

ADVANCE Program Site Visit Report  
The University of Wisconsin at Madison  
November 7-9, 2004

## 1. Intervention Context

The University of Wisconsin's ADVANCE project, entitled WISELI, seeks institutional change at a major research university with few women faculty in the science and engineering disciplines. The University of Wisconsin-Madison is a campus that has many policies to encourage the recruitment, retention, and advancement of women faculty on the books, and the campus should be well positioned to support gender equity. The WISELI project was designed to build on these strengths, but also to investigate why existing policies are of limited effectiveness. WISELI was also intended to pioneer new initiatives to address climate and structural inequalities.

The WISELI initiative is designed specifically to address the lack of women in faculty and leadership positions in the biological and physical sciences in the College of Engineering, Agricultural and Life Sciences, Letters and Sciences, Schools of Medicine, Veterinary Medicine and Pharmacy. There are many women in these colleges and schools, but relatively few at senior full professor rank and many more in instructional or research based non-tenure track positions. The number of women faculty in tenure track and tenured positions is small. This is despite steadily increasing female participation at the undergraduate and graduate levels, creating a situation where students have few women faculty role models on the faculty.

In addition to NSF funding, support for this initiative has been forthcoming from the Office of the Provost and from deans, in particular from the Dean of Engineering, where WISELI is housed. There seems to be evidence of high-level buy-in of the project and its goals. Institute status has helped establish WISELI as a campus entity with an expectation that it will be hard to abolish an existing institute. The PIs meet weekly with the Provost and have had his support in getting the cooperation of deans, chairs and faculty. High-level support has helped to address the disconnect between senior administrative support for gender equity, and the hiring and retention of women in various departments in schools and colleges.

As an initiative, WISELI has great visibility and the ability to communicate their mission and programs throughout the university community. Many people commented they had learned about the program through connections with members of the Leadership Team and via e-mail announcements about speakers and programs, suggesting effective dissemination by WISELI of information about opportunities available through the program. Key institutional leaders are watching the different initiatives for possible institutionalization since they offer some measure of success in addressing institutional problems.

The College of Engineering seems actively involved and impacted by the program, which is housed in the College on the same floor as the Dean's office. The Colleges of

Medicine and Agriculture and Life Sciences, the homes of the PIs, are also affected, but the extent of WISELI's impact in these schools is harder to assess. The PIs have done outreach to individual faculty and chairs in these schools to participate in workshops and award programs. Other schools have participated in workshops but otherwise seem to have less intersection with the project, thus it is hard to measure overall institutional impact.

WISELI implemented a Leadership Team by inviting key figures with some awareness and an interest in the issues addressed by ADVANCE to help shape the institute's projects and aid in their evaluation. This Leadership Team serves a number of functions, including providing support for Team members' interests in gender equity and also in some respects grooming members for additional leadership positions within the university.

There is strong grassroots support for the project by women on the campus, especially among long time faculty who faced difficulties within the system because gender climate issues were ignored. "They are holding the conversation" on a campus where there has been silence on gender issues. The visibility of the Principal Investigators, women who are successful scientists in their own rights, aids in the legitimacy of the program, since these are not women who are viewed as "women in trouble." Instead, they are both strong leaders of considerable accomplishment who decided to use their influence to address climate related issues, particularly attitudes and barriers that limit women's success in the sciences and engineering. Both PIs have worked in the past around diversity and gender issues and the NSF grant positions them to move the institution forward, particularly with new leadership in top administrative positions, to correct some of the institutional problems.

In addition to offering seminars, workshops and opportunities for people to connect with each other and learn about gender, the PIs have also been willing to talk with individual women and offer their assistance in navigating the institution. They see WISELI as helping to address systemic problems that result in failure to hire women in faculty positions, or that contribute to a hostile environment for women. Prior to WISELI, the institution offered few resources to women who found themselves in hostile departments, creating issues of retention. There is an issue for WISELI in deciding how much individual advocacy the PIs can provide; for sustainability, institutional resources should be dedicated to ensuring that this function is maintained in the ombud office, which is in place but apparently not well publicized. WISELI, both in directing attention to the issues and in tailored personal interventions, is pushing for institutional accountability for the negative climate that forces people to suffer in "microclimates of extreme dissatisfaction." The project is also shaped by in-depth interviews and surveys of the faculty and staff (note participation rates) that provided evidence of problems with climate. The survey instrument asked broad questions and was analyzed by gender.

While women at all levels welcome the efforts of WISELI, there also appears to be widespread support from chairs and some male faculty who are learning about scholarship on gender inequality and are recognizing it within their own spheres. They particularly respond to the data driven presentations. Many are learning a new language to talk about climate and sharing it with colleagues.

Funding by WISELI for the Celebrating Women in Science and Engineering Seminar Series is another mechanism for bringing attention to gender issues in a range of fields. Funding from five colleges has aided this program to bring scholars to the campus and to further the goals of teaching colleagues about the research innovations women are making in their own fields, with the hope that this experience will expand the potential for research networks, and demonstrate the breadth of talent available in pools traditionally under-represented in departmental searches.

## 2. Intervention Strategy

### a) Main Project Components Actively Implemented and Target Audiences

These are in order of apparent prominence within the project.

- The project is heavily involved in the collection of data through surveys and interviews: baseline institutional and demographic data, climate perceptions, and reasons for why women leave are being gathered. Evaluation of the data is ongoing, both formative and summative. Initial data has guided the design of project programs. These surveys are administered across the campus and involve faculty as well as faculty associates (non-tenure-track). Climate surveys are also administered by department at the request of the chair, in concert with chair training workshops.
- The most cited component of the project is the development and delivery of workshops: one for department chairs on departmental climate and one for search committee chairs on broadening the applicant pool and running an effective search. The audiences are chairs and search committee chairs respectively, but have on occasion been enlarged to other members of the faculty (e.g. aspiring chairs) and search committee members. These appear to have been delivered across much of the university.
- The project has involved a significant amount of education of the faculty and administrators: education of the 'gender in science' social science literature. The PI s visit many departments and have organized seminars on campus. Data from the above surveys is also brought back to administrators in this fashion.
- The project involves a tremendous amount of personal interactions of the PI s with individual administrators, in the role of persuasion to implement positive policies, commitment of resources, resolution of individual conflicts and poor behavior.
- The project administers a Life Cycle Grant Program to consider and provide bridge funding for faculty in crisis situations regarding their

research. The circumstances are usually personal life crises that coincide with crucial career requirements.

- The project is evaluating existing university programs such as the mentoring network, the tenure clock extension program, campus childcare and dual career hiring policy.
- A small component of the project is a discourse analysis: a linguistic study of how women in science and engineering participate in faculty meetings and how they make themselves heard.

#### b) Project Leadership and Management

The project is led by the PI s Molly Carnes (Medical School) and Jo Handelsman (College of Agricultural and Life Sciences) who are co-directors of WISELI (The Women in Science and Engineering Leadership Institute) housed in the College of Engineering. The project is run by a Leadership Team composed of faculty from varied disciplines and colleges, including two faculty associates (non-tenure-track) and two deans (Engineering and Letters and Sciences). The project has administrative partners (mostly high level administrators including the Chancellor and the Provost). An external advisory team has also met with the project leaders.

The project has a dedicated executive and research director (Jennifer Sheridan) and several other researchers.

The team seems to work effectively together.

### 3. Changes/Revisions in Strategy from Original Proposal

- As a result of town meetings held early on in the project timeline, work/life issues have become a priority. Work with the childcare office and the Dean of Engineering has resulted in positive steps toward improved services for faculty with children.
- The idea of cluster hires was dropped, as participants at town meetings did not see it as a useful initiative given available resources.
- The town meetings revealed the critical importance of chairs in affecting the professional lives of women faculty. As a result the climate workshops for chairs took on a more prominent place in the project and on campus.
- Hiring and search committees were identified as keys to institutional transformation and hence the workshops for search committee chairs were developed and implemented.
- At a management level, a shift was made from the leadership team faculty to the project researchers (reallocation of funds from 10% faculty salary (reduced to 2.5%) to project researchers and assistants.) At the same time increased administrative support was granted from the institution.

### 4. Logic Behind the Project Intervention

The ultimate goal of the NSF ADVANCE program is to change the institutional climate to better support the advancement of women in academia. Three themes tie the activities in the Wisconsin award together: a belief that an evidence-based approach will drive institutional change; that alterations in individual behavior cumulatively result in institutional change; and that any change achieved must be sustained beyond the time period of the award. The interventions include: life cycle grants, celebrating women in S&E grants, conversion of non-tenure track employees to tenure track, increased awards and honors for women, additional endowed chairs for women, leadership development for academic staff, climate workshops for department chairs, workshops for search committee chairs, and workshops on building effective research teams.

The efficacy of the life cycle grants and the “celebration” grants in enhancing the advancement of women was not well defended. While the “productivity” attributed to the life cycle grants was high (\$6M in proposals, 13 papers, etc) relative to the award size (\$200K), there was no evidence of what the productivity would have been without these awards. On the other hand, these awards were well received by faculty and staff alike and surely contribute to an atmosphere that supports the faculty in their efforts to balance their lives.

The conversion of non-tenure track staff into tenure lines in the science and engineering faculties was not formally discussed in any detail during the site visit but, anecdotally, it appeared not to be moving forward. This is not surprising as it is a considerable challenge for non-tenure track staff to maintain the well-rounded and balanced portfolio of accomplishments required to compete successfully in a national search.

There is no track record yet on the efforts promised in the proposal to secure support for endowed chairs for women. While central university administrators continue to display commitment to this effort, it is worth noting that, nationally, there is a non-trivial reluctance upon the part of senior, accomplished women to participate in activities such as this which have limited eligibility, for example, by gender. Likewise, the activities for leadership development for academic staff (except as noted below) and for building effective research teams were not as yet developed.

Two sets of workshops that do have a track record are those introducing the department chairs to the “climate” study and those for the chairs of faculty search committees. Both sets of workshops are widely viewed across campus as successful. They were piloted, evaluated, improved upon and implemented over the course of the first two years of the award. Throughout our interviews, they were universally acknowledged as the most critical and likely elements to be sustained after the cessation of NSF funding.

## 5. Summary of Evidence for Link between Project Intervention and Institutional Change

It is too early to see changes in the numbers of women in faculty and leadership positions. The NSF Indicators decided upon by the original ADVANCE teams do not provide effective indicators for evaluation at this point in the program, which is only

three years into a five-year grant. Quantitative indicators alone do not capture issues of climate that are the focus of many of the initiatives.

A few initiatives have data to support their effectiveness and promote their sustainability. The Life Cycle Grant program, which has had three cycles, has awarded support to tenure track faculty whose career plans are interrupted by personal crisis. Awards are based on recognition of the impact of even minor career interruptions on careers in science and engineering, which can be devastating. Relatively modest support of the type provided through these small grants enables faculty to keep labs and research programs running, and potentially to weather crises that threaten to derail careers. Recipients see the Life Cycle Grants as effective and as evidence that the institution values them as individuals. There is institutional commitment to continue the award program via the Provost Office and the Dean of the Graduate School, but there is a need for securing funding and perhaps expanding this program.

The other major initiatives are still in process, so evaluation and evidence of institutional change are hard to assess. The site visit team was more dependent upon comments from participants, than on changes in the numbers of women in various positions. Climate emerged as a major area of concern in the proposal and in in-depth interviews. From age-old discussion of the "Chilly Climate," it is clear that people with privileges are unaware that others can experience the same environment that is pleasant to them differently. To address this issue of awareness, team leaders initiated surveys of departments and shared data with department chairs. Climate issues are also discussed in the workshops for department chairs.

People speak highly of these workshops since there is more attention to issues of climate and the need to address gender issues. Chairs talk about the learning experience, but it is less clear what behavioral changes they are making and how they are moving to improve the climate in the department. Additional efforts at community building have been ordered in some spheres, but to see real institutional change there has to be an expansion of initiative by senior faculty as well as chairs, people who run labs and centers, and other segments of the biological and physical sciences.

Another major initiative has been Workshops for Chairs of Search Committees. In some instances, Deans mandate attendance. These venues are seen as effective since they are faculty development experiences that teach skills in managing a search committee as well as highlight the way that bias enters the process and works against securing a broad pool of applicants for any position. Data about bias are introduced to teach faculty who were unaware of implications of behavior. It is too early to see results in hiring, but comments expressed point to increased awareness of issues and more sensitivity. Data on new hires will permit the investigation of the impact of workshops for the chairs of search committees. Furthermore, this data on recruitment might be included in the NSF Indicators.

## 6. Evaluation

#### Status of the project's formative assessment

WISELI has had mixed success with formative assessment. Successes include:

- a. Qualitative assessment of the Life Cycle Research Grants program. Although the program is small, the assessment established the critical importance of the grants for affected faculty, and the potential return in terms of grants and contracts applied for as a result of these small grants, as well as reduced start-up costs when valuable faculty are retained. The university responded to this assessment by picking up the costs of the program for the duration of the ADVANCE grant.
- b. Climate surveys in Departments. These web-based surveys are used to inform department chairs regarding climate issues in their department. The results are necessarily presented in aggregate form, and may help some Department chairs to improve their performance.

WISELI has had less success with the on-going assessment of:

- a. Search committee chair training. Data exists to assess the extent to which such training alters the pool of candidates, yet the data has not yet to our knowledge been analyzed.
- b. Department chair training. Although many chairs have been trained, and the departmental climate has been assessed in those cases, the success or return of such training has not been assessed.

#### Status of the project's external evaluation:

WISELI's last external assessment was in 2002, by Charlotte Kuh and Joan King. The assessment letter mentioned numerous strengths and concerns. Of the concerns that the institution could reasonably be expected to address, the University was very responsive in terms of adding personnel (including a new \$100,000 annual expenditure for support personnel), which should also help address another concern in terms of key personnel burning out. Other concerns in terms of the length of time required for institutional change, such as the small numbers of women in leadership positions, and the tendency in academic settings to dismiss Life Cycle Research Grants as "soft", are less easily addressed, although the external site visit committee hopes that the numbers of women in leadership positions will improve by the end of the grant cycle.

#### Overall attention to assessment and using it to improve practice:

WISELI has undertaken a great deal of assessment/evaluation activity, and plans for continuing to gather relevant data are clear and relevant to the organization. However, the connection between assessment and practice within the institute is not as strong as it might be. The initial climate surveys of faculty and staff were undertaken during 2003, and while the resulting data has been analyzed and publicized; it is not clear how the

results have altered the programs and practices of WISELI. Indeed, because the survey did not replicate questions from campus climate surveys elsewhere, it is not clear what the (apparently quite positive) results of the initial survey signify in terms of the climate at the institution. In-depth interviews with 26 women faculty have yet to be analyzed, as are the eight interviews with women who exited the university, so neither can inform the construction of the climate survey nor help restructure the practices and programs of WISELI. However, the 2003 climate survey results were used to leverage lactation rooms and may help improve childcare resources at the campus.

Follow-ups to both the campus-wide survey and the interviews are planned for 2006, while the NSF ADVANCE indicator data are being collected in an on-going fashion, and suggest some improvement in the position of women in science and engineering. These data collection efforts will be invaluable for assessing the overall impact of WISELI, albeit with some confounding effects (e.g., further UW budget cuts during the period). However, these assessments will likely occur at too late of a date to improve present practices and programs.

Most individuals interviewed by the site visit committee mentioned that the presentation of data, including the climate survey data for departments, greatly facilitated the effectiveness of WISELI. That portion of assessment is a great strength of the initiative; improving the connection between assessment and practices/programs within WISELI is a major concern of the site visit team.

## 7. Sustainability

Efforts to diversify the make-up of the faculty and to achieve a climate of gender equity have waxed and waned over the last 25 years. The University has, for more than a decade, had in place a number of policies (family leave, tenure clock stoppage, part-time tenure, etc) that have been underutilized by the faculty. Faculty we interviewed reported that there was great optimism that there would be some gains in gender equity made during the presidency of Dr. Donna Shalala, but gains made during her tenure were somewhat fragile and often did not persist.

WISELI represents a new opportunity for achieving a favorable environment for gender equity on this campus. Three years into the ADVANCE grant there are already strong indications that some projects and programs initiated by WISELI are likely to persist beyond the time-line of ADVANCE funding. It was less certain from the information presented during the site visit whether WISELI will be able to sustain itself as a unique research institute. Doing so requires WISELI to become capable of securing the external funding required to underwrite the resources needed for research and scholarship. For WISELI to truly emerge as a sustainable research center the administrative team might consider broadly reaching out to the academic communities currently engaged in research and scholarship on issues related to the WISELI mission.

WISELI activities likely to be sustained include:

- The Life Cycle Grants – this award mechanism is already receiving support from the Office of the Provost and the Graduate School. We heard evidence of a commitment on the part of the University to seek private donor support from sources such as existing UW endowments and the Women’s Philanthropy Round Table.
- Search Committee Chairs - the administration has voiced strong support for continuing the training of search chairs with institutional funding. If training of search committee chairs proves to be effective as a means of helping the University achieve the goal of increasing faculty diversity, it should also lead to greater diversity of search committee make-up and leadership, supporting sustainability of effort.
- Departmental chair climate workshops – the administration representatives meeting with the site visitors indicated there is interest in continuing such workshops as a tool for improving the diversity climate on campus.
- Brochures and videos produced by the WISELI are likely to remain in circulation. For sustainability, some consideration might be given to how these could be routinely upgraded.

The site visit team did not hear in its discussions with the WISELI team whether the Celebrating Women in Science and Engineering Grants will be sustained beyond ADVANCE support as a specific grants program under the WISELI umbrella. If WISELI is effective at warming the chilly climate there should be a gradual time-dependent decrease in the need for specific initiatives for highlighting the academic contributions of women or for encouraging the inclusion of women as speakers in colloquia series, etc. The participation of women faculty, both from within and without the University, in such activities should become “business as usual”.

Sustaining WISELI and institutionalizing its projects and programs could be facilitated by increased attention to distributing responsibilities for leadership beyond the efforts of the two principal investigators. The PI’s are visible, respected members of the UW faculty and are very identified with every aspect of WISELI and personally responsible for much of its success. With time, some consideration could be given to using the Leadership Team as a way of sharing responsibilities with a larger number of senior faculty while allowing the PI’s opportunities for “freshening ” their own activities, limiting the risk for burnout.

Institutionalizing support for workshops and training could help sustain efforts and open opportunities for new research and programs.

## 8. Dissemination and Potential for Replication as a Model

- a. What is this program doing in terms of dissemination?

Brochures and Guidebook

This ADVANCE program has produced succinct, attractive brochures that other campuses in the country can use or adapt for their own purposes. Examples include:

“Reviewing Applicants: Research on Biases and Assumptions”; “Life Cycle Research Grant Program”; “Advancing Your Career through Awards and Recognition: A Guide for Women Faculty in the Sciences and Engineering.”

The brochure on biases is invaluable because it lists perennial and widespread ways that women and U.S. minorities in countless settings are unwittingly undervalued and underestimated during evaluation processes in academe. The points in the brochure are based on sound scholarship done by cognitive scientists, organizational behaviorists, social psychologists, and others across the nation; a bibliography is provided. Perhaps every faculty member and supervisor should receive a copy of this brochure and be part of small-group discussion of it. The other campuses in the UW system, the site visit team understands, are interested in using this and other publications being generated by WISELI. A number of leaders (whom the site visitors interviewed) said that WISELI “most generously” shares its lessons learned and its publications and reports. The site visit team applauds this strategy.

As another example, the “Advancing Your Career” brochure succinctly sets forth the reasons why more women should be nominated for awards and why they themselves should become more pro-active in seeing that they receive greater recognition. Widely distributing this brochure will again raise awareness that women disproportionately receive campus, regional, and national awards and that this invisibility can and must be remedied.

During a discussion with WISELI’s top leaders, some of the site visitors suggested that other succinct, effective, and generic (meaning, non-UW specific) brochures could be generated on related topics: such as the predictable problems encountered by solos (or one of a few) in an organization and how to reduce such problems; how to reduce stereotypical threat (Claude Steele’s term) often felt by women and minorities on this and any other majority campus; how to recognize and then rise above positive stereotypes for members of certain groups as well as negative stereotypes for members of other groups.

WISELI has also developed a guidebook for search committees, similar to those produced by several other ADVANCE programs and posted on their websites.

#### Journal Articles and Conference Presentations

Several journal articles have been published on this program’s work to date, and others are being developed. A book focusing on the “ignoring-my-ideas” phenomenon will probably arise from some of this program’s work and videotaped interviews. Program leaders have made a number of presentations to national conferences. In short, there is vigorous national distribution of this program’s work, lessons learned, survey instruments developed, etc.

## Videotapes

By means of videotaping, this program is highlighting the most successful initiatives being pursued by the program, the impact of these initiatives on participants and beneficiaries, compelling testimonies by those influenced and helped by some of the initiatives, etc. In addition, the site visitors learned that videotaping is being done of the talks given by women speakers brought in under WISELI's Celebrating Women in Science and Engineering Seminar Series as well as of the talks (sponsored by WISELI) being given by local scholars from various disciplines that are focused on women-in-science-and-engineering issues.

The site visitors believe that such stockpiling of videotapes is wise, can be duplicated by other campuses, and will allow fruitful dissemination over the long term. These videos should prove to be an important resource held by WISELI and shared with the world.

WISELI's website is splendid and provides important information (from inside and outside UW) on gender-equity matters. The videotapes, too, will be accessible at this website.

### b. What are the unique features of the WISELI program?

On the UW-Madison campus, the faculty holds an unusually large proportion of power (as opposed to the provost, deans, and president). Given this fact, the program leaders decided that it would be necessary for them to devote considerable resources and time to gathering data on how faculty and staff perceive the workplace climate of their own departments. With some of the results in hand, the WISELI leaders could then hold dialogues with each department chair, to review the findings about his/her department. The visitors found that department chairs indeed were drawn in by this strategy.

Is this strategy capable of being replicated? Yes. But there may be less elaborate surveys that other campuses may wish to use, in order to begin raising awareness, especially among chairs, of how their perceptions of departmental climate can be very different from those of their colleagues, especially women. WISELI administrators are convinced that generic information about gender inequities would not have been as effective to use in the first meetings with chairs. This may be true. But several leaders interviewed by site visitors believe that at this point in time, there is indeed "faculty readiness" to move more quickly (with WISELI's assistance) with the tasks of improving evaluation processes and changing individuals' and departments' practices and behavior. The site visitors concur.

The data-driven strategy of WISELI seems to have worked as intended. But in the time remaining in this grant, it would seem sensible to sponsor gender-equity workshops for a wide variety of senior faculty who are not chairs, including Principal Investigators in STEM fields who have women students and postdoctoral associates in their labs. (Two leaders interviewed by the site visitors suggested that these lab power-holders should be immediately brought into the dialogues about gender inequities and how to remedy them.)

Other campuses, throughout the country, most definitely should replicate active-learning, peer-assisted workshops for department chairs and search committee chairs. WISELI is learning a great deal about how to construct such workshops and do follow-up. As the dean of the engineering school observed, “this campus system has no memory” because search and department chairs rotate so much. Therefore it is essential that such workshops continue into perpetuity. It appears that the provost and several deans agree and will help to financially underwrite these workshops.

Finally, campus-wide and high visibility for WISELI is a strategy that is being pursued by WISELI leaders as well as by the provost, engineering dean, and other administrators. Such program visibility has appreciably raised awareness of gender issues, according to a number of leaders interviewed. Other educational institutions could certainly duplicate this strategy.

#### 9. Recommendations:

The site visit team recommends that WISELI

- Broaden the activities so that other influential populations (e.g., lab directors, non-administrators, etc) are reached,
- Continuing on the success of existing brochures, expand the breadth of topics that they address,
- Consider other models of institutional change, including activities as they progress on other campuses,
- Abbreviate (or streamline) any new data collection,
- Speed-up data analysis to feed back into improved practices and add new initiatives or practices as suggested by the findings,
- Broaden leadership to cadre of committed senior faculty,
- Consider climate challenges for women of color and
- Re-evaluate the obstacles associate with converting non-track academic staff to tenure track positions.

#### Concern:

The site visit team applauds WISELI’s initiation of faculty development activities and interventions and anticipates that they will migrate to and be sustained by the Provost’s Office. Even so, the site visit team’s impression from their interviews with campus faculty is that faculty do not trust that this will happen in an effective fashion.

