



## NSF-ADVANCE AWARD INSTITUTIONAL TRANSFORMATION AT CASE WESTERN RESERVE UNIVERSITY



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### Academic Careers in Engineering and Science (ACES)

Funding Agency: National Science Foundation  
Program Officer: Alice Hogan (ahogan@nsf.gov)  
Funding: \$3,500,000  
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Principle Investigator:  
Lynn Singer, Deputy Provost and Vice President for Academic Affairs

The goal of the ACES project is to contribute to the development of a national science and engineering academic workforce that includes the full participation of women at all levels of faculty and academic leadership, particularly at the senior academic ranks, through the transformation of institutional practices, policies, climate, and culture.

ACES encompasses all departments in fields of research supported by NSF. There are 31 participating departments in four schools: Case School of Engineering, College of Arts & Sciences, School of Medicine, and Weatherhead School of Management.

### Initiatives

- Executive coaching for deans of schools/college and department chairs
- Coaching, mentoring, and networking for women faculty
- Faculty development and education
- Faculty search committee supports
- Opportunity grants for women faculty
- ADVANCE distinguished lectureships for women in S&E
- Student awareness training
- Minority pipeline initiatives
- Resource Equity Committee
- Annual evaluation of deans' progress toward transformational change.

### Results and Activities for Years 1 and 2

- Distinguished Lectureships: 14 senior women scientists presented
- Executive Coaching of 42 women faculty, 13 chairs, and 1 dean, 2 associate deans, 1 deputy provost, 1 vice provost, and 1 minority male faculty
- Opportunity Grants: \$182,708 awarded to 16 women faculty
- Support for faculty search committees provided to 10 departments
- Summer Undergraduate Research Program: 15 minority women students conducted research for 10 weeks in the lab of a faculty mentor
- Provost's Annual Leadership Retreat for all S&E deans and chairs with a focus on the recruitment, advancement, and retention of women faculty, October 26, 2004. November 18, 2005 Theme: Things that Work
- 2 Faculty Development Workshops with the Flora Stone Mather Center for Women. - November 11, 2005 [Negotiation] & February 17, 2006, [Gender Communication], 12:30 – 1:30 pm, Thwing 1914.
- 4 Networking Events for women faculty with the Flora Stone Mather Center for Women. See ACES calendar for 2005/2006 events or email [NSF-ACES@case.edu](mailto:NSF-ACES@case.edu)
- Training workshops for S&E undergraduate and graduate students on gender schemas.
- Faculty exit online survey instituted
- Online Affirmative Action form instituted for faculty candidates

# Academic Careers in Engineering and Science (ACES) NSF-ADVANCE at Case Male Faculty Information



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## Co-Investigators

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## Why Do We Need ACES?

- Low % of women faculty in Science and & Engineering (S&E) fields, nationally and at Case.
- Problems in advancement and retention of women and minority faculty in S&E fields.
- Absence of women faculty in academic leadership positions in S&E fields.
- Women faculty across Case report lower satisfaction with the academic climate.

## ACES Mission

To promote a campus-wide culture characterized by equality, participation, openness, and accountability.

## ACES Goals

- Increase number of women at all academic levels in Science & Engineering
- Stimulate department change
- Transform campus-wide culture
- Institutionalize transformation

## Your Role

- Participate in a number of opportunities to enhance and develop your self and your department.
- Actively support the development of your female colleagues, and the goals of ACES.

## What You Can Expect from ACES

### Support from ACES for:

- Search Committee Support
- Student Awareness Training

### Networking and Faculty Development Opportunities:

- Workshops for faculty and departments, including ACES Introductory Presentation
- Distinguished Lectureship presentations

### Funding Opportunities:

- Distinguished Lectureships to support campus visits:  
[www.case.edu/admin/aces/lectureship.htm](http://www.case.edu/admin/aces/lectureship.htm)
- Departmental Initiative Grants up to \$10,000:  
[www.case.edu/admin/aces/dig.html](http://www.case.edu/admin/aces/dig.html)

[www.cwru.edu/admin/aces/index.htm](http://www.cwru.edu/admin/aces/index.htm)

# Faculty Grants



## Contact Persons

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## Distinguished Lectureships

The ADVANCE Distinguished Lectureships support campus visits by 10 senior women scientists or engineers per year for a minimum stay of 2 days and 2 full nights and a maximum stay of 2 weeks. Distinguished Lectureships, which can be applied for by any member of the 31 NSF-fundable departments, are awarded on a competitive basis.

A Distinguished Lecturer will have mutual research interests with the faculty member in the host and other departments. She will give between 3–6 lectures, which may include specialized seminars or course lectures, interactions with students, and one public lecture followed by a reception. The presence of the ADVANCE Lecturers on campus will raise the visibility of S & E women faculty for both men and women of all academic levels.

Each Lectureship carries a \$2,000 honorarium for the lecturer and funds for travel, lodging, meals, and reception expenses. The ACES team will help you to promote the event and develop flyers for distribution. A member of the ACES team attends the public lecture and photographs the event.

The deadline for proposals is October 15<sup>th</sup> and May 15<sup>th</sup> annually. Exceptions to the deadline will be made for special cases. Applications should include the persons current CV, list of proposed lectures, and brief description of interaction with Case faculty. Applications should be submitted in electronic form to [NSF-ACES@case.edu](mailto:NSF-ACES@case.edu)

For a full listing of the 16 past lecturers and their activities please visit our website at

[www.case.edu/admin/aces/lectureship.htm](http://www.case.edu/admin/aces/lectureship.htm)

# Departmental Initiative Grants

ACES Departmental Initiative Grants support department-wide activities in the 31 NSF-fundable S&E departments to advance ACES mission and goals. Initiatives to improve departmental climate, enhance collegiality, stimulate greater inclusion of women and minority faculty, promote positive department change, and institutionalize transformation are encouraged. Any member of the department can apply. Examples of fundable initiatives are:

## Strengthening the department's internal academic networks

- A monthly Junior Faculty Forum with senior faculty or administrators
- An integrative research seminar for doctoral students and faculty
- A department-wide strategic planning initiative or retreat

## Strengthening the department's external visibility

- Support for junior faculty and women doctoral students to attend international conferences
- Increasing the web presence of the department or faculty members
- Doctoral student or faculty exchange to promote scholarly collaboration
- Visits by leading journal editorial teams or professional association leadership
- Plan for enhancing departmental marketing/publicity

## Faculty Development

Sponsoring faculty to attend a leadership workshop, program, conference, training, etc. Activities will receive priority consideration that focus on identifying and developing skills needed for leadership success.

- Professional (project management, communication; problem solving)
- Academic (budget management, team building, mentoring, etc.)
- Scientific (building a scientific research center)
- Many professional development workshops are conducted by Weatherhead. See <http://weatherhead.case.edu/seminars/>

## Strengthening the department's social infrastructure

- Creating an area for regular social interaction, or a weekly faculty community hour

## Recruitment Activities

- Search activities to diversify the candidate pool. Contact Amanda Shaffer, (216) 368-8874 or [amanda.shaffer@case.edu](mailto:amanda.shaffer@case.edu)

Awards up to \$10,000 will be spent during the year of the award. Proposal deadline is October 15 and May 15 annually. The application should include a statement of the initiative and how it will advance ACES goals, description of the process used to include extensive faculty inputs for the development of the plan, and brief description of proposed activities, and evaluation of the initiative. Applications are submitted to [NSF-ACES@case.edu](mailto:NSF-ACES@case.edu)

[www.case.edu/admin/aces/dig.htm](http://www.case.edu/admin/aces/dig.htm)



## Contact Person

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The ACES office is  
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# Networking Events



## Contact Persons

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ACES offers a series of formal and informal networking and faculty development opportunities for faculty of the 31 NSF-fundable S&E departments at Case, including.

## Faculty Development Workshops

One faculty development workshop is held each semester, open campus-wide to men and women faculty, post-docs, and graduate students. These luncheon workshops are co-sponsored by ACES and the Flora Stone Mather Center for Women. November 11, 2005 [Negotiation Strategies] & February 17, 2006, [Communication Skills], 12:30 – 1:30 pm, Thwing 1914

## Faculty Recognition and Awards

An annual recognition luncheon cosponsored by ACES and the Flora Stone Mather Center for Women to show case women faculty at Case who were promoted, tenured, or received awards in the current year. Male faculty are encouraged to attend to support their colleagues.  
Friday, 3/3/06, Thwing Ballroom, 12:30 – 2:00pm

## ADVANCE Distinguished Lectures

Male faculty members are encouraged to attend the seminars and public lectures which are always lively and stimulating. For more information see [www.case.edu/admin/aces/lectureship.htm](http://www.case.edu/admin/aces/lectureship.htm)

[www.case.edu/provost/centerforwomen/](http://www.case.edu/provost/centerforwomen/)

[www.case.edu/admin/aces/networkingevents.htm](http://www.case.edu/admin/aces/networkingevents.htm)

# Education & Development

ACES offers a variety of educational workshops and faculty development opportunities to the 31 NSF-fundable S&E departments. Additionally, if there is a topic you would like developed for your department, please let us know.

## Workshops For Entire Departments

Generally 1.5 hours

- Presenting Your Self Effectively
- Communication Between Men and Women
- Improving the Chilly Climate for Women Scientists
- Using Emotional Intelligence
- Leadership Development
- Negotiating
- Successful Mentoring
- Communication Skills

## Departmental Facilitation

ACES provides support to departments undertaking longer development activities, such as:

- Facilitation of annual and semi-annual retreats
- Facilitation of strategic planning initiatives

[www.case.edu/admin/aces/about.htm](http://www.case.edu/admin/aces/about.htm)



## Contact Persons

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# Student Awareness Training



## Contact Persons

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## Becoming a Powerful Learner: How to Use Diversity to Maximize One's Learning

These brief awareness sessions focus on gender-based stereotyping in classrooms and labs, and differential expectations toward male and female faculty members. The sessions are conducted by Dr. Dorothy Miller, Director of the Center for Women and Klio Akrivou, a Ph.D. student from the department of Organizational Behavior.

The goals of these sessions are to:

- create awareness of gender role assumptions and expectations
- increase understanding of how social structure is a factor in the development of gender roles
- introduce to students how they can be involved with equitable solutions to the problems that gender stereotyping causes

Presentation of research-based factual information is combined with discussions of personal experience in sessions for both graduate and undergraduate students. Quotations such as the following from Case's Resource Equity Study, are discussed:

"...they [students] expect this nurturance. I have a lot of students come to my office and argue with me about grades in a sort of threatening manner."

*Case female faculty member*

"I have students come into my office thinking I must be the department assistant and ask me where the Professor is. I am the Professor!"

*Case female faculty member*

"Unlike the other students, I find that there is a problem with gender inequality here in XX... I didn't speak up because I didn't want my fellow students looking down on me... I appreciate what your program is trying to do...tell the class next time about what I wrote in this email, so that they know that someone sitting in that very room has experienced gender inequalities. But please, do not tell them who I am."

*Female student, after a session*

**Participation by male faculty members is essential to the success of this training.** Please contact Dr. Miller to schedule sessions at (216) 368-0985 or [dorothy.miller@case.edu](mailto:dorothy.miller@case.edu).

[www.case.edu/admin/aces/studentawareness.htm](http://www.case.edu/admin/aces/studentawareness.htm)

# Search Committee Resources

When it comes to recruiting diverse faculty members, many search committees report that they cannot find qualified women or people of color to apply for their open positions. Research has shown that committees succeed in hiring women and people of color when they transform the search process, are committed to diversity, and are proactive about building a diverse candidate pool.

ACES has created faculty search committee supports to help you transform your process, including a three-part Toolkit of workshops and online tools.

The objective is the consistent application of high standards, fairly applied to:

- [use best practices to avoid bias to the degree possible in one's own decisions and contributions to committee deliberation](#)
- [help committees diversify their candidate pools.](#)

The following three topics can be presented as a single 1.5 hour session, or as individual sessions at the appropriate time during the search.

## 1. Guidelines & Recruitment

- a. Legalities, Forms, and Procedures
- b. Tips and Techniques for Recruitment
- c. Resources for Diversifying the Candidate Pool

## 2. Evaluating the Candidate

- a. Creating a Structure and Eliminating Bias
- b. Readings and Resources
- c. Screening Tools

## 3. Interviewing & The Campus Visit – Best Practices

- a. Resources for Relocation
- b. Partner Hiring Policy and Network
- c. Tips and Techniques for Retention

The Toolkit briefings are a review of new protocols and guidelines, best practices for recruiting, and additional search strategies that may help you to reach your recruitment goal. The Diversity Specialist can recommend possible changes to enhance your search, and help you tailor the Toolkit to your search or candidates.

[www.cwru.edu/president/aaction/aeeo.html](http://www.cwru.edu/president/aaction/aeeo.html)



Contact Persons

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and

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# Research and Evaluation

The Resource Equity Committee (REC), was created by the President in 2000 in response to the MIT Report (1999). The REC was charged to conduct a self-study of resource allocation among Case faculty and the impact of gender on Case faculty careers. During the NSF ADVANCE award, the REC is continuing its work as the ACES Research and Evaluation team.

Their reports, papers, posters, and presentations, and more resources, are available at [www.case.edu/admin/aces/resources.htm](http://www.case.edu/admin/aces/resources.htm).

## Reports

- “A Good Place To Do Science: A Case Study of An Academic Science Department”
- 2004 Community and Climate Survey Report
- Provost's Leadership Retreat 2004 Report
- Faculty Affirmative Action Report 2002–2003
- NSF ADVANCE ACES Annual Report Years 1 and 2
- Resource Equity Committee (REC) Report
- NSF-ADVANCE Proposal (PDF, 345K)

## Presentations and Posters

- “The Role of Research in Institutional Change”, Bilimoria, Liang, Perry
- “Transforming the Faculty Mindset”, Bilimoria, Perry
- “The Academic Glass Ceiling: Women Faculty in STEM Fields”, Bilimoria
- “An Integrated Coaching and Mentoring Program for University Transformation”, Bilimoria, Hopkins, O’Neil
- “How Do Female and Male Faculty Members Construct Job Satisfaction?”, Bilimoria, Perry, Liang, Higgins, Robson, Stoller, Taylor
- “Graduate Student-Faculty Relations: Exploring Gender and Nationality”, Perry, Joy, Liang, Bilimoria, Gordon, Higgins, Stoller, Taylor
- “The Case Situation”, Singer

## Papers

- “How Do Female and Male Faculty Members Construct Job Satisfaction? The Roles of Perceived Institutional Leadership and Mentoring and their Mediating Processes”, Bilimoria, Perry, Liang, Higgins, Stoller, Taylor
- “Drawing on Supply-side and Demand-side Discourses: A Case Study of Faculty Perceptions of Gender and Academic Careers”, Higgins, Stoller, Taylor, Robson, Bilimoria, Perry
- “Transforming the University through Coaching and Mentoring”, Bilimoria, Hopkins, O’Neil
- “Predicting Academic Career Success from Academic Process and Individual, Relational, and Organizational Perspectives: How Does Gender Matter?”, Bilimoria, Liang, Perry
- “Women and Careers: A Critical Perspective on the Theory and Practice of Women in Organizations”, O’Neil, Bilimoria
- “Factors Affecting Early Career Women’s Choices: Implications for Organizations”, O’Neil, Bilimoria

## Work In Progress

- Faculty survival analysis. A rank, promotion, and retention study using survival analysis methods over a 15-year period
- Faculty salary study. Analysis of faculty salaries over time using the Paychecks methodology.

## Resource Equity Committee and Staff

Diana Bilimoria,  
Associate Professor,  
Organizational  
Behavior

Nahida Gordon,  
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Patricia Higgins,  
Assistant Professor,  
Nursing

Eleanor Stoller,  
Professor, Sociology

Cyrus Taylor,  
Professor, Physics

Susan Perry,  
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