

Magazine

New Players for AAMP Phase Two



Dr. W. Ann Reynolds, President The University of Alabama at Birmingham

Summer Programs



Hosted by AMP - Page 12



Dr. A. James Hicks, Program Director NSF Alliances for Minority Participation

Alabama AMP



Institutional Profiles - Page 36

- Alabama AMP Sponsors Teacher Preparation Conference in San Juan 4
- ♦ People, Places, and Things 6
- Distinguished Faculty and Students 26
- ✤ Performance Effectiveness Review Completed by AAMP 27

Table of Contents

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National AMP Program Addresses One of the Nation's Critical Needs	. 1
New AMP Players on the National Scene	. 2
Alabama Sponsors Teacher Preparation Conference in San Juan	. 4
Performance Effectiveness Review Workshop Held	. 5
People, Places, and Things	. 6
Fall Executive Committee Meeting Held in Birmingham	. 8
Alabama Alliance for Minority Participation	9
Alabama Alliance Program Descriptions	.10
1997 Summer Programs and Conferences	.12
Summer Bridge Program	.12
Summer Bridge Interactive Television Mini Conference	.16
Summer Bridge Program Conference	.17
Summer Research Internship Program	.19
Graduate Bridge Program	.19
AAMP DOE/EPSCoR Summer Program	.19
Summer Research Internship Conference	.21
Teacher Preparation Program Summer Conference	.24
Distinguished Faculty and Students	.26
AAMP 1997 Performance Effectiveness Review Summary	.27
Did You Know?	.34
AAMP Organizational Structure	.35
Institutional Profiles	.36
The University of Alabama at Birmingham	.36
Alabama A&M University	.38
Alabama State University	.40
Auburn University	.42
Miles College	.44
Oakwood College	.46
Stillman College	.48
Tougaloo College	.50
Tuskegee University	.52
The University of Alabama	.54
The University of Alabama in Huntsville	.56

Editors Louis Dale Carolyn Braswell **Editorial Assistants** Faye Holtzclaw Judith Matthews **Published by** Alabama AMP **Printed by** UAB Print Shop

National AMP Program Addresses One of the Nation's Critical Needs

The National Science Foundation began a new program in 1991 to assist with it's goal of increasing the number of American citizens receiving degrees in science, engineering, and mathematics. The new program, called the Alliances for Minority Participation, had the single goal of increasing the number of underrepresented minorities receiving bachelor degrees to 50,000 by the year 2000. Six institutions, Arizona State University, Jackson State University, Texas A&M University, The University of Alabama at Birmingham, the University of California at Irvine, and the University of Puerto Rico, were awarded grants to form Alliances to begin the effort. Today there are twenty-seven Alliances from coast-to-coast representing all underrepresented minorities.

The National Science Foundation Leadership



Dr. Neal F. Lane, Director National Science Foundation



Dr. Luther S. Williams, Assistant Director Education and Human Resources



Dr. Roosevelt Calbert, Director Division of Human Resource Development



Dr. A. James Hicks, Program Director Alliances for Minority Participation

1

New AMP Players on the National Scene

As the Alabama Alliance for Minority Participation (AAMP) begins its second year of the National Science Foundation (NSF) Alliances for Minority Participation (AMP) Phase II, several new players in Alabama and at NSF Headquarters in Arlington, Virginia, are joining the effort to meet the NSF AMP goal for the year 2000. The goal, set by Dr. Luther Williams, Assistant Director for Education and Human Resources, is to increase the number of bachelor degrees awarded to underrepresented minorities in science, engineering, and mathematics (SEM) to 50,000 annually by the year 2000. The corresponding AAMP goal is to increase minority SEM degree production to 1,000 annually by the year 2000.

Dr. W. Ann Reynolds became the first woman president of The University of Alabama at Birmingham (lead institution for AAMP) on September 15, 1997. She was appointed president after a search by The University of Alabama System Board of Trustees to fill the vacancy created by the resignation of Dr. Claude Bennett. Dr. Reynolds received the Ph.D. degree in zoology from the University of Iowa. She previously served as chancellor of the City University of New York (CUNY) which includes 21 colleges and 208,000 students. Prior to the CUNY post, Dr. Reynolds was chancellor of The California State University System and provost of Ohio State University. Other positions include associate vice chancellor for research and dean of the Graduate College



at the University of Illinois Medical Center and acting associate dean of academic affairs, Woodrow Wilson Fellow, and National Science Foundation Fellow. Dr. Reynolds is no stranger to AMP. While serving as chancellor at CUNY she was involved in the New York AMP's effort to increase underrepresented minority SEM degree production. The Alliance is fortunate to have Dr. Reynolds to assume the leadership of the lead institution and the AAMP Governing Board.



Dr. Ernest McNealey became the fifth president of Stillman College on July 1, 1997. Dr. McNealey previously served as dean of undergraduate academic affairs at State University of New York (SUNY) at Stony Brook. He received the doctorate in art education from Ohio State University at Columbus, Ohio. Prior to his position at SUNY he served as vice president and professor of art at Claflin College in Orangeburg, South Carolina. In addition, he served as a graduate assistant at Ohio State University and instructor of art at Fort Valley State University in Georgia. He received a bachelor degree from Alabama State University (AAMP Institution) in Montgomery, Alabama. Dr. McNealey is an accomplished artist, has given many lectures and presentations, has

had his paintings widely exhibited, and has been noted in various publications. He has served on many local and national boards and community organizations.

Dr. Delbert Baker became the tenth president of Oakwood College on November 17, 1996. Dr. Baker previous served as special assistant to the president and director of diversity at Loma Linda University, Loma Linda, California. He received the Ph.D. degree in organizational communication from Howard University. He has written scores of articles, developed training modules, and delivered hundreds of professional presentations. He has written six books, worked as a counselor, and served as an instructor at Howard University. His many awards include The Associated Press Award for Excellence, Who's Who in Black America, International Who's Who, and Outstanding Young Men in America. He is a member of many professional organizations and has received many journalism, community, and civic awards.





Dr. A. James Hicks, former dean of arts and sciences at North Carolina A&T University (North Carolina AMP), became program director for the National Science Foundation Alliances for Minority Participation Program on September 1, 1997, succeeding Dr. William McHenry, who resigned to become assistant commissioner of education for academic affairs for Mississippi State Institutions of Higher Learning. Dr. Hicks received the Ph.D. degree in biology from the University of Illinois at Urbana, and the bachelor degree in biology from Tougaloo College (AAMP Institution) in Tougaloo, Mississippi. He received additional training at Harvard University, The

National Institutes of Health, and the Missouri Botanical Gardens. Dr. Hicks' previous positions include professor and chairman of biology at North Carolina A&T State University and National Science Foundation program associate. He has over twenty years of successful administrative experience. As former dean of arts and sciences at North Carolina A&T University, he is well known nationally for his work with the Council of Colleges of Arts and Sciences. As a student at Tougaloo College he exhibited all of the characteristics of today's AMP Scholar and, consequently, navigated the educational system to reach a top position in the scientific community. He is truly a role model for today's young people. His experience in proposal reviews, evaluations in research, and prior Intergovernmental Personnel Act (IPA) assignment at NSF are expected to pay important dividends in his new role as AMP program director.

Dr. William A. Sibley, former vice president for academic affairs at The University of Alabama at Birmingham, served as interim AMP program director before the appointment of Dr. A. James Hicks to serve in the position. He is the director of the Centers for Research Excellence in Science and Technology and assists Dr. Hicks with AMP program activities. Dr. Sibley received the Ph.D. degree in physics from the University of Oklahoma. He served as section head of the Solid State Division at Oak Ridge National Laboratory, chairman of the Physics Department at Oklahoma State University, and later, vice president for research. He has published over 200 papers in refereed journals in the area of condensed matter physics and laser materials. In 1988, he joined



NSF as program director of the Experimental Program to Stimulate Competitive Research, and in 1990, was named acting director of the Division of Materials Research. He is a Fellow of the American Physical Society and has served on numerous national and state boards of directors and advisory committees.



Dr. M. Carolyn Braswell, former director of personnel for the Birmingham Board of Education and well-known editorial consultant for AAMP and NSF publications, has been appointed executive director of AAMP and director of the AAMP Teacher Preparation Program. She received the Ed.D. degree in administration and supervision from The University of Alabama (AAMP Institution). Prior to her last appointment with the School District, she served as personnel coordinator, program specialist for elementary grades, resource teacher, and elementary teacher. She received the Educator of the Year Award from Civitan International and the Teacher of the Year Award from the **Birmingham News/Birmingham Post-Herald.** Her editorial experience began

in high school where she served as editor of the student newspaper. As a college student she also served as editor of the student newspaper and edited many newsletters and publications during her career as an educator. Her work as editorial consultant for AMP has won much national recognition for editorial excellence. In addition to her duties with AAMP she serves as assistant project director and program manager of the Birmingham Systemic Change 2000 Project K-5 Mathematics, a collaborative effort between NSF, UAB, AAMP, and the Birmingham Public School System.

The Alabama Alliance sponsored a teacher preparation program conference in San Juan, Puerto Rico, on

March 14-15, 1997. Alabama has support from NSF to engage in teacher preparation activities with other Alliances involved in such activities. The Puerto Rico Conference was one of those activities. The Puerto Rico Alliance provided the local arrangements and coordinated the travel. The conference brought together representatives from K-12 education, the university community, and government to discuss current trends in teacher preparation programs and seek solutions to the problem of the shortage of minorities in mathematics and science education.



Conference participants listen to comments from invited speaker

Conference Agenda

Friday, March 14, 1997

Session I - Current Trends in Science, Mathematics, Engineering, and Technology Teacher Preparation Programs

Invited Address

Dr. Mary E. Dilworth, Senior Director for Research, AACTE

- Panel I The University Perspective Moderator: Dr. Terry S. Woodin, Program Director, NSF CETP
- Panel II The School District Perspective Moderator: Dr. Lynette Padmore, Project Director, Florida-Georgia AMP
- Session II Best Practices in Science, Mathematics, Engineering, and Technology Teacher Preparation Programs Puerto Rico Teacher Preparation Component Temple University Collaborative for a New Model for K-12 Teacher Preparation

Roundtable

Moderators: Dr. William E. McHenry and Dr. Mary E. Dilworth

Conference Wrap-Up

Reception, The Puerto Rico Tourism Company, Old San Juan

Performance Effectiveness Review Workshop Held

Alabama AMP sponsored a Program Effectiveness Review (PER) Workshop at NSF Headquarters in Arlington, Virginia, September 26, 1997. The meeting was in preparation for the 1997 Government Performance and Results Act Effectiveness Review of the 27 AMP projects. The workshop was attended by 40 participants representing 17 of the 27 Alliances. The workshop provided the first opportunity for the newly appointed AMP program director, Dr. A. James Hicks, to meet a majority of the AMP project directors.

Workshop presenters included Dr. Luther S. Williams, Assistant Director for Education and Human Resources, Dr Roosevelt Calbert, Director of the Division of Human Resource Development, Dr. A. James Hicks, AMP Program Director, Dr. William A. Sibley, Program Director, and Dr. William E. McHenry, former AMP Program Director and newly appointed Assistant Commissioner of Education for Academic Affairs for Mississippi State Institutions of Higher Learning.

Dr. Williams outlined NSF's expectations for the 1997 Effectiveness Review presentations and distributed the NSF Education and Training Performance Goals for FY1999. Dr. Hicks welcomed participants and offered assistance to Alliances with the reviews. Dr. Calbert and Dr. Sibley provided information regarding the schedules and expectations of the upcoming reviews. Dr. McHenry led a workshop session on preparation for the effectiveness review which included a detailed discussion on materials and presentation. Dr. Williams attended the final session and responded to questions from the participants. Participants expressed the view that the workshop was very informative and worth the trip to Arlington.



Dr. Luther S. Williams



Dr. Roosevelt Calbert

Workshop Presenters



Dr. A. James Hicks



Dr. William A. Sibley



Dr. William E. McHenry

Participating Alliances

Alabama	Chic	ago	ner	Florida-Ge	eorgia	Heartla	and	Louisiana
Dr. Louis Dale	Dr. M	Iarian Wilson-Com		Dr. Lynette	Padmore	Dr. Cha	rles Sampson	Dr. Kerry Davidson
Project Director	Execu	Itive Director		Project Dire	ctor	Project	Director	Co-P. I.
Maryland	Metrop	oolitan Detroit	Mid-	South	Mississipp	Di	New York	North Carolina
Ms. Cynthia Hill	Dr. Han	Iley Abramson	Dr. A	ndrea Miller	Dr. Richard	Sullivan	Dr. Frank Scalze	Dr. Harold Martin
Coordinator	Project	Director	Projec	ct Director	Project Dire	ector	Assoc. P. D.	Project Director
Greater Philad Dr. Antonio Gone Assoc. Project Di	elphia calves rector	Puerto Rico Dr. Ana Pinero Co-P. D.	South Dr. Cr Projec	n Carolina raig Rogers t Director	SUNY Dr. David Fe Project Direc	erguson ctor	W-B-H-R Dr. R. Catshings Coordinator	Xavier/UNCF Sis. Grace Flickinger Asst. P. D.

The University of Alabama at Birmingham

AAMP Faculty Member Appointed Assistant Dean for Urban Affairs

Calhoun. Dr Charles Associate Professor of Education and AMP teacher preparation faculty member, has been appointed assistant dean for urban affairs at The University of Alabama at Birmingham. Dr. Calhoun received the Ph.D. degree in curriculum development from Georgia State University and has



Dr. Charles Calhoun

been active in collaborative efforts with urban schools both locally and nationally. In addition, he has been instrumental in the development of the AAMP Teacher Preparation Program and the Summer Bridge Program. As assistant dean, he will oversee urban research efforts related to education and quality of life issues for the UAB Urban Education Initiative. The initiative is a collaborative effort between the School of Education and six metro-area school systems and is designed to improve student learning and to prepare teachers and administrators to work in inner city schools.

AAMP Staff Secure Local Systemic Change Award for Birmingham Public Schools

The University of Alabama at Birmingham (lead institution for AAMP) has been awarded a local systemic change grant by the National Science Foundation to completely overhaul the K-5 mathematics curriculum in the Birmingham Public School System. Dr. Louis Dale, AAMP Project Director, and Dr. Abbe Boring, Deputy Superintendent for Instruction for the Birmingham Public Schools, are co-directors of the project. Dr. Carolyn Braswell, AAMP Teacher Preparation Director and former Birmingham Public Schools administrator, is the project manager, and Dr. Charles Calhoun, Assistant Dean and Associate Professor of Education at UAB, is chair of staff development for the project. The grant will allow each of the school district's 917 K-5 teachers to receive 100 hours of staff development in preparation for implementation of Everyday Mathematics K-5 curriculum developed by the University of Chicago. The long range goal of the project is to better prepare students in mathematics for entry into AMP programs across the country.

Alabama A&M University

A&M Student Selected as One of the Best in the Nation

The right attitude and hard work can take you a long, long way according to Patrick Grayson, who just completed his undergraduate degree in physics at Alabama A&M University and



was selected to the USA Today All Academic First Team. One of only 20 students selected from the country's most prestigious universities, Patrick represents the tip of the iceberg at A&M where talent is plentiful and diverse.

Dr. Bruce Crawford Mentors TE Students



From left: Travis Fanning, William Ward (standing), T. Smith, and Dr. Crawford

TP Participants at UAB '97 Summer Conference



From left: Tenesia Smith, Tyrone King (2nd place winner), Curtis Rice (1st place winner), and Travis Fanning

Student Science Training Program, Summer '97



Summer Science Enrichment High School Participants (in front of Carter Science Hall)



AMP Scholar Pamela Watkins

Pamela displaying research intern project at UAB

AMP Researcher Mentor Receives NSF Award

Dr. Anup Sharma is an AAMU physics researcher and mentor for AMP interns. He received a \$200,000 NSF Career Award to study building optical sensors that will detect when structures get weak. Indeed, Dr. Sharma will study the building of smart bridges.

Alabama State University

Alabama State University Students Enter Graduate Schools Across the Nation

Melanie Eddins (Mathematics) is the recipient of a five-year scholarship of \$100,000 to pursue a Ph.D. in applied mathematics. Melanie is presently enrolled in the Ph.D. program at The University of Alabama in Tuscaloosa. The scholarship was awarded by the David and Lucile Packard Foundation for Education.

Tracey Tullie (Mathematics) was awarded a scholarship to pursue a Ph.D. in mathematics at the University of North Carolina-Chapel Hill.

Terrance Farmer (Mathematics) was awarded a scholarship to the University of Missouri-Columbia to pursue a Ph.D. in mathematics.

Michelle Foster (Mathematics) has been awarded a scholarship to pursue a master's in mathematics at Auburn University. Michelle presented her master's project on November 19, 1997, entitled "Fundamentals of Probabilistic Finite State Source Automata." Michelle also received a fellowship from the Southern Regional Education Board to pursue her Ph.D. in mathematics at Auburn University.

Jimmy Cowan (Computer Science) has been awarded a scholarship to pursue a Ph.D. in computer science at Auburn University.

Dana Bolden (Mathematics) is a second year law student at Samford University School of Law.

Auburn University

Auburn AMP Scholar Wins Engineering Award

Ms. Kelly Taylor, an AMP Scholar at Auburn University, won second place in the Engineering Poster Competition at the National Science Foundation Alliances for Minority Participation Student Research Conference held this year at New Mexico State University in Las Cruces, New Mexico. Ms. Taylor's poster was entitled "Synthesis of a Polymeric Semiconductor, Polyaniline."

Stillman College

Stillman Professor New Dean of Arts and Sciences



A professor of biology and former chairperson of the Mathematics and Science Division, Dr. Charlotte Carter was named dean of Arts and Sciences, effective January 5, 1998. With its 47 faculty members, the division is the largest on the Stillman College campus.

Dr. Charlotte Carter

Dr. Carter's long service in education began as an instructor of life science at Miles College. She has since served for two years as dean of academic affairs at Miles and division chairperson for ten years at Stillman. Her responsibilities will include working with more faculty members in many disciplines. "Most of all," says Dr. Carter, "I am now in a position to help more students fulfill their goals, as well as accomplishing my goals in life."

Talladega College

Associate Principal Investigator Appointed at Talladega

Ms. Debra Giles has been appointed associate principal investigator at Talladega College to assist Dr. Arthur Bacon in developing new and vitalizing AMP activities for AMP students. Ms. Giles has a MSPH degree from The University of Alabama at Birmingham.

Tuskegee University

Dr. James H. M. Henderson Receives Award from American Society of Plant Physiologists

Dr. James H. M. Henderson, Professor of Biology

and Director of the Carver Research Foundation at Tuskegee University, has been awarded the 1997 Charles Reid Barnes Life Membership Award by the American Society of Plant Physiologists (ASPP) for meritorious



Dr. James H. M. Henderson

work in plant physiology. The Barnes award is the oldest ASPP award. It was established in 1925 in honor of Dr. Charles Reid Barnes, the first professor of plant physiology at the University of Chicago. The award was presented to Dr. Henderson at a joint meeting of the American Society of Plant Physiologists and The Canadian Society of Plant Physiologists in Vancouver, Canada, on August 3, 1997.

Fall Executive Committee Meeting Held in Birmingham

The Fall AAMP Executive Committee was held at The University of Alabama at Birmingham on October 28, 1997. The Fall meeting is scheduled each year after the Alabama annual report is presented to the National Science Foundation. This year, principal investigators were accompanied by teacher preparation mentors and prospective 1998 AMP Scholar graduates. The teacher preparation mentors participated in the portion of the meeting devoted to teacher preparation activities while

AMP Scholars posed for pictures for the 1998 AMP Scholar Graduates booklet and toured the UAB Cooperative Learning Resources Center.



Dr. Louis Dale addresses meeting participants

Alabama Alliance for Minority Participation

Increasing the Quantity and Quality of minority students receiving degrees in science, engineering, mathematics, and science education

The Alliance

The Alabama Alliance for Minority Participation Program began in 1991 with eight Historically Black Colleges and Universities and The University of Alabama at Birmingham. Conceived and initiated by ten Black faculty members at these institutions with Ph.D. degrees in mathematics and science, the Alliance had a single goal of significantly increasing the number of minorities receiving bachelor's degrees in science, engineering, and mathematics in Alabama and parts of Mississippi. Today the Alliance membership has increased to twelve and includes all of the major colleges and universities in Alabama.



Alliance Programs

- Summer Bridge
- AMP Scholars
- Summer Research Internship
- AMP DOE/EPSCoR
- Graduate Bridge

- SEM Drop-In Center/Cooperative Learning
- AMP Summer Research Conference
- SEM Mentoring
- Teacher Preparation

Alabama Alliance Program Descriptions

Alabama AMP has a variety of student support programs designed to meet the needs of undergraduate students and students at the high school to college and the college to graduate school junctions in the academic pipeline. They include the following:

- 1. <u>AAMP Summer Bridge Program</u> This program is designed to ease the transition of high school graduates from high school to college. Participants take regular college courses, attend seminars, attend career counseling, and develop a research project. The program has three sites, The University of Alabama at Birmingham, Alabama A&M University, and Alabama State University. Participants receive a stipend of \$900, in addition to tuition and fees, and are able to select the site of their choice. A Summer Bridge Program Conference is held during the summer bringing together the participants from the three program sites to hear a featured speaker and to present their research projects in the AAMP Research Project Competition. The Summer Bridge Program provides a pool of students from which the AMP program may draw for its activities and addresses one of the transition points along the education pipeline.
- 2. <u>AAMP Scholars Program</u> Each year, high ability freshman students are recruited into the AAMP Scholars Program, a student support program designed to prepare students for graduate school. AAMP Scholars serve as student helpers in the AAMP Drop-In Centers, and participate each year in the AAMP Summer Research Internship Program. In addition, they serve as role models for their peers and help to recruit students into their institutions. AAMP Scholars receive tuition and fees support for four years and must maintain at least a 3.0 GPA. Of the first group of nineteen (19) AAMP Scholars who graduated in 1995, sixteen (16) entered graduate school. The regular undergraduate training in science, engineering, and mathematics, combined with the research experience acquired in the Internship Program, greatly increases the likelihood that these students will be successful in graduate programs.
- 3. <u>AAMP Summer Research Internship Program</u> This program is designed to provide research experience for undergraduate students. Participants work with an assigned research mentor in a laboratory on an on-going research project. In addition, participants enroll in a regular college course for credit, enroll in a special non-credit course on GRE preparation, attend weekly seminars, and present the results of their research at the annual Alabama AMP Summer Research Conference. The program has two sites, The University of Alabama at Birmingham and Alabama A&M University/The University of Alabama in Huntsville. Participants receive a stipend of \$2,000, in addition to tuition and fees, and are able to select the program site of their choice.
- 4. <u>AMP DOE/EPSCoR Summer Internship Program</u> This program is funded jointly by AMP and the Alabama DOE/EPSCoR Program, and is designed to provide research experiences at the DOE/EPSCoR Research Clusters at The University of Alabama and Auburn University for AAMP students. Selected students spend eight weeks at the Research Cluster of their choice working with scientists on energy-related research. In addition, they enroll in a regular college science course and present the findings of their research at the annual Alabama AMP Summer Research Conference. Participants receive a stipend of \$2,000 in addition to tuition and fees.
- 5. <u>AAMP Graduate Bridge Program</u> This summer program is designed to ease the transition from undergraduate to graduate school. To participate in the program an applicant must be a graduate of an

AAMP institution, have been accepted into a graduate school, and plan to attend graduate school the following Fall term. Selected participants must enroll in a graduate course, participate in orientation sessions with the Graduate Program Director, work with a graduate faculty member on a research project, and present the results of their research at the annual Alabama AMP Summer Research Conference. Graduate Bridge program participants receive a stipend of \$2,000 in addition to tuition and fees.

- 6. <u>Drop-In Center/Cooperative Learning Activities</u> The core of the AAMP retention initiative is the Drop-In Center, a place on each campus equipped with computer technology where students receive skills reinforcement in mathematics, science, and engineering. Drop-In Centers are staffed by grad-uate students, AMP Scholars, faculty, and may employ a full-time or part-time director. The Drop-In Centers have become a meeting place for science students. They work together on assignments and other projects in the Centers. In many instances, faculty bring classes to the Centers for cooperative learning activities and the use of instructional materials.
- 7. <u>AAMP Summer Research Conference</u> Each summer, students and faculty from Alliance institutions participate in a research conference and exhibit competition at The University of Alabama at Birmingham. The conference is designed to 1) provide an opportunity for AMP students to meet and share successes; 2) provide a forum to showcase AMP student research; 3) motivate AMP students to pursue graduate degrees in science, engineering, and mathematics; 4) expose AMP students to successful minority scientists and engineers; and 5) provide an opportunity for AAMP faculty to exchange ideas and plan curriculum reform.
- 8. <u>AAMP Mentoring Program</u> AAMP Scholarships are awarded to qualified minority freshman students upon recommendation of the AMP Scholar Selection Committee. The scholarships may be extended to four years for students who continue to meet the criteria. To assist with the maintenance of the scholarship criteria, AMP Scholars are assigned faculty mentors. The faculty mentor will provide academic and other support for the students for the entire four-year period.
- 9. Teacher Preparation (TP) Activities The AAMP Teacher Preparation Program began in 1995 as an effort to increase the number of underrepresented minorities teaching mathematics and science in elementary and secondary schools. The program has two components, an academic year component and a summer component. The program is patterned after the successful AAMP Scholars Program and Summer Internship Program and makes use of the regular AAMP organization for its administration. The Principal Investigator on each campus serves as the Teacher Preparation Coordinator, and the AAMP Governing Board serves as the Teacher Preparation Governing Board. Selected entering freshman students or junior college transfer students majoring in mathematics or science education are recruited to receive scholarship support for four years to become certified to teach mathematics or science. Once in the program, TP students are assigned a faculty mentor and assist with faculty research and other projects. The research projects may be education or science related and may require collaboration between science and education faculty. The final projects are presented at a Teacher Preparation Conference at the end of the academic year. In addition, TP students must monitor their progress toward certification on a computer, keep a portfolio of academic and other activities, and visit a mathematics or science class each term in the local schools.

1997 Summer Programs and Conferences

AAMP offered a variety of programs during the summer of 1997 to meet the needs of minority students from the rank of high school students to the rank of beginning graduate students.



Summer Bridge Program

The AAMP Summer Bridge Program is designed to facilitate the transition of selected Alabama minority students from high school to identified AMP institutions where students have been admitted and have declared their major to be mathematics, science, engineering, or science education. The program elements include the following:

1. Academic Enrichment

Participants take courses specially designed for the program. These courses include English and mathematics. (Arrangements for students to take alternate coursework in science and/or engineering can also be made to meet individual student needs.)

2. Weekly Seminars

Participants attend a weekly seminar series designed to broaden their experience by introducing ongoing scientific research in a variety of disciplines. Each of the seminars include a laboratory tour. Every effort is made to introduce students to minority graduate students working in related areas of science. In addition, all participants attend several general interest seminars covering such topics as Principles of Scientific Ethics and Financial Aid Planning.

3. Career and Academic Counseling

Participants are required to attend sessions on career opportunities in the sciences, government, and industry. In addition, one-on-one academic counseling is provided.

4. Mentoring/Orientation

A well-designed college orientation program is provided. Each participant is assigned a mentor who provides additional support and guidance during the summer.

5. Field Trips

Participants visit the following points of interest: (a) the U.S. Space and Rocket Center; (b) the Birmingham Civil Rights Institute; (c) the State Black Archives; and (d) the Ciba Geigy Corporation Technical Research Facility.

6. Summer Bridge Program Conference

AAMP students from all three campuses convene in Birmingham at the conclusion of the summer program to share experiences, compete academically, and interact with notable minority scientists.

7. Essay/Poster/Project Competition

Participants are required to write essays and make two posters or projects, one with an English theme and the other with a mathematics theme. Essays and projects are judged and winners are selected at the Summer Bridge Program Conference.



Dr. Virginia Gauld, Vice President for Student Affairs, conducts a workshop for Bridge Students

Advantages of the Summer Bridge Program include: (1) providing students entering the AMP programs with a "head start"; (2) providing Alliance institutions with an opportunity to retain more students by increasing the likelihood of success during the freshman year; (3) giving students an opportunity to build self-confidence before entering full-time college work; and (4) providing Alliance institutions with an additional student recruiting mechanism.

Program Director Dr. M. Carolyn Braswell, The University of Alabama at Birmingham

The 1997 Summer Bridge Program was held at three Alliance institutions, Alabama A&M University, Alabama State University, and The University of Alabama at Birmingham.

Alabama A&M University

The Summer Bridge Program held at Alabama A&M University was established in response to the need to bridge the gap of college-bound students who are making the transition from high school to college. Its purpose is to increase the number of minority high school graduates interested in pursuing careers in natural sciences, engineering, and mathematics. After participating in the program each student should be better prepared to successfully pursue college work.

The AMP 1997 Summer Bridge Program was a six-week residency program. Participants lived in student housing at AAMU, and meals were provided by the college dining hall. The program offered rigorous academic coursework conducted by faculty from AAMU. Classes were scheduled five days each week and augmented by weekly seminars, special lectures and presentations, and one field trip. Individual and group academic counseling was provided to all students in the program. The physical education facilities were available for recreation. The gymnasium, swimming pool, and tennis courts were open to all participants in the program. Group activities such as sporting events, State Black Archives Museum visit, movies, and others rounded out the extracurricular activities.



Alabama A&M 1997 Summer Bridge Participants

	Otuli
Site Coordinator	Mr. Curtis L. Jordan, Assistant Professor
	Department of Mathematics
AAMP Principal Investigator	Dr. Jerry Shipman, Professor and Dean
	School of Arts & Sciences
Faculty	Ms. Vertricia A. Jefferson, Assistant Professor
	Department of English
Courses	ENG 101, Communication Skills I
	MTH 121, Pre-Calculus

Staff

Participants

NAME HIGH SCHOOL CITY NAME HIGH SCHOOL CITY Frayser HS Memphis, TN Paramount HS Eutaw Lee, Wallace, II Austin, N'Jere Johnson HS Huntsville McDaniel, NaKiesha Fairfield HS Fairfield Baker, Vekeshia Sparkman HS Huntsville Baldwin, Brian Johnson HS Huntsville Moore, Starcy Boligee Alpine Morgan, Rhonda Paramount HS Bowman, Latonya Talladega Co HS B. T. Washington HS Union Springs Moultry, Natasha Butler HS Huntsville Brooks, Joanna Huntsville Robinson, Duana Ensley HS Birmingham Douglass, Sabrina Johnson HS Northland HS Columbus, OH Dysari, NaTasha Ensley HS Birmingham Ruffin, Lacretia Selma Talladega Sharpe, Shanae Selma HS Talladega HS Garrett, Bennie Talladega Co HS Talladega Truss, Daner Akron Gould, Sandrina Akron HS Decatur Ward, Ralph Huffman HS Birmingham Hollis, Shawnta Austin HS Watkins, Ambrey Bradshaw HS Florence Hubbard, Patrice Johnson HS Huntsville Daleville HS Daleville Huntsville Wiggins, Ezrick Jefferson, Tiavalya Johnson HS

Alabama State University

The Summer Bridge Program held at Alabama State University was established in response to the need to bridge the gap between high school and college. Its purpose is to increase the pool of minority high school graduates interested in pursuing careers in natural sciences, engineering, and mathematics. As a result of participation in the program, each student should enhance his or her capabilities successfully to pursue college work.

The Summer Bridge Program is a six-week residency program. Participants live in regular student housing at ASU and meals are provided by the college dining hall. The program offers rigorous academic coursework conducted by faculty from ASU. Classes, scheduled five days each week, are augmented by weekly seminars, special lectures and presentations, and two field trips to scientific and technical installations. Individual and group academic counseling are provided to all students in the program. The physical education facilities are available for recreation. The gymnasium, swimming pool and tennis courts are open to all participants in the program. Group activities such as picnics, sporting events, and museum visits round out the extracurricular activities.



Alabama State 1997 Summer Bridge Participants

Site Coordinator	Mr. Elijah Nyairo, Instructor
	Department of Chemistry
AAMP Principal Investigator	Dr. Wallace Maryland Jr., Chair
	Department of Math and Computer Science
Faculty	Mr. Bernard Frye, Instructor
	Department of Mathematics
	Ms. Michelle Dacus, Instructor
	Department of English
Courses	ENG 131, English Composition
	MAT 165, Pre-Calculas

Participants

NAME	HIGH SCHOOL	<u>CITY</u>	NAME	HIGH SCHOOL	<u>CITY</u>
Abernathy, Tanya	Linden HS	Linden	Lovell, Latronia	Clayton HS	Clayton
Brown, Rosie	Monroe Co HS	Monroeville	Maitland, Melissa	Abbeville HS	Headland
Cade, Christine K.	Leflore HS	Mobile	McNear, Tiffany N.	St. Jude HS	Montgomery
Coleman, Eron L.	Lee HS	Montgomery	Nettles, Summer	Carver Senior HS	Montgomery
Hardy, Yvonne	Central HS	Hayneville	Patton, Ivory	Lanier HS	Montgomery
Haynes, Ándrea	Richland Northeast HS	Columbia, SC	Perry, Tabatha	Sidney Lanier HS	Montgomery
Johnson, Kissie M.	Monroe Co HS	Monroeville	Tyler, Lorie Jean	Linden HS	Myrtlewood
Lampkin, Erica	Abbeville HS	Abbeville	Wesley, John R.	Ramsay HS	Birmingham
Lewis, Alvin, Jr.	Enterprise HS	Enterprise	Williams, Pamela	Hale County HS	Moundville
Logan, Marcella Y.	Central HS	Haynesville	Wilson, Marquis	Enterprise HS	Enterprise

The University of Alabama at Birmingham

The Summer Bridge Program held at The University of Alabama at Birmingham is designed to help minority students make a smooth transition from high school to college. As part of the Alabama Alliance for Minority Participation, the program serves students who have been admitted to one of the State's AMP institutions and plan to major in science, engineering, mathematics, or science education.

The academic preparation of Summer Bridge participants is addressed through two credit courses, a series of seminars, and other services. All students in the program are enrolled in a pre-calculus course and an English course. These courses are designed specifically for the program. Students also participate in weekly seminars that provide information on college survival skills, financial aid planning, time and stress management, and special topics in science, engineering, mathematics, and science education.

Career and academic counseling and tutoring services are provided for participants.

In an attempt to address the personal development of the Summer Bridge students, mentors are assigned to each participant. Mentors provide support and guidance as participants make adjustments to campus life.

Social functions and field trips provide opportunities for bridge students to get to know each other and meet other students on campus.



The University of Alabama at Birmingham 1997 Summer Bridge Participants

waw agua a

Site Coordinator	Dr. Marius Nkashama, Professor
	Department of Mathematics
AAMP Project Director	Dr. Louis Dale, Associate Provost
	for Minority and Special Programs, Professor of Mathematics
Faculty	Mr. Eugene Wilson, Director
	Mathematics Resource Center
	Ms. Sonya Davis, Instructor
	Department of English
Courses	EH 101, English Composition
	MA 105. Pre-Calculus I

....

Participants

NAME	HIGH SCHOOL	<u>CITY</u>	<u>NAME</u>	HIGH SCHOOL	CITY
Brazelton, Shenita	Johnson HS	Huntsville	Hamilton, Shalfonteese	W. Mott HS	Warren, MI
Brundidge, Erica	Booker T. Washington HS	Tuskegee	Harris, Elaina	Jackson-Olin HS	Birmingham
Burrell, Stephanie	Linden HS	Linden	James, Masheika	Woodlawn HS	Birmingham
Centeno, Shawnee	Johnson HS	Huntsville	McDonald, Stephen	McIntosh HS	McIntosh
Coke, Joi-ReShae	Ramsay HS	Birmingham	Robinson, Chandra	Gardendale HS	Gardendale
Davis, Candace	Ramsay HS	Birmingham	Tate, Teresa	Selma HS	Selma
Dobbins, George, III	Hale County HS	Moundville	Tidwell, Daniel	Childersburg HS	Sylacauga
Fields, Alicia	Ensley HS	Birmingham	Walker, Latasha	Selma HS	Selma
Foley, Carlos	Johnson HS	Huntsville	Washington, Tabarious	Hoover HS	Hoover

Summer Bridge Interactive Television Mini Conference

The Summer Bridge Program Interactive Television Mini Conference provides Summer Bridge Participants at the three internship sites–The University of Alabama at Birmingham, Alabama A&M University, and Alabama State University–the first opportunity to interact and discuss campus life at each internship site

Agenda July 1, 1997 1:30 p.m.

1. Opening Remarks

2. Conference Overview

Dr. Louis Dale, Project Director

Dr. M. Carolyn Braswell, Program Director

3. Site Coordinators' Reports and Introduction of Participants Alabama A&M University Alabama State University The University of Alabama at Birmingham

Mr. Curtis Jordan Mr. Elijah Nyairo Dr. Marius Nkashama

4. Student Presentations

Alabama A&M University Alabama State University The University of Alabama at Birmingham

5. July 18 Summer Bridge Program Conference

6. Closing Remarks

Alabama A&M University Alabama State University The University of Alabama at Birmingham Ms. Latoya Davenport Mr. Landon Jones Mr. George Medlock, Jr.

Dr. M. Carolyn Braswell

Dr. Jerry Shipman Dr. Wallace Maryland, Jr. Dr. Louis Dale Dr. M. Carolyn Braswell



Mini Conference Participants at The University of Alabama at Birmingham site

Summer Bridge Program Conference

The Summer Bridge Program Conferense is designed to provide an opportunity for participants at the three program sites to meet and share experiences, participate in scientific and literary competition, and to build confidence in themselves for completion of college work. The 1997 conference speaker was Dr. Margret W. Curtis, Professor of Biology and Director of the Minority Access to Research Careers/Minority Biomedical Research Support Programs at Bennett College in Greenboro, North Carolina.



Conference participants listen to speaker's comments



Dr. Margret W. Curtis, Conference Speaker



Dr. Carolyn Braswell, Conference Director



Conference Participants

Competition Winners

Mathematics Poster Competition

Second Place. George Dobbins, III **English Poster Competition** Second Place..Joi-ReShae Coke

Essay Competition

Second Place..Shenita Brazelton Best Oral Presentation......Melissa Maitland

First Place..Stephanie Burrell

First Place..Chandra Robinson

First Place..Stephanie Burrell





Awards presented to competition winners by Dr. Curtis



Third Place..N'Jere Austin

Third Place..Nakiesha McDaniel

Third Place..Erica Brundidge

Conference Agenda

July 18, 1997 • 15th Street Classroom Building

Registration	8:30 A.M. Room 133	11:30 A.M I	Photo Session
Project Assembly and Displa	av 8:30 - 9:30 A.M	12:00 Noc	on - Lunch
English Project Displays	Room 124	Student Luncheon	Room 101
Mathematics Project Displ	ays Room 128	Executive Luncheon	Room 102
9:30 A.M. Opening Ses Dr. Louis Dale,	sion (Room 133) Presiding	2:00 P.M. After Dr. M. Carolyn Br	rnoon Session raswell, Presiding
Welcome and Introductions	Dr. Louis Dale	Presentation of Certific	cates
Summer Dridee Dreemer	lojeet Director, Alabania Ami	Alabama A&M University Participants	Dr. Jerry Shipman
Overview Di Director, Alabama	: M. Carolyn Braswell AMP Summer Bridge Program	Alabama State University Participants	Dr. Wallace Maryland, Jr.
KEYNOTE AI	DDRESS	The University of Alabama at Birmingham	
Introduction of Speaker The Universi	Ms. Erica Brundidge ty of Alabama at Birmingham	Participants	Dr. Marius Nkashama
Speaker I	Dr. Margaret W. Curtis	Presentation of Posters	8
Professor of Biology and Dir	ector, MARC/MBRS Programs Bennett College	Introduction of Alabama	
Special Presentation Mr	. George Dobbins, III	A&M University Finalists	Mr. Curtis Jordan
The Universi	ty of Alabama at Birmingham	Introduction of Alabama	
Break		State University Finalists	Mr. Elijah Nyairo
11:00 A.M Presentation Program E Dr. Jerry Shipmay	of Summer Bridge ssays n. Presiding	Introduction of The University of Alabama at Birmingham Finalists	Dr. Marius Nkashama
Introduction of Alabama	ii, i i coluing	Award Presentations	
A&M University Finalists	Mr. Curtis Iordan	Award Presentations	
,	Site Coordinator Alabama A&M University	Awards Presented by	Dr. Margaret W. Curtis
Introduction of Alabama State University Finalists	Mr. Elijah Nyairo Site Coordinator	Essay Awards En Mathematics	nglish Poster Awards Poster Awards
	Alabama State University	Special Presentations	Students
Introduction of The University of Alabama			
at Birmingham Finalists	Dr. Marius Nkashama Site Coordinator	Closing Remarks	Dr. M. Carolyn Braswell Dr. Margaret Curtis
The Universi	ty of Alabama at Birmingham		

Summer Research Internship Program

The Summer Research Internship Program is designed to provide research experiences for undergradu-



ates from Alliance institutions majoring in science, engineering, and mathematics. Interns work in their area of interest for eight weeks with university researchers and present a project at the concluding AMP Summer Research Conference in August. In addition, interns are required to enroll in at least one science or engineering course for credit. The Drop-In Center is available for use by interns during the summer, and an intern seminar series is held each Friday. The seminars host invited speakers and provide an array of activities of interest to the interns. Interns may attend programs at either The University of Alabama at Birmingham site or the Alabama A&M University/The University of Alabama in Huntsville site.

Graduate Bridge Program

The program is designed to provide research and other experiences to AAMP students during the summer prior to entry into graduate school. Participants are assigned a faculty mentor to provide research experience in the particular field of study. Such experiences will include laboratory experiences and

techniques of scientific investigations appropriate for the beginning graduate student. Participants, in conjunction with the research mentor, will develop and test a scientific hypothesis using appropriate techniques and communicate the results in writing or oral presen-



tation. The student will present the results of the research at the annual AAMP Summer Research Conference. In addition, participants will enroll in a graduate course selected in consultation with the graduate advisor at the students' prospective institution.

AAMP DOE/EPSCoR Summer Program

The program provides an opportunity for Alliance students to spend the summer at one of the Alabama



DOE/EPSCoR Research Clusters working with a research mentor on energy-related research. The clusters are located at The University of Alabama and Auburn University, both AAMP institutions. The cluster director and faculty who make the final selection of participants interview interested students. Participants are required to enroll in a science course during the summer. The results of their research are presented at the annual AAMP Summer Research Conference.

Staff

Program Coordinator UAB Site Coordinator A&M Site Coordinator

Research Scientists

Animal Sciences Dr. J. U. Johnson

Engineering Dr. R. Adham Dr. K. K. Chittur Mr. James Jones

Dr. Tracy Hamilton

Dr. E. Meechan

Dr. J. Thompson

Dr. A Ranasinghe

Dr. Kevin Reilly

Dr. Peter Wang

Dr. Rudi Weikard

Chemistry

Microbiology

Dr. Diana duCros Mr. Marek Jedrzejas

Optometry

Dr. Terry Bray

Biology Dr. Charles Amsler Dr. P. S. Campbell Mrs. D. Carswell Dr. M. Eley Dr. Vithal Ghanta Dr. A. D. Johnson Dr. J. Roberts Dr. A. Torres Dr. Thane Wibbels

1997 Participants

UAB Site

Courtni Allen-Tuskegee Monique Bibbs-UAB Alvin Binns-Alabama State **Roderick Brown-Miles** Shunna Cannon-UAB Amaris Comer-Talladega

Graduate Bridge Students Latrica Birgan-UAB

Alabama A&M/UAH Site

Maria Brown-Alabama State

Walter Campbell, Jr.-UAH Raquia Denson-Tuskegee

Laticia Bowens-UAH

Felton Fomby-UA

Aimee Hulede-Tuskegee

Rosland Killingsworth-Miles

Kenya R. McRae-Stillman

Tolulope Isibor-UAH

Darius Jacobs-UAH

Mathematics & Computer Sciences

Robert Page, III-Talladega College Volonda Reedus-Alabama A&M Marcus Rogers-UAB Trissi Simpkins-Alabama State Anedra Winfrey-Talladega

Ebony Davis-Alabama State Anita Garner-Alabama A&M Darryl Gary-Alabama State JaNeen Griffin-Tuskegee Adria Mason-Alabama A&M

Freida Dale-UAB

Anitra Paster-UAB

Lucretia Jones-UAB

TiShawn McWilliams-Miles Ruth Merid-Oakwood Makesha Miggins-Tuskegee LaShundra Perry-UAH Tamara Woody-Talladega

Auburn University Cluster

AAMD DOE/EDSCoD	Manana Oni Anthuna	Valler Terrian Auburn	Sara Dath Dichardson Auburn
AAMP DOE/EFSCOR	Marcus Oni-Aubum	Keny Tayloi-Aubum	Sala Delli Kichaldson-Aubum

Dr. M. Carolyn Braswell Dr. Louis Dale Dr. Jerry Shipman

Obstetrics & Gynecology

Dr. Barbara Conway-Myers Dr. Gene Hines Dr. Richard Parker, Jr.

Graduate Bridge Mentors

Ms. Beverly Bishop Mr. Eric Johnson Dr. Marius Nkashama Dr. Tino Unlap

AAMP DOE/EPSCoR

Auburn Cluster Mentors Dr. Gary Swanson Dr. Mrinal Thakur





The Summer Research Internship Conference provides an opportunity for research interns at both internship sites to meet and share experiences, participate in scientific competition, and build self-confidence in their ability to achieve success in graduate school. The conference speaker was Dr. Albert Sloan, President of Miles College in Birmingham, Alabama.



The conference begins with registration



Projects are assembled

Dr. Charlotte Carter and Mr. Greg Singleton discuss project with student



Dr. Adriel Johnson discusses projects with students



Student awaits judges

The projects are ready and waiting for the judges

Principal Investigators confer with students



Students await judges



Dr. Dan Jones, Chair of the Biology Department confers with student

The projects are judged



Dr. Rosalia Scripa, Professos of Engineering confers with student

Conference Speaker



Dr. Albert J.H. Sloan, II, President of Miles College





Awards Presented to Competition Winners

Competition Winners

Life Sciences	First Place	Darius Jacobs	Second Place	Amaris Comer
Physical Sciences	First Place	TiShawn McWilliams	Second Place	Ebony Davis
Mathematics/Computer Sciences	First Place	Roderick Brown	Second Place	Anedra Winfrey
Engineering	First Place	Walter Campbell, Jr	Second Place	Marcus Rogers
DOE/EPSCoR Energy-Related				
Research	Best Project	Sara Beth Richardson		
Graduate Bridge Research	Best Project	Latrica Birgan		

Conference Participants



Faculty and Staff



1997 Summer Research Interns

Conference Agenda

Sunday, July 27, 1997

2:00 p.m. Best Western Me	Registration dical Center Hotel	10:00 a.m. Hill University Cente	Exhibits Open to the Public r Great Hall (Rooms C & D)
4:00 p.m. Hill University Center G	Exhibit Area Open reat Hall (Rooms C & D)	10:15 a.m. Hill University Cente	Student Forum r Great Hall (Rooms A & B)
6:00 p.m. 445 Cam	Reception pbell Hall	Presiding	Dr. David McCants, II
Monday, J	uly 28, 1997	11:00 a.m.	Photo Session
7:30 a.m. 401 and 445	Breakfast Campbell Hall	11:30 a.m. Room 102, 15th S	Lunch Street Classroom Building
8:30 a.m. Hill University Center G	Project Judging reat Hall (Rooms C & D)	1:00 p.m. Hill University Cente	Award Presentations r Great Hall (Rooms A & B)
9:00 a.m. Hill University Center G	General Assembly reat Hall (Rooms A & B)	Ce Alabama A&M Partic	ipants Dr. Jerry Shipman
Welcome and Introduct Associate Provo	ions Dr. Louis Dale st for Minority and Special Programs	The University of Ala at Birmingham Intern and Graduate	abama Dr. M. Carolyn Braswell Bridge Participants
The U	iniversity of Alabama at Birmingham	AMP DOE/EPSCoR F	Participants Dr. Louis Dale
		Proj	ect Awards
The AMP Internship Pro Professor and	Der Jerry Shipman Dean, School of Arts and Sciences Alabama A&M University	Life Sciences	Dr. Adriel D. Johnson
Introduction of Speaker	Dr. Hattie Lamar	Physical Sciences	Dr. Kenneth LaiHing
Specker	Dean of Academic Affairs Miles College	Mathematics/Comput Sciences	ter Dr. Wallace Maryland, Jr.
speaker	Dr. Albert J.H. Sloan, II President Miles College	Engineering	Dr. Overtoun Jenda
Presentations	intes conege	AMP DOE/EPSCoR E Related Research	Cnergy- Dr. Arthur Bacon
AMP Principal Investiga	tor Dr. Charlotta Cartor	Graduate Bridge Res	earch Dr. Marius Nkashama
AMP Mentor of the	Di. Chanolle Caller	Student	Presentations
Year Award AMP Scholar of the Year Award	Dr. J. H. M. Henderson Dr. Arthur Bacon	2:00 p.m.	Program Ends
Special Award	Ms. JaNeen Griffin		

Teacher Preparation Program Summer Conference

The Teacher Preparation Program Conference is held each summer to provide an opportunity for Teacher Preparation Scholars to present the results of their research efforts, to showcase their teacher preparation portfolios, to review certification requirements, and to form networks for future activities. The 1997 conference speaker was Dr. Charles Calhoun, Assistant Dean for Urban Affairs and Associate Professor of Education at UAB.





Conference faculty take notes



Conference faculty



Students waiting for project judge

Project Competition Winners

First Place Curtis Rice Alabama A&M

Second Place Tyrone King Alabama A&M

Third Place Akilah Albritton Tuskegee

Best Portfolio Alanda Malone Miles College



Dr. Charles Calhoun, Conference Speaker



Student discussing project



Dr. Jan Case judges student project



Dr. Carolyn Braswell presents award to student

AGENDA

Wednesday, June 25, 1997

12:00 - 6:00 p.m.	Check in Hotel
5:00 - 6:00 p.m.	Registration Students assemble projects and display journals (Hill University Center Great Hall)
6:30 p.m.	SESSION I - Reception, Marshall Conference Center Dr. M. Carolyn Braswell, Presiding
	Welcome/Introductions
	Conference Overview - Dr. M. Carolyn Braswell
	Student Reports on Visits to Local Schools
	<u>Thursday, June 26, 1997</u>
7:30 a.m.	Continental Breakfast, 401 Campbell Hall
8:00 a.m.	Students assemble projects and display journals (continued)
8:30 a.m.	SESSION II - Hill University Center Great Hall Dr. Jerry Shipman, Presiding
8:40 a.m.	The Teacher Preparation Program - Dr. Louis Dale
9:00 a.m.	Student Projects and Journals - Review and Judging - Dr. David McCants, II (Students stand by projects during judging)
9:00 a.m.	Reports from the TP ProgramSites (10 minutes each)• Alabama State University- Dr. Wallace Maryland, Jr./Dr. Zephyrinus Okonkwo• Alabama A&M University- Dr. Jerry Shipman/Dr. Bruce Crawford• Auburn University- Dr. Overtoun Jenda• Miles College- Dr. David McCants, II/Dr. Emma T. Shepard• Talladega College- Dr. Arthur Bacon
10:00 a.m.	Student Reports of Academic Year Research or Projects
10:30 a.m.	 Roundtable - Dr. Marius Nkashama and Dr. Jeanne Hutchison, Moderators Recruiting and Retaining Education Students Mentoring Techniques Collaboration between TP Scholars and AMP Scholars, and between Science and Education Faculty Recommendations for TP Program Improvement
11:30 a.m.	SESSION III - Lunch Dr. Wallace Maryland, Jr., Presiding
	Speaker - Dr. Charles Calhoun, Associate Professor of Education, UAB
	Presentation of Certificates - Dr. Wallace Maryland, Jr. Presentation of Awards - Dr. M. Carolyn Braswell
2:00 p.m.	CONFERENCE ENDS

1997 Distinguished AMP Scholar Award Presented to Veronica Snell

Ms. Veronica Snell was selected as the 1997 Distinguished AMP Scholar by the AAMP Distinguished Awards Selection Committee. She worked in the Drop-In Center at Talladega College and was second place winner of the DOE/EPSCOR Energy-Related Research Competition in 1996. Ms. Snell, a biology major, graduated from Talladega College in May of 1997.

Presenting the award to Ms. Snell is Dr. Arthur Bacon, AMP Principal Investigator and Dean of Natural Sciences and Mathematics at Talladega College



Dr. Herman Windham is Recipient of the 1997 Distinguished Mentor Award



Dr. Herman Windham, Chairman of the Mathematics Department at Tuskegee University, was presented the 1997 Distinguished Mentor Award for outstanding service as a mentor to students at Tuskegee University. Dr. Windham's selection was the result of very strong letters of support from students and faculty.

Presenting the award to Dr. Windham is Dr. James Henderson, AMP Principal Investigator and Director of the Carver Research Center.

1997 AMP Principal Investigator of the Year is Awarded to Dr. Adriel Johnson

Dr. Adriel Jonhson, Associate Professor of Biology and Associate Provost at The University of Alabama in Huntsville, was presented the 1997 Principal Investigator of the Year Award for outstanding service as a principal investigator during the 1996-97 academic year. Dr. Jonhson has done an excellent job of building the AMP program at UAH!

Presenting the award to Dr. Johnson is Dr. Chalotte Carter, Principal Investigator at Stillman College and two-time winner of the award.



Each NSF Alliance is required to present an annual report to NSF in November. As a result of the Government Performance and Results Act (GPRA), each Alliance is now required to undergo a Performance Effectiveness Review.

GPRA Effectiveness Review Goals: The goals of the GPRA effectiveness review are

- to gain a full understanding of the appropriately documented, effectively measured, significant, and reliable indicators by which progress is assessed as per the program objectives, design and implementation strategies, and the financial resources expended; and
- to produce a diverse, globally-oriented workforce of scientists and engineers.

The review consists of providing responses to 10 Indicators of Progress/Achievement.

Progress/Achievement: A summary of AAMP's 1997 Performance Effectiveness Review follows:

I. PROGRAM PERFORMANCE

The Alabama Alliance for Minority Participation (AAMP) began in 1991 with The University of Alabama at Birmingham and eight Historically Black Colleges and Universities (HBCUs). The baseline minority undergraduate SEM degree production for the 1990-91 academic year for the Alliance was 437. The numerical target agreed upon for the Alliance was 1,000 minority SEM bachelor degrees by the year 1996, the fifth year of the award. The Alliance's strategy to increase undergraduate degree production was to attract minority students to careers in science, engineering, and mathematics by offering four years of scholarship support to well-qualified high school graduating seniors; offering academic support to currently enrolled SEM students.

Table 1 below gives the yearly minority SEM bachelor degrees awarded since the beginning of the project. Table 2 gives the total SEM degrees awarded and Table 3 gives the yearly SEM undergraduate degree production by fields. It is important to note that the number of minority students emerging from the AAMP pipeline since the award has increased by 115%. Moreover, the three largest degree-producing fields over the six-year period have been engineering (1,348 degrees), life sciences (1,227 degrees), and computer sciences (548 degrees).



Field	1992	1993	1994	1995	1996	1997	Total
Chemistry	37	40	50	64	76	58	325
Physics/Astronomy	16	19	17	25	18	18	113
Mathematics	52	68	53	64	41	53	331
Computer Sciences	68	125	85	92	96	82	548
Geosciences	3	2	3	2	2	0	12
Engineering	147	151	208	266	292	284	1,348
Life Sciences	136	147	198	183	249	314	1,227
Agricultural Sciences	75	28	46	50	65	66	330
Other SEM	79	23	8	11	43	64	228
Total	613	603	668	757	882	939	4,462

Minority SEM Bachelor Degrees by Field

Table 3

The 1997 Edition of Science and Engineering Degrees, by Race/Ethnicity of Recipients, published by the National Science Foundation, indicates that nationally, in 1995, African-Americans were awarded 3,231 bachelor degrees in biological sciences, 3,493 bachelor degrees in mathematics and computer sciences; and 2,845 bachelor degrees in engineering. At the same time, AAMP institutions awarded 183 degrees, 156 degrees, and 266 degrees in these fields, respectively. Consequently, in 1995, AAMP awarded 5.7%, 4.5%, and 9.3% of the degrees in these fields, respectively.

II. "VALUE ADDED" for INTER and INTRA-INSTITUTIONAL PROGRAMMING and COHERENCE

The Alabama Alliance has twelve member institutions, four majority institutions and eight HBCUs. Seven of the institutions have graduate programs while five are strictly undergraduate institutions. The institutions with graduate programs and graduate faculty share their resources with the undergraduate institutions. The Summer Research Internship Program is the most efficient way in which these resources are shared. AAMP summer research programs are held at each of the four majority institutions–The University of Alabama, Auburn University, The University of Alabama in Huntsville, and The University of Alabama at Birmingham–as well as, Alabama A&M University, an HBCU. The sharing of faculty and facilities provide an advantage for all Alliance participants. The undergraduate institutions are having their students exposed to research experiences with research faculty, while the research institutions are given the opportunity to work with and identify highly qualified minority students who may be attracted to their graduate school and assist them with preparation for graduate school.

The highly successful Drop-In Center concept was developed at a member institution and replicated at each of the remaining institutions. The AAMP Drop-In Center was developed at Talladega College from the tutorial lab concept for remedial mathematics students. The Centers are staffed fulltime by students and faculty. AAMP students are able to get help in any science course from the Center staff. In addition, the Center is a place where AAMP students meet for collaborative learning. As a condition of the AAMP scholarship, an AAMP student must spend at least five hours in the Drop-In Center each week assisting other students with science coursework. Many students spend a lot more than the required five hours in the Center. Faculty members refer students to the Center for special help and meet classes in the Center for study sessions.

The AAMP budget distribution in Tables 4 and 5 is clear evidence that resources provided by NSF are used strategically. The majority of NSF funds are used by AAMP institutions for direct student support. Moreover, the fact that AAMP institutions have an AMP award is a very good catalyst for attracting student support from the business community and other sources.



It is important to note that funds for direct student support have remained near 65% since the initial award. Student support combined with program support has remained near 75%.

III. STUDENT PERFORMANCE

AAMP student performance is excellent. AMP scholars are recruited directly from high school. They are given four-year scholarships and are required to maintain a 3.0 GPA in order to continue receiving support. If an AMP scholar's GPA falls below 3.0, the scholar is given one term to bring it back up to the 3.0 level. In all cases where an AMP scholar's GPA fell below 3.0, it was brought back to the acceptable level. This has set the tone for all minority science students and has thus caused AMP students to be a cut above average compared to other SEM students.

The number of AMP scholarships awarded by the Alliance has increased from 68 during the first year of the award to 184 during the current year. See Table 6 below.



The AAMP scholars' success has certainly increased retention rates because most AAMP students now stay in school and complete degree requirements, as indicated by the 115% increase in AAMP students receiving bachelor degrees over the last six-year period. The two factors most involved in the retention of minority students are financial needs and academic success. AAMP programs and activities, particularly the AAMP Scholarship program and the AAMP Drop-In Center, are centered around these factors.

The results of a retention study conducted for AAMP by the University of Oklahoma indicated that the lower end of the retention rates of AAMP institutions has steadily risen from 25.2% before AAMP, to 61.9% as of 1992. This is a direct result of the implementation of AAMP activities. AAMP students are performing quite well in their undergraduate research in the summer internship programs and some have had their research findings published. The 3.0 GPA requirement is partly responsible for the academic success of AAMP students.

IV. ACADEMIC PERFORMANCE INDICATORS

The baseline minority SEM enrollment for AAMP is 3,301. The minority SEM enrollment for the 1996-97 academic year was 6,711, a 103% increase. It is necessary that minority SEM enrollment increase in order that minority degree production increases. For AAMP, both minority enrollment and minority degree production increased by over the last six years.





Minority SEM Enrollment - 1991-96

Year	1991	1992	1993	1994	1995	1996
Minority SEM	3,301	4,167	5,280	6,120	6,183	6,711
Percent Change		26	60	85	87	103
			Table 9			

Table 7 gives the minority SEM enrollment since the initial award, Table 8 gives a four-year history of both minority and total SEM enrollment, and Table 9 gives enrollment and percentage of change.

V. EVIDENCE OF INSTITUTIONALIZATION

The Alabama Alliance has been successful in institutionalizing two of the programs initiated with NSF support. During the first year of the award, each institution was given an average of \$25,000 to start an AMP Drop-In Center; a place where students meet to discuss problems, get academic help, and help each other. NSF funds decreased as institutional funds increased, and beginning with the 1996-97 academic year, each campus began support of its Drop-In Center with its own funds. The second program to be institutionalized is the AAMP Mentoring Program. Initially, funds were provided to each institution to support mentors for AAMP students. Now mentors are provided for each AAMP scholar and each AAMP intern at the expense of the institution. In particular, The University of Alabama at Birmingham, The University of Alabama in Huntsville, and Alabama A&M University provide research scientists each summer for the AAMP interns who spend 8 weeks on these campuses.

The summer of 1997 was the beginning of new summer bridge programs at Auburn University and The University of Alabama for minority high school graduates. These new programs were funded by seed money from the universities and a contribution from the Alabama DOE/EPSCoR program. The two programs are expected to become institutionalized at these universities.

VI. COST-SHARING

Alabama Alliance cost-sharing (Tables 10, 11, and 12) has come from a variety of sources over the last six years. The majority of the cost-sharing was contributed by the major universities/colleges using state funds and averaged \$1,000,000 each year.



Funding Source	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97			
State Government					300,000	590,000			
Universities/Colleges	990,053	898,251	970,378	1,073,114	508,584	214,472			
Other Federal Support				15,480	18,193	18,200			
Foundations	40,440	63,914	92,948	82,523	116,964	166,964			
Businesses/Industries	59,162	35,003	52,500	2,500	115,390	80,390			
Total	1,089,655	997,168	1,115,826	1,173,617	1,059,131	1,070,026			

AAMP Cost-Sharing in Dollars - 1991-97

Table 12

Initially, The University of Alabama at Birmingham contributed the major portion of cost-sharing. It is expected that all Alliance institutions will contribute an increased amount of cost-sharing during AAMP Phase II, resulting in an increase in this average.

VII. STUDENT SUPPORT PROGRAMS

Alabama AMP has a variety of student support programs designed to meet the needs of under-

graduate students and students at the high school to college and the college to graduate school junctions in the academic pipeline. See Alliance Program Descriptions (page 10)

VIII. HIGH SCHOOL AND COMMUNITY COLLEGE ARTICULATION AGREEMENTS: ADMISSIONS, COURSE REQUIREMENTS, TRANSFER CREDITS

The majority of colleges and universities in Alabama, including AAMP institutions, have articulation agreements with community colleges. This activity is encouraged and required by the State Department of Education.

There are no community colleges in the Alabama Alliance.

IX. TEACHER PREPARATION

The solution to the problem of a shortage of minority students entering the mathematics and science teaching professions is found in the success of the AMP program. National attention has been given to the problem and aggressive leadership is needed to bring together science and education schools and faculty to address the problem and find a solution. The AMP program is a model for success for the teacher preparation problem.

AAMP Teacher Preparation Program

Eligibility

- Entering freshman with an interest in becoming a science or mathematics teacher
- Regular college admission requirements satisfied
- Junior college transfer interested in becoming a science or mathematics teacher
- College graduate interested in becoming certified to teach science or mathematics

Support

- Up to \$1,000 in tuition support for the first year and \$1,200 in tuition support for three additional years
- Support for supplies for research projects

Requirements

- Work on a research project with an assigned faculty mentor and report findings at the Teacher Preparation Summer Conference
- Visit and observe a science or mathematics class at a local school each semester
- Develop a portfolio of education and professional activities each year
- Maintain progress toward certification and degree requirements on computer disk
- Attend and participate in the AAMP Teacher Preparation Summer Conference

X. SUMMARY IMPACT OF THE AMP PROJECT

The impact of the AMP project in Alabama has been very positive with regard to undergraduate degree production. The project began in 1991 with nine institutions producing 437 minority undergraduate SEM degrees. The Alliance has expanded to twelve institutions in 1997 producing 939 undergraduate SEM degrees. Over the six-year period, the Alliance has produced 4,899 minority undergraduate SEM degrees. A major impact has been made on the Historically Black Colleges and Universities in Alabama. Table 13 below gives the degree production of these institutions.

Institution	1991	1992	1993	1994	1995	1996	1997	Total
Alabama A&M	95	95	110	125	139	147	183	894
Alabama State	29	54	90	56	53	60	73	415
Miles	3	7	10	8	10	21	17	76
Oakwood	42	41	42	33	36	43	49	286
Stillman	24	22	20	27	23	34	30	180
Talladega	28	21	32	27	31	42	52	233
Tougaloo	22	22	27	30	44	37	48	230
Tuskegee	158	287	198	185	219	271	297	1,615
UAB	36	64	56	45	64	73	56	394
UAH			18	24	30	31	26	129
Auburn				56	54	81	67	258
Alabama				52	54	42	41	189
Total	437	613	603	668	757	882	939	4,899

Undergraduate Degree Production of AAMP Institutions

Table 13

As can be seen from this table, the AMP project has had a tremendous impact on SEM degree production at these institutions. This is a direct result of providing academic and financial support to students and improving the quality of instruction in science. A by-product of this increase in quantity and quality is an improvement in the quality of life for many minorities in Alabama involved in the project.

The AMP project's impact has reached beyond degree production and affected the way member institutions do business. There has been an increase in cooperation and collaboration among Alliance institutions, in particular, between large and small, state and private, and majority and minority.



- 1. Alabama AMP was one of the first six Alliances to be funded by the National Science Foundation in 1991. The other Alliances were Arizona, California, Mississippi, Puerto Rico, and Texas.
- 2. Alabama AMP began with nine institutions; eight Historically Black Colleges and Universities and one majority institution.





- Eight of the nine original principal investigators are still serving as principal in-3. vestigators. They are Dr. Arthur Bacon (Talladega College), Dr. Charlotte Carter (Stillman College), Dr. James Henderson (Tuskegee University), Dr. Kenneth LaiHing (Oakwood College), Dr. Wallace Maryland, Jr. University), Marius Nkashama (Alabama State Dr. (UAB), Dr. Richard McGinnis (Tougaloo College), and Dr. Jerry Shipman (Alabama A&M University).
- 4. Only one of the nine original AMP presidents is still serving as an AMP president. He is Dr. Benjamin Payton of Tuskegee University.





- 5. Since 1991, the first year of the Alabama Alliance, 4,899 minority students have received bachelor degrees in science, engineering, and mathematics.
- The highest ranking black administrator at NSF is Dr. Luther Williams, Assistant Director for Education and Human Resources.



Alabama Alliance for Minority Participation Organizational Structure



Administration

Dr. Louis Dale, Project Director The University of Alabama at Birmingham Dr. Carolyn Braswell, Project Manager and Director of Teacher Preparation The University of Alabama at Birmingham

Alliance Members, Presidents, and Principal Investigators

The University of Alabama at Birmingham (Lead Institution) Dr. W. Ann Reynolds, President Dr. Marius Nkashama, P.I.

Alabama A&M University Dr. John T. Gibson, President Dr. Jerry R. Shipman, P.I.

Alabama State University Dr. William H. Harris, President Dr. Wallace Maryland, Jr., P.I.

Auburn University Dr. William V. Muse, President Dr. Overtoun M. Jenda, P.I.

Miles College Dr. Albert J. H. Sloan, II, President Dr. David McCants, II, P.I.

Oakwood College Dr. Delbert W. Baker, President Dr. Kenneth LaiHing, P.I. Stillman College Dr. Ernest C. McNealey, President Dr. Charlotte Carter, P.I.

Talladega College Dr. Joseph B. Johnson, President Dr. Arthur L. Bacon, P.I.

Tougaloo College Dr. Joe A. Lee, President Dr. Richard P. McGinnis, P.I.

Tuskegee University Dr. Benjamin F. Payton, President Dr. J. H. M. Henderson, P.I.

The University of Alabama Dr. Andrew A. Sorensen, President Dr. Viola L. Acoff, P.I.

The University of Alabama in Huntsville Dr. Frank A. Franz, President Dr. Adriel D. Johnson, P.I.

INSTITUTIONAL PROFILES

The University of Alabama at Birmingham



The University of Alabama at Birmingham, situated on 70 square blocks at the bottom of Red Mountain, lies amid rapidly growing residential communities and a dynamic national and international business and industrial complex. The regional industrial base is heavily represented by aerospace, biotechnology, medical technology, and computer industries in addition to construction, banking and finance.

UAB is one of the youngest campuses in Alabama. In a relatively short time, the campus has made remarkable advances. It ranked 34th nationally in federal funds for reserach and development in 1993. As of September 1997, the awards for active grants/contracts were 248 million dollars. It is one of five universities established since the 1900's to achieve ranking in the top 100 schools (source - NSF).

The University has an enrollment of 15,850, including 10,358 undergraduates and 5,492 graduate and medical students and residents. The student body is 21.6% Black; 0.1% American Indian; 1.5% Asian/Pacific Islander; 0.2% Hispanic; 76% White; and 0.6% other. The campus has a very strong presence in the sciences; approximately onehalf of the entire student population is enrolled in the Biological or Behavioral Sciences, Engineering, Information and Computer Sciences, or the Medical School. Academic Affairs is responsible for instructional programs in the arts and sciences, as well as in the professional disciplines of engineering, education, and business. Threefourths of the students at UAB are enrolled in the programs in Academic Affairs.

The University's growth over the past 28 years has occurred with an overriding commitment to excellence. This has resulted in exceptionally strong academic units of substantial breadth rather than a comprehensive coverage of all academic disciplines.

UAB is a growing campus. Indeed, a substantial portion of the growth within The University of Alabama System over the next two decades will occur at Birmingham. There is a vigorous dialogue to identify new areas of concentration.

The University of Alabama at Birmingham AMP Site

Dr. Marius Nkashama

Professor of Mathematics

(205) 934-2154 E-mail: nkasham@math.uab.edu







UAB RESEARCH INTERNS

NAME 1992

Khali Abercrombie Marc Grimmett Gwen Sanders

<u>1993</u>

Corey McCray Veda Roseborough Gwen Sanders Chris Sullen

<u>1994</u>

Veda Roseborough Pamé Warren

<u>1995</u>

Ayesha Chandler Stephanie Ford Sabrenia Harper

<u>1996</u>

Monique Bibbs Shunna Cannon

<u>1997</u>

Monique Bibbs Shunna Cannon Marcus Rogers

MAJOR

Chemistry Biology Engineering

Computer Science Biology Engineering Chemistry

Biology Computer Science

Engineering Biology Computer Science

Chemistry Biology

Chemistry Biology Engineering

AMP Drop-In Center

The University of Alabama at Birmingham has an active Center that is fully operational. The equipment in the Center includes computers with science and engineering software, and VCR and monitor for playing science and engineering tapes for individual learning or for small groups of students. Each AMP Scholar is required to serve five hours per week in the Center that usually remains open 40 hours per week. Students who have used the Center services have significantly done better in gatekeeping science and mathematics courses that are usually the stumbling blocks for many incoming SEM majors.

AMP SCHOLAR GRADUATES

Name	Major	Year
Kahli Abercrombie	Chemistry	1995
Angela Bryant	Math Education	1997
Marc Grimmett	Biology	1995
Corey McCray	Computer Science	1997
Veda Roseborough	Biology	1997

Alabama A&M University



et Your Sights High! It's not the easy way. But setting your sights high is essential if you want to achieve success. More than that, you need to make a commitment to do your best and be prepared to face tough challenges along the At Alabama way. A&M University we want to help you succeed! We offer the training, the support, and the environment that will prepare you for a rich and promising future.

A land-grant institution in Huntsville, the Rocket City, Alabama, Alabama A&M University has been contributing to the education of our state, nation, and world since 1875. Alabama A&M is organized into five undergraduate schools (Arts and Sciences, Agriculture and Home Economics, Business, Education, and Engineering and Technology) that offer some 75 baccalaureate degree programs, and a School of Graduate Studies. The School of Graduate Studies grants the Master of Science, Master of Business Administration, Master of Education, Master of Urban and Regional Planning, and the Educational Specialist degree in 63 areas. It also offers the Ph.D. degree in applied physics, plant and soil science, and food science. A&M operates on a semester system, with the first semester running from late August through December; the second from early January to mid-May.

At A&M we offer some 75 four-year pro-

grams of study that lead to the best career opportunities. For example, the food science and technology field is one of the fastest growing in the nation with a wide number of career options. Physics, mathematics, chemistry, applied physics, biology, computer science, civil engineering, and engineering technology remain job-rich fields.

In addition to our four-year programs, Alabama A&M University offers dual degree programs in engineering with Georgia Tech, in Allied Health with The University of Alabama at Birmingham, and programs offered in conjunction with other institutions such as Emory University and Tuskegee University. These include veterinary medicine, nursing, and medical technology.

At Alabama A&M, you'll find a diverse mix within our population that makes for a stimulating, enriching environment. The majority of the students are from Alabama, but the remainder come from 38 other states and over 60 foreign countries. We are a historically black institution, and enrollment at A&M is predominantly black. However, the programs and opportunities we offer are designed for all students, irrespective of race and background.

Currently, we're growing. Our campus is large enough to provide all the resources and services you will need, but with a current enrollment of about 5,400 students, we're small enough to really care about you. Campus life at A&M allows you enough freedom for self-expression, yet gives you a closeness with fellow students and the teaching and research faculty you will always remember. Thousands of successful graduates are proof that A&M provides the necessary elements for a successful future. Why not see for yourself how Alabama A&M can help you, as it has helped them, "Reach for the Best."

Alabama A&M University AAMP Site

Dr. Jerry R. Shipman, Principal Investigator, Professor of Mathematics and Dean, School of Arts and Sciences (205) 851-5300 (205) 851-5900 (Fax) E-mail: aamirs01@asnaam.aamu.edu



	1992	
Darlene Davis		Math
Dawn Birgan		Math
0	1993	
Yolonda Whitfield		Math
Dawn Birgan		Math
Bodicia Johnson		Engir
Patricia Buckhalter		Engir
	1994	8
Amiraht Abdur-Rahman	1//	Zoola
Arbie Parker II		Math
Vanessa Turner		Engi
Patricia Buckhalter		Math
I atricia Duckfiatter	1005	wiati
Arbia Parkar II	1995	Math
Latricia Birgan		Math
A nitra Dantan		Pialo
Anitra Paster		DIOIC
Anthony Gray	1000	Matr
I D:	1996	1.6.1
Latricia Birgan		Math
Adria Mason		Math
Pamela Watkins		Math
	<u>1997</u>	
Adria Mason		Math
Anita Garner		Biolo
Latricia Birgan*		Math
Anitra Paster*		Biolo
Volanda Reedus		Biolo
Tarsha Lockhart**		Math

Pamela Watkins**

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nematics ogy nematics ogy ogy nematics Mathematics

<u>Major</u>	Year
Mathematics	1994
Mathematics	1995
Mathematics	1995
Mathematics	1996
Zoology	1997
Mathematics	1997
Mathematics	1997
Mathematics	1997
Engineering	1997
Engineering	1997
Engineering	1997
	Major Mathematics Mathematics Mathematics Zoology Mathematics Mathematics Mathematics Engineering Engineering Engineering

GRADUATE SCHOOL

Name Dawn Birgan Latricia Birgan Anthony Gray Arbie Parker, II Darlene Davis Yolanda Whitfield Major/University Math Education, AAMU Mathematics, UAB Math Education, AAMU Computer Science, AAMU Mathematics, UAB Math, Clark Atlanta

*Graduate Bridge Program, UAB **Co-Op

ALABAMA STATE UNIVERSITY

labama State University was founded 130 years ago to Amake the dream of a college education a reality for thousands of Alabamians. For more than a century, the university has served as a haven and, at times, an oasis for those who thirsted for information and for a life of high mindedness and a lifetime of high purpose.

ASU's inspiring history as America's oldest publicly assisted institution of higher education for blacks has provided the foundation for its transformation through excellence and diversity into the institution it is today and the institution it will be in the new millennium.

Since its founding in 1867, the university has moved beyond its roots as a historically black college and welcomes students of all races. The current enrollment of 5,500 students embraces young men and women from across the country and around the globe. Today's ASU is 10 percent nonblack and .6 percent international.

Our vision for a better world in the future includes 50 courses of study, from teacher education (we're the second largest producer of black teachers in the nation) to criminal justice, from biology to accounting, from computer science



to physical therapy, and from finance to communication.

We also offer the only Air Force Reserve Officers' Training Corps program in central Alabama – a two-year and a fouryear program leading to commission as a second lieutenant in the U.S. Air Force.

High-demand program options that will be offered beginning in the fall of 1998 include a bachelor's degree in health information management and occupational therapy and a master's degree in physical therapy. A master's degree in accountancy will be added to the College of Business Administration this spring.

ASU's academic options give students many advantages. You can earn an associate's, bachelor's, master's or education specialist degree. Plus, a limited number of doctoral programs will soon be in the offering.

ASU has the classes, the faculty, and the facilities to prepare students to compete in the job market.

We are accredited by the Southern Association of Colleges and Schools, National Council for Accreditation of Teacher Education, National Association of Schools of Music, National Association of State Directors of Teacher Education and Certification, Council on Social Work Education, Association of Collegiate Business Schools and Programs, and the Alabama State Department of Education.

graduates Our

work in all fields private enterprise and and degrees nation's top public

and in all sectors of The 21st century belongs to government you, and ASU is a great service. They have place for you to prepare professional to take your place in it.

and private universities.

More than 50 percent of our full-time faculty have earned doctoral degrees, and our student-faculty ratio is 20-1.

Our library holds more than 200,000 volumes, periodicals, microfilms and audio-visual items, and it is computerized with its own network, "HORNet." Students even have free email accounts and access to an on-ramp for the information superhighway.

Students at ASU learn from a well-rounded approach to college life, both in and out of the classroom.

The Joe L. Reed Acadome, a state-of-the-art academic and sports facility, has the capacity to seat 7,400 where sports enthusiasts have enjoyed seeing the Atlanta Hawks, the L.A. Clippers, and the Harlem Globetrotters, along with the ASU Hornets. There are lots of opportunities to participate in sports on our football, basketball, baseball, softball, tennis, golf, and track and field teams. More than 70 clubs and organizations, including fraternities and sororities, also welcome students to participate and mingle with others with similar interests. Musical ensembles, theater groups, the student newspaper, the radio station, dances, concerts, and presentations by VIPs like Johnnie Cochran, Maya Angelou, Howell Heflin, and Joycelyn Elders are only a sampling of campus activities students enjoy.

The 21st century belongs to you, and ASU is a great place for you to prepare to take your place in it.

The majority of our students receive some form of financial aid, whether in the form of scholarships, work assignments, grants or loans. Most of ASU's programs are approved for Veterans Services benefits too. The average cost of tuition for a full-time student who is an Alabama resident is \$900.

President William H. Harris' vision for ASU is to build it into a comprehensive regional university. Among the items on his growth agenda are enhanced academic and applied research programs and graduate and professional degree programs in public policy administration. He also projects professional programs in law and pharmacy and doctoral programs in education as possibilities.

Join us. Seize your place in the future. "Get Into ASU."

NAME		MAJOR		
1	991-92			
Garmon, Tamara	a	Math		
Jones, Carey		Math		
Tullie, Tracey		Math		
Walker, Jermain	е	Comp Sci		
Yelder, LaShasta		Math		
1	992-93			
Garmon, Tamara	a	Math		
Jones, Carey		Math		
Robinson, Darry	⁷ 1	Chem		
Sims, Keith		Math		
Tullie, Tracey		Math		
Washington, Da	rcus	Chem		
White, Phenicia		Math		
Yelder, LaShasta		Math		
	1992			
Garmon, Tamar	 a	Math		
Iones. Carev		Math		
Sims. Keith		Math		
Tullie Tracev		Math		
Yelder, LaShasta		Math		
	1000			
	1993	0		
Jones, Carey		Comp Sci		
McAlpine, Semo	ne	Comp Sci		
Sims, Keith		Math		
Walker, Jermaine	e	Comp Sci		
White, Phenicia		Math		
AMP Scholar	Gradu	lates		
Student Name	Present Loc	ation		
Foster, Michelle	Auburn Univ			
McCaa, Terrance	Employed-W	ashington, DC		
Welch, Eli III	Teaching Ma	th-Mont Co School		
White, Phenicia	Teaching Ma	th-Mont Co School		
Cowan, Jimmy	Auburn Univ			
Tullie, Tracey	Univ of Nort	h Carolina		
Sims, Keith	Teaching Math-Clark Atlanta			
Glanton, Verita	Unknown			
Farmer, Terrence	Unknown			
McAlpine, Semone	Texas Instrur	ments		

McAlpine, Semone John, Dawn Garmon, Tamara Jones, Carey Yelder, LaShasta Crowell, Jason Bolden, Dana

Unknown Employed-Pentagon-Wash., DC Samford Univ-School of Law

Teaching Math-Mont Co School

Unknown

Unknown

AMP SCHOLARS

NAME MAJOR 1993-94 Jones, Carey Math John, Dawn Glanton, Verita McCaa, Terrance McAlpine, Semone Robinson, Darryl Sims, Keith Tullie, Tracev Walker, Jermaine Washington, Darcus Welch, Eli III White, Phenicia Yelder, LaShasta

Math Chem Math Comp Sci Chem Math Math Comp Sci Chem Comp Sci Math Math

ASU AMP INTERNS NAME MAJOR

1994 Cowan, Jimmy Comp Sci Glanton, Verita Chem McCaa, Terrance Math Tullie, Tracev Math White, Phenicia Math

1995

Math

Math

Math

Chem

Biology

Biology

Biology

Biology

Chem

Math

Engr

Chem

Engr

Comp Sci

Bolden, Dana Crowell, Jason Farmer, Terrence McAlpine, Semone

1996

Davis, Ebony Gray, Darryl Peebles, Ebony Simpkins, Trissi Stallworth, Angela

1997

Simpkins, Trissi Binns, Alvin Gray, Darryl Davis, Ebony Stallworth, Angela



NAME

MAJOR

Bolden, Kevin Math Cowan, Jimmy Comp Sci Crowell, Jason Math Davis Ebony Chem Glanton, Verita Chem Gray, Darryl Engr James, Adonis Comp Sci McAlpine, Semone Comp Sci Moore, Cedrick Comp Sci Peebles, Ebony Math Simpkins, Trissi Biology Stallworth, Angela Chem Vandiver, Marcus Chem Welch, Eli III Comp Sci White, Phenicia Math Wills, Hugh Brian Biology

1995-96

1996-97

Bolden, Kevin Biology Curry, Amy Math Davis, Ebony Chem Encarnacion, Neil Math Erhunmuwnee, Paulette Biology Glanton, Verita Chem Glanton, Tonya Chem James, Adonis Comp Sci McAlpine, Semone Comp Sci Moore, Cedrick Comp Sci Biology Simpkins, Trissi Stallworth, Angela Chem Stanford, Steven Math Vandiver, Marcus Chem

1997-98

Bolden, Kevin Brown, Rosie Coleman, Samuel Davis, Ebony Encarnacion, Neil Erhunmunsee, Paulette Gibby, Anthony Gray, Darryl Moore, Cedrick Nettles, Summer Simmons, Bruno Simpkins, Trissi Stallworth Angela Vandiver, Marcus Ware, Yosheika

Biology Biology Math Chem Math Chem Comp Sci Engr Comp Sci Biology Math Biology Chem Chem Engr



Auburn University



Auburn University is a state-assisted, comprehensive, Research I, land-grant institution founded in 1856. It has a long tradition of academic excellence, awarding its first undergraduate degree in 1860 and first graduate degree in 1870.

In fulfillment of the land-grant mission, Auburn, in its 142-year history, has developed into a premier comprehensive university, offering outstanding, economically accessible instruction to its undergraduate, graduate, and professional students, conducting research in an everexpanding array of disciplines, and reaching a growing number of Alabamians through public service and extension programs. Auburn University today enrolls more than 22,000 students, the largest on-campus enrollment in the state. Represented are every state and territory and over 90 countries.

Auburn offers baccalaureate degrees in more than 130 areas in its twelve colleges and schools: Agriculture, Architecture, Design and Construction, Business, Education, Engineering, Forestry, Human Sciences, Liberal Arts, Nursing,

Pharmacy, Sciences and Mathematics, and Veterinary Medicine. Auburn also supports a comprehensive graduate school, providing master's level programs in more than 64 areas and the doctorate in more than 40 fields, many unique in Alabama.

All 1,100 faculty are expected to participate in the university's three mission areas of research, instruction and extension. These demands, along with the facilities and a strong student body, serve to attract top faculty to Auburn — faculty members who are known for creating new knowledge in their areas of specialization and for disseminating that knowledge to their students.

Auburn University AMP Site

Dr. Overtoun M. Jenda

Professor of Mathematics

Phone: (334) 844-4663 Fax: (334) 844-4661 E-mail: jendaov@carver.auburn.edu

The AU Drop-In Center

The Auburn University Drop-In Center is housed in eight rooms including two staff offices, a library, computer room equipped with SUN UNIX machines, study room, and three workshop rooms. The Center is the home of a comprehensive academic support program for minority students in science, engineering and mathematics. The program activities include chemistry, mathematics, and physics workshops, academic advising and counseling, computer training, competitive scholarships, summer internships, and the summer bridge program. The workshop program offers a total of eight separate workshops each quarter for chemistry, mathematics and physics freshman and sophomore level courses. Each workshop has between ten and fifteen students and meets for at least two hours twice a week under the supervision of a graduate student. Students who attend these workshops perform significantly better than those who opt not to participate, as proven by their test scores and grade point averages.

SEM and TP Scholars										
Name	Major	Name	Major	Name	Major					
Antoria Arnold	Engineering	Latonya Horn	Math Education	Marcus Oni	Engineering					
Lashun Booth	Engineering	Daniel Jones, Jr.	Engineering	Benito Rodriguez	Engineering					
Catina Cooper	Math Education	Orenthral Morgan	Engineering	Alicia Stockstill	Engineering					
Fadwa Eljack	Engineering	Chika Nnedu	Biology	Kelly Taylor	Zoology					
Biko Freeman	Engineering	Obinna Nnedu	Microbiology	Laura Taylor	Biology					
Ashley Fuller	Engineering	Angela Phillips	Math Education	Tabarious Washington	Engineering					
April Gulley	Engineering	Martin Obiozor	Engineering	Amikka Watts	Chemistry					
Shalfonteese Hamilton	Biology	Kemka Ogburia	Microbiology							

AAMP Research Interns and Placement at AAMP Summer Research Conference Competition

Name	Major	Site	Placement/Year	Name	Major	Site	Placement/Year
Moncenya Chatman	Microbiology	UAB	1st Place/1994	Antonio Benford	Engineering	UAB	2nd Place/1996
James Dixon	Engineering	UAB	1st Place/1994	April Gulley	Engineering	UAB	1st Place/1996
Moncenya Chatman	Microbiology	UAB	1st Place/1995				

AMP DOE-EPSCoR Research Interns

Name	Major	Site	Placement/Year	Name	Major	Site	Placement/Year
Monica Hagler	Engineering	AU	1st Place/1996	Sara B. Richardson	Engineering	AU	1st Place/1997

Placement at National Science Foundation AMP Student Research Conference Competition

Monica HaglerSecond Place Engineering Poster Category-Tallahassee, Florida1996Kelly TaylorSecond Place Engineering Poster Category-Las Cruces, New Mexico1997

AMP Scholars Graduates

Name	Major	Year	Current Status
Moncenya Chatman	Microbiology	1996	UAB Medical School
Brenda Core	Math Education	1997	Teaching
James Dixon	Engineering	1997	Industry (Montgomery)
Monica Hagler	Engineering	1997	Industry (Chicago)

Graduate Summer Interns				
Name	Major	Year	HBCU	
Jimmy Cowan	Computer Sciences	1996	Alabama State University	
Michelle Foster	Mathematics	1996	Alabama State University	
Brandi Zeigler	Chemistry	1996	Miles College	

Miles College



Founded in 1905 by the Christian Methodist Episcopal Church, Miles College is a growing, co-educational, historically black institution encompassing 25 acres in the western section of Birmingham, Alabama. Miles is home to approximately 1,300 students, 70 percent of whom commute from within the city, and 94 percent of whom receive financial aid.

Miles College operates under five academic divisions: Education, Humanities, Social and Behavioral Sciences, Business and Accounting, and Natural Sciences and Mathematics. In addition, there are several supportive programs, a computer learning center, and a Student Support Services program designed to attract and motivate students who may have experienced economic and/or educational deprivation.

Miles offers academic majors in seventeen areas: Accounting, Asian Studies, Biology, Biology Education, Business Administration, Chemistry, Chemistry Education, Communications, Elementary Education, English, Environmental Science, Language Arts Education, Mathematics, Mathematics Education, Political Science, Social Science Education, and Social Work.

A member of the National Collegiate Athletic Association (NCAA) Division II and the Southern Intercollegiate Athletic Conference (SIAC), Miles College offers competitive teams in football, basketball, baseball, volleyball, and track and field.

In both educational and community service, Miles College has played a major role in the development of metropolitan Birmingham, the State of Alabama and the United States at large. Miles College is internationally noted for its distinguished alumni, as well as for its commitment to providing educational opportunities for young people who may otherwise be denied a college education.

MILES COLLEGE ALLIANCE SITE

David McCants, II, Ph.D. Area Coordinator Chemistry Department (205) 929-1547

SEM Enrollment



AMP Scholars

12 10 8 4 2 0 1991 1992 1993 1994 1995 3 7 8 11 11 FALL SEMESTER

SEM Degrees



RESEARCH INTERNS

Major

Chemistry

Name

Brandi Zeigler

Lillian Boyd **Biology Mathematics Roderick Brown Rozell Cunningham Chemistry Rhonda** Downey **Mathematics** Mia Girtman **Biology** Keisha James **Chemistry** Lucretia Jones **Chemistry Rosland Killingworth Chemistry** Tishawn McWilliams Chemistry Gretchen O'Neal **Chemistry** Tamara Paige **Biology** Jeffery Spann **Mathematics**

DROP-IN CENTER

The Miles College Alliance of the AAMP program has a Learning Center that is equipped with state-of-the-art technology and is continually being updated. The Center is designed to increase user familiarity and comfort level with computerized methods of data acquisition, analysis, and subject revisiting. The Center is monitored by both AMP Scholars and pertinent instructors. The Center is also accessible to selected K-12 students and their teachers who work individually and in groups to gather scientific information and to explore science concepts in an approach to increase the number of AMP students.

AMP SCHOLAR GRADUATES

NAME	MAJOR	YEAR	NAME	MAJOR	YEAR
Rozell Cunningham	Chemistry	1992-96	Gretchen O'Neal	Chemistry	1991-95
(Industry, Birmingha	<i>m</i>)		(Wayne State Unive	ersity)	
Mia Girtman	Biology	1992-96	Jeffery Spann	Mathematics	1991-95
(Nursing, Georgia)			Brandi Zeigler	Chemistry	1992-96
Keisha James	Chemistry	1992-96	(Valedictorian-Alal	oama State)	
(Chemist, State of Ald	abama)		Lucretia Jones	Chemistry	1993-97
_			(Valedictorian, Missi	ssippi State Univers	ity)







akwood College is a historically black, private, liberal arts institution operated by the Seventh-Day Adventist Church. Founded in 1896, it developed from Oakwood Industrial School to Oakwood Junior College in 1917, and to Oakwood College in 1943. In 1964, Oakwood became a member of the United Negro College Fund. Since its inception, Oakwood has been committed to providing access to educational opportunities, academic excellence, and spiritual development for persons of diverse cultural, economic, demographic, and educational backgrounds. The College is located on 1,185 acres in the city of Huntsville in the North-central portion of the State of Alabama.

The student body of Oakwood College is cosmopolitan in nature. Enrollment was 1,756 in the fall of 1997. Oakwood draws its students from approximately 40 states and 30 foreign countries and territories.

A caring supportive faculty of 81 (54 percent of whom hold earned terminal degrees) is responsible for Oakwood's proven ability to meet students' academic needs.

Oakwood's keen sense of community is reflected in its direct involvement with citizens of the Tennessee Valley through campus initiatives and services including a Speaker's Bureau; adult education; student-manned Volunteer Action League; a 25,000-watt radio station–WOCG, 90.1 FM; UNCF Banquet; and Homecoming (which brought a record crowd of 30,000 in 1996).

Oakwood is accredited by the Southern Association of Colleges and Schools (SACS) and offers the associate and bachelor's degrees in more than 35 areas of concentration. It is approved by the National Council for the Accreditation of Teacher Education, the Council of Social Work Education, the Alabama State Dietetics Society, and the State Nursing Board. It also has authorization to apply for accreditation from the National Business Education Association.



AMP SCHOLARS-GRADUATES

Sonia Benn Jon McIver Ramona Pilliner Charlotte Pullins Sonja Hartley Lisa Herring Chandra LaCount Roycelynn Mentor Bereaval Webb Aaron Ates Ariel Jeanine Warden Luther Palmer Biochemistry Biology Biochemistry Biochemistry Biochemistry/Biology Biology Biology Biochemistry Biochemistry Biochemistry Mathematics

AMP INTERNS

1992

Ramona Pilliner Charlotte Pullins

1993

Lisa Herring Roycelynn Mentor Bereaval Webb

1994

Ariel Jeanine Warden

1995

Kelly Darby

Aaron Ates

Andre Taylor

Sonia Benn

Jon McIver

Sonya Hartley

Lynette Mays

Ramona Pilliner

1996 Norma Cargill Tamara Young 1997

Ruth Merid

SPECIAL AWARDS-AMP SCHOLARS

The following AMP Scholars participated and won awards at the Student Conference and Scientific Exhibit Competition in the area of Physical Sciences.

Bereaval Webb	1st Place	1993
Tamara Young	1st Place	1995
Kelly Darby	2nd Place	1995

1995	Univ. of Tennessee-Memphis
1995	Loma Linda University Med School
1995	Loma Linda University Med School
1995	Howard University
1996	UAB Graduate School
1996	Loma Linda University Med School
1996	•
1996	UAB Graduate School
1996	University of Tennessee-Memphis
1997	University of Cincinnati Med School
1997	Loma Linda University Post-bac
1997	UAB Engineering Program

Kelly Darby also presented a research paper at the NIH Annual Symposium in October and presented a paper at the International Laser Conference in New Orleans in December 1997.

DROP-IN CENTER ACTIVITIES

Oakwood College has a fully functional Drop-In Center. The activities include peer tutoring, computer assisted instruction, and study groups. AMP Scholars assist in the operation of the Drop-In Center. The Center is equipped with interactive equipment to support software in the areas of mathematics and science. There are twelve computers that are connected to the Internet. All students have e-mail addresses.

ADDITIONAL AMP SCHOLARS 1997-1998

Kelly Darby Clifford Ellis Bianca Humphrey Gianna Hutton Shayla LaCount Mandissa Newman Erika Pollard Joseph Thompson Teayann Tinsley Khari Washington Tamara Young Biochemistry Engineering Biology Engineering Biochemistry Math Biochemistry Biology Engineering Biochemistry

Stillman College

Stillman College, a four-year Liberal Arts, coeducational institution, offers the Bachelor of Arts and the Bachelor of Science degrees. It is accredited by the Southern Association of Colleges and Schools and the American Council on Education.

Stillman operates under a Board of Trustees which is the legal body responsible for the corporate existence of the institution. The organization, through which the purposes of the college are realized, consists of the academic programs, student campus life, physical resources, and planning and development.

Stillman College aims to prepare students for places of leadership and service in society, and for lives which have value and meaning. The dominant assumption at Stillman is that students who are admitted will succeed. The college provides programs, resources, and support which help students reach their potential. Proud of its history and its relationship to the Presbyterian Church (U.S.A.), Stillman aims to utilize the best of its heritage as it moves into the future by providing an environment that is both Christian and intellectual.

While Stillman's historic commitment of service to black people remains preeminent, its admission and employment policies exclude no one because of race, sex, age, handicap, nationality, religion, or socioeconomic status. The college affirms its history and tradition and embraces a future that is interracial, multicultural, and pluralistic.

Stillman College celebrated the centennial anniversary of its founding in 1976, climaxing 100 years of service. The college's story really dates back to 1874 when a group of Presbyterians from Tuscaloosa, Alabama, headed by the Rev. Charles Allen Stillman, presented an overture to the General Assembly of the Presbyterian Church in the United States that the Church establish a training school for Negro ministers. After studying the overture, the General Assembly of 1876 authorized the opening of an institute in Tuscaloosa in the fall of that year and appropriated funds for the school's operation.

Dr. Ernest McNealey, became the Fifth President of Stillman College, effective July 1, 1997. From an instructor at a four-year college to dean for undergraduate academic affairs at a Carnegie I Research University, each position Dr. McNealey has held has represented increased levels of responsibility. He has a comprehensive knowledge of governance structures, delivery systems, planning, fund raising, and budgeting which facilitates disciplined leadership and successful administration.

> Stillman is located 52 miles southwest of Birmingham and 90 miles northeast of Meridian, Mississippi, in Tuscaloosa, Alabama. Tuscaloosa is served by major bus, rail, and airlines; and modern shopping and service facilities are accessible in the immediate vicinity of the campus. Downtown Tuscaloosa is within walking distance.

The 100-acre campus is noted for its ancient and stately magnolias, and spacious grounds shaded by lofty oaks. In this setting, functional buildings have been erected and others are being planned for the future.



Drop-In Center Activities

One of the most successful components of the Alabama Alliance for Minority Participation has been the development of the Mathematics and Science Center (Drop-In Center) located in Stinson Mathematics and Science Building, Room 125. The Center is under the supervision of Mr. James Christian, Instructor of Mathematics and Coordinator of Developmental Math Courses.

During the past seven (7) years, serious consideration has been given to developing the Mathematics and Science Center. The Center, an already established facility, did not require much effort to get started. Since starting the Center, updated computer and software have been purchased and installed to the level where students can study, receive tutoring, and faculty can come to the facility to mentor their advisees.

A second phase continuing to be implemented is getting the knowledge about the Center out to the entire campus. Flyers are posted in many buildings on campus to get the word out that assistance in mathematics and science is available. A sign-in sheet keeps a record of individuals using the Center on a daily basis. These numbers have increased tremendously since the Center has been stocked with computers and software. Presently, the Center is in full operation with 14 AMP Scholars, each devoting 5 hours per week on a volunteer basis. The Center is open from 8:00 am - 5:00 pm, Monday thru Friday.

Michael Burton, an AMP senior biology major, works with an AMP mentor, Dr. Godwin Ihejeto. Dr. Ihejeto is an Assistant Professor in the Chemistry Department at Stillman. The instructor and the student work together to produce results while performing an organic chemistry laboratory experiment.

YEAR	TOTAL SEM MAJORS	TOTAL %	
1991	188	24.0%	
1992	220	24.1%	
1993	228	23.9%	
1994	221	24.2%	
1995	229	27.2%	
1996	211	20.4%	
1997	247	24.4%	

ear	
	ear

Total Minority SEM Degrees by Year

Year	Total SEM Degrees
1991	23
1992	22
1993	21
1994	25
1995	25
1996	30
1997	31

Tougaloo College



ougaloo College is a private, histori-cally black college of more than 1153 students located in Jackson. Mississippi. Founded in 1869 on the site of an abandoned plantation, the college has long been a leader in preparing students for successful careers in law, medicine, science, business, teaching and the arts. For many years 40% of Mississippi's black physicians and 28% of its black dentists were graduates of the college. The first black students to enter medical school and law school at the University of Mississippi were Tougaloo graduates.

The college maintains its tradition of excellence, especially in the sciences. With over 50% of its students entering graduate school (80% of the science graduates), in 1989 the college was cited in *Money* magazine as the country's best buy in higher

education. The Association of American Medical Colleges has identified Tougaloo College as one of the top 44 suppliers of underrepresented minority students for medical school, and among the top 6 among the historically black colleges. Beginning in the early 1960s, Brown University in Rhode Island and Tougaloo College embarked on a unique and long-lasting partnership between the two institutions which includes faculty and student exchange. The medical school initiated an Early Identification Program with Tougaloo, guaranteeing identified sophomore students a slot in their entering class when they finish Tougaloo. A similar program is in place with Boston University School of Medicine.

In the sciences the college offers majors in biology, chemistry, mathematics, math/computer science, and physics. As a teaching institution, Tougaloo's instruction features strong interaction of the faculty with students in and outside of class. Our pre-engineering program provides the opportunity for students to obtain both liberal arts and engineering training through our dual degree programs with a number of major engineering schools. Other special programs include the Health Careers Opportunity Program, which sponsors preprofessional training prior to entry into college, the Howard Hughes Biomedical and the Minority Scholars program, Access to Research Careers program, which provides special opportunities and support for students interested in biomedical research. The learning resources center provides computer-assisted instruction and videotaped materials using the latest high-tech materials, in association with the AMP and MISIP programs.



1992

Audray Harris Kimberly Jackson Marilyn Wyatt	Chemistry Biology Biology	UAB UAB UAB
1993 Stacy Cameron Audray Harris Yonka Holmes Kimberly Jackson Marcus Lewis Ashalla Magee Tommy Morris	Biology Chemistry Mathematics Medicine Chemistry Chemistry Biology	UAB Harvard A&M/UAH Brown A&M/UAH UAB UAB
1994 Gregory Brown Audray Harris Yonka Holmes Marilyn Wyatt	Chemistry Chemistry Mathematics Biology	UAB Purdue A&M/UAH A&M/UAH
1995 Terralon Cannon Portia Grayson	Biology Biology	UAB UAB
1996 Cheryl Brent Shelethea Dunning	Biology Biology	A&M/UAH A&M/UAH

1996

Neuroscience I	ntern NIH
Chemistry	Missouri/Columbia
Medicine	Iowa
Microbiology	UAB
	Neuroscience I Chemistry Medicine Microbiology

1997

Dephane Bilbrew	Medicine	South Alabama
LaShan Ferrell	Medicine	Boston
Everett Lockhart	Computer Science	e Oklahoma State
David Wilson	Chemistry	Mississippi State

THE DROP-IN CENTER

The Drop-In Center is an extremely important resource for our students in sciences and mathematics. Staffed by tutors and faculty representing all disciplines, it provides tutorial services for many introductory courses. In addition, a variety of computers are available for supplement instruction.

Since the center contains many tables and chairs, it is used for collaborative learning, with students working in groups and faculty and tutors serving as resource persons.

Tuskegee University



Former AMP scholar, Stephen Nurse-Findlay, currently a junior at The John Hopkins Medical Institution in Baltimore, Maryland, graduated Magna Cum Laude from Tuskegee University in 1995. Seen with him at the John Hopkins Medical Institution are Dr. J.H.M. Henderson, Tuskegee University PI of the AMP Program at that institution, and the famous Dr. Benjamin Carson, Director of Pediatric Surgery at John Hopkins. Dr. Carson became world famous when, in 1992, he successfully separated Siamese twins with fused heads.

Tuskegee University is a national, independent, and nonprofit institution of higher learning that has a special and unique relationship with the State of Alabama. With distinctive strengths in the sciences, engineering, and other professions, the University's basic mission is to provide educational programs of exceptional quality which promote the development of liberallyprepared and professionally-oriented people.

The University is rooted in a history of successfully educating black Americans to understand themselves against the background of their total heritage and the promise of their individual and collective future. A primary mission has been to prepare them to play effective professional and leadership roles in society and to become productive citizens in the national and world community. Tuskegee University continues to be dedicated to these broad aims.

Over the past century, various social and historical changes have transformed this institution into a comprehensive multicultural place of learning of which the primary purpose is to develop leadership, knowledge, and service for a global society. Committed deeply to academic excellence, the University admits highly talented students and challenges them to reach the highest possible levels of intellectual and moral development. The University also believes strongly in equality of opportunity and recognizes that exquisite talent is often hidden in students whose finest development requires unusual educational, personal, and financial reinforcement. The University actively invites a diversity of talented students, staff, and faculty from all racial, religious, and ethnic backgrounds to participate in this educational enterprise.

Special Elements of the University

Instruction:

- to provide a special focus on education as a continuing process and a lifelong endeavor for adults and certain precollege, as well as traditional college-age groups;
- to provide a basic core of high quality general education in the liberal arts; and
- to offer superior technical, scientific, and professional education with a career orientation.

Research:

 to preserve, refine, and develop further the bodies of knowledge already discovered; —to discover new knowledge for the continued growth of individuals and society and for the enrichment of the University's instructional and service programs; and

Service:

—to serve the campus community and beyond through the development of outreach programs that are compatible with the University's educational mission, which improve understanding of community problems, and help develop relevant alternative solutions.

Land-Grant Mission

The above three categories of mission, together with certain acts of the United States Congress and the State of Alabama, define Tuskegee University as a land-grant institution. Originally focused primarily on agriculture, the University's land-grant function is currently a generic one that embraces a wide spectrum of liberal arts, scientific, technical, and professional programs.

Undergraduate Program

A strong liberal arts program with a core curriculum is provided for all undergraduate students, enabling them to prepare for the mastery of humanities, sciences, technical, and professional major areas.

The more specific aims of the undergraduate program are to:

- —present the process of education as a lifelong enterprise; insure that students have a strong grasp of language usage, written and oral; mathematical, as well as literary;
- —deepen students' knowledge of history and the cultural heritage; —develop students' sense of civic and social responsibility through
- productive and responsible use of time and of knowledge;
- —understand and appreciate the importance of moral and spiritual values to enable students not only to pursue careers but to lead lives that are personally satisfying and socially responsible; and
- —equip students with strong research interests and skills and deep commitments to their professions.

Graduate and Professional Programs

The University provides graduate level instruction as well as research and training in postbaccalaureate professional fields. These programs seek to develop in students the ability to engage in independent and scholarly inquiry, a mastery of certain professional disciplines, and a capacity to make original contributions to various bodies of knowledge. Graduate degrees are offered only in selected fields of unusual University strength and opportunity. These include primarily the master's degree, and the Doctor of Veterinary Medicine. This can be expected to extend to Doctor of Philosophy degrees in selected areas of science, engineering, and other disciplines.

Summary

Tuskegee University accomplishes its central purpose of developing leadership, knowledge, and service through its undergraduate, graduate, professional, research, and outreach programs. Through these programs, students are encouraged not only to pursue careers but to be of service to society and to remain active lifetime learners. The University seeks to instill a robust thirst for knowledge and a vibrant quest for wholesome patterns of personal and social ethics that have philosophical and spiritual depth. In the process, it seeks to help each student develop an appreciation for the finer traits of human personality, the beauty of the earth and the universe, and a personal commitment to the improvement of the human condition.

AMP Scholars By Year (Including Major)

			YEAR OF
NAME	YEAR	MAJOR	GRADUATION
Christin Brown*	1991-92	Biology	1994
Stephen Nurse-Findlay**	1991-92	Biology/Chem	istry 1995
Stephanie Simmons	1991-92	Biology	
Wendy Wright*	1991-92	Biology	1993
Nicole A. Bell	1992-93	Biology	
Wendy Cooke*	1992-93	Biology	1996
Loleta Harris**	1992-93	Biology	1996
Yvonne Harris	1992-93	Biology	
Latoya Sawyer*	1992-93	Biology	1996
Stephanie Simmons	1992-93	Biology	1994
Terrance Smith**	1992-93	Biology	1996
Ahkinyala Thompson	1992-93	Biology	1995
Solomon Yilma***	1992-93	Biology	1996
Wendy Cooke	1993-94	Biology	1996
Yvonne Harris	1993-94	Biology	
Latoya Sawyer	1993-94	Biology	1996
Terrance Smith	1993-94	Biology	1996
Solomon Yilma	1993-94	Biology	1996
JaWan Harris	1993-94	Biology	
Jacquelyn Collins	1993-94	Biology	1997
Wendy Cooke	1994-95	Biology	1996
Jacquelyn Collins	1994-95	Biology	1997
JaWan Harris	1994-95	Biology	
Yvonne Harris	1994-95	Biology	
Latoya Sawyer	1994-95	Biology	1996
Terrance Smith	1994-95	Biology	1996
Solomon Yilma	1994-95	Biology	1996
Georgetta Buchanan	1994-95	Chemistry	
Jacquelyn Collins	1995-96	Biology	1997
Wendy Cooke	1995-96	Biology	1996
LaToya Gray	1995-96	Biology	
Dana Jones	1995-96	Biology	
Bikira Radcliffe	1995-96	Biology	
Ayana Robateau	1995-96	Biology	
Jamie Rowe	1995-96	Biology	1996
LaToya Sawyer	1995-96	Biology	1996
Terrance Smith	1995-96	Biology	1996
Marnique Towns	1995-96	Biology	
Solomon Yilma	1995-96	Biology	1996

* cum laude

** magna cum laude

*** summa cum laude

Summer Intern Students (By Year)

NAMES	YEAR
Nicole A. Bell	1993
Wendy Cooke	1993
Yvonne R. Harris	1993
LaToya M. Sawyer	1993
Terrance D. Smith	1993
Wendy Cooke	1994
LaToya M. Sawyer	1994
Terrance D. Smith	1994

Jacquelyn Collins199Yvonne Harris199JaWan Harris199	94 94 94 95
Yvonne Harris199JaWan Harris199	94 94 95
JaWan Harris 199	94 95
	95
Jacquelyn Collins 199	
Jamie Rowe 199	95
Matthew Roberts 199	95
Lisa Atkinson 199	95
Jacqueline Collins 199	96
La Toya Gray 199	96
Dana Jones 199	96
Jamie Rowe 199	96
Courtni Allen 199	97
Raquia Denson 199	97
Ja Neen Griffin 199	97
Aimee Hulede 199	97
Makeshia Miggins 199	97

AMP Scholar Graduates Statement of Dr. Henderson

The year 1997 was a year which saw only two AMP Scholars graduate, one of whom is pursuing graduate studies at Tuskegee University; the other is interning at the East Alabama Medical Center in Opelika, AL. The DROP-IN CENTER, under the tutelage and mentorship of Dr. Herman Windham, was quite active. Dr. Windham won the AAMP MENTOR OF THE YEAR AWARD for 1997 because of his excellent mentoring. The majority of the AMP Scholars continue with their scholarliness in maintaining their above-GPAs. The new 1997-1998 AMP Scholars have the best academic records, based on their GPAs and SAT/ACT scores, of any group I have had in nine (9) years. I would argue that this will be one, if not the best, group of honor graduates of the beginning of the 21st century.

Drop-In Center Report

The Drop-In Center began about 4 years ago. The Center was located in Huntington Hall where the Mathematics Department is located. One reason for locating the Center near the Mathematics Department was that the Department has a well-established tutorial program already in operation. Also, the Department has additional staff who can work in the Center along with the AMP scholars. A person with a master's degree in mathematics was employed to work and tutor students in the Center for 15 hours per week. Two IBM 486 computers were purchased and placed in the Center. Videotapes and computer software, provided free of charge by Book Publishing Companies, were made available for student use in the Center.

The Center is very helpful in the following ways:

- provides an opportunity for students to get individualized tutoring in mathematics;
- 2. allows the opportunity for students to improve their mathematics skills;
- 3. helps to reduce the attrition rate in entrance level mathematics courses; and
- 4. assists a large number of students to be able to major in a science, engineering, and/or mathematics disciplines.

The University of Alabama

On April 18, 1831, The University of Alabama opened for the admission of students. The University offered graduate degrees from the outset, the first being a Master of Arts degree conferred in 1832. Today, The University of Alabama campus covers 850 acres in Tuscaloosa, located about 50 miles southwest of Birmingham with a population of approximately 100,000. The University is a major teaching, research, and service institution composed of 17 colleges, divisions, and schools. The location of the campus, in a mineral and industrial district of Alabama, is particularly advantageous for engineering students. The College maintains a close relationship with various manufacturing facilities in the area.

More than 19,000 students are enrolled at The University of Alabama. As a comprehensive university, it offers a diversity of academic programs and a full range of cultural and social events, including music, theater, athletics, and intramurals. The University has over 120 academic departments and more than 300 accredited undergraduate and graduate degree programs. Graduate degrees are offered in astronomy, biological science, chemistry, geology, marine science, mathematics, and physics, as well as in engineering.

Engineering instruction was instituted at The University of Alabama in 1837, and the College of Engineering was organized as a separate division of the University in 1909. The primary objective of the College is to provide its students with a quality educational experience, which will equip them for rewarding and productive professional careers and for responsible citizenship. Further objectives include the generation of new knowledge through research by the faculty and students, and the provision of a variety of short courses, conferences, and seminars for practicing engineers that enable them to stay abreast of advances in their fields. To accomplish its objectives, the College of Engineering offers students an outstanding faculty, accredited engineering and computer science programs, and some of the best facilities in the nation. Numerous research projects offer students an opportunity to work with the faculty in solving current societal problems and in developing technological resources for the future.

Today, the College of Engineering has 9 departments, approximately 1.600 undergraduates and over 300 graduate students. In addition to computer facilities available in each department, the College has four computer laboratories available for use by engineering students. They contain PC's and RE/6000 workstations. The College of Engineering offers the following graduate degrees: master of science in aerospace engineering, chemical engineering, civil engineering, computer science, electrical engineering, environmental engineering, engineering science and mechanics, industrial engineering, mechanical engineering, metallurgical engineering, and mineral engineering; doctor of philosophy in the fields of chemical engineering, civil engineering, computer science, electrical engineering, engineering science and mechanics, mechanical engineering, and metallurgical engineerng. (The Ph.D. in metallurgical engineering is offered jointly with The University of Alabama at Birmingham.) A Ph.D. degree in the field of materials science is also offered in collaboration with The University of Alabama at Birmingham and The University of Alabama in Huntsville.

As a member of the Alabama Alliance for Minority Participation (AAMP), our minority programs and services administered by the Colleges of Engineering and Arts and Sciences provide an atmosphere of support and commitment to underrepresented groups in science, engineering, and mathematics. Through our pre-college involvement with the Southeastern Consortium for Minorities in Engineering (SECME), administrative support through the National Association of Minority Engineering Program Administrators (NAMEPA), and graduate fellowships and internships through the National Association for Graduate Degrees for Minorities in Engineering and Science, Inc. (GEM), The University of Alabama is strongly committed to the mission and purpose of the AAMP.

For more information about The University of Alabama College of Engineering, you may access our WWW home page via http://hamton.eng.ua.edu. You may also contact: Mr. Gregory L. Singleton Director, Engineering Student Services College of Engineering Box 870200 Tuscaloosa, AL 35487-0200 (205) 348-1598 GSINGLETON@COE.ENG.UA.EDU

The University of Alabama AMP Site

Dr. Viola L. Acoff Mr. Gregory L. Singleton		Assistant Profressor Metallurgical Engineering Director Engineering Student Services		(205) 348-3761 VACOFF@coe.eng.ua.edu (205) 348-1598 GSINGLETON@coe.eng.ua.edu	
	<u>1997</u>	1996	1995	1994	
Minority	455	396	404	395	
Non-Minority	1806	1718	1749	1816	
Unknown		4	11	24	
Total	2261	2118	2164	2235	
		SEM Bachelor D	egree Production		
	<u>1996/97</u>	<u>1995/96</u>	1994/95	1993/94	
Minority	41	42	54	52	
Non-Minority	327	372	309	293	
Unknown	4	4	6	2	
Total	372	418	369	347	

UA AMP Scholars

Name	Major
<u>1994</u>	
April Brown	Biology
Felton Fomby	Electrical Engineering
Adrianne James	Chemical Engineering

Aerospace

1995

Jamese Young

1996

Eric Davis John Davis Kamila Johnson Bonita Oliver

1997

Kimberly Luvert Toni Bell Computer Science Electrical Engineering

Electrical Engineering

Industrial Engineering

Chemical Engineering

Computer Science

UA AMP DOE/EPSCoR Summer Interns

Name <u>1994</u> Antonine Lassiter Major

Physics Mechanical Engineering

1995

Tawanda Bradford Torrance Gordon Ronald Harper Robert Page Veronica Snell

Terrance Randolph

Computer Engineering Electrical Engineering General Engineering Computer Science Computer Science



University/College

Stillman College Alabama A&M University

The University of Alabama in Huntsville The University of Alabama in Huntsville Alabama A&M University Talladega College Talladega College

55

THE UNIVERSITY OF ALABAMA IN HUNTSVILLE Huntsville, Alabama 35899

UAH. located in the "Rocket City" and next to **Cummings Research Park, has been nationally** recognized for outstanding undergraduate science and technology education. This reflects a fundamental mission for UAH to be identified as a leader in the Southeastern US for high quality education in disciplines such as science, engineering, and mathematics. As a member of the Alabama Alliance for Minority Participation (AMP) Program, UAH is committed to increasing the number of minority students receiving baccalaureate degrees and further provide opportunities for graduate degrees in science, engineering, and mathematics. The UAH AMP Program provides freshman scholarships, academic enhancement opportunities, and research internships.



Drop-In Center



Summer Research Interns

Scholarships are available to first year students who plan to major in science, engineering, mathematics, and science education. The Summer Reasearch Internship Program provides hands-on experiences while working directly with university faculty. The Drop-In Center, an academic resource center located in Wilson Hall, provides a place for tutoring, studying, and computer instruction. AMP Scholars are required to work 5 hours in the Drop-In Center. Computers and a variety of software are available for use, as well as networking, mainframe applications, and internet access.





THE UNIVERSITY OF ALABAMA IN HUNTSVILLE





UAH AMP Graduates, Scholars and Interns



AMP Gradutes Darrell Quarles (B.S. in Engineering '97) Tara Thomas (B.S. in Engineering '97)

AMP Scholars

Torrance Gordon Cory Davis Tawanda Bradford (Eng. '99) **Lydell Collier Katachia Dale Tykeela Stephens** Laticia Bowens **Dewight Cowley** Christopher Harris (Eng. '98) **Temitope Isibor Tolulope Isibor Darius** Jacobs **Diedria Kenny**

(Eng. '99) (Eng. '98) (Bio. Sci. '98) (Eng. '01) (Eng. '98) (Bio. Sci. '01) (Chem. '99) (Eng. '98) (Bio. Sci. '99) (Bio. Sci. '00) (Eng. '99)



Tim Kirkland (Comp. Sci. '00) Lashaundra Perry (Bio. Sci. '01) **Arvin Poole** (Eng. '98) **Quenette Smiley** (Eng. '01) Alisa Wright (Eng. '01) **Delveccio Brown** (Eng. '98) **Chavela Dean** (Eng. '02) **Ronald Harper** (Eng. '99) **Andrea Haynes** (Bio. Sci. '02) Wykeisa Jackson (Eng. '02) Tonya Montgomery (Eng. '99) **Ambrey Watkins** (Eng. '02)

Tawanda Bradford Cory Davis Kimeko Farrar Torrance Gordon John Habimana **Darlene Holley-Jones**

AMP Summer Interns



Tyrone Quarles Tolulope Isibor Lashaundra Perry **Darius Jabocs** Walter Campbell Laticia Bowens

Principal Investigator - Adriel D. Johnson The University of Alabama in Huntsville • Wilson Hall 142 • Huntsville, Alabama 35899 johnsona@email. uah.edu Prepared by Ovuke'R. Emonina, AMP Staff

The success of the Alliance is attributed to the support and dedication of the Alliance Presidents. Their interest and concern have been stabilizing forces for all elements of the program.

Dr. W. Ann Reynolds President The University of Alabama at Birmingham

Dr. John T. Gibson *President* Alabama A&M University

Dr. William H. Harris *President* Alabama State University



Dr. Ernest C. McNealey President Stillman College





Dr. Joseph B. Johnson President Talladega College





Dr. Joe A. Lee *President* Tougaloo College





Dr. William V. Muse President Auburn University





Dr. Benjamin F. Payton President Tuskegee University





Dr. Albert J. H. Sloan, II President Miles College





Dr. Andrew A. Sorensen *President* The University of Alabama





Dr. Delbert W. Baker President Oakwood College





Dr. Frank A. Franz *President* The University of Alabama in Huntsville



