

TCRDF

TOUGALOO COLLEGE RESEARCH AND DEVELOPMENT
FOUNDATION

Building and Managing Effective Partnerships

2024 NSPAA Technical Assistance Workshop

Presented by:

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ABOUT TCRDF

The Tougaloo College Research and Development Foundation (TCRDF) was established in 2016 to build the capacity of Tougaloo College and other HBCUs in federal research and contracting. Through the years, TCRDF has evolved to focus on three specific areas: Strengthening Knowledge Transfer and Relationships, Cultivating and Managing True Partnerships, and Preparing HBCU and MSI students for internships and, ultimately, civilian careers in the Federal Government. Through signature programs like ***30 Minutes With*** and ***Generally Speaking***, TCRDF strengthens knowledge transfer and relationships while cultivating and managing true partnerships. Our ***HBCU/MSI Academy*** prepares HBCU and MSI students for internships and, ultimately, civilian careers in the Federal Government.

AGENDA

- 01 — Introductions
- 02 — What makes an effective partnership?
- 03 — Building & Managing Effective Partnerships
- 04 — SCALE
- 05 — DOE Infrastructure Revitalization
- 06 — IDIQ
- 07 — Army Modernization Priorities (AMP)
- 08 — NASA
- 09 — DARPA

01

Introductions

- Mr. Kerry Thomas
- Dr. Faith Johnson
- Dr. Jess Resig
- Dr. Teressa Fulgham McCarty



02

What makes an effective partnership?



03

Building & Managing Effective Partnerships

- 4C
 - Capability
 - Capacity
 - Clarity
 - Communication



Building & Managing Effective Partnerships

- Our Project Partnerships
 - REDI
 - GTRI
 - SCALE
 - DOE
 - Army Modernization Priorities (AMP)
 - NASA
 - DARPA



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SCALE

- About SCALE
 - SCALE is the preeminent U.S. program for semiconductor workforce development in the defense sector. Led by Purdue University, funded by the Department of Defense, and managed by NSWC Crane, SCALE promotes a different approach to training highly skilled U.S. microelectronic engineers, hardware designers, and manufacturing experts.
- Current Pilot Technical-Vertical Area focus
 - Radiation Hardening (RH)





SCALE

- Current Cohort Members & Participation Years

• Alabama A&M University	Huntsville, AL	Year 1	Year 2
• Savannah State University	Savannah, GA	Year 1	Year 2
• Tennessee State University	Nashville, TN		Year 2
• Tougaloo College	Tougaloo, MS	Year 1	Year 2

**Year 1: 2023-2024*

**Year 2: 2024-2025*



DOE Infrastructure Revitalization

- Official Project Title: A Consortium for Strategic Revitalization of Cyber-Physical Nuclear Infrastructure for Advanced Small Modular Reactors
- Project Period: August 1, 2024 – July 31, 2028
- Total Award: \$200,000.00
- Current project status: awaiting award finalization, on or before July 31, 2024, with award performance August 1, 2024.
- Our role: TCRDF will serve as a liaison between Purdue University and the Nuclear Industry to provide HBCU students with internships and/or apprenticeship opportunities and other nuclear-related activities offered as part of the project.



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IDIQ

- IDIQ stands for Indefinite Delivery, Indefinite Quantity
- Federal Government contract type that allows an indefinite quantity of services for a fixed time.
- Teaming Agreement with Deloitte



Army Modernization Priorities (AMP)

- Provide the Army and other Joint Warfighters with a quick-reaction vehicle to enable and accelerate Modernization with Overmatch capabilities with rapid Research, Development, Test and Evaluation (RDT&E), prototyping, experimentation, piloting, and/or technology insertion that align with the Army's Modernization Priorities and/or Mission & Technology Areas.
- 10-year contracting vehicle with a \$900 million ceiling.



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NASA

- DATTS II has 2 major SOW areas:
- Studies and Assessments
- Strategic Management Services

- 5-year contracting vehicle with a \$115 million ceiling



09

DARPA



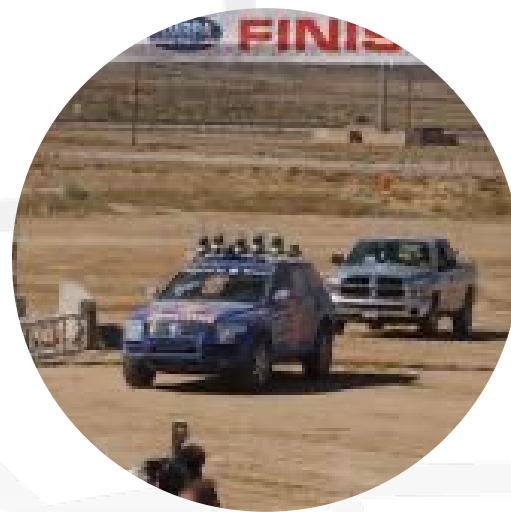


Breakthrough Technologies and Capabilities for National Security

Create breakthrough, paradigm-shifting solutions.

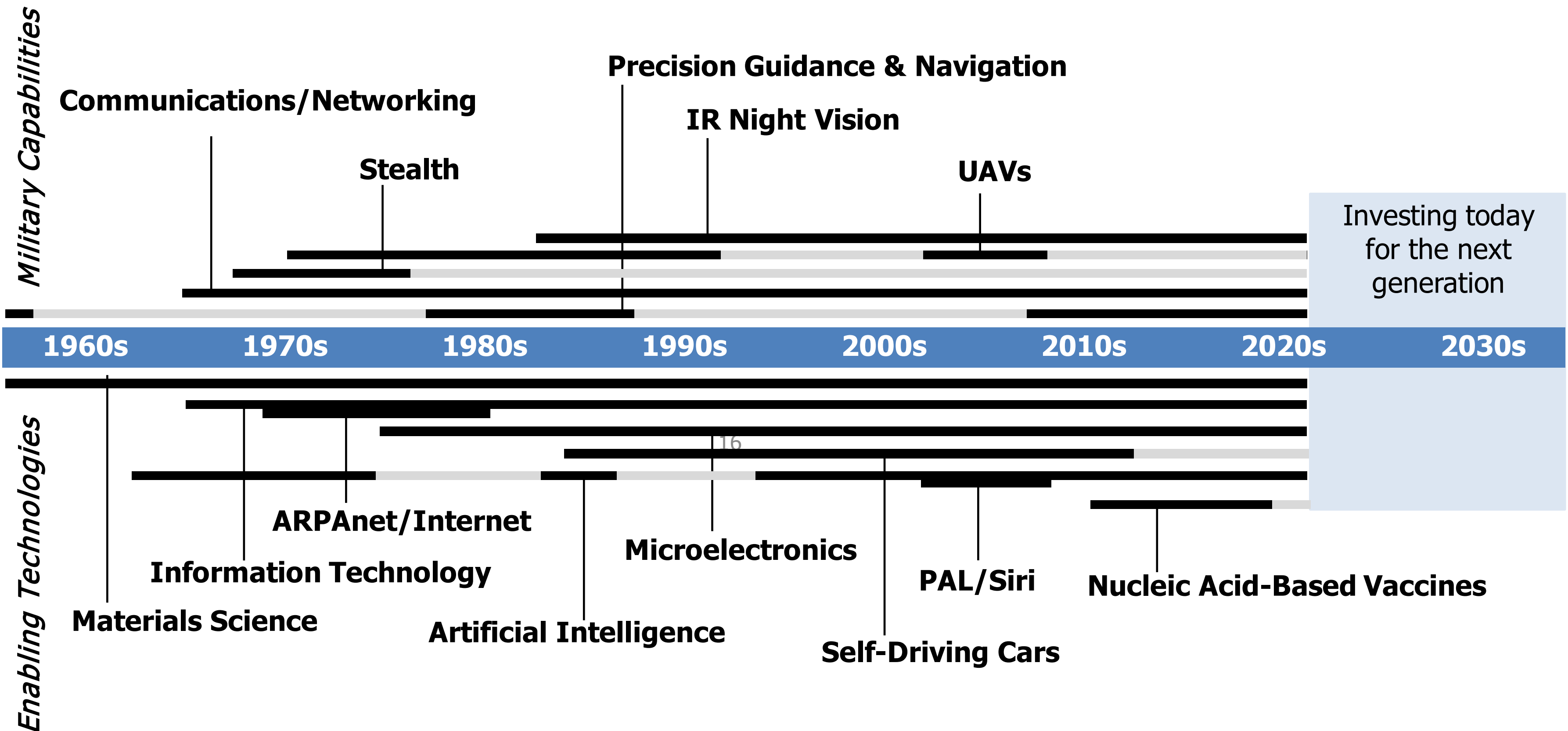
Accept and manage significant technology risk.

Disrupt or massively accelerate technology roadmaps.





Pivotal early investments that change what's possible



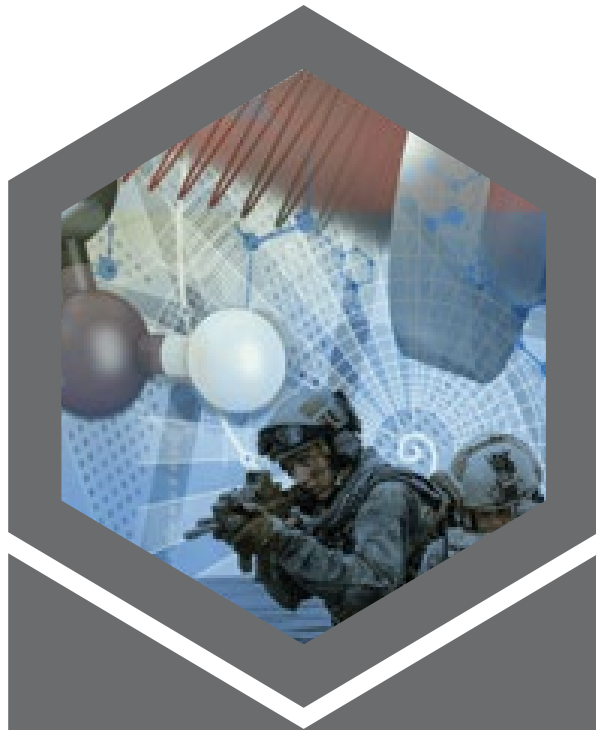


DARPA Technical Offices



Biological Technologies Office

- Maintain force readiness
- Tactical warfighter care and functional restoration
- Operational resilience and logistical security
- Biosensors and novel methods and materials



Defense Sciences Office

- Novel materials and structures
- Sensing and measurement
- Computation and processing
- Enabling operations
- Collective intelligence
- Emerging threats



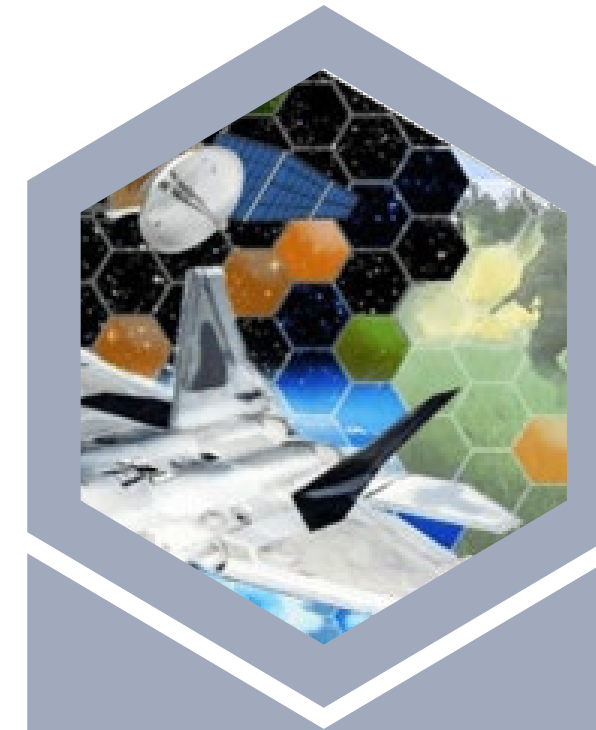
Information Innovation Office

- Proficient AI ¹⁷
- Advantage in cyber operations
- Confidence in the information domain
- Resilient, adaptable, and secure systems



Microsystems Technology Office

- Disruptive microsystems
- Edge processing
- Microsystems manufacture



Strategic Technology Office

- Advanced sensors and processing
- Battlefield effects
- Command, control, and communications
- System of autonomous systems
- Empowered human decision making



Tactical Technology Office

- Tactical systems
- Platforms, systems, and technologies that enable new warfighting constructs
- Reimagination of missions across maritime, ground, air, and space domains



Doing Business with DARPA

Programs

- Represent most of DARPA's funding opportunities
- Open to all capable sources
- Proposals solicited through specific program BAAs
- Often multi-year, multi-disciplinary efforts
- Technology development to move from "possibility" to "capability"



Challenges

- Compete on unique DARPA R&D problems
- Tend to include phases with culminating events where winners win monetary or other prizes
- May result in a prize with up to a \$10M fair market value



Seedlings, SBIR/STTR, Explorations

- Open to all capable sources
- Smaller, shorter projects
- From "disbelief" to "doubt"
- Inspire new program ideas

SBIR·STTR


POWERED BY INNOVATORS
MOVING TECHNOLOGY FORWARD



UNCLASSIFIED

DARPA CONNECT

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DARPAConnect is designed to broaden DARPA's reach and stimulate **growth and collaboration** between DARPA, businesses, and academia.

WHY WE DO IT

Since 1958, the Defense Advanced Research Projects Agency (DARPA) has made pivotal investments in breakthrough technologies for national security. To both create and prevent strategic surprise within an ever-changing national security landscape, DARPA seeks to engage the brightest minds and most robust ideas across different specialties, communities, and perspectives. The agency launched DARPAConnect in late 2022 to broaden DARPA's reach with small businesses and educational institutions. DARPAConnect breaks down barriers of entry for performers new to DARPA and the national security space.



Gain access to valuable tools and resources for your DARPA journey | **Register now to get started!**

[Join DARPAConnect](#)

DARPA CONNECT

DISCOVER · COLLABORATE · CONTRIBUTE

Your community space for learning, networking, and opportunities to support your DARPA journey.

DARPAConnect Pop-Ups

Full day events covering the breadth of your DARPA journey



Virtual
June 2024



Nebraska
September 2024



Albany, NY
November 2024

Sessions Include:

- Engaging DARPA Program Managers
- Heilmeier Catechism: Understanding Effective DARPA Communication
- Understanding DARPA Announcements and Contract Vehicles
- Reviewing and Analyzing a DARPA Opportunity
- DARPA SBIR and STTR Program
- Understanding DARPA Security Resources
- Preparing Your DARPA Proposal
- Tying It All Together: Strategies for Success
- Opportunities for Networking



Current Lessons Include:

- DARPA101: Introduction to DARPA
- The Heilmeier Catechism
- DARPA Award Vehicles and Solicitations
- Understanding DARPA Broad Agency Announcements (BAAs)
- Making the Most of a DARPA Proposers Day
- Introduction to DARPA Security
- DARPA SBIR/STTR Small Business Programs
- Tips for DARPA Proposal Success
- Opportunities to Work with DARPA
- Working with DARPA: Global Participation and Engagements

Understanding DARPA Broad Agency Announcements (BAAs)
50% COMPLETE

Program-Specific BAAs
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Overview

DARPA's Program-Specific BAAs are designed to solicit ideas that are tied to a specific area of interest. These solicitations are issued throughout the year as program managers develop new program ideas. This section will introduce you to the path through which a program is created, a sample program-specific BAA, and the average timeline to award.

The Path from Idea to Program

It is important to understand the DARPA path from an idea to a program. PMs welcome the opportunity during early ideation to learn from potential performers about problems and solutions of interest, as outlined in the interactive graphic below. In fact, many DARPA programs are initially sparked by conversations with potential performers.

Idea

PM discusses idea with Office Director and Deputy Director

PM preps formal briefing

PM presents formal briefing to DARPA leadership

DARPA Director and Deputy decide to fund the program

BAA is published

Proposals arrive

Proposals are evaluated

Office Leadership approves proposals for funding

Contracting



Webinars

Online sessions that offer a unique opportunity to learn about the mechanics of working with DARPA directly from DARPA presenters.



Ask Me Anything

An open forum where participants send in their questions and DARPA presenters answer them in a group setting



One-on-One Coaching

30-minute private session where participants introduce their research interests and explore how they may fit at DARPA



Office Hours

10-minute sessions during which participants ask specific questions about working with DARPA in a private setting



DARPA CONNECT
CORNER
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HBCU and MSI Programming

ARI has partnered with the Tougaloo College Research and Development Foundation (TCRDF) to offer HBCU-focused DARPAConnect programming and support.



WAYS TO WORK WITH DARPA

DARPAConnect showcases a variety of paths that individuals can take to join the agency, including:



Program Manager



Innovation Fellow



Support Contractor



Performer



Young Faculty Award



Teaming Partner



What We've Done

2023 HBCU Events

HBCU Focus Group Listening Session
April 20 | Virtual

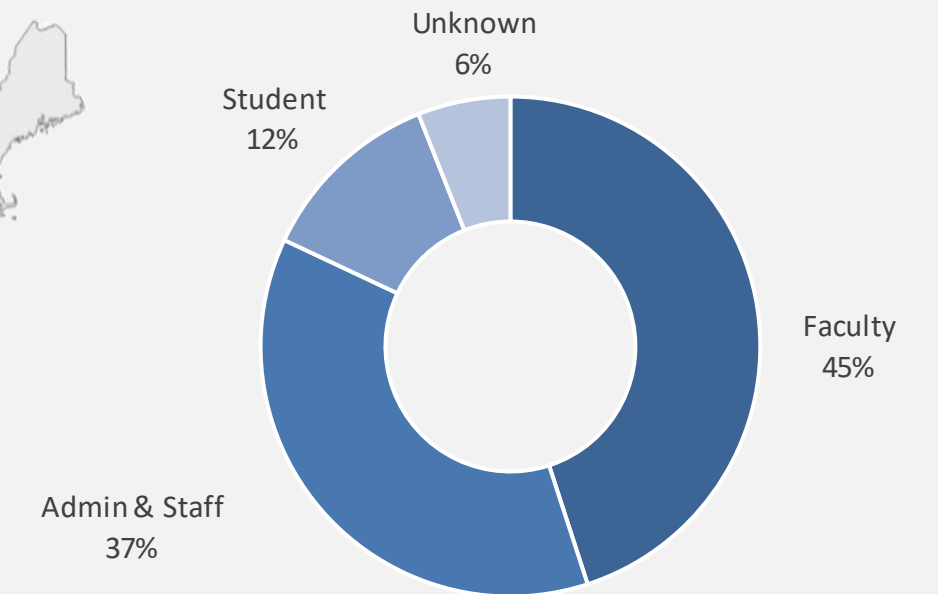
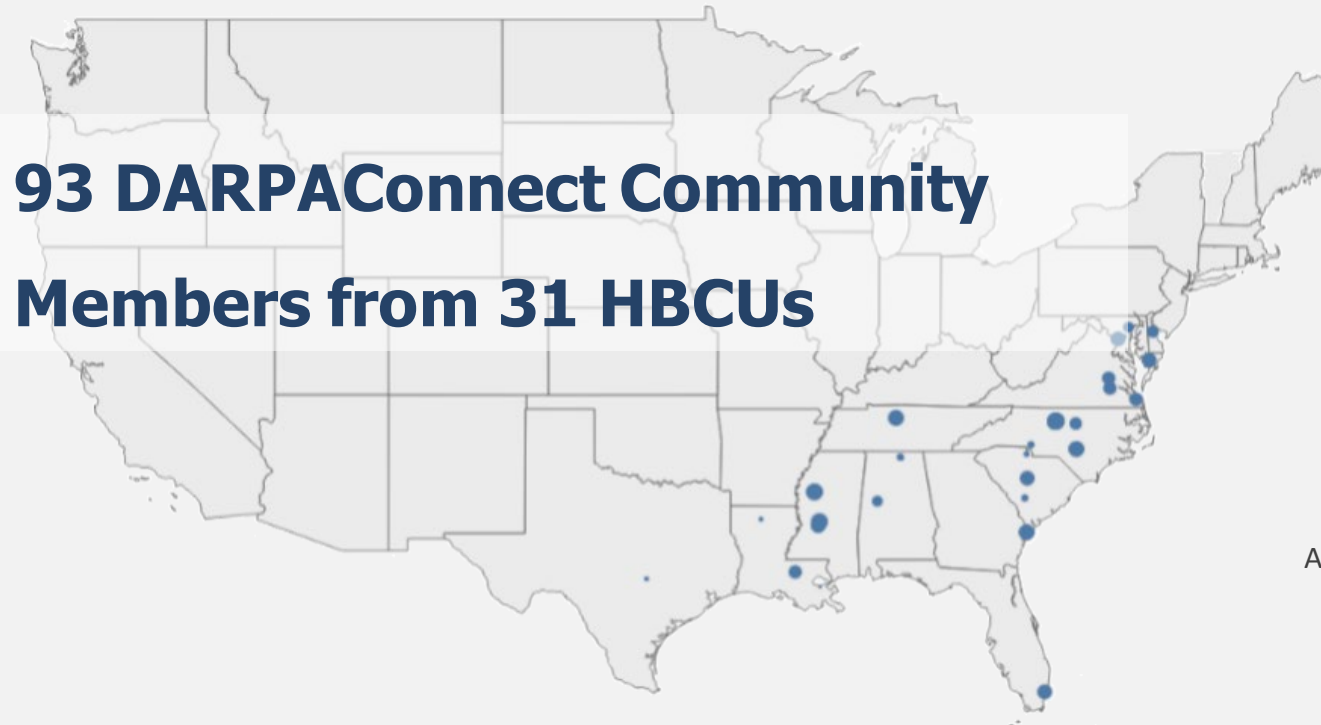
National Sponsored Programs Administrators Alliance of HBCUs (NSPAA)
June 6-9 | Virginia Beach, VA

DoD HBCU/MI Workshop
July 27-28 | Arlington, VA

DARPAConnect Regional Pop-Up Event
September 19 | Greensboro, NC

2023 Annual National HBCU Week Conference
September 24-28 | Arlington, VA

93 DARPAConnect Community Members from 31 HBCUs



HBCU Community Distribution

Our HBCU and MSI Event Partners To Date





Where We're Going

Coming Soon: HBCU Ambassador Program

Our newest initiative beginning Summer 2024 will identify faculty DARPAConnect ambassadors at 19 HBCUs, including R2 institutions and those who participate in the Air Force UARC.

Ambassadors will work at their respective institutions to identify and secure training for faculty members working on DARPA-relevant research to bring them into the DARPAConnect ecosystem.

2024 HBCU Events

HBCU Department of Commerce Meeting

February 8 | Washington, D.C.

South Carolina HBCU Symposium

February 12 | Orangeburg, SC

Black Engineer of the Year Awards

February 15-17 | Baltimore, MD

"Generally Speaking" Event

February 20 | Arlington, VA

DARPA in the Classroom Webinar, Tougaloo College

April 3 | Tougaloo, MS

UIDP HBCU Engage Roundtable

April 16-17 | Baltimore, MD

"Generally Speaking" Event

May 23 | Atlanta, GA

National Sponsored Programs Administrators Alliance of HBCUs (NSPAA)

June 4-7 | San Antonio, TX

DoD HBCU/MI Workshop

July 25-26 | Arlington, VA

2024 Annual National HBCU Week Conference

September 15-19 | Philadelphia, PA

Where do I fit in?

- Capabilities Statement
- Ideas
- Response to task orders
- Participation





QUESTIONS?

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Program Email Address
darpaconnect@darpa.mil



Join DARPAConnect at
<https://www.darpaconnect.us/>



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