

S-STEM HUB NEWSLETTER



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Deepening HBCUs Capacity for Research on Student Success

As we embark on the journey of another transformative year, it is with great enthusiasm that we welcome you to the 2023 edition of the QEM/AIR S-STEM Research Hub newsletter. Our shared commitment to fostering equitable pathways in STEM education continues to drive our collective efforts toward a future where every aspiring mind, regardless of background, has the opportunity to thrive.

In 2023, the Research Hub stands poised at the forefront of innovation, focusing on collaborative initiatives with Historically Black Colleges and Universities (HBCUs). Our primary mission remains steadfast: to delve into the heart of educational landscapes, unraveling the intricate threads that weave the tapestry of success for low-income students aspiring to graduate and emerge as accomplished STEM professionals.

This newsletter serves as a chronicle of our ongoing endeavors, capturing the essence of our research initiatives, partnerships, and community engagements throughout the year. Join us as we spotlight the diverse activities that unfold, each contributing to our overarching goal of illuminating optimal pathways to success for underrepresented individuals in the STEM realm.



HBCU STEM
SCHOLAR



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Dissemination of S-STEM Hub Research

SERVING SERVANT LEADERS:

Understanding the Institutional Strengths and Financial Needs of Historically Black Colleges and Universities That Serve Low-Income STEM Students



Call to Action

On April 14, 2023, we hosted a roundtable discussion, "Serving Servant Leaders: Understanding the Institutional Strengths and Financial Needs of HBCUs that Serve Low-income STEM Students," as part of the AERA conference's "HBCUs Models of STEM Success." Our study, utilizing data from IPEDS, delved into the financial metrics of HBCUs linked to Pell grant distribution. The discussion highlighted the critical role of adequate financial resources for HBCUs to sustain and enhance initiatives fostering the success of low-income Black students in STEM fields.

Roundtable Discussions

The discussion sparked engaging dialogue among presenters and the audience, fostering questions, comments, and valuable feedback. It yielded tangible implications and recommendations for HBCU researchers, leadership, policymakers, donors, and stakeholders to make informed decisions supporting HBCUs serving low-income Black STEM students.



BRIDGING KNOWLEDGE THROUGH RESEARCH INSIGHTS

We are thrilled to share the strides STEM-HUB has made in disseminating cutting-edge research over the past year. Our commitment to advancing knowledge in the STEM field is evident through impactful channels such as journal articles, conference presentations, and online platforms. Here are a few highlights from our recent dissemination efforts:

- Kassu, A., "Enhancing STEM students' success through faculty-mentored undergraduate research and scholarship," *J. Educ. Manage. Stud.*, 10(3): 40-47, (2020). <http://doi.org/10.51475/jems.2020.5>
- Kassu, A., Sharma, A., "Experience from S-STEM project: Engaging undergraduate STEM students with prototype development projects," *Proc. of the American Society for Engineering Education (ASEE)*, Paper ID #26936 (2019).
- Kassu, A., Farley III, C., Mills, J., Sharma, A., Ruffin, P., "Impact of undergraduate research participation in characterization of materials," *Proc. of SPIE*, 10741, 1074106 (2018). <https://doi.org/10.1117/12.2320310>
- Atena, A., "Supporting Undergraduate STEM Degree Completion Through a Learning Community/Cohort Model that Develops Belonging, Mindset, and Purpose", *Proc. of the Fall 2022 S-STEM Symposium in Washington, DC*

These avenues have allowed us to share valuable insights and contribute to the ever-evolving landscape of STEM education. We look forward to further engagements, discussions, and collaborations as we continue to champion excellence in STEM research.

Capacity Building at HBCUs Webinar Series

Embark on a journey into collaboration and knowledge exchange with The Hub's latest initiative, the Capacity Building at HBCUs Webinar Series. Designed to bridge institutional gaps, this platform seamlessly amalgamates resources, expertise, and best practices from diverse HBCUs. Through engaging webinars and interactive forums, campus liaisons not only connect with peers but also lay the foundation for future collaborations. Attendees are encouraged to extend their networks via social media, fostering knowledge sharing within the Hub and the larger HBCU community. While liaisons express keen interest in collaborative opportunities, considerations are underway to optimize their engagement, potentially focusing on book chapter development in the Fall and video production in the Spring, allowing for substantial participation in these crucial efforts.

MARCH 7 WEBINAR

Networking and Deepening Collaborations Among HBCU Researchers

On March 7, 2023, we hosted a focused webinar aimed at strengthening collaborations among HBCU S-STEM researchers. The Hub emphasized the establishment of the HBCU S-STEM Alliance and the potential of strategic partnerships. During the session, four liaisons actively engaged by sharing their partnership needs, strengths, and expectations. Participants identified opportunities for collaboration, including generating new research inquiries, forming innovative partnerships, co-authoring publications, presenting findings at conferences, and collaborating on grant proposals. They also highlighted their strengths in areas such as disseminating findings, grant writing, research publications, and mentoring STEM students.



SEPTEMBER 28 WEBINAR

Data Collection and Collaboration Opportunities

In our September 28, 2023 engagement initiative, the Hub's second webinar explored diverse channels for dissemination and highlighted upcoming data collection efforts. Seven liaisons gained valuable insights into contributing to book chapters and utilizing digital platforms, including short video series, to amplify their S-STEM project impacts. As we consider potential publishers, the Hub is eyeing the Contemporary Perspectives on Access, Equity, and Achievement book series for our upcoming book, "Innovative Strategies to Support and Graduate Low-Income Black Students," featuring liaisons' chapters documenting optimal pathways for success in STEM careers at HBCUs.



LIAISON AND ADVISORY COMMITTEE UPDATE

The Hub team maintains an ongoing dialogue with liaisons to monitor their IRB status and requirements. In alignment with institutional protocols, we support liaisons in completing and renewing IRB forms for necessary institutional approvals.

Our annual external advisory committee meeting on June 13, 2023, saw the participation of three out of five EAC members. During the meeting, the Hub actively sought feedback from the EAC on key aspects, including strategies to enhance institutional participation and liaison engagement, considerations for data analysis in the distinctive context of HBCUs, and diversified approaches for disseminating information to amplify the visibility of S-STEM initiatives.



Upcoming Activities and Events

1. Data Collection

In January 2024 AIR will launch the Hub's HBCU STEM Scholar Focus Group data collection period by hosting a webinar-style interest meeting for potential student participants. Scholar focus groups will begin in February and continue until April 2024. AIR needs site liaison support to organize groups on each campus and assist with outreach and recruitment. We will follow up via email soon with more information!

2. Capacity Building Event

Unlock your potential and elevate your skills at our upcoming capacity-building event in March or April! Join industry leaders, experts, and like-minded professionals for a transformative experience designed to enhance your knowledge, foster collaboration, and propel your career to new heights. Don't miss this opportunity to invest in yourself and chart a course for success—save the date for an event that promises growth and empowerment!

3. Upcoming Book Release

Dive into the heart of STEM education at Historically Black Colleges and Universities (HBCUs) with our upcoming book, a collaborative effort by the Quality Education for Minorities (QEM) Network and the American Institutes for Research (AIR). Uncover the innovative strategies and success stories that empower low-income African American students to excel in science, technology, engineering, and mathematics. Authored by HBCU scholars, this groundbreaking research project explores optimal pathways for student success, offering insights and solutions crucial for anyone passionate about improving educational outcomes for low-income students of color in STEM.

Thank you for reading our newsletter and staying up to date on the latest news from the S-STEM Hub. We look forward to connecting with you in the future.