

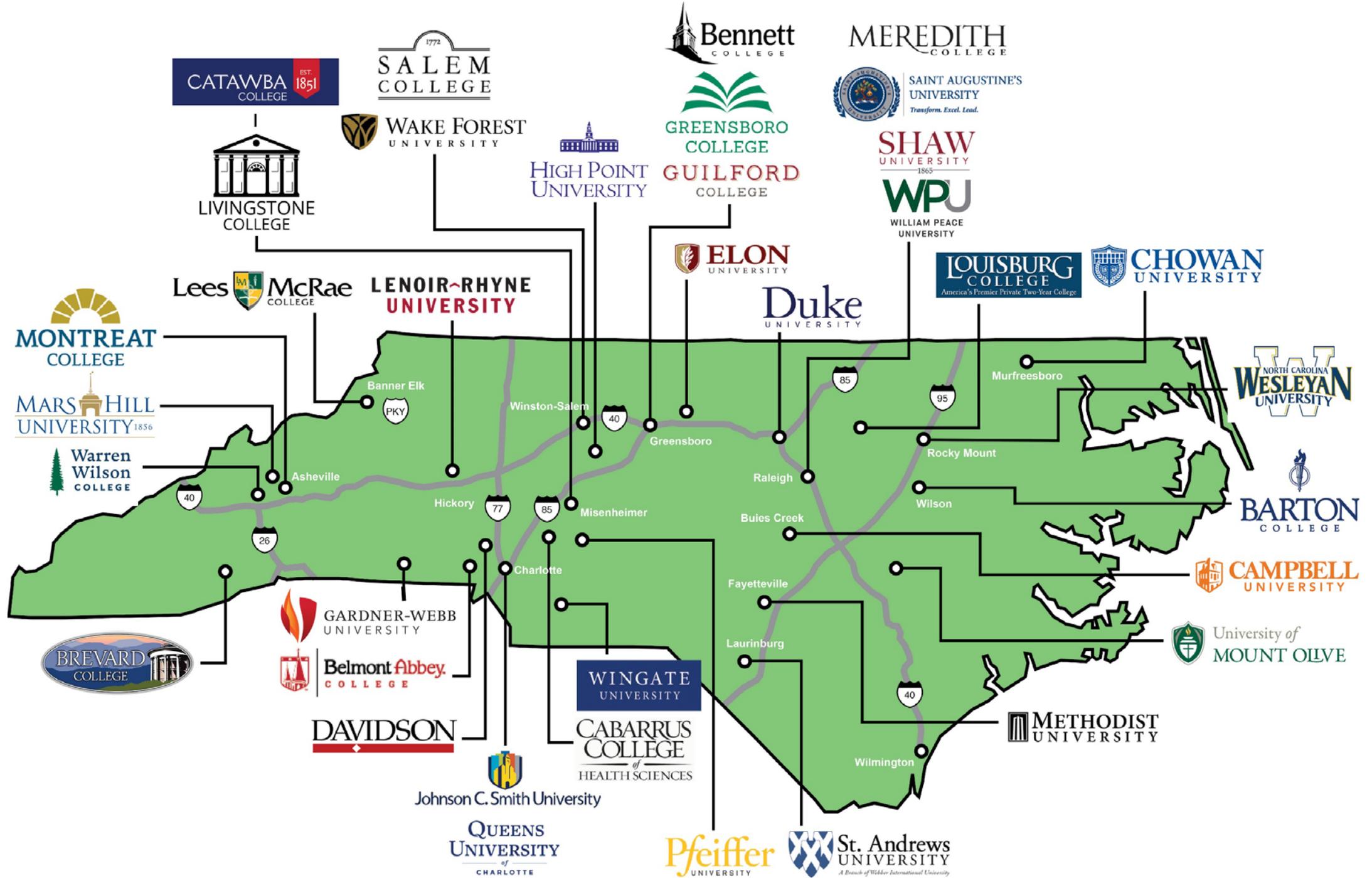


House Select
Committee on
Advancing
Women
in STEM

September 7, 2022

**Dr. A. Hope Williams
President, NCICU**

**NORTH CAROLINA
INDEPENDENT
COLLEGES & UNIVERSITIES**



NCICU By the Numbers

WE AWARD

1 in 4 Bachelor's
Degrees in NC

1 in 3 Graduate
Degrees in NC

36 Private, Nonprofit
Institutions including:

- 5 HBCUs
- 3 Colleges for Women
- 1 Two-Year College

STUDENTS

61,762 undergraduates
52% from NC

24,363 graduate students
57% from NC

15,764 students received the **NCNBS** in 2021-22

Almost **50%** of our NC students receive federal Pell Grants

Degrees Awarded – Education Value to the State

40%
Nursing
Masters
Degrees

62%
Pharmacy
Degrees

60%
Medical
Degrees

90%
PA
Degrees



Female and Minority Students in STEM Majors

Barriers to Women Entering STEM Careers

- Lack of awareness about many STEM fields other than medicine
- Insufficient preparation in high school for college-level STEM courses
- Lack of exposure to STEM professionals/role models
- Challenges in STEM career entry courses (calculus, chemistry)
- Unfamiliarity with research fellowships/scholarships and how to apply

NCICU Faculty/Student STEM Mentoring Grant

\$240,000 grant from N.C. GlaxoSmithKline Foundation
\$39,250 from Council of Independent Colleges

- 3-year pilot program to improve student retention and graduation rates among first generation college students, women, and students of color in STEM majors
- 12 NCICU campuses participating, including all 5 HBCUs. Seeking additional funding to allow more campuses to participate

Scholarships and Mentoring Opportunities

NC GlaxoSmithKline Foundation Women in Science Scholars

- Endowed Scholarships and Female Mentors
- Barton, Bennett, Campbell, Davidson, Elon, Gardner-Webb, Guilford, Johnson C. Smith, Lenoir-Rhyne, Meredith, NC Wesleyan, Queens, St. Andrews, Saint Augustine's, and Wingate

National Science Foundation Scholarships and Grants

- Bennett, Campbell, Elon, Guilford, Johnson C. Smith, Meredith, and Saint Augustine's

KERN Family Research for All (R4A) - engineering student research grant at Campbell

NCICU Engineering Programs



HIGH POINT
UNIVERSITY



Johnson C. Smith University



METHODIST
UNIVERSITY



SAINT AUGUSTINE'S
UNIVERSITY

Transform. Excel. Lead.



WAKE FOREST
UNIVERSITY

Examples of Internships

**NC Division of
Environmental
Quality**

**U.S. Department of
Homeland Security**

**LabCorp,
SAS, Wolfspeed**





Examples of Internships



American Red Cross

**Discovery Place
Science**

**Creswell Veterinary
Clinic**

Agape Dental Ministry



Collaborations with Businesses

**Genoverde
Biosciences**

**Howard Hughes
Medical Institute**



Mentoring Networks on Campuses

Campbell – Residents Interested in Science and Engineering (RISE), on-campus housing for first-year engineering and science majors. First Generation Mentoring Program – pairs first-generation faculty and staff with first-generation students

Unane Scholars at Catawba – Mentoring focused on Latina students

STEM Mentoring at Chowan

Duke – FEMMES+, ACM-W, Women in Science and Engineering (WISE), Center for Computational Thinking, Duke Technology Scholars Program (DTech)

Elon – Advancing Women in STEM; Course-based undergraduate research experiences (CURES)

Mentoring Networks on Campuses

Guilford Guides – Peer mentoring in chemistry; Panel discussions with faculty, alumni, and employers

STEM Mentoring Network at Livingstone

Capstone Courses at Mars Hill – Science majors work with faculty mentor on research project

Meredith Mentors Portal – Connect with alumnae for college and career advice

SmarThinking at NC Wesleyan – 24/7 online tutoring

Wake Forest – "First in the Forest" - supports applications by first-generation students for research fellowships and scholarships

Mentoring Networks in Community

Duke

Duke Pre-College – work with academically motivated middle and high school students to provide programs in STEM

BOOST – School of Medicine works with Durham Public School students to create a pipeline to attract and retain minority students in STEM

Summer Training in Academic Research (STAR) – 8-week summer program for high school students and middle and high school teachers

Elon

Elon Explorers – provides informal programming to middle schoolers in ABSS

Start Early in Medicine – Elon works with Black and Latinx men in Alamance County to increase men in that group to pursue careers in medicine

Student Professional Organizations

Campbell

Society of Women Engineers, Society of Hispanic Professional Engineers – build community and work with K12 students; work with engineering professionals

Duke

Society of Women Engineers, National Society of Black Engineers

Wake Forest

Women in Computer Science, Women in STEM, Society of Women Engineers

Recommendations

Tuition Assistance Grants

- Provide tuition assistance for graduates of N.C. School of Science and Math and School of the Arts to attend an NCICU campus
- Equal to highest in-state tuition at a UNC System institution
- \$750,000 recurring
- According to EdNC, in 2018, only 64 percent of NCSSM graduates attended college in North Carolina. We are losing as many as 36 percent of NCSSM graduates to out-of-state institutions

Recommendations

Increase funding to the Forgivable Education Loan Program administered by NCSEAA for STEM fields

Financial Aid for Summer Programming in STEM – including catch-up courses and accelerator courses



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