COMMUNITY COLLEGE S-STEM NETWORK

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S-STEM STRATEGY BRIEF

CCSN Mission:

The Community College S-STEM Network (CCSN) connects and supports researchers and practitioners in conducting and translating research on how students navigate STEM pathways into evidence-based practices, programs, and policies.

Leadership in Action: Community College Presidents on NSF S-STEM Grants and Student Outcomes

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Introduction

On December 2, 2025, the Community College S-STEM Network (CCSN) hosted a conversation titled "Community College Leadership Supporting Success for STEM Education and NSF S-STEM Scholarships" with Dr. Avis Proctor, president of Harper College; Dr. Chemene Crawford, president of Everett Community College; and Dr. Kevin Walthers, president of Allan Hancock College. The conversation was moderated by Dr. Annette Parker, chair of the CCSN leadership advisory board and former president of South Central College of Minnesota.

Community college presidents play a critical role in STEM-student success in numerous ways, including decision-making regarding how resources are allocated, which collaborations are cultivated, and how disparate functions centered on academic affairs, student services, workforce partnerships, and community relationships are woven into a coherent whole. The panel's insights into how presidents envision community colleges as interconnected systems that enable students to progress toward degree completion, transfer, and employment are invaluable. While the conversation centered on STEM, the presidents' views on the scope and exercise of systems leadership are applicable to all of community college education.

This brief highlights practical guidance from four presidents who have made STEM education a leadership priority at their institutions. Their remarks, summarized below, point to specific levers presidents can use to strengthen STEM programs and support the students who enroll in them.

Webinar Highlights

- **Support Positive STEM Student Outcomes**

The community college presidents shared the many ways they support STEM-student outcomes by focusing on affordability, student supports such as tutoring services, coaching, guided pathways, and field trips to employers and four-year institutions. Dr. Walthers described these student-facing strategies as "changing the odds"—not just helping students overcome them.

- **Prioritize STEM Pathways**

When it comes to STEM pathways, the presidents observed that academic planning (including program mapping) keeps students on course to complete their STEM programs as well as to transfer to a four-year university and achieve their career aspirations.

- **Emphasize Student Success**

The presidents described how NSF S-STEM grants fund student-centered strategies such as peer tutoring and industry internships while also building cross-college partnerships. Dr. Crawford emphasized that connecting students with companies and universities in the region provides as much value to the community as it does to the students.

- **Support STEM Faculty and Staff**

Faculty support generated by NSF S-STEM grants may complement what community colleges are already doing to support the professional development of faculty and staff. These efforts range from providing stipends to free up faculty time for student engagement to grant management to enable staff to focus on student support.

- **Meet Student Needs**

Ultimately, the presidents urged their counterparts at other community colleges to develop a deep understanding of the varied needs that students bring to their college experiences. To this point, Dr. Proctor recommended that community colleges deploy strategies designed to help students access and succeed in college.

Summary of Webinar Q & A

Dr. Parker:

> **Let's begin with a brief conversation about STEM education at your community college. Please tell us a little bit about your college's STEM programs.**

Dr. Proctor:

Harper College offers STEM programs in biology, chemistry, earth science, physics and astronomy, computer science, engineering, and of course, my favorite, mathematics, which is in everything we teach in STEM. My love for math led me to a career-long commitment to changing our country's narrative that it's okay not to know how to do mathematics. This is a lifelong commitment that I work to enhance each and every day.

Dr. Crawford:

We made a conscious decision to merge our STEM division with our health professions division—that includes medical assisting, nursing, phlebotomy—along with math and science; engineering; life sciences like biology, botany, environmental studies, and nutrition; and the physical sciences. We were just approved to offer a baccalaureate degree in computer science, and we're particularly proud of our Ocean Research College Academy [ORCA] that enables students to finish high school and attain an associate's degree while studying and researching oceanography. More than 90 percent of these students transfer to the University of Washington to secure a bachelor's degree.

Dr. Walthers:

While Everett is going to the ocean, Hancock is going to the moon. The college's location in California's central coast is also home to SpaceX, United Launch Alliance, Firefly Aerospace, and the US Department of Defense. The aerospace industry is big for us, plus our college is a Hispanic-Serving Institution [HSI], which enables us to leverage federal

grants and state funding to support students pursuing associate's degrees in engineering. We are also the primary provider of nursing faculty in our community, connecting our STEM programs to nursing education to help us train nurses for the region. Our graduates transfer to Cal Poly San Luis Obispo, UC Davis, and UC Santa Barbara—all primary transfer partners for our STEM students.

Dr. Parker:

> **What are some of the most important ways your college is working to improve student outcomes in STEM?**

Dr. Walthers:

I came to the college 13 years ago with a strong background with Complete College America and similar programs, which led us to change the conversation on campus from being about access to being about completion. It doesn't do our students any good to spend two years, three years, or longer and not get a credential. We adopted a college motto of "changing the odds" that recognizes that we talk a lot in community colleges about students overcoming the odds, but that's not enough. We wanted to focus our college on changing the odds for students, so we focused on affordability and tutoring. We invest in our Mathematics, Engineering, Science Achievement [MESA] STEM Center that offers full-time advising and counseling with professional staff and student workers to make sure every student who's in the STEM program, whether a STEM major or not, gets support to succeed.

Dr. Proctor:

We launched Harper's strategic plan this year with three main goals. The first goal is about being a supportive and inclusive community, and the second is about what we do and how we serve the people part of the first goal by providing an innovative and responsive education. The third goal is how we address organizational excellence through the programs we offer, making sure we're responsive to community needs. Many of our STEM students experience food and housing insecurity and transportation challenges, so holistic supports are key to their success.

Dr. Crawford:

We align STEM with guided pathways, where STEM education has its own pathway coach, particularly in the life sciences. This coach focuses on course scheduling to meet the needs of returning students and their families, which is a primary student population for us. From 18 to 24 years old, these students started families early and returned to college later in life. We've backward-mapped our curriculum, and we offer inclusive pedagogy that increases retention and transfer to universities. Many college partners are engaged with our STEM students, offering tours of their campuses and reaching out to arrange visits. We also have a STEM-focused college success course for all students, with certain sections for STEM students.

Dr. Parker:

> **The CCSN likes to think about STEM students in terms of STEM pathways, so can you go a little further into how your college has integrated the idea of STEM pathways into your curriculum?**

Dr. Proctor:

One key component is academic planning and program maps in the first semester to ensure students take the right courses for their chosen STEM programs and engage with their career aspirations. Our provost is working with the faculty now to define the right electives to make sure our transfer agreements aren't sitting on the shelf, representative of this time. We're making sure they're checked and revamped as the curriculum evolves. From a STEM pathway standpoint, we're also thinking beyond Harper to think about that bachelor's degree when we look at a transfer rate for our students of about 54 percent, with 84 percent of our students earning a bachelor's degree in six years. We see much higher rates for our engineering pathway, where about 82 percent transfer, and over 88 percent earn a bachelor's degree in six years. Strong program maps that ensure clarity beyond our institution are key for success in STEM pathways.

Dr. Crawford:

We're heavily invested in guided pathways in STEM as well as in health professions, with our nursing program being one of the best in the state. One thing we find with many programs, including STEM, is that students aspire to get into these programs but later

realize, for whatever reason, it's not for them. So, we do regular check-ins with our students, so if they recognize that maybe engineering isn't for them, they don't stop college altogether. We help students understand STEM isn't a single track. We make sure they understand what they can do with math and science.

Dr. Walthers:

We added agriculture to our STEM programs, along with all our career-technical education [CTE] programs, including automotive tech, welding, machining, and manufacturing. We want students to enroll in CTE programs where they can build transferable skills to go into the space industry, like SpaceX. We figured out the company needs students with skills developed in our autobody program that transfer directly into a rocket launch. So, we make sure STEM is defined broadly so that our students have a pathway into good-paying careers.

Dr. Parker:

> **We'd like to dig deeper into your S-STEM programs to help other community college presidents and leaders understand how to administer those NSF grants. How are your S-STEM programs working? How do they align with your college's goals to increase retention, graduation, and economic resilience?**

Dr. Crawford:

In 2021, we received an S-STEM grant for $1.5 million, and each year we provide approximately $7,500 in support to each scholar, with approximately 20 to 25 scholars at any given time. Each scholar is awarded the S-STEM scholarship, personal advising, and tutoring by one of the grant's principal investigators. We also offer team- and community-building with partners like Boeing, as well as local universities. We also send students to national conferences, and we provide stipends to faculty and staff for professional development.

Dr. Walthers:

Our S-STEM grant allows us to build a partnership with colleges up and down the California coast, from nearly San Jose to the north to Ventura County to the south. Our community is heavily Latino and a farming community, with many families being farm workers whose

children don't have the opportunity for early university research. Bottom line: We put most of the S-STEM funds directly into students. We offer some faculty stipends, but we focus mostly on the front line where the money hits students, so when they transfer, they are on the same level as their peers at the university.

Dr. Proctor:

We're recruiting underrepresented student groups into STEM, in particular computer science, and providing mentoring and co-curricular activities on campus. Our Hawks Care Resource Center has an array of supports for students, ranging from childcare to mental health support referral, and our Academic Success Center offers tutorial support and technology loans. We make sure to remove barriers and ensure our students know about all our supports, including our pantry to help students who are experiencing food insecurity to thrive.

Dr. Parker:

> **How do you support faculty and staff who are working to ensure your STEM students are successful?**

Dr. Proctor:

Faculty are experts in the classroom, so we empower them with instructional and academic student supports. Our S-STEM grant also strives to strengthen recruitment strategies into STEM fields, so there's administrative support to lessen the burden of grant administration on faculty. We're also bringing in our marketing team, grants team, and Foundation team to make sure faculty have supports so they can focus on their expertise. Our S-STEM faculty team also focuses on accountability to demonstrate our commitment to annual outcomes, ensuring deliverables are met. If there are challenges, we figure out how to provide support and remove barriers to get folks across the finish line.

Dr. Crawford:

Our grant provides stipends for faculty, as well as staff, to support students. At EvCC, all faculty advise students, which boosts student engagement. We find that when faculty make engagement with students a priority, there's greater student success. That's built into how we do what we do in our STEM programs as well.

Dr. Walthers:

Faculty who are getting the stipends from the S-STEM grant excel in what they do. I think they would do this work for free, but we don't take advantage of them. Two things we've done are provide stipends as well as support staff who can help manage the grants, which can be even more important than stipends. Employing someone to complete grant reports, for example, frees up faculty and staff to focus on students.

Dr. Parker:

> **Finally, what advice do you have for other community college presidents who might want to consider an S-STEM grant?**

Dr. Proctor:

I would advise fellow presidents to be sure they understand the needs of their community, ensuring multiple voices are at the table in shaping the grant. Then pay attention to the cadence of accountability that will support your success in receiving additional NSF grants.

Dr. Crawford:

I agree with Dr. Proctor about aligning the grant with the community, but also working with the community to brainstorm what else we can do. Much of my work with EvCC has been with the college community, but also with the greater community that seeks to fully embrace the college. Many people share their ideas for working with the college, and many of these grants come out of those conversations, especially around STEM.

Dr. Walthers:

Don't be afraid of your neighbor colleges. Many of our programs are focused on cross-college collaboration. We've got one college 50 miles from Hancock, and another 40 miles to the north, but we work on all projects together. None of us is big enough to manage this on our own. Our economy is regional, and we need to act as regional players, so don't be afraid to ask other colleges to partner with you. There's real synergy when people work across what is sometimes considered the uncrossable barriers of district lines.

Bios of Webinar Participants

Dr. Annette Parker, moderator of the CCSN webinar, is the first woman and person of color to serve as president of South Central College (SCC) in Minnesota, advancing her college to Achieving the Dream Leader College status in 2022. Since her retirement from SCC in June 2025, Dr. Parker has keynoted numerous national conferences, including the STEM Scholars & PI Conference in Chicago in November 2024. She currently leads the Community College S-STEM Network (CCSN) leadership advisory group. Dr. Parker earned her doctorate from Western Kentucky University and bachelor's and master's degrees from Ferris State University.

Dr. Chemene Crawford is president of Everett Community College in Washington state. With over 30 years of experience in higher education, her past leadership positions include the presidency of North Seattle College and the role of associate vice chancellor for the Dallas County Community College District. She holds both a bachelor's in organizational behavior and a master's in human resources and organizational development from the University of San Francisco, as well as a doctorate in education organizational leadership from Nova Southeastern University.

Dr. Avis Proctor is president of William Rainey Harper College in Illinois, a position to which she brings more than 30 years of experience in multicultural educational environments. Her love for mathematics and mathematics education drives her deep commitment to STEM education. Dr. Proctor holds a bachelor's degree in mathematics education from Florida Agricultural and Mechanical University, a master of science in teaching mathematics from Florida Atlantic University, and a doctorate in higher education from Florida International University.

Dr. Kevin Walthers is president of Allan Hancock College, located in Northern Santa Barbara County, California. He is an advocate for student access to college, having championed the "Hancock Promise," which focuses on removing financial barriers by giving eligible local high school graduates two full years of tuition and fees at no cost. Dr. Walthers taught high school with a bachelor's degree from the University of Texas at Austin, and he holds a PhD in educational leadership and policy from the University of Utah.

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