



The AMP

Connector

A newsletter for the Xavier/UNCF Alliance for Minority Participation (XUAMP)

"A mind is a terrible thing to waste"

Volume 2, No. 1/Fall 1998

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XUAMP going strong in Year 2

XUAMP is going strong as a new academic year began across the nation.

Evaluator **Carole Morning** reported recently that student participation and success remain strong at all campuses (details on page 3). **Courtney Byrd** was promoted by **The College Fund** to the position of program manager in time for fall 1998 semester activities and planning (details at right).

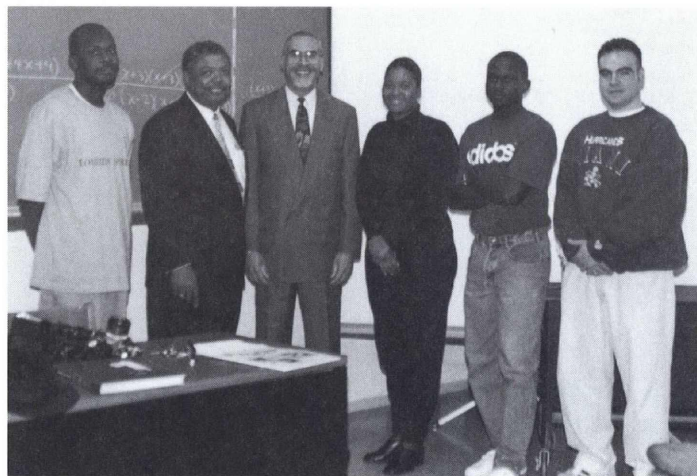
For an overview of accomplishments and activities to date, see pages 3 and 7. ■

Huston-Tillotson students learn from successful graduate

Students participating in the XUAMP at **Huston-Tillotson College** got first-hand insights into the great potential of degrees in math, science or engineering from a successful Huston-Tillotson graduate last spring.

Walter Batts, now director of International Affairs at the **U.S. Food & Drug Administration** (FDA), met with XUAMP

See *Graduate*, page 4



Huston-Tillotson alumnus Walter Batts (third from left), U.S. Food and Drug Administration, with Huston-Tillotson XUAMP students Derrick Howell, chemistry and math; Larricia Clark-Reed, biology; Larry Mutasya, pre-engineering and math; and Caesar Gonzales, chemistry.

Courtney Byrd is the new program manager for XUAMP

Courtney B. Byrd is the new manager of the **Xavier University/UNCF Alliance for Minority Participation** (XUAMP).

Byrd has worked with The College Fund since 1996. As administrative assistant in the develop-

ment office, she facilitated staff activity in writing proposals that have raised millions of dollars for College Fund students and programs. She has produced elaborate budgets and narratives to accompany proposals,

See *Byrd*, page 2



Courtney B. Byrd

Byrd, from page 1

researched prospective donors and created a computer system to track monetary pass-throughs. She worked closely with the original program manager, **Anthony Pinder**, who has left The College Fund for a position with the Peace Corps.

"I am very excited about working with XUAMP," Byrd said. "This is a vital program in nationwide efforts to improve the quality of education in math, science and engineering and in increasing the number of minority professionals

in those cutting-edge career fields."

Before joining The College Fund, Byrd served internships with the U.S. District Court and Montgomery (MD) County Circuit Courts. She also was an administrative/legal assistant with the Washington Legal Foundation.

As a special agent with the Department of Defense in Dayton, OH, before coming to the nation's capital, she then had special training with the Federal Law Enforcement Agency, Inspector General Academy and Defense Criminal Investigative Service School.

NSF/UNCF calendar

Deadline

Program

Open

National Science Foundation (NSF)

Proposals for NSF **Computer and Information Science and Engineering (CISE) Directorate** programs may be submitted at any time by qualified scientists and engineers (especially women, minorities and people with disabilities); allow six months for processing.

CISE programs improve fundamental understanding of "computing and information processing" in the broadest sense; enhance training of scientists and engineers to contribute to that understanding; and encourage and facilitate using state-of-the-art information technologies and computational techniques in scientific and engineering research.

Contact: NSF, 703-306-1234.

Byrd has a BS in Marketing from Hampton University. She is a member of Alpha Kappa

Alpha sorority's Xi Zeta Omega Chapter (Washington, DC) and Shiloh Baptist Church. ■



The AMP

Connector

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The AMP Connector is published by **The College Fund/UNCF** to report on activities and participants of the **Xavier-UNCF Alliance for Minority Participation (XUAMP)** and the **Mid-South AMP**, which are sponsored by the **National Science Foundation**.

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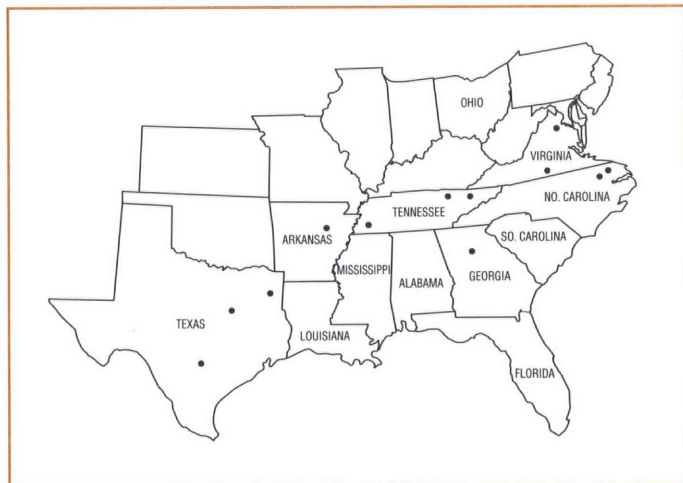
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Dr. General Marshall

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Dr. William Smialek

Knoxville College

Dr. Jesse James

Philander Smith College

Dr. William Woods

Saint Paul's College

Dr. Sunday Adesuyi

Saint Augustine's College

Dr. Gloria Early-Payne

Shaw University

Dr. Lillie M. Boyd

Virginia Union University

Dr. Harry Bass

Wiley College

Dr. John Stuart

Xavier University of Louisiana

Dr. Murty Akundi

XUAMP enjoys a productive year

The 1996-1997 academic year was a successful, active one for the historically black colleges and universities participating in the **Xavier University/UNCF Alliance for Minority Participation (XUAMP)** program.

"As of the beginning

of Academic Year '97-'98, the XUAMP had enrolled 257 Level 1 students among the 11 colleges now active in the consortium," said **Carole Morning**, program evaluator. "After two years, the group has a 93-percent retention rate and students' mean and median grades remain above 3.0.

Many members of the XUAMP attracted sizable matching contributions from outside agencies and corporations for Summer Bridge programs and other services for their students."

See below for details (*Year-Two highlights will be featured in upcoming issues*). ■



Carole Morning

Overview of a successful first year – XUAMP sets strong standard for future accomplishments

*By Carole Mourning, Program Evaluator, and
Ruth E. Thaler-Carter, Newsletter Consultant*

The first year of any new program sets a pace and standard for future activities.

In XUAMP's first year, activities ran a gamut of academic, mentoring and hands-on experience for students and development, goal-setting and planning efforts by faculty and administrators. The result has been a gratifying level of activity and accomplishment throughout the project.

Degrees awarded in SEM gained 19 percent from 1994 to 1995. This gain, of course, reflects enrollments and retention from before the launch of the AMP, and may not represent a significant change. However, over the same period, undergraduate SEM enrollment also grew.

AMP members were

particularly pleased to see enrollments increase in physics, mathematics and computer science, disciplines that receive special emphasis in XUAMP.

Across the AMP, at least 1,800 students were affected by AMP activities. Most student participants

were freshmen. These students were labeled Level II students because the consortium's first Level I students – 10 per school – were not chosen until the beginning of AY 1996-'97.

In the XU-UNCF AMP, Level I students receive scholarship assistance; beginning in summer '97, they have participated in

Summer Bridge programs on each AMP institution campus. Since then, they have participated in mentored summer research experiences.

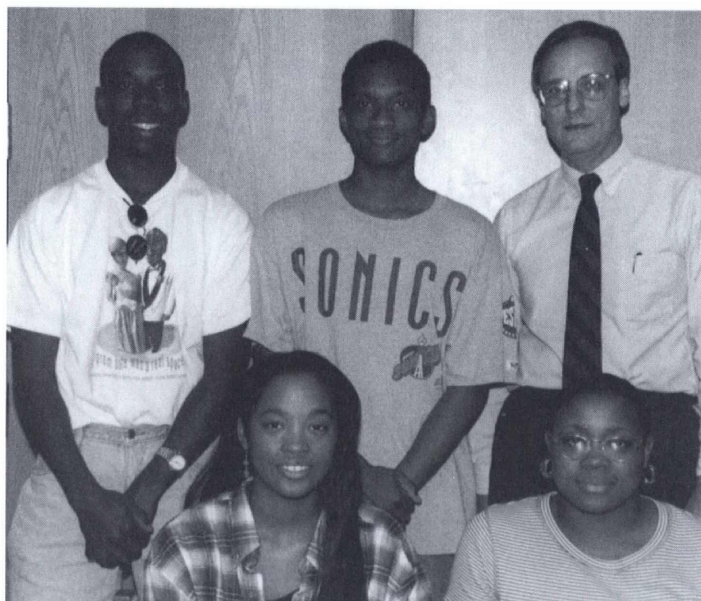
AMP activities were evenly divided between teaching and service projects, approximately four at each institution – 49 in all.

These activities resulted from the planning and participation of 158 faculty members – more than a dozen, on average, at each institution – who are involved in AMP activities. Two-thirds of these are African Americans.

Programming

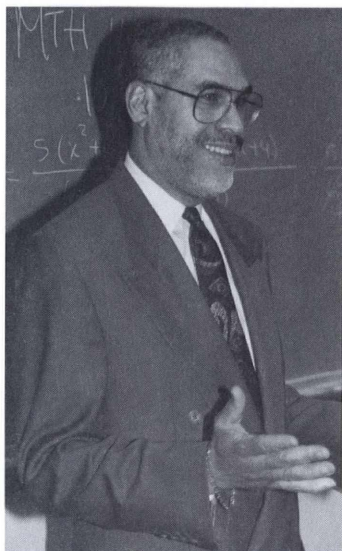
Among the activities and achievement of XUAMP's first year were these:

■ held three organizing, planning and informational meetings at



Members of the Jarvis-Christian XUAMP.

Graduate, from p. 1



Walter Batts describes his job and the role of science, engineering and math at his federal agency to Huston-Tillotson XUAMP students.

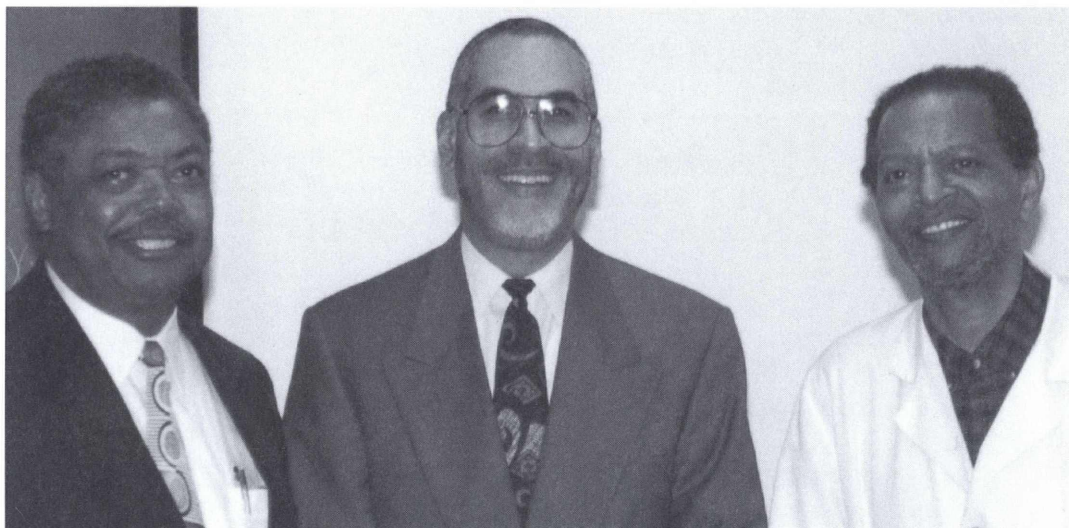
students and provided insights into the practical applications of math, science and engineering degrees in the workplace.

Batts, who has been with the FDA for 25 years, graduated magna cum laude in math and chemistry from Huston-

Tillotson College in 1972. He credited Huston-Tillotson with providing him with the necessary skills and expertise to enter and advance in the competitive arena of science and research at the FDA.

Batts encouraged the

Huston-Tillotson College XUAMP students to continue their studies in math, science and engineering. Those specialties, he said, are vital to research and personal, professional advancement in both the private and public sectors. ■



Alumnus Batts (center) is welcomed by two of his former Huston-Tillotson professors: General Marshall (left), XUAMP coordinator and professor of Mathematics; and Lawrence Baye, Ph.D. (right), professor of Chemistry and XUAMP faculty participant.



Huston-Tillotson College XUAMP students with coordinator General Marshall (far right, second row).

Faculty profile

Virginia Union's Harry Bass sees XUAMP as living his educational philosophy

Harry S. Bass, coordinator of the XUAMP at Virginia

Union University, is dedicated to his students and his role in XUAMP.

Bass has a BS degree in Biology from Virginia Union and a Ph.D. in Biology from Atlanta University. He has been chairman of the Department of Biology and Natural Sciences at Virginia Union since 1993 and a professor in Biology since 1989. From 1990-1993, he was chairperson of the Division of Natural Sciences and Mathematics there.

From 1986-1989, Bass had a National Institutes of Health (NIH) post-doctoral traineeship in biomedical sciences at Meharry Medical College. He had a similar traineeship from 1985-1986 at the University of Notre Dame's Department of Biological Sciences.

Bass has done substantial research in helminthology, parasitology, biochemistry, histochemistry, enzyme purification and characterization, in-vitro cultivation, morphology and physiology and more at Notre Dame, Atlanta University and Spelman College.

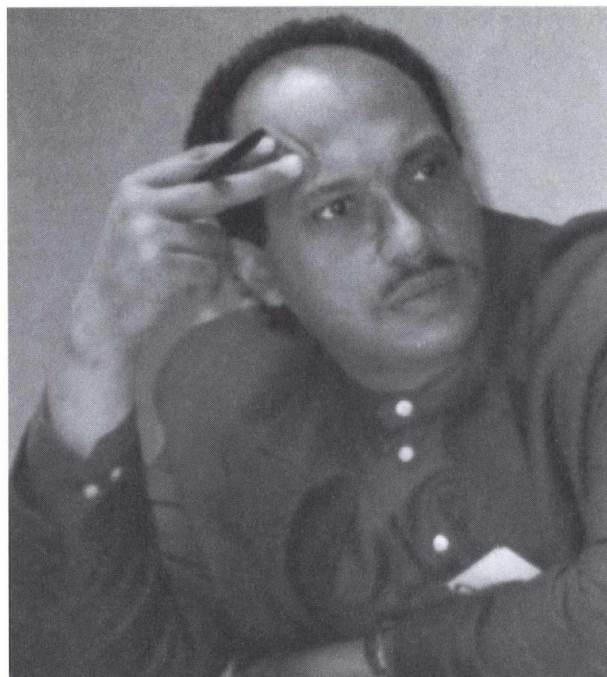
For his work, Bass has been recognized with a Minority Science Improvement Program grant from

the federal Department of Education and the Minority Participation in Graduate Education program at Virginia Commonwealth University and Virginia State University.

Bass joined a delegation of parasitologists for a technical exchange by the Chinese Medical Association; was an NIH Extramural Associate with the National Science Foundation; and has received a U.S. Army post-doctoral research fellowship, Minority Biomedical Research fellowship, the H.E. Finley Award for Outstanding Performance in Zoology and an Outstanding Achievement Award from Beta Kappa Chi Scientific Honor Society. He also has been a MARC seminar speaker and consultant at California State University.

Bass is a member of the American Society of Parasitologists, American Association for the Advancement of Science, Virginia Science Academy and Council for Undergraduate Research.

Bass' involvement in XUAMP is not his first such commitment. He was on the advisory committee for the Environment Protection Agency (EPA) Minority Academic Institution Fellowship Project from 1992-1996 and reviewed EPA Minority Fellowships



Dr. Harry S. Bass

for undergraduate students at Historically Black Colleges and Universities (HBCUs) in 1992 and 1995.

Bass has published widely and pursues a variety of campus and consulting activities.

The mentoring role

Bass sees his role in his institution's XUAMP activities as providing "the additional help, advisement and guidance they require as they continue to matriculate through the math and sciences," he said.

The XUAMP fits well with Bass' personal teaching philosophy. "The basic philosophy of XUAMP has, mainly, reinforced the current teaching idea that we follow at Virginia Union

University: that a professor must provide the best possible education available for the students," he said. "This education does not end when the class is over, nor when the student graduates from the university.

Bass is determined to continue serving math, engineering and science students through XUAMP. "As a faculty member, I will continue to mentor and advise students in whatever walk of life they may take, be it graduate school, a professional school or a chosen career," he said. "It is that one-on-one contact that develops a personal bond between the student and faculty mentor, and will always remain intact." ■

Standard, from p. 3

participating institutions, to launch XUAMP and update colleagues on progress and initiatives;

- selected cohorts of 10 students at each institution to participate in Year 1 of the program;

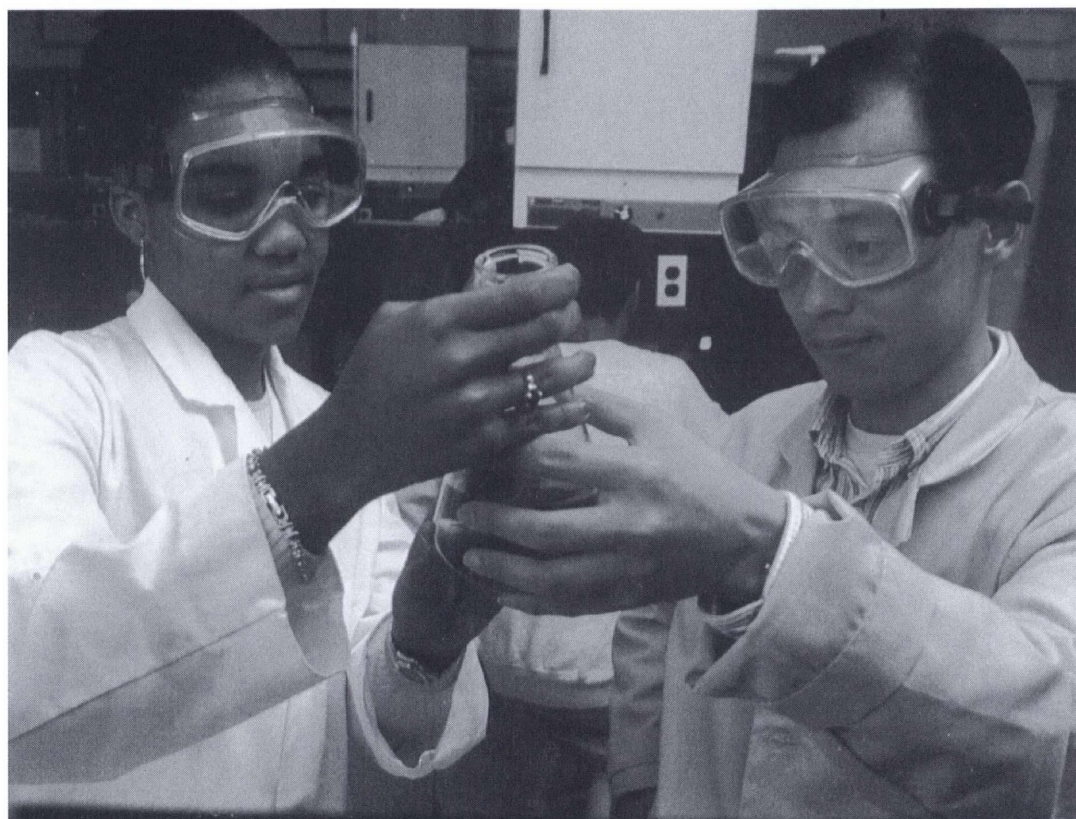
- created, launched and published two issues of *The AMP Connector* newsletter, to inform all participating and interested entities about XUAMP activities and achievements.

Common activities

Alliance members chose four activities to be shared in common this year: Summer Bridge programs for entering SEM freshmen; undergraduate research opportunities for rising AMP sophomores; uniform access to the Internet for all faculty and students; and scholarships, with UNCF agreeing to provide \$2 million in financial aid over the life of the AMP.

XUAMP participants developed a number of shared or common Alliance activities. Each shared activity was designed by the AMP as a whole, in meetings held throughout the year, hosted by **Xavier, Philander Smith** and **St. Augustine's**.

Sister **Grace Mary Flickinger**, project director, led sessions in which campus faculty representatives identified ways in which SEM



XUAMP student gets hands-on experience with chemistry experiments and mentoring input from a professor.

retention and enrollment could be improved in their schools' contexts. At the same time, the representatives were grouped by discipline, to consider ways in which teaching and learning might be made more effective in the entry SEM disciplines.

Looking ahead

As of summer 1997, each campus hosts its own Summer Bridge program or shares a program with another AMP institution; each site shares the same assessments and goals. Each is expected to incorporate activities that will enable students to demonstrate the mathematical skills and proficiencies required to enroll in and successfully complete calculus in

the freshman year of study; identify and understand the processes of science and their role in the development of science; and increase students' reading comprehension based upon an agreed upon standardized reading test.

St. Augustine's, **St. Paul's** and **Virginia Union** have taken the lead in designing Bridge experiences.

The AMP campuses also will share their facilities and resources to provide rising sophomore AMP students with summer research opportunities, an activity being led by **Fisk University**. Faculty members among the institutions not only will provide research experiences for students,

but will provide one-on-one mentoring as well. Student interests will be matched with faculty research interests, and students will receive stipends for their work in these areas. Research activities will continue for XUAMP students throughout their undergraduate careers.

St. Augustine's took the lead in providing expertise that will enable every college to offer Internet access to both its faculty and students. This activity involved assessing the needs of four institutions; contracting for needed equipment, which the AMP will provide; and providing wiring layouts. Electronic improvements will be completed during AY '97-'98. ■

Campuses see great strides through XUAMP

The 1997-1998 academic year has a lively one for participants in XUAMP. Here are a few highlights of activities at participating campuses.

▲ At **Shaw College**, scholarships were awarded to 10 undergraduates – five chemistry majors, four computer science majors and one physics major.

Faculty continued to have active involvement in internal and external recruitment activities, including two math faculty members visiting an area state high school in Wilson, NC, about 50 miles from the university. Internally, faculty continued to recruit science, engineering and mathematics (SEM) majors among students who were undecided about their majors.

Among the faculty-student interaction activities were individually scheduled luncheons, tutoring sessions and seminar presentations with Shaw Tech Association members, Minority Science Improvement Program participants and Mentoring Program participants.

Common course syllabi and common final examinations were used in a variety of classes in biology, chemistry, general math, pre-calculus and physical science.

Shaw began its Summer Undergraduate Research Internship Program with Eugene N. Baskerville, Jr. and Hooshang Foroudastan serving as research mentors.

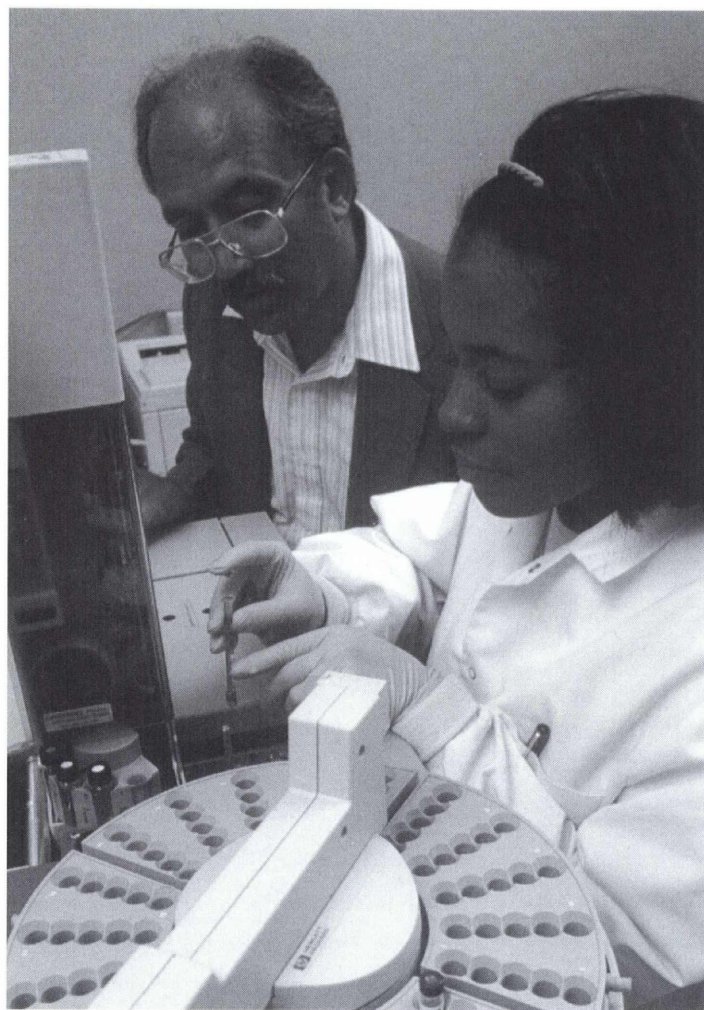
Shaw developed a Summer Bridge program as well, offering services for SEM students before they enter the university.

▲ **Jarvis Christian College** students focused on cleaning, refurbishing and reactivating the college observatory and telescope as the XUAMP's special project and used the telescope during the Summer Bridge Program and in several pre-college programs on campus.

Tutoring sessions will be re-assessed and strengthened.

▲ The most successful project at **St. Augustine's College** was assigning mini-research projects. The focus was to initiate the process of scientific thinking among the students and let them experience the process of science.

Engineering majors studied conservation of energy using different types of insulation. Computer science majors established an Internet home page. A chemistry student studied different types of algae found in aquatic tanks. Biology majors studied the effects



XUAMP student benefits from mentoring when undertaking a complex scientific research project.

of lead acetate on developing chick brains and of different buffers on a biological system. The students presented their findings during the last two weeks of the Biology Seminar course, with an audience of 45 other students.

XUAMP students also were placed with community mentors, with the engineering students having the greatest success in this activity.

students convened twice to learn about the purpose of the AMP, why they were selected and project expectations; tutorial and other assistance available for enhancing their academic performance; and the history and tradition of science at the university, including the work of faculty and science alumni.

One activity that proved especially benefi-

▲ At **Fisk University**,

See **Highlights**, next page

Highlights, from p. 7

cial was developing behavioral outcomes for introductory science courses. This activity influenced the development of expected outcomes for each science major. Both are expected to enhance the process of assessing program effectiveness.

In academic year 1996-1997, 168 out of 850 declared majors (28 percent) had selected science as their major.

▲ **At Virginia Union University**, XUAMP students benefited from faculty counseling. Peer-to-peer tutoring in math was successful. The students took field trips to the National Aviation and Space Administration (NASA) and the Air and Space Museum, and a tour of the Chesapeake Bay.

▲ **Saint Paul's College** provided XUAMP students with workshops on note-taking and test-taking skills; time management/study skills; application of mathematics in all areas of science and technology; career opportunities in SEM; and scholarship opportunities. There also was a holiday social get-together.

A particularly successful project was curriculum reform, which each faculty member included in their course outlines and syllabi. Heterogeneous study groups were incorporated into the

teaching strategy of each course, with faculty stressing cooperative learning. As a result, there was a drastic decrease in the mid-semester deficiencies and an increase in passing rates of students in those courses.

Other successful activities include a monthly Faculty/Student Symposium Series in which faculty and students exchanged ideas, which enhanced interaction outside the classroom.

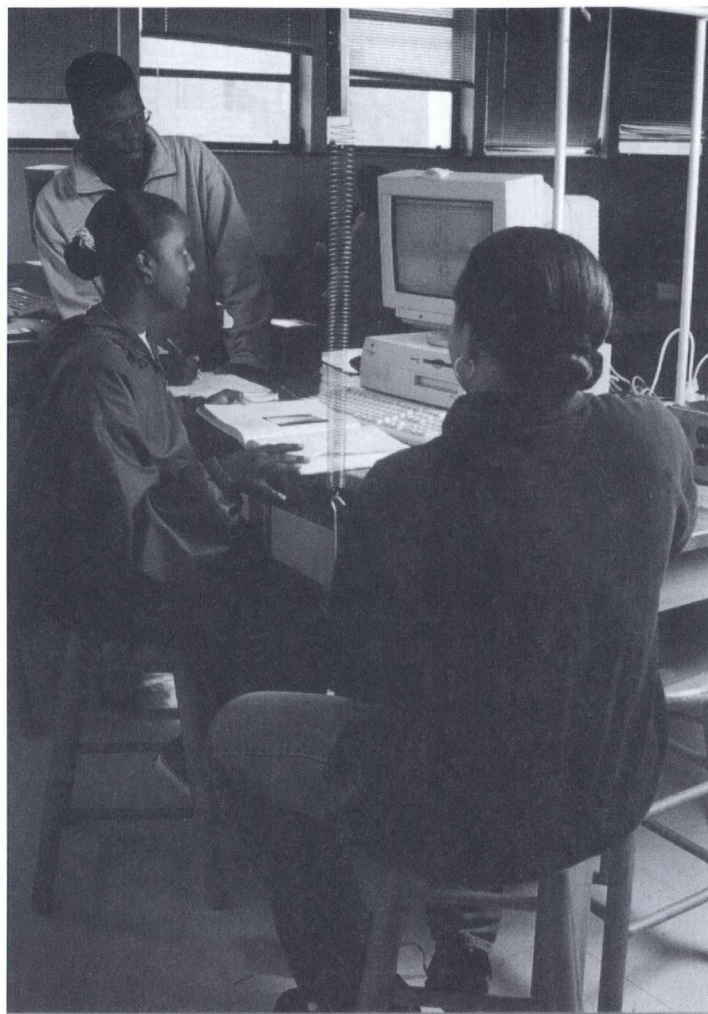
A Speakers List of department faculty was well-received by the surrounding public school systems, with many faculty members being asked to speak to science classes and serve as judges at science fairs. This enhanced recruiting efforts at those schools.

Visits to area high schools, community colleges by SEM faculty resulted in a 43.64-percent increase in the enrollment of SEM students.

Five XUAMP students had cumulative GPAs of 3.190-3.9; only one was below 2.6. Eight of the students received honors, scholarships and awards.

▲ XUAMP students at **Philander Smith College** benefited from cooperative small group learning activities in freshmen-level courses. Students met once a week for 10 weeks to focus on improving their study skills and habits. Test-taking skills seminars had a positive impact on skills.

Faculty members



XUAMP students learn the intricacies of the computer world.

helped students improve their interdisciplinary and information transfer skills. Students attended special seminars with guest speakers from a variety of SEM-related career areas.

▲ **Xavier University of Louisiana** held workshops every other week that focused on attitude, study skills, time management and writing essays. Results included enhanced success on academic paths and improved self-confidence, attitude, time management and writing.

Students reported that the sessions also improved their understand-

ing of the material taught and their performance on exams, as well as fostering a sense of community among the XUAMP students.

Attempts to place AMP students in summer activities were 100-percent successful. Three students were accepted in off-campus summer programs; the remainder participated in Xavier's E.E. Just Summer Research Program.

Xavier will strengthen its focus on securing additional funding for tuition scholarships in SEM, to improve retention of skilled, successful students. ■