

INSTITUTIONAL CONTEXT

North Carolina State University is at the beginning of a growth curve that will substantially increase the size, and hopefully the diversity, of our professoriate. The university has made steady progress in the last 15 years in establishing institutional programs and policies that cultivate a supportive environment for faculty diversity. This commitment is a matter of both public record and institutional effort. NC State completes a salary equity study every 3 years and adjusts salaries accordingly; reappointment, tenure, and promotion policies and procedures are recognized as among the most transparent and reasonable of its peer institutions (June, 2007) with leadership from their deans, the College of Physical and Mathematical Sciences and the College of Engineering have markedly accelerated the percentage of new hires who are women; the Office for Diversity and African American Affairs (ODAAA) offers a series of annual programs to cultivate future faculty and encourage campus-wide discussions about climate issues for women and faculty of color; the Council on the Status of Women is funded by the provost and sponsors annual events to highlight the accomplishments and struggles of women; several colleges and departments have developed and offer special programming directed at diversity themes; parenting and family leave policies are in place; several women scientists are among those recognized with prestigious university awards; and two of our faculty have been recognized by NSF ADVANCE leadership awards for their innovative approaches to advancing women in science and engineering, with interdisciplinary and cross-college support. In many ways, NC State has surpassed stage three in the “stages of change” model outlined by Carnes, Handelsman, and Sheridan (2005). Nonetheless, progress in increasing the percentages of women and faculty of color in the professoriate at NC State overall has been slow and uneven.

NC State is one among many facing this challenge. At the national level, the Equal Opportunities in Science and Technology Act (1980) declares that it is the policy of the United States that women and men shall have equal opportunity in education, training, and employment in scientific and technical fields. Implementation of the Act has promoted diversity in the talent pool. For nearly three decades, there have been steady increases nationally (and at NC State) in the sheer numbers of women who enter STEM undergraduate majors and go on to complete doctorates. However, these gains are not translating into comparable increases at senior ranks of faculty for women or for faculty of color (Nelson, 2005, 2007). Changes in universities policies and procedures have addressed overt acts of discrimination, but attitudinal barriers remain. The summary data suggest that in many departments around the country (and at NC State), faculty members who are willing to educate women students are less willing to envision women as senior colleagues. Even highly publicized and promoted efforts to increase the percentage of women among senior faculty have had disappointing results (Hult, Calister & Sullivan, 2005; Lawler, 2003, 2006; Committee on Women Faculty in the School of Science at MIT, 1999).

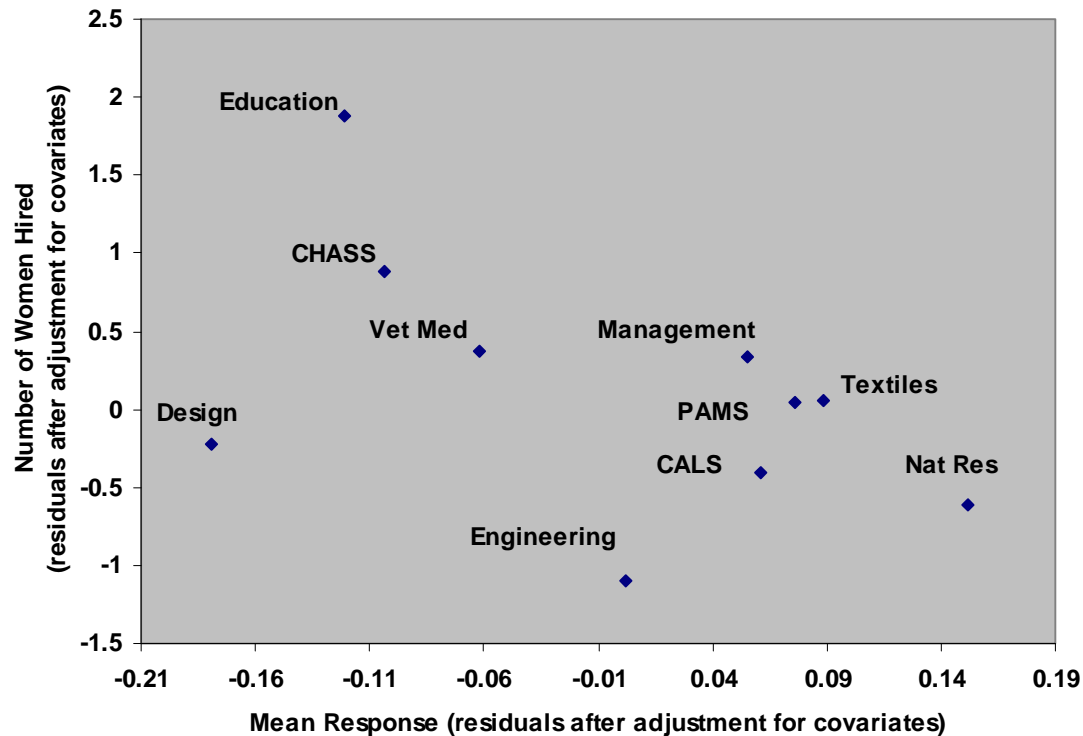
Social attitudes and biases that inform faculty members’ evaluations of their peers play a key role in the on-the-ground and daily work of advancing scientific and technological innovation, since these peer evaluations are critical to assignment of responsibilities, resources, and rewards (COSEPUP, 2007; Stewart, LaVaque-Manty & Malley, 2004). If faculty members are not evaluating one another fairly, then opportunities for new knowledge and insight go unrealized in overlooked talent. Initiatives to change the institutional climate must include a wide range of programs to address *all* of the factors at play in maximizing talented faculty members’ success – including those involving peer evaluations in career advancement and retention, as well as those focusing on departmental climate and work/life issues.

In 2006, NC State developed and administered a university-wide Faculty Well-Being Survey, to gauge our success in creating a positive and productive environment for faculty. The survey contained over three hundred questions and included multiple variables to assess faculty members’ perspectives and attitudes toward their colleagues, departments, colleges, and the university as a whole, on topics such as the climate for diversity, overall satisfaction, the quality of their departments and colleagues, pay, fairness of decision-making, and work/life balance. Nearly 70% of faculty responded (N=1,132). A taskforce appointed by the provost in March 2007 reviewed the survey data in the context of employment data on women and faculty of color at all levels of academic leadership at our university. We developed several hypotheses to test widely held beliefs about gender differences among faculty in order to explore how the survey and employment data did, and did not, support the common wisdom. We spent 4 months writing hypotheses, doing the regressions, and then analyzing the results. We discovered, for instance, that for the last 5 years the tenure success rates were higher for African American, Native American and Hispanic (ANH) faculty than for white faculty in the 2003-2007 time period, though the total population was tiny. In that time frame, 12 minority faculty members were considered for tenure and all 12 were

successful. Not all faculty choose to stay long enough to go through the tenure process, however. Of the 33 ANH assistant professors who were hired between 1990 and 1999, 22, or 67%, were tenured associate professors at NCSU 8 years later, as compared with 75% of other assistant professors. Similarly, the NCSU tenure success rates were nearly identical for women and men who submitted their dossiers for consideration; however women tenure-track assistant professors were at 31% higher risk of leaving NCSU than men, among tenure-track faculty who were hired between 1990 and 1999. For women the difference was most striking in the first 2 years on the faculty and in year seven. Forty-five percent of those who left before their third year were female, while women made up just 27% of the assistant professors who started during that period. Forty percent of those who stayed 7 years and then left were female.

The survey data further suggested that departmental contexts are important determinants of the desire to stay at NC State. More women (48% of female associate professors, 31% of female assistant professors) than men (28% of male associate professors, 19% of male assistant professors) reported that they had seriously considered leaving NC State for another university. There was also a correlation between faculty members' satisfaction with their departments and their interest in leaving the university, so that as departmental satisfaction increased, interest in leaving NC State decreased, after controlling for gender and rank. The issues for faculty of color were somewhat different than for women. Fewer African American/Hispanic/Native American faculty than white faculty viewed their departmental culture as conducive to developing their full potential. More faculty in these groups than among white faculty felt that their departments did not do a good job of resolving conflicts. Most strikingly, the level of overall

Figure 1. Number of Women Hired (2002-2006) vs. Response to "Department is Recruiting Best Faculty"



satisfaction was lower for African American/Hispanic/Native American full professors than for those who were assistant professors, whereas for white faculty the level of satisfaction is similar across faculty ranks or increases with rank. Our excavation of the data extended to linking responses to the survey with college level hiring data for the five-year period preceding the survey, i.e. 2002-2006. Here we uncovered a significant negative relationship between the number of women hired in a college and faculty members' perceptions of the quality of faculty being hired in that college, controlling for the number of female faculty in 2002 and the degree to which the department is perceived to actively work to recruit faculty members

from historically underrepresented groups (Fig. 1; slope = -5.32, $p = .027$).¹ Although there are many factors which were not measured in our analyses (such as occupational trends, national rankings, or college funding levels), the finding is nonetheless startling. The negative relationship is consistent with social science research suggesting that women are stereotyped as less competent than men as professionals, especially if they are perceived to be “diversity” hires (Heilman & Welle, 2006; Heilman et al., 2004). One interpretation of the relationship revealed in figure 1 suggests that although our university as an institution may be at stage three in the stages of change model, many of our faculty members are still at stage one, that is, in denial that the under-representation of women and faculty of color is a serious concern (Carnes, Handelsman, & Sheridan, 2005).

In order to address the insights gleaned from our research, and in order to maximize the university’s opportunity to hire, promote and retain the best and brightest talent in the years to come, the university leadership has committed to three overarching priorities to diversify our professoriate: increase the number of women and faculty of color, foster a climate that promotes success of all our faculty, and eliminate factors that elevate women’s and ethnic minorities’ risk of leaving NCSU faculty positions.

PROJECT DESCRIPTION

This project is focused on adopting, adapting, and offering a companion set of existing ADVANCE programs that develop change agents among faculty members and academic leaders. This focus is a strategic initiative to maximize our opportunity to diversify the professoriate in the next five years, drawing on insights from research about social biases in the evaluation process. The project seeks to shift the focus of conversation away from “equal opportunity hires” and toward the effects of unrecognized societal attitudes and “social biases in evaluation” within our university community. We have planned a three-year two-armed project, with each year’s effort building on the last in order to increase the circle of faculty who participate in (and are influenced by) project activities. Each arm is built around a core group of faculty, called Advance Scholars, who will make a commitment to meet as a group for three years to develop a depth of knowledge and commitment that positions them to serve as effective change agents within the university culture.

The two arms of the project are directed at two communities who influence formal and informal faculty discussions surrounding hiring, promotion, and tenure decisions, and who have a vested interest in cultivating fairness in discussions of peers: (1) men and women in senior leadership positions as well as (2) tenured and tenure-track women faculty. Each arm is designed to fold an increasing number of faculty participants into discussions about social biases in evaluation, from the core group of Advance Scholars (6-8), to small workshop groups (10-12), to annual retreats (40-50). Though the seminars, workshops, and retreats for each arm will be scheduled independently and include different participants, the project advisory board will meet routinely to provide a sounding board for the project team, to cultivate strategies and share concerns, to evaluate each activity’s effectiveness, and to ensure a coordinated effort. This architecture weaves together the strengths of the peer-education model developed through STRIDE at the University of Michigan, the WISELI climate workshops for department chairs at the University of Wisconsin-Madison, the leadership development workshops offered through the Center for Institutional Change (CIC) at the University of Washington, and the ADVANCE Professors Network initiative at Georgia Tech.

PROJECT ACTIVITIES

In the first arm of the project, which we have dubbed the “senior leaders” (SL) arm, a core group of 6-8 Advance Scholars will meet monthly to discuss articles on unconscious bias, the effects of racial and gender bias on group decision-making and the effects of stereotypes on hiring and performance

¹ The number of female faculty hired in the academic department from 2002-2006 (Y) was regressed on three variables:

X_1 = number of female faculty in the department in 2002,

X_2 = college mean level of agreement with the statement “My department actively works to recruit faculty members from historically underrepresented groups,”

X_3 = college mean level of agreement with the statement “I think my department is doing a good job of recruiting the best faculty to accomplish our mission as a department.”

Fig. 1 shows the department means of the partial residuals from this regression, which depicts the relationship between Y and X_3 after taking the other two variables into account.

evaluations. Each session will focus on an increasingly challenging set of readings about social bias and stereotypes. These senior leaders will be tapped to “seed” meetings for 10-12 selected department heads and center directors interested in studying and changing the climate within their own department or center. In addition, the senior leaders, in concert with the department heads and center directors, will develop and deliver presentations for a yearly retreat open to all department heads, deans, directors, and the emerging leaders identified by the core group.

The series of meetings for department heads and center directors will focus on exploring departmental climate. There will be three meetings each year for this group – the first to introduce the participants to the notion that there may be climate issues in their department, the second to discuss results from a confidential departmental climate survey, and the third to develop an action plan involving the department. Our project will invite several participants to continue from one year to the next, to provide cohesion, encourage supportive and frank discussion, and cultivate the group’s identity. A subset of SL Advance Scholars will receive training from the WISELI team to facilitate these discussions.

In combination, the project advisory committee, SL Advance Scholars, and participating department heads and center directors will play key roles in developing and delivering the agenda for the annual retreat for deans, department heads, directors and diverse emerging leaders. The retreat will address general leadership issues such as recruiting faculty, mentoring department faculty and staff, faculty and staff evaluations, and developing collegiality and teamwork. Department heads and deans will make presentations and lead the retreat workshops. The theme of diversifying faculty and academic leadership will be woven throughout the retreat, tapping topics and materials developed by the University of Washington’s Center for Institutional Change.

The second arm of the project, which we have dubbed the “emerging leaders” (EL) arm, focuses on developing academic leaders who are women and faculty of color. Its structure parallels that of the first arm. It, too, will have three components, each including an increasingly larger circle of participants: (1) a core group of 6-8 diverse tenured faculty, called the EL (emerging leaders) Advance Scholars, (2) a leadership program for 10-12 faculty identified as emerging leaders, and (3) a retreat for women and faculty of color. The EL Advance Scholars will meet monthly to read and discuss articles on unconscious bias, the effects of racial and gender bias on group decision-making and the effects of stereotypes on hiring and performance evaluations. This group will be charged with developing innovative strategies and programs to increase the number of senior women in their disciplines that are informed by the social science literature.

An invited few of the EL Advance Scholars will participate in discussions in a series of six leadership workshops for a group of 10-12 faculty identified as emerging leaders. The EL participants will have the special role of enriching workshop discussions with insights from the research on biases and stereotypes, steered by the workshop organizer, Dr. Laura Severin. The workshops will focus on motivating women to enter leadership roles, providing them with the skills to excel in these roles, and preparing them to act as change agents in their programs, departments, and colleges. The workshops will allow participants to explore the reasons why people decide to take on leadership roles, the limitations and possibilities of this work, and the complexities of negotiating social stereotypes and biases in the role of change agent. The workshops will bring senior and junior women together to cultivate interest in academic leadership, drawing on the experience of Dr. Severin’s pilot effort last year at NC State.

In consultation with the EL Advance Scholars, the project advisory committee, and the leadership workshop participants, the project will develop and offer an annual retreat designed specifically for women and faculty of color. In tandem with, but distinct from, the Senior Leaders arm of the project this annual retreat will focus on leadership roles, challenges, and strategies that are specific to women and people of color in the context of general leadership development. The annual retreat provides a touchstone opportunity for SL Advance Scholars and workshop participants to articulate, practice, and present on their insights about becoming change agents in a diversifying professoriate.

Advance Scholars in both arms sign on to the project to fulfill an explicit commitment to actively engage their colleagues in discussions about research on social biases, to cultivate action plans in their colleges and departments and facilitate their implementation, to be a resource to the colleges and their faculty, and to articulate the issues in on-the-ground deliberations about hiring, promotion, and tenure. Because they will play an extraordinarily important role in representing the project, Advance Scholars will be chosen by the Principal Investigators and senior personnel through a three-stage process, including a call for nominations, interviews, and then invitations. The four selection criteria for candidates are: (1) a record of commitment, either personal or professional, to addressing social inequality; (2) demonstrated

investment in lifelong learning; (3) demonstrated interest in intellectual growth outside of academic specialty; (4) experience with, and interest in, the leadership themes of the project. In addition to these criteria for individuals, invitations to Advance Scholars will reflect a distribution across colleges and departments, to ensure a truly university-wide effort. These criteria have been used successfully to select participants for two previous and related NSF projects at NC State, and several of those participants have key roles on this project team.

Participants in the workshops for each arm will rely on a similar process and criteria, with particular attention to distribution across colleges, to promote frank discussions and avoid the dynamics of college-level politics. Participants for the annual retreats will be invited by the Advance Scholars and workshop participants, to enlarge the circle of those involved in the project, enrich the representation of women and faculty of color in discussions about diversity in leaders' decision-making, and to cultivate and attract newly recognized talent to the next year of project activities.

A formative evaluation of each year's activities will take place at the conclusion of the annual workshop, with participants providing written and anonymous evaluations. The evaluations will address strengths and weaknesses of each of the three formats (seminars, workshops, annual retreat), ask for suggestions for improvement, and document the learning outcomes and synergistic activities that were sparked by the project. These evaluations will ground revisions in the directions and content of the seminars, workshops and following retreat. Because the project's success rests in large part on our ability to cultivate the expertise, experience, and investment of participants, these annual evaluations will play a particularly critical and visible role in shaping project activities in order to underscore the project's participatory spirit.

INTELLECTUAL MERIT

The 3-D at NC State project tests the theory that educating senior faculty and department leaders about social bias will promote attitude change among the faculty, which will be reflected in perceptions of department climate, attitudes toward new hires, and the recruitment, retention, and advancement of women and faculty of color. Research on social biases indicates that for the majority of people, biases are unconscious, indirect, ambiguous, ambivalent, and seldom expressed overtly. They have concrete results in social life nonetheless, with out-group and in-group membership status being a crucial divide. For instance, people are more willing to assign positive attributes to in-group than out-group members, they are more likely to excuse bad behavior by in-group than out-group members, they are more likely to withhold rewards from out-group than in-group members, they attribute out-group members' failings to innate weaknesses but in-group members' failings to extenuating circumstances, they overestimate out-group members' similarity to one another and thus exaggerate cultural differences (Fiske 2002). Status differences also play a role in the drama of social biases, because status differences are linked to evaluations of others as competent and collegial. For women and people of color, this is a "catch 22," where they can be perceived as competent but unlikable or likable but not competent (Fiske, Cuddy, Xu, and Glick, 2002). Overall, social biases critically influence interpretations of others' behavior and performance, and subsequent hiring decisions, evaluations, and rewards for performance.

In addition, research on hiring criteria demonstrates that stereotypes are applied via shifting standards in assessments of candidates' performance and abilities. So "for a member of a high status group (e.g., a man), successful performance on a relevant task is sufficient, though perhaps not necessary, to infer high ability, but for a member of a low-status group (e.g., a woman) successful performance is necessary, but may not be sufficient, to infer high ability" (Biernat & Kobrynowicz, 1997, p. 546). As a consequence, low status individuals meet lower expectations for success initially in the hiring process, but face higher standards of performance to document their abilities for the long run. This dynamic has been documented in the context of both race and gender (Biernat & Kobrynowicz, 1997).

Research about how gender-based stereotypes influence evaluations and rewards within organizations suggests how the underlying dynamics of stereotypes play out for women working in non-traditional occupations (as do many women in science and engineering). Biases thrive in environments where performance quality is ambiguous and so distortion of an individual's accomplishments is rife, but sometimes women are undeniably successful, i.e. "distortion is constrained." But when there are conflicting stereotypes at play, for instance, between images of women and the requirements of a job, gender stereotypes prevail. So the stronger stereotype is the one that presumes that women cannot be competent at the job (Heilman et al., 2004). Thus women get lower evaluations than do men and have lower rates of promotion than do men.

Contemporary research on stereotype threat focuses on a related, but distinct, phenomenon – the effects of others' biased perceptions on those who are the subject of the stereotype. Negative stereotypes have well-established negative effects on performance on standardized tests and have been confirmed across multiple populations but are well-documented using racial and gender stereotypes (Quinn & Spencer, 2001; Shih, Pittinsky & Ambady, 1999; Steele, 1997). Indeed, negative stereotypes have their most pronounced effects on those who are high achievers. In environments where negative stereotypes are widespread, removing allusions to these stereotypes boosts performance of those who identify with the target group in the stereotype (Davies, Spencer & Gerhardtstein, 2002; Oswald & Harvey, 2001; Wheeler & Petty, 2001). Research demonstrates that education about the social and economic origins and impacts of negative stereotypes significantly improves the performance of members of a targeted group, that is, education about stereotypes and biases ameliorates their effects (Dar-Nimrod & Heine, 2006; Johns, Schmader, & Martens, 2005).

The upshot of the research on social biases and stereotypes is that, for women and people of color in academia, to be hired is just a first step in a long gauntlet of low expectations for ability but high expectations for achievement in a backdrop that assumes little competence and imposes shifting standards for evaluation. All of this is likely to take a toll on the performance of even the most determined, dedicated, and successful among us.

The dynamics of social biases and stereotypes cannot easily be addressed through institutional caveat alone, as suggested by research on the “diversity penalty.” Those who are perceived to be “diversity hires” are evaluated more negatively than those who are perceived to be hired for their competence, and this perception is uniquely salient for women and people of color (Heilman & Welle, 2006). Thus a university's well-intentioned and carefully implemented policy commitment to hiring women faculty and faculty of color may be undercut by senior colleagues' evaluations of new colleagues as nonmerit based hires. Indeed, the policy could conceivably impede progress in two significant ways: by diverting attention away from the underlying values and ethics and toward the details of implementation, and by constraining frank debate. This is a caution offered by Chan (2005), based on her detailed qualitative analysis of how educators talk about their university's diversity policy, the specific stories and cases they relate as examples, and the meanings they attach to the concept of “diversity.” She concludes that universities are unlikely to advance the process of cultural change if they are unwilling to encourage open (and even heated) debates among the professoriate of their institutions. How, and how much, faculty members talk about the value of social equality and diversity can foster or discourage changes in institutional practices and outcomes.

The challenge for NC State's leadership, then, is to apply these insights in order to provide programmatic support for reaching our diversity goals. Based on this literature, we intend to increase understanding among faculty about the dynamics of bias in social life, to ensure that all faculty are evaluated in an unbiased way. The project is organized accordingly, so that (1) senior faculty and administration understand how imputations of performance and ability can influence evaluations of others, and how these evaluations affect the climate that faculty experience within their units, and so that (2) faculty understand the ways in which others' evaluations of them can carry imputations about their performance and ability, regardless of accuracy and regardless of their skills and talents.

INSTITUTIONAL DATA AND PROJECTED HIRING GOALS

Against this social backdrop, NC State has seen increases in the number of women faculty over the past 10 years. The largest gains have been in the tenure-track assistant professor ranks, from 26% of tenure-track assistant professors in 1996 to 38% in 2006. The number of tenured women has increased slowly, however, from 14% to 19% over these 10 years. The numbers of female tenured full professors, department heads, associate deans, and deans remain low (14%, 14%, 16%, 20%, respectively).

The numbers of African American, Native American, and Hispanic (ANH) faculty at NC State are small. There were 66 tenured faculty from these groups at NC State in 2006, making up 6% of the tenured faculty, in a state where 22% of the population are African American. The numbers ranged from 1 each in the Colleges of Textiles and Natural Resources to 15 tenured faculty in the College of Humanities and Social Sciences. The numbers are increasing very slowly for tenured faculty, but not at all for assistant professors. Representation of these groups has increased from 5% in 1996 to 6% of the tenured faculty in 2006. In contrast, the proportion of African Americans, Native Americans, and Hispanics in the tenure-track assistant professor rank has stayed flat at 10% from 1996 to the present. It is indicative of the national situation that, even with its low numbers, NC State has received press hailing us as a “Mecca

for black mathematicians" (JBHE, 2007), because the NC State Mathematics Department has a disproportionately large share of the black academic mathematicians in the country. A recent study of the top 100 science and engineering departments found that in 2007, excluding sociology, these three ethnic groups comprised from 2% to 5% of full professors and from 2% to 11% of assistant professors in all social science, mathematical science, science and engineering disciplines (Nelson, 2007).

The age distribution of the faculty has created a unique hiring opportunity as the baby boom retires and our faculty ranks grow. Retirements, in combination with new faculty positions, are projected to present us with 950 faculty hires in the next 5 to 10 years. We propose to accelerate the rate of hiring for senior women and faculty of color from now until 2011, to jump-start this longer term hiring boom. In the next three years, we anticipate that NC State will need to hire 350 or more tenured and tenure-track faculty. We think it is reasonable to expect NC State to increase the presence of women from the current 18% of tenured faculty to 26% of tenured faculty by 2011. This begins to approach the level of 30%, suggested as a level of critical mass, below which departmental climate is unlikely to be hospitable to women (Etzkowitz et al., 2000; Stewart, LaVaque-Manty & Malley, 2004). Assuming *current* trends in hiring, promotion, retention, and retirement, we project that 22% of the tenured non-administrative faculty across NC State will be female by 2011 (see Table 1, Scenario 1). However, if each college retains and promotes one additional female assistant professor and each department hires one tenured female professor in this time period, the process would accelerate enough so that women would make up 26% of the tenured faculty by 2011 (Table 1, Scenario 2). For ANH faculty, if *current* trends in hiring, retention, promotion, and retirement continue, ANH faculty would increase to just 7% of the tenured faculty by 2011 (Table 2, Scenario 1). In contrast, if every department were to hire one tenured ANH member and if the retention rate of assistant professors were increased slightly, the ANH fraction could be increased to 12% by 2011 (Table 2, Scenario 2).

Table 1. Projections for % Women among Tenured Faculty, by College: Two Scenarios

College	Number of Tenured Faculty, 2006 ¹	Tenured Faculty % Women, 2006	Projected % Women, 2011 Scenario 1 ²	Projected % Women, 2011 Scenario 2 ³
Ag & Life Sciences	321	15	18	23
Education	40	38	44	46
Human & Soc Sci	168	34	37	37
Natural Resources	52	15	16	22
Engineering	175	6	8	13
Management	51	20	21	28
Veterinary Medicine	81	26	26	30
Design	29	31	32	34
Phys and Math Sci	138	12	16	19
Textiles	27	26	29	37
Other	17	12	12	13
Total	1099	18	22	26

¹ Full time and part time tenured and tenure-track faculty, not including administrators.

² Scenario 1 assumptions: Female fraction of new hires equals the 2002-2006 fraction of departmental hires that were female; 14% of hires are tenured, 86% are not-yet-tenured; Fraction of female assistant professors that remain at NCSU and attain tenure within 8 years is .68, the fraction for NCSU female assistant professors hired between 1990 and 1999.

³ Scenario 2 assumptions: In colleges where women currently make up less than 30% of the tenured faculty each department hires 1 tenured woman; each college retains and promotes one more female assistant professor than under scenario 1.

Table 2. Projections for % Faculty of Color among Tenured Faculty, by College: Two Scenarios

College	Number of Tenured Faculty, 2006 ¹	Tenured Faculty % ANH, 2006	Projected % ANH, 2011 Scenario 1 ²	Projected % ANH, 2011 Scenario 2 ³
Ag & Life Sciences	321	2	3	9
Education	40	10	14	25
Human & Soc Sci	168	9	10	16
Natural Resources	52	2	3	8
Engineering	175	3	3	8
Management	51	10	9	16
Veterinary Medicine	81	9	9	12
Design	29	24	20	36
Phys and Math Sci	138	7	6	9
Textiles	27	4	6	12
Other	17	18	18	16
Total	1099	6	7	12

¹Full time and part time tenured and tenure-track faculty, not including administrators.

²**Scenario 1** assumptions: African American/Native American/Hispanic (ANH) fraction of new hires equals the 2002-2006 fraction of departmental hires in these categories; 14% of hires are tenured, 86% are not-yet-tenured; Fraction of ANH assistant professors that remain at NCSU and attain tenure within 8 years is .67, the fraction for NCSU ANH assistant professors hired between 1990 and 1999.

³**Scenario 2** assumptions: In colleges where ANH faculty of color currently make up less than 30% of the tenured faculty each department hires 1 tenured ANH person of color; each college that currently has more than 4 ANH assistant professors retains and promotes one more ANH assistant professor than under scenario 1.

COMMITMENT OF UNIVERSITY

The university will make substantial monetary and non-monetary commitments to accompany this ADVANCE project:

- Set a new university goal to increase the female percent of tenured faculty to 26% by 2011 and the faculty of color to at least 10% in this time frame. Co-PI Marcia Gumpertz will work with the colleges, the Office for Equal Opportunity, and University Planning and Analysis to realize the goals for individual colleges. Achieving these goals will require focusing on hiring more senior women faculty than might otherwise happen. The provost will commit some funds from upcoming cluster hires and ongoing compact planning to achieve these goals.
- Travel funds for four to five senior personnel to attend the University of Washington 2008 Leadership Excellence for Academic Diversity (LEAD) Workshop for Science, Engineering and Mathematics Chairs and Faculty to prepare for the NCSU Advance project.
- Create an Advance Scholars program. Advance Scholars are senior faculty members committed to actively promoting faculty diversity within their colleges. Each college will provide one course release or equivalent compensation for one faculty member each year, and the Provost's office will provide 6 additional course releases per year (for a total of 16 Advance Scholars).
- Funds and staff to produce the Diversity Fact Book annually, the faculty well-being survey in 2011, and the faculty salary equity study every three years.
- Funds (approximately \$50,000) to partially cover three years of course release for co-PI Mary Wyer to lead the Advance Scholars meetings and senior personnel Laura Severin to coordinate the Emerging Leaders workshops.
- Funds (approximately \$40,000) in years 2 and 3 to take over progressively more of the project coordinator's salary.

- Funds (approximately \$6,000) to cover the costs of participation by faculty and administrators from non-NSF disciplines in annual retreats and other retreat expenses.
- Office space for project personnel.
- Provost's commitment to include achievement of diversity goals in annual evaluations of vice provosts, vice chancellors, and deans.

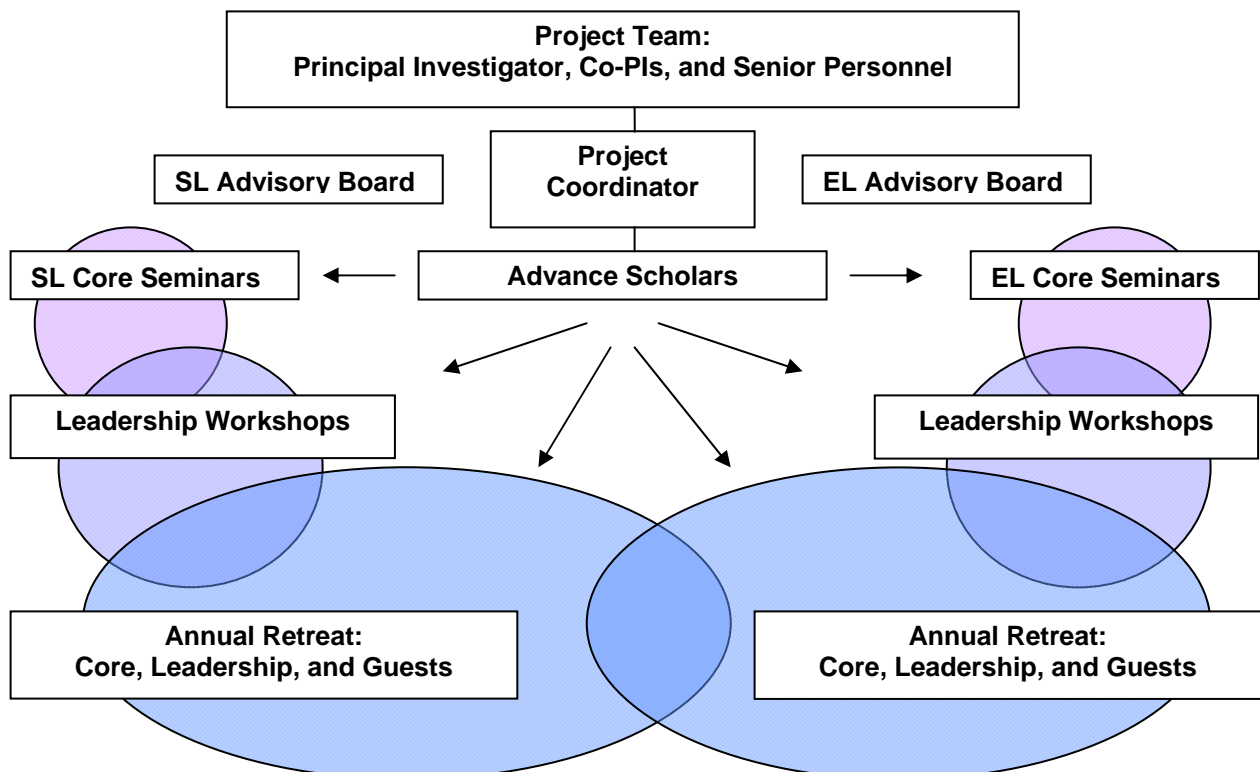
PROJECT MANAGEMENT

The project PIs will develop content for the project programs in consultation with the senior personnel and two advisory committees, one for the SL (senior leaders) arm and one for the EL (emerging leaders) arm. They will supervise project progress and participate in the meetings of the core Advance Scholars groups, the department heads' workshop series, the emerging leaders workshop program, and the two annual retreats. The PIs will hire a project coordinator, secure space and resources, and (in consultation with the senior personnel) interview and invite participants for the Advance Scholars groups, the department heads workshop series, and the emerging leaders workshop program. Co-PI Dr. Gumpertz will supervise the project coordinator. Co-PI Dr. Wyer will facilitate the two Advance Scholars reading groups. The PIs will also represent and promote the project within the university and to other universities in the region.

The project coordinator is responsible for initiating, developing, and organizing project activities and events, in consultation with the two advisory committees and the PIs. This includes responsibilities such as: scheduling and planning for meetings, workshops, and special events; preparation and distribution of materials for meetings, workshops, and events; data collection and analysis; drafting of annual reports; developing and maintaining project websites; providing coordination/liason with related university programs and activities in support of project goals; and working with university infrastructure for public information and referral.

A subset of the SL Advance Scholars will facilitate the department heads' series after taking training from the University of Wisconsin WISELI program. They will develop this series in consultation with Dr. Betsy Brown (senior personnel on the project team) and the SL Advisory Committee. Dr. Brown currently organizes department head training at NC State, and she is in regular communication with the NC State Department Heads Committee. Dr. Brown and the SL Advance Scholars will also take the lead

Figure 2. NC State 3-D Project Framework



in developing an annual retreat for deans, department heads, directors and emerging leaders in consultation with the SL Advisory Committee.

A corresponding EL Advisory Committee composed of women faculty will advise the PIs on content for the emerging leaders workshop program and the annual retreat. The workshop program will be developed and led by Dr. Laura Severin (senior personnel on the project team), in consultation with Dr. Brown, the EL Advance Scholars, and the EL Advisory Committee. The EL Advance Scholars will plan the annual retreat for emerging leaders, in consultation with Dr. Severin, Dr. Brown, the EL Advisory Committee and the EL Advance Scholars. Figure 2 provides an overview of the project management.

RELATIONSHIP TO OTHER ADVANCE PROGRAMS

The NC State 3-D project adapts components from four ADVANCE initiatives -- at the University of Michigan, Georgia Tech, the University of Wisconsin, and the University of Washington.

The University of Michigan STRIDE program provides a model for the two groups of Advance Scholars. The STRIDE program develops a group of change agents who are highly knowledgeable about social inequality in higher education and who are highly respected within their scientific disciplines. The University of Michigan ADVANCE program found this approach to be successful in developing a core group of highly committed advocates who are well-placed to influence thinking throughout the university (Stewart, LaVaque-Manty & Malley, 2004). Because the goals of NC State's ADVANCE initiative are on the one hand to increase the numbers of senior women and female academic leaders, and on the other hand to cultivate academic leaders who actively promote the advancement of women's careers in STEM fields, we propose to implement several attributes of the STRIDE program in our Advance Scholars initiative: (1) include male and female full professors in science and engineering, (2) offer course release or research support for participation, (3) provide support staff, (4) meet regularly with deans, (5) provide a specific charge with a goal, and (6) include social science and science expertise.

Since Advance Scholars in each arm have distinct charges, the project draws on additional models for these targeted efforts accordingly for the workshop sessions. The SL (Senior Leaders) Advance Scholars will work closely on department head development, drawing from the experiences of the University of Wisconsin ADVANCE WISELI Climate Workshops for Department Chairs. These workshops relied on confidential survey data within departments to enlighten department chairs about climate issues that were otherwise unexpressed and unacknowledged. The EL (Emerging Leaders) arm draws on the experiences of the Georgia Tech ADVANCE program's Advance Professors Network, in which the Advance Professors worked with women to prepare them for critical career events such as tenure review and to identify issues of concern, and with department administrators to review workload distribution, to increase retention of women, to establish mentoring programs and facilitate networking opportunities for women (Rosser 2007). The emerging leaders workshops, piloted successfully in NC State's College of Humanities and Social Sciences in Spring 2007, also will incorporate elements adapted from the University of Washington (UW) "Mentoring for Leadership" lunch series. EL Advance Scholars will participate along with more junior women identified as emerging leaders, thus providing mentoring experiences within a workshop framework in order to cultivate and persuade women to take on leadership roles. The UW lunch series has developed into a gathering place for women to network and build community. Yen (2007) reports that the luncheon talks have moved some women to "think about leadership differently than before" and consider careers in administration.

The University of Washington (UW) Center for Institutional Change leadership development workshops for department chairs provides a model for our retreats for both arms (Quinn et al., 2007). We are adopting several components of their guidelines for successfully implementing a leadership workshop program: i.e., use case studies; strongly encouraged department head participation from deans; gather workshop topic ideas from department heads and from an advisory committee; invite department heads to lead discussions; invite emerging leaders to the workshops; weave diversity elements throughout all the topics (Yen et al. 2004). We also will be sending 4 people to the 2008 Leadership Excellence for Academic Diversity (LEADS) Conference in Seattle to experience the workshops firsthand.

THE PROJECT TEAM

PI: Larry Nielsen, Provost. Larry Nielsen serves as the Chief Academic Officer for the university and has primary fiscal responsibility for hiring goals. Under his leadership as Provost, NCSU has hired its first Assistant Vice Provost for Faculty and Staff Diversity and administered its first Faculty Well-Being Survey. Provost Nielsen has also established two key task forces this year relating to issues of concern to women and minority faculty: the Task Force on Women Faculty and the Faculty Development Working Group.

Co-PI: Mary Wyer, College of Humanities and Social Sciences, Assistant Dean for Interdisciplinary Studies and Associate Professor of Psychology. For over ten years, Mary Wyer has worked with NC State science and engineering faculty who sought faculty development opportunities to foster diversity in STEM fields. She has facilitated over 80 seminar sessions with participating faculty, and many of the key contributors to this proposal have been seminar participants.

Co-PI: Daniel Solomon, Dean, College of Physical and Mathematical Sciences (PAMS). Daniel Solomon has developed a “best practices” initiative in which he proactively persuades departments in PAMS to recruit and hire diverse faculty. He provides leadership for cultural change for his college and across the university on a wide variety of issues related to social equity, with particular success in recruiting women and faculty of color.

Co-PI: Margaret Daub, College of Agricultural and Life Sciences (CALS), Head, Department of Plant Biology. Margaret Daub has a long history as an advocate for women at the university, in addition to her teaching and research commitments. As a department head, she played a key role in developing a research component of the 2002-05 ADVANCE Leadership project that addressed gender issues in graduate and undergraduate education in science and technology fields.

Co-PI: Marcia Gumpertz, Assistant Vice Provost for Faculty and Staff Diversity and Professor of Statistics. Marcia Gumpertz has institutional responsibility for promoting the recruitment, success, and retention of women and minority faculty and staff. She works with the campus community to create policies and practices supportive of faculty diversity and is responsible for assessing NC State’s demographic trends and diversity efforts.

Senior Personnel: Laura Severin, College of Humanities and Social Sciences (CHASS), Professor of English. Previously Associate Dean of Academic Affairs and Interdisciplinary Programs, CHASS. Laura Severin developed a successful prototype leadership development program for faculty in CHASS in Spring 2007. She has a long history of advocacy for women in leadership at NC State, as former director of NC State’s Women’s and Gender Studies Program and as PI on the 1998-2001 NSF grant “Educating the Science and Engineering Workforce in Collaboration with Women’s and Gender Studies: A North Carolina State University Project.”

Senior Personnel: Betsy E. Brown, Special Assistant to the Provost. Betsy Brown served as the University of North Carolina System’s liaison to COACHE, in her position as UNC Associate Vice President for Academic Affairs and as Executive Director of UNC Leadership Institute (2001-2006). Her work has focused on faculty development and support. She currently chairs NC State’s Working Group on Faculty Development.

Senior Personnel: Jo-Ann Cohen, College of Physical and Mathematical Sciences (PAMS) Associate Dean for Academic Affairs and Professor of Mathematics. Jo-Ann Cohen is a founder of the NC State Women in Science and Engineering Living and Learning Community and affirmative action officer for PAMS

Senior Personnel: Fay Cobb Payton, College of Management (COM), Associate Professor of Information Systems. Fay Cobb Payton won the 2007 COM service award for her dedication to mentoring women and people of color in STEM. She is past-Chair of the national PhD Project, to increase workplace diversity.

Senior Personnel: Barbara Carroll, Associate Vice Chancellor for Human Resources. Barbara Carroll directs the university’s employment and compensation efforts.

Senior Personnel: Joanne Woodard, Vice Provost for Equal Opportunity and Equity. Joanne Woodard oversees the university’s compliance with federal and state laws on non-discrimination, affirmative action, and equal opportunity. She also teaches African American history.

Senior Personnel: Karen Helm, Director, University Planning and Analysis (UPA). Karen Helm directs university-wide data collection and analyses, in particular producing the data utilized for this project as well as faculty salary equity studies and the diversity fact book.

Advisory Committee on Development of Department Heads, Deans, and Center Directors

Nina Allen, Past Chair of the Faculty and Professor Emeritus of Plant Biology; Katherine Moore, Dean, College of Education; Louis Martin-Vega, Dean, College of Engineering; Thomas Easley, Director of Community for Diversity, College of Natural Resources; Sastry Pantula, Head, Dept. of Statistics

Advisory Committee on Development of Women and Faculty of Color as Emerging Leaders

Helen Zhang, Asst. Prof., Statistics; Karen Daniels, Asst. Prof., Physics; Heidi Grappendorf, Asst. Prof., Parks, Recreation, and Tourism Management; Hatice Orun Ozturk, Teaching Assoc. Prof., Electrical and Computer Engineering; Cheryl Brown, American Council on Education Fellow; Christine Grant, College of Engineering Associate Dean for Faculty Development and Special Initiatives, Professor of Chemical Engineering (received ADVANCE Leadership Award 2006-2009)

Project Evaluator: Rebecca Brent, Ed.D., Faculty Development Consultant, is president of Education Designs, Inc. The team of Rebecca Brent and Rich Felder have presented several hundred faculty development workshops on campuses throughout the United States and abroad, and she co-directs the National Effective Teaching Institute, a teaching workshop presented annually under the auspices of the American Society for Engineering Education.

DISSEMINATION PLANS

The project team will disseminate our materials, methods and results to local and national communities in four ways: (1) providing a clearinghouse, via a project website, for information about our project's activities, goals, and participants, including the materials and methods we have adopted/adapted from other ADVANCE projects as well as those we develop locally; (2) presenting papers and panels at professional conferences, both inside and outside ADVANCE circles; (3) writing three major papers for publication—one on the strengths and weaknesses of our companion set of ADVANCE initiatives as a combined set, one reporting on our progress toward meeting the projected hiring goals, and one reporting our analyses of a study of the data for our four key findings. Targeted publications include: *Advancing Women in Leadership*, *Academe*, *Women in Higher Education*, *Research in Higher Education*, *Journal of Higher Education*, *Gender and Society*, *Social Forces*, *Journal of Black Studies*, *Black Issues in Higher Education*, *NWSA Journal*, *Journal of Women and Minorities in Science and Engineering*, and *Psychology of Women Quarterly*. Dissemination effort (4) will be to convene a UNC System conference for universities within North Carolina in the last year of the project. This conference will be co-sponsored by the local chapter of the Association of Women in Science (AWIS). All NC State ADVANCE products and documents will be archived in a repository maintained by the D.H. Hill Library.

EVALUATION PLANS

Project evaluation will take place on three levels: (1) qualitative data collection and analyses of participants' responses to project activities, (2) data collection and analysis of key empirical indicators, and (3) a summative evaluation of the project's overall contribution to the goals of the national ADVANCE effort, provided to NSF by an independent team experienced in assessing ADVANCE initiatives.

At the first level, a project evaluator will assess the project using a mixed method plan including surveys, interviews, field observations, case studies, and artifact collection. Detailed evaluation questions will be developed based on the logic of the proposed program. The evaluation will entail monitoring completion of the activities proposed in the grant, providing formative feedback to improve the effectiveness of the grant activities, and assessing the impact of grant activities on Advance Scholars, department heads, and retreat participants. All data will be analyzed using time-ordered matrix and critical-event matrix displays and other appropriate qualitative analysis techniques (Miles and Huberman, 1994; Patton, 2002). Project evaluator activities include:

- Assisting in the development of a database for tracking all grant activity participation and an online workspace for the project to simplify reporting and archiving of grant materials.
- Developing feedback forms to be used for each planned event (e.g., workshops, retreats). Results will be compiled and reported to leaders and core group members to assist in improving future events.
- Attending a subset of leadership meetings, Advance Scholar meetings, workshops, retreats, and other events, compiling field notes, and providing formative feedback to the project leaders.
- Conducting Year 1 and Year 3 surveys of department heads to assess the effects of grant activities on their attitudes, perceptions, and departmental policies.

- Completing and analyzing case studies of six departments to identify factors in their success or lack of success in meeting hiring and retention goals.
- Interviewing eight Advance Scholars in Years 1 and 3 to assess the effect of the experience on their attitudes, perceptions, and activities.

At the second level of evaluation, we will collect project data for our first four key indicators annually, as an ongoing and core project responsibility. We will collect the post-project university-wide survey data in 2011. The first four indicators in part replicate the data required by the ADVANCE toolkit, but we will nonetheless report specific institutional data for each of the toolkit categories, in addition to reporting on project-specific indicators. In our study design, the key indicators we have named function as “control” data, with the differences between this data and the 2011 data providing a measure of project-related change. For each key indicator, we hypothesize:

For those colleges in which there is active participation in the project, there will be:

- (1) an increase in the rate of hiring of women faculty and faculty of color, and
- (2) an increase the percentage of faculty of color and women among the professoriate and academic leadership.

Across the university, there will be:

- (3) a reduction in the disproportionate risk of junior faculty women leaving before a tenure decision,
- (4) an increase in the level of employment satisfaction among faculty of color, and
- (5) an erosion in the relationship between the number of women hired and perceived quality of newly hired faculty.

The qualitative data captured by level 1 evaluation will contribute to our ability to distinguish effects across colleges – by identifying those colleges in which the project should clearly have had effects on the key indicators from those in which it is likely to have little impact. This gives us a statistical foothold on predicting year three outcomes at the end of year two. In addition, the qualitative data will provide insight into the mesh of factors that contribute to project outcomes, some of which may conceivably relate to non-project related developments, such as field-specific or college-specific expansions. Though our design has limitations, we argue that it will fruitfully complicate discussions about promoting and assessing cultural change.

At the third level of evaluation, in the concluding months of the project we will invite a seasoned team of three consultants from the national ADVANCE community to provide an independent assessment of the project’s utilization of the “companion set” approach, with attention to including representatives from those programs we have adopted/adapted in particular. The charge for this evaluation team would be to provide a comprehensive written assessment of the NC State effort to ADVANCE, focusing on the strengths and weaknesses of utilizing the combination of programs, synergistic vs. redundant components of the programs as implemented at NC State, and both tangible and intangible project outcomes as a result of our approach.

BROADER IMPACTS

Though our institutional data analyses support the principle assumption that women at NC State are as likely to get tenure as are men, we have also discovered that female assistant professors are at higher risk of leaving before tenure review, and that a substantial fraction of those who remained have thought very seriously about leaving. Senior faculty of color were more likely to report high levels of dissatisfaction than were junior faculty of color. These findings suggest that departmental climates play a key role in shaping the experiences of under-represented groups in the professoriate. Moreover, our analysis of the university’s survey data suggests that deeply complex individual-level attitudes are at play within departments, attitudes that link the hiring of women with the lowering of the quality of faculty. None of these areas of concern can be adequately addressed via a standard reassertion of the university’s commitment to diversity. Cultivating diversity in the professoriate, given such findings, presents us with the “diversity paradox.”

NC State has developed and implemented a wide range of institutional initiatives in order to foster equitable employment outcomes for faculty, and we will continue to revisit, revise, and reinforce these as new challenges emerge. However, given our institutional research efforts, our projected hiring surge, and recent research on social biases in evaluation, NC State is well placed to add a major innovation to conventional institutional initiatives. We propose to become a testing ground for a new approach to diversity, one that maintains the integrity of the effort to diversify the faculty not by drawing attention to diversity goals, but rather by cultivating a community of change agents who will engage, translate, and

then transfer knowledge about social biases to the faculty and administrative ranks. We argue that such an approach can derail the “diversity paradox” and promote community support for diversity as a professional and institutional strength. Though this emphasis borrows elements from ADVANCE initiatives at several institutions, our effort is distinct in two ways: its ability to provide empirical, university-wide evidence of a concrete change in evaluations and hiring of women faculty, and its ability to demonstrate empirically the combined impact of a distilled set of companionate approaches.

3-D at NC State is committed to developing a model subset of initiatives from the riches of the ADVANCE effort, for application in university settings where institutional support for diversity initiatives outpaces attitudes in the faculty ranks. Changes in institutional policies and procedures are necessary but may not be sufficient to provoke a fully realized cultural shift in university culture, where faculty members play an active role in on-the-ground hiring and promotion decisions. 3-D at NC State is uniquely located, in time, place, and expertise to examine how (or if) the lifeblood of the university (i.e. education) can spark a shift in attitudes among educators themselves toward an inclusive and diverse academic community.

RESULTS FROM PRIOR NSF SUPPORT

Mary Wyer, HRD-9810454, \$113,717. “Educating the Science and Engineering Workforce in Collaboration with Women’s and Gender Studies: A North Carolina State University Project” (Co-PI with Laura Severin). The faculty development component at the heart of this project produced several publications including Wyer & Severin (2000), Wyer et al. (2001, 2nd ed. 2008), Wyer & Adam (1999/2000), and Wyer (2003a, 2003b). **SBE-0123604, \$185,000, 2002-2005, NSF ADVANCE Leadership Award at NC State, PI.** This project was directed at promoting the advancement of women in science and engineering via faculty development seminars. This effort produced two major research publications with STEM collaborators, to document the educational impact of teaching about women’s contributions to STEM (Damschen et al., 2005, Wyer, 2007). **HRD-0522860, \$499,606, 2005-2008, “Measurement Matters.”** Wyer’s current research project focuses on developing empirical tools to capture stereotypes about scientists and engineers. This project has developed preliminary research scales to capture images of STEM professions and professionals, first working with focus groups, then from 1,100 survey respondents. The next stage will evaluate the reliability and validity of the preliminary scales, and refine the scales based on a national survey effort via the web.

Margaret Daub: MCB-0322562, “Vitamin B6 biosynthesis in plants and its role in stress responses” 8/1/03 – 7/31/07, \$405,000. This proposal focused on the characterization of the de novo and salvage vitamin B6 biosynthetic pathways in plants. We isolated and characterized the genes encoding pathway enzymes from tobacco and Arabidopsis. Gene regulation studies showed that pathway genes are responsive to biotic and environmental stimuli that induce oxidative stress. Overexpression studies identified tight regulation at the transcriptional level. T-DNA insertion mutant analysis failed to support our hypothesis of a direct correlation between B6 vitamer levels and tolerance to environmental stress. However, we found that altered B6 levels lead to alterations in sucrose and starch metabolism, a previously undefined metabolic response to vitamin B6. This grant directly supported the training and research of four female scientists. Publications resulting from NSF MCB 0322562 include: Wetzal et al (2004), Denslow, Walls & Daub (2005), Daub, Herrero & Chung (2005), Denslow, Rueschhoff & Daub (2007), Herrero & Daub (2007), and Gonzalez, Danehower & Daub (2007).

Marcia Gumpertz, “Enhancing Transfer Students’ Graduation Success in Computer Science, Engineering, Mathematics and Statistics,” DUE-0422454 (CSEMS), 9/15/04-8/31/08, \$400,000 (with T. Mitchell, J. Scroggs, J. Cohen C. Healey, and R. Keltie). Scholarships are provided annually to 29 upper division undergraduate and graduate students with financial need who transfer into mathematics, engineering, computer science, or statistics. Aggressive recruiting from community colleges, which have traditionally had larger minority populations, is increasing CSEMS student diversity. CSEMS scholars participate in activities such as preparation of problem-solving sessions for engineering freshmen, student orientation teams, summer Research Experiences for Undergraduates, summer internship, co-op experience, or tutoring, and K-12 outreach. This grant has provided scholarships to 80 transfer students.

Table 3. Timeline Sketch for 3-D at NC State

	Goals	Activities
Fall Year 1	Launch project; cultivate project identity locally; initiate project activities; set up schedules and routines; SL workshop facilitators undergo training; identify and vet accessible readings; develop workshop content for both arms	Hire project coordinator; develop project workspace, forms, databases, and website; collect and analyze baseline data; WISELI facilitator training team visit; develop EL and SL workshop content; promote project within NCSU; select Advance Scholars and workshop participants; hold first Advance Scholars meetings.
Spring Year 1	Identify challenges and successes; incorporate feedback in planning; secure project identity at university; launch workshops; develop college initiatives	Advance Scholars meet regularly, develop and initiate action plans for their colleges; conduct SL and EL workshops; plan EL and SL annual retreats; PR and invitations for annual retreats.
Summer Year 1	Regroup, reassess, and reinvent given feedback	SL and EL annual retreats; formative evaluation: review and assess workshop and retreat content; survey department heads to assess effects on attitudes and departmental policies; interview Advance Scholars to assess effects on attitudes and activities
Fall Year 2	Consolidate project identity efforts; develop overview of participating depts' issues and efforts; identify department level approaches that work in NC State environment	Write annual report; Advance Scholars meet regularly, facilitate college initiatives; identify participants for second workshop series; assess readings and workshop content for both arms; distribute readings and results via website; strategize for impact within NCSU; present project at national level
Spring Year 2	Consolidate lessons learned from first two years; develop framework to articulate project contributions; embed project activities in university policies and procedures	Conduct EL and SL workshops; Advance Scholars meet regularly, facilitate college initiatives; identify changes enabled and/or persisting barriers to change within departments; represent project at national level, plan EL and SL summer retreats
Summer Year 2	Plan for transition	Conduct EL and SL retreats; assess gains of second year activities; survey department heads; interview Advance Scholars; attend training conferences offered by ADVANCE programs; draft articles for publication
Fall Year 3	Evaluate overall project gains to date re representation of women; distinguish especially successful departments and assess how/why; ensure ongoing institutional support for best practices	Write annual report; Advance Scholars meet regularly, facilitate college initiatives; identify participants for third workshop series; revise workshop content in relation to new participants' interests and concerns; external assessment team visit.
Spring Year 3	Evaluate and distill major project contributions and insights; integrate best practices into university policies and procedures	Conduct EL and SL workshops; Advance Scholars meet regularly, facilitate college initiatives; identify changes enabled and/or persisting barriers to change within departments; represent project at national level
Summer Year 3	Implement transition	SL and EL annual retreats; State-wide one-day conference; write concluding report, to include summary project evaluation, 2011 Faculty Well-Being Survey results, external evaluation; polish and edit articles for publication; represent project insights at national conferences