

**NDSU ADVANCE Institutional Transformation Award, HRD-0811239
Site Visit Report September 2011**

Background: NDSU and ADVANCE FORWARD

North Dakota State University (NDSU), the state's original land grant institution, has a student population of over 14,000 across eight colleges; over 40% of the degree-seeking students are enrolled in STEM fields. There are 534 tenured and tenure-track faculty (2010-11), but the percentage of women faculty, particularly in STEM, has historically been low. Around 2002, a group of faculty and administrators began to meet and discuss ways to address the underrepresentation of women among the faculty. What began as an informal group evolved over time into what is now FORWARD (Focus on Resources for Women's Advancement, Recruitment/Retention and Development) as the members began to identify more specific efforts that would address this underrepresentation. In 2005, the group developed and submitted an NSF ADVANCE proposal. Although this first proposal was not funded, the FORWARD group continued its work and not long after NDSU's scarcity of women faculty was the feature story in *The Chronicle of Higher Education* (11/02/2007), NDSU submitted a second NSF ADVANCE proposal which was funded as one of the fourth cohort of NSF ADVANCE recipients. Even prior to receipt of the ADVANCE award, however, the group's efforts were earning campus-wide recognition evidenced by their receipt of the 2007-08 NDSU Diversity Impact award.

Structure and Staff of FORWARD

At the outset of our program, we identified faculty and administrators to lead these efforts. R. Craig Schnell, who served as the NDSU Provost from 7/1/95 until 7/31/11, serves as the principal investigator. Canan Bilen-Green and Ann Burnett originally were project co-directors. Based on recommendations from the External Advisory Board to clarify the project's structure, however, Canan Bilen-Green now serves as executive project director, and Ann Burnett, as associate project director. Other FORWARD faculty members have assumed key roles in the project: Betsy Birmingham oversees the climate program training; Ann Burnett, Karen Froelich, Rhonda Magel, and Christina Weber guide different components of the research effort; Christi McGeorge is in charge of internal evaluation; Wendy Reed and Donald Schwert co-supervise the cohort mentoring program; Charlene Wolf-Hall organizes the mid-career mentoring program and assists with the grant programs; Tom Stone Carlson coordinates the Advocates; Donald Schwert monitors the budget with support from a staff person assigned to the project half-time; and a staff member paid part-time by the grant provides web site maintenance. During the first year we also hired a full-time assistant for faculty searches (funded 50/50 by NDSU and the ADVANCE grant), and a full-time project specialist/coordinator (funded fully by the grant).

Dana Britton, Kansas State University, serves as external evaluator. The Internal Advisory Board (IAB) includes nine NDSU administrators and faculty members. The External Advisory Board (EAB) is comprised of five individuals who have experience in STEM and/or with other NSF ADVANCE programs.

The Commission on the Status of Women Faculty (CSWF), a component of the ADVANCE FORWARD proposal, was appointed by the Provost in fall 2008, to provide a structure, or formal space, for reviewing or initiating policies and implementing portions of the grant. The CSWF is critical to FORWARD's theoretical framework (based on Saskia Sassen's *Territory, Authority, and Rights*) which postulates that women's recognition in the institution must occur through formal spaces such as CSWF rather than unstructured spaces. Froelich and Weber co-chair the group which is comprised of faculty from each college and three ex officio members.

Program Goals, Progress, and Accomplishments

The challenges identified at NDSU guided the development of the five goals for NDSU ADVANCE FORWARD and ultimately its structure:

- Goal 1: Improve Climate. Improve the climate across the campus and narrow the gap between men's and women's perceptions of the campus climate.
- Goal 2: Enhance Recruitment. Employ targeted recruiting strategies to recruit women, women of color, and women with disabilities to STEM departments.
- Goal 3: Increase Retention. Retain more women in STEM departments through their probationary period and the promotion/tenure process.
- Goal 4: Promote and Advance Women. Support women associate professors in the STEM disciplines as they move to full professor, and hire advanced women in STEM fields to build a critical mass of senior women in STEM departments.
- Goal 5: Create Leadership Opportunities. Promote/hire women faculty into academic leadership positions.

To address these five goals, we established the three areas on which to focus transformational efforts: 1) institutional climate change, 2) career advancement and leadership development for women faculty, and 3) research related to institutional climate change and the advancement of women in STEM.

Institutional Climate Change – Program Components, Description, and Progress

Although climate change is hard to measure, the increased acknowledgement of gendered campus climate issues at the university along with increased recognition of the NSF ADVANCE program and FORWARD-sponsored activities and efforts are indicators that transformation is underway.

Climate-specific Programming:

- Conducted administrator workshops dealing with climate and gender issues for deans, chairs/ heads through their monthly meetings. For 2010-11, FORWARD members organized and prepared content for six of the 10 department chair's forums (hosted by the Provost) in support of our ADVANCE goals.
- Offered a number of special events and speakers for specific sessions with deans and department chairs/heads in addition to presentations open to the campus community. Topics have included unconscious bias (Toni Schmader), the role of men in working for gender (and race) equity on campus (Mark Chesler), analysis and correction of visible and hidden gender-equity problems (Virginia Valian), analysis of student evaluations of teaching and the PTE process (Joey Sprague), department practices in job searches and tenure review (JoAnn Moody), barriers to promotion to full professor, department campus climate issues (Jennifer Sheridan), and sessions offered by NDSU personnel on mentoring, work/life survey results, PTE process, and conflict resolution.
- Provided gender awareness training for new faculty during new faculty orientation each fall semester since 2008. These sessions have been well attended, and new faculty have consistently reported that this is the best session in the new faculty orientation.
- Selected Advocates and provided training for them; initiated Ally trainings. The Advocates, 12 faculty men selected by the FORWARD team to receive significant training in gender awareness, have – in addition to their own training - researched gender issues and developed training materials for the Ally program with the goal to train at least one male faculty ally in each academic department. Two 'beta' sessions were conducted in fall 2009, and formal Ally training began in the 2010-11 academic year with two sessions each semester. To date, 65 Allies have been trained.
- Conducted campus kick-off events. The initial campus kick-off event was held in September 2008. Additional academic year events were held August 2009 (in

conjunction with the External Advisory Board visit), September 2010 (with special guest and speaker, Barbara Ehrenreich), and September 2011 to highlight annual FORWARD accomplishments and to inform faculty of upcoming events and funding opportunities.

- Co-sponsored, with the Division of Equity, Diversity and Global Outreach, the Tribal College-NDSU Partnership Initiative series, "Getting to Know Your Tribal Partners." FORWARD was especially involved with the February 8, 2010, presentation, "Higher Education on the Reservation: Women's Role in It." Laurel Vermillion, President of Sitting Bull College on the Standing Rock Sioux Reservation, and Karen Gayton Comeau, the former President of Haskell Indian Nations University, were presenters, and they also participated in networking events with FORWARD members.
- Awarded four climate and gender research grants since spring 2009.
- Conducted baseline work/life survey, December 2008.
- Hired Britton to conduct focus groups with women associate professors and interviews with women full professors to explore climate issues.

Recruitment-specific Programming:

- Compiled information about recruitment strategies used by other ADVANCE and peer institutions through both online research and conference attendance (faculty recruitment assistant). The assistant for faculty searches has frequent contact with faculty search chairs/committee members and has arranged for a variety of webinars on recruitment strategies and issues as opportunities for faculty to learn more about recruiting and retaining including women and faculties of color.
- Developed training for search committee members that was piloted in spring 2011 and will be offered twice fall 2011 and regularly each year for all faculty and administrative search committee members.
- Developed (in progress) a search handbook to be distributed to faculty search committees; the handbook will be finalized for use in fall 2011.
- Participated as FORWARD members in the search committees for the Provost and for the Dean of Arts, Humanities, and Social Sciences (2010-11). FORWARD is also now included on the interview schedule for all future searches for major administrative positions.
- Compiled data on faculty hiring by gender since 2002.
- Initiated and formalized efforts related to women faculty with disabilities. Formed the Women Faculty with Disabilities task force which met monthly over the summer of 2011. Two faculty members of the task force developed a survey instrument intended for faculty and supervisors who have a disability or who may engage with one or more campus community members with a disability. The survey will be distributed in fall 2011. A detailed Work Plan has also been developed and adopted by the task force.
- Developed and distributed an administrative checklist for the search process to department chairs/heads.
- Published a brochure on reviewing applicants for distribution to search committees at the outset of a search (developed by and used with WISELI permission).

Data show that some progress has been made in attracting and hiring women faculty over the past several years. Since 2005-06, gender diversity of applicants for faculty positions has shown a gradual although not consistent increase (2006-07, 16% female; 2007-08, 19% female; 2008-09, 27% female; 2009-10, 19% female; 2010-11, 29% female). Perhaps more importantly, the percentage of women faculty hired since 2004-05 has exceeded their percentage in applicant pools. These changes may indicate not only the success of specific recruitment strategies but also reflect the increased awareness of unconscious bias and its impact on search processes.

In addition to the climate and recruitment efforts of the project, the CSWF has also made climate-change related efforts:

- Initiated changes and additions to institutional policies including one to require announcement of part-time administrative positions and opportunity for application.
- Made two annual gender equity awards; the award recognizes departments for their efforts to transform their department.

Other climate-related activities associated with FORWARD but not specifically included in our proposal are the formation of Faculty Senate committees to: 1) revise the Student Rating of Instruction (SROI) form used campus-wide based on Joey Sprague's visit, and 2) update the current spousal/partner hiring policy. These efforts signal ways in which the FORWARD goals are being institutionalized.

Advancement/Leadership – Program Components, Description, and Progress

The second major effort of FORWARD is women's career advancement and leadership development. Significant strides have been made in terms of actual advancement, programming and grant funding. One especially important indicator is that in 2008-09, eight women were promoted to associate professor (8 of 20 total promotions), in 2009-10, five women were promoted to associate professor (5 of the 17 promotions), and in 2010-11 eight women were promoted (out of 18 promotions). In 2009-10, six women were promoted to professor (out of 12 promotions) and in 2010-11, three women were promoted to professor (out of 12 promotions). By comparison, in 2008-09, only one woman was promoted to professor (out of 13 promotions).

Advancement/Leadership-specific Programming:

- Implemented cohort mentoring program for new faculty beginning in fall 2009, to replace the previous one-on-one, one-semester mentoring format. Participants have reported that the unique gendered cohort approach with groups that meet for at least three years is a valuable experience. In addition to the monthly meetings, other professional development opportunities are offered to participants.
- Initiated mid-career mentoring program in spring 2010. Funding is available for all associate professors to form mentoring groups to encourage progress toward promotion to full professor. Three groups have taken advantage of this opportunity; we expect interest in this program to increase and more groups to be formed.
- Offered and continue to offer a series of "Promotion to Full Professor" panels beginning spring 2010. Panelists have included both faculty and administrators.
- Presented programs to increase awareness of and interest in leadership development opportunities especially for women faculty (fall 2010 and 2011).
- Awarded grants to women faculty to attend leadership development programs (e.g. LEAD21).

Incentive-specific Programming:

- Established competitive grant programs to assist with retention and promotion efforts including Leap grants for STEM women faculty to create a project suitable for pursuing external grant funding, course release grants for STEM women faculty, and mentor travel grants available for all women faculty (the NDSU President and Provost fund travel for non-STEM women).
- Funded Leap lab renovation grants for STEM women faculty in addition to incentives proposed in the grant (NDSU and NDSU EPSCoR funding).
- Surveyed recipients of FORWARD grants in 2009-10 and 2010-11. Most respondents agree that their participation in the FORWARD award and grant program(s) has had a positive impact on their progress toward tenure and/or promotion. Evaluation data indicate that women receiving these grants have produced external grants, journal

publications, and conference presentations.

- Redirected funding for one incentive that was included in our proposal: the department climate grant. We originally expected to offer competitive climate grants to STEM departments to support their hiring of an outside consultant to assist them in addressing issues related to climate or communication. Attempts to recruit departments during Year 1, however, were unsuccessful. As a result, we have redirected these resources to programming that would help a broader array of departments address gender issues. We expect that a broader approach to addressing gender issues at the department level would be more likely to succeed in facilitating climate change at that organizational level.

Research - Program Components, Description, and Progress

The third component of FORWARD consists of research about the programming and changes we are making as well as the collection and analysis of institutional data for the 12 Indicators. We have made 17 conference presentations, and we have numerous projects currently underway:

- Analysis of women's presence in the unstructured spaces of the university and their transition into structured spaces/recognized roles on campus.
- Study of the effect of prevalence of women in academic leadership positions on the prevalence of women in the academic ranks including comparison of top ten and bottom ten schools.
 - Analysis of 2007 climate data from faculty who left and current faculty. Submitted minor revisions (July 2011) on the paper, "Examining the Complexities of Faculty Attrition: An Analysis of STEM and Non-STEM Faculty who Remain and Faculty who Leave the Institution" for the *Journal of Women and Minorities in Science and Engineering*.
- Collection of data regarding search committee composition and time in rank prior to promotion, both by gender.
- Further examination of 2008 baseline work/life data.
- Investigation into impact of the Advocates/Allies program (in formative stage).
- Examination of the composition of graduate school thesis/dissertation committees systematically to identify any gender discrepancies and relationship to workload.
- Compilation/review/analyses of the 12 indicator data annually; made additions/corrections to 12 indicator data for 1st and 2nd Year reports, as needed, and published additional/corrected reports on the FORWARD web site.
- Made consistent (and ongoing) efforts to update faculty data and improve its accuracy in the institutional database; this includes the development by Human Resources of a new query for extracting relevant faculty information in a more usable and consolidated format.

Dissemination - Program Components, Description, and Progress

The FORWARD team members have been active in disseminating information about and accomplishments of the project both internally and externally. These include:

- Submitted articles regularly for NDSU's faculty/staff newsletter, *It's Happening at State*.
- Presented at a variety of brown bag luncheons and made presentations to specific campus groups (deans, department or college faculty, etc.).
- Developed posters and made listserv announcements of FORWARD events.
- Developed and maintained the FORWARD web site with information about the project, events, data, reports, and funding opportunities.

- Produced 6 WEPAN papers, 3 WEPAN posters, 3 NSF ADVANCE PI meeting posters, 3 NSF JAM conference posters, 2 Midwest ADVANCE posters, 1 ASEE poster, and 1 ASEE paper.
- Received the 2009 ACE Network Award for the Advancement of Women in Higher Education to NDSU FORWARD (American Council on Education's Office of Women in Higher Education).
- Submitted and had accepted (40% acceptance rate) proposal for session at the 2011 Annual Conference of the Higher Learning Commission; received the best paper award.
- Presented at the 15th International Conference of Women Engineers and Scientists Conference in Adelaide, Australia, July 2011. The presentation was a collaborative effort that included presenters from five universities with NSF ADVANCE projects.

Evaluation – Program Components, Description and Progress

Our evaluation program includes both an internal evaluation component and an external evaluation component.

Internal evaluation efforts include:

- Compiled and reported on our 2008 work/life survey data.
- Conducted an administrator survey (spring 2010).
- Evaluated each of the program offerings including all presentations, seminars, and trainings as well as the cohort mentoring program and FORWARD grant programs
- Organized and analyzed the data from four focus groups of associate professors based on gender and STEM status. Focus group questions centered on the climate at NDSU and the barriers to promotion (focus groups conducted by Britton).
- Analyzed data (preliminary) from interviews with women full professors on climate, leadership opportunities and current barriers to leadership.

External evaluation efforts include:

- Analyzed administrator survey data and reported results to various campus constituencies.
- Visited campus in fall 2009 to conduct multiple focus groups and interviews.
- Visited campus in fall 2010 to conduct an external evaluation; prepared report.
- Conducted interviews with individual Advocates and focus groups with Allies in fall 2011.

FORWARD – a Summary

A number of organizational changes have occurred since we received the grant. Our former president resigned and left soon after his resignation. Our new president, Dean Bresciani, arrived in July 2010. In July 2011, our PI and former provost, Craig Schnell, returned to his faculty position but he will continue as PI for the 2011-12 year. Discussions will be held about a PI for the final year of the project. Our new provost, Bruce Rafert, arrived in August 2011 and has expressed strong commitment to FORWARD goals and activities. A severe budget shortfall coupled with the collapse of part of a major classroom and office building in 2009-10 has led to limited resources and reduced opportunities to replace departing faculty or to increase faculty numbers to keep pace with the growing student population. These circumstances mean that individuals working on the Advance FORWARD grant are stretched thin with increased responsibilities. Time pressures and multiple responsibilities in an organization typically lend themselves to communication and accountability challenges, and our project is no exception. During the first three years of the project, however, the FORWARD team has implemented the majority of programs and activities proposed in the grant. And despite the challenges we have had, we are pleased with the progress we have made and appreciative of the opportunity the NSF ADVANCE grant provides for us to contribute to the transformation of NDSU.