

NCAMP

NORTH CAROLINA ALLIANCE
FOR MINORITY PARTICIPATION

Building a stronger partnership for success

Partner Institutions

North Carolina A&T State University
Fayetteville State University
North Carolina Central University
North Carolina State University
University of North Carolina-Chapel Hill
University of North Carolina-Charlotte
University of North Carolina-Pembroke

NCAMP is funded by the National Science Foundation

Highlights of Program Effectiveness

The chief aim of the North Carolina Alliance for Minority Participation (NCAMP) is to significantly increase the numbers of underrepresented minority students earning B.S. degrees, and subsequently pursuing Ph.D. degrees in science, mathematics, engineering, and technology (SMET) disciplines. This major aim is being achieved through systemic enhancement of recruitment, retention, access and opportunities to education, internships, and research in these fields. Salient program components linked to "value added" across the Alliance are directly related to curriculum reform of "gatekeeper" courses in SMET disciplines, and the delivery of quality instruction. Specifically, students at each partner campus are actively engaged in collaborative learning approaches focusing on group study and support, more positive and sustained interaction with faculty, intensive interaction with other support persons at the university and in the wider community (alumni, parents, mentors from industry, and community organizations). Expanded hands-on experience through undergraduate research opportunities, internships with industry, intensive class projects, and participation in SMET professional meetings and conferences are also central program features.

The NCAMP supplemental Collegiate Curriculum Reform and Community Action (CCRCA) Program promoting the application of graphing calculators to teach calculus has positively impacted faculty and students at 35 minority-serving institutions under the auspices of North Carolina A&T State University. In addition, the NCAMP Teacher Preparation Initiative has boosted the number of minorities certified to teach K-12 mathematics, science, and technology.

Major Accomplishments for 1996-97

- Core curriculum developed to enhance performance of minority students in the General Engineering/Freshman Curriculum (Introduction to Engineering, Computer Programming, and Graphics courses) resulted in an increased passage rate from 65% before implementation to 80% subsequent to implementation.
- Science, mathematics, engineering, and technology (SMET) self-help supplemental instruction for minority freshmen yielded exceptional results in increased student success.
- Successful implementation of a bridge program impacted approximately 50 students.
- First Annual Undergraduate Research Conference showcased 34 student presentations.
- Among participating campuses in the CCRCA program, approximately 20% fewer students withdrew from targeted calculus courses and CCRCA-trained faculty experienced at least a 10% increase in the number of students passing their technology-supported classes.
- Implemented a wide range of programs and services to support minority students pursuing B.S. degrees in SMET disciplines:
 - Supplemental Instruction and Tutorial Services in "gatekeeper" biology, calculus, chemistry, and physics courses
 - General Engineering Freshman Core Program
 - Computer Application Assistance
 - Peer Study Groups
 - Summer Research Program
 - Faculty Mentoring Program
 - Industry Internship Program
 - Internships at National Research Laboratories
 - Summer Bridge Programs
 - NCAMP Scholarship Program

SMET Enrollment and Degrees

Enrollment	Baseline					
	Fall '94	1995	1996	1997*	1998*	1999*
African American	4,294	4,155	4,299	4,514	4,740	4,977
Hispanic American	222	198	235	247	259	272
Native American	<u>234</u>	<u>226</u>	<u>231</u>	<u>243</u>	<u>255</u>	<u>267</u>
Total Minority	4,750	4,579	4,765	5,003	5,253	5,516
Non-Minority	<u>14,693</u>	<u>13,478</u>	<u>13,358</u>	<u>13,358</u>	<u>13,358</u>	<u>13,358</u>
Total-All	19,443	18,057	18,123	18,361	18,611	18,874

Degrees	Baseline					
	Spring'95	1996	1997	1998*	1999*	2000*
African American	667	663	758	834	934	1,074
Hispanic American	42	36	44	48	54	62
Native American	<u>41</u>	<u>40</u>	<u>38</u>	<u>42</u>	<u>47</u>	<u>54</u>
Total Minority	750	739	840	924	1,035	1,190
Non-Minority	<u>3,420</u>	<u>3,281</u>	<u>3,178</u>	<u>3,178</u>	<u>3,178</u>	<u>3,178</u>
Total-All	4,170	4,020	4,018	4,102	4,213	4,368

* *Projected Data*

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