

# A Focus on the K-16 Pipeline

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# Goal 4. Enrich the STEM Pipeline for the Nation

SAME leads efforts to inspire, encourage, and enable youth to pursue STEM careers; help develop technical capacity that our national needs to remaining globally competitive.

# DOD FY 2020 Industrial Capabilities Report

“...the United States significantly lags behind its adversaries (i.e. Russia and China) when it comes to producing engineers and STEM graduates.”

**SAME is a solution!!!**

# About Students

Student members represent the **next generation of innovative STEM thinkers** ready to take on society's challenges. Recognizing the need to cultivate this valuable asset, SAME offers FREE membership to all full-time students\* enrolled in high school, 2-year or 4-year colleges and universities (through the undergraduate level), trade schools, and military academies.

\*Under age 25.



# SAME Student Membership

(as of Oct. 2020)

- 2,070 collegiate level students
- 388 high school students
- 1,861 associated with a Post
  - 624 of these associated with a student chapter
- 597 have no Post or student chapter
- 500+ different school institutions (high school, colleges, universities, academies, etc.)

# Virtual Student Chapter

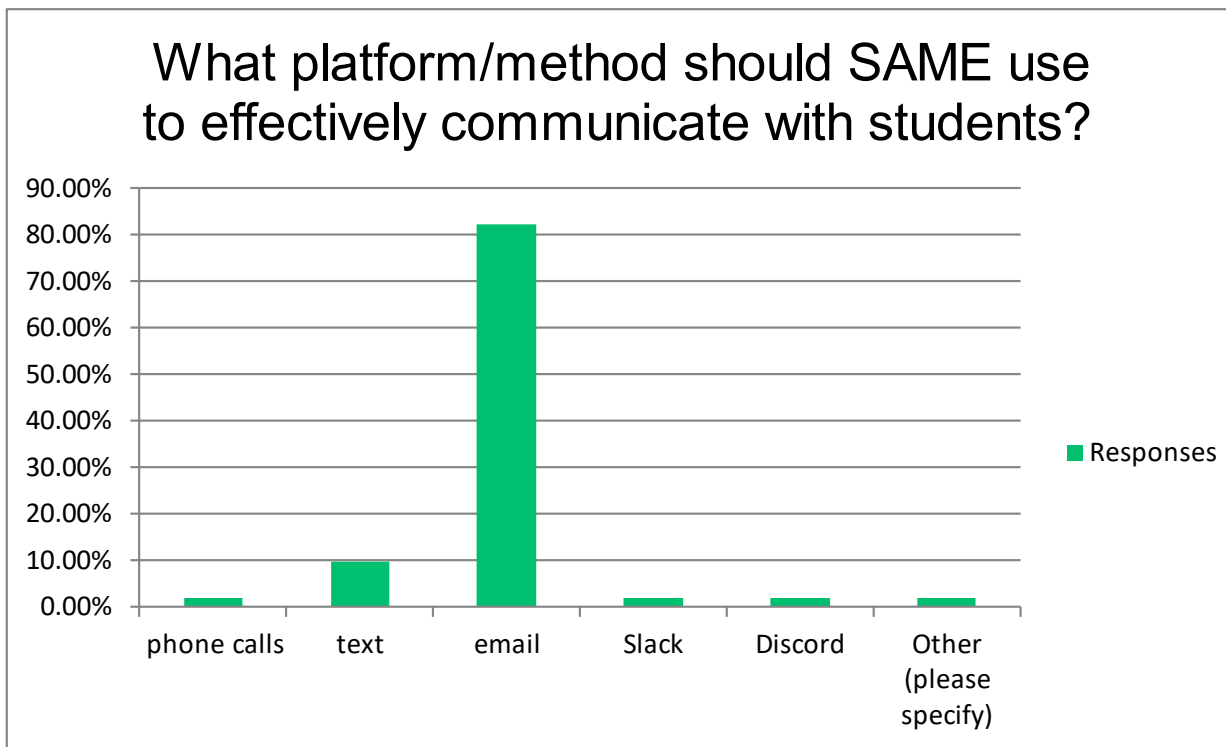
For students not attending one of the institutions hosting physical student chapters, or who want to explore more professional development options, SAME has formed the Virtual Student Chapter (VSC). The Virtual Student Chapter is a boundaryless chapter that provides that **provides virtual professional development opportunities for all students at the high school and college level** to foster engineering leadership for our nation. VSC webinars and events are open to all students.



# Demographics

- 51 Respondents
  - 64% male, 36% female
  - 25% HS, 71% undergraduate, 4% graduate
  - 25% SAME Scholarship recipient
- Various Universities/Colleges
- Various majors but majority engineering

# Communication



**\*\*Majority prefer webinars presented from 4-8PM\*\***

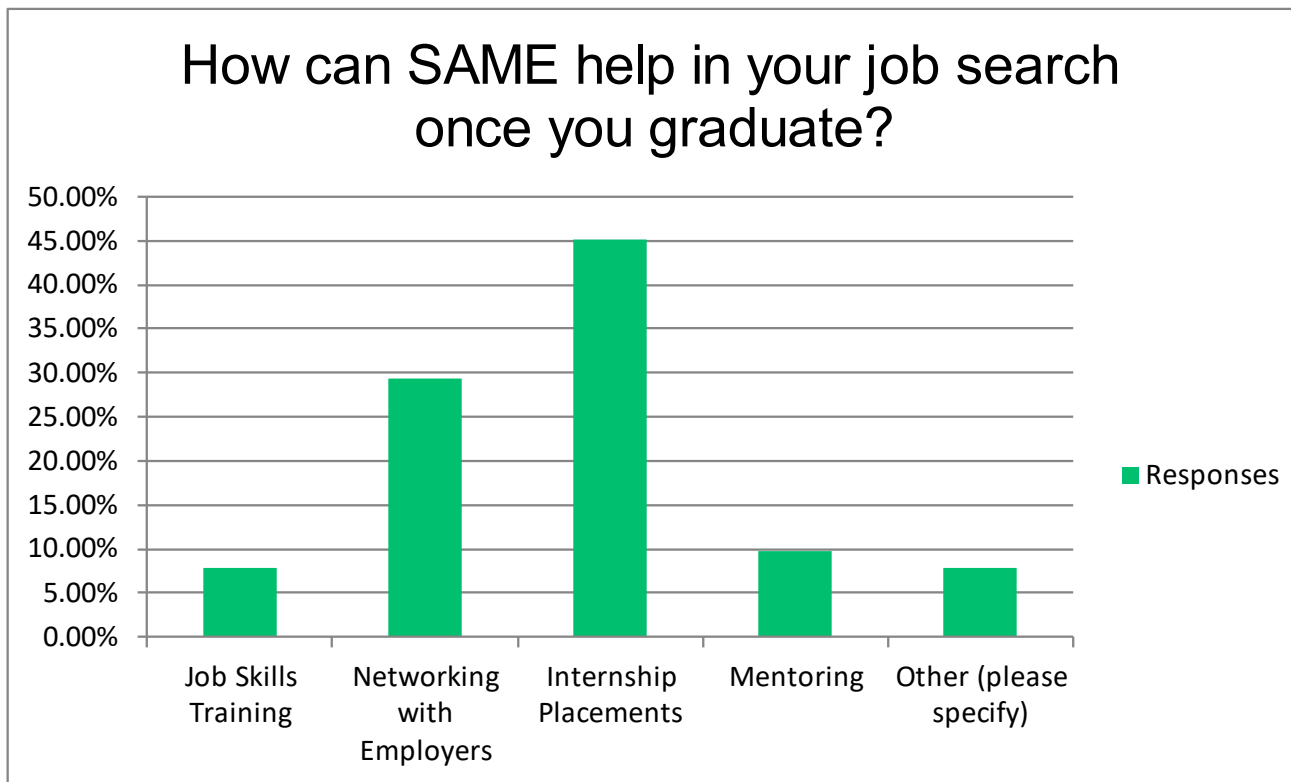


# Webinar Topics

- Information on Internships, Scholarships and Career Fairs
- Career paths in Engineering (STEM) and how they differ
  - Presentations from actual companies
- Skills needed to succeed (leadership, communication, etc.)
- Transition from college to work
- Help with job search, applications, resumes, etc.
- Networking!

# SAME Assistance

## After Graduation



# Misc Questions

- 57% are interested in being matched with a virtual mentor
  - Discuss career advice/direction, how to get an internship/job, networking
- Only 60% were aware that SAME posts offer scholarships
- Only 41% were aware that student registration to events is free
- 84% would be interested in networking with student peers

# Resume Writing/Interview Skills March 16, 2021 at 4 pm EST)

Facilitator: Metta Dollar – Sr. Talent Acquisition Manager, Kiewit

- Topics:
- Resume writing--Quick tips of Do's and Don'ts
- Effective Interviewing--Know what to expect from recruiters and hiring managers

**Would love to have a Post or student chapter sponsored webinar for all student members.**

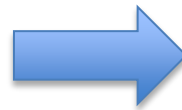


# Education and Training

Registration is waived for student members to our national conferences like [Capital Week](#), [Joint Engineer Training Conference \(JETC\)](#), [Facility Management \(FM\) Workshop](#), or [Small Business Conference](#). These premier events give you exposure to leaders in the field, help you understand where industry trends are headed, and let you access the latest technical information, all while networking, networking, networking.

# Education and Training-JETC

- Young Professionals serving as mentors.
- Student orientation to the presentation platform and expo hall by College Outreach COI.
- Tip sheet for students on engaging exhibitors.
- Young Professionals COI hosted networking event.



# Innovations Challenge

The **SAME Undergraduate Innovations Challenge: A Project Design Competition** will showcase the innovative thinking of SAME student members. SAME's College Outreach Community of Interest has developed a new student design competition that capitalizes on projects students are already working on in their academic engineering programs.

All eligible project will be promoted to SAME's private sector members to highlight innovative ideas. The top three teams will be awarded \$500 and invited to conduct a 15- to 20-minute for SAME wherein an overall winner will be decided.



# Mentoring

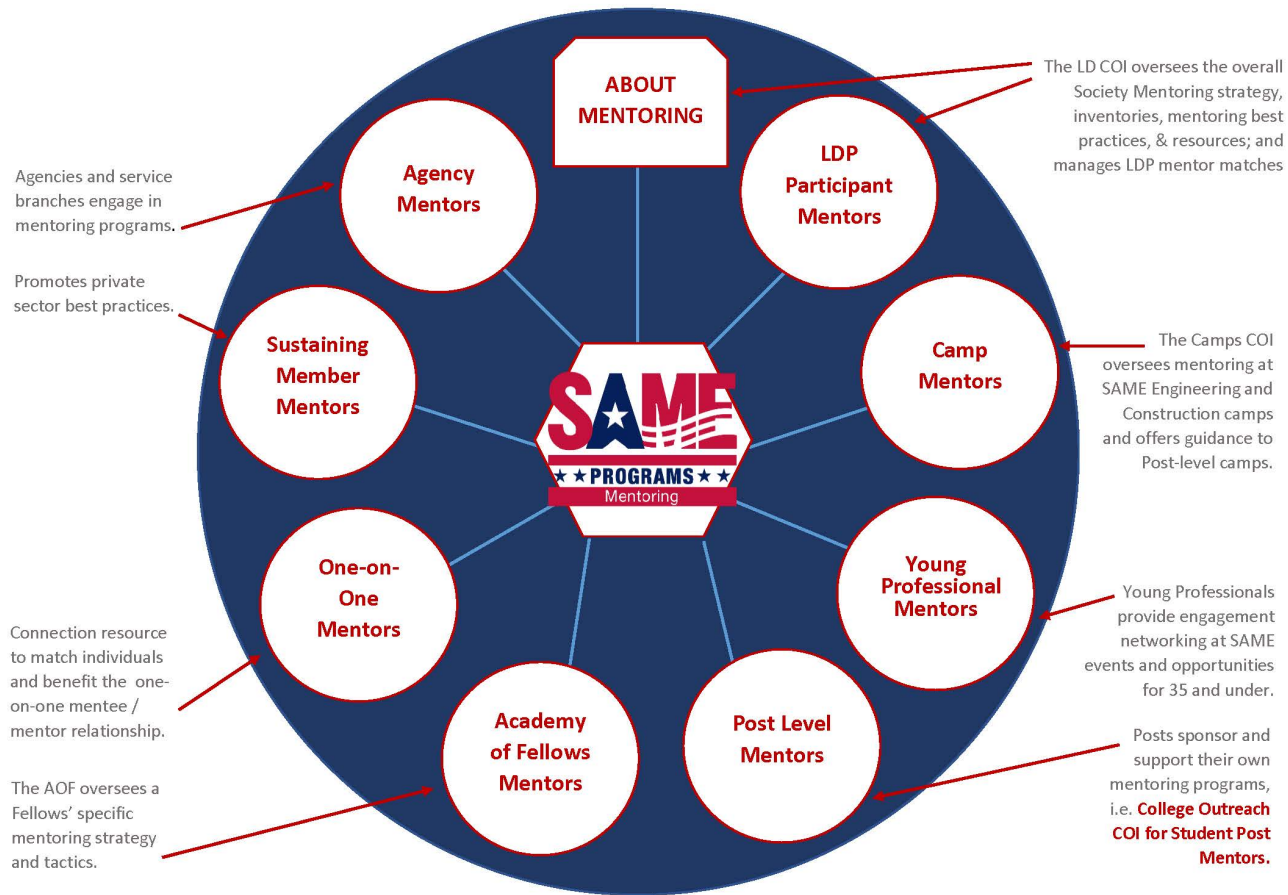
Mentoring is a key component to SAME engagement efforts to maintain leadership in the A/E/C industries and ensure the country has the STEM professionals it needs to secure the nation. Mentoring also offers an excellent opportunity for leader development by the mentor and the mentee.

From camp mentoring to mentoring of LDP participants to engaging with student members and young professionals at SAME national events, SAME is working to advance mentoring across the Society





## MENTORING AT SAME



# National Defense Authorization Act (NDAA)

## STEM & Hiring the Best Talent

- Directs the Secretary to partner with minority institutions of higher education and appropriate public and private sector organizations to diversify the participants in Department's Science, Mathematics, and Research for Transformation (SMART) Defense Education Program and strengthen the national security workforce.
- Directs the development of programs and incentives to ensure Department of Defense contractors support STEM education in elementary and secondary schools.
- Directs implementation of the pilot program on enhanced civics education under section 234 of the FY20 NDAA.
- Establishes an enhanced pay program for positions in the DOD laboratories to assist the military departments in recruiting and retaining highly qualified acquisition and technology experts.

## National Defense Authorization Act (NDAA), cont.

- Establishes a scholarship for service pilot under the Department's Science, Mathematics, and Research for Transformation (SMART) Defense Education Program for students at Minority Institutions to diversify and strengthen the national security workforce.
  - Adds \$3 million to fund the pilot scholarship for service program for Minority Institutions under SMART.
  - Adds \$17 million in funding for Historically Black Colleges and Universities and Minority Institutions.
  - Directs a study to better retain and attract highly qualified individuals for employment in DOD, who possess scientific or technical expertise in critical technologies and are involved in with basic and applied research funded by the Department.
  - Urges the Secretary of Defense to better partner with Hispanic-serving, land-grant institutions to create a talent development program that provides experiential learning through internships and co-ops with Department agencies, while improving access to science, technology, engineering, and math education and careers for underrepresented populations.
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# Related Pages

College Outreach COI: <https://www.same.org/College-Outreach>

Young Professionals COI: <https://www.same.org/young-professionals-community>

Innovation Challenge: <https://www.same.org/competitions>

Mentoring: <https://www.same.org/Mentoring>

NDAA: <https://www.congress.gov/bill/116th-congress/house-bill/6395>

DOD Industrial Capabilities Report:  
<https://www.defense.gov/Newsroom/Releases/Release/Article/2472854/dod-releases-industrial-capabilities-report/>

JETC: <https://www.samejetc.org/>



# Questions?

