

Cornell University's NSF ADVANCE Institutional Transformation Program
Summary of Accomplishments
October 1, 2009

The National Science Foundation funded an ADVANCE IT program at Cornell in November 2006. Cornell's ADVANCE program is focused on 5 colleges: Agriculture and Life Sciences; Arts and Sciences; Engineering; Human Ecology; and Veterinary Medicine. CU-ADVANCE has an ambitious overall objective: to achieve a minimum of 20% women faculty in each STEM and SBS department over the 5 year grant period, which will move the representation of women from token status to a critical mass.

Project Intervention and Progress

Our approach to institutional change is through an integrated, campus-wide set of initiatives coordinated and implemented by the CU-ADVANCE Center. CU-ADVANCE is led by the Provost as Principal Investigator and situated in the Provost's Office. This structure reflects our firm belief that successful implementation of diversity strategies requires genuine support from high levels of the university.

The CU-ADVANCE project is currently organized around four broad initiatives:

1. *Faculty recruitment* to develop a culture of proactive and continuous recruiting of women faculty. This initiative includes three activities:
 - a. Recruiting development through training, interview support and accountability. Training focuses on the "best practices" of recruitment for search committee members and chairs. To foster this training, we developed two workshops with the Cornell Interactive Theater Ensemble (CITE) and published accompanying DVDs. Interviews of women candidates are supported through "Coffee with the Candidate" and aggressive promotion of dual-hire opportunities. Each ADVANCE college has instituted accountability requirements on departments to initiate searches and, in some cases, to make offers to candidates. Improved central data reporting on searches is based on the ADVANCE indicators.
 - b. *Faculty Development Grants* to departments that are making offers to promising women scientists who could benefit from additional time prior to assuming a faculty position. The grant funds postdoctoral fellow positions. We are reevaluating the program as hiring slows in the wake of the financial crisis.
 - c. Two prestigious, named, annual or semi-annual lectures for recruiting women. One lecture targets graduates of Cornell, the other targets women faculty within 3 years of tenure at another institution.

Progress: We have made noticeable progress toward our goal of increasing women's representation in each S&E department to a minimum of 20% of full-time tenure-track faculty. At the end of our first year, 31 departments fell below the 20% goal. By the end of the third year, this had declined to 26 departments.

The number of women faculty in STEM also increased between our baseline year (average for 2003-6) and 2009 from 130.6 women to 149, and the number of women faculty in SBS increased from 93 to 103. These translate to gains in percentage terms as well: women were 20.7% of STEM and SBS faculty at the baseline and are 22.7% of the same group in 2009. The greatest progress was at the associate and full ranks, in part because of the promotion of women assistant professors. Progress at the assistant professor level has been slower, in part because very little hiring occurred in 2008-2009.

2. *Faculty development* to provide women faculty in STEM and SBS departments with the knowledge and resources needed for a successful academic career, both pre- and post-tenure, and to prepare them for academic leadership. This initiative includes a variety of activities:

- a. Workshops and networking lunches revolving around professional development themes, e.g., negotiation, proposal writing, mentoring of post-docs, or tenure and promotion.
- b. Bi-annual “career stage retreats” to address specific issues relevant to attendees at a particular rank: for example, the career stage retreats for assistant professors included very well-received panels on tenure and promotion and on effective teaching practices.

Progress: Participation rates in our activities have increased every year. In the first year of the grant, faculty from 40 different departments attended our events; by year 2, this number increased to 67 departments, and by year 3, to 74 departments. The proportion of women SBS/STEM faculty on campus who have attended one or more events is also quite high: we have reached 82.6% of S&E women in Veterinary Medicine, 66.7% in Engineering, 54.8% in Agriculture and Life Sciences, and ~40% in both Arts & Sciences and Human Ecology. Our lunch events for 2009-10 drew between 40 and 50 faculty members each, up from an average of 20-25 women for similar events in the past: we suspect this increase is at least partly due to increased publicity efforts and a new ADVANCE listserv.

- c. Leadership events, including a workshop by the Center for Creative Leadership (CCL) and dinners with national and on-campus women leaders. The CCL workshops, funded by the President’s Council for Cornell Women, an alumna organization, included follow-up individual coaching; 15 of 23 senior faculty took advantage of this follow-up opportunity.
- d. Research grants for women faculty:
 - *Professional Development Grants* to help pre-tenure women faculty network beyond Cornell to travel to a senior colleague’s institution or to bring a senior researcher to the applicant’s department/lab to increase her professional visibility. The grant can also be used to support professional training opportunities.
 - *Research Initiation Awards* for associate professors to support research that will assist in their promotion to full professor rank.
 - *External Review of Proposals* to help Cornell faculty succeed in obtaining external grants (new pilot program). Funds support an honorarium for a colleague external to Cornell to review a Cornell faculty member’s grant before submission to an outside funding agency. This program was launched in Fall 2009.

Progress: As part of our faculty development initiative, we disbursed 10 Research Initiation Awards (RIA) for Associate Professors, 10 Professional Development Grants (PDG) for Assistant Professors, and 3 Faculty Development Grants. Two RIA recipients from year 1 were recently promoted to Full professor. Both RIA recipients from year 2 are scheduled to submit their files this year. Current RIA recipients are still completing their projects, but at least one plans to submit her file at the end of the grant year. Of the PDG recipients, two have been granted tenure. The others will submit their files between now and 2012.

- e. Collecting and disseminating best practices on mentoring across colleges.
3. The *Climate Initiative* addresses both institutional policy and individual attitudes to create a more inclusive community and environment. This initiative includes the following activities:
 - a. Training department leaders (chairs, search committees) on climate issues by helping them recognize unconscious biases and micro-level interaction dynamics that can influence hiring and perpetuate a less-than-ideal departmental climate. 59 chairs, 2 deans, a senior associate dean and three Center directors participated in these workshops as well as over a hundred faculty participating in searches.
 - b. Advocating for chair training within the Provost’s office and acting as a broker to disseminate effective chair training practices across colleges. For example, at a recent Institutional Action Board meeting (which includes all deans, the Vice Provost, the Deputy Provost, and the Vice-President for Human Resources), we showcased the College of A&S’ online chair’s manual.

- c. Highlighting issues related to women in science through the campus-wide ADVANCEments in Science Lecture by nationally prominent gender scientists.
- d. Advocating for academic policies to create a more inclusive work environment.

Progress: CU-ADVANCE played an important role in a faculty senate decision to eliminate classes on Labor Day after over a decade of debate with no action (see below, on institutionalization).

We have also engaged faculty who did not participate in the past. The program has created a sense of community, especially for women faculty who experience isolation in their own units. When asked about what they liked about our programs, faculty said:

- “For a junior person, to meet senior women in related fields is very valuable. There are so few women in my own department.”
- “Most of the people I've met and talked with are very open and willing to talk about how their department or chair works through issues. This insight into the inner workings of other departments buoys my confidence in proposing changes in my own department.”
- “The beneficial aspect for me is a possibility to meet other women faculty who are at the same stage of their career and to share experiences. I also found very valuable meeting and talking to tenured women faculty, to listen and to follow their advice.”

4. *Evaluation and research.* This initiative entails the following activities:

- a. Monitoring recruitment, hiring, promotion, and retention statistics for women in STEM and SBS departments. For example, with the assistance of Office of Institutional Research and Planning (IRP), we conducted a longitudinal study of four employment cohorts (i.e., faculty hired in 1993-1996, 1997-2000, 2001-2004, and 2005-2008) to assess Cornell's progress with respect to hiring, tenure, retention and promotion of women at different ranks.
- b. Conducting research on the campus climate. Two studies were proposed in the grant: one analyzes the relationship between departmental demography (e.g., the proportion of women) and perceptions of climate; the second is a longitudinal analysis of assistant professors and the impact of perceived climate on their promotion outcomes. For the first study, CU-ADVANCE analyzed the 2005 Faculty Work Life survey; another Work Life survey is planned for 2010 in collaboration with the IRP, following up on the 2005 questions and including new questions relevant to CU-ADVANCE's mission. The first wave of interviews of the study of second-year assistant professors was completed in year 1, and the second wave is being planned for year 4.
- c. Exit interviews for departing faculty. At the request of CU-ADVANCE, Cornell instituted a formal exit interview process. Co-PI Correll developed an exit interview protocol and trained five faculty members and administrators to perform the exit interviews. Co-PI Robert Harris compiled a list of faculty who had left the university over the past five years (98 men and 42 women). The deans identified ~30 individuals who left for known reasons (e.g. denied tenure, or had a negative third-year reviews). Of the remaining faculty, we contacted 75, and 43 were interviewed. Completed interviews were sent to IRP for analysis.
- d. Soliciting institutional data on faculty salaries, start-up packages, and space allocation to ensure gender equity in resources. These data are also required for the NSF indicators included in our annual reports.

Dissemination

Our activities have been disseminated widely through mailing lists, our website, and annual meetings with the chairs and program heads in the five ADVANCE colleges. Our effective search practices DVD has been disseminated both locally, nationally and internationally. At Cornell, nearly 300 faculty have

attended the workshops over two years. Nationally, the workshop has been presented at 10 campuses since October 2008, reaching over 400 faculty, deans, and provosts at these campuses, and excerpts from the DVD have been presented at two conferences. Our next search practices workshop and associated DVD addresses academic interviewing and is scheduled to be released in October 2010, and we expect similarly high levels of dissemination.

Our external evaluation highlighted the need to further publicize benchmark data and the results of specific studies (e.g. cohort, start-up studies). The administration has asked that we disseminate results primarily through forums and meetings that will allow faculty and chairs to provide constructive feedback. In response, Co-PI Weeden has prepared a presentation for Chair meetings at the 5 ADVANCE colleges and for two faculty panels in Fall 2009. In addition, we are developing summaries of the results of these studies to be posted on our website.

Evaluation

In year 1 (Fall 2007), NSF ADVANCE Program Officers Jessie Dearo and Laura Kramer visited our program at Cornell. They were positive regarding the Center's first year activities. They expressed concerns regarding the load borne by the small ADVANCE team, which we have addressed by working more closely with other offices under the Provost and by our initial steps towards institutionalization. Following their suggestion, some of our programs (e.g., search practices training, programming for assistant professors on the tenure process) have reached beyond the women faculty. They also indicated the need to consider institutionalization issues early.

In year 2 (May 2008) we convened our External Advisory Board. The group was very positive about our progress and programs, but felt the Center was not advertising these positives sufficiently. Their recommendation regarding childcare support for travel has been implemented in the PDGs.

In year 3 (March 2009), the program underwent an external evaluation by Dr. Jennifer Greene, Professor of Education, University of Illinois, Urbana-Champaign. Dr. Greene's report was very positive, indicating that CU-ADVANCE initiatives are well received on campus and have had a positive impact on women faculty. Dr. Greene also made recommendations regarding dissemination of our successes and mentoring, both of which the Center is working to address.

The Center also has an ongoing evaluation process of its programs. We collect evaluations of all events. Evaluations have been consistently very positive, averaging 4 or above, on a scale of 1 to 5 with "1" indicating "not useful at all" to "5" indicating "extremely useful." Participants also indicate that "they would be very likely to attend future events offered by the Center" (with an average of over 4). The majority of participants note that meeting new colleagues was a valuable aspect of the interaction. The programming directors have also responded to specific programming requests and suggestions from year to year to increase participation.

Finally, we have also been working with the Office of the Provost and Office of Workforce Diversity and Life Quality to institutionalize the hiring and retention data that is collected regularly at the end of every academic year. Other evaluation activities are reported in section 4 of project intervention, above.

Institutionalization

Institutionalization of CU-ADVANCE's activities and programs has occurred in four arenas:

1. *Climate*: One of CU-ADVANCE's notable accomplishments was to lobby effectively for the elimination of teaching on Labor Day by the Faculty Senate, a practice that created an annual scramble for child care among faculty with children. CU-ADVANCE collected preference information from more than 50 women on our mailing list, solicited data from HR to show that roughly 500 Cornell faculty had children under

the age of 13, provided evidence of Cornell's unique calendar relative to our peers, and presented these data to lobby the Educational Planning Committee of the Faculty Senate and directly to interested Senators. Not only did the Senate vote to eliminate Labor Day classes, but we expect that the entire academic calendar will be revisited in the future, with the goal of increasing overlap between Cornell's calendar and the local school districts' calendars.

2. *Programming.* Our workshop on effective search practices is now offered every year to search committees and department chairs, and has received widespread buy-in and acclaim from the college Deans. Our second production, on interviewing practices, has been embraced by both the Office of Human Resources and Senior Vice Provost for Faculty Affairs, who will organize the new workshop. We are working with other units on campus to institutionalize other successful programs, including elements of the leadership series, career stage retreats, and networking lunches. We have yet to receive firm commitments of funding for these programs but are encouraged by the fact that we have been included in discussions about reorganizing Cornell's central administration. The Office of Human Resources has recently created a new position, Associate Vice President for Diversity and Inclusion, whose focus is on compliance of hiring and worklife policies for both faculty and staff. Provost Fuchs has also invited the team to provide input on the position of Vice Provost of Diversity and Inclusion, vacant in AY2009-10.

3. *Chair Accountability and Training.* Through our Institutional Action Board, we were successful in interesting other colleges in the College of A&S' on-line chair training manual. This manual includes a section on increasing faculty diversity and, because of CU-ADVANCE's outreach efforts, highlights our activities and programs.

4. *College-Specific Accountability.* Individual colleges that previously lacked hiring oversight have developed different models to increase departments' accountability for diversity outcomes. In Arts & Sciences, chairs are now required to submit a detailed accounting of gender and racial/ethnic diversity relative to the pipeline, and a detailed and proactive plan for hiring *before* a search will be approved. In Engineering, the Strategic Oversight Committee for Faculty Hiring was formed to approve searches and offers. Departments must provide the committee with plans and data similar to A&S when starting the search, prior to inviting candidates to visit, and prior to making an offer.

5. *Data Collection and Monitoring.* We have had considerable success in institutionalizing the collection and analysis of data to monitor progress after the grant. For example:

- 1) The Work Life Survey is now part of a broader AAUP/IRP data collection effort. Marin Clarkberg, Associate Director of IRP, shepherded the 2005 survey through completion and is designing the 2010 survey. Her office is committed to ensuring that the survey is administered regularly and is comparable enough to the other institutions' work-life surveys.
- 2) The Provost's Office and the Office of Human Resources now collect annual data on hiring pools, diversity, and retention efforts.
- 3) The office of the Deputy Provost now collects information from faculty leaving Cornell, continuing the exit interviews started by CU-ADVANCE, and will conduct further analysis.
- 4) As a result of the NSF-required start-up study, the university leadership is examining whether universal minimum standards should be developed for the items specified in an offer letter (s.g., specifying teaching relief, salary, space). Standardization is the first step to adequately monitoring the content of offers made to different populations.
- 5) The "space study" is conducted by a consulting group (paid for by University funds), in close collaboration with CU-ADVANCE. The consultants are devising a plan to institutionalize the collection of data on space allocations. A periodic review of these data will ensure that salary equity is not offset by space inequity.

- 6) Finally, we have been collecting data on the institutionalization of CU-ADVANCE itself. Cognizant of the need for university funding once the grant expires, the current University budget planning process has included discussion of the funding needs of an ADVANCE-like center. Provost Fuchs has requested budget estimates and data on the institutionalization models and efforts from early-round ADVANCE programs.

Looking into the Future

In the last two years of our grant we are looking to expand in the following areas:

Research. Future research-related efforts will concentrate on four areas:

1. Wider dissemination of existing findings about the status of women at Cornell (e.g., “FAQ about the Cornell Faculty” page on our website) and about CU-ADVANCE’s programming successes. This will facilitate institutionalization by helping to focus efforts and resources where they are most needed and by keeping the positive “buzz” about the program among our constituents.
2. Extraction and analysis of accurate and department-specific “pipeline” data. This project uses IPEDS data on the PhDs produced by the institutions that each Cornell department considers its peers (and hence major suppliers of faculty). These data will help overcome one source of chairs’ resistance to the idea that their recruitment of women has lagged behind the available pool of faculty.
3. Continuation of the baseline interviews of second-year assistant professors. The first round of interviews was collected in Year 1 of the grant; the second round is scheduled for year 4, once the assistant professors are in the process of, or have recently completed, their tenure reviews.
4. A study of gender differences in academic promotion and mobility at Cornell and our peers. This study uses comprehensive, longitudinal data on the graduate programs in a single SBS discipline from 1965 to the present. The data will be unique in the gender and science literature. Because of their structure, we will be able to examine (a) whether the demography of a department (e.g., % of senior faculty who are women, the presence of a female chair) increases the odds of recruiting women faculty; (b) whether the recruitment and retention of women decreases disproportionately in times when universities are facing financial challenges; and (c) where women (and men) faculty go once leaving Cornell, especially those who leave post-tenure.

Broader engagement on campus. One intended audience is male faculty. Although not directly served by CU-ADVANCE, they are in many cases directly relevant to meeting the goal of improving departmental climate, and indirectly relevant to institutionalization. The male faculty members who have attended the few open-access programming events have been enthusiastic about CU-ADVANCE. Expanding the base of male faculty who buy into ADVANCE’s goals is beneficial. We also wish to engage women faculty in the humanities, on the assumption that although many of the issues addressed by CU-ADVANCE in our programming are specific to STEM and SBS, some issues are common to all women faculty. We have begun to engage the leadership of the women faculty in the humanities to determine what can be leveraged from CU-ADVANCE and what requires greater development and creativity on their parts to provide support and progress in these disciplines.

Provide information on mentoring to chairs and young faculty. In the last two years we plan to offer workshops and training to chairs and new faculty about successful mentoring; we plan to showcase national experts (e.g. Richard Felder, NC State) and local faculty who have had successful mentoring relationships.