

Annual Report for Period:09/2010 - 08/2011

Submitted on: 08/29/2011

Principal Investigator: Borman, Kathryn M.

Award ID: 0930220

Organization: U of South Florida

Submitted By:

Borman, Kathryn - Principal Investigator

Title:

Partnerships for Adaptation, Implementation, and Dissemination (PAID): Collaborative Research-Alliance for the Advancement of Florida's Academic Women in Chemistry & Engineering

Project Participants

Senior Personnel

Name: Borman, Kathryn

Worked for more than 160 Hours: No

Contribution to Project:

Dr. Borman is a professor of Anthropology and is affiliated with the Alliance for Applied Research in Education and Anthropology (AAREA) in the Department of Anthropology at the University of South Florida. She has taken the lead role in coordinating and implementing the collaborative efforts of the ADVANCE PAID award as well as the ongoing program activities at USF.

Name: Thomas, Sylvia

Worked for more than 160 Hours: No

Contribution to Project:

Dr. Thomas is the Assistant Dean for Diversity and External Programs in USF's College of Engineering and is on faculty in the Department of Electrical Engineering. She has taken the lead role supervising the ongoing program activities in the College of Engineering and other STEM disciplines at USF.

Name: Tyson, Will

Worked for more than 160 Hours: No

Contribution to Project:

Dr. Tyson is an assistant professor in the Sociology department. He modified and administered the online faculty climate survey in the spring of year one. He analyzed the preliminary results of the survey, which was included in the Findings section of the year one annual report. This analysis was used to identify the topics of relevance to women faculty, which have been incorporated into the mentorship and recruitment practices workshops implemented on campuses.

Name: Fernandez, Eva

Worked for more than 160 Hours: No

Contribution to Project:

Ms. Fernandez is the Director of Engineering Experiential Learning at USF College of Engineering. She is well known in the STEM disciplines on the USF campus. She has participated in the recruitment practices and mentorship workshops and will take a leadership role in facilitating the development of on campus workshops. She has also had a pivotal role in collecting USF faculty data.

Name: Lewis, Jennifer

Worked for more than 160 Hours: No

Contribution to Project:

Dr. Jennifer Lewis is an associate professor of Chemistry at the University of South Florida. She has acted as a liaison with the USF Chemistry department.

Post-doc

Name: Smith, Chrystal

Worked for more than 160 Hours: No

Contribution to Project:

Dr. Chrystal Smith is a Postdoctoral Scholar at USF and is the project manager of the ADVANCE PAID award. She is responsible for the overall day to day implementation the ADVANCE PAID award. She is in regular contact with collaborators on other campuses. She supervises project activities and the USF budget as well as the USF on campus activities.

Graduate Student

Name: Martinez, Vanessa

Worked for more than 160 Hours: Yes

Contribution to Project:

As the Graduate Assistant on the ADVANCE Paid award, Vanessa Martinez is responsible for the organization and assistance with grant materials related to survey administration and the collection of faculty data. Her other responsibilities include creating meeting agendas, taking conference and meeting minutes, and developing and designing posters and brochures for publication and presentation.

Undergraduate Student

Technician, Programmer

Name: Davis, Jaime

Worked for more than 160 Hours: Yes

Contribution to Project:

Jaime Davis is the Administrative Specialist at USF. She assisted in the administration of the Online Faculty Climate Survey and was responsible for organizing and reimbursing travel for ADVANCE PAID workshop facilitators and participants at workshop events until April 28th, 2011.

Other Participant

Name: Smith, Dwayne

Worked for more than 160 Hours: No

Contribution to Project:

Dr. Smith is the Senior Vice Provost of the College of Arts and Sciences at USF. He is our liaison to the USF Office of the Provost. He attends the weekly conference calls when his schedule permits and has attended one of the PI meetings. He also provides invaluable advice and support to the AAFAWCE activities.

Research Experience for Undergraduates

Organizational Partners

The University of Michigan

The University of Michigan STRIDE group has offered us the use of the ADVANCE PAID materials that they developed.

University of Wisconsin-Madison

We consulted with University of Wisconsin about materials related to our recruitment practices activities and references related to our climate survey.

Other Collaborators or Contacts

Kate Scantlebury, University of Delaware, is our external evaluator for program assessment.

Activities and Findings

Research and Education Activities: (See PDF version submitted by PI at the end of the report)

The Alliance for the Advancement of Florida's Academic Women in Chemistry and Engineering (AAFAWCE) NSF ADVANCE-PAID program is a consortium of five Florida state universities: University of South Florida (USF), Florida State University (FSU), the University of Florida (UF), Florida Agricultural and Mechanical University (FAMU), and Florida International University (FIU). USF is the lead institution of the AAFAWCE NSF ADVANCE-PAID collaboration.

USF offers 232 degree programs at the undergraduate, graduate, specialist and doctoral levels, including 89 bachelor, 97 master, two education specialist, 36 research doctoral, and four professional doctoral programs.

FSU was founded in 1851 and is the oldest university in the State of Florida. FSU is a comprehensive university with graduate, undergraduate, and professional programs, including medicine and law, currently enrolling more than 41,000 students.

FAMU, a land grant historically black university, was established in Tallahassee in 1887. FAMU has 12,261 students enrolled in 13 colleges and schools with a total of 640 faculty members.

FIU is an urban, multi-campus, research university serving South Florida, the state, the nation, and the international community. The university emphasizes research as a major component of its mission and has attained Research 1 status within its short history.

UF is a major, public, comprehensive, land grant, research university. The state's most comprehensive university, UF, is among the nation's most academically diverse public universities.

OVERVIEW OF THE AAFAWCE COLLABORATION

AAFAWCE's primary goals and objectives are the recruitment of women faculty, the mentoring and advising of academic women at the assistant and associate professor levels, and the development of leadership among academic women faculty. To that end, the project PIs and Co-PIs have engaged in activities collaboratively across the five universities and on each individual campus. The interuniversity

collaboration-level activities are coordinated by the PIs using various means of communication to provide common information to all five campuses and disseminate information to the administrators, and faculty of each campus. Many of the campus activities are common to all of the AAFAWCE campuses; however, true to the spirit of the PAID mission, several activities are unique adaptations for a specific campus. These multi-level activities are discussed below.

UNIVERSITY-WIDE COLLABORATION-LEVEL

1) Hosted by USF, the AAFAWCE team holds a weekly conference call with the representatives of the five collaborating Florida universities to discuss and plan ADVANCE-PAID activities. These weekly meetings are an essential element in the development of our partnership and the coordination of our collaborative efforts. The meetings serve to help us with any of the challenges we may be facing on our campuses, and to provide ideas for the successful completion of necessary tasks. Also during these calls, the collaboration timeline, the presentations, and the upcoming workshops are discussed and developed.

2) The AAFAWCE team uses email and FSU Blackboard (a common, private platform for document sharing, discussion boards, email, and surveys) to communicate and to share documents, update a reference list (developed by Gilmer and Safron) and hyperlinks to books and research articles on women in the sciences and engineering, focused on AAFAWCE's goals. This resource has been made available to the AAFAWCE team on the AAFAWCE Blackboard site and on the public AAFAWCE Web site.

3) On October 21st, 2010 in Tallahassee, the FSU AAFAWCE team hosted a meeting with the PIs and Co-PIs of the five collaborating Florida universities. The following items were discussed at this meeting:

- a) Timeline of ADVANCE-PAID activities
- b) Upcoming campus activities at each institution
- c) An ADVANCE-PAID publication based on our activities

4) AAFACWE collaborated to create a poster that was presented at the NSF ADVANCE PI Meeting in November 2011.

5) AAFACWE collaborated to create a poster that was presented at the JAM NSF conference in June 2011 by Borman, Smith, and Fernandez (USF), Gilmer (FSU), Tansel (FIU), and Donnelly (UF).

6) The AAFACWE team collected chemistry and engineering faculty demographic data from the five universities, which are analyzed at the end of the Activities section.

COACH WORKSHOP AND LEADERSHIP DISCUSSION PANEL

To meet AAFAWCE's goal of advancing chemistry and engineering women faculty into leadership positions at their institutions, FSU hosted the AAFAWCE COACH Leadership Workshop on October 22, 2010. (http://www.chem.fsu.edu/~gilmer/AAFAWCE_COACH/)

The COACH workshop offered women faculty and postdoctoral scholars techniques to enhance salary and position negotiations as well as

leadership-building skills. Attendees acted out conflict scenarios and discussed possible resolutions. During the discussion panel sessions, leading Florida women scientists and engineers addressed issues regarding leadership and promotion in academia. All in all, the AAFACWE event was a huge success. One attendee exclaimed that it was her 'first time attending a workshop for female leadership?' and commented on how 'great and very informative' she thought it was, 'both in an academic manner but mostly in a personal level.'

We had 71 attendees, plus two presenters and four FSU staff attending at least some part of the 1.5-day workshop, including the Meet-and-Greet reception and the dinner afterward. Of the 71 attendees, we had 35 from FSU, 11 from FAMU, 9 from USF, 9 from UF, and 5 from FIU, our external evaluator from the University of Delaware, and one guest faculty member from Agnes Smith College (see below). In addition, we had two COACH speakers, Barb Butterworth and Jane Tucker.

For the program, attendees had a choice of a leadership panel or the COACH workshop, both offered in parallel sessions in the morning and in the afternoon (COACH presenters wanted no more than 25 attendees per workshop). There were 17 attendees in the morning COACH workshop and 18 in the afternoon. By having two leadership panels with three to four panelists on each panel, we were able to have a different set of panelists in the morning and afternoon.

The leadership panelists in the morning included Suzanna Rose (Dean of Liberal Studies, FIU), Sylvia Thomas (co-PI from USF), Simone Peterson Hrudá (PI from FAMU), and Penny Gilmer (PI from FSU). The leadership panelists in the afternoon included Susan Blessing (Director of the Women in Science, Mathematics and Engineering, FSU), Lisa Spainhour (Professor of Engineering, FAMU-FSU), Lisa McElwee-White (Professor of Chemistry, UF), and Cammy Abernathy (Dean of Engineering, UF). We opened the leadership panels not only to COACH attendees (mainly faculty and a few postdoctoral fellows) but also to graduate students from FSU and FAMU (both in the same city as the workshop).

Penny Gilmer (PI from FSU) had met with science faculty at Agnes Scott College in the Atlanta area, before the COACH workshop, as they were interested to apply for an ADVANCE-PAID grant. Therefore, Gilmer invited Dr. Lilia Harvey, a physics professor at Agnes Scott College to our Leadership Workshop, so she could have the opportunity to see a collaborative ADVANCE-PAID project works in action and to learn from the COACH workshop presented at FSU.

Kate Scantlebury, the external evaluator, conducted interviews with FAMU and FSU women faculty on their campuses about their experiences in academia.

COMMON CAMPUS-LEVEL ACTIVITIES

During the past year, AAFACWE PIs and Co-PIs have utilized several channels to promote project activities to their campus communities:

- 1) ADVANCing News, the AAFACWE newsletter, was developed to publicize project activities and the results of the 2009 Faculty Climate Survey. The newsletter was disseminated to campus administrators, deans, department chairs, and faculty in chemistry, physics and engineering at all five universities.

2) Revised AAFAWCE brochures were disseminated to campus administrators, deans, department chairs, and faculty in chemistry, physics and engineering, informing them about the AAFAWCE mission, goals, and proposed activities.

In addition to those listed above, several of the institutions engaged in activities that are unique to their campuses:

INDIVIDUAL CAMPUS-LEVEL ACTIVITIES

USF Campus Activities:

USF-1) USF formed mentorship and recruitment practices committees to develop and implement AAFAWCE activities on its campus. The members of the mentorship committee are Dr. Sylvia Thomas (Co-PI, electrical engineering), Dr. Tammy Allen (psychology), Dr. Will Tyson (senior personnel, sociology), Dr. Christine Probes (world languages), and Dr. Chrystal Smith (project manager). The members of the recruitment practices committee are Dr. Venkat Bhethanabotla (chemical and biomedical engineering), Dr. Brian Space (chemistry), Dr. Eva Fernandez (senior personnel, director of Engineering Experiential Learning), Dr. Ted Williams (Associate Vice-President, Diversity and Equal Opportunity Office), and Vanessa Martinez (Graduate Assistant). These two committees met on a regular basis throughout the academic year.

USF-2) The USF Mentorship Committee sponsored the Paid Parental Leave Presentation on April 22nd, 2011. After learning that work-life balance is a major barrier to women faculty attaining tenure (National Research Council of the National Academies, 2010), members of the Mentorship Committee decided to host a presentation on the university's paid parental leave policy to ensure that faculty were aware of the program's existence and that it allowed eligible applicants to stop the tenure-clock. Dr. Dwayne Smith, Senior Vice Provost, discussed the policy and answered questions. Eleven faculty members attended the presentation which was video recorded. The video was uploaded to the AAFAWCE Web site. Dwayne Smith sent out an email with the link to the video to the entire faculty as well as the link to the human resources web site with information on the policy.

USF-3) The USF Recruitment Practices Committee presented on best recruitment practices and on schemas to an engineering search committee in Chemical and Biomedical Engineering on January 12, 2011, for an assistant professor position. The Chair of this department, who is on the USF Recruitment Practices Committee, informed us that a woman was hired for this position.

USF-4) The USF Recruitment Practices Committee also designed a recruitment practices booklet which includes the university's diversity statement, information on schemas and unconscious biases, appropriate interview questions, and a candidate evaluation tool. This booklet will be disseminated to faculty and administrators in the STEM disciplines.

USF-5) The USF Recruitment Practices Committee presented on best

recruitment practices and on schemas to Center for Urban Transportation Research (CUTR) search committee for a new director on July 12th. This presentation was revised based on the feedback from the previous search committee presentation. Each committee member was given the recruitment practices booklet.

FIU Campus Activities:

FIU-1) Faculty participated in training activities to promote advancement of minorities in STEM fields. These activities included (1) a workshop by Office of Engagement to promote the advancement of minorities in STEM fields, (2) two panel discussions on best management practices for Hispanic-serving institutions.

FIU-2) Faculty participated in the university-wide, daylong annual Women Who Lead Conference by FIU Leadership Institute (March 8, 2011). FIU's leadership institute is based at the College of Business Administration. The agenda for this year's event included sessions on enhancing students' understanding and awareness of the scope of women in leadership in society, developing greater understanding of the diversity of careers available to women, and developing personal leadership plans. In addition, participants had an opportunity to interact with and learn from women leaders. Faculty experts on gender and leadership from universities locally and across the country provided seminars and workshops.

FIU-3) Faculty from the College of Arts and Science and College of Engineering attended the workshops organized by the AAFAWCE team.

FIU-4) Formalization of a Mentorship Committee was requested from the Deans.

FAMU campus activities:

FAMU-1) The FAMU and FSU AAFAWCE Engineering faculty met to discuss the strategy to use for Junior Engineering women faculty; the Engineering College site is geographically separated from both the FAMU and FSU campuses. Activities will occur alternately at the College of Engineering and the 'home' campus. All junior women faculty will be encouraged to attend activities at the College of Engineering and their 'home' campus.

FSU campus activities:

FSU-1) Gilmer and undergraduate honors student, Amanda McManaway, presented a poster at the FSU Honors General Chemistry Poster Session on AAFAWCE faculty demographics in Chemistry and Biochemistry and in all departments in Engineering (including the Panama City campus) in April 2011. This same poster was displayed at the National High Magnetic Field Laboratory for one month in June and July 2011.

FSU-2) Gilmer and Lopez arranged to web cast a number of talks on science and women in science given by women faculty at FSU, including Dr. Qing-Xiang Amy Sang and Susan Latturmer on their scientific research projects, and Penny Gilmer on the AAFAWCE project and her research with elementary school teachers teaching science.

FSU-3) Gilmer worked with members of the Diversity Committee at the NSF-funded national facility at the National High Magnetic Field (NHMFL) to develop a workshop entitled, Faculty Recruitment for Excellence and Diversity (FRED). Gilmer offered two workshops at the NHMFL for faculty and some staff, on May 3 (with 10 attendees), and May 23, 2011 (with 25 attendees). With evaluation comments from the first workshop, we addressed some concerns with modified slides for the second workshop. Faculty members were most interested to learn of the unconscious biases (and schemas), the concept of broad 'open' searches, and the extent of scholarly work in this area of diversity.

FSU-4) Gilmer and McManaway are working with FSU librarians Ted Chaffin and Bridgett Birmingham of the Paul Dirac Science Library to have a special exhibit (including books and photographs) and a panel discussion to celebrate the 100th anniversary of Marie Curie receiving the Nobel Prize in Chemistry (1911). We will have two days of events, on Monday and Tuesday, November 7th and 8th, 2011. Curie also received the Nobel Prize in Physics in 1903, jointly with her husband Pierre Curie and with Henri Becquerel. Since our ADVANCE-PAID grant focuses on academic women in chemistry, physics, and engineering, celebrating Curie's centennial seems like a powerful way to get the university to focus on women in chemistry and physics.

FSU-5) Gilmer collaborated with Chiu, Mei-Hung, & Treagust, David F. (co-Editors) to publish: Celebrating the 100th Anniversary of Madame Marie Sklodowska Curie's Nobel Prize in Chemistry. Rotterdam, Netherlands: Sense Publishers (in press)(available in September 2011).

UF campus activities:

UF-1) UF established the UF ADVANCE Programming Committee composed of Dr. Angel Kwolek Folland (Associate Provost for Academic Affairs), Dr. Mark Law (Associate Dean, Engineering Office of Academic Affairs), Dr. Alan Dorsey (Associate Dean for Natural Sciences and Mathematics), Jodi Gentry (Director, Human Resource Services), and Anne Donnelly (Director of the Southeast Alliance for Graduate Education and the Professoriate). This group met to adapt the materials acquired at the training workshops for a UF audience.

UF-2) UF hosted a joint mentoring and recruiting workshop. It was determined that the best initial audience for these materials would be academic leaders, therefore the audience consisted of department chairs in chemistry, engineering, and physics. The meeting was hosted by UF PI Dr. Angel Kwolek-Folland. Presenters were attendees of the training workshops and included Dr. Mark Law and Dr. Alan Dorsey. The workshop was evaluated using an instrument developed by Dr. Scantlebury. A follow-up survey is currently being conducted to assess how the materials presented were disseminated in each department.

UF-3) Materials developed for this workshop were also provided to Dr. Kathleen Long, Associate Provost in charge of faculty training.

NEXT STEPS

FAMU-1) The FAMU AAFWCE team will host the Spring 2012 COACH Workshop

titled, 'Uses of Influence, Power and Conflict Resolution in Negotiation.' A PI meeting is scheduled in conjunction with this February 2012 workshop.

FAMU-2) The FAMU Mentorship Committee will recruit mentors and hold training sessions in Fall 2011. Junior women faculty in Chemistry, Engineering, Physics, Math, and Agricultural Sciences will be invited to information sessions to determine interest and needs.

FAMU-3) The FAMU Mentorship Committee will initiate its mentoring program in Spring 2012, with activities both on FAMU's campus and (with the FSU Mentorship Committee) at the FAMU-FSU College of Engineering.

FAMU-4) The FAMU Recruitment Practices Committee will meet in Fall 2011 to assess the needs and approach for FAMU's campus.

USF-1) The USF Mentorship Committee will hold a training session for mentors and match these mentors with junior women faculty prot?g?s. The committee intends to sponsor additional events on topics of interest to women faculty.

USF-2) The USF Recruitment Practices Committee will sponsor a best practices for an equitable search workshop for administrators and senior faculty. The committee will also continue to present the shorter presentation to STEM search committees.

FSU-1) FSU will host a PI meeting with the other four institutions in our ADVANCE-PAID AAFWCE grant in September 2011, to discuss the final activities for the last year of the grant.

FSU-2) FSU will work with department chairs in Chemistry and Biochemistry and in Physics to provide workshops to the faculty on recruitment for excellence and diversity.

FSU-3) FSU will get its mentorship program operational, with assistant professors, assistants-in and associates-in, in Chemistry, Physics, and Engineering.

FSU-4) We have initiated contact to bring Virginia Valian from Hunter College to FSU to raise awareness and provide strategies for enhancing the status of academic women in the university. FSU President Eric Barron is funding Valian's visit.

FSU-5) We are planning to celebrate the centennial of Marie Curie's Nobel Prize in Chemistry (1911) with a two-day event. We have invited Julie Des Jardins (Baruch College), author of *The Madame Curie Complex*, to be a keynote speaker. After a reception with the FSU Dirac Science Library, we will show a 1943 film, *Madame Curie*. On the next day, we will have a panel to discuss careers in chemistry and other STEM fields, for undergraduate women in our Women in Math, Science, and Engineering living-learning community and for the Graduate Women in Science student organization. Again there will be a reception in the library, showcasing books, web sites, and movies on Marie Curie.

FIU-1) A series of workshops and open forums are planned for Fall 2011 for graduate students and women faculty on mentoring, leadership

skills, professional challenges.

FIU-2) A web-based 1-day conference is planned to interact with other institutions on challenges faced by academic women.

UF-1) UF will disseminate copies of its Recruiting Toolkit to partner institutions at the next PI meeting.

UF-2) In September, UF will host the first ADVANCE Mentor-Mentee luncheon to kick off the planned group mentoring project consisting of two luncheons per semester, as well as smaller group interactions. This meeting will establish the program, introduce mentors to mentees, and begin a dialogue that will include issues that younger female faculty are facing.

ANALYSIS OF FACULTY DATA:

In the academic year August 2010 to May 2011, the AAFAWCE team collected faculty demographic data from the chemistry and engineering departments at the five collaborating institutions. In total, there were 808 chemistry and engineering faculty (compared to last year, this year there were 12 fewer in engineering and 2 fewer in chemistry). Of the 170 chemistry faculty, 99 (58 percent) were tenured, 34 (20 percent) were tenure track, and 37 (22 percent) were non-tenure track. There were 638 engineering faculty, 383(60 percent) were tenured, 126 (20 percent) were tenure track, and 129 (20 percent) were non-tenure track. The analysis of these data found gender and ethnic disparities among the chemistry and engineering faculty. Attached to this activities section is a file with the figures and tables that correspond to the analysis of these faculty data.

Tenure status and gender analysis of chemistry faculty:

The faculty demographic data collected by the five collaborating AAFAWCE institutions demonstrate that there were lower percentages of women tenured in chemistry compared to men in the academic year of August 2010 to May 2011. A review of the tenured chemistry faculty found that tenured men represented 29 percent to 53 percent of the total faculty, with the exception of FIU, where tenured men were 75 percent of the total faculty. Notably, tenured male faculty in chemistry at FAMU decreased this year by 21 percent of the total faculty, while tenured male faculty at the other four institutions increased by 1.7 to 13 percent (data not given for 2009-2010 academic year in this report, but present in last year's report). Compared to last year, the percentage of tenured women remained low, making up only six to eleven percent of the total faculty at USF, FSU, UF, and FAMU. Consistent with last year's data, there was, at most, only half the percentage of tenured women (three percent) at FIU, as at the other four institutions. These data are illustrated in Figure 1.

Over the last year, the percentages of tenure-track men decreased at USF and FIU (20 to 19 percent and 6.7 to three percent, respectively), and increased at FSU (20 to 24 percent), UF (10.2 percent to 14.0 percent), and FAMU (seven percent to 14 percent). The percentages of tenure-track women at UF, FAMU, and FIU increased (two to four percent, 14 to 21 percent, and 3.3 to six percent respectively), while they decreased at FSU (2.3 to zero percent).

At the non-tenure-track level, the percentages of women faculty at UF and FAMU doubled (two to four percent and seven to 14 percent, respectively) since last year. The greatest disparities among male and women faculty this year were found at FIU (75 percent men, three percent women) at the tenured level, FSU (24 percent men, zero percent women) at the tenure-track level, and UF (22 percent men, four percent women) at the non-tenure-track level. In all, women continue to be underrepresented at these institutions at all faculty levels as indicated in Figures 1 to 3.

Tenure status and gender analysis of engineering faculty:

Consistent with the data collected by AAFAWCE from its chemistry departments, data collected from the colleges of engineering at all four institutions revealed disproportions in the number of women faculty versus the number of men faculty. Please note that FSU and FAMU have a joint college of engineering.

As displayed in Figure 4, the greatest disparity between men and women was found at the tenured level at all four colleges of engineering. The percentages of tenured men faculty of the total faculty ranged from 45 to 63 percent, while the percentages of tenured women faculty ranged from only four to seven percent of the total engineering faculty at all institutions.

At the tenure-track level, women continued to be underrepresented at all four colleges of engineering: USF, UF, FSU/FAMU, and FIU. Tenure-track women made up only one to five percent of the total engineering faculty, compared to tenure-track men who accounted for 14 percent to 19 percent of the total engineering faculty, as displayed in Figure 5.

Figure 6 indicates that at the non-tenure-track level, men continued to be represented in substantially higher numbers than women at all four colleges of engineering. Of the total faculty in the college of engineering at these institutions, 12 to 24 percent of the total faculty members were non-tenure-track men, while two to seven percent were women. Notably, between 2010 and 2011, the percentage of non-tenure-track men more than doubled at USF (9.7 percent to 23 percent) and increased by eight percent at FIU. The percentage of non-tenure-track women increased at FSU from zero to three percent and at FIU from 3.5 percent to seven percent since last year.

Ethnic analysis of chemistry faculty:

The faculty demographic data collected by AAFAWCE demonstrate that the highest percentage of minority faculty in the academic year of August 2010 to May 2011 is found at FAMU, a historically black university. The disparity between men and women ethnic minority faculty in chemistry is, however, still great at FAMU, and the other four AAFAWCE institutions.

Tables 1 to 4 indicate that at FIU, UF, USF, and FSU, white tenured men made up the greatest percentage of the total faculty in chemistry, 31 percent to 53 percent. White tenured women only accounted for zero to six percent of these departments' faculty. The percentages of ethnic minority women, whether tenured, tenure-track,

or non-tenure-track, also continued to be underrepresented at all levels: black women = zero percent, Hispanic women 4.6 percent, and Asian women 4.5 percent. The percentages of black and Hispanic men at all levels in the departments of chemistry at USF, FSU, and UF were only slightly higher: black men 4.3 percent, and Hispanic men 4.6 percent. In contrast, Asian men accounted for 23 percent of the faculty at each university. Notably, FIU, an Hispanic-serving institution, had the highest percentage (13 percent) of tenured Hispanic male faculty, but had no tenured or tenure-track Hispanic women faculty (see Table 4).

Table 5 shows that FAMU had the highest percentage (36 percent) of minority tenured chemistry faculty. This percentage is however substantially lower than last year (49.9 percent). FAMU was the only institution with black tenure-track and non-tenure-track women faculty (14 percent for each) and the only institution with a black tenured woman (seven percent). Notably, the percentage of black tenure-track and non-tenure-track women faculty doubled at FAMU in the last year (from seven to 14 percent), while the percentage of black tenured women faculty remained the same (seven percent). Black tenured men were 29 percent of the FAMU chemistry faculty, indicating that despite a higher representation of ethnic minority chemistry faculty at FAMU, the disparity between men and women was still great.

Ethnic analysis of engineering faculty:

Consistent with AAFAWCE's data of chemistry faculty, analysis of engineering faculty data from these collaborating institutions revealed a higher percentage of minority faculty at FAMU, and a consistent disparity between men and women minority faculty across institutions.

Tables 6 to 9 show that white tenured men made up 20.2 to 40.2 percent of the total faculty in engineering at these four institutions, while white tenured women made up only 1.4 to 2.7 percent. At USF, UF and FIU, black and Hispanic tenured men each made up 4.2 percent or less of the faculty, while black and Hispanic tenured women each made up only 1.1 percent or less of the faculty. Notably, the FAMU-FSU College of Engineering had a higher percentage of black tenured men (13.5 percent), while the percentage of black tenured women engineering faculty remained as low as at the other institutions (1.1 percent), as is illustrated in Table 8.

The total percentage of tenured Asian men in engineering was equal to the total percentage of tenured white men in engineering at both FAMU-FSU and FIU. However, the percentage of tenured Asian women engineering faculty again remained as low as at any other institution (4.3.4 percent).

Conclusions:

Analysis of these data reveal that there continues to be a disparity between women and men faculty at the tenure level, and disproportionately lower numbers of ethnic minority faculty overall, especially of ethnic minority women. The decline in the number of faculty this year may be linked to budget cuts at these institutions. This analysis of the faculty data further supports the need for the

activities and goals of the ADVANCE-PAID award at these Florida institutions.

Findings:

AAFAWCE has no research findings for year 2.

Training and Development:

Dr. Chrystal Smith, the postdoctoral scholar, on this award has been mentored by Dr. Kathryn Borman (USF), Dr. Penny Gilmer (FSU), and Dr. Simone Hrudá (FAMU). They have committed to guiding Dr. Smith's research and administrative skills as she acts as project manager. They have also provided mentorship about strategies to advance her academic career.

Vanessa Martinez, a second year Master's degree student in Applied Anthropology at USF, is the graduate research assistant on this award. Under Dr. Smith's guidance, Ms. Martinez furthered her research skills by analyzing the AAFAWCE faculty data and creating the related graphs and tables.

Outreach Activities:

Journal Publications

Books or Other One-time Publications

Web/Internet Site

URL(s):

AAFAWCE Web site:

<http://anthropology.usf.edu/advancepaid/>

Description:

The AAFAWCE Web site provides information about its ADVANCE-PAID collaborative team, mission statement, project activities, and resources. The resources include a list of and hyperlinks to books and research articles on women in the sciences and engineering compiled by Gilmer and Safron at FSU.

FSU Informational COACH Web site:

http://www.chem.fsu.edu/~gilmer/AAFAWCE_COACH/

FSU for Women and Leadership Conference:

http://www.chem.fsu.edu/~gilmer/AAFAWCE_COACH/

This is the site that let participants know about the details about the conference.

FSU for Women and Leadership Conference:

http://www.chem.fsu.edu/~gilmer/AAFAWCE_COACH/ This is the site that

let participants know about the details about the conference.

FSU.

Other Specific Products

Product Type:

Audio or video products

Product Description:

USF:

<http://anthropology.usf.edu/advancepaid/resources/presentations/>
The Paid Parental Leave Presentation was video-recorded and uploaded to the AAFAWCE Web site. Other faculty on the USF campus can see the presentation on paid parental leave, even if they could not attend the presentation.

FSU:

GEOSET AAFAWCE Lecture:

1) Lecture by Dr. Amy Sang, "Human Endometase/Matrilysin-2, a Novel Putative Cancer Biomarker," on September 15, 2010

<http://mediasite.apps.fsu.edu/Mediasite/SilverlightPlayer/Default.aspx?peid=20956a6d47004609829ffc17a509222c1d>

Sharing Information:

Global Educational Outreach for Science Engineering and Technology (GEOSET) at Florida State University is a video streaming Web site.

GEOSET AAFAWCE Lectures:

1) Dr. Penny J. Gilmer, FSU, "NSF grant, Alliance for the Advancement of Florida's Academic Women in Chemistry and Engineering," February 2010

2) Dr. Penny J. Gilmer, FSU, on her research with the Science Collaboration: Immersion, Inquiry, Innovation project with rural K-12 teachers, "Research in Rural Settings," February 2010

3) Dr. Sheila Tobias sponsored by FSU Chemistry, "Women in Science: End-Running the Crowd," November 2009

4) Dr. Susan Lattuner, FSU, on her scientific research, "Growth of Magnetic Materials from Lanthanide-rich Fluxes," March 2010

Product Type:**External evaluation report****Product Description:**

Kate Scantlebury, the external evaluator from the University of Delaware has submitted the year 2 evaluation report which is attached to this report.

Sharing Information:

The evaluation report will be disseminated among AAFAWCE team members.

Contributions**Contributions within Discipline:**

Mentorship and recruitment practices activities further AAFAWCE's mission to increase the representation and promote the advancement of academic women in chemistry and engineering by developing a more diverse science and engineering workforce.

Contributions to Other Disciplines:

Academic women from other departments including physics and the National High Field Magnetic Laboratory have attended some of our AAFAWCE workshops.

Contributions to Human Resource Development:

The mentorship, leadership, and recruitment practices activities sponsored by AAFAWCE contribute to the human resource development of junior women faculty at all collaborating institutions.

Contributions to Resources for Research and Education:

Contributions Beyond Science and Engineering:

AAFAWCE's ADVANCE-PAID activities have contributed to the wider society by raising awareness and recognition of historically underrepresented groups i.e., women and minorities who have traditionally been excluded from pursuing many disciplines in the sciences and engineering.

Conference Proceedings

Special Requirements

Special reporting requirements: None

Change in Objectives or Scope: None

Animal, Human Subjects, Biohazards: None

Categories for which nothing is reported:

Activities and Findings: Any Outreach Activities

Any Journal

Any Book

Contributions: To Any Resources for Research and Education

Any Conference

Annual External Evaluation Report, September 2011

For

ADVANCE PAID: Alliance for the Advancement of Florida's Academic Women in Chemistry and Engineering (AAFAWCE)

Kathryn Scantlebury

Introduction

AAFAWCE is a consortium of five Florida institutions (University of South Florida, Florida State University, the University of Florida, Florida Agricultural and Mechanical University and Florida International University) and their main objectives in the project is "the recruitment of women faculty, the mentoring and advising of academic women at the assistant and associate levels, and the promotion of leadership among academic women" (Borman, Holbrook, & Thomas, 2009). The project plans to achieve these objectives by

- 1) providing opportunities, best practices and strategies for hiring women faculty in STEM fields.
- 2) providing opportunities, infrastructure, and resources for mentoring and advising assistant and associate professors.
- 3) increasing the number of women in chemistry and engineering by capitalizing on their leadership skills for career advancement and the attainment of leadership positions.

This report covers the project's activities from July 2010- May 2011. During the second year the project focused on establishing collaboration and networks between the institutions and disseminating information to the faculty and administrators at the campuses. Other activities included the collection of demographic data about the chemistry and engineering faculty at each participating institution, two workshops -one on mentoring and the other on leadership using materials and resources from other successful ADVANCE projects (University of Wisconsin-Madison WISELI (recruitment), University of Michigan STRIDE (recruitment), SUNY- Albany (mentoring) and COACH (*Committee on the Advancement of Women Chemists*, on leadership and development), production of a newsletter and poster presentations at two national conferences (NSF's JAM and ADVANCE).

This report provides an analysis of findings and a synthesis of the project's progress toward meeting its stated goals. The report is divided into five sections: (1) introduction; (2) review of project activities across sites and at specific sites; (3) review and synthesis of responses to a questionnaire by faculty participating in project workshops; (3) review and synthesis of chemistry and engineering demographic data from the five institutions; (4) review of AAFAWCE materials and resources; and (5) summary and recommendations.

CROSS INSTITUTION PROJECT ACTIVITIES

AAFAWCE conducted weekly conference calls, offered two workshops, hosted a Blackboard site for material and information dissemination, organized face to face meetings for PI's and Co-PI's, gave two poster presentations at national meetings, produced and distributed newsletters and brochures, and collected demographic data on the faculty (tenure and non-tenured) involved with chemistry and engineering departments at the participating institutions. The next section summarizes the evaluation of the two project wide workshops.

Workshops

AAFAWCE offered a "*COACH Leadership*" workshop at FSU in October. All institutions involved with AAFAWCE sent representatives to the workshop. There were over 70 attendees, in addition to presentations and panel discussions; the project had a Meet-and-Greet reception and the dinner. Table 1 shows the participants' mean scores and the standard deviation on the workshop's evaluation. Participants answered the questions using the following scale 0 = No opinion/not applicable; 1= strongly disagree; 2= disagree; 3= Somewhat disagree; 4= somewhat agree; 5= agree and 6= strongly agree. The participants' responses showed that the conference was well run, with the objectives clearly stated ($\bar{X}=5.6$) and met ($\bar{x}=5.6$). They reported enough time to learn the content ($\bar{X}=5.6$) and found the materials helpful ($\bar{X}=5.3$). The presenters and panelists encouraged participation. The number of evaluations (14) represents over half (56%) of the workshop participants ($n=25$).

Table 1
Participants' Evaluation Mean Scores on the
COACH Leadership Workshop

| | Question | Mean (n=14) | SD |
|----|--|----------------|-----|
| 1 | The conference objectives were clearly stated. | 5.6 | 0.6 |
| 2 | The conference objectives were met. | 5.6 | 0.5 |
| 3 | There were sufficient opportunities and time to ask questions. | 5.5 | 0.7 |
| 4 | There was enough time to learn the content. | 5.5 | 0.6 |
| 5 | The printed materials were helpful and supported my learning. | 5.3 | 1.2 |
| 6 | The COACH materials were easy to understand, and clear and to the point. | 5.5 | 1.3 |
| 7 | The audiovisual materials were used effectively in the conference presentations. | 5.4 | 1.1 |
| 8 | The information presented will be useful to me as I proceed through my career. | 5.7 | 0.6 |
| 9 | The number and variety of activities were appropriate. | 5.5 | 0.9 |
| 10 | The COACH workshop facilitator encouraged the attendees to participate. | 5.7 | 1.2 |
| 11 | The panelists encouraged the attendees to participate. | 5.7 | 0.6 |
| 12 | The physical environment was conducive to learning (i.e., lighting, sound, temperature). | 5.7 | 0.7 |
| 13 | The technology equipment worked well. | 5.8 | 0.5 |
| 14 | The conference worked well for the events I attended. | 5.8 | 0.4 |

Workshop participants were also asked the following questions:

1. What is the one thing you learned from the COACH workshop that will influence your career?
2. What is the one thing you learned from the Panel Discussion(s) that will influence your career?
3. Do you have any other comments on the conference?

There were several themes in the participants' answers to the question, "What is the one thing you learned from the COACH workshop that will influence your career?" First participants noted the workshop assisted them to identify and to recognize others' perspectives and priorities in negotiating situations. The following are representative comments from participants:

respect the perspectives of others when attempting to press my own cause.

The tools to negotiate with university administrative. These techniques can help me be a more effective negotiator and attain all my academic goals.

I became much more aware about how I negotiate and what other techniques I could use to improve and better myself.

A second theme from the workshop was learning assertive practices for negotiation and how non-verbal gestures can influence situations.

my need to be more assertive, and strategies to do so

I learned a lot of skills for negotiating salary raise, space increase for research and handling challenging teaching etc. This is very good and interactive COACH workshop.

Various techniques to be more assertive and confidence.

I learned some negotiation skills that could be helpful in my present career as a consultant with private companies. I learned to emphasize the positive aspects of myself. I also learned about presenting myself in a stronger way.

I learned valuable techniques that will assist me in future negotiations as well as how to monitor my gestures, appearance and overall presence in front of others.

Career: Panel Discussion

The participants' noted the importance of taking into account one's personal life and family into a career plan. Below are representative quotes from the participants to the question: "What is the one thing you learned from the Panel Discussion(s) that will influence your career?"

To think of the whole picture when make decisions--husband, children, etc. as well as position.

how to manage research, balance life and research, salary negotiation.

managing personal life and career as a woman 2) negotiating from salaries, holidays, to research focus with colleagues and students.

I learned some of the history of the women's movement. Also I learned that benefits of working with industry are good early in one's career when a woman may choose to have children. For me, in academia at that phase of my life, there were no benefits provided by my academic institution (other than taking sick leave) to have children. We had

two women of color in our panel, and it was interesting to hear about engineering fields from their perspectives.

Another theme from the comments about the panel was leadership:

"Leadership is not about managing people, it is about managing talent."

leadership in science is about managing talents in the labs.

I got inspired to seek if an Administration position suits my interest and goals in life

The importance of mentors for one's career was also a key issue that participants noted:

I'll be well prepared when interviewing for a job and select appropriate mentors to help me on my way. It was excellent!

That there are many successful women out there that can help/mentor me along the way. Being the only female in my lab, this is extremely reassuring and comforting

I learned about the importance of mentorship and how this can impact my professional development

Answers to the final question noted how the workshop was well-planned, the participants appreciated the attention and response to individual's attention and needs by the FSU personnel.

PROJECT ACTIVITIES - by Institution

This section reviews the ADVANCE activities by institution and when provided, a summary of the evaluation of those activities. Table 2 provides an overview of AAFAWCE activities by institution. Several of the institutions reported forming committees to implement and promote ADVANCE activities on their campuses. One institution (FAMU) reported a planning meeting with upper administrators and faculty to discuss implementing AAFAWCE'S recruitment and mentoring strategies. All institutions, except FAMU, reported providing at least one workshop focused on recruitment and/or mentoring strategies, and paid parental leave.

The project's personnel also gave talks and arranged for exhibits focused on Marie Curie's contribution to science, as this is the International Year of Chemistry. The project has also produced dissemination materials such as posters, booklets, webcasts and web-casts.

Table 2
AAFAWCE Project Activities & Products by Institution

| | USF | FSU | FIU | FAMU | UF |
|---------------------------------|------------|------------|----------------|-------------|-----------|
| Committees | | | | | |
| Programming | | | | | X |
| Mentorship | X | | X ¹ | | X |
| Recruitment | X | | | | X |
| Leadership | | | X | | |
| | | | | | |
| Meetings | | | | X | X |
| | | | | | |
| Workshops | | | X | | |
| Paid Parental Leave | X | | | | |
| Best Practices-underrepresented | | X | | | |
| Recruitment | | X | | | |
| Recruit/Mentor | | | | | X |
| | | | | | |
| Presentations | | | | | |
| Recruitment Practices & Schema | X | | | | |
| | | | | | |
| Exhibits | | X | | | |
| | | | | | |
| Products | | | | | |
| Poster | X | X | | | |
| Brochure | X | X | X | X | X |
| Booklet | X | | | | X |
| Video | X | | | | |
| Power Point | X | X | | | |
| Web cast | | X | | | |

¹ Deans requested project form mentoring committee.

Evaluation of UF Workshop

UF offered a workshop on *Recruitment, Retention and Mentoring Workshop* in the fall. Nine of the 10 participants returned evaluations, and a summary of their answers is shown in Table 3. Seven department chairs, two associate chairs and three faculty attended the workshop. All respondents were male. Five indicated that

they held the rank of professor and three were listed as associate professors. Five had over 15 years experience at the university, one reported 11-15 years and three had 6-10 years. Six reported as having served in at least ONE or more search committees and three had chaired 1 or more search committees.

Participants answered the questions using the following scale 1= not at all; 2= not really; 3= neutral; 4= somewhat and 5= very much. The mean and standard deviation on each question is show in Table 2. Participants have the highest score (X=4.6, SD=1.0) on the question “How much has the workshop contributed to your understanding of *schemas*?” , followed by “How much has the workshop contributed to your understanding of *recruiting practices*?” (X=4.4, SD=1.0) and “How much has the workshop contributed to you understanding of *unconscious bias*?” (X=4.3, SD=1.0) and “How much has the workshop contributed to your understanding of *mentoring*?” (X=4.0, SD=0.7). Participants had the lowest score on “Did you understand how *schemas* may affect faculty recruitment and retention prior to the workshop?” (X=3.0, SD=1.1).

Table 3
UF’s Participants’ Evaluation Mean Scores on the
Recruitment, Retention and Mentoring Workshop

| | Question | Mean (n=9) | SD |
|----|--|---------------|-----|
| 1 | How well did you understand the recruitment process prior to today’s workshop? | 4.3 | 0.5 |
| 2 | How much has the workshop contributed to your understanding of the recruitment process? | 4.2 | 1.0 |
| 3 | Did you understand how <i>schemas</i> may affect faculty recruitment and retention prior to the workshop? | 3.0 | 1.1 |
| 4 | How much has the workshop contributed to your understanding of <i>schemas</i> ? | 4.6 | 1.0 |
| 5 | Did you understand how <i>unconscious bias</i> may affect recruitment and retention prior to the workshop? | 3.8 | 0.8 |
| 6 | How much has the workshop contributed to you understanding of <i>unconscious bias</i> ? | 4.3 | 1.0 |
| 7 | Did you understand how <i>specific practices</i> may affect recruitment and retention prior to the workshop? | 3.8 | 0.7 |
| 8 | How much has the workshop contributed to your understanding of <i>recruiting practices</i> ? | 4.4 | 1.0 |
| 9 | Did you understand how <i>mentoring</i> may affect retention prior to the workshop? | 4.0 | 0.7 |
| 10 | How much has the workshop contributed to your understanding of <i>mentoring</i> ? | 4.2 | 0.8 |

Table 4 shows participant’s mean scores on their perceptions of their improved understanding of workshop topics. Participants responded indicated that 1=

remained unchanged, 2=increased somewhat and 3=increased greatly to the whether the level of their understanding had increased due to the workshop. As shown in Table 3, participants indicated that their understanding increased in all the topics covered in the workshop.

Table 4

UF's Participants' Evaluation Mean Scores on Perceived Impact of the Recruitment, Retention and Mentoring Workshop

| | Question | Mean (N=9) | SD |
|---|---|------------|-----|
| 1 | Running an effective search committee | 2.4 | 0.7 |
| 2 | Recruiting a diverse pool of candidates | 2.3 | 0.7 |
| 3 | Reading CVs and letters of recommendation | 2.1 | 0.8 |
| 4 | Constructing the finalist pool | 2.0 | 0.7 |
| 5 | Implementing an effective interview process | 2.3 | 0.7 |
| 6 | Evaluation process for candidate | 2.4 | 0.7 |
| 7 | Myths of mentoring | 2.3 | 0.7 |
| 8 | Benefits of mentoring | 2.4 | 0.5 |
| 9 | Strategies for effective mentoring | 2.4 | 0.5 |

Tables 5 and 6 show participants evaluation and improved understanding for the workshop on Parental Leave provided by AAFAWCE personnel at USF. Participants answered the questions using the following scale 1= not at all; 2= not really; 3= neutral; 4= somewhat and 5= very much. The mean and standard deviation on each question is show in Table 2. Participants indicated that they had varied levels of understanding of the topics.

Table 5

Participants' Evaluation of USF's Parental Leave Policy Workshop

| | Question | Mean (N=9) | SD |
|---|--|------------|-----|
| 1 | How well did you understand eligibility for parental leave prior to today's presentation? | 4.1 | 1.1 |
| 2 | How well did you understand qualifying circumstances for parental leave prior to today's presentation? | 3.9 | 1.3 |
| 3 | How well did you understand tenure clock suspension for parental leave prior to today's presentation? | 3.8 | 1.0 |
| 4 | How well did you understand the impact that parental leave had on accrued leave prior to today's presentation? | 3.2 | 1.4 |
| 5 | How well did you understand the impact that parental leave had on annual leave prior to today's presentation? | 3.6 | 1.5 |

Participants responded indicated that 1= remained unchanged, 2=increased somewhat and 3=increased greatly to the whether the level of their understanding had increased due to the workshop. Table 6 shows that a majority of the participants noted that their understanding of the issues and policies associated with paid parental leave increased greatly after the workshop.

Table 6

USF's Participants' Evaluation Mean Scores on Perceived Impact of the Paid Parental Leave Workshop

| | Question | Mean (N=9) | SD |
|---|--------------------------------|------------|-----|
| 1 | Eligibility for parental leave | 2.9 | 0.3 |
| 2 | Qualifying circumstances | 2.9 | 0.3 |
| 3 | Tenure clock suspension | 2.8 | 0.4 |
| 4 | Accrued leave | 2.9 | 0.8 |
| 5 | Annual leave | 3.0 | 0.0 |

Interviews

During the fall, Scantlebury conducted interviews with selected participants (n=6). Interviews documented information about the participants' background, current position, mentoring experiences (both being mentored and acting as a mentor), reasons for becoming involved with ADVANCE and suggestions for future directions for the project. The comment by the following participant reflected the perceptions of most interviewees.

"I wouldn't really say that I really have had any mentors formal or informal at the college or at the university. I guess the closest I've had to mentoring might be with people that I see at the annual professional conferences that I attend." (AAFAWCE Participant Fall 2010).

However, the introduction of ADVANCE to FAMU inspired a college level administrator to revive a disbanded, formal mentoring program and to extend the program to graduate students.

Feedback on Workshops

I think [recruitment workshop] was excellent, I really think it was excellent because there was plenty of time for questions, for discussion, the speaker and the speakers and the presentation were excellent. I think it was really well organized.

Future Directions

Using evaluation forms and the interviews, project participants had the following suggestions for future ADVANCE activities:

- 1) Expand workshop participation to include department chairs, deans, center directors and provost.
- 2) Devise policies to change instructional infrastructure that would require search committee faculty and department chairs to participate in the recruitment and retention workshop.
- 3) Encourage ADVANCE participants and leaders to become advisory board members to university/college/department committees focused on diversifying faculty.
- 4) Extend the advertisement of workshops, through multiple media approaches and networks.
- 5) Lobby institutions/colleges to establish associate deans for diversity or for promotion of women and minority in science or engineering and mathematics.
- 6) Provide recruitment workshops across departments
- 7) Work with departments and colleges to advertise/promote ADVANCE and its activities as a recruitment tool.
- 8) Lobby institutions/colleges to implement and establish family friendly policies.
- 9) Provide on-going activities for interested ADVANCE participants to develop their leadership skills.

Review of Materials & Resources

Web-site: AFAWCE's Blackboard web site has the following sections: *Announcements, Information, Staff Information, Documents, Discussion Board, Communication, External Links and Tools.* *Announcements* include the project's mission statement, information about project activities and links to the resources provided at the workshops and other project activities. *Staff Information* contains contact information for AFAWCE's participants Gilmer (FSU), Hrudá (FAMU) and Davis, (USF). As per last year, there is no information for the University of Florida, and Florida International University.

The *Announcements* section has two items posted since the previous evaluation. The *Documents* section has most of the project's materials and resources. A copy of the 2010 report is available. Within *Documents*, the following tabs were added from last year, *ADVANCE-PAID Meetings* that includes Conference Call Agenda and Minutes, and information from the ADVANCE PAID meeting in November. Although there is no information here for the NSF JAM meeting. The *Dissemination* folder includes *AAFAWCE presentations, AFAWCE posters, Women's Scientists Research, Guest Lecture and Workshops.* Within *Presentations*, there are two folders *Cited* and *Webcasted*, the *Cited* folder does not contain any materials and no new presentations in *Webcasted*.

AAFAWCE posters have two folders, FSU and JAM NSF conference; there are no new materials in either folder. There are no additions to the *Women's Scientists Research* or the *Guest Lecture* and *Workshops* folders.

The *Workshops* has a placeholder for "*COACH Workshop on Leadership* " coming in October 2010 but there is no information. A new section, *ADVANCing News* has the drafts and final version of the project's newsletter (in pdf and word format). The two-page newsletter is informative and provides information about project leadership, summary of the Leadership workshop and the results of the climate survey. There is no indication how many or when future newsletters may be produced.

AAFAWCE book from grant activities is another new section containing a Word file with discussion notes on the project's book ideas. There were the following single files "*NSF DC PI conference Poster SFAA poster - Spring 2011, Recruitment Practices Booklet, and Recruitment Practices Booklet* in the *Dissemination* folder.

AAFAWCE Data Collection tab contains the following folders: *Demographics of faculty within AAFAWCE, Project Surveys and Recruitment Practices Presentations Evaluation Tool*. The evaluation tool was used by USF for their campus presentation.

The *Workshops* includes information and materials for the following:

- 1) COACH Workshops
- 2) Mentoring - FAMU Spring 2010
- 3) Faculty Recruitment Workshop in TLH on Friday, April 9th
- 4) FRED - Faculty Recruitment for Excellence and Diversity at National High Magnetic Field Laboratory
 - a. Power point presentation from the 2nd FRED workshop
 - b. Evaluation of the two FRED workshops at the NHMFL
 - c. Photos from the second FRED workshop at the NHMFL
- 5) WISELI from University of Wisconsin-Madison
- 6) Summary of Recruitment ADVANCE Programs - from P.J. Gilmer
- 7) Campus evaluation tools-no information

Several project participants have add material to *Interesting Articles* including:

1. *Notes and comments with Gender Differences in Academic Hiring*" is Chapter 3 of *Gender Differences at Critical Transitions in the Careers of Science, Engineering, and Mathematics Faculty*, a report by the National Research Council of the National Academies. 2010. Washington, D.C.: The National Academies Press.
2. Report by University of Wisconsin- *WHY WOMEN LEAVE ENGINEERING Gains, and Drawbacks, for Female Professors* - NY Times 3/21/11
3. "Understanding current causes of women's underrepresentation in science," by Stephen Ceci and Wendy Williams, in *Proceedings of the National*

Academy of Sciences.

The project participants increase their use of the *Discussion Board*, thread topics included: 2010 faculty data, new brochure, newsletter comments, *AAFAWCE publication, Campus Activities- Recruitment, Campus Activities-Mentoring* (neither had posts), *Comments on AAFWCE presentations to administrators or faculty*. The discussion board was used for input and comment on the newsletter and new brochures for each institution. One project staff member generated most of the traffic on the discussion board. There are few comments, however, as the project leaders have a weekly conference there may be limited need for a discussion board at this time. As the project develops this may be a forum where new participants can ask questions and offer suggestions. The *External Links* remained unchanged from last year.

Table 7 shows the project's proposed activities for 2011-2012.

Table 7
AAFAWCE Project Activities & Products by Institution

| | USF | FSU | FIU | FAMU | UF |
|-----------------------------|------------|------------|------------|-------------|-----------|
| Committees | | | | | |
| Programming | | | | | |
| Mentorship | X | X | | X | X |
| Recruitment | X | | | X | |
| Leadership | | | | | |
| Meetings¹ | | X | | | |
| Workshops | | | | | |
| Leadership ¹ | | | X | X | |
| Recruitment | X | X | | | |
| Mentoring | X | | X | | X |
| Products | | | | | |
| Recruiting Tool Kit | | | | | X |
| NSF Proposal ¹ | X | X | X | X | X |
| Book proposal ¹ | X | X | | | |

¹ hosted by institution for all project members

Summary & Recommendations

In the second year of the project, AFAWCE continues to meet its goal to provide “opportunities, best practices and strategies for hiring women faculty in STEM fields” (goal 1) by increasing faculty and administrators awareness through workshops, talk, brochures and newsletters.

Through the leadership event and on-going campus activities the project has met its second goal (providing opportunities, infrastructure, and resources for mentoring and advising assistant and associate professors). The project has continued data collection to track its success on achieving the third goal (increasing the number of women in chemistry and engineering capitalizing on their leadership skills for career advancement and the attainment of leadership positions). However, there is variation in the level and extent that AFAWCE’s goals are implemented at each institution (Table 2). This is most likely due to variation in the institutions’ human and fiscal resource support. Also it is unclear if lessons learned from the implementation of ‘best strategies’ are being shared across institutions.

Project Leaders have weekly conference calls and the minutes of these meetings are available on the project’s web site. These regular meetings of key personnel continue to maintain the project’s success.

AFAWCE is in a unique position to identify and document how ‘best practices’ may vary depending on the type of institution. It would be beneficial if in the proposed book or if the project could develop specific tools for HBCU institutions.

Recommendations

- Update the web-site (e.g. contributions to the *Women’s Scientists’ Research* section of the web-site from all of the project’s participating institutions)
- Utilize the announcement section of the web-site to share the innovative practices and ideas from the 5 institutions
- Provide a timeline for future newsletters
- Use multiple avenues to advertise project activities
- Upload institution specific materials to project web site (e.g. brochures, power points etc.) to provide cross-site access.
- Devise strategy to disseminate demographic data to institutions’ administrators.
- Identify specific strategies for recruitment and mentoring different type of ‘institutions’.

AAFAWCE Faculty Data Analysis

In the academic year August 2010 to May 2011, the AAFAWCE team collected faculty demographic data from the chemistry and engineering departments at the five collaborating institutions. In total, there were 808 chemistry and engineering faculty (compared to last year, this year there were 12 fewer in engineering and 2 fewer in chemistry). Of the 170 chemistry faculty, 99 (58 percent) were tenured, 34 (20 percent) were tenure track, and 37 (22 percent) were non-tenure track. There were 638 engineering faculty, 383(60 percent) were tenured, 126 (20 percent) were tenure track, and 129 (20 percent) were non-tenure track. The analysis of these data found gender and ethnic disparities among the chemistry and engineering faculty. Attached to this activities section is a file with the figures and tables that correspond to the analysis of these faculty data.

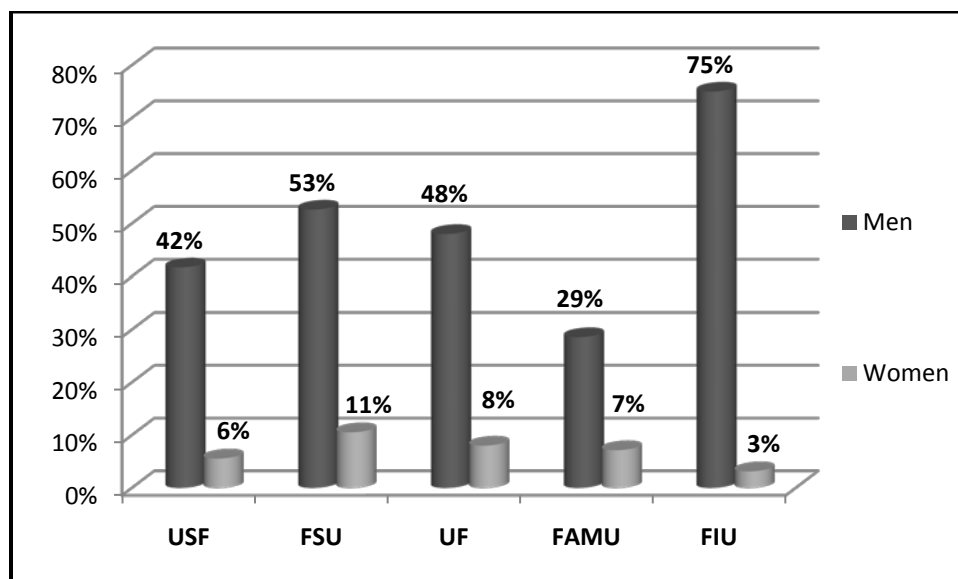


Figure 1. Tenured Chemistry Faculty by University and Gender

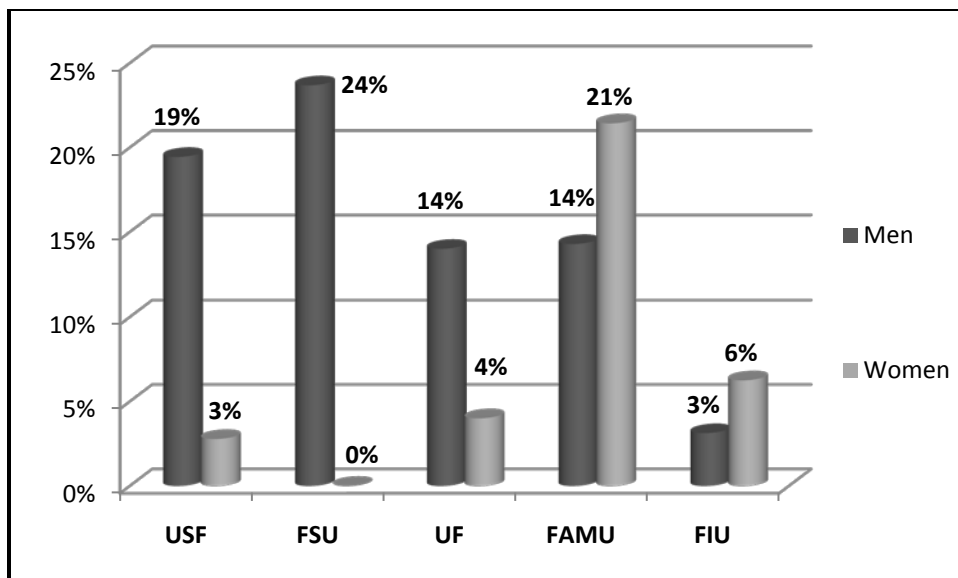


Figure 2. Tenure Track Chemistry Faculty by University and Gender

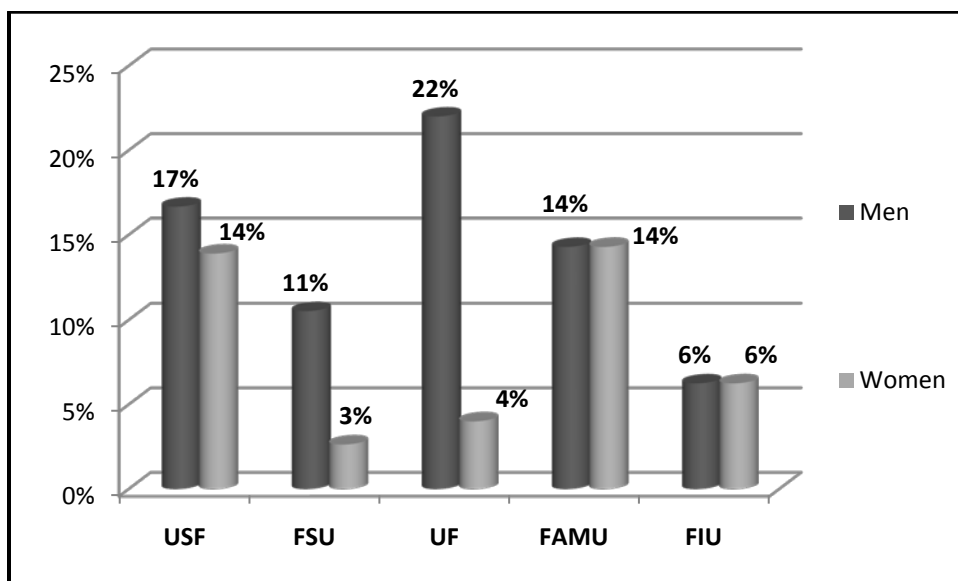


Figure 3. Non-Tenure Track Chemistry Faculty by University and Gender

Tenure status and gender analysis of chemistry faculty

The faculty demographic data collected by the five collaborating AAFAWCE institutions demonstrate that there were lower percentages of women tenured in chemistry compared to men in the academic year of August 2010 to May 2011. A review of the tenured chemistry faculty found that tenured men represented 29 percent to 53 percent of the total faculty, with the exception of FIU, where tenured men were 75 percent of the total faculty. Notably, tenured male faculty in chemistry at FAMU decreased this year by 21 percent of the total faculty, while tenured male faculty at the other four institutions increased by 1.7 to 13 percent (data not given for 2009-2010 academic year in this report, but present in last year's report). Compared to last year, the percentage of tenured women remained low, making up only six to eleven percent of the total faculty at USF, FSU, UF, and FAMU. Consistent with last year's data, there was, at most, only half the percentage of tenured women (three percent) at FIU, as at the other four institutions. These data are illustrated in Figure 1.

Over the last year, the percentages of tenure-track men decreased at USF and FIU (20 to 19 percent and 6.7 to three percent, respectively), and increased at FSU (20 to 24 percent), UF (10.2 percent to 14.0 percent), and FAMU (seven percent to 14 percent). The percentages of tenure-track women at UF, FAMU, and FIU increased (two to four percent, 14 to 21 percent, and 3.3 to six percent respectively), while they decreased at FSU (2.3 to zero percent).

At the non-tenure-track level, the percentages of women faculty at UF and FAMU doubled (two to four percent and seven to 14 percent, respectively) since last year. The greatest disparities among male and women faculty this year were found at FIU (75 percent men, three percent women) at the tenured level, FSU (24 percent men, zero percent women) at the tenure-track level, and UF (22 percent men, four percent women) at the non-tenure-track level. In all, women continue to be underrepresented at these institutions at all faculty levels as indicated in Figures 1 to 3.

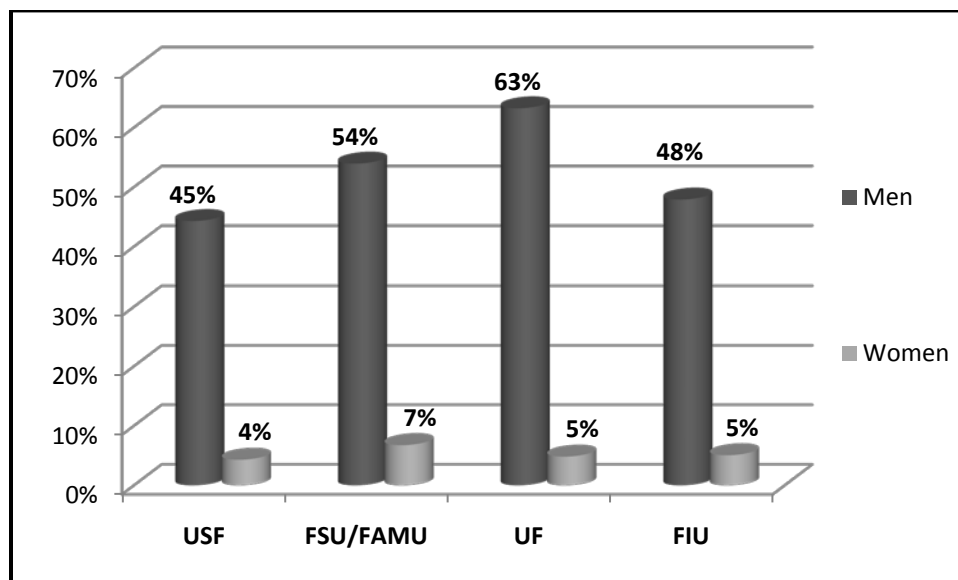


Figure 4. Tenured Engineering Faculty by University and Gender

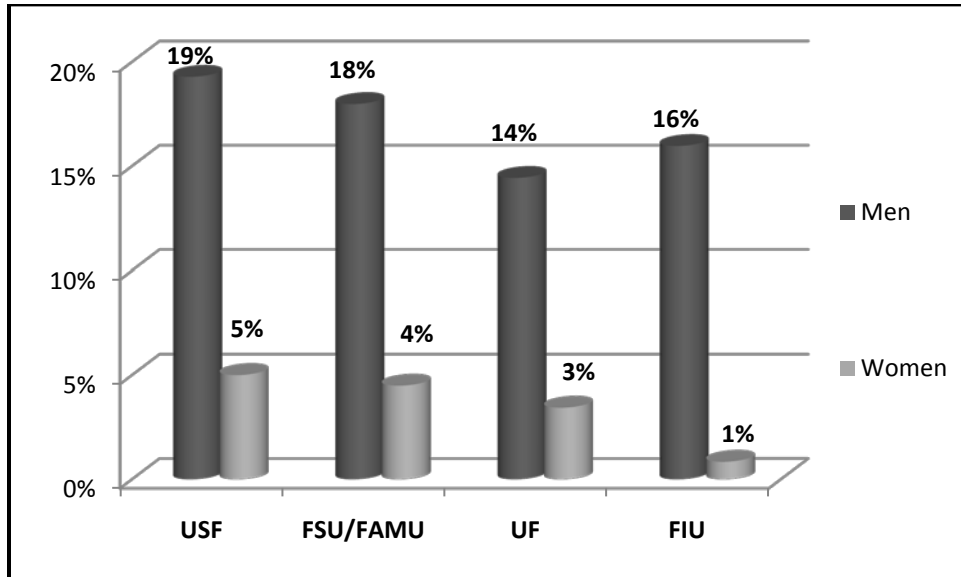


Figure 5. Tenure Track Engineering Faculty by University and Gender

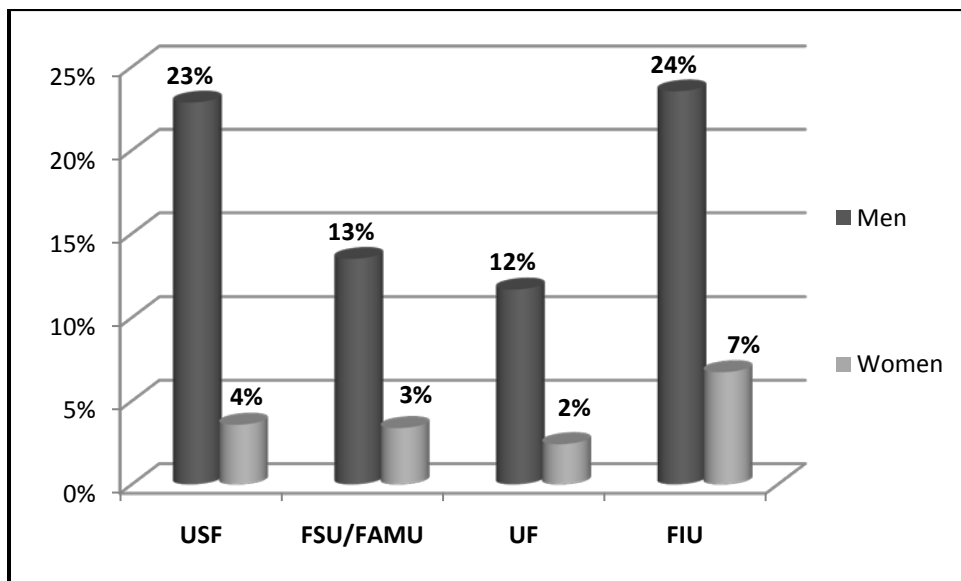


Figure 6. Non-Tenure Track Engineering Faculty by University and Gender

Tenure status and gender analysis of engineering faculty

Consistent with the data collected by AAFAWCE from its chemistry departments, data collected from the colleges of engineering at all four institutions revealed disproportions in the number of women faculty versus the number of men faculty. Please note that FSU and FAMU have a joint college of engineering.

As displayed in Figure 4, the greatest disparity between men and women was found at the tenured level at all four colleges of engineering. The percentages of tenured men faculty of the total faculty ranged from 45 to 63 percent, while the percentages of tenured women faculty ranged from only four to seven percent of the total engineering faculty at all institutions.

At the tenure-track level, women continued to be underrepresented at all four colleges of engineering: USF, UF, FSU/FAMU, and FIU. Tenure-track women made up only one to five percent of the total engineering faculty, compared to tenure-track men who accounted for 14 percent to 19 percent of the total engineering faculty, as displayed in Figure 5.

Figure 6 indicates that at the non-tenure-track level, men continued to be represented in substantially higher numbers than women at all four colleges of engineering. Of the total faculty in the college of engineering at these institutions, 12 to 24 percent of the total faculty members were non-tenure-track men, while two to seven percent were women. Notably, between 2010 and 2011, the percentage of non-tenure-track men more than doubled at USF (9.7 percent to 23 percent) and increased by eight percent at FIU. The percentage of non-tenure-track women increased at FSU from zero to three percent and at FIU from 3.5 percent to seven percent since last year.

Table 1. University of South Florida Chemistry Faculty by Gender, Ethnicity, and Tenure Status

| Ethnicity | Tenured Faculty | | | | Tenure Track Faculty | | | | Non-Tenure Track Faculty | | | |
|--------------|-----------------|-----------|------------|----------|----------------------|----------|------------|----------|--------------------------|----------|-------------|----------|
| | Men | | Women | | Men | | Women | | Men | | Women | |
| | % | n | % | n | % | n | % | n | % | n | % | n |
| White | 30.6 | 11 | 5.6 | 2 | 11.1 | 4 | 0.0 | 0 | 5.6 | 2 | 5.6 | 2 |
| Black | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 2.8 | 1 | 0.0 | 0 |
| Hispanic | 0.0 | 0 | 0.0 | 0 | 2.8 | 1 | 0.0 | 0 | 2.8 | 1 | 5.6 | 2 |
| Asian | 11.1 | 4 | 0.0 | 0 | 5.6 | 2 | 2.8 | 1 | 5.6 | 2 | 0.0 | 0 |
| Non Resident | | | | | | | | | | | | |
| Alien | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 2.8 | 1 |
| Other | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 41.7 | 15 | 5.6 | 2 | 19.4 | 7 | 2.8 | 1 | 16.7 | 6 | 13.9 | 5 |

Table 2. University of Florida Chemistry Faculty by Gender, Ethnicity, and Tenure Status

| Ethnicity | Tenured Faculty | | | | Tenure-Track Faculty | | | | Non-Tenure Track Faculty | | | |
|--------------|-----------------|-----------|------------|----------|----------------------|----------|------------|----------|--------------------------|-----------|------------|----------|
| | Men | | Women | | Men | | Women | | Men | | Women | |
| | % | n | % | n | % | n | % | n | % | n | % | n |
| White | 42.0 | 21 | 4.0 | 2 | 8.0 | 4 | 4.0 | 2 | 20.0 | 10 | 2.0 | 1 |
| Black | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Hispanic | 2.0 | 1 | 2.0 | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Asian | 4.0 | 2 | 0.0 | 0 | 4.0 | 2 | 0.0 | 0 | 2.0 | 1 | 2.0 | 1 |
| Other | 0.0 | 0 | 2.0 | 1 | 2.0 | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 48.0 | 24 | 8.0 | 4 | 14.0 | 7 | 4.0 | 2 | 22.0 | 11 | 4.0 | 2 |

Table 3. Florida State University Chemistry Faculty by Gender, Ethnicity, and Tenure Status

| Ethnicity | Tenured Faculty | | | | Tenure Track Faculty | | | | Non-Tenure Track Faculty | | | |
|--------------|-----------------|-----------|-------------|----------|----------------------|----------|------------|----------|--------------------------|----------|------------|----------|
| | Men | | Women | | Men | | Women | | Men | | Women | |
| | % | n | % | n | % | n | % | n | % | n | % | n |
| White | 50.0 | 19 | 5.3 | 2 | 13.2 | 5 | 0.0 | 0 | 10.5 | 4 | 2.6 | 1 |
| Black | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Hispanic | 0.0 | 0 | 0.0 | 0 | 2.6 | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Asian | 2.6 | 1 | 5.3 | 2 | 7.9 | 3 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Other | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 52.6 | 20 | 10.5 | 4 | 23.7 | 9 | 0.0 | 0 | 10.5 | 4 | 2.6 | 1 |

Table 4. Florida International University Chemistry Faculty by Gender, Ethnicity, and Tenure Status

| Ethnicity | Tenured Faculty | | | | Tenure Track Faculty | | | | Non-Tenure Track Faculty | | | |
|--------------|-----------------|-----------|------------|----------|----------------------|----------|------------|----------|--------------------------|----------|------------|----------|
| | Men | | Women | | Men | | Women | | Men | | Women | |
| | % | n | % | n | % | n | % | n | % | n | % | n |
| White | 53.1 | 17 | 3.1 | 1 | 0.0 | 0 | 3.1 | 1 | 6.3 | 2 | 0.0 | 0 |
| Black | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Hispanic | 12.5 | 4 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 3.1 | 1 |
| Asian | 9.4 | 3 | 0.0 | 0 | 3.1 | 1 | 3.1 | 1 | 0.0 | 0 | 3.1 | 1 |
| Other | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 75.0 | 24 | 3.1 | 1 | 3.1 | 1 | 6.3 | 2 | 6.3 | 2 | 6.3 | 2 |

Table 5. Florida Agricultural and Mechanical University Chemistry Faculty by Gender, Ethnicity, and Tenure Status

| Ethnicity | Tenured Faculty | | | | Tenure Track Faculty | | | | Non-Tenure Track Faculty | | | |
|--------------|-----------------|----------|------------|----------|----------------------|----------|-------------|----------|--------------------------|----------|-------------|----------|
| | Men | | Women | | Men | | Women | | Men | | Women | |
| | % | n | % | n | % | n | % | n | % | n | % | n |
| White | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 7.1 | 1 | 7.1 | 1 | 0.0 | 0 |
| Black | 28.6 | 4 | 7.1 | 1 | 14.3 | 2 | 14.3 | 2 | 7.1 | 1 | 14.3 | 2 |
| Hispanic | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Asian | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Other | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 28.6 | 4 | 7.1 | 1 | 14.3 | 2 | 21.4 | 3 | 14.3 | 2 | 14.3 | 2 |

Ethnic analysis of chemistry faculty

The faculty demographic data collected by AAFWCE demonstrate that the highest percentage of minority faculty in the academic year of August 2010 to May 2011 is found at FAMU, a historically black university. The disparity between men and women ethnic minority faculty in chemistry is, however, still great at FAMU, and the other four AAFWCE institutions.

Tables 1 to 4 indicate that at FIU, UF, USF, and FSU, white tenured men made up the greatest percentage of the total faculty in chemistry, 31 percent to 53 percent. White tenured women only accounted for zero to six percent of these departments' faculty. The percentages of ethnic minority women, whether tenured, tenure-track, or non-tenure-track, also continued to be underrepresented at all levels: black women = zero percent, Hispanic women \leq 6 percent, and Asian women \leq 5 percent. The percentages of black and Hispanic men at all levels in the departments of chemistry at USF, FSU, and UF were only slightly higher: black men \leq 3 percent, and Hispanic men \leq 6 percent. In contrast, Asian men accounted for \leq 23 percent of the faculty at each university. Notably, FIU, an Hispanic-serving institution, had the highest percentage (13 percent) of tenured Hispanic male faculty, but had no tenured or tenure-track Hispanic women faculty (see Table 4).

Table 5 shows that FAMU had the highest percentage (36 percent) of minority tenured chemistry faculty. This percentage is however substantially lower than last year (49.9 percent). FAMU was the only institution with black tenure-track and non-tenure-track women faculty (14 percent for each) and the only institution with a black tenured woman (seven percent). Notably, the percentage of black tenure-track and non-tenure-track women faculty doubled at FAMU in the last year (from seven to 14 percent), while the percentage of black tenured women faculty remained the same (seven percent). Black tenured men were 29 percent of the FAMU chemistry faculty, indicating that despite a higher representation of ethnic minority chemistry faculty at FAMU, the disparity between men and women was still great.

Table 6. University of South Florida Engineering Faculty by Gender, Tenure Status, and Ethnicity

| Ethnicity | Tenured Faculty | | | | Tenure Track Faculty | | | | Non-Tenure Track Faculty | | | |
|--------------------|-----------------|-----------|------------|----------|----------------------|-----------|------------|----------|--------------------------|-----------|------------|----------|
| | Men | | Women | | Men | | Women | | Men | | Women | |
| | % | n | % | n | % | n | % | n | % | n | % | n |
| White | 25.2 | 35 | 1.4 | 2 | 10.1 | 14 | 1.4 | 2 | 14.4 | 20 | 1.4 | 2 |
| Black | 0.7 | 1 | 0.7 | 1 | 2.2 | 3 | 0.7 | 1 | 1.4 | 2 | 0.0 | 0 |
| Hispanic | 3.6 | 5 | 1.4 | 2 | 0.7 | 1 | 0.7 | 1 | 2.2 | 3 | 0.7 | 1 |
| Asian | 14.4 | 20 | 0.7 | 1 | 6.5 | 9 | 2.2 | 3 | 4.3 | 6 | 0.7 | 1 |
| Non Resident Alien | 0.7 | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.7 | 1 |
| Other | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.7 | 1 | 0.0 | 0 |
| Totals | 44.6 | 62 | 4.3 | 6 | 19.4 | 27 | 5.0 | 7 | 23.0 | 32 | 3.6 | 5 |

Table 7. University of Florida Engineering Faculty by Gender, Ethnicity, and Tenure Status

| Ethnicity | Tenured Faculty | | | | Tenure-Track Faculty | | | | Non-Tenure Track Faculty | | | |
|--------------|-----------------|------------|------------|-----------|----------------------|-----------|------------|-----------|--------------------------|-----------|------------|----------|
| | Men | | Women | | Men | | Women | | Men | | Women | |
| | % | n | % | n | % | n | % | n | % | n | % | n |
| White | 40.2 | 117 | 2.7 | 8 | 7.6 | 22 | 0.7 | 2 | 7.9 | 23 | 1.4 | 4 |
| Black | 1.0 | 3 | 0.3 | 1 | 0.7 | 2 | 0.7 | 2 | 0.0 | 0 | 0.0 | 0 |
| Hispanic | 3.1 | 9 | 0.0 | 0 | 0.3 | 1 | 0.0 | 0 | 0.3 | 1 | 0.3 | 1 |
| Asian | 18.6 | 54 | 1.7 | 5 | 5.2 | 15 | 2.1 | 6 | 2.7 | 8 | 0.7 | 2 |
| Other | 0.3 | 1 | 0.0 | 0 | 0.7 | 2 | 0.0 | 0 | 0.7 | 2 | 0.0 | 0 |
| Total | 63.2 | 184 | 4.8 | 14 | 14.4 | 42 | 3.4 | 10 | 11.7 | 34 | 2.4 | 7 |

Table 8. Florida State University and Florida Agricultural and Mechanical University Engineering Faculty by Gender, Ethnicity, and Tenure Status

| Ethnicity | Tenured Faculty | | | | Tenure Track Faculty | | | | Non-Tenure Track Faculty | | | |
|--------------|-----------------|-----------|------------|----------|----------------------|-----------|------------|----------|--------------------------|-----------|------------|----------|
| | Men | | Women | | Men | | Women | | Men | | Women | |
| | % | n | % | n | % | n | % | n | % | n | % | n |
| White | 20.2 | 18 | 2.2 | 2 | 10.1 | 9 | 2.2 | 2 | 10.1 | 9 | 1.1 | 1 |
| Black | 13.5 | 12 | 1.1 | 1 | 1.1 | 1 | 0.0 | 0 | 1.1 | 1 | 1.1 | 1 |
| Hispanic | 0.0 | 0 | 1.1 | 1 | 1.1 | 1 | 0.0 | 0 | 0.0 | 0 | 1.1 | 1 |
| Asian | 20.2 | 18 | 2.2 | 2 | 5.6 | 5 | 2.2 | 2 | 2.2 | 2 | 0.0 | 0 |
| Other | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 53.9 | 48 | 6.7 | 6 | 18.0 | 16 | 4.5 | 4 | 13.5 | 12 | 3.4 | 3 |

Table 9. Florida International University Engineering Faculty by Gender, Ethnicity and Tenure Status

| Ethnicity | Tenured Faculty | | | | Tenure Track Faculty | | | | Non-Tenure Track Faculty | | | |
|--------------|-----------------|-----------|------------|----------|----------------------|-----------|------------|----------|--------------------------|-----------|------------|----------|
| | Men | | Women | | Men | | Women | | Men | | Women | |
| | % | n | % | n | % | n | % | n | % | n | % | n |
| White | 20.2 | 24 | 1.7 | 2 | 5.0 | 6 | 0.8 | 1 | 9.2 | 11 | 1.7 | 2 |
| Black | 3.4 | 4 | 0.0 | 0 | 0.8 | 1 | 0.0 | 0 | 2.5 | 3 | 0.0 | 0 |
| Hispanic | 4.2 | 5 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 5.0 | 6 | 3.4 | 4 |
| Asian | 20.2 | 24 | 3.4 | 4 | 10.1 | 12 | 0.0 | 0 | 6.7 | 8 | 1.7 | 2 |
| Other | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 47.9 | 57 | 5.0 | 6 | 16.0 | 19 | 0.8 | 1 | 23.5 | 28 | 6.7 | 8 |

Ethnic analysis of engineering faculty

Consistent with AAFWCE's data of chemistry faculty, analysis of engineering faculty data from these collaborating institutions revealed a higher percentage of minority faculty at FAMU, and a consistent disparity between men and women minority faculty across institutions.

Tables 6 to 9 show that white tenured men made up 20.2 to 40.2 percent of the total faculty in engineering at these four institutions, while white tenured women made up only 1.4 to 2.7 percent. At USF, UF and FIU, black and Hispanic tenured men each made up 4.2 percent or less of the faculty, while black and Hispanic tenured women each made up only 1.1 percent or less of the faculty. Notably, the FAMU-FSU College of Engineering had a higher percentage of black tenured men (13.5 percent), while the percentage of black tenured women engineering faculty remained as low as at the other institutions (1.1 percent), as is illustrated in Table 8.

The total percentage of tenured Asian men in engineering was equal to the total percentage of tenured white men in engineering at both FAMU-FSU and FIU. However, the percentage of tenured Asian women engineering faculty again remained as low as at any other institution (≤ 3.4 percent).

Conclusions

Analysis of these data reveal that there continues to be a disparity between women and men faculty at the tenure level, and disproportionately lower numbers of ethnic minority faculty overall, especially of ethnic minority women. The decline in the number of faculty this year may be linked to budget cuts at these institutions. This analysis of the faculty data further supports the need for the activities and goals of the ADVANCE-PAID award at these Florida institutions.