Howard University and The University of Texas at El Paso
Alliance for Graduate Education and the Professoriate

EXECUTIVE SUMMARY
2004 - 2005 Grant Period

Program Overview
Howard University’s five-year-old Alliance for Graduate Education and the Professoriate (AGEP) program, originally funded in 1998 under the old MGE initiative, and the University of Texas-El Paso (UTEP) have joined to form a unique partnership to increase underrepresented minority student doctoral enrollment, graduation, and preparation of students for faculty careers in the science, technology, engineering, and mathematics (STEM) disciplines.

With funding the National Science Foundation, the partnership represents the first major endeavor in graduate education to join a Comprehensive Doctoral/Medical Veterinary (previously classified as Doctoral Research-Extensive) Historically Black College and University (HBCU) with a Doctoral/STEM (Doctoral Research-Intensive) Hispanic Serving Institution (HSI) to address the severe under-representation of African Americans and Hispanics in STEM doctoral education. This Alliance expands the range of doctoral disciplines offered by Howard’s AGEP program to include the STEM disciplines of computer engineering, environmental science and engineering, and geological sciences offered at UTEP.

The major components of the HUTEP Alliance include: doctoral student research training, undergraduate preparation for graduate school, preparation of doctoral students for the professoriate and postdoctoral positions, written and oral communication skill development, effective mentoring and the retention of students.

Secondary Partners
In addition to the Howard-UTEP partnership, several additional institutions serve as secondary partners from which the Alliance makes a focused effort to attract doctoral students and ultimately to encourage them to consider faculty careers upon graduation. These institutions include:

Bennett College
Bethune-Cookman College
Bowie State University
Dillard University
Elizabeth City State University
Fisk University
Grambling State University
Hampton University
Miles College
Morehouse College
Morgan State University
North Carolina Agricultural & Technical State University
Saint Augustine's College
Southern University
Spelman College
Talladega College
Tougaloo College
HUTEP Alliance Accomplishments
Three major accomplishments of the HUTEP Alliance directly reflect the goals of the AGEP initiative. During the reporting year, the HUTEP Alliance:

- **Increased Alliance Ph.D. enrollment** of underrepresented minority students in the reporting year by 40%. More specifically, 266 underrepresented minority STEM students enrolled in doctoral programs at Howard and UTEP compared with 190 Ph.D. enrollees in 2003-2004.

- Sponsored a second Annual Preparing Future Faculty (PFF) STEM Summer Institute in which 26 advanced STEM underrepresented minority doctoral students from 12 different institutions received intensive training and experiences to enhance their preparation for the professoriate.

- Sponsored, in collaboration with the National Postdoctoral Association, a second Annual Institute on Postdoctorate Preparation. More than 40 STEM underrepresented minority doctoral students and postdocs attended this Institute to enhance their preparation for postdoctoral positions at various types of institutions including—universities and colleges, government agencies, private research foundations, and other research laboratories. It has been reported that during the institute approximately 4 students received offers for postdoctoral positions.

Changing the Academic and Institutional Climate

AGEP has become institutionalized at both Alliance institutions. Both Howard and UTEP have created courses in faculty preparation within their graduate school, and Howard now offers a certificate in college and university faculty preparation. Both institutions have created positions in their budgets to hire doctoral level staff to provide retention and mentoring services for doctoral and other students. Several STEM doctoral granting departments at Howard have developed faculty preparation initiatives, and all have agreed to provide a teaching experience for all of their doctoral students before graduation. Finally, Howard University has joined the network of institutions engaged in the work of the NSF-funded Center for the Integration of Research, Teaching and Learning. The leadership for the Howard involvement comes from the departments of Chemistry and Biology.

Collaborations and Partnerships
The HUTEP Alliance has collaborated with government agencies, research laboratories and other universities and colleges to provide AGEP students at Howard and UTEP training opportunities in both research and teaching. Particularly, the Alliance has formed a partnership with the National Cancer Institute of the National Institutes of Health (NIH) which provides research assistantships to Howard students in the biomedical sciences after their second year of graduate school. In addition, AGEP-funded students have the
opportunity to experience a pre-faculty internship through Howard’s PFF program, in which they teach and engage in other faculty roles and responsibilities at another institution during their dissertation year. There are 12 pre-faculty partner institutions—Hope College, Kalamazoo College, University of Missouri-Columbia, Indiana University-Purdue University Indianapolis, Indiana University-Bloomington, James Madison University, George Mason University, Northwestern University, Claremont Graduate College, DePauw University, and University of Maryland-Baltimore County.

**Retention and Mentoring Efforts**
During the past reporting period, 18 of the 24 students attended 85 individualized monthly mentoring sessions with the Director of Mentoring and Professional Development in the Graduate School’s Office of Retention, Mentoring and Support Programs. This office was formed as a direct outgrowth of AGEP and headed by a recently created Assistant dean hired on university funds. In addition, many of the students continued their mentoring sessions throughout the summer months. Thirteen UTEP doctoral students met individually with UTEP project staff and their academic performance was monitored through a review of grades and consultation with departmental faculty supervisors. This work was similarly directed by a recently created Assistant Dean hired as an outgrowth of AGEP and on institutional funds.

**Career Advancement**
At Howard, all AGEP-funded students are required to participate in its PFF program and enroll in and complete the course entitled, “Faculty Roles and Responsibilities” during their tenure as a graduate student, usually during the 3rd or 4th year of matriculation. UTEP has developed a similar course and is offering it to AGEP students in the current grant period. In addition, The HUTEP Alliance sponsored with NSF funding their second annual PFF and Postdoc Institutes for Howard and UTEP AGEP students. Both institutes are also open to STEM students nationwide. As stated previously, these Institutes are designed to prepare STEM students for a wide-range of faculty (PFF Institute) and postdoctoral (Postdoc Institute) positions.

**Models for Regional and National Distribution**
The PI and the Director of Project Coordination are active participants in a number of national venues at which they present papers on the preparation of the future professoriate and on diversity in the American professoriate. Their work in AGEP has been highlighted through the Responsive Ph.D. initiative, the Carnegie Initiative on the Doctorate and the Compact for Faculty Diversity. They will contribute their models for faculty preparation in STEM directly through the NSF-funded Center for the Integration of Research, Teaching, and Learning (CIRTL). The PI has presented at 2 national conferences sponsored by the CIRTL at which university leaders and STEM faculty ad leaders from a significant portion of the national research community were in attendance. He also chairs the CIRTL National Advisory Committee.
HUTEP AGEP Alliance  
Ph.D. Enrollment and Ph.D. Degrees  
Five Year History

<table>
<thead>
<tr>
<th>ITEM</th>
<th>YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ph.D. Enrollment</td>
<td>121*</td>
</tr>
<tr>
<td>Ph.D. Degrees</td>
<td>14*</td>
</tr>
</tbody>
</table>

*Since UTEP joined the AGEP Alliance in 2003, there are currently no data available for previous years*
As the nation’s largest producer of African American Ph.D. recipients (Howard) and the nation’s largest Hispanic Serving institution (UTEP), these two institutions pledged to significantly increase the number of African American and Hispanic Ph.D. recipients in the STEM fields and to provide them with extensive and rigorous preparation for careers in the professoriate.

I. Doctoral Student Participants

| Number of AGEP Funded Students by Major Compared to Previous Year (Howard University) |
|---------------------------------|---------------------------------|---------------------------------|
| Anatomy                         | 2                               | Anatomy                         | 1                               |
| Atmospheric Science             | 1                               | Atmospheric Science             | 1                               |
| Biochemistry                    | 0                               | Biochemistry                    | 1                               |
| Biology                         | 5                               | Biology                         | 2                               |
| Chemistry                       | 0                               | Chemistry                       | 1                               |
| Electrical Engineering          | 2                               | Electrical Engineering          | 2                               |
| Genetics                        | 1                               | Genetics                        | 2                               |
| Mathematics                     | 3                               | Mathematics                     | 3                               |
| Mechanical Engineering          | 2                               | Mechanical Engineering          | 0                               |
| Microbiology                    | 1                               | Microbiology                    | 3                               |
| Nutritional Sciences            | 1                               | Nutritional Sciences            | 2                               |
| Pharmaceutical Sciences         | 1                               | Pharmaceutical Sciences         | 1                               |
| Pharmacology                    | 4                               | Pharmacology                    | 6                               |
| Physiology                      | 1                               | Physiology                      | 1                               |
| **Total**                       | **24**                          | **Total**                       | **29**                          |

There were a **total of 123 AGEP-Eligible** doctoral students at Howard University.
Number of AGEP-Funded Students by Major (UTEP)\(^1\)

<table>
<thead>
<tr>
<th>2004-2005</th>
<th>2003-2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>Biology</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>Civil Engineering</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>Computer Engineering</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Computer Science</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Environmental Science and Engineering</td>
<td>Environmental Science</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Geology</td>
<td>Geology</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Materials Science and Engineering</td>
<td>Materials Science and Engineering</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Psychology</td>
<td>Psychology</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>13</td>
<td>7</td>
</tr>
</tbody>
</table>

There were a total of 65 AGEP-eligible doctoral students at UTEP.

Number of AGEP-Eligible Ph.D. Graduates by Major Compared to Previous Year (Howard University)\(^2\)

<table>
<thead>
<tr>
<th>May 2005</th>
<th>May 2004</th>
<th>May 2003</th>
<th>May 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>2</td>
<td>Biology</td>
<td>4</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>5</td>
<td>Biochemistry</td>
<td>0</td>
</tr>
<tr>
<td>Chemistry</td>
<td>0</td>
<td>Chemistry</td>
<td>2</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>0</td>
<td>Electrical Engineering</td>
<td>2</td>
</tr>
<tr>
<td>Genetics</td>
<td>1</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics</td>
<td>2</td>
<td>Mathematics</td>
<td>2</td>
</tr>
<tr>
<td>Microbiology</td>
<td>1</td>
<td>Microbiology</td>
<td>1</td>
</tr>
<tr>
<td>Nutritional Sciences</td>
<td>3</td>
<td>Nutritional Sciences</td>
<td>2</td>
</tr>
<tr>
<td>Pharmacology</td>
<td>4</td>
<td>Pharmacology</td>
<td>0</td>
</tr>
<tr>
<td>Physics</td>
<td>0</td>
<td>Physics</td>
<td>0</td>
</tr>
<tr>
<td>Physiology</td>
<td>3</td>
<td>Physiology</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>Total</td>
<td>14</td>
</tr>
</tbody>
</table>

\(^1\) Since UTEP joined the AGEP Alliance in 2003, there are currently no data available for previous years.

\(^2\) Please note that Social and Behavioral Science are not counted as AGEP disciplines at Howard.
Number of AGEP-Eligible Ph.D. Graduates by Major (UTEP)³

<table>
<thead>
<tr>
<th>May 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
</tr>
<tr>
<td>Environmental Science</td>
</tr>
<tr>
<td>and Engineering</td>
</tr>
<tr>
<td>Material Science</td>
</tr>
<tr>
<td>and Engineering</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

Student Publications and Presentations

(Howard University)

Articles:


Abstracts:


³ UTEP joined the AGEP Alliance as primary partner in 2003-2004; thus, statistics on AGEP student eligibility and doctoral completion were not maintained prior to May 2005.
and Hygiene 71(4). Abstracts of the 53rd Annual Meeting of the American Society of Tropical Medicine and Hygiene, Miami, FL, p.22.


**Presentations:**


(UTEP)\(^4\)

**Articles:**

Turner, C.D., Carrasco, L. (2004). Weaving Green Engineering into Campus Construction: a Professor’s and a Student’s Perspective. *American Society for Engineering Education (ASEE) 2004 Conference and Exposition*. Salt Lake City, Utah. (This paper was awarded with the 2004 ASEE Best Paper Award – Environmental Engineering Division)


\(^4\)Please note that Psychology and other Social Sciences are included in the AGEP disciplines at UTEP.


**Presentations:**

Carrasco, Leirad – “Weaving Green Engineering into Campus Construction: A Professor’s and A Student’s Perspective” American Society for Engineering Education Salt Lake City, Utah, June 2004


Lechuga, Julia – “Measurement of acculturation in Hispanics”
Julia Lechuga, M.A., and John S. Wiebe, Ph.D.,

Pacheco, Jose –. Knowledge, Art, Research, Mentoring, Advancement (Karma) Annual Conference (El Paso, TX)—“Revision of the South American Thief Ants (Hymenoptera: Formicidae: Solenopsis): A potential biological control agent for the red imported fire ant” Oral Presentation. Sept. 2005

Southwestern Association of Naturalists (SWAN) Annual meeting (Huntsville, TX)—“The Ant Genus Liometopum of the Southwest (HYMENOPTERA: FORMICIDAE), Poster Presentation. Apr. 2005

SWAN Annual meeting (Huntsville, TX)—“Introduction To The Pygmaea Species Complex (Genus Solenopsis) In The Southwest”, Poster Presentation. Apr. 2005

SWAN Annual meeting (Huntsville, TX)—“Morphometric Analysis of Crematogaster depilis and Crematogaster larreae” Poster Presentation. Apr.2005

SWAN Annual meeting (Huntsville, TX)—“The Thief Ants (Genus Solenopsis) Of The Molesta Species Complex In The Southwest (Hymenoptera: Formicidae)”, Oral Presentation Apr. 2005.


SACNAS National Conference Oct. 2004 (Austin, TX)—A Revision and Biogeography of the New World Solenopsis, Oral Presentation.

6th Symposium on the Natural Resources of the Chihuahuan Desert at Ross State University, Alpine, TX—The Diversity and Biogeography Of New World Thief Ants (Hymenoptera: Formicidae), Oct. 2004 Oral Presentation.

Perez, Adriana Myriam –
“A GIS and Remote Sensing Investigation of the Relationship of Terrain, Soil, and other Physiographic Factors on the Pine Community of Lincoln National Park in the Sacramento Mountains of Southwest New Mexico”. Presented at the 2004 American Geophysical Union meeting.


“Severe plastic deformation associated with [001] single-crystal W and W-Ta alloy ballistic rod penetration into steel targets” TMS 134th International Annual Meeting & Exhibition, San Francisco, California, 2005.

“DRX-induced solid-state flow and projectile-target mixing during [001] single-crystal tungsten rod penetration into steel targets” 14th APS SCCM Conference, Baltimore, Maryland, 2005.


**Student Research Obligations**

All students receiving any funding through the AGEP Program are required to perform at least 15 hours per week of laboratory research in their departments/external research laboratories. While the responsibilities may vary due to the nature of the programs, all students are required to have these assignments approved through the AGEP program.

**Howard University**

<table>
<thead>
<tr>
<th>Student</th>
<th>Department</th>
<th>Laboratory Advisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adetobi, Elizabeth</td>
<td>Pharmacology</td>
<td>Dr. Masssari</td>
</tr>
<tr>
<td>Ali, Muslimah</td>
<td>Anatomy</td>
<td>Dr. Rapisardi</td>
</tr>
<tr>
<td>Allen, Andrea</td>
<td>Genetics</td>
<td>Dr. Walters/Dr. Headings</td>
</tr>
<tr>
<td>Capo-Lugo, Pedro</td>
<td>Mechanical Eng.</td>
<td>Dr. Bainum</td>
</tr>
<tr>
<td>Castro, Marcel</td>
<td>Electrical Eng.</td>
<td>Dr. Rubaii</td>
</tr>
<tr>
<td>Forde, Renee</td>
<td>Biology</td>
<td>Dr. Duttany</td>
</tr>
<tr>
<td>Fryar, Elizabeth</td>
<td>Pharmacology</td>
<td>Dr. Bowen</td>
</tr>
<tr>
<td>Hayslett, Renee</td>
<td>Pharmacology</td>
<td>Dr. Tizabi</td>
</tr>
<tr>
<td>Hodges, Marcus</td>
<td>Biology</td>
<td>Dr. C. Lee/Dr. Loyevsky</td>
</tr>
<tr>
<td>Jean-Gilles, Junia</td>
<td>Biology</td>
<td>Dr. Eribo</td>
</tr>
<tr>
<td>Jones, Kimberly</td>
<td>Biology</td>
<td>Dr. Eckberg</td>
</tr>
<tr>
<td>Jones, Opel</td>
<td>Mathematics</td>
<td>Dr. Shapiro</td>
</tr>
</tbody>
</table>
II. Progress Towards Achieving Program Objectives

Graduate Retention and Mentoring Efforts

Academic Monitoring (Howard)
The Office of Retention, Mentoring and Support Programs (ORMSS) has implemented a systemic plan for monitoring the academic progress of AGEP-funded students in an effort to identify potential warning signs. The University Director of Enrollment Management and Records provided Dr. Chontrese Doswell, Assistant Dean of ORMSS, with a semester-by-semester academic progress report of AGEP fellows that included the following:

* students who earned a C or an Incomplete grade the previous semester
* students with a cumulative GPA below 3.0
* students who registered the previous semester but are not registered in the current semester
AGEP fellows meeting any of the above conditions were contacted in writing, with a copy sent to the Director of Graduate Studies in their department, requiring a meeting with the Assistant Dean of ORMSS. This meeting provided an opportunity for discussion of the problem area and the appropriate resources available to address the issues.

At the mid-term point of each semester, faculty members were contacted by the Assistant Dean of ORMSS to provide a brief, written progress report on each AGEP-funded student enrolled in their courses.

In an effort to monitor time-to-degree, AGEP fellows met with the Assistant Dean of ORMSS early in year 1 of their academic program, midway through year 2, early in year 3 and midway through year 4 to provide additional support at critical doctoral degree thresholds. For example, within the first month of year 1, the primary concern was that each AGEP fellow received and understood his or her program of study. In addition, we assisted in expediting students’ transition into doctoral programs by making them aware of useful resources such as tutors, professional development workshops and networking activities. Midway through year 2, we focused our monitoring efforts to ensuring students were on target to complete the coursework phase of the degree. Early in year 3, the focus became comprehensive exams, composing a dissertation committee and preparing for the proposal defense. The year 4 check point focused on issues in preparation to defend the dissertation the following year.

The ORMSS identified senior graduate student tutors to provide assistance for graduate students experiencing coursework difficulties.

**Mentoring of Graduate Students (Howard)**

The Director of Mentoring and Professional Development in ORMSS Programs provided individualized monthly mentoring meetings for all funded AGEP Scholars. During the past reporting period, 18 of the 24 students attended 85 mentoring sessions. In addition, many of the students continued their mentoring sessions throughout the summer months. AGEP Scholars are continuing these mentoring sessions in the current grant period; however, these students currently meet with the AGEP Coordinator for Student Affairs.

In addition to the individualized mentoring sessions, AGEP scholars attended a variety of workshops designed to supplement mentoring efforts and enhance their academic and professional endeavors. The titles of the workshops included:

- The Graduate School Process, Expectations and Strategies: Graduate School Rules and Regulations, including the Program of Study
- Responsible Conduct of Research Workshop
- Moving from ABD to PhD
- Writing the Dissertation Proposal and Overcoming Writers’ Block
- Preparing Your Oral Defense and Other Presentations Using Technology
- Developing Your Academic Portfolio and Academic Interview Strategies
**Graduate Student Orientation (Howard)**
The ORMSS hosted a reception for all new STEM and AGEP funded students at the beginning of the Fall semester. The goal of this event is to introduce new STEM and AGEP students to currently enrolled students, senior administrators in the Graduate School and STEM faculty.

**Placement of Students in Postdoctoral Fellowships (Howard)**
During the last reporting period, one Howard AGEP fellow, Dr. LaTonya Taliaferro-Smith completed the Ph.D. degree in Biochemistry and Molecular Biology and obtained a post-doctoral fellowship at the Center for Cancer Research and Therapeutic Development, Clark Atlanta University.

**Future Plans (Howard)**
The ORMSS will develop an enhanced technology model to augment retention and mentoring efforts for all AGEP fellows. The web-based portal will require students to provide student profile information updated a minimum of once per year. The data base will request information used as embedded degree completion triggers. For example, each student will be assigned a profile number reflecting the month and year of matriculation. This will allow for cohort data reports to monitor progress toward the degree. The student profile will also ask AGEP fellows to indicate their expected date of graduation. As this self-reported date approaches, the ORMSS will contact students to inquire about their completion status. Thus, this embedded trigger will provide an occasion to check-in and monitor completion progress. The student profiles will request milestone data reflecting major degree completion thresholds, (e.g., coursework completed, comprehensive examinations completed, admission to candidacy, proposal defense, and dissertation defense). Codes will be assigned to each milestone to more effectively track the doctoral progression of each AGEP fellow.

Howard University has received a three-year grant to participate in the Ph.D. Completion Project, administered by the Council of Graduate Schools (CGS), designed to address doctoral completion and attrition in Sciences, Engineering, and Mathematics (SEM) and in Humanities and Social Science disciplines. Participating research partner institutions will create and pilot intervention strategies and evaluate the effect of these strategies upon attrition patterns. Core outcome measures will be used for each participating institution to include a completion and attrition data template; a pre-project assessment survey; administration of an exit survey to non-completers; and semi-annual reports to CGS. Howard’s participation in this important project will directly impact and strengthen our efforts in the area of STEM doctoral completion.

**Activities at UTEP**
Thirteen (13) UTEP doctoral students received AGEP funding in 2004-05. These students met individually with project staff and their academic performance was monitored through a review of grades and consultation with faculty supervisors.

UTEP initiated a series of brown bag sessions which were facilitated by the AGEP scholars. These informal sessions addressed mentoring, retention, and professional
development. Topics included: Selecting an Advisor with Your Interest in Mind—November 2004; Time Management—March 2005; and Organizing Your CV—April 2005. Dr. Charles Ambler, Dean and Historian, met individually with all scholars each semester to mentor and monitor progress.

**Preparing Future Faculty Activities**

A unique feature of the Howard/UTEP AGEP Alliance is that it is designed to take full advantage of the ten-year track record and national reputation of Howard University’s Preparing Future Faculty Program (PFF). At Howard University, all AGEP students are required to enroll in the introductory PFF course entitled “Faculty Roles and Responsibilities,” taught by the PI and assisted by Drs. Carter and Radis, during the beginning of their third year of doctoral study. This class focuses on contemporary issues in higher education and the roles and responsibilities of faculty members in the new millennium. During the 2004-2005 grant year, two (2) AGEP students enrolled in the class and received passing grades.

In addition to the PFF class, all Howard PFF students are required to attend a minimum of 4 seminars/workshops per year that focus on faculty preparation and development. During the grant year, workshops were presented on many topics, and AGEP students attended each session. Such topics include: 1) Communicating Your Research; 2) The Scholarship of Teaching and Learning; 3) The Academic Job Search and Effective Interviewing Strategies; and 4) Tips for Researching Grants and Writing Effective Proposals.

As an extension of the PFF program, Howard University offers a Graduate Certificate in College and University Faculty Preparation. During the grant year, one AGEP-funded student applied and was admitted to the certificate program and one AGEP-eligible student is enrolled.

AGEP students who served as teaching assistants in their departments were also required to attend the Graduate School’s Annual TA Workshop, coordinated by Dr. Carter. Two sessions of the workshop was offered during the grant year focused explicitly on teaching issues in the STEM field. These sessions were entitled “Teaching in a Physical Science Laboratory”, led by Dr. Charles Hosten, Associate Professor in the Department of Chemistry at Howard and “Teaching in the Life Science Laboratory” led by Dr. Geraldine Twitty, Assistant Professor in the Department of Biology at Howard.

The acquisition of teaching experiences is yet another aspect of faculty preparation for AGEP students. All STEM departments at Howard have pledged to provide some type of teaching experience for their students. These experiences include: laboratory teaching, assistance to senior faculty in teaching courses, guest lecturing in courses, and independent teaching assignments. Also, a few AGEP students are able to acquire teaching experience through teaching incoming graduate students during the Summer Bridge program. In addition, arrangements have been made with approximately 12 colleges and universities around the United States to permit doctoral students to assume pre-faculty internships (with teaching assignments) on their campuses during the
candidacy stage of their doctoral work. During the previous grant year 11 AGEP funded students participated in teaching activities on the Howard campus, while none as yet has taken advantage of the pre-faculty internships off campus.

UTEP has begun the process of developing a Howard-like PFF program for its STEM students. Drs. Taylor and Carter conducted an intensive workshop for UTEP faculty during the grant year in preparation for a UTEP program launch. In addition, UTEP has developed a PFF course entitled, “Issues in Higher Education” during the current grant year in collaboration with UTEP’s Graduate School. This course taught by Dr. Gregory Lush, Associate Dean of the Graduate School and Dr. Chastity Bradford, Assistant Dean of the Graduate School, addresses topics ranging from pedagogy and teaching to diversity in higher education. In addition, AGEP students who teach courses are required to attend UTEP’s annual TA workshops and to seek needed teaching support from UTEP’s Center for Effective Teaching and Learning (CETAL). UTEP also offers a series of professional development workshops sponsored by the Graduate School in conjunction with CETAL to which AGEP students are invited. During new graduate student orientation and the grant year, TA/RA workshops were offered on such topics as: E-Portfolios, Icebreakers for the Classroom, Syllabus Design, Building Student Teams in Classrooms, How to be a better Graduate Assistant, Working with Faculty Members, and Time Management: Inside and Outside the Classroom.

At UTEP, the Graduate School and CETAL have been collaborating on the development of a program for doctoral and master’s students, aimed at preparing future educators. This initiated with a roundtable discussion. It began with a description of the Preparing Future Faculty Program at Arizona State University (ASU) (one of the leading PFF institutions nationally) by a representative from ASU. Dr. Jeffrey Shepherd, Visiting Assistant Professor at UTEP and a recent graduate of ASU, analyzed his graduate student experience in PFF with the hindsight of a working teacher. Dr. Christine Marlow of New Mexico State University discussed the NMSU experience in training graduate science students as teachers. Dr. Marlow, until recently Associate Dean of the Graduate School at NMSU, is a professor of Sociology and Director of the NSF-funded New Mexico AGEP program—designed to encourage diversity in doctoral programs in science and engineering disciplines. Dr. Ronald Weber, Associate Professor of History at UTEP, concluded the presentations with a discussion of the experience of UTEP’s history department in training graduate students to be better teachers. In an effort to change the graduate culture of the campus, faculty participation was encouraged from all disciplines.

Perhaps the most important aspect of faculty preparation for the Howard/UTEP Alliance was the offering of the second annual PFF Institute during the summer of 2005. This Institute focused on a variety of topics pertaining to STEM faculty preparation including The Academic Job Search and Hiring Practices at Diverse Institutions; Creating an Academic Portfolio; Becoming an Effective Faculty Mentor; Race/Ethnicity and Gender in Academia; Teaching Methods/Strategies (including Technology) to Enhance Student Learning; and Researching and Writing Effective Grant Proposals. Twenty-six students from across the country attended the institute and evaluations of the institute by
participants were extremely positive. A copy of the 2005 PFF Institute agenda and a summary of participant evaluations are attached at the end of this report.

**Strengthening Communication Skills of STEM Students**

To address the competency of STEM students’ oral and written communication, Howard/UTEP AGEP Alliance has implemented a communication component strengthen the skills of its doctoral graduates in this area. Currently, all Howard AGEP students are required to take an Expository Writing Examination upon enrollment into the University. If it is found that these students demonstrate deficiencies in this area, they are required to enroll and complete a graduate level expository writing course taught by Dr. Kimberley Moffitt, Director of the Academic Support Services Program at Howard. Even prior to beginning the academic year at Howard, doctoral students in the Summer Bridge program were again provided a lecture on communication competency in Expository Writing by Dr. Forrestine Barnes, past Director of the Graduate School’s Expository Writing Program.

In addition to the writing expository program, AGEP-funded students at Howard attended workshops on enhancing their oral communication skills, in grant/proposal writing and in scientific writing were held at Howard during the grant year. At both Howard and UTEP, workshops on oral communication and presentation skills were provided to AGEP students. UTEP scholars participated in the Sun Conference. Drs. Ambler, Lush, Novic organized and facilitated a Grant Proposal Writing Workshop. Similar workshops, particularly oral skills development, have been offered during the current grant year at the AGEP Alliance retreat.

**Establishing Interdisciplinary STEM Communities at Howard and UTEP**

*Newsletters/Electronic Messages (Howard)*

During the grant year, we continued to send throughout the semester, approximately bi-weekly, electronic messages to all STEM graduate students notifying them of funding opportunities, research programs and internships, and teaching opportunities. These messages are also sent (as appropriate) to all STEM Department Chairs, Directors of Graduate Studies, and the Directors of the LS-AMP, HUSEM (HBCU-UP), Achievement Scholars and McNair Scholars Programs.

During the 2005 Fall Graduate School Orientation, a reception, sponsored by the Dean of the Graduate School (AGEP Principal Investigator), was held for all STEM graduate students at Howard University. In addition, faculty from STEM departments, AGEP staff, and Graduate School staff attended the reception. Dr. Chontrese Doswell, the Assistant Dean of the Graduate School, gave a brief welcome address and encouraged all attendees to interact and greet one another. The reception was an ideal venue for faculty and graduate students of different STEM disciplines to begin forming potential collaborations.
**AGEP Fellows Meetings and Graduate Student Community Building**

All AGEP-funded fellows are required to attend monthly AGEP Program meetings at which a number of program items are discussed. In addition, these meetings sometime include presentations by representatives of other universities and college STEM faculty, external funding agencies and foundations, or of the Howard University Graduate School. At UTEP, AGEP fellows have met periodically to discuss issues of interest to STEM graduate students. In the current grant year, AGEP-funded students at UTEP have met regularly with students in the Bridge to Doctorate Program. AGEP-funded students of both campuses also have the opportunity to meet at the PFF and Postdoc Institutes and national conferences.

Also, in the current grant year, an annual retreat for the entire HUTEP Alliance was held to assist with developing community among graduate students in the Alliance and within each institution.

**Introduction to STEM Graduate Study (Undergraduate Visitations)**

Undergraduate Visitation Programs were held at both Alliance institutions during this reporting period. In late October of 2004, the visitation program was held on the campus of Howard University with 46 students from 31 schools in attendance. The attendees came from a myriad of universities and colleges such as Xavier University of Louisiana, San Francisco State University, Pontifical Catholic University, and Henderson State University.

During the Visitation Program, students met with Howard University administrators, faculty, staff and graduate students, as well as representatives from NSF, NIH, and the FDA. They were given the opportunity to learn about graduate school in general and about the STEM doctoral programs at Howard. Students also visited departments of their interest, observed graduate course lectures/classes, visited campus research centers and laboratories and had lunch with faculty members and chairpersons in their discipline. The complete agenda and sample evaluations items for this program is attached at the end of this report. Of the students who attended the Howard visitation, 7 have chosen to attend and are enrolled in a Ph.D. program.

UTEP did not host undergraduate visitation program during the 2004-2005 grant period. The Alliance requested that the visitation program be moved to a later date than September. It was moved to mid-October in effort to attract more undergraduate student participants.

Both Howard and UTEP visitation programs emphasized the importance of attending graduate school and attaining a doctoral degree in STEM. During these visitations, students also learned about the myriad of STEM programs offered at each institution. As stated previously, departmental visitations are a major component of these programs.

These programs were also held during the current grant period; a visitation was held at Howard University and UTEP in October.
Pre-Graduate School Orientation and Research Program (Summer Bridge Program)
The STEM Summer Bridge program is designed to provide early academic and research preparation for new Howard doctoral students prior to the beginning of the academic year. During the Summer of 2005, 10 newly accepted STEM doctoral students participated in the Summer Bridge Program. These students were accepted into the following departments at Howard University: Anatomy, Biochemistry and Molecular Biology, Chemistry, Electrical Engineering, Pharmacology.

As part of the Summer Bridge Program, each student attended 2-week mini-courses and seminars on topics such as: The History of Howard University, An Introduction to Scientific Search Engines, Research Methodology, Expository Writing, Statistics, Learning Styles and Biochemistry. Following these morning mini-courses, students worked in their academic departments and/or laboratories on research projects in their field.

In addition to the academic and research preparation, students also had an opportunity to find housing for the upcoming academic year, receive Howard identification cards, and complete any administrative requirements (e.g., course registration, etc.) prior to the academic year.

You will find attached to the end of this report a copy of the Summer Bridge Program agenda and evaluation.

Introduction to the Post Doctorate Workshops (Postdoc Institute)
This event, which was made possible through a supplemental grant from the National Science Foundation, was held in August 2005 in Washington, DC at the headquarters of the American Association for the Advancement of Science. The program attracted 38 students from 19 institutions for a two-day institute designed to demonstrate the importance of the postdoctoral experience in the STEM disciplines and to show how to obtain a postdoctoral position that fits an individual’s needs. The objective of the Institute is to help participants determine how postdoctoral opportunities might best advance their goal of becoming a future faculty member. A group of very talented and knowledgeable individuals were invited to make the participants aware of the range of postdoctoral opportunities that might best suit their career plans and to provide guidance on how to enhance their competitiveness for the positions they seek. The participants took full advantage of their networking opportunities with our presenters and participant colleagues. The HUTEP AGEP program collaborated with the National Postdoctoral Association in the planning and implementation of this event. Members of the National Postdoctoral Association’s Committee on Diversity Issues worked closely with the planners of this event.

The doctoral students who attended this event participated in discussions of such topics as “Postdocs and Career Paths,” “The Rewards of a Postdoctoral Experience,” “Funding of Postdocs: Panel of Agency/Foundation Representatives”, and “Developing Personal Career Strategies.”
The agenda and participant evaluations for this institute is attached at the end of this report.

**Honor Society**
The Edward Alexander Bouchet Graduate Honor Society was established at both Howard and Yale Universities (founding charter institutions) in September 2005. This honor society was named in honor of Edward Bouchet, the first African American to obtain a Ph.D. in the United States (Physics, Yale, 1876). Though this honor society is open to all Howard University graduate students who meet the eligibility requirements, its establishment was inspired and partially guided by the HUTEP AGEP Program’s envision of creating a society for STEM doctoral students. Three AGEP-funded students—Andrea Allen, Opel Jones, and Lekeshia Legette—and one STEM faculty member and AGEP faculty advisory council member – Dr. Agnes Day, Professor and Chair, Department of Microbiology served on a committed that contributed to the inception of the Bouchet Society. In addition to 11 other institutions, UTEP was invited to form an institutional chapter of the Edward Bouchet Society. This will provide AGEP students at both Howard and UTEP to join the society.

The following is the mission statement and pillars of the Bouchet Society.\(^5\)

**Mission Statement**
The purpose of the Edward Alexander Bouchet Graduate Honor Society (Bouchet Society) is to recognize outstanding scholarly achievement and promote diversity and excellence in doctoral education and the professoriate. The Bouchet Society seeks to develop a network of preeminent scholars who exemplify academic and personal excellence, foster environments of support, and serve as examples of scholarship, leadership, character, service, and advocacy for students who have been traditionally underrepresented in the academy. In the spirit of Edward Alexander Bouchet and the character, leadership, advocacy, scholarship and service he exhibited both inside and outside academic realms, inductees into the honor society bearing his name should also exhibit these same outstanding qualities.

**Scholarship:** The Bouchet Graduate Honor Society is a learned society that is committed to the goals of lifelong education, as well as the production and the dissemination of knowledge in the humanities, social sciences and sciences. Members are scholars who are committed to contributing to the development of their field(s) of study and who seek to ensure excellence and innovation in these fields.

**Character:** Bouchet Graduate Honor Society members must exhibit the highest values of their university, through their integrity, honor, and exemplary conduct and behavior. Character may be exemplified through an individual’s emotional courage, principles, endurance, and the ability to follow through long after the excitement of the task is over.

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\(^5\) This summation was taken from the Howard University website: http://www.gs.howard.edu/bouchet/default.htm
He or she must be reliable and consistent. At each member’s core must be an awareness of the importance of contributing to society and working for the good of society.

**Leadership:** The Bouchet Graduate Honor Society is comprised of scholars who take personally their responsibility for their departments and their academic fields on a local, national, and international levels, as necessary. Bouchet Graduate Honor Society leaders are the embodiment of the ideals of their respective universities. They not only represent the mission of their university but they must also demonstrate strong initiative.

**Service:** Each member should actively contribute to the well-being of society by giving, remaining involved in the community, sharing of personal gifts and talents, and exhibiting a Bouchet-like commitment to the service of others.

**Advocacy:** Each member should actively support and advocate for broader access to graduate education and other resources within the academy. Activities might include advocating for the concerns of diverse faculty members and students, serving as a mentor, helping to address the needs of communities, and educating others on the issues that may be at the heart of the continued inequities and disparities in our society, particularly in education.

**Chapter Requirements**
Eligibility for the formation of an institutional chapter is limited to doctoral-granting institutions with a sustained record of training scholars who are traditionally underrepresented in the academy. Interested institutions must show evidence of prior reform efforts designed to promote diversity and excellence in doctoral education.

**STEM Faculty Advisory Councils at Howard and UTEP**
The establishment of AGEP faculty advisory councils is maintained at both institutions. Advisory councils meet on individual campuses at least once per semester during the academic year.

**Howard Council**
Names and Disciplines
1. Dr. Georges Haddad- Assistant Professor, Physiology
2. Dr. Lorraine Fleming- Professor, Civil Engineering and Director, HUSEM Program
3. Dr. Martha Davila-Garcia- Assistant Professor, Pharmacology
4. Dr. Clarence Lee- Professor, Biology and Director, LS-AMP Program
5. Dr. Folahan Ayorinde- Professor, Chemistry
6. Dr. Agnes Day- Associate Professor and Chair, Microbiology
7. Dr. Cora Sadosky- Professor, Mathematics
8. Dr. Mohammad Chouikha- Professor and Chair, Electrical Engineering

The AGEP Faculty Advisory Council at Howard has provided feedback and suggestions on all AGEP-sponsored programs and events including: The Undergraduate Visitation Program, Preparing Future Faculty Summer Institutes, The Postdoctoral Preparation Institute, Summer Bridge Program, and other planned activities and meetings. Many of
these faculty members have also participated in some of these events by guest speaking on a topic and/or meeting with participating students.

In addition, faculty members in the Department of Mathematics and Chemistry have collaborated to develop a course focusing on Professional Development for students in STEM. This course development is part of an effort initiated by the Carnegie Foundation for the Advancement of Teaching’s Carnegie Initiative on the Doctorate (CID) on Professional Development for STEM students.

UTEP Council- Names and Disciplines
The UTEP Advisory Council is chaired by Dr. Pablo Arenaz, currently interim Vice President for Academic Affairs. The Council has met once per year and members have been included in various AGEP events. The initial meeting in fall 2003 included representatives from Howard University. The membership also includes Dr. Laurie Churchill, representing the New Mexico AGEP. The members are:

1. Dr. Pablo Arenaz (Chair), Interim Vice President for Academic Affairs and Professor, Biology
2. Dr. Barry Benedict, Dean, College of Engineering
3. Dr. Stella Quinones, Assistant Professor, Electrical and Computer Engineering
4. Dr. Laurie Churchill, Director, New Mexico AGEP
5. Dr. Carlos Ferregut, Professor and Chair, Civil Engineering
6. Dr. Jorge Gardea-Torresdey, Professor and Chair, Chemistry
7. Dr. Elizabeth Anthony, Chair, Geology and Co-PI, UTEP ADVANCE Program
8. Dr. Benjamin Flores, Professor and Chair, Electrical and Computer Engineering, and Director, UTEP LS-AMP and Model Institutions for Excellence
9. Dr. Kristine Garza, Assistant Professor, Biology
10. Dr. David Novick, Associate Vice President for Academic Affairs and Professor, Computer Science
11. Dr. John deCastro, Professor and Chair, Psychology
12. Dr. Christine Reimers, Director, UTEP Center for Effective Teaching and Learning
13. Dr. Aaron Velasco, Associate Professor, Geology
Howard University and The University of Texas at El Paso
AGEP PFF STEM Summer Institute
June 23 – 25, 2005
El Paso, Texas

Agenda

Thursday, June 23

3:00pm – 5:00pm  Registration    Holiday Inn – Sunland Park

5:30pm  Open Plenary

Welcome
Charles Ambler
The University of Texas at El Paso

Orlando L. Taylor
Howard University

Introductions
Gregory Lush
The University of Texas at El Paso

Michael W. Radis
Howard University

Overview of Program
Terrolyn P. Carter

6:30pm  Dinner

The Changing Professoriate: Preparing Underrepresented Minority Doctoral Students for the Professoriate
Diana Natalicio, President
The University of Texas at El Paso

Friday, June 24  UTEP Union, Tomas Rivera Conference Center 308

8:30am – 9:00am  Breakfast
Faculty Career Aspirations and Expectations: Issues and Concerns
Moderator: Michael Radis

9:00am – 10:30am Faculty Roles and Responsibilities at Different Types of Institutions
Moderator: Chastity Bradford, The University of Texas at El Paso

Panelists:
G. B. Dielissen, Utrecht University, The Netherlands
Jim Gentile, Research Corporation
Mark Hernandez, University of Colorado at Boulder
Aaron Velasco, The University of Texas at El Paso

10:30am – 10:45am Break

10:45am – 11:45am Creating an Academic Portfolio – Part I
Terrolyn P. Carter, Howard University

11:45am – 1:00pm Lunch
Race/Ethnicity and Gender in Academia
Anne Quiroz Gates, The University of Texas at El Paso

1:00pm – 2:30pm The Academic Job Search and Hiring Practices at Various Institutions
Moderator: Orlando L. Taylor, Howard University

Panelists:
Alfredo Gonzales, Hope College
Richard Jarvis, The University of Texas at El Paso
Wayne Patterson, Howard University
Lydia Tena-Perez, El Paso Community College

2:30pm – 3:10pm Becoming an Effective Faculty Mentor

3:10pm – 3:20pm BREAK

3:20pm – 4:30pm Effective Teaching Tips
Benjamin Flores, The University of Texas at El Paso

4:30pm – 5:30pm Teaching Methods/Strategies (including Technology) to Enhance Student Learning
William Roberson, The University of Texas at El Paso
5:40pm  Depart to Hotel

6:30pm  Trolley Departs to Juarez, Mexico
DINNER

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**Saturday, June 25**

UTEP Union, Tomas Rivera Conference Center 308

8:30am – 9:00am  Breakfast

9:00am – 10:30am  Grantsmanship 101:
Researching and Writing Effective Grant Proposals
Katie McGraw, Howard University

10:30am – 12:00pm  Creating a Academic Portfolio - Part II
Terrolyn P. Carter, Howard University

12:00pm – 1:00pm  Lunch
Assessing Student Learning
Michael Nettles, Educational Testing Service

1:10pm – 2:15pm  Teaching as a Scholarly Activity
Orlando L. Taylor, Howard University

2:15pm – 3:00pm  What I Want to Know, But Have Not Learned Yet
*Question and Answer Session*
Moderator: Michael W. Radis

3:00pm - 3:15pm  Evaluation/Adjournment
Howard University – The University of Texas El Paso
Alliance for Graduate Education and the Professoriate (AGEP) Program
Preparing Future Faculty Summer Institute
2005

Evaluation Results

PART I – Pre & Post Tests

1 = know nothing
2 = know little
3 = know something
4 = know great deal
5 = know everything

1. The Scholarship of Teaching and Learning
2. The Philosophies Underlying a Variety of Teaching Styles

5. Networking with Professionals and Experts in College Teaching
7. Faculty Responsibilities at a Variety of Institution Types

8. The Factors which Influence the Hiring Practices at a Variety of Institutions
12. Preparing an Effective Teaching Portfolio

The chart shows the value selected for various category ratings during pretest and posttest.

- Category Rating 1: Pretest value is 10, Posttest value is 4.
- Category Rating 2: Pretest value is 8, Posttest value is 6.
- Category Rating 3: Pretest value is 4, Posttest value is 3.
- Category Rating 4: Pretest value is 1, Posttest value is 14.
- Category Rating 5: Pretest value is 6, Posttest value is 2.

The chart indicates a significant increase in the value selected for Category Rating 4 posttest, from 1 to 14.
GENERAL ITEMS

1 = strongly disagree
2 = disagree
3 = neither agree or disagree
4 = agree
5 = strongly agree

In general, the AGEP PFF Summer Institute was Informative

The PFF Summer Institute met my expectations
The PFF Institute allowed me adequate opportunities to network with other minority STEM graduate students who wish to pursue university/college careers.

The Presenters were Effective in Presenting Their Material
Would you say this Institute dealt with topics that...

RED (1) = were already covered in your graduate program
GREEN (2) = were NOT covered in your graduate program

Would you recommend this Institute to other graduate students interested in faculty careers?

RED (1) = Yes
GREEN (2) = No
GENERAL ITEMS – Open response

12. Issues that were not addressed that I believe should have been included in this institute:

“N/A you cover everything I want to know. Very good.”
“...We needed more time to talk with professors.”
“Grants while in grad school, before dissertation”
“How to handle ‘older’ faculty members and teachers who only want to teach ‘their’ way and not change to the new student attitude”

13. If you were to discuss the possibility of his/her attending the Institute, what would you say was its greatest benefit to you?

“Yes, more people need to be a part of workshops and institutes such as this”
“Learning what it takes to be a good and successful faculty member”
“Learning about hiring process”
“Networking with professors and students it was a beautiful experience”
Howard University and The University of Texas at El Paso (HUTEP)
Alliance of Graduate Education and the Professoriate (AGEP)

Graduate School Visitation Program at Howard University
October 25-27, 2005

Tuesday, October 25, 2005

2:00 p.m.—4:30 p.m.   Registration
Hampton Inn - Washington DC Convention Center

4:45pm      Shuttle Bus departs from Hampton Inn to
Howard University Carnegie Building

5:00 p.m.—6:30p.m.   Reception
Carnegie Building, Howard University

6:30pm      Welcome
Dr. Orlando L. Taylor
Vice Provost for Research and Dean Graduate School

Overview of Visitation Program
Dr. Terrolyn P. Carter
Director of Program Coordination, AGEP

Introductions
Dr. Joy O’Shields
Coordinator of Student Affairs, AGEP

7:15pm      Dinner
Dessert
Video - The Long Walk: The Placemaking Legacy of Howard University

9:00pm     Shuttle Bus Depart to Hampton Inn

Wednesday, October 26, 2005
Carnegie Building, Howard University

7:30am—8:15am   Breakfast
Hampton Inn

8:30am      Depart to Howard University

8:45 am—9:10am   Why graduate school?
Dr. Orlando L. Taylor

9:15am – 9:30am   Welcome from the Graduate Student Council
Mr. Dennis Rogers, President

9:30am - 10:45am   Funding Your Graduate Education, Retention and Your Role
as a Graduate Student at Howard University
Dr. Chontrese M. Doswell  
*Assistant Dean, Howard University Graduate School*

10:45am—11:00am   Break

11:00am – 11:30am   Mentoring, Career and Professional Development at Howard  
*Dr. Patricia Cole, Director of Mentoring and Professional Development*

11:30 a.m.—12:30 p.m.  
Campus Tour with AGEP Fellows

12:30 p.m.—1:30 p.m.  
Lunch  
Choosing the “Right” Field of Study and Academic Department  
*Dr. Agnes Day, Professor, Microbiology*

1:30pm—3:30 p.m.  
Departmental and Laboratory Visits  
*Meet with Faculty and Graduate Students*

3:45 p.m.—6:30 p.m.  
Tour of Washington, DC  
Depart from *Carnegie Building*

7:00 p.m.—9:00 p.m.  
Dinner  
*B. Smith's Restaurant – Union Station*

9:00 p.m.  
Return to Hampton Inn

**Thursday, October 27, 2005**  
*Carnegie Building, Howard University*

7:30 am—8:30 am  
Breakfast  
*Hampton Inn*

8:30 am – 8:45am  
Depart from Hotel to Howard University

8:45 am  
Group Picture  
*Steps of Carnegie*

9:00am—10:00 am  
The Graduate School Admissions Process at Howard University  
*Dr. Andrea H. Jackson, Assistant Dean, Graduate School*

10:05am—10:35am  
Academic and Research Programs at The University of Texas at El Paso  
*Dr. Chastity Bradford, Assistant Dean, Graduate School, UTEP*

10:35am—10:50am  
Break

10:50am – 11:30am  
Graduate Student Housing On and Off Campus  
*Ms. Angela Odom, Administrative Assistant for Recruitment and Admissions*
11:30am – 12:15pm  Lunch  
Graduate Student Experiences  
Panel Discussion

12:30pm  Depart Howard University to Hampton Inn
Exit Survey Responses (Sample Items)  
Number of Responses 43  

**Item A- As a result of this visit I am more likely to attend Graduate School somewhere**  

A- Strongly Agree (because I had not fully decided)  25  (58%)  
B- Agree  4  (9%)  
C- Disagree (because I was already sure I was going to Graduate School)  10  (23%)  
D- Strongly Disagree (because I am now less likely to go to Graduate School)  0  (0%)  
E- Don’t Know  4  (9%)  

Comments:  
I saw the positive side that I didn’t know about Masters or do a Ph.D  

I wanted to go anyway but just talking to the staff and the people made me want to go more.  

I was going to go to grad school anyway but knowing more has made me more enthusiastic.  

But it did help strengthen my intentions to attend.  

Still not sure, I really need to evaluate what I really want.  

I was curious about what each school had to offer.  

Now I have a better idea of what to expect from graduate school.  

This information is overwhelming, but I appreciate the information.  

Because I was already sure (student response was C)  

I was pretty sure that I was going to attend, not because I wanted to but because I felt I was supposed to. Now I feel that it would be a great experience and the best choice.
**Item B- As a result of this visit I am more likely to attend Howard or UTEP**

<table>
<thead>
<tr>
<th>Option</th>
<th>Count</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>A- Strongly Agree (because I had not fully decided)</td>
<td>14</td>
<td>33%</td>
</tr>
<tr>
<td>B- Agree</td>
<td>23</td>
<td>53%</td>
</tr>
<tr>
<td>C- Disagree (because I was already sure I was going to Howard or UTEP</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>D- Strongly Disagree (I am now less likely to go to Howard or UTEP</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>E- Don’t Know</td>
<td>5</td>
<td>12%</td>
</tr>
</tbody>
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Comments:

This program has rise(n) both Howard and UTEP in my eye. Howard was on my list of Graduate School to apply, but this program has also brought UTEP to my attention.

Because they made me an offer I couldn’t refuse.

Although UTEP was not a big part I still like their program it had more to offer to me.

I have only wanted to obtain a Master’s Degree, but that is all I can wanted (?)

High chance that I will return in some capacity.

Cost of living in DC must be considered.

I fully enjoyed my visit to the Department of Pharmacology. The faculty seemed truly supportive and seemed to expect excellence from their students.

This program really informed me of the positive aspects of attending graduate school at Howard University.

Is appropriate because I like the laboratory (Genetics, Molecular Biology and Biochemistry) and I like the University.

I have yet to look at any other colleges, but I feel that this may be where I need to be. I now feel as if I would be successful if I studied at HU or UTEP.
<table>
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<th>Item</th>
<th>Description</th>
<th>Count</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>C-</td>
<td>I understand better how to finance my graduate education at any university</td>
<td>A- Strongly Agree (because I was not fully informed)</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>B- Agree</td>
<td>17</td>
<td>(40%)</td>
</tr>
<tr>
<td></td>
<td>C- Disagree (because I was already sure how to pay for Graduate School)</td>
<td>5</td>
<td>(12%)</td>
</tr>
<tr>
<td></td>
<td>D- Strongly Disagree (I no longer feel I can afford Graduate School)</td>
<td>0</td>
<td>(0%)</td>
</tr>
<tr>
<td></td>
<td>E- Don’t Know</td>
<td>0</td>
<td>(0%)</td>
</tr>
<tr>
<td></td>
<td>No response- 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments:

They informed me on new ways to get money.

I learned the basic ideas that need to be used to look for financial aid.

I think that when you all speak of the money’s (sic) available it should be clarified up front the money’s (sic) are for 9 months opposed to 12 months for most other schools.

Broke down how much Howard gives AGEP scholars.

Because the orientation that AGEP gave us was very understanding

I’m still a little confused about the fellowship/assistantships, but I know a lot more that I had previous to this visit.
Item D- What information on the programs and research opportunities at Howard University and UTEP was most helpful and how it was helpful to you?

The information regards to the professors and his/her specific program of study.

The information about funding was most useful that is the biggest concern. Everything was helpful. I especially liked sitting in on the genetics class.

Funding, it was great to know how both these universities will support you while you try to better yourself.

Talking with Dean Taylor, seeing the slide show on UTEP, knowing about the mentoring and the support.

Forum on financing my grad education.

Financial aid and information, also meet persons of the Microbiology Department. The financial aid is a very important factor to determine my studies and about the department of micro has a clearful (?) idea of what offered.

The student panels, faculty panel.

The information on the MD/Ph.D program and the seminar on how to finance graduate school.

Founding (?) (Funding??)

Graduate money because it is expensive to come to the school.

The information on the programs and research opportunities at Howard University and UTEP that was most helpful is Dr. Doswell explains to us how to write a competitive application/essay, which was also very helpful to me in any career I pursue.

N/A

The fellowships and research opportunities around Howard. Its helpful knowing that there is much the school offers as well as the area around it is encouraging.

Receiving information on the requirements for the graduate departments and hearing about the personal experiences of professors and graduate students. It inspired me to feel that I could attend graduate school and succeed.

The info on Graduate Programs at UTEP, I was really unaware of what they had to offer.
Agenda for AGEP Summer Bridge Program
Howard University
June 6 – July 29, 2005

Week 1 (June 6-10)

**Monday AM**
History of Howard
Payroll and Meal Tickets
Walking tour of campus?

**PM**
In departmental labs
- Charvann Bailey- Dr. Rhoades—3430 Adams Building
- Kenneth Byrd- Dr. Chouikha- Electrical Engineering Dept
- Isabel Garcia-Ramos- Dr. Rapisardi (2:00)—1206 Adams Building
- Shantelle Lucas- Dr. Bloch—3035 Adams Building
- Nikki Johnson- Dr. Ayorinde- G-15 Chemistry
- Christopher King-- Dr. Ayorinde- G-15 Chemistry
- Tricia Silverton-- Dr. Ayorinde- G-15 Chemistry
- Tigist Wondwossen-- Dr. Ayorinde- G-15 Chemistry

**Tuesday AM**
9:30- Records Office- ID Cards
Tour of ISAS and ILab- following Records Office
Health Services
Off Campus Housing Information

**PM**
In departmental labs

**Wednesday AM**
Founder’s Library
Moorland Spingarn area that is not under renovation
Stokes Health Sciences Library- 10:00

**PM**
In departmental labs

**Thursday AM**
Leslie Brown- Scientific Search Engines- 10:30 AM

**PM**
In departmental labs

**Friday AM**
Research Methodology Seminar- O. Taylor- 9:00 AM

**PM**
In departmental labs

Week 2 (June 13-17)

**Monday- Thursday**

**All Day**

In Departmental Labs

**Friday AM**

Seminar- Expository Writing- F. Barnes

Week 3 and 4 (June 20- July 1)

**Monday to Thursday**

**AM**

**All Students-**

Statistics—Courtney Davis, Instructor

**PM**

In departmental labs

**Friday**

**AM**

Seminar- **Learning Styles**- P. Cole

**PM**

In departmental labs

Weeks 5 and 6 (July 4- 15)

**Monday July 4- University Closed**

**Tuesday- Friday** (July 5-8 and July 11-14)

**AM**

**Biological/Life Science Students**

Biochemistry- Charlene Sydnor, Instructor

**Chemistry Students**

Chemistry- Chemistry faculty, instructors

**PM**

In departmental labs

July 15

All day in departmental labs

**Weeks 7 and 8 (July 18-29)**

All days in departmental labs
The following scores are the average number of participants’ responses to each item. Participants responded based on the following scale: 1 (not at all) to 5 (more than expected)

1. Overall the AGEP Summer Bridge Program met my expectations—4.375
2. Overall the AGEP Summer Bridge Program met my needs—4.625
3. I felt that the classwork (Biochemistry, Statistics) as a whole will make me better prepared for my academic work beginning this fall—4.666

Specifically concerning each mini-course
4. I felt that the Statistics course has made me prepared for graduate level work—4.125
5. The instructor in this course was very helpful—4.625
6. The course materials (text and/or handouts) were very useful—4.250
7. I feel that the Biochemistry course has made me prepared for graduate level work—4.00
8. The instructor in this course was very helpful—3.666
9. The course materials (text and/or handouts) were very useful—2.666

Comments concerning the mini-courses:
The material covered would be an asset as we embark on graduate studies. Perhaps an improvement to the Stat course could be using the material learned in relation to our specialties.

It is good as a refreshing (sic)

I feel that the individuals need to come more prepared and have a good powerpoint presentation. Courtney’s presentation was very good. Although with Biochemistry course, work wasn’t prepared very well.

The mini-courses should be offered during the first weeks. Probably in a morning and afternoon sessions. This will give more time to work in the lab.

Very well prepared and executed

I felt as f the statistics course was very helpful and useful. Some of the tests and measures that I used as part of my Master’s Thesis were explained in depth with examples and how to apply them to different types of disciplines. I knew how to compute most of them before without knowledge of their relevance.

Please now rate the workshops
Expository Writing (Dr. Barnes)—4.14
Comments On Any Or All Of The Workshops

I don’t believe there is much to add here. These courses will add value to my graduate experience.

Helpful

I found the Learning Styles and Research Design workshops to be good but I felt that the Writing workshop was a little rushed—maybe because Dr. Barnes was about to leave.

Each professor was very knowledgeable about his/her respective subjects. They portrayed their passion and sincerity.

I thought that the workshops were very helpful in helping us define who we are as students and where we would like to be by the time we graduate. Dr. Cole’s workshop especially emphasized that point exactly.

Please rate your overall experience regarding your work in your home department and/or lab.

My lab instructor was helpful in preparing me for the type of work I expect to do as a doctoral student.—4.20

The other students working in the lab were helpful in getting me started with my work—4.00

The overall experience of working in the lab has made me more confident about research and lab work in graduate school—4.20

On this page please give your ideas for the Summer Bridge Program. We are interested in learning what you think could be done in the future to make this an even more beneficial program for incoming doctoral students, what should remain as a part of the program, and any other thoughts that you have about the AGEP Summer Bridge Program.

As far as the Chemistry students are concerned, I believe that we should have exposure in all subject areas lending some benefit to our initial attempt of the placement exams. I believe the first four weeks of the program were well organized and beneficial but the last four weeks could have been spent more effectively. Overall a program such as this is necessary and facilitates an easy transition into graduate school.
The idea of giving summer bridge program is excellent. It really helps students to refresh their memory and get them prepared for the fall semester. Besides it gives the chance for students to get to know each other. Moreover students will be exposed to see the opportunities they have to take on their project (research projects). That gives them helps them for the fall semester to be a lot easier. Generally what I would say is the program is good. To make it more beneficial it would be good if students get the chance to attend workshops available during the time to broaden their knowledge. And the other, if all the students are allowed or get the chance to see the research projects in other departments going on that would be additional knowledge. If these things are included in the program it is going to be super.

The overall program was good, but I do have some suggestions. One, when working in the departmental lab, a student should be placed in a lab where there are other students/Postdocs. My research experience here in the labs at Howard were limited because my mentor for the summer was busy with other things and I really didn’t get the field experience I deserve. I do feel that the mini-courses/ workshops are helpful. But as a part of the program there should be a workshop on finding grants/money for students. Also planning more social events would be good. BUT PROGRAM WAS GOOD OVERALL.

The notetaking workshop should be included in the summer program. At the end of the program there should be a day to present to the group what has been done in the lab.

The Summer Bridge Program is excellent. It helps in transition from undergrad to grad school. The Chem Department did an overall good job; however it would be nice to actually have a professor rekindle our interest in analytical chemistry. Dr, Halpern and Dr. Fortunak were/are superb for P-Chem and Organic. Also, a review if basics of inorganic would be nice.

Overall this was a great experience. As one of the Chemistry students I came into the program expecting to do work in the lab which I was looking forward to. Instead we sat in on undergrad courses as to prepare us for our placement exams in the fall. For the most part the classes are pretty helpful and have allowed me to study this summer (otherwise, I probably would not have done on my own). Concerning the Chemistry courses we are only taking classes for 2 of the subjects on the placement exams. Maybe in the future it would be beneficial for the students to have a class in all 4 subjects covered on the placement exams. Overall I have really enjoyed my time here and I am very glad that I was a part of this program.

I think that there should be some type of Mathematics course in addition to Statistics taught. All AGEP STEM disciplines need say calculus at some point in the classes/research setting. Also, the demographics of the students in the program were very one-sided in the Chemistry/Biological Sciences. I think it would be good to diversify the pool of student attending. I think that this will go hand-in-hand with
incorporating the math course because persons from different disciplines visualize the same material in different matters. It is overall a great program.
Howard University and The University of Texas at El Paso
Institute on Postdoctoral Preparation
Sunday August 28, 2005
Holiday Inn Washington-Capitol
550 C St. SW

3:00  Registration

4:30  Opening Plenary
Welcome
Orlando L. Taylor, Howard University
Alyson Reed, National Postdoctoral Association

Overview of Institute
Charles L. Ambler, The University of Texas at El Paso

The Rewards of a Postdoctoral Experience
Arti C. Patel, National Postdoctoral Association Executive Board

Participant Introductions and Career Goals
Alyson Reed, National Postdoctoral Association

6:00  Reception

6:30  Dinner and Keynote Address:
Donna Nelson, University of Oklahoma

Monday August 29, 2005
AAAS 1200 New York Ave., NW

Breakfast on your own

8.30  Postdocs and Academic Careers
Roosevelt Johnson, National Science Foundation

9:00  An Overview of Postdoctoral Opportunities and Challenges
Cherie Butts, NIH IRTA Postdoctoral Fellow, National Postdoctoral Association

9:30  Postdocs and Career Paths
Joan Lakoski, University of Pittsburgh

11:00 Funding of Postdocs: Panel of Agency/Foundation Representatives
*Moderator:* Orlando L. Taylor, Howard University
*Panelists:*
Dana Lehr, National Science Foundation
Walter Goldschmidt, National Institutes of Health
Victoria McGovern, Burroughs Wellcome Fund
Maura Hagan, National Center for Atmospheric Research
12:30  **Networking Lunch**

**Diversity Issues**
- **Moderator:** Alfred Johnson, National Institutes of Health
- **Panelists:**
  - Mercedes Rubio, American Sociological Association
  - Jabbar R. Bennett, National Postdoctoral Association Diversity Committee

3:00  **Developing Personal Career Strategies**
- **Facilitators:**
  - Jabbar R. Bennett, National Postdoctoral Association Diversity Committee
  - Cherie Butts, National Postdoctoral Association Diversity Committee

4:00  **Grantsmanship 101: Researching and Writing Effective Grant Proposals**
- Katherine McGraw, Howard University

5:00  **What Defines a Good Postdoc**
- **Moderator:** Chastity N. Bradford, The University of Texas at El Paso
- **Panelists:**
  - Elizabeth Fryar Howard University AGEP Graduate
  - Lisa Kinnard Howard University and Georgetown University

Trip to Union Station/Dinner

**Tuesday August 30, 2005**
**AAAS 1200 New York Ave., NW**

Breakfast on your own

8.30  **Presenting Your Qualifications**
- Allyson Woods, MBA American Institute of Physics
- Gary White, Ph.D. American Institute of Physics

9.30  **What I Wish I had known Before Selecting a Postdoc: Panel of Faculty**
- **Moderator:** Jabbar R. Bennett, National Postdoctoral Association Diversity Committee
- **Panelists:**
  - Tori Rhoulac, Howard University—Civil Engineering
  - Juan Noveron, University of Texas at El Paso—Chemistry
  - Vernon Morris, Howard University—Physics
  - Scott Dantley, Bowie State University—Chemistry

11:00  **Strategies for Finding the Right Postdoc: Panel of Postdoc Supervisors**
- **Moderator:** Charles Ambler, The University of Texas at El Paso
- **Panelists:**
  - Roger Chalkley, Vanderbilt University Medical Center
  - Daryl Murray, National Institute on Aging Intramural Research Program

12:30  **Networking lunch**

1:30  **Making Your Case: Applying Lessons Learned**
Facilitators: Alyson Reed, National Postdoctoral Association
          Allyson Woods, American Institute of Physics

3:00  Evaluation/Adjournment
      Orlando L. Taylor, Howard University
      Charles Ambler, University of Texas at El Paso
      Cherie Butts, National Postdoctoral Association
1.0 is the lowest score and 5.0 is the best

Pre 1. I know and can articulate what my personal goals are for a postdoctoral position. 3.5

Post 1. I know and can articulate what my personal goals are for a postdoctoral position. 4.4

Pre 2. I understand the concept of a postdoctoral position. 3.6

Post 2. I understand the concept of a postdoctoral position. 4.7

Pre 3. I understand the importance of having a postdoctoral position in the STEM disciplines. 3.7

Post 3. I understand the importance of having a postdoctoral position in the STEM disciplines. 4.5

Pre 4. I understand the importance of having a postdoctoral position in order to obtain a faculty position at a research university. 4.0

Post 4. I understand the importance of having a postdoctoral position in order to obtain a faculty position at a research university. 4.7

Pre 5. I understand where to look for funding for postdoctoral positions. 2.6

Post 5. I understand where to look for funding for postdoctoral positions. 4.5

Pre 6. I understand the process of funding the “right” postdoctoral position for me. 2.5

Post 6. I understand the process of funding the “right” postdoctoral position for me. 4.5
Pre 7. I can articulate what characteristics would make a position a good one for me. 3.2

Post 7. I can articulate what characteristics would make a position a good one for me. 4.5

Pre 8. I understand the ethnicity/gender issues of the postdoctorate. 3.0

Post 8. I understand the ethnicity/gender issues of the postdoctorate. 4.3

Pre 9. I understand what those who hire post docs are looking for. 2.4

Post 9. I understand what those who hire post docs are looking for. 4.4

Pre 10. I understand the roles played by disciplinary societies in postdoctoral education. 2.5

Post 10. I understand the roles played by disciplinary societies in postdoctoral education. 4.3

Pre 11. I understand the roles of agencies like NSF or NIH in postdoctoral education. 3.2

Post 11. I understand the roles of agencies like NSF or NIH in postdoctoral education. 4.7

HUTEP AGEP Postdoctoral Institute
General Evaluation Comparisons 2005

1.0 would be the lowest score and 5.0 is the best

1. The institute was informative. 4.7

2. Goals and objectives of the preparing for the Post doctorate Institute were clear. 4.5

3. The institute met its objectives. 4.6

4. The preparing for the Post doctorate Institute met my expectations. 4.3
5. The Institute allowed adequate opportunities to network with presenters. 4.3

6. The Institute allowed adequate opportunities to network with current post docs. 4.2

7. The Institute allowed adequate opportunities to network with other minority STEM graduate students. 4.4

8. The resource manual, handouts, and visual aids were effective in clarifying information presented. 4.4

9. The presenters were effective in presenting their material. 4.3

10. The content provided by the presenters was useful. 4.5

11. This Institute should remain in Washington, D.C. 4.1

12. The Institute should remain in the AAAS. 4.0