

SREB

Southern
Regional
Education
Board

Capstone Graduates

THE SREB-AGEP DOCTORAL SCHOLARS PROGRAM

**2005 COMPACT FOR FACULTY DIVERSITY
INSTITUTE ON TEACHING AND MENTORING**



**AWARDS PROGRAM
SREB AND AGEP DOCTORAL SCHOLAR GRADUATES
ARLINGTON, VIRGINIA**

PROMOTING GRADUATE EDUCATION AND THE PROFESSORIATE

On behalf of the Southern Regional Education Board and the National Science Foundation Alliances for Graduate Education and the Professoriate (AGEP), we are proud to join together to offer a unique educational experience to doctoral scholars in the AGEP program.

The participation of AGEP scholars, administrators and faculty in the annual Compact for Faculty Diversity Institute on Teaching and Mentoring is a positive experience for the AGEP community. AGEP representatives from the SREB-State Doctoral Scholars Program and the National Science Foundation (NSF) Directorates for Human Resource Development; for Biological Sciences; and for Social, Behavioral and Economic Sciences enjoy the opportunity to participate with hundreds of other doctoral scholars and faculty from around the country.

The Institute is designed to increase the percentage of minority students who earn doctorates and to diversify the pool of qualified candidates for faculty positions at colleges and universities. The Institute provides an environment where doctoral candidates can share insights and survival tips for success in graduate work. They build community among themselves and faculty representatives, and they enrich their research and teaching skills. The Institute also benefits faculty members by helping them develop mentoring skills and strategies to ensure departmental support for underrepresented students. In addition, scholars interact with faculty and administrators from a variety of colleges, universities, and federal and state agencies. AGEP scholars attend a large variety of Institute workshops that enhance their skills and knowledge as they prepare for entry into the ranks of college and university faculty.

Earning a Ph.D. is an important milestone for all AGEP scholars. A doctoral degree enables them to enter the academy prepared to teach, conduct research, publish and mentor other scholars.

This publication recognizes AGEP's capstone graduates: SREB-AGEP scholars who attended the Institutes in Miami, Florida; Atlanta, Georgia; and Arlington, Virginia — and now have earned their doctorates. On behalf of NSF and SREB, we congratulate all of them. We look forward to continuing this relationship as a cooperative arrangement that provides this valuable educational experience for AGEP participants and, indeed, all attendees of the Compact for Faculty Diversity Institute on Teaching and Mentoring.

David S. Spence
President
Southern Regional Education Board

Roosevelt Johnson
Program Director
National Science Foundation
Alliances for Graduate Education and the Professoriate



“Every time I see living examples of people with a background similar to mine being successful is a very inspiring experience. The idea of going for a teaching career seems closer now.”

A UNIQUE PARTNERSHIP — SREB DOCTORAL SCHOLARS PROGRAM AND AGEP



“This is my second year, and I enjoyed it even more than the first. I was able to attend workshops I did not get to last year and got a better and more complete understanding of what you need and what you can do to be successful in graduate school.”

The American population is increasingly diverse, and college campuses reflect this trend. More than one-fourth of U.S. college students are people of color. Unfortunately, the nation’s diversity is not reflected in higher education faculties. At predominantly white colleges and universities, only one in every 30 faculty members is a minority; the numbers improve only slightly when historically black institutions are included.

One federal initiative to address this shortage is the **Alliances for Graduate Education and the Professoriate** program. AGEP is supported by the National Science Foundation, an independent federal agency created by Congress in 1950. AGEP is intended to increase significantly the number of students receiving doctoral degrees, primarily in the sciences, technology, engineering and mathematics (STEM), with special emphasis on those population groups underrepresented in these fields (e.g., African-Americans, Hispanics and Latinos, American Indians, Alaska Natives, Native Hawaiians or other Pacific Islanders).

The specific objectives of AGEP are: 1) to develop and implement innovative models for recruiting, mentoring and retaining minority students in STEM doctoral programs; and 2) to develop effective strategies for identifying and supporting underrepresented minorities who want to pursue academic careers.

Another effort that addresses this shortage is the **SREB-State Doctoral Scholars Program**. Created by the Southern Regional Education Board, the program works to increase the number of minority faculty throughout the 16-state SREB region. The program enrolled its first class in 1993 and continues today as a partnership of SREB states and federal and foundation programs that stress strengthening minority graduate education.

Bringing these two entities together, the **SREB-AGEP Doctoral Scholars Program** enhances AGEP scholars’ educational experiences and prepares them for college-level teaching. A grant from NSF to SREB supports the initiative. The grant achieves two broad goals for AGEP scholars: 1) to increase the likelihood of completing a Ph.D., primarily in the sciences, technology, engineering or mathematics; and 2) to encourage and prepare scholars for successful college faculty careers.

SREB-AGEP Doctoral Scholars Programs are active at more than two dozen higher education institutions nationwide. The institutions that receive grants from NSF to administer and implement AGEP programs are called lead institutions. Lead institutions form alliances with other institutions and programs to provide services to AGEP participants. The grant from NSF to SREB helps a minimum of 100 AGEP scholars attend and participate in the Compact for Faculty Diversity Institute on Teaching and Mentoring,

the nation's largest forum for minority Ph.D. scholars and faculty mentors to discuss issues critical to earning a doctoral degree and becoming a successful faculty member.

The first cohort of 113 AGEP scholars attended the Institute in Miami, Florida, in 2003. In 2004, the second cohort of 141 scholars attended the Institute in Atlanta, Georgia. The third cohort of 155 scholars attended the Institute in Arlington, Virginia, in 2005.

This special publication recognizes the first group of SREB-AGEP scholars who attended those Institutes and have since received their doctoral degrees. The Southern Regional Education Board congratulates each of the SREB-AGEP Doctoral Scholars Program graduates and wishes them much success in their careers.

THE COMPACT FOR FACULTY DIVERSITY INSTITUTE ON TEACHING AND MENTORING

The Compact for Faculty Diversity Institute on Teaching and Mentoring is the largest gathering in America of racial/ethnic minority Ph.D. scholars seeking careers in academia. The Institute focuses on helping scholars build their teaching and mentoring skills and network with other scholars and faculty representatives. Scholars attend a large variety of workshops that enhance their skills and knowledge as they prepare for entry into the ranks of college and university faculty.

Workshops such as "Selecting an Adviser," "Writing the Dissertation," "Public Speaking for Scientists," "Creating a Teaching Portfolio," "Getting Published: Advice for Scholars," and "Negotiating Your First Faculty Position" represent just a few of more than 70 sessions that scholars can attend.

The first Institute was held in 1994 with 107 attendees. Since then, participation has broadened considerably. The 2005 Institute had 930 participants, including more than 700 minority scholars and other professionals from: the National Institute of General Medical Sciences; the NSF Directorates for Human Resource Development, for Biological Sciences, and for Social, Behavioral and Economic Sciences; the Alfred P. Sloan Foundation Minority Ph.D. Program; the Ronald E. McNair Postbaccalaureate Achievement Program; colleges and universities; and state agencies. For more information about the Institute, visit: www.instituteonteachingandmentoring.org.

"I am really impressed with this event. If I had any doubt about getting a faculty position, then it does not exist anymore. Talking with other scholars and attending sessions motivated me to not hesitate in reaching for my goal."



AGEP GRADUATES AND DISSERTATION TITLES



*“As a result of attending
the Institute, I came to realize
that there is a real need
to educate a new generation
of students and many
who are minority.”*

- Dr. Cynthia Aku-Leh, University of Michigan, Physics
Dissertation Title: Superconducting Gap Excitations, Acoustic and Optical Phonons Probed with Femtosecond Time-Resolved and Raman Spectroscopy
- Dr. Jason Clark, University of California Berkeley, Applied Science and Technology
Dissertation Title: Electro Micro-Metrology
- Dr. Jonine Figueroa, Stony Brook University, Molecular Genetics & Microbiology
Dissertation Title: Genetic and Functional Analysis of the Ski-Interaction Protein
- Dr. Elizabeth Fryar, Howard University, Pharmacology
Dissertation Title: The Importance of Sequence in Combination Chemotherapy: A Comparison of the Cytotoxic Effects of Raloxifene in Combination with Selective Antifolates and 5-Fluorouracil
- Dr. Katherine Dunphy Guzman, University of California Berkeley, Mechanical Engineering,
Dissertation Title: Manipulation and Separation of Particles Using Low-Voltage Electrokinetics
- Dr. Kelly Hester, University of California San Diego, Biomedical Science
Dissertation Title: Homologous Ets-domain Transcriptional Repressors Demonstrate Unique Responses to Ras/MAPK Signaling
- Dr. Eihab Jaber, Stony Brook University, Materials Science and Engineering
Dissertation Title: Rheology and Dynamics in Polymeric Nano-Composites
- * Dr. Bertina Jones, University of North Carolina at Chapel Hill, Applied & Material Science
Dissertation Title: Calcium Signaling in Response to Mechanical Load: A Role for Purinoceptors

* SREB region graduates

Dr. Joyce Macabea, Boston University, Mathematics

Dissertation Title: Dynamics of Shepherd Moon Rings Systems

Dr. Sergio Mendez, New Mexico State University, Chemical & Nuclear Engineering

Dissertation Title: Synthesis, Characterization in Modeling of Tethered Poly (N-isopropylamide)

Dr. Kingsley Reeves, University of Michigan

Dissertation Title: A Multi-Methodological Study of the Firm Boundary Decision in Automotive Distribution and Logistics: Theory, Practice, and Performance

* Dr. Samuel Sackey, North Carolina State University, Mechanical Engineering

Dissertation Title: “Quantitative Modeling of the Delamination Crack Growth Phenomenon in Drilling of Fiber-Reinforced Composite Laminates

Dr. Nirit Sandman, University of California Berkeley, Mathematics

Dissertation Title: Tamari Lattices and a Geometric Problem in Antitrust

* Dr. Paul Smith, Georgia Institute of Technology, Civil Engineering

Dissertation Title: An Analog Architecture for Auditory Feature Extraction and Recognition

* Dr. Glenda Trujillo, Stony Brook University, Molecular & Cellular Pathology

Dissertation Title: The C5a Chemotactic Cofactor Function of the Vitamin D Binding Protein is Regulated by Thrombospondin 1 and CD36

* Dr. Claude Villers, University of Florida, Civil Engineering

Dissertation Title: Sensitivity of Superpave Mixtures for Development of Performance-Related Specifications

* Dr. Annice Jennette Yarber, University of Alabama at Birmingham, Sociology

Dissertation Title: Initiation of Sexual Intercourse: A Test of Interactional Theory

*“This Institute has helped me
to be clearer of my thoughts of
becoming a professor.
I was puzzled about my future.
Should I work to become a
university professor or a
consultant in industry.”*

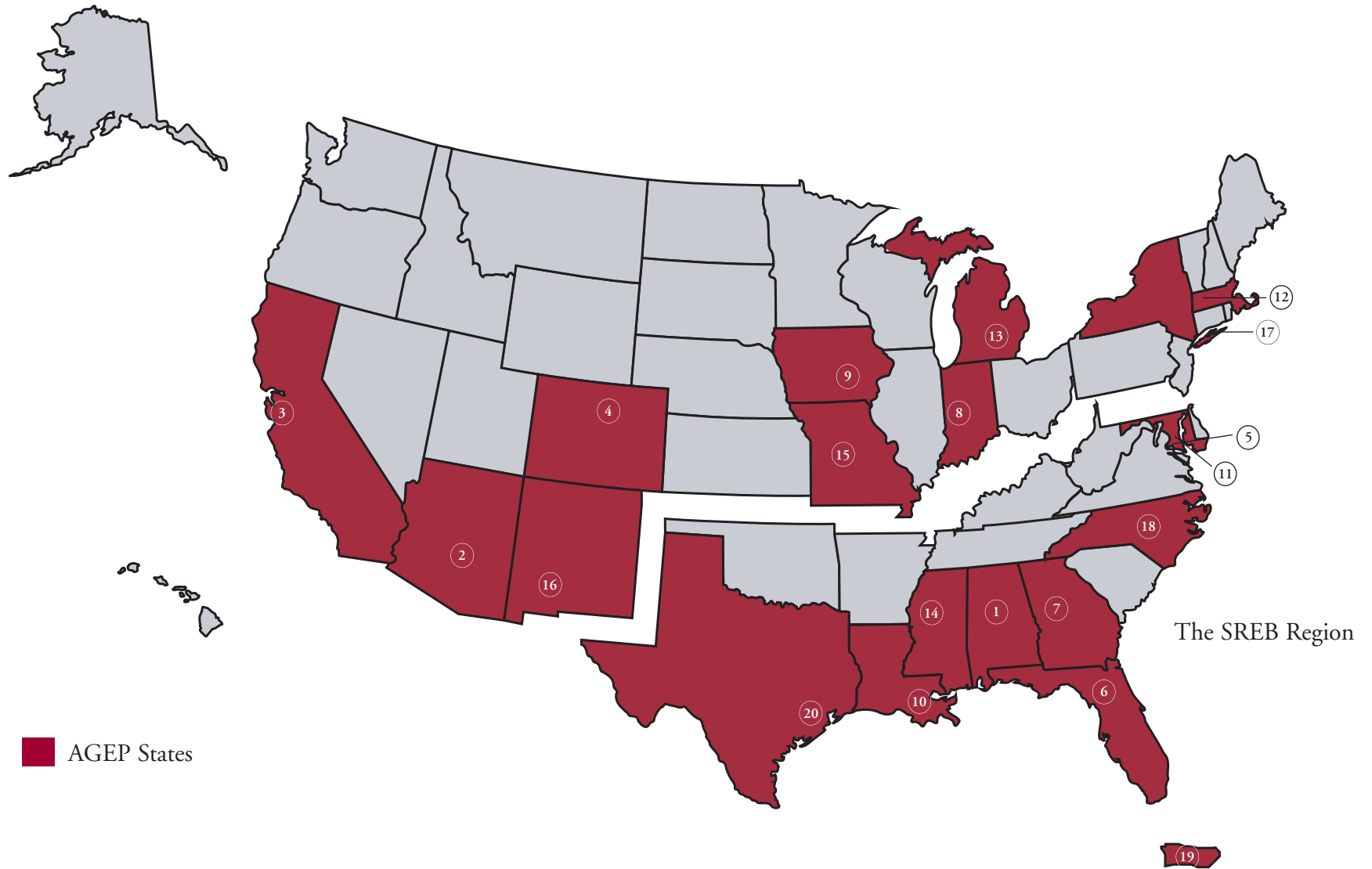


AGEP PROGRAM STATES AND LEAD INSTITUTIONS

1. Alabama *
University of Alabama at Birmingham
2. Arizona
Arizona State University
3. California
University of California System
4. Colorado
University of Colorado at Boulder
5. District of Columbia
Howard University
6. Florida *
University of Florida
7. Georgia *
Georgia Institute of Technology
8. Indiana
Purdue University
9. Iowa
University of Iowa
10. Louisiana *
Tulane University
11. Maryland *
University of Maryland Baltimore County
12. Massachusetts
University of Massachusetts - Amherst
13. Michigan
University of Michigan
14. Mississippi *
University of Mississippi
15. Missouri
University of Missouri - Columbia
16. New Mexico
New Mexico State University
17. New York
Stony Brook University
Syracuse University
The City College of New York
18. North Carolina *
University of North Carolina at Chapel Hill
19. Puerto Rico
University of Puerto Rico Rio Piedras Campus
20. Texas *
William Marsh Rice University

* SREB states

AGEP PROGRAM STATES AND LEAD INSTITUTIONS, CONTINUED



**COMPACT FOR FACULTY DIVERSITY
INSTITUTE ON TEACHING AND MENTORING**

MIAMI, FLORIDA



ALLIANCES FOR GRADUATE EDUCATION AND THE PROFESSORIAL ATTENDEES

**COMPACT FOR FACULTY DIVERSITY
INSTITUTE ON TEACHING AND MENTORING**

ARLINGTON, VIRGINIA



ALLIANCES FOR GRADUATE EDUCATION AND THE PROFESSORIAL ATTENDEES

For more information on AGEP, contact:
National Science Foundation
Alliances for Graduate Education and the Professoriate (AGEP)
4201 Wilson Boulevard
Arlington, Virginia 22230
www.nsf.gov

For more information on SREB-AGEP, contact:
Robert Belle
Southern Regional Education Board
SREB-AGEP Doctoral Scholars Program
592 10th Street N.W.
Atlanta, Georgia 30318-5776
(404) 875-9211
(877) 773-2743
www.sreb.org