

## **Second Quarterly Report for NSF ADVANCE Program, January 1 to March 31, 2011 Lehigh ADVANCE: Building Community Beyond Academic Departments**

### **I. Significant Accomplishments: Project Activities**

#### **A. Leadership and Retention Interviews**

During February and March, four members of the Lehigh ADVANCE grant team (ADVANCE Chairs Mooi Choo Chuah and Susan Szczepanski; Co-PIs Sibel Pamukcu and Jeff Sands) conducted Leadership and Retention Interviews. All tenured and pre-tenure women faculty in the natural sciences, engineering, and mathematics were invited to participate and almost all accepted. The interview questions and format were constructed with the guidance of the two social scientist Co-PIs (Diane Hyland and Jackie Krasas), who spent substantial time in consultation with and in the training of the interviewers and will participate in coalescing and analyzing the results of the interviews. The one-hour interviews were held either in the faculty member's office or in the ADVANCE program office suite, at the preference of each interviewee. All interviewees were asked general questions about their perspectives on the landscape for women STEM faculty at Lehigh, specific current issues, opportunities and challenges moving forward, and insights they have gained from their own personal experiences at various stages of their careers. The overall results of the interviews will be used to help shape upcoming events, such as leadership development workshops, training for faculty mentors and evaluators such as promotion and tenure committees regarding interdisciplinary research and teaching, and continuing discussions of university policies and procedures. In May 2011, social scientists Jackie Krasas and Diane Hyland will hold follow-up focus group sessions with the STEM women faculty to provide additional baseline qualitative data.

#### **B. Social Science Research: Gender and Interdisciplinarity**

The Social Science Team headed by Jackie Krasas and Diane Hyland has engaged in significant discussions with Jean Russo, the internal evaluator, about how to meet our survey needs while avoiding survey fatigue. They have decided to administer at Lehigh a combined survey instrument that includes baseline climate as well as the collaboration/interdisciplinary research survey. They also see benefits to the larger study of having the ability to examine the degree to which gendered climate issues may impact on experiences with collaborative and interdisciplinary research. With Jean Russo, the Social Science Team has developed and finalized two survey instruments: the combined survey to be conducted at Lehigh and the collaborative/interdisciplinary research survey that will be administered to our nine peer institutions. They have identified our populations at Lehigh and the peer institutions. At Lehigh, they will survey all STEM faculty in these departments: all engineering; all natural science/mathematics; and psychology, sociology/anthropology, and economics. At our nine peer institutions, they will survey an analogous set of departments including all women faculty and a matched male peer. They have identified approximately four hundred female STEM faculty with a matched male pair. They will obtain IRB approval prior to administering the surveys.

Diane Hyland and Jackie Krasas will conduct focus groups with women STEM faculty that will draw upon themes uncovered in the initial individual Leadership and Retention Interviews. These will be completed by mid-May. The focus groups will be recorded and transcribed. They are also preparing an IRB protocol for these focus groups.

### **C. Women's Studies Programs and Networking**

On February 25, 2011, Professor Susan Basow of Lafayette College presented a talk for women STEM faculty, department chairs, and members of promotion and tenure committees on Gender and Teaching Evaluations. Professor Basow's discussion of her research on the ways in which student perceptions and expectations result in differences in how they evaluate female and male STEM faculty generated a lively discussion among the twenty-one attendees. The Women's Studies Program followed up this event with a reading group luncheon discussion held on March 14, 2011, of Basow's book chapter, "Student Evaluations: The Role of Gender Bias and Teaching Styles." This reading group considered a number of ways to improve evaluation of teaching at Lehigh, including the recommendation to re-order the questions on student forms (place the global questions last so that students consider the various components of instruction before providing an overall assessment). The reading group also presented the opportunity for several ADVANCE Leadership Team (LT) members to discuss the broader goals of our program with non-STEM faculty, thus moving in the direction of institutional transformation.

### **D. Women in Science and Engineering (WISE)**

The LU-WISE was formed and the first meeting took place as a luncheon on January 21, 2011. These luncheon meetings are planned to take place up to three times a semester, boasting the theme "Building Community by Sharing Research." The first luncheon attracted eighteen out of thirty WISE faculty invited. It featured two speakers, icebreaker activities and a feedback questionnaire. The feedback indicated that the meeting was successful in terms of getting STEM women faculty together to enjoy each other's company while learning about their scholarship. They liked the luncheon and presentation setting, but would like a bit more time for questions and informal interaction. They also indicated that they would welcome postdoctoral fellows, and to a somewhat lesser degree, LVAIC STEM women faculty and women in industry.

We took this feedback into consideration for the second luncheon for Spring 2011 and planning for the next academic year. We will limit the first year (Spring and Fall 2011) WISE meetings to only LU-WISE and open them up gradually to external STEM women starting with the LVAIC faculty first, perhaps in Spring 2012. In order to nurture the community of WISE women at Lehigh and foster interdisciplinary collaboration across ranks, we have expanded the list of invitees to include women in postdoctoral and research scientist positions. The second LU-WISE luncheon, held on March 24, 2011, was attended by fourteen faculty and staff. The agenda included a research presentation by a member of the Computer Science and Engineering Department (consistent with our goal to promote collaboration) and an update on ADVANCE activities. This update provided an opportunity for feedback on several ideas including recruitment of male champions and composition of search committees. The group also considered the meaning of and metrics for institutional transformation.

The presentation slides of the luncheon speakers will be made available on the Lehigh ADVANCE web site.

### **E. Lehigh Open Access Database**

Co-PI Sibel Pamukcu and Project Manager Marci Levine have met with Professor Tiffany Li (Electrical and Computer Engineering) to discuss plans for the collaborative WISE database. They plan to create a synergy with or leverage existing Lehigh "expert" databases sponsored by the Office of Research and the colleges, but are also considering ways to serve as a model for retooling existing/ongoing efforts beyond ADVANCE. The initial goal will be to have a functioning database populated by the research profiles of LU-WISE women faculty on our website by September or October 2011.

#### **F. Leadership Development for Tenured Women STEM Faculty**

Since January 2011, Professor Tina Richardson, the project leader for the Leadership Series, has examined benchmarking research and national data related to faculty leadership development. This included reviewing information on ADVANCE Grant awardees in order to determine whether resources related to leadership initiatives at other institutions could inform the design and content of Lehigh's Leadership Series. She investigated the curricular components from national leadership programs such as Higher Education Resource Services (HERS), Executive Leadership for Academic Medicine (ELAM), Management and Leadership in Education (MLE) at Harvard, and American Council on Education Fellows Program to determine if they could also inform the development of the Series. Additionally, Tina Richardson surveyed the tenured women STEM faculty members at Lehigh regarding the leadership topics of interest that they believe would contribute significantly to their professional development. Thus, data from multiple sources (i.e., research and faculty poll) were utilized to develop a preliminary framework and identify primary components of the Leadership Series, which will include a combination of lectures, workshops, and potential projects related to strategic initiatives. In tandem with designing the Series, an evaluation plan for each component has been outlined.

The first event in the Series, a workshop entitled "The Connective Leadership Styles of Faculty Leading Change," has been scheduled for May 2011. The workshop is designed to help faculty gain insights into academic leadership, a range of achieving styles (leadership behaviors), and ways that individuals and institutions can develop effective leaders to transform the institution.

#### **G. Recruitment Strategies**

We have initiated our grant program to provide funding for departments and interdisciplinary programs to bring women STEM postdoctoral scholars and advanced graduate students to campus to give a seminar about their research and network with Lehigh faculty with the goal of encouraging them to consider Lehigh when appropriate positions become available. We have recently expanded this program to permit departments/programs to bring in more senior STEM women faculty and researchers, as long as they are potential candidates for future Lehigh positions. This spring we provided funding to departments for three recruitment seminars.

In May-June, Project Director Jean Soderlund will draft an online faculty recruitment toolkit for posting on the Lehigh ADVANCE website by early August, when the new recruiting season begins. She will use best practices from ADVANCE programs and other institutions, confer with members of the LT, and obtain feedback from key Lehigh constituencies and our External Advisory Committee. An important focus of the toolkit will be on interdisciplinary (or cluster) hiring. At our planned retreat in June, the LT will build upon discussions with the Internal and External Advisory committees to develop strategies for working with search committees during the hiring cycle in AY 2011-12.

#### **H. Interdisciplinary Networking Committees**

Jean Soderlund will work with Deputy Provost for Faculty Affairs Vincent Munley to develop the interdisciplinary networking committees for new faculty entering August 2011. Their plan is to work with faculty to create the committees for new STEM faculty by mid-summer. Using data from the Leadership and Retention Interviews and best practices from other ADVANCE programs, the LT will develop training programs for the interdisciplinary networking mentors. Marci Levine is conducting research on best practices, including available online toolkits. Susan Szczepanski and Diane Hyland are members of and thus can serve as liaisons with the University Faculty Mentoring Committee.

#### **I. Review of Policy/ Guidelines on Evaluating Faculty involved in Interdisciplinary Research and Teaching**

While Lehigh recently revised its policies for faculty with formal joint appointments to align with academic best practices, changes should be considered for faculty with less formal interdisciplinary

arrangements. Deputy Provost Munley has established and chairs the Interdisciplinary Policy/Guidelines Review Task Group, whose members include ADVANCE LT members Jeff Sands and Jean Soderlund as well as two tenured STEM women and several other faculty. The task group will examine the issues regarding faculty who participate in interdisciplinary research and teaching, whether with 1) a formal joint appointment (for which we have R&P); 2) a less formal interdisciplinary appointment that describes effort allocation in their appointment letter; or 3) appointment to a single department but participation in other programs or interdisciplinary work. The task group expects to meet with the department chairs at their May 2011 breakfast and to hold focus groups with faculty and center/program directors. The plan is to conduct fact-finding and then make recommendations for policy/ guidelines changes. ACE Fellow Elizabeth Hendrey completed a review of Lehigh's current policies in this area as well as practices at other institutions. Marci Levine is following up with further research on best practices, including available online toolkits.

## **II. Project Management and Organization**

Two significant accomplishments during January and February were planning and holding the first annual meeting of our External Advisory Committee and the First-Year NSF site visit with Dr. Kelly Mack. We received important encouragement and advice on both of these occasions. While we are addressing a number of Dr. Mack's recommendations in this interim report, we will also submit a separate response to her March 3, 2011 report.

### Internal Advisory Committee

We will reconstitute the IAC to include only those members who are not also on the LT (Deans Anne Meltzer and S. David Wu; Vice President and Associate Provost for Research and Graduate Studies Alan Snyder; Deputy Provost for Faculty Affairs Vincent Munley; Professors Jennifer Swann and Tiffany Jing Li; Department Chairs D. Gary Harlow and Frank Pazzaglia). Marci Levine will work with them to set up a meeting in April, with the purpose of selecting a chair, establishing a meeting schedule, and adopting mechanisms to provide objective evaluation. We will submit this interim report to the IAC for their consideration. The LT will then meet with the IAC to discuss their feedback and help us plan for AY 2011-12.

### External Advisory Committee

The EAC is chaired by Lehigh President Alice Gast and includes Susan Carlson, University of California; Jo Handelsman, Yale University; Jennifer Sheridan, University of Wisconsin; and Karen Thole, The Pennsylvania State University. All members were able to attend the January 28 meeting except for Professor Handelsman, who learned just prior to the meeting that she would receive a Presidential Award in mentoring. The EAC was very helpful in sharing their experience and providing advice in a wide variety of areas including this meeting's foci: designing workshops and recruitment. We will follow their lead in holding a retreat in June 2011 to plan our activities for the AY 2011-12, and will look for ways to integrate Lehigh ADVANCE goals into current Lehigh activities. We will also keep their advice in mind as we develop the interdisciplinary networking committees for new faculty.

### Program Administration

In addition to facilitating and contributing to the various project activities, events, and plans discussed above, Project Manager Marci Levine, in collaboration with Patricia Mann and other LT members, has been active in a number of areas including: launching the website with plans for additional main navigation and news/events features and continued maintenance; working with Human Resources to add ADVANCE awardee status to all Lehigh faculty openings announcements; deploying the logo on signage, correspondence, flyers, promotional items; branding the LU-WISE program through flyers and publicity; discussing communications planning with colleges and university communications staff; drafting a communications plan.

### **III. Areas of Difficulty/Resistance**

Probably our most significant challenge is related to our greatest opportunity to serve as a model for other institutions: Lehigh's moderate size limits the number of faculty available to lead and participate in ADVANCE activities. We are addressing this issue in part through careful planning of events such as the Leadership Series, LU-WISE, and external speakers. The work load of LT members will require careful monitoring as we move forward. Adopting a comprehensive (but living) communications plan, which Marci Levine has drafted, should also keep all projects aligned with overall goals and communications strategies.

### **IV. Best New Idea**

Starting Tuesday February 15, 2011, the ADVANCE meeting office became available for LU-WISE members to gather on Tuesdays and Thursdays between 12-1:30pm for brown bag luncheons. A library of ADVANCE related books and journal articles, a coffee maker with coffee and mugs, a small fridge with water, and computer and docking station are available in this room.

### **V. Project evaluation**

A detailed evaluation plan was submitted to the NSF on March 1, 2011. The plan included a written description of the evaluation activities associated with both the internal and external evaluations as well as an evaluation timeline. The evaluation activities and how they relate to the goals, initiatives, and program components were also included in a spreadsheet format. Most recently, Jean Russo, the internal evaluator, has been working with the Social Science Team to develop and test an online survey, which will be used to collect baseline climate data. The survey contains sections on: faculty positions, perceptions about their primary department and interdisciplinary centers/programs, hiring and promotion/tenure, work load and work/life balance, leadership, perceptions regarding collaboration and interdisciplinary research, impediments to collaborative/interdisciplinary research, relative time spent on work-related activities, research and accomplishments, mentoring, institutional policies/programs, demographics, and utilization of university programs. This document will be submitted for IRB approval. There have also been discussions with the Social Science Research Team about how the online survey will be promoted within the University to ensure a good response rate by STEM faculty.

### **VI. Personnel Update**

Wendy Abrantes joined Lehigh ADVANCE as a research scientist for the Social Science research in January 2011. She received her MA in Sociology from Lehigh University in 2007 and after graduation, she continued work with the Department of Sociology and Anthropology in the Social Science Data Center as a program evaluator for the Creative Campus Grant and South Mountain College. She has also served as evaluator for community organizations such as North Penn Legal Services and The Weller Health Center. Ms. Abrantes was a research assistant in Lehigh University's Center for Social Research and an adjunct instructor of Sociology and Anthropology for Northampton Community College.