UC LEAF

Six Page Summary

Section 7
INSTITUTIONAL CONTEXT
The University of Cincinnati is a large and complex public, R-1, university that serves over 42,000 students and includes a significant medical campus. Departments originally involved in the ADVANCE grant span four colleges and include: Anthropology, Biological Sciences, Business Analytics, Cancer Biology, Chemistry, Economics, Environmental Health, Geography, Geology, Mathematical Sciences, Molecular and Cellular Physiology, Molecular Genetics, Pharmacology, Physics, and Psychology. Since the inception of the grant, we have expanded the LEAF umbrella to include Communication, Philosophy, Political Science, and Sociology, as well as developed affiliated relationships with Criminal Justice, Pharmacy, and many of the clinical programs in the College of Medicine, Cincinnati Children's Hospital and Medical Center, and the Cincinnati VA Medical Center. Not surprisingly, different units in different colleges have different needs, goals, skills, opportunities, and balances of gender and faculty of color, and many of our activities have been designed to reflect unit individuality.

Each participating unit is responsible for developing its own logic model for achieving LEAF goals, and we monitor their progress through annual one-on-one meetings. The decanal structure has been and continues to be in flux for several colleges, but LEAF has been able to maintain a close working relationship with the deans’ offices. Similarly, the landscape of central administration has changed significantly (and will likely continue to change) since the inception of the grant. The Provost and the Chief Diversity Officer have supported UC LEAF’s initiatives. The Research Division has been an excellent collaborator and supporter of diversity initiatives for faculty and faculty development.

UC LEAF is led by a team comprised of the co-PI’s (which includes the Chair of the EAC), the Chair of the AAC, the Chair of Diversity Initiatives, the Internal Evaluator, the Associate Provost for Diversity and Special Projects, and our Program Director. The PI is the President. The AAC trains and manages the LEAF allies. Most LEAF programs are run in collaboration with other units and offices on campus, which allows us to reach a broader audience and promotes sustainability.

LOGIC BEHIND PROJECT INTERVENTIONS
UC LEAF Theory of Change:
Institutional change results from coordinated efforts that engage all stakeholders and include both top-down and bottom-up processes. In particular, increasing the representation and diversity of women faculty in STEM departments is best achieved when of the aims of the departmental faculty mesh with the aims of the deans and the senior administration. Similarly, creating an environment in which women STEM faculty, and underrepresented women STEM faculty in particular, feel empowered, supported, connected, and confident in their ability to succeed requires that the institution not only values diverse talent but also finds tangible ways to put those values into practice. Finally, sustained change can only occur when these top-down and bottom-up processes are well-integrated through a system that advocates for faculty and holds leadership accountable for action and change.

CHANGES FROM THE PROPOSAL
LEAF’s Visiting Scholars program was originally intended to be university-wide events. We decided that we could reach more faculty more effectively by operating on a local level. Therefore, LEAF now provides support to STEM departments for them to bring in women and minority visiting scholars.

The IAC turned out to be both marginally effective and redundant with the activities of the AAC, so we
have disbanded the IAC and instituted a Dean’s Action Committee (DAC) in its place. This committee problem-solves institution-wide issues relevant to the ADVANCE goals. In addition, the AAC now develops its own programming.

**SUMMARY OF SOCIAL SCIENCE RELATED RESEARCH**

**Social Network Analysis**

Because social relationships and intra-organizational networking have repeatedly been shown to predict career success, provide social support and access to mentoring, advocacy, and other activities essential to career development, UC LEAF proposed an investigation of intradepartmental networks for men and women in the STEM domains. To date, we have completed data collection for 6 departments and are currently seeking the data from the remaining 10 departments. Preliminary analysis has begun on the 6 departments. Due to the low numbers of faculty of color, we have restricted our analyses to gender comparisons of scholarly collaborations and social-affective relationships. Initial findings demonstrate variability across STEM departments and suggest expected differences within departments, with men generally having more robust scholarly networks than women, and women often being central participants in socio-affective networks. Data collection is expected to be complete by January 2015.

In addition to intradepartmental analyses, we will utilize the network structures of the departments as a proxy for climate and examine the ways in which data from the social networks map onto findings from the climate survey regarding satisfaction, persistence in scholarship, and intentions to stay (leave) UC. Using this approach will allow us to also make interdepartmental comparisons by examining whether structures of various types (e.g., gender neutral versus male-dominated scholarly networks within the department) translate to different department-level outcomes.

**Discourse Analysis**

UC LEAF sought to examine whether social inequality as expressed through written communication and policy decreases as a function of institutional changes related to ADVANCE. LEAF proposed to analyze baseline communications in the two-year period prior to funding, and again upon completion of the award period. We complied communications for the period of 2000 – 2012. After much work, we have found that there is little depth to the communications, and that they do not provide an accurate lens as to how and when gender is conveyed, promoted, or the current status of issues related to climate. As such, and upon the recommendation of the External Advisory Committee, we will finalize this baseline data analysis by the end of the year, and do not plan to follow-up at the end of the award period.

**Retention and Turnover**

Sample findings from the retention data show that (1) STEM hires have shorter spells of employment than non-STEM hires; (2) STEM women have slightly longer spells of employment than STEM men; (3) the three colleges in which STEM scientists work at UC differ markedly in average length of employment, with there being much higher turnover in COM and CEAS than in A&S; (4) women in COM and CEAS had slightly longer spells of employment than did men, whereas women in A&S had shorter spells; and (5) African American STEM scientists had shorter spells of employment than other STEM scientists.

Preliminary data from a turnover study suggest that departmental dynamics are the primary reasons why STEM and non-STEM faculty depart. STEM faculty were more likely to leave due to the (poor) quality of students at UC, tenure or promotion concerns, or receiving an offer that provided a promotion. In contrast, non-STEM faculty were more likely to leave because of salary and location, and because they received a job offer that allowed them to move into administration. In terms of gender, women in STEM are more likely than men in STEM to cite burnout, quality of colleagues, and poor departmental fit as reasons for leaving.
Development of Future Interventions or Changes in Institutional Policies or Practices
Each of the research studies (with the exception of the discourse study) provides important information that can be used to design department-specific as well as institutional interventions that promote the advancement and development of our women STEM scientists. For instance, SNA provides a useful tool for departments to gain a better understanding of the connections among the faculty within the department. To the extent that the network results suggest that women in a given department lack robust scholarly networks, leadership can work with those faculty to make connections and improve ties that generate supportive research structures. Similarly, our retention data suggests that women remain at Associate Professor longer than do men. Accordingly, interventions (such as FORTE) may help to ensure more timely progression to the Professor rank.

SUMMARY OF IMPACT AND INTERVENTIONS AND PROGRESS TOWARD INSTITUTIONAL CHANGE
Goal 1: Improved Pathways/Pipeline
Our long-term objectives are to (1) increase the percentage of qualified women candidates, (2) increase the percentage of women hired, (3) increase the number of percentage promoted and tenured, and (4) increase the number of women promoted to full. Associated with each of these long-term objectives are several intermediate and short-term objectives.

LEAF has fulfilled many of the short-term objectives associated with this goal. Most units have completed their logic models. (COM is delayed in this regard due to collegiate restructuring.) LEAF is partnering with the Provost’s office and OEO to develop and provide training for all university search committees. Recruitment and hiring resources, including a rich selection of tools for broadening the diversity of the candidate field, are available on the LEAF web site. LEAF presented on recruiting, hiring and retaining diverse faculty at the university’s 2014 Diversity Conference. We have also presented data to several groups on campus and consulted with administrators, heads, and faculty. Two years of workshops aimed at pre-tenure women have been conducted, and we initiated workshops aimed at women at associate rank. The LEAF executive director meets with women finalists in CEAS to discuss opportunities for women on campus as well as our family-friendly policies. LEAF is partnering with the AAUP and Provost’s Office to provide RPT committee training. Our LEAF grants have provided women (of whom 44% were minority) with previously unavailable support for research and leadership development. We co-sponsor UC’s Op-Ed Project. Best Practices speakers Catherine Morrison, Diane Halpern, and Christine Grant came to campus to address professional development issues with women faculty and administration. We recently launched regularly scheduled writing circles for STEM women to work on writing projects and receive informal feedback. This spring, we will run a three-day, intensive manuscript-writing workshop for underrepresented women in STEM and present at all concurrent sessions of the University’s annual Diversity Conference

Specific Evidence of Progress
• A number of STEM units have been conducting targeted searches (prior to LEAF, there was little awareness of the possibility of targeted searches).
• A number of search committees changed the language of their advertisements to reflect best practices for hiring for diversity.
• Two search committees, chaired by women, though unsuccessful in hiring women, did have women among their finalists.
• In the units that were originally our focus, the percentage of new positions filled by women increased from 31% in a ten-year baseline period to 38% in the past three years ending January 2015. Arts and Science (A&S) units ticked up from 46% to 47% while Engineering and Applied Science (CEAS) increased from 12% to 29% and COM increased from 31% to 35%. In the “new” STEM units, the percentage positions filled by women declined, but the reasons are complex and are addressed fully in the evaluation report.
In the units that were originally our focus, hiring in the past three years has resulted in a more diverse set of women hires; white women as a percentage of the newly hired women declined from 73% to 64%. We hired as many African American women in the past three years as we had in the previous ten (N = 3), but as a percentage of new women, there was a jump from 3% to 11%. Women of Hispanic origin held steady at 4% of new women hires, but that 4% from 2013 to 2015 amounted to a single woman.

**Goal II: Improved Climate**

Our long-term objectives are to (1) Decrease the percentage of women STEM scientists who report concerns about UC in terms of work-family integration; (2) Increase the percentage of women STEM scientists who report feeling they belong, feeling supported, and feeling engaged and empowered; and (3) Increase the percentage of women STEM scientists who report feeling that they are achieving to their full potential. Associated with each of these long-term objectives are a variety of intermediate and short-term objectives.

As with Goal I, LEAF has largely succeeded in implementing the programming associated with this goal and we can demonstrate good progress toward our short-term objectives. In addition to Visiting Scholar Shannon Walker and our recent departmental visiting scholars, Best Practices visitor Rosalyn Stewart focused on diversity and climate issues. The provost now operates a dual-career hiring program. We received a supplemental grant to plan a regional clearinghouse to facilitate dual-career hiring. Additional results of the grant include UC joining a regional HERC, the President signing the ACE National Challenge for Workplace Flexibility and the AAUP beginning to formulate a new paid parental leave policy. We have reviewed and made recommendations for improving our family-friendly policies to UC Leadership, and LEAF will be meeting with sub-committees responsible for contract negotiations to suggest new language over the next several months. We are running learning communities for new and mid-career women on both campuses and senior women STEM faculty have organized one of their own. We are providing social and community engagement opportunities for STEM women to connect outside of the university.

In addition, a Diversity Advisory Committee was established to provide LEAF with perspective and guidance. The Provost has initiated a minority STEM faculty lunch. We started an affinity network for Hispanic/Latino/Latina faculty and are in active discussion about initiating one with African American faculty (LGBTQ STEM faculty were not interested in pursuing such a group at this time.). Our Celebrating Women and Diversity in STEM Breakfasts are among the most popular events on campus. CEAS has created a mentoring program for new faculty.

We do not yet have a second round of climate data that would allow us to measure some of the intermediate and long-term outcomes associated with this goal. While our original logic model relied heavily on unit-driven activities to improve climate, we now believe that there are greater opportunities to effect change in other ways. More of our climate programming is LEAF-driven than we originally planned. Second, our Accountability and Advocacy Council (AAC) has emerged as more influential than originally envisioned; its allies program (discussed in the next section) represents another important example of how we are influencing climate.

**Goal III: Mutuality and Sustainability**

Our long-term objectives are to (1) Minimize the number of instances where bottom-up change is stymied by organizational barriers; and (2) Ensure that all successful LEAF initiatives could be sustained.
Specific Evidence of Progress

- An allies program was established, with 38 faculty members from across the STEM departments agreeing to serve as the program’s early warning system for problems encountered by women in particular units. They will also be our spokespersons for ensuring that our values and goals are prominently featured in the discourse within STEM units.
- The AAC is currently working with HR to revise the Faculty Hiring Manual to include more on implicit bias.
- LEAF is on the planning committee for the Research Division regarding a comprehensive program for faculty development, as well as collaborating with the Graduate Fellows to establish a cross-university mentoring program for faculty at all stages of their careers.

PROJECT EVALUATION
Status of the Formative Evaluation
A key responsibility for the internal evaluator was to create the evaluation plan and certain research capabilities for the program. Our logic model was expanded in significant ways to include intermediate and short-term outcomes and to include consideration for how outcomes would be assessed for members of under-represented groups. Evaluation procedures were established to collect data from program participants both immediately after events and subsequently, when participants have had a chance to reflect on these experiences. These evaluations are shared with the leadership team and event facilitators to inform improvements to programming. Key capabilities that have been created include a longitudinal data file with 25 years of faculty data and the ability to pull scholarly productivity data from University databases. He also facilitated access to data resources needed by the external evaluation team.

Key Findings
- Analysis validated departmental claims that men and women STEM scientists are promoted and tenured at the same rates (there is some evidence that 50% of men are promoted a year earlier than the corresponding number of women).
- Analysis showed that, compared to similar men, a greater proportion of women languish in the rank of associate professor than do men.

Status of the External Evaluation
The external evaluation team from Miami University has completed the following work.
- The space survey demonstrated that access to facilities did not need to be addressed in programming.
- The salary survey demonstrated that previous administrative efforts had largely squeezed gender differences out of the university salary structure.
- Baseline climate survey provided us with results that informed programming.
- The key informant interviews after year one and just prior to the third-year visit have informed our self-assessments.

We do plan a mid-course climate survey but those results will not be part of this summary report.

POTENTIAL AND EVIDENCE FOR SUSTAINABILITY
LEAF’s activities will be sustained through at least six avenues. The Provost’s office will continue and manage the top-down training and best practices workshops; the Research Division will take the lead on bottom-up faculty development initiatives; the Chief Diversity Officer will facilitate the programs targeting our faculty of color; individual departments will continue the visiting scholars program; HR will oversee best practices in recruiting and hiring; and the AAC will continue as an organization for volunteer allies. By dispersing LEAF’s activities throughout the structure of the organization, we believe that long-term success in institutional transformation is more likely, as success does not depend on the
continuation of any one office or person. We are hopeful that an Office for Women in STEM will be maintained to oversee and coordinate the initiatives.

DISSEMINATION AND POTENTIAL FOR REPLICATION AS A MODEL

Our project interventions are tailored to the individual needs of colleges and departmental units, which is the most effective structure for change, but not the most efficient. LEAF enables and promotes administrative-faculty partnerships, particularly across colleges, heads/directors, and faculty. This type of structure is recommended for other large, complex, institutions with decentralized control.

Unique aspects of project interventions and overall strategy

Affecting change at the academic unit level requires that we take into account the unique challenges, cultures, and structures that exist across disciplinary boundaries. Accordingly, LEAF has eschewed a “one-size-fits all” strategy for change in favor of customized interventions at the departmental level. For example, each department developed a logic model that took into account its own needs and goals and thus reflected the disciplinary context within which they were operating. By affording departments this level of control, we were able to generate requisite buy-in and commitment to goals around hiring, selection, promotion, and climate.

We are not aware of other ADVANCE institutions using a mechanism similar to our Accountability and Advisory Council (AAC) to connect top-down and bottom-up efforts. Other programs have invested in programs that identify and train allies to support women faculty and, more broadly, the goals of ADVANCE. However, UC LEAF extends this model to include a process whereby UC LEAF can hold university leaders (i.e., from the President to department heads) accountable for supporting efforts to recruit, support, develop, and retain our women STEM faculty. LEAF recognizes that leadership must be a consistent and vocal advocate for our efforts and leverages the AAC to ensure this occurs.

Feasibility of replication at other institutions

Both the unit-level customization and the AAC model could be replicated at other institutions. However, we believe that larger institutions may benefit most from these approaches. With a university the size of UC, our approach is necessarily time and resource-intensive. Yet, we believe the return on this investment will be substantial as it has allowed us to circumvent the layers of bureaucracy and control that often slow more traditional (and uniform) top-down approaches.

Evidence of and plans for dissemination including publication and presentation

Results have been presented at national, local, and NSF conferences, as well as to key groups on campus. We anticipate two publications under review by June 2015.