

ACCEL: Advancing Cornell's Commitment to Excellence and Leadership

Cornell University is committed to diversity and gender equity and to an institutional environment where all faculty can achieve their greatest potential in research, education, and service. Despite the university's commitment, gender diversity remains a significant problem that affects the quality of Cornell's enterprise. The representation of women faculty in science and engineering (S&E) falls below the level of female PhDs produced nationally. The NSF ADVANCE program provides a unique opportunity to increase the number of women S&E faculty at Cornell and thereby positively affect the university's environment. The proposed goals are ambitious: over the five year life of the grant, achieve 20% women faculty in *each S&E department* and increase the number of senior women S&E faculty. A 20% target was chosen to move the representation of women from token status to a critical mass in each department, the environment that most determines faculty daily life. At present 27 of the 51 S&E departments are below this critical mass. The more ambitious longer-term objective is that a third of the S&E faculty be women by 2015, Cornell University's sesquicentennial.

The approach to institutional change described in this proposal is based on the following principles: successful implementation of diversity strategies requires genuine support from high levels of an organization; inequalities that result from forces external to the institution can be effectively addressed by institutional policies and strategies; accountability for achieving diversity goals reduces biases against women and minorities; and, representation below 15-20% of a unit heightens the visibility of women, leading to a series of barriers to advancement. Achieving the project's short- and longer-term goals requires a commitment not only to recruitment, but also to retention, development, and promotion of women faculty, which will be achieved through the efforts detailed in this proposal.

The main thrust of this proposal is to create an integrated campus wide set of initiatives and to ensure their implementation and success through the creation of the CU-ADVANCE center, that will permanently reside in the Provost's Office. As is common with elite, private universities, decision-making and policy design and implementation are highly decentralized at Cornell. As a result, past efforts to increase the representation of women faculty have been fragmented across colleges and departments, with no easy way for "best practices" to be shared. For this reason, the majority of the budget is for programs and support staff that will connect faculty and decision makers across departments and colleges in a way that would not be possible otherwise and for a on-going university wide evaluation of progress in each area. Cornell has a rich history of inclusion of women and many women's firsts in higher education. With an ADVANCE grant, Cornell can return to its commitment to leadership by demonstrating that reaching a critical mass of women scientists and engineers at an elite, research-intensive institution is possible, and more generally that the advancement of women scientists and engineers can and should include such institutions.

Intellectual Merit In addition to the proposed direct efforts toward recruitment, retention, promotion, and development, two sociological studies will be conducted as part of the formative and summative evaluation strategies. A longitudinal study of assistant professors will elucidate whether and how the experiences of women and men faculty differ and will determine which barriers to advancement are unique to women in S&E, which affect all women faculty, and which are common to all faculty. These results will help identify and isolate factors that differentially contribute to the career success of men and women. A second study will examine the impact of changes in the demographic composition of departments on social relations among faculty members. To date, no research has been conducted on the dynamic aspects of gender composition, though understanding these dynamics clearly is an important outcome of increasing the number of women faculty.

Broader Impact Women S&E faculty at several neighboring institutions will participate in workshops and seminars throughout the grant period. In addition to affecting the Cornell faculty, this grant will indirectly influence future S&E faculty nationwide. A majority of Cornell's bachelors (60%) and doctoral (80%) degrees are conferred in science and engineering fields. An unusually large number of our female and male undergraduates later receive doctoral degrees, and, in fact, Cornell ranks third as the undergraduate institution where women engineering faculty were trained. The presence of greater numbers of female faculty at Cornell will, therefore, have a truly transformational impact nationally.