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WHO'S TEACHING OUR CHILDREN?

In education, we often talk about the P20 pipeline, the continuum of development and support that helps learners progress from preschool through graduate school. In *higher* education, we're reliant on a strong pipeline, because the students in Maryland's elementary and secondary classrooms now are the same ones who will, in time, swell our universities. Without this pipeline feeding us students interested in and prepared for college, our primary mission—education—is in jeopardy.

Supporting students for success in school—and, ultimately, for college readiness—is complex work. Learners are individuals, not monoliths, and each brings strengths and challenges to the classroom. At the same time, the characteristics of the schools they attend can advance or impede their progress. And decades of studies have shown that, of these characteristics, there's one that doesn't just *matter*—it matters more than anything else: teacher quality.

Educating Maryland teachers and preparing them for the classroom is in our USM DNA; several of our universities started out as teacher colleges. But 150 years later, there's a crisis in our classrooms: a shortage of qualified teachers.

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Years before the pandemic, education leaders across the country were sounding the teacher-shortage alarm. And while the problem varies by district and discipline, it's only intensified since COVID forced virtual instruction and spiked teachers' stress. Compounding the shortage going forward is the fact that the number of students enrolling in traditional teacher education programs continues to drop.

Just as there's no single issue driving the teacher shortage, there's no single solution that will fix it. Across the USM, our universities are tackling the shortage in different ways, mindful of our ultimate goal: filling Maryland classrooms with prepared, capable, and caring teachers. Following are just a few examples.



Towson University: Diversifying the Teacher Workforce

Towson University is Maryland's largest producer of teachers. Keeping this title depends on TU's ability to recruit and retain students from underrepresented groups. So the university is using multiple pathways to eliminate the barriers to entry for underrepresented students and diversify our teacher corps.

Some of these pathways nurture early interest in a teaching career. For instance, the no-cost Teacher Scholars Summer Institute brings aspiring teachers from local high schools onto campus, where they earn high school *and* college credit.

The Teacher Academy of Maryland and Educators Rising connect prospective education majors with community colleges. After their high school senior year, students are hired in part-time instructional support roles so they can work—and get tuition support—as they complete their first two years at community college. Then they transfer into TU for their final two years of instruction. Students complete the program with *no* tuition costs and with four years of employment that prepares them for teaching.

The Master of Arts in Teaching (MAT) is another entry point into the classroom, reaching students who already have a bachelor's degree. Nearly 100 Maryland educators have completed the program, earning their teaching credentials at no cost. The MAT eliminates key barriers to access by partnering with local school systems, holding classes at centralized locations and at more convenient times, and providing on-the-job internships. A similar program being piloted now partners with community colleges to target students who have some college coursework but no bachelor's degree.

In a separate pilot program, TU is placing teacher candidates in residencies hosted by local school districts. Resident-teachers teach—and are *paid* for teaching—while getting extra support and mentorship. The program provides candidates valuable classroom experience while filling teacher vacancies.

In addition to these pathway programs (and to fully online programs that open access to underserved students), TU is diversifying the teacher pipeline through need-based scholarships, support groups, professional development, and networking opportunities. All of it together is working: The number of students of color enrolling at TU's College of Education has climbed 25 percent since 2017.



Bowie State University: Growing the Number of Black Men in Teaching

Just 6 percent of U.S. public school teachers are Black; less than 2 percent are Black men. In Maryland, where Black males make up 17 percent of our public school students, Black men are only 4 percent of the teacher workforce. These disparities are grave, given research showing that low-income Black students who have at least one Black teacher in elementary school are more likely to graduate from high school and enroll in college. The greatest benefit is for very low-income Black boys in grades 3–5, whose dropout rate fell 39 percent.

This is where Bowie State University sees a challenge, but also an opportunity. In 2019, Dr. Julius Davis won the USM Elkins Professorship, and used the attached grant to establish the BSU Center for Research and Mentoring of Black Male Students and Teachers, which creates research-based programming to recruit Black men into teaching and retain them in the classroom. With sustained investment from BSU and external agencies, and a galvanized community, the university is building a robust pipeline of Black male educators.

One of the center's key initiatives is the Black Male Teachers College, which acquaints young Black men in grades 8–12 with teaching. Last year, the center won \$3.9 million from the National Science Foundation to expand the college, and to develop an early/middle college pathway focused on STEM education.

The center's Scholar Fellows program supports Black men at the undergraduate, master's, and doctoral level who aspire to teaching and education leadership. Part of the NSF grant will be used to replicate this program at the community college level.

The U.S. Department of Education awarded the center \$1.5 million this year, which BSU will use to recruit and train 50 Black male teachers and to update its curriculum to reflect contemporary research in race, ethnicity, culture, language, disability, and technology.

These projects are truly a community effort. In 2019, the center partnered with the BSU National Alumni Association to launch the Bowie Black Male Educators and Leaders Alliance, made up of partners and friends inside and outside the university who connect young Black men to experienced Black male teachers and leaders, provide mentoring and professional development, create networking opportunities, and fundraise for the center's work—for instance, endowing the Minority Male Educators Scholarship.



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Frostburg State University: Building a Teacher Career Continuum

Rural settings pose unique obstacles to teacher preparation. Access to educators who are prepared and inclined to serve as mentors is limited. There's a shortage of extended learning opportunities. And diversity is often lacking. These are the challenges Frostburg State University confronted head-on with the Maryland Accelerates Teacher Residency Program.

Maryland Accelerates is an intensive, one-year master's degree program, integrated with a teacher residency component. By matching participants with mentor-teachers at local schools, the program allows future teachers to develop relationships in the community and encourages them to stay and teach in the area. Of course, it also supports the schools' staffing needs.

Funded with \$4.1 million from the U.S. Department of Education, Maryland Accelerates features an "earn while you learn" opportunity, providing teacher-residents a \$35,000 stipend, so they can dedicate sufficient time to their coursework and their residency assignment.

The project's backbone is what FSU call the "MegaCommunity"—the schools and universities, government and business leaders, and faculty who oversee the project, providing vision, planning, and program alignment. Having everyone around the table creates a region-wide education infrastructure that supports the development of effective, culturally competent teachers.

Since its launch in 2019, 35 students have enrolled in three Maryland Accelerates cohorts, with placements in Garrett, Washington, and Frederick county public schools. New federal funds will enroll

additional student cohorts and allow FSU to engage with more local school systems for residency placements.

While Maryland Accelerates is about long-term education leadership and capacity-building within the region, it's potential impact is much broader. Twenty percent of America's public school children are educated in rural schools. Through this project, faculty can advance best practices using the most current evidence-based research delivered to high-need, rural communities. And with clear support for teacher residency models found in the *Blueprint for Maryland's Future*, it's anticipated that more USM universities will establish comparable partnerships with their own local school districts.



Coppin State University: Supporting High-Need Schools

Coppin State University is among the nation's oldest public HBCUs, its roots reaching back to 1900, when the Baltimore City Board of Education initiated a one-year course for the training of African-American elementary school teachers. More than a century later, CSU honors this commitment to educate the next generation of teachers.

In 2016, CSU was one of the first HBCUs to win a large-scale Teacher Quality Partnership (TQP) grant for its Pathways to Professions (P2P) initiative. CSU's P2P delivers high-impact teacher preparation and education programs, while addressing opportunity and achievement gaps in high-need urban and rural communities.

With \$3.6 million from the U.S. Department of Education, Coppin partnered with several USM universities and with school districts across the state to implement signature innovations like microcredentials that indicate subject mastery, micro-residencies that teach culturally responsive instructional practices (incorporating students' lives, cultures, and experiences in all aspects of the learning environment), and inclusive services that support teachers from diverse backgrounds. A second TQP grant—\$3.7 million in 2022—builds on this success.

An initiative working in tandem with P2P is CSU's Center for Inclusive Excellence, targeting teachers at different stages of career development with three goals: 1) provide multiple pathways into teaching to attract diverse candidates; 2) improve the effectiveness of teacher preparation programs; and 3) accelerate career advancement for underrepresented teachers.

This trio of efforts is essential, given that 10 percent of Maryland teachers didn't return to the classroom last year, and given that Black and Hispanic teachers were the most likely to leave.

To stem this exodus, the center is inaugurating stackable credentials that provide career ladders for teachers by awarding credit for a range of education and skill-building experiences. For instance, a teacher could earn one or more post-baccalaureate certificates that catalyze career advancement in the short term and build toward an advanced degree in the long term. Implementing stackable credentials are several of Coppin State's P2P partners: the University of Maryland Eastern Shore, Salisbury University, and the public school systems in Baltimore City, and in Dorchester, Somerset, and Wicomico counties.



MCCE: Strengthening K-12 Computer Science Education

By the time the Maryland Center for Computing Education (MCCE) was established, Maryland was already a national leader in computer science education at the high school level—with the highest per capita AP Computer Science test taking and passing rates in the country. Still, a number of Maryland schools didn't even offer computer science classes, and, across the board, comparatively few female, Hispanic, and Black students enrolled. It was clear we needed a significant and sustained state-level commitment.

By launching MCCE, the USM made it part of our mission to give every Maryland high school student access to the foundational skills of computational thinking and computer science. And *that* required training computer science teachers. Since 2018, MCCE has provided direct professional development to 1,200+ educators from 725 schools across Maryland. The results are dramatic.

The share of Maryland high schools offering computer science has grown steadily—to 98 percent last year, the highest in the nation. And while the number of high schoolers taking computer science courses has risen in kind, that growth is especially strong among underrepresented students. The number of female students climbed nearly 800 percent; Latinx students, more than 700 percent; and Black students, almost 600 percent. And that success accumulates. We now have more students—especially underrepresented students—pursuing computer science degrees in college.

MCCE has big plans for its second act. The center is awarding grants to all teacher education programs across the state—at public *and* private colleges—to infuse computer science and computational thinking into their curricula.

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Plus, MCCE is eyeing expansion into Maryland's elementary schools. Studies show that aspirations about education and work are formed early in life, with children as young as 5 holding stereotypical views about the jobs people do, based on their gender, ethnicity, and background. And career aspirations are surprisingly persistent over time, changing little up to age 18. So exposure to computer science in the early grades is imperative if we're going to build on Maryland's significant progress. The elementary school program relies on a network of computer science ambassadors who learn with one another, develop a statewide database of lesson plans, and provide training to their indistrict teacher colleagues.



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