

Case Western Reserve University
NSF ADVANCE Site Visit Report: Summary of Progress to Date

Case Western Reserve University (Case) proposed to the National Science Foundation (NSF) an innovative, integrated approach to institutional transformation that would effect tangible positive change for women in science and engineering (S&E). As the first private university to be awarded NSF ADVANCE funding, we have strived over the past three years to create a model of institutional transformation that yields results having relevance to other private research institutions with similar decentralized university structures, particularly in the areas of enhanced transparency in faculty recruitment, advancement, and retention policies and improved accountability and effectiveness at the school/college and departmental level. Case's institutional transformation, entitled Academic Careers in Engineering and Science (ACES), has been a multifaceted initiative to promote a campus-wide culture characterized by equality, participation, openness, and accountability. Through utilization of our own institutional assets, particularly our internationally ranked Organizational Behavior Department, we have adapted innovative business and industry strategies to our academic setting, including individual- and group-level coaching, mentoring, networking, and training and development initiatives. ACES activities focus on 31 S&E departments, including social science departments, within four schools/colleges (College of Arts and Sciences, Case School of Engineering, Weatherhead School of Management, and School of Medicine) over the 5-year duration of the award.

Major accomplishments achieved through ACES-related efforts include the creation or revision of policies on partner hiring, a consensual relations policy, a mandatory review of the diversity of hiring pools by deans prior to candidate visits, mandatory attendance at Cultural Competency Awareness Training within the first fiscal year of a new faculty hire (100% compliance for 2005), and pre-tenure extensions and work release policies. As we proposed, Case has institutionalized future diversity-related initiatives through the addition of a full time staff member who transitioned out of ACES and into the Office of the President and the Provost in Year 3 of our award, and a graduate student research assistant in the Flora Stone Mather Center for Women who also transitioned out of ACES in Year 3.

We have substantially improved the faculty recruitment process by implementing new policies, education, resources, and best practices. Toward improved advancement and retention of women faculty in S&E, ACES has successfully implemented academic leadership development for a critical mass of S&E faculty through our executive coaching and mentoring initiatives, and faculty networking, training, and development opportunities specifically targeted toward key change agents in S&E, and also university-wide. With regard to the pipeline for women in science, ACES has implemented a successful initiative to encourage minority women students to pursue academic careers in S&E, through Case's annual minority summer undergraduate research program originated in collaboration with Fisk University and now extended to other institutions. This has now been institutionalized through dedicated stipends from a HHMI grant to the Biology Department augmented by funds from the Provost's Office.

Some of the activities we initiated through ACES (e.g., formal mentoring; student gender awareness training) did not immediately result in the anticipated outcomes, and required thoughtful modifications. Additionally, based on best practice insights from other ADVANCE institutions, other completely new activities were started in response to the changed circumstances that emerged once the ACES program got underway (e.g., Departmental Initiative Grants were created to energize S&E chairs and departments that faced enormous budget and

morale problems). Throughout the duration of the ACES project to date, we have readily incorporated findings from other ADVANCE institutions to improve our effectiveness.

Over the past three years ACES has undertaken several research and evaluation studies including focus groups, interviews, surveys and other analyses, and has shared the findings with faculty, chairs, and senior administrators. These include focus groups and interviews with our test departments' male and female faculty, a campus-wide faculty climate survey (conducted in 2004 in collaboration with Case's Accreditation Subcommittee on Faculty Engagement, Motivation and Commitment), faculty exit surveys, a junior (untenured) faculty climate survey through Harvard University's COACHE program, a survey of second-year faculty members at Case to identify the successes and challenges that new faculty face at our institution, annual offer letter analyses, interviews with women faculty and chairs in S&E departments, interviews with ACES opportunity grant recipients, and a benchmarking study of Case's Neurosciences Department. We have just begun a comprehensive university-wide faculty survival and salary investigation. Other internal evaluations include evaluation of program initiatives (e.g., executive coaching), event evaluations (e.g., faculty development workshops), an External Advisory Board Review in 2005 whose recommendations were used to modify ongoing activities, and two internal summer retreats of the ACES team to evaluate ongoing progress. Members of the ACES team have attended several ADVANCE-related conferences and other professional meetings to learn about and disseminate best practices. A number of journal articles, book chapters, presentations and posters have been published or are in progress.

While we have made significant progress in our proposed institutional transformation initiative, our campus has faced severe challenges in the past three years. Many of the challenges have arisen on account of campus-wide budget pressures in the past two years resulting in multiple staff layoffs, faculty departures, hiring slowdowns, a faculty salary freeze, and changes in senior university administrators, including the resignations of the President and all four deans of the ACES schools/colleges (Engineering, Arts & Science, Medicine and Management) within the last few months. As may be expected, morale throughout the university has been extremely low during these transitions. Despite these changes, however, ACES operations have forged ahead, and positive improvements in the recruitment, advancement, retention and leadership of women faculty have occurred. Most notably, despite reductions in total campus faculty size in the last 2 years, the number and proportion of tenured and tenure-track women in the 31 S&E departments increased from 89 (20%) to 97 (22%) during the three year ACES period (2003-04 to 2005-06). During this period, the percentage of non-tenure track women faculty in S&E remained constant at 42%, while hiring of full-time tenure-track women faculty in S&E averaged around 35%. Seven women were awarded tenure and five women were promoted to full professor in S&E. During this three-year period, the number of women faculty in S&E departments holding endowed chairs increased by 50% (from 8 to 12), while the number of women serving as S&E department chairs or interim chairs increased from 1 to 3 (Neurosciences, Astronomy, and Physiology & Biophysics). Three women faculty served as associate deans of S&E schools over this three year period (one new woman faculty has just been appointed as the second woman associate dean in the School of Management).

The following table summarizes in greater detail the progress to date towards project goals identified in the original proposal. Major goals are highlighted in the shaded rows, specifying the outcomes desired and our progress toward them to date. Initiatives and activities contributing to these goals, together with interim, process measures and progress toward these are described in the clear rows.

ACES Proposal Activity Status (Keyed to Interview Schedule)

Institutional Transformation Initiative	Outcome and Process Assessment Measures	Activities and Status (2003-2006)
<p>1.University Transformation</p> <p>Interviews 2, 10, 35, 11, 13, 18, 19 Also: 23, 24, 32, 39, 16, 42</p>	<p><u>Desired Outcomes:</u></p> <ul style="list-style-type: none"> • Increased transparency in policies and practices, and equity in implementation • A change in the awareness, attitudes, and behaviors of key change agents (deans, chairs, and women faculty) in S&E regarding gender equity issues 	<ul style="list-style-type: none"> • Periodic meetings between ACES team and S&E deans/chairs; periodic lunches/meetings with women S&E faculty • Provost’s luncheons with small groups of department chairs • Release of the Resource Equity Committee’s Faculty Focus Group Report in 2004; findings shared with all faculty by President • Climate survey of all faculty undertaken in 2004; 40% response rate from faculty; findings shared with all faculty, as well with as chairs and senior administrators at retreats • University wide meeting of all women faculty in 2006 • Conducted annual offer letter analyses. Begun a comprehensive survival and salary study, whose findings will be shared with senior administrators • Implementation of an annual faculty exit survey
<p>1a. Creation or revision of university policies, structures, and practices</p> <p>Interview 10, 22, 35, 11, 18 Also: 13, 19, 23, 32, 16, 42</p>	<p><u>Process Measures:</u></p> <ul style="list-style-type: none"> • Review of policies and practices that affect gender climate • Recommendations for policy development or change made to Faculty Senate and senior university administrators 	<ul style="list-style-type: none"> • Implemented a Partner Hiring Policy for the university, and used it to hire/retain three women faculty, two of whom are from S&E • Consensual Relations Policy approved by the Faculty Senate • Implemented a mandatory review by deans regarding diversity of the candidate pool before candidates are invited for interviews • Implemented mandatory attendance at a Cultural Competence Training for new faculty within the first fiscal year of hire • Established an ad hoc committee in the School of Medicine to review faculty complaints about salary equity and climate concerns • Created a new faculty diversity web site with resources and interactive web tools • Revisited plans to build an on-campus childcare center • Review of existing women’s lounges for the planning of more convenient lactation centers on campus.
<p>1b. Accountability of Deans and chairs</p> <p>Interviews 10, 3, 4, 11, 12, 13, 19, 21, 35, 16, 42</p>	<p><u>Process Measures:</u></p> <ul style="list-style-type: none"> • Annual reviews of deans • Implementation of diversity plans by deans 	<ul style="list-style-type: none"> • Deans held accountable for diversity outcomes in annual reviews by Provost and Deputy Provost • Diversity initiatives incorporated as an element of the yearly review of all Case School of Engineering department chairs

<p>1c. Faculty Leadership Development</p> <p>Interviews 10,15, 20, 29 Also: 27, 38, 16, 42</p>	<p><u>Process Measures:</u></p> <ul style="list-style-type: none"> Record of participation at and evaluations of committees, workshops and orientations 	<ul style="list-style-type: none"> Developed and institutionalized an annual orientation for new tenured and full professors through Provost's Office/UCITE CRLT Players (theater group from the University of Michigan) conducted two discussion sessions for university faculty (76 faculty attended these) and one session for chairs and deans (45 attended)
<p>1d. Faculty Engagement Around Resolving Gender Equity Issues</p> <p>Interviews 34, 39, 22 Also: 23, 27, 32, 5, 7</p>	<p><u>Process Measures:</u></p> <ul style="list-style-type: none"> Participation in faculty bodies and committees addressing gender equity concerns 	<ul style="list-style-type: none"> Coordinated with the Faculty Senate and various faculty committees on the status of women and minority faculty regarding policy changes Initiated a faculty committee, the Good Guys Climate Change Committee, made up of senior male faculty allies and advocates, as a grassroots gender equity initiative Catalyzed the Committee to Institutionalize ACES Initiatives which consists of mixed gender faculty from across the university who are interested in improving the gender climate at Case.
<p>2. School and Departmental (micro-climate) Transformation</p> <p>Interviews 3, 4, 11, 12, 13, 21, 35, 16, 42 Also: 23, 32, 5, 7</p>	<p><u>Desired Outcomes:</u></p> <ul style="list-style-type: none"> Improvements in perceptions of micro-climates for women faculty Institutionalization of best practices in coaching, mentoring, networking, and training and development of faculty 	<ul style="list-style-type: none"> Informal conversations with women faculty from some S&E departments reveal improvements in chairs' departmental leadership. A second formal climate survey will be undertaken in 2007 and the results compared with the 2004 findings. ACES' mentoring structure adopted in Biomedical Engineering Department; executive coaching voluntarily provided to senior male faculty by chair of Physiology & Biophysics department Internal chair training requested by chairs who attended U of Washington's summer Chairs' Workshops; a visit by Dr. Chris Loving of UW's ADVANCE program is planned for October 2006
<p>2a. Leadership Development of Deans and Chairs</p> <p>Interviews 10, 35, 4, 11, 12, 13, 21, 16, 42 Also: 20, 29, 5</p>	<p><u>Process Measures:</u></p> <ul style="list-style-type: none"> Participation in leadership development retreats, workshops and executive coaching 	<ul style="list-style-type: none"> Conducted two annual retreats (Provost's Leadership Retreat) for deans and chairs of S&E departments Six S&E department chairs attended the UW Chairs' Workshops Provided executive coaching to three members of Provost's Office, two deans, two associate deans, and fifteen chairs and associate chairs
<p>2b. Mentoring of Junior Faculty</p> <p>Interviews 28, 23, 12 Also: 6</p>	<p><u>Process Measures:</u></p> <ul style="list-style-type: none"> Participation at ACES mentoring workshops Institutionalization of mentoring programs within department 	<ul style="list-style-type: none"> Conducted five mentoring workshops for S&E departments Initiated mentoring committees for women faculty in Years 1 and 2 Conducted evaluation interviews with 60 female faculty and chairs to explore their mentoring experiences and needs, and adjusted mentoring initiative appropriately

<p>2c. Departmental Culture Change</p> <p>Interviews 23, 26, 32, 34, 3, 39,16, 42, 5</p>	<p><u>Process Measures:</u></p> <ul style="list-style-type: none"> • Number and types of applications for departmental initiative grants (DIGs) and distinguished lectureships • Participation in focus group and interview studies 	<ul style="list-style-type: none"> • Created Departmental Initiative Grants (DIGs) to seed innovation in improvements of micro-cultures • Sponsored 16 distinguished lectureships by prominent senior women • Conducted focus groups and/or interviews with male and female faculty members in test departments to explore their experiences and to provide the basis for training materials used in retreats/workshops • Conducted a case study of the Neurosciences Department. to identify the best practices in academic science culture creation at Case
<p>3. Representation of Women Faculty in S&E</p> <p>Interviews 12, 15, 23, 27, 32 Also: 6, 16, 42</p>	<p><u>Desired Outcomes:</u></p> <ul style="list-style-type: none"> • A 20% increase in women faculty across 31 S&E departments by the end of the 5 year ACES award (Fall 2008) • Increases in numbers of women S&E faculty in academic leadership positions (department chairs, endowed chairs, P&T committees, and administrative positions) • New funds for 5 endowed chairs in S&E • Proportional departure of women S&E faculty from the university • Enhanced transparency and equity in faculty recruitment, advancement, and retention policies 	<p>Despite reductions in Case’s total faculty size due to severe budget difficulties, the following changes occurred during the three year ACES period (2003-04 to 2005-06):</p> <ul style="list-style-type: none"> • The number and proportion of tenured and tenure-track women in the 31 S&E departments increased from 89 (20%) to 97 (22%) • Hiring of full-time women faculty in S&E averaged around 35% over the three year period • Non-tenure track women faculty in S&E remained constant at 42% • Seven women S&E faculty were awarded tenure • Five women S&E faculty were promoted to full professor • Women S&E faculty holding endowed chairs increased from 8 to 12 • Three women served as associate deans of S&E schools over this three year period • Two women have been appointed department chair (Astronomy) or interim chair (Physiology & Biophysics)
<p>3a. Recruitment of Women Faculty</p> <p>Interviews 4, 15, 8, 5, 7,</p>	<p><u>Process Measures:</u></p> <ul style="list-style-type: none"> • Utilization rates of diversity website tools, search committee training, and assistance by Faculty Diversity Specialist 	<ul style="list-style-type: none"> • Extensive re-writing /updating of faculty search committee guidelines • Provided assistance to thirteen departments to improve faculty search advertisements and increase their dissemination • Provided training to two faculty search committees on unconscious bias and hidden diversity myths related to women and underrepresented minorities • Conducted four search procedure training sessions to the business managers and department assistants in S&E and other schools • Provided an update on faculty search procedures and available tools to twelve department chairs in the School of Medicine • Created a list of women and minority faculty at Case or other institutions willing to serve on less diversified search committees • Provided assistance to eight search committees to create an equitable and attractive campus visit and interview process • Created a network of women and minority faculty to meet with

		<p>candidates during campus visits</p> <ul style="list-style-type: none"> • Created a comprehensive web-based repository of information about Cleveland living for candidates and new faculty • Began an internal study to assess whether and how applicant pools, interview shortlists, offers extended and actual hires have changed subsequent to the introduction of new recruitment procedures
<p>3b. Advancement & Retention of Women Faculty: Improved Coaching, Networking, Professional Training & Development</p> <p>Interviews 14, 15, 20, 24, 29, 33, 38, 41 Also 5, 16, 23, 27, 32, 39, 42</p>	<p><u>Process Measures</u></p> <ul style="list-style-type: none"> • Number and amount of Opportunity Grants awarded • Increase in women faculty’s satisfaction scores • Increase in post-intervention perceptions of career development compared with pre-intervention ratings • Number of women faculty undergoing year-long executive coaching, and utilizing hotline coaching, and annual evaluations of coaching effectiveness • Participation at and evaluations of training seminars, workshops and events 	<ul style="list-style-type: none"> • Provided seventeen Opportunity Grants to women faculty. A qualitative evaluation study revealed high positive impact on research. • Created web sites for five women S&E faculty (5 more are in process) and created a guide for developing effective academic web sites. • Sponsored six department chairs to attend external leadership development programs • Women faculty rated higher on some of the perceptions of career development in the post coaching evaluation i.e. “feel successful in the department and in your field” • Provided executive coaching to sixty-three women and one male minority S&E faculty; received consistently high annual evaluations of coaching effectiveness • Provided hotline coaching services to eight women faculty across the university since February 2006; preliminary informal evaluations indicate these sessions have been beneficial • Provided teaching improvement assistance to four early-career women faculty through UCITE’s Assistant Director • Conducted eighteen student gender-awareness (re: faculty-student relationships) workshop sessions for undergraduate and graduate students in seven S&E classrooms and seminars. • Held bimonthly networking lunches for women faculty in ACES departments during Fall and Spring semesters in Years 1 and 2 • Held six faculty development workshops for women faculty across the university through the Flora Stone Mather Center for Women • Developed an annual Women of Achievement Luncheon honoring women faculty across the university who have received tenure, promotion, endowed professorships and other academic honors, and a recognition event for women faculty chosen by each of the eight schools as outstanding women scholars.