

Women: Making a Difference In STEM Disciplines

Participants

- Brunswick Community College (**lead institution**)
- Bladen Community College
- Fayetteville Technical Community College
- James Sprunt Community College
- Robeson Community College
- Sampson Community College
- Southeastern Community College

NSF Grant Awarded to Brunswick CC

Brunswick Community College has received a grant from the NSF to work on a project aimed at "Enhancing the Participation and Advancement of Community College Women Faculty in STEM Disciplines." The NSF launched ADVANCE in order to catalyze change that will transform academic environments in ways that enhance the participation and advancement of women in science and engineering. Thus, the goal of the ADVANCE program is to develop systemic approaches to increase the representation and advancement of women in academic science, technology, engineering, and mathematic careers.

(STEM-science, technology, engineering, mathematics).

In the first years of ADVANCE (2009-2010), representatives worked with universities and community colleges to develop systemic approaches to increase the representation and advancement of women in academic science and engineering careers which contributed to the development of a more diverse science and engineering workforce. Now, ADVANCE will begin to study and analyze community college information about women STEM faculty and compare and contrast data from both universities and community colleges.

Internal Steering Committee Formed

An Internal Steering Committee (ISC) has been formed to "manage project implementation and resolve project issues". The ISC will be composed of the project PI-principal investigators, co-PI's, PD-project directors, an administrative assistant, and representatives from each of the consortium community colleges.

These individuals represent professional disciplines in the areas of biochemistry, chemistry, biotechnology, botany, zoology, marine biology, mathematics and sociology. All of the members of the ISC are women STEM faculty.

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"Women make up half of the U.S. workforce but represent only 25 percent of the technology industry"
—Drew Gannon, Inc.com
April 25, 2011

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“Being a woman is a terribly difficult task, since it consists principally in dealing with men.”

— Joseph Conrad

Dr. Burgess has been working for quite a while to establish the foundation for this grant.



“You educate a man; you educate a man. You educate a woman; you educate a generation.”

— Brigham Young

Image from itdownedonme.wordpress.com

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Internal Steering Committee Formed, Cont.

Members of the Steering Committee:

Principal Investigator (PI), Dr. Sybil Burgess is responsible for overall project management.

Dr. Burgess, earned her Ph.D. in Bio-Chemistry from North Carolina State University, Raleigh, NC, and she is currently an Instructor of Chemistry and Biology at Brunswick Community College since 2004.

Co-PI, Ms. Michelle Sabaoun will be responsible for consortium community college coordination.

Ms. Sabaoun, earned her M.S. in Marine Science from the University of North Carolina at Wilmington, NC. She is currently Program Director, Biotechnology at Brunswick Community College and Consultant/Business owner, Algapro LLC.

Co-PI, Mrs. Jennifer Woodhead Schumacker will coordinate the educational research project.

Dean Schumacker earned her M.S. in Bi-

ology from University of North Carolina, Wilmington, NC. She is currently Dean of Arts and Sciences at Brunswick Community College, since 2007.

Co-PI, Dr. Edith Lang will coordinate extraction and interpretation of data from regional, statistics and national databases.

Dr. Lang earned her MAEd. in Mathematics from East Carolina University, Greenville, NC, and her EdD from North Carolina State University. She is currently Assistant Vice President for Academic Services at Brunswick Community College.

Co-PI, Dr. Diane Levy will develop faculty and climate surveys and an “NSF-ADVANCE Indicators Toolkit” specific for community college systems.

Dr. Levy holds a Ph.D. in Sociology from Temple University, Philadelphia, PA. She is currently working as a full Professor of Sociology at University of North Carolina, Wilmington, since 1989.

External Advisory Committee Formed

An **External Advisory Committee (EAC)** has been established that will evaluate the effectiveness of the project on an annual basis. This committee will provide feedback on the project’s success.

Dr. Sybil Burgess is working diligently to establish the BCC administrative team, preparing time-sheets set-up, reviewing the NSF-ADVANCE ground rules, starting the Internal Steering Committee (ISC), and organizing the project launch.

Dr. Diane Levy is developing our faculty climate survey instrument. This faculty climate survey was administered to community college faculty within the seven project consortium community colleges early in the semester, fall 2011. Dr. Levy is a Sociologist Professor and

Associate Department Chair of the Department of Sociology and Criminology at UNCW.

Dr. Levy, and Dr. Burgess have visited several of the community colleges in the consortium in order to meet with faculty and their administrators to help identify questions to add to the faculty climate survey. The faculty survey will be administered electronically through UNCW. Dr. Levy wants to identify questions to add to the faculty climate survey instrument. A mixture of faculty disciplines, (both STEM and non-STEM), genders, ethnicity and roles (administrative, full-time/adjunct faculty) is desirable in this survey.

Volume I, Issue I

What & Why are we doing this?

A lack of documented demographic information has led Brunswick Community College to form a consortium with other southeastern community colleges. Funding from the National Science Foundation (NSF) has led to an investigation into women in academic science, technology, engineering and mathematics (STEM) disciplines across the nation.

The consortium will assess the role of women within STEM disciplines and work towards the development of a systemic approach to increase the representation and advancement of women within STEM disciplines. The final goal of the assessment will be to focus on ensuring that women with earned STEM degrees consider academia as a viable and attractive career option.

This information is groundbreaking in

terms of collecting baseline data within the North Carolina Community College System, and possibly in any community college system in the United States (NSF-ADVANCE Proposal, HR # 1008660).

A climate survey was developed by University of North Carolina at Wilmington (UNCW) in October 2011. This survey was administered electronically to the faculty of seven southeastern North Carolina community colleges, with the aim to assess:

- Workload
- Job satisfaction
- Resources
- Work/family issues

These data have been summarized and reported in groups or clusters so that no individual or institution could be identified.



“After all, Ginger Rogers did everything that Fred Astaire did. She just did it backwards and in high heels.”

— Ann Richards
Image from aliexpress.com

Thirty-seven percent of women respondents felt that community college offers a better opportunity to combine a family with a career than teaching at a 4-year institution.

Initial Results of the Survey

A total of 390 faculty participated in the survey, 35% female, 65% male. Respondents were asked to identify themselves as to race and 14% identified themselves as African American while 78% identified as White. Other nationalities include: Hispanic, Asian, Native American, and Multi-racial. The average age of respondents was 48 years old.

- Fifty-one percent of the women were in STEM disciplines, 42% in non-STEM and 6% were identified within Social Sciences.
- Fifty-eight percent of the men were in STEM disciplines, 26% were in non-STEM and 16% were identified

within Social Sciences.

- The majority of respondents, 80% of both men and women, agree or strongly agree that women are treated fairly at their institutions, only 7% disagree or strongly disagree with that statement.
- The majority of respondents, both male and female were neutral in their response to the question of: "The community college offers a better opportunity to combine a family with a career than teaching at a 4-year institution," With 37% of women and 23% of men responding favorably to this statement.



“I have frequently been questioned, especially by women, of how I could reconcile family life with a scientific career. Well, it has not been easy.”

— Marie Curie
Photo from gardenofpraise.com,
February 13, 2012

Women in STEM disciplines

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BRUNSWICK
COMMUNITY COLLEGE

The NSF-ADVANCE Project Goals are:



“A small group of thoughtful people could change the world. Indeed, it’s the only thing that ever has.”

—Margret Mead

Image from thewomenofglobal-change.com

- Support initiatives addressing professional advancement of
- Raise awareness of workplace issues for
- Gather and analyze institutional data about

Women community college faculty in STEM disciplines.

“The excitement of learning separates youth from old age. As long as you’re learning you’re not old.”

—Rosalind Yalow