



Implementation of Advocates and Allies Programs to Support and Promote Gender Equity in Academia

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Implementation of Advocates and Allies Programs to Support and Promote Gender Equity in Academia

Despite increasing attention and progress, the goal of achieving gender equity remains elusive across academic disciplines, particularly engineering. In 2008, North Dakota State University received an NSF ADVANCE Institutional Transformation grant to increase the participation of women in faculty and administrative positions and to address institutional deficiencies in recruitment, retention, advancement, and climate. One unique and effective initiative of North Dakota State University's ADVANCE project is the development, implementation, and sustainment of an Advocates and Allies program. Recognizing the vital role of majority groups (in this case men) to sustain or change institutional culture, the Advocates and Allies program intentionally establishes a network of trained male faculty who work with other male faculty to promote gender equity. The success of the Advocates and Allies model has attracted national attention, including published papers, invited presentations and webinars, broadly disseminated advocacy tips, and adoption and implementation of Advocates and Allies programs at multiple institutions.

To encourage broader adoption of the Advocates and Allies model, we discuss in this paper the implementation of Advocates and Allies programs at the original ADVANCE institution as well as four additional institutions. These institutions represent a mixture of characteristics such as public/private, research/teaching, size, geographic, and other diversity elements. To begin, we summarize the theoretical and empirical frameworks supporting the use of men as change agents to promote gender equity, and then we overview the essential elements of the Advocates and Allies model. Next, we describe the institutional context of the original ADVANCE institution, detail the format and implementation of its Advocates and Allies program while paying particular attention to institution-specific factors, and then highlight the successes and challenges in establishing, operating, and sustaining the Advocates and Allies group. This follows with individual descriptions for the four additional institutions. The paper concludes by identifying common themes in the implementation of Advocates and Allies programs and providing recommendations for other institutions to begin their own Advocates and Allies programs.

Background

Science, technology, engineering, and mathematics (STEM) fields continue to exhibit gender bias and to lack gender diversity. According to the National Science Foundation's (NSF) biennial report, 51% of US scientists and engineers are white males even though they only represent 31.3% of the population. Women represent 50.9% of the US population yet only account for 28% of the science and engineering workforce. The situation is dire across STEM fields in academia, particularly engineering. The NSF National Center for Science and Engineering Statistics reports that in 2013, only 14.5% of tenure-line engineering faculty were women. Despite progress in hiring practice and promotion, white men continue to dominate top organizational positions and "inequality regimes continue to be relatively resistant" to change¹.

Underrepresentation is only a part of the problem. The literature is replete with studies that show how women are disadvantaged (and men therefore advantaged), particularly in STEM. Compared to their equal male counterparts, studies suggest that: women job candidates are rated as less qualified^{2,3} and offered lower salaries and support⁴, women receive poorer letters of

recommendation⁵, women faculty are evaluated lower in research and publication productivity and quality⁶, women faculty are rated lower in teaching or must use more time-intensive methods⁷, women scientists are less likely to be recognized for research and other contributions (the so-called Matilda effect)⁸, and the list goes on and on. Despite overwhelming evidence of gender bias, preliminary studies also suggest that men are more likely to reject such findings of sexism in STEM⁹. Since men constitute the dominant group in most STEM departments, it is clear that men need to play a key role in working toward gender equity.

Many efforts to promote gender equity are structural in nature and do not address the day-to-day lived experiences of individuals within institutions. Such top-down structural adjustment approaches are necessary though insufficient to the multifaceted task of institutional transformation. Difficult social problems such as gendered inequities benefit from dynamic bottom-up approaches in which individuals with social power are seen as important change agents. One such approach is the intentional cultivation of social justice – in this case, gender equity – allies, an idea that has received much recent attention, justification, and research¹⁰⁻¹³. The growing presence of online gender equity advocacy organizations also testifies to the need and effectiveness of men as gender justice allies (see for example, Men Advocating Real Change at <http://onthemarc.org/home>).

The Advocates and Allies Concept

As applied to academia, the Advocates and Allies concept was originated and developed by North Dakota State University and is based on a theory of change that speaks to the role that masculinities and male culture play in shaping men's behavior and institutional climate¹⁴. Factors that promote men's engagement in gender equity work include increasing awareness about unconscious bias and gender inequity, helping men develop a personal motivation for engaging in gender equity efforts, utilizing male roles models, providing opportunities for male-only dialogues, and engagement in solution-building. Barriers include apathy, fear of status loss, and lack of knowledge about gender inequities¹⁵. Additional theory and research indicate that there are key stages in the development of an ally identity and effective ally behaviors¹⁶⁻²¹. Overall, there appears to be accord among investigators such that (1) potential allies must first understand unearned advantage and how it works in their own lives as well as how it impacts the lives of systemically disadvantaged persons; (2) successful ally development approaches educate, inspire, and support members of the dominant group; and (3) allies need opportunities to explore and practice ally behaviors, and hold themselves accountable to non-dominant group members. These components are interdependent; together they support the development of ally identities.

Keeping these factors in mind, the goals of Advocates and Allies programs are to: (1) educate men faculty about gender inequity in academia; (2) introduce men faculty to strategies for bringing about positive change in their departments and colleges; and (3) build a supportive network of male Advocates and Allies for all faculty. Advocates and Allies programs provide two basic levels of participation to accommodate different levels of availability and commitment.

Advocates are men faculty with a strong commitment and record of supporting women faculty in their department, colleges, and the university. Advocates are active and effective proponents of gender diversity and equity, specifically in terms of increasing the number of female faculty,

encouraging the hiring and promotion of female faculty in administrative positions, and ensuring the fair and equitable treatment of women within partner institutions. They are committed to increasing their understanding of gender bias and its impact on the academic careers of women. At North Dakota State University, Advocates meet at least monthly and work toward specific goals and outcomes, including the development and delivery of training programs for male faculty who are interested in becoming Allies and the organization of informal Ally follow-up meetings to discuss recommended readings and case studies.

Allies are men faculty, who participated in gender equity (Ally) training and sign an agreement stating they are willing to identify themselves as allies for faculty women and gender equity. They are expected to take action primarily within their departments including: speaking up at a meeting, inviting female colleagues to collaborate on research, or serving on a committee in place of their female colleagues to reduce the inequity in service loads. At North Dakota State University, allies serve as a pool from which future Advocates can be selected.

With the background, theoretical frameworks, and Advocates and Allies program overviews complete, we now chronologically describe five institutions that have implemented Advocates and Allies programs.

North Dakota State University

North Dakota State University is a land grant university in the upper Great Plains with around 700 ranked faculty and instructors in seven academic colleges that serves approximately 14,500 undergraduate and graduate students. North Dakota State University continues to grow in its research capabilities and has achieved the Carnegie Foundation's "Research Universities/Very High Research Activity" category. The undergraduate student population is roughly 45% women. Nine undergraduate programs in engineering are offered and approximately 10% of the degrees are awarded to female students. Prior to being awarded an NSF ADVANCE IT grant, the percentage of tenured women faculty rose over five years from 4.5% to 9.8% – an increase partially attributable to the self-initiated FORWARD committee. Still, this percentage of tenured women placed our institution as one of the lowest in AAUP's 2006 Faculty Gender Equity Indicators study.²²

The ADVANCE FORWARD project was developed by a group of women and men faculty and administrators in response to institutional research that documented a scarcity of women in STEM faculty positions and academic administrative roles and revealed a "chilly" workplace climate for women faculty. An important theme of many ADVANCE FORWARD initiatives is the intentional engagement of male faculty and administrators to achieve institutional transformation in support of gender equity. For example, men are recruited as members of the Commission on the Status of Women Faculty, which focuses on policy change. Climate and Gender Equity research and mid-career mentoring grants, funded by the ADVANCE FORWARD project, are open to men. By both design and default, men are included in Gender and Climate workshops and trainings specifically tailored to faculty and/or administrators. Pedagogical Lectures, Promotion to Professor Panels, New Faculty Orientations, and Provost's Chair Forums offer ongoing professional development opportunities. The most unique element of the ADVANCE FORWARD project, however – and one that is central to the recruitment of, and ongoing support for, male partners to our initiatives – is the Advocates and Allies program.

To initiate its Advocates and Allies program, ADVANCE FORWARD leadership distributed, with the endorsement and support of top university administration, a campus-wide call for applications and also extended personal invitations to select colleagues. These efforts produced the first set of eight Advocates. Personal recruitment was, and continues to be, more effective in attracting applications than campus-wide solicitations. The initial group size of eight was large enough to form a diverse and effective team yet small enough to keep the team manageable, nimble, and adaptable. Of the eight initial Advocates, five had partners employed as faculty by the university; these relationships and shared experiences definitely contributed to the recruitment and commitment of these Advocates. Although Advocates were initially paid a \$500 stipend for their first year of efforts, no Advocates have indicated that this compensation played a deciding factor in their decision to participate. To the contrary, many expressed discomfort in accepting money for serving as Advocates. Compensation, in the form of course release, travel money, summer salary, or graduate student support, has helped encourage men to volunteer as Advocate coordinator, whose role is to call meetings, arrange rooms, set agendas, serve as liaison with the ADVANCE FORWARD steering committee, guide Advocates to priority activities, and other time-intensive tasks.

While STEM is the primary focus of the NSF ADVANCE program, Advocate membership is drawn from the entire campus community. Approximately half of the original Advocates were STEM and half were non-STEM. This balance was and remains crucial in developing and maintaining a functional group. The STEM Advocates are more likely to understand the difficult conditions unique to women in STEM fields while the non-STEM Advocates are more likely to possess relevant social-science backgrounds and experiences, such as campus involvement with anti-racism, SafeZone, and counseling programs. For example, the majority of non-STEM Advocates are well acquainted with the ideas of unconscious bias and male privilege while the majority of STEM Advocates are, at least initially, generally unfamiliar or unacquainted with these concepts. On the other hand, STEM Advocates are often more likely than non-STEM advocates to understand STEM realities and mindsets, to have worked in male-dominated departments, or to have witnessed workplace gender bias, sometimes at egregious levels. Ally training is almost always conducted using a balance of STEM and non-STEM Advocate trainers. During any particular year of the North Dakota State University Advocates and Allies program, there have been roughly eight to twelve active Advocates, with a total of more than 25 different Advocates during the seven-year program history. Advocates serve one year renewable terms where some Advocates serve only one year, others serve multiple years (sometimes with gaps), and two Advocates have served since the beginning. The Advocate coordinator coordinates special readings and discussions for newly recruited Advocates, who often lack the background and experience of seasoned Advocates.

To ensure successful and sustainable operation, several key components are integrated into the North Dakota State University Advocates organization, including, among others, formalized and regular group meetings, raising personal awareness through group readings and discussions, development and regular delivery of Ally training by Advocates, Advocate organization of follow-up Ally meetings, and continual task coordination between Advocates and ADVANCE FORWARD leadership. Such intentional structure and tasks help provide group focus, motivation, and sense of purpose. While some level of autonomy and independence is desirable,

the Advocates group strives to serve the needs and priorities of ADVANCE FORWARD. To foster accountability, Advocates develop yearly action plans and report on their progress toward meeting their action goals, all of which are shared with the group and ADVANCE FORWARD leadership.

Ongoing evaluation of the Advocates and Allies program confirms that it is having a positive impact on participating male faculty as well as North Dakota State University. We first consider the impacts at North Dakota State University. Since the inception of the Advocates and Allies program, more than 25 Advocates and nearly 200 Allies have been recruited, trained, and deployed across most academic departments. Among STEM, 86% of male faculty in science and math and 40% of male faculty in engineering have participated in Ally training. Among the male faculty who attended Ally training, 87.9% agreed that they would be able to implement new strategies to promote a more equitable climate for women faculty. Additionally, 91.1% of the attendees stated that their knowledge of unconscious gender bias and its impact on university climate had increased as a result of Ally training. More broadly, 76.5% of the faculty responding to a 2014 ADVANCE FORWARD campus-wide climate survey reported that the Advocates and Allies program had a positive impact on their experience of climate at North Dakota State University. Male STEM faculty members who had attended Ally training reported increased understanding of the value of university policies to promote work-life balance (e.g., partner hiring, child bearing leave, and extensions of the tenure clock policies) as well as demonstrated greater awareness of the challenges that faculty members with children might experience. In fact, individual Advocates and Allies have contributed to updating many of these and other university policies. To provide another example, more women have been recognized for university awards and honors, such as the North Dakota State University distinguished lecture series, since Advocates began to actively monitor institutional opportunities and suggest women for nomination.

An external reviewer who conducted interviews and focus groups among Advocates found that the program led to a positive personal impact, a growing awareness about gender inequity, and a realization that they [Advocates] could impact climate. Focus groups with Allies revealed positive changes in terms of increased understanding, greater awareness of women faculty's perspectives, and appreciation of the impact of climate. Focus groups with women faculty also noted benefits resulting from the Advocates and Allies program.

The success of the Advocates and Allies program at North Dakota State University has attracted increasing attention in recent years. As a result, North Dakota State University Advocates have provided Ally training to over 100 male faculty and administrators at four different institutions: Louisiana Tech University, West Virginia University, Lehigh University, and University of Maine. Evaluations have been consistently positive (>90%). For example, 93.3% of participating men noted they would be able to implement new strategies to promote a more equitable climate for women faculty on their campuses. Furthermore, North Dakota State University Advocates returned to West Virginia University and University of Maine to help facilitate formal Advocates programs at those institutions. Additional outreach and dissemination has included conference papers and presentations, invited presentations and webinars, and broadly disseminated advocacy tips.

Louisiana Tech University

Louisiana Tech University is in a medium-sized state university with an emphasis on high-quality interdisciplinary research. The College of Engineering and Science utilizes an interdisciplinary, team-based model in all aspects of administration, education, and research^{23,24} which demonstrates a more collaborative, versus competitive, work environment. The college leadership was reasonably familiar with gender issues as they relate to undergraduate education, faculty retention, and success prior to our receiving an NSF ADVANCE PAID (adaptation and implementation) grant in fall 2009. A faculty survey administered prior to the submission of the grant identified several areas for potential improvement, including overall job satisfaction related to working climate, retention, and promotion/leadership. These have served as the focus for our project, titled the ADVANCEing Faculty program.

Social cognitive theory²⁵ and the extension of this theory to career development²⁶ and work satisfaction^{27,28} provide the underlying theory that informs the project. Bakken et. al.²⁵ proposed that research career development in the medical field be studied from a social cognitive perspective^{26,29} that considers the multiple environments central to one's life and work. The authors suggested that interventions be focused on 1) reducing role conflicts imposed by multiple environments, 2) providing continuity of training efforts, 3) creating a positive and rewarding mentoring culture, 4) and incorporating and evaluating efforts to increase one's research self-efficacy beliefs. Lent and Brown²⁸ initially proposed a model for work satisfaction that extends their scholarship on Social Cognitive Career Theory²⁶. In this process model, the authors posit that work satisfaction is influenced by 1) one's affective traits, 2) participation in goal-directed activities, 3) environmental supports and resources, 4) work self-efficacy and 5) both expected and received works, conditions, and outcomes. Lent and Brown²⁸ proposed that interventions be targeted to those that are likely to impact work satisfaction. Considering these various influences on work satisfaction and the intervening areas, our project has focused on environmental supports and resources to promote work satisfaction and retention of women and men in the college that should yield gains in women's satisfaction and therefore, retention and promotion.

The original initiatives focused on providing a more supportive climate for women faculty in STEM included a faculty mentoring program, a faculty lunch program featuring seminars about gender-related issues, and a work-life policies effort. Given the progress made over the first three years of the project by male faculty and administrators in acknowledging and understanding the climate-related issues on our campus through our series of distinguished lectures and targeted workshops, an Advocates and Allies Program for male faculty was begun in year four of the project in response to queries from male faculty on ways that they could support and advance change. The program kicked off with three training sessions by male faculty from North Dakota State University's Advocates and Allies program, developed by their NSF ADVANCE FORWARD group. Twenty-three male faculty volunteered to attend one of these one-hour training sessions that reviewed the benefits of diversity for everyone, the need for male diversity partners, the risks and rewards of participating, and how male faculty can lead in this effort. This group of twenty-three male faculty formed the core of the Advocates and Allies group on our campus. During the next two years, each quarter the original attendees were invited to participate in a one-hour training seminar led by two of their peers to assist in their ongoing education and understanding about climate-issues, impact, and strategies they can use to

advocate for women faculty in STEM. Twenty male faculty attended one or more of these sessions. Now in the final year of our ADVANCE grant, we are in the process of switching the Advocates and Allies program to a self-guided model, similar to the format currently being used for our Faculty Lunch program (now in its second year of this revised format). A steering committee of three male faculty have been identified and will assume responsibility for the Advocates and Allies programming. Working primarily during the summer, supported by a small stipend, they will plan and develop the programming (one meeting per quarter plus additional activities, as desired) for the next academic year. This format has worked well, with support from the grant personnel, for the Faculty Lunch program, and we hope to see similar success from the Advocates and Allies program. The difference in meeting frequency (once a month for the faculty lunches, which target women faculty, versus once a quarter for the Advocates and Allies group, targeting male faculty) may impact the latter, however. Meeting once a quarter is beneficial in that it provides time to reflect on issues between meetings, but it means that participants will be exposed to new material at a slower pace (particularly given that the related workshops and distinguished lectures will likely cease with the end of this academic year with the expiration of the grant). It is anticipated that project leaders will have to provide more assistance to the Advocates and Allies group until they develop a stronger understanding of issues, resources, and potential projects.

A mixture of quantitative and qualitative measures have been used to assess and evaluate the program, including an annual survey administered to all college faculty, in addition to faculty interviews and collection of institutional data. Completion rates on the annual survey (~80% for female faculty and ~50% for male faculty) have been good. Completion rates on the faculty interviews for female faculty and administrators have been around 90%. The size of the college (under 100 faculty members) and small number of female faculty members (approximately 10 tenure-track/tenured) imposes some restrictions. First, identifiable information (aside from gender) is not included to protect the identity of the faculty member. Secondly, surveys are administered anonymously, so individual respondent’s responses cannot be compared over time. Lastly, survey results across different years must be interpreted carefully because the set of respondents may not be exactly the same from year to year.

On the annual survey, attendees appreciated that the Advocates and Allies Workshop and follow-up meetings were for male faculty only and that the facilitators presented practical suggestions about how to be more supportive of female faculty. The percentage of male faculty who reported that they understand gender-related work issues (81% in 2014 versus 74% in 2011, the first time this question was asked) and how to address them (78% in 2014 versus 68% in 2011, the first time this question was asked) was somewhat higher than when the ADVANCEing Faculty program began (Table 1).

Percentage of men who strongly or somewhat agree:			
“I have a good understanding of gender-related work issues”			
74% (2011)	75% (2012)	89% (2013)	81% (2014)
Percentage of men who strongly or somewhat agree:			
“I have a good understanding of ways to address gender-related work issues”			
68% (2011)	69% (2012)	86% (2013)	78% (2014)

Table 1

The increase in awareness among male faculty of gender-related issues and solution strategies from 2011 to 2013 may be attributable to the general increasing awareness of the overall program and opportunities to participate in its training activities, as suggested by faculty responses on the annual survey. The decreases in 2014 may be due to the fact that male faculty hired in 2013 and 2014 did not participate in most of the workshops, distinguished lectures, or Advocates and Allies sessions which focused on gender-related issues in years 1 – 4 (since these either occurred before they were hired or during their first year of employment).

Faculty gave the initial Advocates & Allies Workshop high marks. In interviews, several male faculty and administrators said that the ADVANCEing Faculty program, and particularly the Distinguished Lecturer workshops and Advocates and Allies program, had increased their knowledge about gender-related work issues and how to address them. Faculty appreciated that the workshops provided concrete suggestions for ways to address gender inequities. Male faculty members' comments included:

- *“It’s seeding some things, like oh wow, I need to look at for X, like this kind of bias or this kind of stereotype. I think people are a lot more sensitive to that now. I think at the beginning, a lot of people weren’t sure about those kind of things or hadn’t heard about those kind of things. I think that’s been positive...I think we all thought we were going to pay attention to try to elevate or hire women or promote them. But it’s a conversation that’s come up more. You have these workshops and it seems like it spills out. If I have a search committee, I’m going to look to see, oh, wow, we don’t have the balance that we could. There might have been that awareness before but I think it raises attention to it. With respect to interacting with students, the way students receive information differently. Jenna [the PI of the ADVANCEing Faculty program] talks about how females get a lot of their self-value externally, vs. males [who get a lot of it] internally. So if the male makes a poor grade, [he thinks] it was a lousy professor or places the blame externally, whereas the female will think, there must be something bad about me. That wasn’t something [I had thought about]. As a guy teaching class, I’m just going to set the expectations and it just is what it is. It does go a little deeper than that. Even if [female students] are perfectly fine and successful, some of them may bolt and scare off. So there are conversations that you can have to try to mitigate that.”*
- *“It has really raised awareness among the rest of us as to things that we could be doing and should be doing in order to make the environment more friendly and hospitable to women and minorities...Some of these workshops, like stereotyping and imposter syndrome, have really opened my eyes in some ways because there were some issues that I simply was not aware of. The visitors that Jenna [the PI of the ADVANCEing Faculty program] has been able to bring to campus and the topics that have been discussed here, that has really helped me grow in certain ways.”*
- *“I think the grant has been very successful at raising awareness. That’s probably the best thing that you can do.”*

In particular, male administrators indicated that the programs have helped increase their awareness of equity issues and how to address them. They noted that the grant has been very good for the college and university and that they were pleased to have the grant. In particular, male faculty who attended the Advocates and Allies Program found it meaningful, noted that it exceeded their expectations, and appreciated the practical suggestions on how to be more supportive of female faculty.

The Advocates and Allies program was created in response to requests from male faculty to learn more about what they could do to support and advance change around the gender issues about which they were learning from the distinguished lectures and workshops delivered by national

level experts. Therefore, starting with training on gender issues for all faculty is one way to generate interest in this type of program. Our Advocates and Allies program is morphing to provide more training (since new faculty come in to the university all of the time, who did not participate in much of the original training provided by the grant) and to engage a faculty team, much like the revised Faculty Lunch program. Not only will this approach be more sustainable as our ADVANCE Program ends, but it has the potential to create a stronger sense of ownership among the participants and grow a stronger leadership base among male faculty. Its success, however, will be dependent upon strong and committed male faculty willing to learn enough about gender issues and solutions to effectively lead this group, nurture its growth, and champion its initiatives.

West Virginia University

West Virginia University is the flagship land-grant, doctoral degree-granting research university in the state, consisting of 15 colleges and schools offering 191 bachelors, masters, doctoral, and professional degree programs serving approximately 30,000 students, undergraduate, graduate and professional students. The majority of West Virginia University's students are nonresidents (51%), male (52%), and white (83%). West Virginia University is located in a small college town (i.e., 30,293 residents). As the only state institution classified by the Carnegie Foundation as doctoral granting, Research High, the university occupies a unique position within the state and aspires to attain and maintain the highest Carnegie research ranking by 2020. There are approximately 1,700 full-time instructional faculty, who generate over \$175 million annually in sponsored contracts and research grants.

West Virginia University is a unique case study of the Advocates program because the institution was three years into its institutional change efforts before the program began on campus. At the time of the Advocates program's inception, an ADVANCE Center was well established, known, and trusted by faculty in the targeted colleges and campus, campus leaders (President, Provost, and key Deans) actively supported the change initiatives, very engaged internal and external ADVANCE advisory boards were established and meeting regularly, a team of eight NSF site visitors had come to the campus for the third year site visit, a number of macro and micro level change strategies had been utilized, and the internal and external evaluators had three years of qualitative and quantitative data to assess the effectiveness of the change efforts. It was a critical time to find ways to sustain and extend successful initial change efforts. West Virginia University ADVANCE had prioritized efforts to engage faculty in a number of change processes that promoted *collective engagement* in institutional transformation and the achievement of gender-equity and diversity goals. True institutional transformation and sustainability requires broad *individual* and *collective participation* from faculty and administrators of both sexes. The West Virginia University Advocates program was designed to bring in as many male faculty as possible as individual institutional change agents. It was expected that Advocates would be active and effective proponents of gender/race diversity and equity specifically in terms of increasing the number of female faculty (including women of color), encouraging the hiring and promotion of female faculty in administrative positions, and ensuring the fair and equitable treatment of women (and POC) in their institutional units.

In 2009, West Virginia University welcomed a new president who had a record of leadership in successfully increasing the diversity in his role as Provost at his previous institution. Two of the

President's top five goals were to: 1) lower faculty workload by adding 100 new faculty lines by 2012 and 2) diversify the campus. In January 2010 the University named a new Provost. This Provost likewise had a demonstrated record of commitment to social justice and diversity. As the former Dean of Science at her previous institution, she was the PI for their successful ADVANCE award, and she had worked on multiple projects to enhance campus accessibility for persons with disabilities. Both leaders recognized that diversifying the campus and lowering faculty workload were essential to enable faculty to excel. These leaders, especially the Provost, were keenly aware of NSF ADVANCE and publically provided support for the work, integrated ADVANCE Center personnel into University faculty development and/or other significant University events, created multiple levels of accountability with individual faculty, Chairs, Deans, the Provost, and the President, maintained regular contact with the ADVANCE leadership, and provided a supplemental budget (\$357,000 over a four-year period) that expanded the ADVANCE work beyond the two targeted colleges. Five new Deans and a number of other top administrators were externally hired under their leadership (2009-2014).

West Virginia University received a five year ADVANCE IT grant in 2010 and the primary focus was the sixteen STEM and social and behavioral science (SBS) departments found within the College of Arts and Sciences and the College of Engineering. West Virginia University's ADVANCE grant utilized a number of core strategies common to transforming higher-education institutions. The initiatives targeted the university, college and individual levels of the institution and included training chairs and search committees to mitigate implicit bias, a number of regular workshops for departmental leaders on how to provide assistance to faculty around issues of workload balance, utilizing new policies, and attrition planning so that flexible work practices continue despite leadership changes, implementing work-life policies that promote more flexibility for tenure and non-tenure-track faculty, expansion of dual-career resources to cover academic and non-academic couples and retention of current faculty, establishing faculty sponsorship (external mentoring) programs to promote research and networking among STEM/SBS women, a series of skill building workshops for STEM/SBS women, a women's leadership initiative, and a campus speaker's series that focused on "why diversity matters".

In addition, a team of West Virginia University's faculty and an external consultant developed the *Dialogues* process. The *Dialogues* program was one of the most visible activities implemented at West Virginia University through the IT grant. This department-level intervention was designed to change the current group dynamic in ways that promoted more positive climates for women. The primary intention of West Virginia University's department level work was to modify day to day behaviors and practices that reproduce gender inequity by promoting full participation by all faculty in discussions, planning for the department's future, and decision making. Instead of providing content about issues impeding gender equity, facilitators focused on supporting behaviors to promote equity. Thus, the facilitators introduced and modeled a process for inclusive decision-making and enhanced communication at the department-level to improve overall climate and therefore promote inclusion and gender equity. *Dialogues* enhanced departments' awareness of other successful change efforts, optimism about the success of their own change efforts, and feelings of group agency in promoting gender equity (i.e., improving the recruitment, retention, promotion, and movement into leadership positions of female faculty within departments), while decreasing levels of dependence and conflict and increasing levels of cooperation and reliance among faculty members^{30,31}. These effects were especially strong in engineering departments, where the need is particularly acute.

The questions of how to best maintain and sustain the positive changes in departmental group dynamics and how to empower male faculty to be part of the change effort remained at the end of year three of the West Virginia University ADVANCE grant. The successful North Dakota State University Advocates program presented an opportunity to engage male faculty in ongoing dialogues about what constitutes positive department climate for attaining gender equity. To date, 27 West Virginia University STEM/SBS men have attended the initial Advocates training offered by three North Dakota State University faculty Advocates. Because West Virginia University faculty responded so positively to the program, two North Dakota State University Advocates returned to campus in September 2014 to assist male faculty in creating a formal West Virginia University Advocates program. The primary goal was for the Advocates to provide internal ongoing support and stabilization of positive department-level climate outcomes. Seven CCC men worked with two North Dakota State University Advocates to draft a mission statement and plan of action for the upcoming year. The West Virginia University ADVANCE Advocates group has now officially launched and they have a primary link on the ADVANCE website. This group is a network of male faculty working with other male faculty to build, promote and sustain an equitable university for people of all genders.

The core group contains seven members who meet every two weeks. The current focus of the group is to build a network of Allies – male faculty members located in as many units as possible across the University who actively seek to make positive changes to promote a more equal-opportunity environment in the workplace. As part of this effort, the group reviews and discusses recent articles from the literature (often, short online articles backed up by longer scholarly texts) and attempts to place them into context with their shared experiences within West Virginia University. Goals over the coming year are to poll a large number of female faculty across West Virginia University to obtain a specific and accurate list of actions to focus on changing. Of particular interest is to build up a list of simple “best practices” which faculty members can implement immediately to have a positive impact on the working environment. In parallel to this, the group is also developing a set of training materials for use in one-hour seminars which they plan to run later in the 2015 calendar year to inform potential Allies about the most pressing campus issues. The ultimate goal of the group is to expand its reach across the West Virginia University campuses and form self-sustaining subgroups who are active within each campus.

Lehigh University

Lehigh University is a private, research intensive, Ph.D. granting institution founded in 1865 to contribute to the “intellectual and moral improvement” of men in the Lehigh Valley region of Pennsylvania. It was 106 years later, in 1971 when women first matriculated as undergraduates. Now, in its 150th year, Lehigh University educates over 4600 undergraduates and 2000 graduate students while still honoring this proud heritage as it looks ahead. Part of looking towards the future is acknowledging that women faculty at Lehigh University have not advanced equitably, and those in STEM fields face particular challenges. Thus, several policies around tenure clock extension and work-life balance were implemented while applying for an institutional transformation award from the NSF ADVANCE program. In 2010, Lehigh University was a successful recipient of the grant. At that time, women comprised 27% of 430 tenure track faculty across 37 departments organized into four colleges: Arts & Sciences; Engineering;

Business & Economics; and Education organized across two main academic campus locations. At the start of the grant there were approximately 16% tenure track women faculty in STEM, including the social science departments of psychology, sociology/anthropology, and economics; 10% of all ranked faculty in engineering were women; and there were still departments with either zero or one woman on faculty. To date, women make up approximately 20% of tenure track STEM faculty; all departments have at least one woman, and engineering has about 13% women.

The ADVANCE IT award is a prominent campus resource for providing senior leaders and faculty women the tools for increasing the recruitment, retention, and advancement of women through a combination of support, education, and policy facing activities. To provide several examples, we established a community of women STEM faculty; together with the Vice Provost for Academic Diversity, faculty search committees from across campus learn about and benefit from current best practices; new recruitment expectations and documentation enhance transparency and accountability. The culture of mentoring is shifting as ADVANCE instituted a new interdisciplinary model of multiple mentors for pre-tenure faculty and shifted attention to needs of associate professors to level the playing field, consider time to full professor, and address mentoring needs for post-tenure faculty, too. ADVANCE at Lehigh University has influenced college-level dialogue about promotion and tenure criteria for interdisciplinary faculty; we gather STEM department chairs to discuss components of supportive culture and how to operationalize that in meaningful ways for the success of all faculty. Lehigh University ADVANCE principles are represented on a university-wide Council for Equity and Community as a broad spectrum of university students, staff, faculty and administration strive to learn and model, support, and promote a diverse and inclusive community. To do this work, the labor and voices of gender equity cannot be solely carried by women, and thus we sought to emulate the North Dakota State University's Advocates and Allies program.

In October 2013, a trio of North Dakota State University ADVANCE FORWARD male Advocates came to Lehigh University to deliver a pair of workshops for tenured men interested in contributing to more gender equity. The workshop's goals were to increase awareness about the status and climate for women in STEM at Lehigh University; to explore male privilege in society and the academy; to define behaviors and actions men can try out that could positively impact women, without the unintended effect of a dysfunctional rescue; and to describe a model of engagement wherein all those who attended are Allies and a subset agree to the role of Advocate in order to take ownership and leadership of the future of the initiative (paralleling the North Dakota State University approach). Institutionally, the objective of the program was to develop a cadre of Allies hailing from each of the departments, with an initial priority in STEM; while we hoped to gain Advocates representing each of the four colleges. Invitations to the workshop were sent to all tenured men.

Eighteen faculty men from across campus, but mostly in STEM fields, attended one of two workshop sessions, and the North Dakota State University team collected evaluations to be analyzed by their internal program evaluator. The feedback indicated the workshop was received positively; that faculty in attendance did gain an understanding of their role in not being bystanders; and that there are concrete actions and behaviors they can take. The "10 Things Men Can Do" list was well received, and attendees of one session even identified a new one about not

partaking in the “meeting after the meeting” that may often take place in spaces, such as the men’s restroom, that exclude women. As part of the workshop, men were invited to sign up to be the first Advocates: four did just this (representing chemical engineering, computer science and engineering, mathematics and theater). Advocates, the invitation explained, would have a key function of educating another cohort of men to increase the number of male Allies on campus. The outcomes and feedback from the workshop was shared with all the male Allies and the women STEM faculty community.

After the workshop, the provost hosted a planning meeting with the Advocates, Vice Provost for Academic Diversity, and the ADVANCE Grant director and manager with the purpose of defining the actions Advocates could take to launch their roles and the initiative. The faculty men expressed feelings about not being knowledgeable enough to lead a new Ally training session. They did agree to join the ADVANCE Leadership Team to gain insight into the issues nationally and at Lehigh University. The Advocates also agreed an important step for them was to dialogue with female colleagues to gain understanding about women’s perceptions about the climate and how culture impact them. Thus, late in the spring semester, a luncheon was hosted to bring men and women together with the goal of making contact and advancing understanding.

Recognizing that this group of Advocates still needed direction, at the start of Fall 2014, members of the ADVANCE team met with the Advocates to brainstorm specific work that they each might be able to deliver. Three main areas of priority emerged. The first is to expand the network of named Allies and Advocates and to then determine if Lehigh University should make the distinction in roles. Each person agreed to propose a list of men and submit for invitation. The second priority includes leading conversations about the climate and impacts for women. Because a COACHE climate survey was recently conducted and one of the Advocates was part of that survey committee, it was agreed that this individual could be a lead on dissemination of the findings, particularly those related to gender and gender and STEM to various audiences on campus. Finally, it made sense to these individuals to play a role in the future of the recruitment training of their colleagues.

Expanding the network has begun. In late Fall 2014, 20 men (most new to the effort), the existing Advocates, and the Provost participated in a conversation about the things related to gender equity that they viewed as important to change or act upon, and to propose specific tracts of work (with some suggestions by the ADVANCE team, as modeled by North Dakota State University recommendations). The major themes are organized below, and the next step (start of Spring 2015) is to invite them to prioritize their engagement and form working teams around 3-5 initiatives. We also aim to run a program or two that continues the “making contact” frame of dialoguing with women colleagues.

The major themes identified from this process include:

- Continue to assist with Faculty Recruitment training
- Improve the classroom environment, culturally relevant pedagogy
 - Faculty-student interactions
 - Student-student, and student retention
- Continue to talk with women about gender bias and meaningful solutions
- Advocate for service work to be valued

- Skills and Resource building to advocate for gender equity.

At Lehigh University, the copy/paste of the model of Advocate-led training and growing Allies as launched at North Dakota State University has not yet matched where our faculty are. There was not a readiness to be leaders, in part out of fear of not being “expert enough.” Thus, there has been a slower pace of engagement and program impacts than initially anticipated. However, it is important to point out that the entire climate has been shifting on campus and all layers of the organization from the President to students and staff have diversity at the top of mind. This subtle context shift means the way in which we dialogue and break down obstacles for engagement are stronger today than they were a year ago. The amount of service work asked of tenured faculty at an institution our size can at times hamstring important initiatives that do not have personal passion as the driving motivation. Also at Lehigh University is the recognition that we do need to revalue this type of service, and not cheapen it, and not expect teaching or research to always be operating at the fullest level when an individual is deeply engaged as an advocate of equity. We learned that asking men to help can embolden some individuals to feel they need to be the ‘rescuers’ of women and ride in like knights in shining armor, while other individuals are reluctant to misspeak or make matters worse for women (or for themselves, if they might not be supported). Having these conversations should strengthen the initiative as we define it going forward. Now, Lehigh University is at a place where the men passionate about advancing gender equity can find more visible paths to empowered action and a strong evaluation scheme can be designed.

Lehigh University recommends engaging men in frequent conversations with multiple leaders and women to arrive at a list of actions. We do recommend following their naturally occurring energy, and are hopeful a workstream approach will help meet our goals. Our faculty like to be part of the development process of new initiatives, and taking the time to do that can be critical, especially in a smaller organization’s service context.

University of Maine

University of Maine is a public land grant institution with 11,000 full-time and part-time students. The campus is located in a small town in a rural area of a sparsely populated state. It is one of seven campuses in the University of Maine System. All of the faculty in the University of Maine System are represented by a single faculty union, the Associate Faculties of the Universities of Maine, which negotiates salary and workplace policy agreements.

Approximately 460 tenured and tenure-track faculty members are employed at University of Maine. There are 300 faculty members in the science, technology, mathematics, and science (STEM) and social and behavioral science (SBS) discipline departments, and just 75 of these STEM and SBS faculty members are women: the percentage of women faculty members in these disciplines is below the national average. Because of the institution’s location and relatively small faculty, faculty face disciplinary isolation, lack of disciplinary mentors, and limited networking opportunities.

University of Maine was awarded a 5-year ADVANCE Institutional Transformation grant in 2010. The research focus is the relationship between faculty satisfaction and recruitment, retention and advancement. The PI of the grant is the Provost of University of Maine. Three co-

PIs are in STEM and SBS disciplines; the co-PI leading the research team is not. Additional personnel include a director (the several directors have been both part-time and full-time), a research team, an evaluation team, a faculty liaison, a communications specialist, and office staff. Throughout the grant the Co-PIs and others have met every other week to review the programs and evaluations to make decisions about future activities.

One of the organizing structures of the University of Maine Rising Tide Center is its Advancement Initiatives Council, which is a body of about 25 faculty, staff, and administrators including the Provost, Vice Presidents of Research and Human Resources, the Director of Equal Opportunity, the deans of all academic colleges, and the Director of Cooperative Extension. This committee meets twice per semester to address an issue identified through the grant research on faculty satisfaction, or through evaluation of the program components.

Developing an Advocates group based on the North Dakota State University model was initiated in support of the grant goal to decrease isolation and improve University of Maine STEM/SBS women faculty recruitment, retention, and advancement. Plans for North Dakota State University to visit were already initiated by the fall of 2013 when an University of Maine NSF site visit report stated: "When there are so many male faculty in the target departments it is critical to get their support in the institutional transformation process; the North Dakota State University Advocates and Allies program is an excellent one to use as a model."

University of Maine Rising Tide Center invited North Dakota State University to offer Allies Training in March 2014. The short term goal in the evaluation plan is to increase the pool of male faculty members trained in unconscious bias issues and improve diversity equity. The long term goal is improvement of advancement of STEM/SBS women faculty.

The Rising Tide Center invited over 300 male faculty members and department leaders from all disciplines, and about 12 upper administrators to attend Allies and Advocates training. The respondents were not screened in any way. Six administrators attended a special North Dakota State University training session to focus on their concerns, and 26 faculty members and administrators attended two additional sessions. Of the 22 evaluations received at the open sessions, 20 participants reported that they expected to be able to use the training in their work. In interviews participants expressed interest in developing an Advocates program.

As a result, University of Maine invited the North Dakota State University team to return in October 2014 to facilitate a two-day "Advocates and Allies Development Conference" to initiate a new Advocates group. The Rising Tide Center invited all male faculty members to attend the Conference and become Advocates, and personally asked one SBS faculty member who had been active in supporting the grant development to join in order to share his disciplinary knowledge of gender in society. Ten faculty members registered as Advocates for the 2014-2015 year; ten more asked to become Advocates in 2015. In the on-line conference registration the participants provided professional information and responded to two prompts: "Why you support ADVANCE at University of Maine," and "Your goals and priorities as an Advocate." The registrants were not screened based on their answers, but the facilitators used the information when developing their facilitation plan. The registration form offered participants a small stipend for the year of participation.

The Conference kicked-off with another open Allies and Advocates training, expanding on the March event but accessible to all attendees. University of Maine has 32 Allies trained through the March and October workshops. Nine Advocates completed the Development Conference and now meet on a regular schedule. University of Maine does not have an Allies or Advocates pledge. The Advocates' mission is "A group of men concerned with gender bias, who support the goals of the ADVANCE Rising Tide program by working to improve the climate for women in academia with the goal of enhancing personal and professional outcomes for the entire University of Maine community." The objectives they developed in consultation with the ADVANCE co-PIs are

- to assist the ADVANCE team by demonstrating support within the wider campus community;
- to recognize and work to reduce the impact of our own implicit biases;
- to be an individual voice for gender equity within our programs;
- to expand the pool of male faculty allies and advocates / to recruit more male faculty to act as allies and advocates;
- to provide education and training for other men and allies to support our mission and objectives; and
- to take personal and collective action that contributes to changes in University policies and structures.

The two Advocate leaders attend the regular co-PI meetings and they bring a new and exciting perspective with fresh ideas. The Advocates are considering alternative methods of using the stipend budget to further advance the goals, such as developing a reference library. Each Advocate has a personal action plan and journals his advocacy experiences to support both his own development and the evaluation of Advocate effectiveness. In the spring of 2015 the Advocates plan to offer Allies training and in the fall of 2015 they hope to bring in additional Advocates from the waiting list.

Prior to the Allies and Advocate training at University of Maine many men had already participated in ADVANCE workshops and other activities. This prior participation might have increased interest in the Allies and Advocates idea. General invitations to Allies training through flyers and email reminders were effective. The earlier Allies training also seemed to develop enthusiasm for the later Advocates training. The broad distribution invitations ("Dear Colleague") were not effective at generating enthusiasm for the two-day Advocates Development Conference. The Advocates were recruited primarily by personal email invitations from one co-PI to men who had attended the Allies training or other ADVANCE workshops. University of Maine looks forward to the Advocates' activities, and to evaluating the effectiveness of the Advocates group in advancing the institutional goals.

Conclusions and Recommendations

Advocates and Allies programs intentionally establish networks of trained male faculty who work with other male faculty to promote gender equity. In this paper, we describe the implementation of Advocates and Allies programs at the original ADVANCE institution as well as four others, representing a broad range of institutional characteristics. Together, the five Advocates and Allies programs have equipped hundreds of male faculty with the knowledge and

skills to implement new strategies to promote a more equitable climate for women faculty. Working in cooperation with their female colleagues, advocates and allies can effect real change, from individual-level actions to improved institution-level policies.

Looking across the five institutions, we see several themes to implementing Advocates and Allies programs.

- North Dakota State University: The implementation and organization of Advocates and Allies program must be intentional. By coordinating with female colleagues on campus, Advocates and Allies groups can focus their efforts on areas of highest institutional need and highest potential impact. Advocates and Allies groups should focus their primary attention toward men yet maintain accountability to women.
- Louisiana Tech University: In order for institutions to create Advocates and Allies program, male faculty must gain awareness of issues such as implicit bias and its impact on the success of their female peers. Initial trainings or seminars are one way to help men improve their knowledge and awareness and prepare them for roles as Advocates.
- West Virginia University: Each of the five institutions described here have received an NSF ADVANCE grant (either IT or PAID). So all of these institutions, as early as the proposal writing stage, were having campus conversations about gender equity and inclusion. Thus, non-ADVANCE institutions will need to do some of the basic work to prepare their campus for this program. Powerful institutional leaders must be publically on-board, supportive, and engaged in the Advocates program. Endorsement and support of top university administrators are critical.
- Lehigh University: A major hurdle to forward progress is lack of action due to perceived inadequacies in expertise or power on the part of the male advocates. Many male supporters are well intentioned but do not feel they have the expertise necessary to be viewed as champions of gender equity. It is therefore critical to develop and sustain knowledge, awareness, and skills. Collaborative, vocal, and visible support for this initiative at multiple, and especially senior administrative, levels of the organization appears to be important to impart resources and to sustain Advocates and Allies programs. When senior male leaders join in, it adds credibility to the effort and helps to expand the network of learners. It also enables senior leaders the opportunity to publicly recognize and value the contributions of Advocates and Allies.
- University of Maine: Each of the five Advocates and Allies institutions had already established trusted ADVANCE programs offering resources to administrators and faculty members before initiating Allies or Advocates training or establishing an Advocates group, and the Advocates programs are seen as a means of sustaining grant activities beyond funding.

We conclude with select recommendations for institutions considering to establish Advocates and Allies programs.

- North Dakota State University: A core group of individuals, balanced between STEM and non-STEM and modestly sized between five and ten individuals, needs to assume the responsibility to start an Advocates and Allies program. Clear identification of attainable goals, such as offering campus-wide training or improving a particular institutional policy, can help focus an Advocates and Allies group, build cohesion, promote purpose and accountability, and provide a platform for growth.

- Louisiana Tech University: Start by offering training for everyone on common issues like implicit bias, the double bind, stereotypes, micro-inequities and micro-aggressions, and the value of diversity (a la Scott Page, University of Michigan). This is important because it builds a common understanding and provides motivation and interest among male faculty to participate in an Advocates and Allies program. Ongoing training and identification of a core group of dedicated male faculty are key to long-term program operation.
- West Virginia University: It is important to ask men to help change the culture and climate of our academic institutions. When possible, the process needs to be as organic as possible. It is probable that it will take some time for male faculty to feel expert enough about gender equity issues to publically engage others in the change process. Engaging as a change agent is not easy, for either female or male faculty. There are all types of personal and structural barriers and resistance to change work. The Advocates program, when properly embedded in a larger campus conversation of inclusion and change, helps remove many of those barriers to engagement.
- Lehigh University: Hold group discussions with the male Advocates and Allies early on. What do they perceive as the important or pressing issues on campus to be addressed? Where do they feel empowered to make a difference? What education or support do they need to get started? These programs will look different at each institution based on the feedback garnered from these discussions. Be open to adapt the model in scope and structure to the context of the institution while retaining accountability to defined goals. Educate key players about what has been tried and worked or not worked in other institutions or social justice domains, and try an approach that meets faculty where they are along the readiness continuum. When considering how to adapt the model, support Advocates' and Allies' naturally occurring energy and find parallels with existing faculty development and culture change efforts to strengthen buy-in.
- University of Maine: The University of Wisconsin-Madison WISELI national program "Breaking the Bias Habit: A Workshop to Promote Gender Equity" provides excellent supporting material including a clear, common vocabulary for Advocates, Allies, and others on campus to use when discussing gender bias.

References

1. Acker, J., "Gendered Organizations and Intersectionality: Problems and Possibilities," *Equality, Diversity, and Inclusion: An International Journal*, Vol. 31, issue 3, pp. 214-224, 2012.
2. Rudman, L. and Glick, P., "Prescriptive Gender Stereotypes and Backlash toward Agentic Women," *Journal of Social Issues*, Vol. 57, No. 4, pp. 743-762, 2001.
3. Steinpreis, R., Anders, K., and Ritzke, D., "The Impact of Gender on the Review of the Curricula Vitae of Job Applicants and Tenure Candidates: A National Empirical Study," *Sex Roles*, Vol. 41, Nos. 7/8, pp. 509-528, 1999.
4. Moss-Racusin, C., Dovidio, J., Brescoll, V., Graham, M., and Handelsman, J., "Science Faculty's Subtle Gender Biases Favor Male Students," *Proceedings of the National Academy of Sciences of the United States of America*, PNAS Early Edition.
5. Schmader, T., Whitehead, J., and Wsocki, V., "A Linguistic Comparison of Letters of Recommendation for Male and Female Chemistry and Biochemistry Job Applicants," *Sex Roles*, Vol. 57, Nos. 7/8, pp. 509-514, 2007.
6. Weneras, C. and Wold, A., "Nepotism and Sexism in Peer-Review," *Nature*, 387, pp. 341-343, 1997.
7. Sprague, J. and Massoni, K., "Student Evaluations and Gendered Expectations: What We Can't Count Can Hurt Us," *Sex Roles*, Vol. 53, No. 11/12, pp. 779-793, 2005.

8. Lincoln, A., Pincus, S., Koster, J., and Leboy, P., "The Matilda Effect in Science: Awards and Prizes in the US, 1990s and 2000s," *Social Studies of Science*, Vol. 42, pp. 307-320, 2012.
9. Moss-Racusin, C. A., Molenda, A. K., and Cramer, C. R., "Can Evidence Impact Attitudes? Public Reactions to Evidence of Gender Bias in STEM Fields," *Psychology of Women Quarterly*, January 8, 2015.
10. Barker G, Greene M. E., Goldstein-Siegel, E., et al., "What Men Have to Do With It: Public Policies to Promote Gender Equality," *The Men and Gender Equality Policy Project*, Washington, D.C., International Center for Research on Women, 2010.
11. Anicha, C. L., Bilen-Green, C., Burnett, A., and McGeorge, C., "Activating Advocates and Allies for Gender Equity: Engaging with Male Colleagues," *WEPAN Conference*, Baltimore, Atlanta, GA, 2013.
12. Bilen-Green, C., Green, R., McGeorge, C., Anicha, C., and Burnett, A., "Engaging Male Faculty in Institutional Transformation," *2013 ASEE Annual Conference and Exposition*, Atlanta, Georgia, June 2013.
13. Anicha, C., Burnett, A., and Bilen-Green, C., "Men Faculty Gender-Equity Advocates: A Qualitative Analysis of Theory and Praxis," *Journal of Men's Studies*, Vol. 23(1), pp. 21-43, 2015.
14. Connell, R., *Masculinities*, 2nd ed., University of California Press, 2005.
15. Prime, J., and Moss-Racusin, C. A., "Engaging Men in Gender Initiatives: What Change Agents Need to Know," *Research Reviews*, Catalyst, New York, NY, 2009.
16. Bishop, A., "Becoming an Ally: Breaking the Cycle of Oppression in People," Fernwood, Halifax, Nova Scotia, 2002.
17. Curry-Stevens, A., "New Forms of Transformative Education: Pedagogy for the Privileged," *Journal of Transformative Education*, Vol. 5, no. 1, pp. 33-58, January 2007.
18. Ford, K. A., "Shifting White Ideological Scripts: The Educational Benefits of Inter- and Intra-racial Curricular Dialogues on the Experiences of White College Students," *Journal of Diversity in Higher Education*, Vol. 5, pp. 138-158, 2012.
19. Lowery, B. S., Knowles, E. D., and Unzueta, M. M., "Framing Inequity Safely: Whites' Motivated Perceptions of Racial Privilege," *Personality and Social Psychology Bulletin*, Vol. 33, no. 9, pp. 1237-1250, 2007.
20. Reason, R. D., Scales, T. C., and Roosa Millar, E. A., "Encouraging the Development of Racial Justice Allies," in Reason, R. D., Broido, E. M., Davis, T. L., and Evans, N. J. (Eds.) *Developing Social Justice Allies*, Jossey-Bass, San Francisco, 2005.
21. Tatum, B. D., *Why Are All the Black Kids Sitting Together in the Cafeteria: And Other Conversations About Race*, Basic Books, New York, NY, 2003.
22. West, M. S., Curtis, J. W., "AAUP Faculty Gender Equity Indicators," American Association of University Professors, Washington, D.C., 2006.
23. Nelson, J., Carpenter, J. P., Napper, S. A. and Ramachandran, R., "Innovative Administration Supports Innovative Education," *Proceedings of the 2008 Frontiers in Education Conference*, Saratoga Springs, New York, October 2008.
24. Benedict, B. A., Napper, S. A. and Guice, L. K., "Restructuring for Strategic Outcomes," *Journal of Engineering Education*, pp. 237-246, April 2000.
25. Bakken, L. L., Byars-Winston, A., and Wang, M. F., "Viewing Clinical Research Career Development through the Lens of Social Cognitive Career Theory," *Advances in Health Sciences Education: Theory and Practice*, Vol. 11, no. 1, pp. 91-110, 2006.
26. Bandura, A., *Social Foundations of Thought and Action: A Social Cognitive Theory*, Englewood Cliffs, NJ, Prentice-Hall, 1986.
27. Lent, R. W., Brown, S. D. and Hackett, G., "Toward a Unifying Social Cognitive Theory of Career and Academic Interest, Choice, and Performance," *Journal of Vocational Behavior*, Vol. 45, pp. 79-122, 1994.
28. Lent, R.W., "Toward a Unifying Theoretical and Practical Perspective on Well-Being and Psychosocial Adjustment," *Journal of Counseling Psychology*, Vol. 51, pp. 482-509, 2004.
29. Lent, R.W. and Brown, S. D., "Social Cognitive Career Theory and Subjective Well-Being in the Context of Work," *Journal of Career Assessment*, Vol. 16, no. 1, pp. 6-21, 2008.
30. Latimer, M., Jackson, K., Dilks, L., Nolan, J. and Tower, L. "Organizational Change and Gender Equity in the Academia: Using Dialogical Change to Promote Positive Departmental Climates," pp. 333-353 in Demos, V., White Berheide, C., and Segal, M. T. (eds), *Advances in Gender Research: Gender Transformation in the Academy*, vol. 19, Emerald Group Publishing, 2014.
31. Nolan, J., Jackson, J. K., Latimer, M., Tower, L., and Borres, A. "A Dialogical Change Process for Strategic Planning to Diversify Academic Departments", retrieved from <http://ocs.sfu.ca/wepan/index.php/wepan2012/wepan2012/paper/view/331>, 2012.