurity career fields. These programs focus on growing and educating the next generation of the cyber-literate workforce.

CETAP provides educators opportunities for professional development through workshops that provide comprehensive instruction in friendly, low-pressure learning environments in order to break down the barriers educators experience when it comes to teaching cybersecurity. CETAP also extends beyond the school year through summer camp programs that provide hands-on cybersecurity learning activities to middle-school and high-school students. CETAP also offers activities, articles, and other career awareness resources such as tip cards, fun educational posters, and informational one-pagers to share with students.

CETAP follows a train-the-trainer model, providing cybersecurity educational curricula, teacher professional development and classroom technology. To help build the cybersecurity workforce of the future, CETAP curricula focuses on three priorities:

1) Create a cybersecurity awareness;
2) Expand cyber career understanding; and
3) Teach cybersecurity skills.

In addition to providing K-12 teachers with resources, CETAP also works with governors, state Chief Information Officers and state Departments of Education to remove barriers to classroom adoption by mapping content and curricula to state educational standards and industry certifications.

Released in 2021 and designed by Cyber.org, the K-12 Cybersecurity Learning Standards aim to ensure that students not only have a foundational understanding of cybersecurity, but also the skills and knowledge needed to pursue cyber careers. Developed with usability in mind, the standards were designed to be comprehensive, and easy to use and navigate. They are available for wholesale adoption for districts and educators to easily incorporate into existing curricula or course standards.

CETAP also embraces a focus on underserved schools in low socioeconomic regions, as the majority of all new teachers and attendees come from low-income, Title 1 schools.

CETAP BY THE NUMBERS

19,092
Teachers Trained since 2015

839
Teacher and Student Events Led since 2015

55%
Teacher Participants from Title 1 Schools

$400
CETAP Cost Per Teacher Trained

25,063
Teachers Enrolled In CETAP Curricula

50
States Reached + 4 U.S. Territories

28
State Government Partnerships

4
States with Cybersecurity Standards

71%
of CETAP's teacher professional development attendees came from low-income, Title 1 schools

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HISTORY OF CETAP

CETAP was launched by the Department of Homeland Security (DHS) in 2012 with the goal of improving the cybersecurity workforce pipeline and national cyber literacy by providing cybersecurity education to every K-12 student in the United States.

In Fiscal Year 2013, CETAP awarded a grant to the Cyber Innovation Center and its academic center the National Integrated Cyber Education Research Center, which was renamed Cyber.org and was re-awarded in 2018.

The Cybersecurity & Infrastructure Security Agency (CISA), through its Cyber Defense Education and Training (CDET), took over the CETAP portfolio in FY 2020 and, after evaluating, Cyber.org shifted from Science Technology Engineering and Math (STEM) to focus on cyber.

With the financial support of CETAP, Cyber.org has developed and successfully deployed a nationally focused, K-12 cybersecurity education and training model that grows the cyber workforce pipeline by enabling teachers to provide a cybersecurity educational foundation for students in all 50 states.

In FY 2021, CETAP, via the National Defense Authorization Act (NDAA), introduced Project Realizing Equitable Access to Cybersecurity in High School (Project REACH) and Project Access.
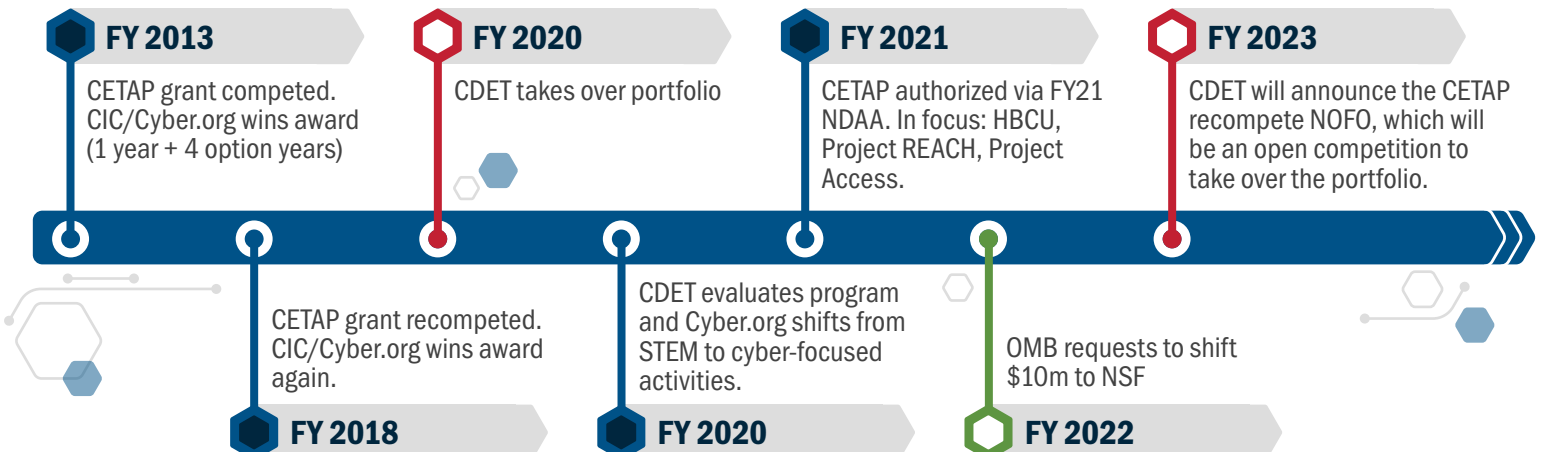
Initiatives like Project REACH, Project Access, the CYBER.ORG Range, the K-12 Cybersecurity Learning Standards, and the technology grant program work towards increasing equity and educator support in K-12 cybersecurity settings.

THE FUTURE OF CETAP

Despite CETAP's programmatic success and its enthusiastic reception by communities across the country, DHS continues to recommend funding cuts to this program. For the past eight years, the Senate and House Appropriations Subcommittees on Homeland Security have rejected the Department's proposed cuts, noting the critical and growing shortages of qualified cybersecurity professionals and concerns about the current and future workforce.

With the funding requested, CETAP could continue its important mission and make a significant, positive impact on the nation's cyber workforce shortage.

CETAP TIMELINE

FY 2013
CETAP grant competed. CIC/Cyber.org wins award (1 year + 4 option years)

FY 2018
CETAP grant recompeted. CIC/Cyber.org wins award again.

FY 2020
CDET takes over portfolio

FY 2020
CDET evaluates program and Cyber.org shifts from STEM to cyber-focused activities.

FY 2021
CETAP authorized via FY21 NDAA. In focus: HBCU, Project REACH, Project Access.

FY 2022
OMB requests to shift $10m to NSF

FY 2023
CDET will announce the CETAP recompete NOFO, which will be an open competition to take over the portfolio.

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CURRENT CETAP RECIPIENTS

CYBER.ORG

Cyber.org is a 501(c)(3) non-profit. It is the lead technical institute for CETAP and a nationally recognized leader in cyber education. Cyber.org enables K-12 educators and students to build cybersecurity educational foundations, cyber literacy, cyber career awareness and technical cybersecurity skills. Cyber.org is proud to partner with globally recognized organizations like Palo Alto Networks, Microsoft, Splunk, General Dynamics and the Girl Scouts of the USA. In addition to DHS and CISA, Cyber.org also supports federal cyber education programs at the National Security Agency (NSA) and the Department of Defense STEM Office.

PROJECT REACH

Project Realizing Equitable Access to Cybersecurity in High School (REACH) is a feeder program that connects K-12 schools to Historically Black Colleges and Universities' (HBCU) cybersecurity and computer science programs, to close the diversity gap in cybersecurity. Cyber.org facilitates the relationship between high school classrooms and their local HBCU through cybersecurity activities, classroom support, campus visits and more.

PROJECT ACCESS

Project Access aims to support programming options of local and state agencies by offering cyber education opportunities for blind and visually impaired students through immersive experiences that are fully compatible with assistive technology such as screen readers or magnification software. This gives blind and visually impaired students the confidence and knowledge necessary to pursue higher education and technology careers.

CETAP AND CONGRESS

CETAP has been formally authorized and receives broad bipartisan, bicameral Congressional support, which has increased with the national growth and local impacts of the program. It has also been recognized by independent organizations, such as the National Academy of Public Administration (NAPA) and the Cyberspace Solarium Commission, as a successful and high performing program that should receive sustained and increased funding.

FY22 SUCCESSES

- A high school teacher from Paulding College & Career Academy, Paulding County, GA said, "My favorite part about teaching cybersecurity is watching students become more confident in their knowledge and skills, but I enjoy teaching cryptography! It's just so darn fun!"

- Likewise, a high school teacher from Spotsylvania High School, Spotsylvania, VA stated that their favorite part of teaching cybersecurity is "when students realize that it is possible for them to have a career in cybersecurity regardless of if they have a disability or they feel they are not college material. I help provide resources to assist them on their journey towards a cybersecurity career."

- The Executive Director of Academic Initiatives at Lincoln University said that "the opportunity to participate in Project REACH has been transformative for both Lincoln University and its partners. In a short time, it has opened opportunities to greatly strengthen our partnerships with high schools both locally and around the state. It is a central pillar in the continued development of Lincoln University's STEM programs and cybersecurity focus in particular, to the degree that it is being utilized as a model for the creation of other K-12 pathways within the security sciences. Through its well-developed curriculum and support frameworks, as well as the outstanding guidance being offered by its personnel, Project REACH has quickly become a critical component of Lincoln University's broader development of its' new Security Sciences Institute."

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