

# ADVANCing News

The Alliance for the Advancement of Florida's Academic Women in Chemistry and Engineering (AAFAWCE) Newsletter

November 2011  
Volume Two

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AAFAWCE is a National Science Foundation ADVANCE-PAID Award #0930164  
<http://anthropology.usf.edu/AAFAWCE/>

## Spring 2012 COACH Workshop

*Upcoming Workshop to Be Held February 23-24, 2012*

Simone Peterson Hruda, Ph.D., Associate Professor, Mechanical Engineering, FAMU-FSU College of Engineering, AAFWCE-PI, FAMU

Mark your calendars! AAFWCE-FAMU will be hosting the second COACH professional development workshop for women faculty, "Uses of Influence, Power and Conflict Resolution in Negotiation," on February 23-24, 2012 in Tallahassee, Florida.

The workshop begins at 6:00 pm on Thursday with a 2-hour opening session at the Hotel Duval located in downtown Tallahassee and resumes Friday morning for an all-day session at the Challenger Learning Center of Tallahassee.

Facilitators Jane Tucker and Barbara Butterfield from COACH will review essential negotiation skills and examine Cialdini's six principles of influence. Additionally, the group will take stock of personal and network power, and apply this knowledge to identify positive coalitions that can drive organizational change. Finally, factors contributing to personal success and failure will be examined and applied to case studies.

Information about the workshop, lodging, and registration can be found at <http://www.eng.fsu.edu/~peterson/AAFAWCE>. Follow the link for COACH 2012. Travel funds will be provided. Please contact your campus representative by December 9th, 2011 if you are interested in attending.



COACH Facilitators:  
Barbara Butterfield and Jane Tucker



### Who Are We?

The Alliance for the Advancement of Florida's Academic Women in Chemistry and Engineering (AAFAWCE) is an NSF ADVANCE-PAID program.

AAFAWCE is a collaboration of five Florida state universities: [USE](#), [FSU](#), [UF](#), [FAMU](#), and [FIU](#). Our mission is to increase the representation and promote the advancement of academic women in chemistry and engineering, thereby developing a more diverse science & engineering workforce.

In addition to our sponsorship of leadership workshops, on each AAFWCE campus we are working to establish:

- Mentorship programs for female assistant and associate professors
- Recruitment practices workshops that provide strategies to attract excellent and diverse faculty candidates

Please visit our website to find out more information:  
<http://anthropology.usf.edu/AAFAWCE/>

## Marie Curie Centennial Celebration of Her Nobel Prize in Chemistry

*Florida State University hosted the Marie Curie Centennial Celebration on November 7<sup>th</sup>, 2011 with keynote speaker, Dr. Julie Des Jardins*

Penny J. Gilmer, Ph.D., D. Sc.Ed., Professor Emerita, AAFWCE-PI, FSU

Madame Marie Curie is probably the best-known woman scientist in the world, and the only person in the world who has ever had Nobel Prizes in two different fields of science – Physics (1903) and Chemistry (1911). In this centennial year, Madame Curie's Nobel Prize in Chemistry was celebrated at Florida State University with three events, sponsored by AAFAWCE and the Florida State University Libraries. All events were free and open to the public.

**Monday, November 7<sup>th</sup>, 2011, 5:30-6:30pm**  
1003 Chemical Sciences Laboratory (CSL)

Keynote speaker Dr. Julie Des Jardins, Associate Professor of History at Baruch College, gave a talk based on her 2010 book, The Madame Curie Complex.

**Tuesday, November 8<sup>th</sup>, 2011, 4:00-5:30pm**  
499 Dirac Science Library (DSL)

A panel of five physical scientists discussed careers in chemistry and physics for both undergraduate and graduate students, as well as the general public.

**Tuesday, November 8<sup>th</sup>, 2011, 6:00pm**  
499 Dirac Science Library (DSL)

The 1943 Hollywood movie, Madame Curie was shown!

Contact Penny Gilmer: [gilmer@chem.fsu.edu](mailto:gilmer@chem.fsu.edu), with questions.



Marie Curie after her second Nobel Prize in 1911

## University of Florida Mentor-Mentee Luncheon

Anne Donnelly, Ph. D., Director, Undergraduate Research & SEAGEP, AAFWCE-Co-PI, UF

On Sept. 14, 2011 the University of Florida ADVANCE-PAID program hosted the first mentor-mentee luncheon. UF has opted for group mentoring and brought together junior women faculty in engineering, chemistry, and physics with senior faculty who have volunteered to serve as mentors.

After a short briefing by Dr. Angel Kwolek-Folland (AAFWCE-PI, UF), the group was invited to break the ice by sharing their most embarrassing moment in academia. They also filled out an interest survey that will be used in later meetings to explore common interests. At the end of the luncheon, each participant was tasked with bringing a question or issue to discuss at the next meeting to be held later in the semester.



Dr. Angel Kwolek-Folland

# FRED Training for the National High Magnetic Field Laboratory

*AAFAWCE-sponsored workshops present methods for recruiting to promote excellence and diversity in the workplace to faculty and staff of the National High Field Magnetic Laboratory*

Dragana Popović, Ph. D., Scholar/Scientist, Magnet Lab, AAFAWCE-co-PI, FSU

In May 2011, faculty and staff of the National High Magnetic Field Laboratory (less formally known as the Magnet Lab) at Florida State University attended AAFAWCE-sponsored workshops designed to present strategies and tactics for recruiting scientists to improve diversity and excellence at the Magnet Lab.

AAFAWCE-FSU PI Penny Gilmer worked with members of the Magnet Lab Diversity Committee to develop the presentation, “Faculty Recruitment for Excellence and Diversity” (FRED). The 41 faculty members who attended one of the two FRED workshops were most interested to learn of unconscious biases and schemas, the concept of broad, “open” searches, and the extent of scholarly work in this area of diversity. A third workshop is planned for the fall 2011. All Magnet Lab scientists serving on search committees for STEM positions will complete FRED training.



Attendees of the FRED workshop

The Magnet Lab <http://www.magnet.fsu.edu/>, a user facility funded by the National Science Foundation and the State of Florida, has a goal to become a nationally-recognized leader for its STEM diversity programs and the diversity of its STEM staff. The National High Magnetic Field Laboratory’s formal Diversity Action Plan <http://www.magnet.fsu.edu/about/howwework/diversity/plan.html> was first developed in 2004 and updated in 2007 and 2011. It includes various ongoing activities proven to be successful and incorporates new ideas to be implemented in the coming years. These include a continued collaboration with AAFAWCE and Gilmer to improve and expand FRED, and to develop new workshops on mentoring and leadership.

## Faculty Data Comparison: 2009 vs. 2010

*Compilation of data from 2009 and 2010 displays startling disparities in ratios of male and female faculty in STEM fields*

Penny J. Gilmer, Ph.D., D. Sc.Ed., Professor Emerita, AAFAWCE-PI, FSU

As part of the ADVANCE-PAID grant, each university has gathered data on the tenured, tenure-track (TT), and non-TT instructional faculty in STEM departments each year. These data have been compiled and organized to display trends in the faculty demographics over time, specifically in regards to gender percentages and ratios of men to women. The following two figures display the percentages of tenured faculty (of the total instructional faculty), at each institution.

Figure 1 displays tenured chemistry faculty within the ADVANCE-PAID grant. In 2010, the percentage of tenured male faculty ranged from 29% to 75%, while the percentages of tenured female faculty ranged from 3% to 11%. The largest change that occurred between 2009 and 2010 was in the percentage of male tenured faculty at FAMU. In Figure 2, the 2010 the data for tenured male faculty in engineering colleges ranged from 45% to 63%, while the percentage of female faculty ranged from 4% to 7%. The changes in percentages of tenured faculty in the colleges of engineering from 2009 to 2010 were smaller than observed in the chemistry departments.

Continued...

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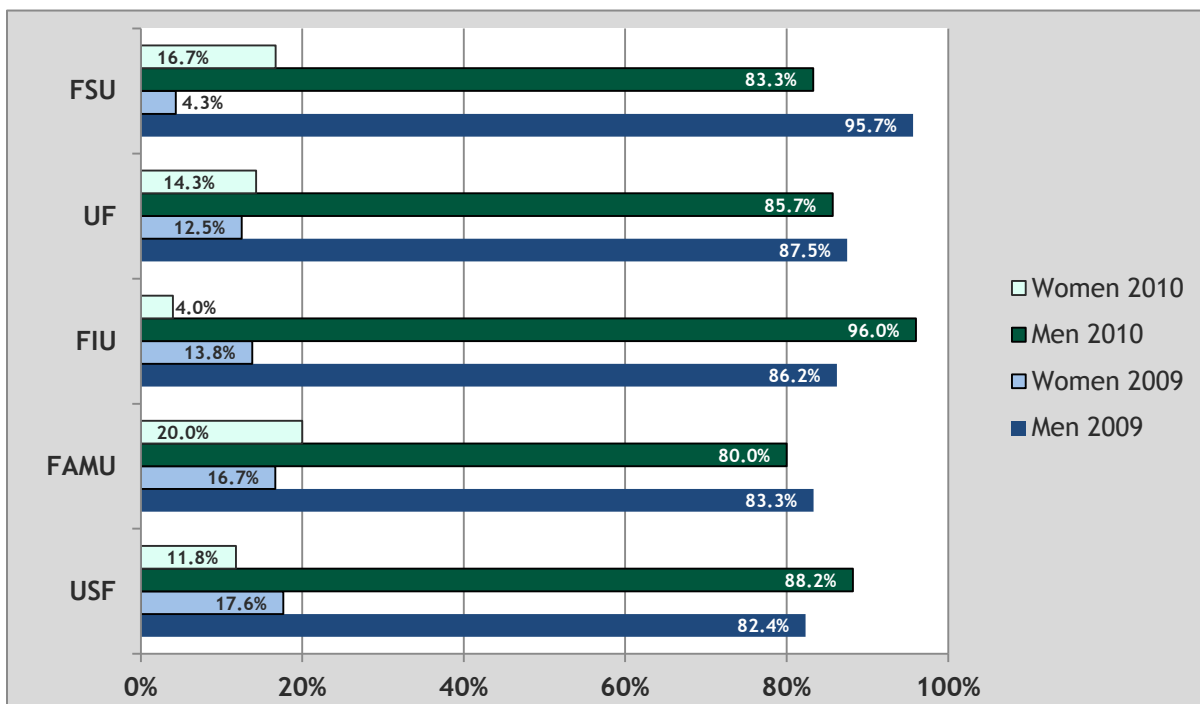


Figure 1. Percentage of Men and Women Tenured Chemistry Faculty at AAFawce Institutions

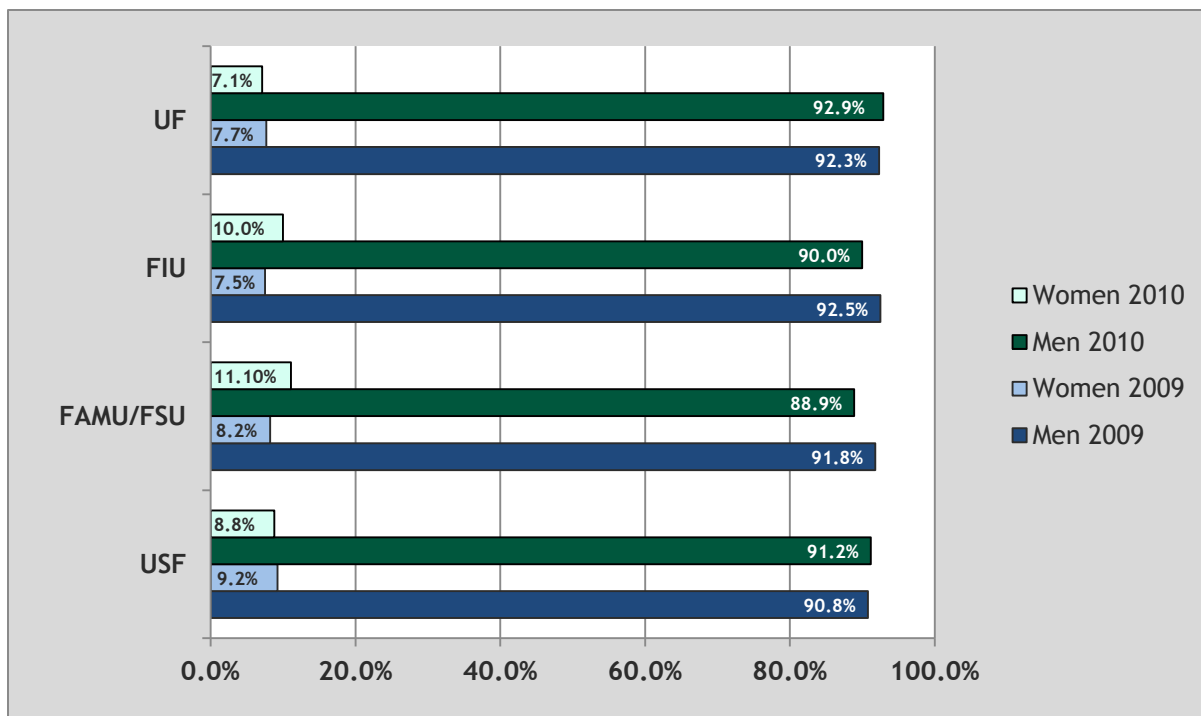
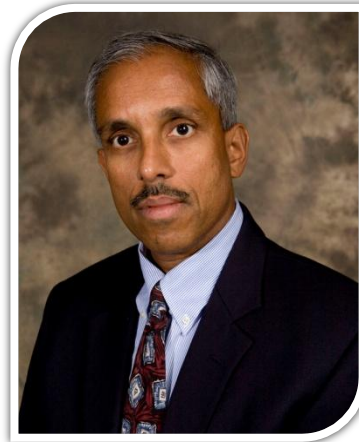


Figure 2. Percentage of Men and Women Tenured Engineering Faculty at AAFawce Institutions

The ratios of males to females in the tenured faculty in chemistry departments in 2010 were 7:1 at USF, 5:1 at FSU, 6:1 at UF, 4:1 at FAMU, and 25:1 at FIU. In engineering colleges the ratios were 11:1 at USF, 8:1 at FAMU-FSU, 13:1 at UF, and 10:1 at FIU. Some of the departments had no tenure-track women so it is hard to improve the tenured demographics without women to be promoted and tenured.

# Perspective of Venkat R. Bhethanabolta

Dr. Bhethanabolta, Professor & Chair, Chemical and Biomedical Engineering, Advisor of Biomedical Engineering Program



Venkat R. Bhethanabolta

- Why are ADVANCE-PAID activities important for women faculty?

Activities from the recruitment practices workshop are important in that they remind (or inform for the first time) search committee members and involved faculty of the importance of recruitment for diversity and excellence. Specifically, the activities address issues such as why it is difficult to recruit for diversity and how schemas impact recruitment. They also provide guidelines and pointers for evaluating resumes and interviewing candidates. Activities for mentoring practices help women faculty members in the early stages of their career. In particular, they provide information and guidance about the tenure and promotion process, help in interpreting departmental dynamics and culture, and a sounding board for ideas in general.

- How has your involvement in the ADVANCE-PAID award (with AAFAWCE) impacted recruitment practices in your department?

The search committee was exposed to faculty data, the impact of schemas, and best practices for recruitment from a large pool of diverse candidates. This helped the faculty in terms of interviewing skills. It helped me as Chair in the process of working with the short-listed candidates, which included one woman, whom we have recruited. The most important contribution of my involvement in the project to all these activities was to bring these issues and best practices to the fore, topics on which we do not typically spend considerable time in our busy schedules.

- How do you believe ADVANCE-PAID recruitment practices benefit the college of engineering and USF as a whole?

Colleges of engineering typically have fewer women faculty members. The pool of highly qualified female candidates is small, and competition to hire them is high, so USF could easily lose out to better offers from more established universities. The ADVANCED-PAID recruitment practices project provides the intangibles for our faculty to successfully recruit and interview a diverse candidate pool. We have the necessary information to attract highly qualified women candidates, from a small pool.



The same team that applied and received the ADVANCE-PAID collaborative grant from the National Science Foundation is working together with new faculty to apply for an ADVANCE-Institutional Transformation (ADVANCE-IT) collaborative grant.

In the back row, from left to right are Berrin Tansel (FIU), Ngozi Ugochukwu (FAMU), Michelle Hughes-Miller (USF), Anne Donnelly (UF), Sylvia Thomas (USF), Simone Hruda (FAMU), Dragana Popovic (FSU), Wachell McKendrick (FAMU), and in the front row from left to right are Penny Gilmer (FSU), Kathryn Borman (USF), and Chrystal Smith (USF). Others involved in the new grant application were not available for the photograph.

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# Advancement of Women into Leadership Positions: Why Upward Mobility Link is Broken

Berrin Tansel, Ph.D., P.E.; Professor of Civil & Environmental Engineering, Florida International University, AAFAWCE-PI, FIU

The ratio of women to men employed in science and engineering fields has been gradually increasing. However, the ratio of women to men in leadership positions in science and engineering has not been increasing at a similar rate. Studies show that more women than those already in leadership positions have the traits needed for leadership, such as being honest, intelligent, hardworking, decisive, ambitious, compassionate, outgoing and creative. However, the path to leadership is often broken during critical times for majority of women starting from the middle school years.



Berrin Tansel, Ph.D., P.E.

Professional preparation during college and professional practice years also present critical times during which social pressures for appropriate behavior, stereotyping, family, lack of support system (personal and professional) and other barriers prevent upward mobility of women to leadership roles. Some studies find differences between males' and females' task accomplishment styles. When people were asked to speculate how they would behave if they were leaders (hypothetical), males tended to be more task-oriented while females tended to be more relationship-oriented. However, the differences disappeared in studies when actual managers were compared. Experienced women managers showed no differences in leadership abilities from experienced male managers. Long terms studies show that small differences in success rates starting from middle school years and small differences in one's choices have significant long-term effects in professional advancement of women.

Interested in becoming a mentor/protégé?  
Or, want information on faculty recruitment?

Here is the contact information:

USF:	Dr. Kathryn Borman	borman@usf.edu
USF:	Dr. Chrystal Smith	casmith5@usf.edu
FSU:	Dr. Penny J. Gilmer	gilmer@chem.fsu.edu
UF:	Dr. Anne Donnelly	adonn@ufl.edu
FAMU:	Dr. Simone Peterson Hruda	simone.hruda@famu.edu
FIU:	Dr. Berrin Tansel	tanselb@fiu.edu



## How You Can Get Involved with AAFAWCE!

AAFAWCE is looking for:

- Senior faculty (men and women) to become mentors
- Junior STEM women faculty protégés
- Administrators and faculty to participate in recruitment practices activities

**AAFAWCE Newsletter Contact:**

To post opportunities in the newsletter or if you have other questions, please contact Amanda McManaway at [ajm10j@my.fsu.edu](mailto:ajm10j@my.fsu.edu)