Table of Contents

Message from the Provost ................................................. 1
ADVANCE External Advisory Board ........................................ 1
Report on Georgia Tech ADVANCE Research ....................... 2
WST/ADVANCE Connection .............................................. 3
Advancing and Developing Faculty for the 21st Century: ADVANCE 2003 Conference ........................................ 4
Georgia Tech Promotion and Tenure Committee ....................... 5
ADVANCE Professors ................................................ 6 – 7
ADVANCE Activities by College ................................ 8 – 9
Other ADVANCE Institutional Transformation Programs ........... 10
ADVANCE Team Students .............................................. 10
The National Perspective on ADVANCE .............................. 11
Family-Friendly Policies and Practices ................................. 12
Data Collection ................................................................ 12
ADVANCE 2004 Conference ......................................... 13

Editor's Note

Energieia is a Greek word that Liddell and Scott's lexicon defines as “action, operation, energy.” An apt term to apply to the compass of Georgia Tech ADVANCE activities, it is etymologically related to words denoting productivity and profitability. Many individuals have energetically contributed to Georgia Tech ADVANCE activities, including the ADVANCE team members listed above and others whose work is noted within the pages of this 2003 annual report, the second in a series documenting the annual activities of the cooperative agreement made by National Science Foundation and Georgia Tech to enhance institutional transformation for women.

This material is based upon work supported by the National Science Foundation under Grant No. SBE-0123532. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.
Message from the Provost
Jean-Lou Chameau

The first year of our ADVANCE Program was one of collecting data and establishing foundations upon which to build initiatives that promote the advancement of women faculty at Georgia Tech. In year two, having established our baseline data and faculty support networks across campus, the ADVANCE Team initiated activities to identify areas in which we need to clarify and improve policies and practices while designing a model of excellence for our campus community. Two of the major initiatives undertaken were:

- a survey of all tenured and tenure-track women faculty together with a matched sample of male faculty members examining experiences and perceptions of organizational barriers and facilitators. The results of the survey brought out the convergence and differences between the men and women faculty at Georgia Tech.

- an assessment (with recommendations for modification) by the Promotion and Tenure Advance Committee (PTAC) of current promotion and tenure procedures and how bias in many forms can affect outcomes, specifically for women and minorities. The year-long review resulted in the development of a web-based tool for Awareness of Decisions in Evaluating Promotion and Tenure (ADEPT).

I want to thank our faculty members and administrators for their support and participation in this endeavor. The collaborative efforts and assistance from across campus that went into these surveys were exceptional. The research survey team, led by Co-PI Mary Frank Fox, and the Promotion and Tenure ADVANCE Committee, chaired by Professor David McDowell, exceeded expectations. The ADVANCE Team has done a tremendous job working in concert with campus liaisons to carry out and enhance the program objectives. The pursuit of excellence requires energy and time commitment, and, as faculty members in a major research university, we are often asked to perform many roles. Our faculty ranks among the world’s best and brightest and as we move between these many roles we will continue to strengthen our commitment and progress toward advancing women in academe.

ADVANCE External Advisory Board

April Brown, Chair, School of Electrical and Computer Engineering, Duke University

Daryl Chubin, Senior Vice President, Policies and Research
National Action Council for Minorities in Engineering

Judy Franz, Executive Officer, American Physical Society

Evelynn Hammonds, Associate Professor, History of Science, Harvard University

Mary Lou Soffa, Professor, Computer Science, University of Pittsburgh

Lilian Wu, Mathematician and Consultant, IBM
Chair, National Academy of Science’s Committee on Women in Science and Engineering
Georgia Tech’s ADVANCE research is closely linked with its integrated institutional approach to factors that support the advancement of faculty and provide a model of best practices in academic science and engineering. As Co-PI, Mary Frank Fox directs the ADVANCE research program.

The Georgia Tech ADVANCE research program identifies what is known, and hence what can be done, for faculty’s advancement in science and engineering. It does so by focusing upon organizational barriers and facilitators to advancement, as they operate in teaching and research, work environments, processes of evaluation, and household/family-work arrangements.

In the past year, Fox directed a survey of Georgia Tech faculty, among the population of tenured and tenure-track women and a stratified random sample of men in Colleges of Computing, Engineering, Sciences, and Ivan Allen College. The survey focused upon faculty’s experiences, needs, and perceptions, in areas including research and teaching interests, collaborative patterns, “climate” of work environments, clarity of evaluation, mentoring given and received, and household/family/work arrangements.

The survey method involved a timed and administered protocol, and personalized procedures to maximize quantity and quality of response and reduce non-response bias. The leadership of Provost Jean-Lou Chameau was important to the success. Seventy-six percent (76%) of the faculty surveyed responded (70% of men and 85% of women). The survey results show ways in which faculty perceptions and needs both converge and diverge for women and men.

The research program will be undertaking face-to-face interviews with women faculty at Georgia Tech, in follow-up to the Georgia Tech survey. Together with the survey, these interviews, will provide particular information toward institutional transformation: ways in which organizational culture shapes participation and performance; characterization of what is meant by more or less “full participation” in the institution; and illustration of “critical transitions” to senior status and levels of satisfaction in those ranks.

Fox is also directing a survey of women and men faculty in Computing, Engineering, and Sciences at eight benchmark institutions, focusing upon faculty patterns and needs in research and teaching, work environments, and work-family arrangements. This survey, which provides data in comparative, institutional contexts, is underway as the Magazine goes to press.

The Georgia Tech ADVANCE research team includes four graduate research assistants and three undergraduate research partners. For students on the team, the research serves as a training program in the theory and practice of survey research, interviews, and case studies.

---

**Highlights of ADVANCE Survey**

- 77% of faculty report collaborating in research proposals or publications with faculty in their home unit. However, men (30%) are more likely than women (13%) to report speaking to faculty in home units about research on a daily basis.
- The vast majority of faculty (90% men, 89% of women) report that they have colleagues in their home units who are working in areas that are the same or related to their own. Men, however, are more likely to report “willingness” of faculty to collaborate with them.
- Men and women perceive as relatively high three aspects of their position and unit: quality of faculty, quality of undergraduates, and chances for promotion.
- Men are more likely than women to characterize their units as “exciting,” “helpful,” and “creative.”
- Women are more likely to report that they are mentors for both women and men, and that they have both women and men as mentors.
- Three factors are perceived to be most important in units’ decisions about promotion and salary: research grants received, quantity of publications, and quality of publications.
- Women are less likely to be parents of any children. But among those who are parents, 44% of women and 32% of men have preschool children. Women (44%) are three times more likely than men (15%) to have a spouse who is a professor.

---

Co-PI Mary Frank Fox with Virginia Maniquis and Oanhu Lu, two undergraduates who have worked on Fox’s research teams. Fox is an internationally renowned sociologist of gender, science, and academia. Her work is published in over 40 different scholarly and scientific journals and collections, and addresses institutional and organizational factors that impact upon participation and performance in science and engineering.
The Center for the Study of Women, Science, and Technology (WST Center) helped to develop the Georgia Tech ADVANCE Institutional Transformation project and continues to enhance its progress. WST Co-Directors Mary Frank Fox and Mary Lynn Realff are CoPIs on the ADVANCE initiative, respectively coordinating ADVANCE research and the ADVANCE conference, and WST Co-Director Carol Colatrella works on the ADVANCE research team, edits this magazine, and collaborated with the Promotion and Tenure ADVANCE committee.

The WST Center studies and helps implement research-based practice and policy toward improved participation and performance of women in scientific and technological education and careers. The WST Center connects issues in the study of science and technology with those of gender, culture, and society, networking faculty and students from all colleges of Georgia Tech and addressing issues of gender, science, and technology in research and programmatic initiatives.

Graduate student partners—Haven Hawley (History, Technology, and Society), Surabhi Parakh (Dupree College of Management), Karen Tisdale (Biomedical Engineering), Nina Walia (Information Design and Technology)—help develop WST Center and WST Learning Community programs and assist in advising undergraduate students. For more information, see www.wst.gatech.edu.

Eugenia Vedernikova, doctoral student in sociology and political science, European University of St. Petersburg, was a Research Fellow with WST during Spring 2003, advised and mentored by Mary Frank Fox and supported by the US State Department’s International Research and Exchanges Board (IREX).

2003 WST Center Programs include

- Lectures by Allan Fisher, Carnegie Mellon University; Norman Fortenberry, National Academy of Engineering; and Mary Lou Frank, Kennesaw State University

- February panel on information technology and the workforce with Janet Murray (Literature, Communication, and Culture), Sue Rosser (Ivan Allen College), Monique Tavares (College of Engineering)

- March presentation led by President Wayne Clough on the future of women at Georgia Tech with faculty, students, and alumni (Gary May, Mary Lynn Realff, Sarah Walker, Tiffany Massey, Oanh Lu, Susan Davis, and Cheryl Weldon)

- October panel on building campus communities with Narl Davidson (College of Engineering), Rosalind Meyers (Facilities), Stephanie Ray (Student Affairs), graduate student Surabhi Parakh (Dupree College of Management), and undergraduate April Moore (History, Technology, and Society)

- November panel on gender in the scientific laboratory with Karen Malone (West Georgia State University), Nancy Nersessian (College of Computing), and Wendy Newstetter (Biomedical Engineering)
ADVANCE Committee (PTAC) (see work of the Promotion and Tenure and David McDowell described the wards institutional transformation, 2). I reviewed progress made to-
ducted during Fall 2002 (see page 2002 Annual Georgia Tech ADVANCE Conference, Advancing
and Developing Faculty for the 21st
Century, was held at the Evergreen Conference Resort in Stone Mount-
ain Park, Georgia. Participants
from the Georgia Tech faculty in-
cluded President Wayne Clough
and Provost Jean-Lou Chameau
as well as various deans, directors,
and chairs and many women fac-
ulty. The conference focused on the current initiatives within the
ADVANCE project and the Promotion
and Tenure (P&T) process at
Georgia Tech. Members of the GT
ADVANCE external advisory
board, and NSF ADVANCE pro-
gram officer, Alice Hogan,
discussed the National Perspectives
on ADVANCE and the 21st Cen-
tury Workforce at a session
moderated by Sue Rosser (see page
11). Attendees heard Mary Frank
Fox present her ADVANCE re-
search, including results of the
ADVANCE faculty survey con-
ducted during Fall 2002 (see page
2). I reviewed progress made to-
wards institutional transformation,
and David McDowell described the
work of the Promotion and Tenure
ADVANCE Committee (PTAC) (see
page 5).

Breakout sessions during this
year’s conference brought to-
gether senior administrators and
women faculty to consider vari-
ous issues related to the
promotion and tenure process.
Small groups discussed case stud-
ies related to the PTAC review of
promotion and tenure procedures
across Georgia Tech colleges and
schools and made suggestions to-
ward improving processes and
communication. Each group was
asked to consider two hypotheti-
cal narratives of faculty careers
developed for use in the PTAC
ADEPT computer instrument (see
page 5) and to respond to ques-
tions related to each fictional
case. Representatives of the
groups summarized feedback on
cases in a plenary session. As a
result, some case studies were
modified for use in the ADEPT
tool. PTAC members facilitated
breakout sessions on the cases on
day one, and on topics noted in
the 2002 breakout sessions in
day two.

In my 2003 presentation re-
viewing the outcomes of the first
annual GT ADVANCE confer-
ence, I noted the implementation
of many recommendations made
by 2002 discussion groups. For
example, the group discussing
Balancing Family and Work sug-
gested that more attention
needed to be given to Leave Poli-
cies. The second year of the GT
NSF ADVANCE program saw the
further development of the ten-
ure clock extension, active ser-
vice/modified duties process, and
family leave (see page 12). Net-
works were formed to help fac-
ulty anticipate and deal with
work/family challenges. The
group discussing Faculty Com-
mittee Development recom-
mended adding more places on
campus to meet with other fac-
ulty and build communities. The
addition of two new café areas
where faculty, students, and staff
can get together addressed this
recommendation. The entire
campus celebrated the 50th Anni-
versary of Women, when many
current women faculty were
highlighted at events throughout
Atlanta. The GT ADVANCE pro-
gram along with the Center for
the Study of Women, Science and
Technology (WST) offered work-
shops for faculty focusing on post
tenure career advancement. Many
of the tenure and promotion pro-
cess group’s recommendations
have been incorporated into the
efforts of the PTAC (see page 5).

Assessment of the second an-
nual conference indicated it
developed participants’ under-
standing of tenure and
promotion policies and issues
and created awareness among
attendees concerning the ad-
ministrative effort currently
underway to make the tenure
and promotion process more
transparent and fair. The majority
of comments on the conference
and the reports of the breakout
sessions reflect positively on the
meeting. The event also acted as
a catalyst for discussions on the
P&T process, evaluating the
PTAC cases included in the
ADEPT instrument. Overall, the
conference had a positive impact
on the attendees, and the discus-
sions in the breakout sessions
serve as useful tools for bringing
about institutional and cultural
change at Georgia Tech.

The presentations made at the
2003 GT ADVANCE conference
are posted on the web at
www.advance.gatech.edu/
proceedings.html.

Mary Lynn Realff’s ADVANCE
roles include working with the
ADVANCE professors at twice
monthly meetings to ensure
sharing of best practices across
the colleges, sponsoring cross-
college events (see page 8),
connecting ADVANCE and WST
activities, and following up on
conference discussions and
suggestions. Realff is Associate
Professor of Polymer, Textile,
and Fiber Engineering.
The NSF-funded ADVANCE Program for Institutional Transformation awarded to Georgia Tech offered the opportunity to conduct a critical self-study of issues related to advancement of women in academia. Provost Jean-Lou Chameau (PI/PD on the NSF ADVANCE Program grant, with co-PIs Mary Frank Fox, Sue Rosser, and Mary Lynn Realff) seized the opportunity to expand the study to address effectiveness of a wide range of faculty development and evaluation issues campus-wide, across all academic disciplines.

The vision for the Promotion and Tenure ADVANCE Committee (PTAC) was laid out in a June 2002 meeting led by Provost Chameau and attended by PTAC Chair David L. McDowell, Vice Provost for Undergraduate Studies and Academic Affairs Robert C. McMath, Jr., and ADVANCE Program Director Mary H. Hunt. PTAC’s mission, as a grassroots faculty-driven effort, was conceived to encompass a broad study of potential forms of bias in faculty development and tenure/promotion evaluations, building on ADVANCE program research investigating the foundations of gender bias. In addition, PTAC was charged to look into any conceivable set of issues related to faculty development, mentoring, and evaluation procedures that could serve to improve the overall climate for faculty achievement and satisfaction at Georgia Tech. Finally, PTAC confronted the challenge to develop a methodology to periodically measure faculty perceptions to assess “Institutional Transformation” as an ongoing effort of the ADVANCE Program.

Responding to this broad, ambitious charge, PTAC pursued a series of manageable tasks resulting in documents and tools designed to enhance evaluation processes (see sidebar). The committee met once or twice monthly from October 2002 through July 2003, and in April 2003, PTAC contributed case study sessions on promotion and tenure cases at the annual Georgia Tech ADVANCE Conference. The final report, along with its related survey and web-based tools, is intended to be a living document, providing the basis for ongoing self-study and evaluation to support continuous improvement of the quality and equity of Georgia Tech’s faculty development and evaluation procedures.

**PTAC Chair:** David L. McDowell, School of Mechanical Engineering, School of Materials Science and Engineering, College of Engineering

**PTAC Members:**
- Douglas C. Allen, College of Architecture
- Willie J. Belton, Economics, Ivan Allan College
- Paul J. Benkeser, Biomedical Engineering and Electrical and Computer Engineering, College of Engineering (Chair, PTAC Sub-Committee on Best Practices)
- Mostafa A. El-Sayed, Chemistry and Biochemistry, College of Sciences
- Dana Randall, College of Computing; Mathematics, College of Sciences
- J. Carlos Santamarina, Civil and Environmental Engineering, College of Engineering
- Ronald W. Schafer, Electrical and Computer Engineering, College of Engineering
- Marie C. Thursby, Dupree College of Management (Chair, PTAC Sub-Committee on Case Studies)
- Jeannette Yen, Professor, Biology, College of Sciences

**PTAC Liaisons:** Tabitha Barnette, Carol Colatrella, Mary Hunt, Robert McMath
Jane Chumley Ammons  
**NSF ADVANCE Professor of Engineering**

ADVANCE enables Ammons’ new research in equipment leasing and asset management with reverse logistics and environmental considerations. Under her supervision, Manu Sharma, senior-level ISyE Ph.D. student, began working to define this cutting-edge problem at the interface between economic decision analysis replacement theory and reverse logistics. In June 2003, the first manuscript from this research was submitted for review to a special issue of the *Computers and Operations Research Journal*.

ADVANCE also supports Professor Ammons’ other projects, where funding for students has been obtained from other sources. Collaborative research with Professor Paul Griffin in “Green Supply Modeling for Multinational Companies” has resulted in the graduation of Berna Yenice, a female Ph.D. (Spring 2003). This research was presented at the May 2003 Institute of Industrial Engineers meeting. ADVANCE funding supported Dr. Yenice’s travel expenses to present.

Research with Professor Joel Sokol on “International Supply Chain Expansion for New Products” performed by Ph.D. student Renee Butler was funded by Eastman Kodak. Dr. Butler graduated in August 2003 and began working as an assistant professor of industrial engineering at the University of Central Florida.

Ammons also contributed to interdisciplinary work in sustainable human-industrial systems with faculty from Chemical Engineering, Mechanical Engineering, Architecture, and the University of Vermont. Last summer they received an NSF PREMISE grant.

The key collaborative research course was conducted Spring 2003; the primary workload has been carried by the PI, Professor Matthew Realff.

Professor Ammons received additional research awards, including NSF DMII and State of Georgia Department of Natural Resources – P2AD funding for research in Reverse Production Systems with a diverse research team. She also worked with a visiting Fulbright scholar to investigate electronics recycling and recycling issues in general.

Ammons received a 2003 Outstanding Faculty Member award at the annual Women’s Leadership Conference organized by GT students.

Sworn in by Governor Roy Barnes in October 2003, Ammons chaired the Computer Equipment Disposal and Recycling Council in Georgia. She also serves on the Engineering Advisory Board of the University of South Florida and the ADVANCE Advisory Board for Virginia Polytechnic Institute.

During 2003 she attended the National Academy of Engineering LEAP Conference on Gender Equity (January) and presented a research paper at the Institute of Industrial Engineers Research Conference and led seminars at Auburn University and University of South Florida on reverse production systems research.

Mary Jean Harrold  
**NSF ADVANCE Professor of Computing**

In 2001, Mary Jean Harrold began a research project for continuous improvement of software after deployment (the Gamma Project). She published several papers related to this project. One, co-authored with Alessandro Orso and James Jones, was awarded an ACM SIGSOFT Distinguished Paper Award at the 2003 Software Visualization Conference. She participated in the First Workshop on Remote Analysis and Measurement of Software Systems, a new area related to the Gamma Project.

Her research awards include NSF funding with researchers at the University of Maryland, the University of Washington, and Vanderbilt University. NSF also awarded her two new research grants, and she obtained funding from NSF through the Research Experience for Undergraduates (REU) program. Additionally, Boeing Aerospace funded her work in testing critical avionics software, and she secured equipment in the form of handheld devices from Hewlett Packard for her research.

During the past year, Harrold published three journal articles and six papers in conference proceedings. Harrold served on the editorial boards of *IEEE Transactions on Software Engineering*, *ACM Transactions on Programming Languages and Systems*, and *Empirical Software Engineering Journal*. She also served as guest editor for an issue of *IEEE Transactions on Software Engineering*.

She serves on the steering committees for the ACM/IEEE International Conference on Software Engineering, the ACM SIGPLAN/SIGSOFT Workshop on Program Analysis for Software Tools and Engineering, and the ACM SIGSOFT International Symposium on Software Testing and Analysis. She served as chair of Diversity and Student Programs for ACM SIGSOFT 2002 and will serve as co-chair in 2004.

Harrold serves as co-chair of Computing Research Association Committee on the Status of Women in Computing Research (CRA-W). She is also a member of the organizational and planning teams for a new National Center for Women and Information Technology, for which Georgia Tech will be a hub. Harrold was elected as senior member of IEEE.
Fox has applied NSF ADVANCE funds to extend research on faculty and graduate students in doctoral-granting departments in science and engineering. Her research on faculty addresses critical relationships between gender, family characteristics, and productivity, and relationships between gender, productivity, and features of academic departments. The research on students addresses gender, status, and science through a focus upon students’ reports of organizational features of doctoral education. ADVANCE Professor funds supported two graduate students in this research.

ADVANCE funds also supported Monica Gaughan, Assistant Professor of Public Policy, to collaborate with Fox in summer 2003 on the development of a catalog of “dimensions of culture and climate,” and best practices pertinent to advancement of women and under-represented groups.

In addition to coordinating the ADVANCE Research (see page 2), Fox’s current research project on “Programs for Women in Science and Engineering” is funded through a separate NSF grant.

Fox published articles in two collections: Equal Rites, Unequal Outcomes: Women in American Research Universities (2003), and Between Front Stage and Hinterbuehne: To the Cultural Dynamics of Science and Society (2003). Fox also collaborated with Sue V. Rosser and Carol Colatrella on an article about the Georgia Tech Center for the Study of Women, Science, and Technology that appeared in Women’s Studies Quarterly in 2002.

Fox serves as associate editor of Sex Roles: A Journal of Research, member of the Editorial Advisory Boards of Social Studies of Science and of Vanderbilt Issues in Higher Education Book Series, and as co-editor of the book series, Women, Gender, and Technology.

She was invited by the American Association of University Women (AAUW) to present research on gender, science, and organizational environments in May. In June, Women in Engineering Programs (WEPAN) invited her to participate in a panel of past awardees of the Betty Vetter award, which Fox won in 2002, and to present research on women, science, and academia. She also presented an invited paper at the American Chemical Society’s Symposium on Women in Academic Science at their national meetings in September.
In the past year, Jane Ammons has coordinated activities to foster interactions among faculty. She met with approximately 42 women engineering faculty—20 Assistant Professors, 16 Associate Professors, and 6 Professors—the School Chairs and the Dean of the College of Engineering, Don Giddens, to define needs and opportunities for female faculty, formulate strategies for career success, and discuss the NSF ADVANCE program.

Ammons also hosted a series of eight luncheons with 5 to 11 female faculty members per meeting. The women faculty—from differing levels and from different units within the College of Engineering—met to discuss issues and form networks.

Ammons distributed information and resources via email and hard copy mail, met with all of the College of Engineering School Chairs to discuss ADVANCE issues, and supported various diversity efforts including faculty recruiting, CAREER proposal preparations, and issues associated with individual women faculty in their schools. She collected data from women engineering faculty to understand which elements of the system are perceived to be performing well, and which are opportunities for improvement. Ammons hired Rosey Kelly in fall 2003 to help coordinate ADVANCE activities.

Related Websites on Women and Computing

Committee on the Status of Women in Computing Research Association on Women in Computing (CoC) by assessing college procedures, periodically meeting with the dean, chairs, and women faculty; recruiting and mentoring women in the college; and helping to develop best practices formulated by the Computing Research Association Committee on the Status of Women in Computing into College and Institute policies.

Current issues include considering how to achieve a better gender balance on the faculty by understanding barriers to recruitment and promotion of women. CoC activities include periodic lunch meetings of female faculty members, monthly lunch meetings of women faculty and graduate students, and a CoC Women’s Co-Web for online communication. She has researched recruitment and hiring trends in the College and surveyed best practices for women faculty at other universities to provide guidance for future CoC programs.
Mei-Yin Chou and Dr. Dana Hartley, the ADVANCE coordinator in the College of Sciences, are working with administrators on significant issues related to advancing women faculty in the College. A formal mentoring program has been established; it includes all new junior faculty members in the College. The program received positive feedback in the first year of its implementation, and is now continuing.

Hartley also acts as Liaison/Ombuds for Junior Faculty in the College of Sciences. She assists with planning activities and developing communications, including further development of the College of Sciences web site collecting information on faculty resources and policies on promotion and tenure. This website was cited as a model of best practices by the Promotion and Tenure ADVANCE Committee in their recent report on eliminating bias in evaluation.

One of the most important ADVANCE tasks in the College of Sciences is the recruitment of women faculty, a project fully supported by Dean Gary Schuster, Associate Deans Anderson Smith and Kent Barefield, and the School Chairs. The College of Sciences has added five new women professors at various ranks for the 2003 academic year, which represents an unprecedented 29% increase of women faculty in a single year.

Informal lunch meetings of women faculty are continuing for the second year. These provided opportunities for women professors to network and to share research ideas. In addition, the first campus-wide workshop on proposal writing was held in October 2002.

Mary Frank Fox consulted and met with IAC School Chairs and Dean Sue Rosser (ADVANCE Co-PI) about ADVANCE Transformations, and met frequently with women faculty in IAC to support professional development and advancement.

During 2002 – 2003, Fox organized four thematic lunch discussions for IAC women faculty on the following topics: “Needs for Advancement” (September, October); “Dimensions of Mentoring” (November); and “Academic Culture and Implications for Gender, Race, and Ethnic Diversity” (February).

She organized a January panel on “IAC — ADVANCE and Academic Transitions,” with six IAC panelists—Eleanor Alexander (History, Technology, and Society), Susan Cozzens (Public Policy), Michelle Dion (International Affairs), Cheryl Leggon (Public Policy), Janet Murray (Literature, Communication, and Culture), and Usha Nair (Economics)—on topics of transitions: doctoral student to faculty; junior to senior faculty; senior faculty, continuing transitions, and faculty to administration.

Fox developed electronic means to support networks, communication, and exchange, including an IAC — ADVANCE Listserve (with postings each week). She coordinated an ADVANCE Professor website (www.prism.gatech.edu/~mf27), which contains links to initiatives/units at Georgia Tech (pertinent to women, science, and engineering); to professional societies and associations of/for women in science and engineering; and to scholarly resources on women, science, and engineering such as data, bibliographies, and references. A graduate student assistant, Nina Walia, constructed/maintained this website, supported by ADVANCE Professorship funding.

Fox also directed development of the NSF ADVANCE - Ivan Allen College Network for Women Faculty website — www.advanceiac.gatech.edu. This website profiles faculty women by School (unit) within the College, fosters/supports collaboration and networks, and provides information for current and potential students and faculty. A graduate student assistant, Jill Fantauzza, constructed this website, supported by ADVANCE Professorship funding. The report produced in collaboration with Monica Gaughan on “best practices” in universities, national themes and approaches at the institutional level for the advancement of women, will appear on this website.

In addition, Fox produces the WST List of Faculty Accomplishments, posted regularly, and transmitted across campus, an initiative developed as a result of the 2002 ADVANCE conference.
Georgia Tech’s ADVANCE research program is conducted as teamwork with students. Mary Frank Fox, ADVANCE Co-PI, directs a research team including graduate and undergraduate research partners. In the past year, five graduate students from Georgia Tech’s School of History, Technology, and Society (HTS) and School of Public Policy (PUBPOL) participated in the research program: Kendall Deas (PUBPOL), Carolyn Fonseca (PUBPOL), Andrew Kandray (HTS), Jessica Ports (HTS), and Ben Shackleford (HTS). In addition, undergraduate team members are Laura Cofer (Industrial Design), Oanh Lu (Biology), and Christina Lurie (Biomedical Engineering).

The research program provides training in survey research, interviewing, and case studies. Mary Frank Fox says “the ADVANCE research program involves teamwork with students who develop skills in every stage of survey research: writing questions, constructing the questionnaire, specifying the population to be studied, drawing the sample, implementing the survey, coding data, and analyzing and representing results. Georgia Tech is one of the few universities today where both graduate and undergraduate students are integrated into a research team with such comprehensive work on theory, design, and implementation of survey research. The students also learn to develop protocols for face-to-face interviews, pre-test the protocols, and conduct interviews. One of the great satisfactions of the ADVANCE research program is teamwork with, and among, the students.”

Graduate students contributed to other ADVANCE initiatives. Advised by Joseph Hoey, Georgia Tech’s Director of Assessment, Priya Gill (Dupree College of Management) worked diligently to analyze and write up results of the Promotion and Tenure ADVANCE Committee (PTAC) survey and of the 2003 ADVANCE conference evaluations. Collaborating with software engineer Laura Ferguson and advised by faculty members Carol Colatrella, Janet Murray, and David McDowell, Information Design and Technology graduate students Smitha Barki, Meghna Krishnan, and Maryann Westfall developed the ADEPT (Awareness of Decisions in Evaluating Promotion and Tenure) instrument, another outcome of PTAC research and deliberations. Dr. Fox’s ADVANCE research team contributed to the bibliography of scholarly resources included in the ADEPT computer instrument.
Although ADVANCE's first year proved busy and exciting, when I look back over the period from October 2002 to October 2003, our second year, I'm amazed at the impact our grant has externally, at the national, regional, and local levels. As the grant co-PI whose major responsibility focuses on outreach, I hold a vantage point that encourages me to engage with other projects, institutions, and individuals involved with ADVANCE and/or institutional transformation.

During the last year, I have delivered nine invited addresses or keynote lectures at national and international conferences to groups ranging from the Clare Boothe Luce Awardees Conference in Charleston, SC, to an international symposium on Gender in Science held in Gottingen, Germany, at which I was asked to present the United States perspective. Each of these lectures included a focus on ADVANCE in general and the Georgia Tech project in particular. A number of the refereed journal articles that I published this year centered on ADVANCE and/or issues significant for women in science, mathematics, and engineering and appeared in Signs, Women's Studies Quarterly, History and Technology, and the Journal of Women and Minorities in Science and Engineering. While these refereed journal articles address an academic audience, three popular articles—one in the American Association of University Professors journal Academe and two in AWIS Magazine, published by the Association for Women in Science—reach other groups, The Science Glass Ceiling, my forthcoming book in press with Routledge with a significant focus on ADVANCE, is intended for a general audience.

Spreading the word about ADVANCE becomes equally important for achieving the goals of the project. The ADVANCE professors, co-PIs, and the project directors have played critical roles insuring that faculty and staff in their colleges and communities understand the objectives and activities of ADVANCE. I have given nine other formal presentations during the last year at Georgia Tech—to groups such as the College of Engineering Advisory Board, and to groups throughout the state such as the American Council on Education-Georgia Women in Higher Education Annual Meeting—about ADVANCE during this past year. An invitation from the Dean of Agnes Scott College, a women's college in Atlanta, to speak with their science faculty about ADVANCE, has resulted in a blooming collaborative relationship. They have asked me to deliver an invited address at a regional conference they will hold in December, 2003, and to serve on the advisory panel for a grant on women in science. We are including them in our national conference and scheduled WST presentations.

My service on the external advisory board for three other NSF ADVANCE projects, the University of Wisconsin-Madison, the University of Alabama-Birmingham, and the University of Maryland-Baltimore County, provides insights into strategies and issues of other ADVANCE projects and institutions. I hope that I am as helpful to those institutions as Georgia Tech's External Advisory Board has been. At the April 2003 conference, NSF ADVANCE Program Officer Alice Hogan joined three members—April Brown, Chair of Electrical and Computer Engineering at Duke University, Daryl Chubin, Senior Vice President for Policy and Research at NACME, and Judy Franz, Executive Director of the American Physical Society—of the External Advisory Board for a panel on National Perspectives on ADVANCE; a fourth member, Lilian Wu, Research Scientist and Program Executive for University Relations at IBM, joined the conference the following day. Ranked highly by conference attendees, one faculty member described the panel as “the highlight of the conference.” In April, 2004 Georgia Tech's ADVANCE outreach will peak in a major national conference that will bring together 350 people, including all other ADVANCE projects, the External Advisory Board, as well as Georgia Tech faculty along with faculty from other institutions around the state and nation (see page 13).
Georgia Tech Family-Friendly Policies and Practices
2003 Initiatives

Georgia Tech continues to make progress toward strengthening and expanding the scope and impact of family-friendly policies and practices. In 2003, efforts to educate our campus community and communicate program goals were carried on through presentations and via our ADVANCE website. Here are a few highlights of our work/family activities:

- During its first two years, the “Active Service – Modified Duties” procedure enabled 13 faculty members to receive more flexible workloads to allow longer family leave. The total amount committed was over $100K. Two information sessions were held during the program’s second year to provide information about the process. One session was included during a campus deans and directors meeting and the other was held in conjunction with the Office of Faculty Development as part of a cross-college luncheon sponsored by ADVANCE.

- The first of five lactation facilities was built and is available to the families of Georgia Tech. The Nursing Moms Program (www.advance.gatech.edu/lactation) was established and publicized on campus.

- In partnership with the local community, the Georgia Tech and Home Park childcare center, managed by Bright Horizons, opened in January 2003. The Landon Learning Center has grown from its initial enrollment of 39 children to 89. R. Kirk Landon, a major donor for whom the center is named, observed daily operations during the fall to see that the center is moving toward full capacity—120 youngsters. Enrollment is available to children of Georgia Tech faculty, staff, and students and members of the Home Park community. Director Michele Cole-Jones notes that parents can purchase low-cost lunch when visiting their children during lunch hour. There are still openings at the center; for more information, visit their website: centers.brighthorizons.com/techhomepark/

- In 2002, Georgia Tech was awarded a CCAMPIS (Childcare Access Means Parents in School) grant from the U.S. Department of Education. The grant, along with generous matching funds from the Deans’ and Provost’s Offices, currently provides thirteen mini-grants to Georgia Tech students who have children enrolled at the R. Kirk Landon Learning Center. For more information, contact Monique Tavares, Project Director, at monique.tavares@coe.gatech.edu.

Data Collection and Assessment

Sandra Bramblett, Director, Office of Institutional Research and Planning
Joseph Hoey, Director, Office of Assessment

The Office of Institutional Research and Planning continued to refine the data collection activities to support the ADVANCE objectives. Using 2001 as the base year, all women faculty members were matched with a male faculty member based on hire date, hire rank, department, and college. In addition to basic data on salary, time in rank, extramural support, and workload, the ADVANCE database now includes data on start-up packages and space allocation. Data on start-up packages were obtained during an extensive review of files in the Office of the Vice Provost for Research as well as Faculty Support Services. Space allocation data were gathered from individual colleges. Data collection for this project is most definitely a team effort and as such, we are grateful for the assistance of Angela Shartar and Gerri Naramore, Provost’s Office; Tabitha Barnette and Cassandra Spiller, Faculty Support Services; Greg Goolsby, College of Engineering; Jerry O’Brien, College of Sciences; Larry Beckwith, College of Computing; and Tina Lambert and Toni Holland, Ivan Allen College.
Upcoming ADVANCE 2004 National Conference
Mark Your Calendar!

From April 19 to April 21, 2004, Georgia Tech will host a national conference on ADVANCE at the Georgia Tech Global Learning Center and the Georgia Tech Hotel. Faculty from all NSF ADVANCE Institutions will share their best practices and experiences with the Georgia Tech community and other interested participants. Georgia Tech academic faculty will also have the opportunity to network with the Georgia Tech Administrators. Topics will include:

- ADVANCE Research
- Promotion & Tenure
- Senior Women & Advancement
- Recruitment & Retention
- Assessment & Evaluating Impact
- Overcoming Skepticism
- Women from Underrepresented Groups
- Family/Work Policies & Practices
- Mentoring & Faculty Development
- Sustainability of ADVANCE Programs

Conference fees for all Georgia Tech academic faculty will be sponsored by Office of the Provost. Contact the ADVANCE office for more information (404) 385-2979. The registration site for the conference is www.pe.gatech.edu; the keyword is NSF.