Institutional Transformation and Women in the Sciences

Sue Rosser, ADVANCE Co-PI and Dean of the Ivan Allen College, GT

Brown University—January 29, 2009
NSF’s Systemic Approaches to Institutional Transformation

- Creation of ADVANCE in 2001
- Initial funding of $17 million
- Goal to advance women to senior positions through transforming structures of institutions
- Retained minor component where individuals were given research funding
2001 ADVANCE Institutional Transformation Awards

- The Georgia Institute of Technology
- Hunter College
- New Mexico State University
- University of California—Irvine
- University of Colorado—Boulder
- University of Michigan
- University of Washington
- University of Wisconsin—Madison
- University of Puerto Rico—Hamacao
2nd Round ADVANCE Awardee Institutions

- Virginia Tech
- University of Alabama at Birmingham
- Case Western Reserve
- Kansas State
- University of Maryland—Baltimore County
- University of Montana
- University of Rhode Island
- University of Texas—El Paso
- Utah State
- Columbia University
3rd Round ADVANCE Institutions

- Brown
- Cal Poly—Pomona
- Cornell
- Duke
- Iowa State
- Marshall University
- New Jersey Institute of Technology
- Rensselaer Polytechnic Institute

- Rice
- University of Arizona
- University of Illinois—Chicago
- University of Maryland—Eastern Shore
- University of North Carolina--Charlotte
Outline of Key Points for Institutional Change

- Build on and link project to existing efforts
- Use research findings to inform goals
- Choose PI for project that has the position to insure level of institutional transformation sought
- Seek buy-in from key players/stakeholders at various levels within the institution
- Broaden leadership of project throughout institutional structure and over time
- Choose project goals to eliminate subtle bias
- Institutionalize project goals in significant policies and practices
Linking Project with Existing Efforts

- Build on and strengthen existing institutional efforts with similar goals
- Envision the program/place where the project will be institutionalized after the end of the grant
- Example of Women, Science, and Technology (WST) at Georgia Tech
Use Research Findings to Inform Goals
Project Leadership Consonant with Transformation Level Sought

- PI should hold the position/power to be able to influence transformation at appropriate level

- Examples: Department level—Chair  
  College level—Dean  
  Inter-college/Institutional level—Provost

- Specific institutional example: Tenure and promotion focus required Provost level at GT  
  College level—Dean  
  Inter-college/Institutional level—Provost
Program Organizational Chart

Jean-Lou Chameau
PI

Promotion Tenure Advance Committee (PTAC)
David McDowell, Chair

Mary Lynn Realff
Co-PI
Program Director
WST Support/Co-Director
Program Management, Assessment, Administrative, and Financial Activities
Cross-college Activities

Sue Rosser
Co-PI
Chair Steering Committee

Carol Colatrella
Energeia Editor
Advance Research
PTAC/ADEPT Support
WST Support/Co-Director

Assessment & Evaluation
Internal
Bramblett
Hoey

External
Clewell
Consentino

*ADVANCE Professors
Jane Ammons, Mei-Yen Chou, Mary Frank Fox and Mary Jean Harrold

External Advisory Board
Brown, Chubin, Franz, Hammonds, Soffa, Wu

Angela Shartar
Project Coordinator

MaryHunt
Family-Friendly Policies & Practices Support
Seek Support from All Levels

- If goal is institutional transformation, then groups at all levels must buy into the process.
- Presentations to important groups and involvement of these groups in fabric of project are necessary.

  - Institutional Advisory/Foundation Boards
  - President’s Cabinet
  - Executive Board of Faculty Senate
  - Deans and Chairs
  - Faculty and staff
Broaden Leadership

- Broaden leadership of project to include individuals at different levels within the institutional structure
- Broaden the leadership over time, using concentric circle model
- Example of GT—management team, ADVANCE Professors, PTAC, project director, project assistant, tenure-track women faculty, senior male leadership
A network of termed professorships established to mentor women faculty
A series of leadership retreats with women faculty and senior institutional leaders
A series of family-friendly policies
Data gathering and interviews to develop MIT-like Report to chart equity progress
A formal tenure and promotion training process to remove subtle gender, racial, and other biases
A Network of Termed Professors

- A tenured, full professor with a strong research record
- One for each college
- Focus on recruiting and mentoring junior faculty
- Funding received equivalent to endowed chair--$60K/year
Recruiting Women Faculty

![Women Faculty Graph](image)

- **2001-2002**: 96 faculty members, 14%
- **2002**: 103 faculty members, 14%
- **2003**: 106 faculty members, 14%
- **2004**: 112 faculty members, 14%
- **2005-2006**: 123 faculty members, 15%
A Series of Mini-retreats

- Yearly retreats including all tenure-track women faculty and top institutional leaders, as well as male faculty holding key committee positions
- Goal is providing informal access for women faculty to male leaders
Recent Trends in Family-Friendly Policies at Georgia Tech

www.advance.gatech.edu
Data Gathering to Chart Equity

Share of Tenured Senior Faculty who are Women
(N=number of women)

- N=43
- 16%
- 5%

- 18%
- 9%

- 21%
- 9%

- 21%
- 9%

Project Years

2001-2002
2005-2006
Data Gathering to Chart Equity

Female Faculty by Rank and Year
Institute Wide

<table>
<thead>
<tr>
<th>Year</th>
<th>Assistant Professor</th>
<th>Associate Professor</th>
<th>Professor</th>
<th>Regents' Professor</th>
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<td>10</td>
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<tr>
<td>2005</td>
<td>35</td>
<td>20</td>
<td>10</td>
<td>5</td>
</tr>
</tbody>
</table>

Number of Faculty
Data Gathering to Chart Equity

Female Faculty Members with Professorships/Regents’ Professorships

15
10
5
0
97-98  00-01  03-04

0  4  12
Data Gathering to Chart Equity
Data Gathering to Chart Equity

Faculty Flux Charts
Male Faculty
Removing Bias in P&T

ADEPT (Awareness of Decisions in Evaluating Promotion and Tenure) provides case studies, activities, and various forms of reference material relevant to promotion and tenure evaluations.

One of the primary goals of the instrument is to assist users in identifying forms of bias in evaluation processes to achieve fair and objective evaluations.

The instrument is intended for use by:

CANDIDATES coming up for promotion and tenure.

MEMBERS of unit-level committees evaluating promotion and tenure cases in U.S. universities and colleges.

CONTRIBUTORS: Carol Colatrelia coordinates the design team. The chair and members of PTAC and the GT ADVANCE team members, along with other faculty, students, and consultants, have contributed to the ADEPT instrument. The alpha and beta versions of ADEPT can be viewed at http://www.adept.gatech.edu.
ADEPT

Jamie Perez
Materials Science and Engineering
Issues: Evaluation of collaborative research, constraints regarding course/lab equipment, graduate students.

Jamie Perez, Ph.D. in Materials Science and Engineering from MIT, joined a prestigious research university as a tenure-track assistant professor after completing post-docs at Berkeley and Northwestern. At the time of hiring, the search committee notes a one-year gap between post-docs, a time when Perez studied as a Fulbright Scholar at a European university. Support for his faculty role is earmarked from the Dean's office for the first two years of the appointment by virtue of an undersupplied faculty hiring initiative.

Perez's start-up package was average for faculty in that unit, but there were some glitches in finding adequate lab space and equipment. While he had been verbally assured during his negotiations that he could share the lab of a senior professor, Perez is told upon arrival by the senior...
Case Example from CD
Promotions of Women

Share of faculty qualified for a promotion obtaining rise to senior ranks
(rounded figures)

2001-2002 (baseline) 2005-2006 (last project year)

Years

Women Men
Percentages Obtaining Tenure

Share of Faculty Qualified for Tenure Obtaining Tenure
(rounded figures)
External Evaluation Findings

- Both the number and share of women faculty increased.
- The number and share of senior women faculty, including tenured ones and ones in high administrative positions, rose over time.
- Faculty recruitment rates, salaries, and other resources reflected more gender equity.
Institutionalization of Project Goals

Institutionalize goals in policies and practices

- Examples of family-friendly policies such as stop the tenure clock, lactation stations

Institutionalize goals in practices

- Examples of racial/gender sensitivity training for faculty for promotion and tenure

Support from top leadership is critical