

## **APPENDIX E**



## COLLEGE ADMISSIONS ACTION COMMITTEE

Positioned as "gatekeepers" - if you will  
From College to Industry

### I. Recruitment

- Different schools for different students  
all have something to offer - "good match"
- Gender specific literature - most felt counterproductive "singled out"  
gender inclusive (we'd like to see)
- All schools working to attract more women in Engineering
- What is Engineering? literature - women don't know what's available  
young girls traditionally do not have experiences that lead them to  
pursue engineering fields ie: "tinkering"

### II. Selection

- All act more affirmatively toward women in selection
- Limited number of well qualified women to draw from-steep competition  
in attracting from this pool of applicants: use strength of college for  
match - also money (scholarships, F.A., attractive packages)
- Unfortunately, commonality in perception no matter how unfounded - of  
lowering the quality of engineering students despite women  
performing as well/better than males
- Traditionally male dominated fields-based on male standards women  
add a different dimension to this arena-all of our responsibility to  
change this perception at our colleges

### III. Yield

- Active SWE chapters, phone-a-thons, mailings, big/little sister program
- More "personal touch" contact from colleges  
(women are relational/need human contact)
- Financial support - real issue - aid (federal, state, industry)
- Extensions for financial aid

### IV. Retention

- First semester curriculum-"weed out" program-hasn't changed over the years.  
Engineering is usually the "toughest curriculum" on campus  
"Building a bridge" from Admissions to Advising
- Tenure decisions, promotions, salary should be affected by  
advising/teaching competence

### Where do we fit in WEPAN

- Need to make industry more aware of our problems
- Upper level academe more aware of our problems-unrealistic to expect  
goals when other mechanisms are not in place to foster enrolling  
women engineers
- "The changing face of engineering" - students who are getting involved
- What are the criteria necessary for women to become involved in  
engineering?

- \* Need to support programs that reach into our elementary and middle schools - getting  
girls excited about mathematics and science early - so when they reach high school -  
they are prepared to take those courses in mathematics and science that will allow  
them to continue in engineering and science.



## MINUTES OF THE FACULTY ACTION COMMITTEE MAY 23, 1993

The faculty action committee of WEPAN was formed to focus on the environment in academia for women in engineering at the undergraduate, graduate, and faculty levels.

The committee elected Mary Anderson of Arizona State University to be the chair of the committee for 1993-94. The meeting attendees discussed what the goals should be for the action committee. Some of the goals discussed were:

1. To provide more faculty, with information about WEPAN and the faculty action committee.
2. To work on a directory for women faculty.
3. To provide professional networking for female graduate students.
4. To develop missions and goals which are distinct from the Women in Engineering division of ASEE and the faculty group of SWE, and to work cooperatively with these entities and others whenever possible.
5. To develop information and mentoring so that faculty may work more effectively with Women's Program Administrators.
6. To provide information to enhance careers and opportunities for women already in and entering academia.
7. To work on the academic culture so that it is more attractive for women.

As initial action items for the committee the following were distinguished:

- Develop sessions for the 1994 WEPAN National Conference which present information and provide discussion opportunities for faculty and administrators to initiate efforts to enhance the campus climate for women, both in practice and perception.
- Develop items for the WEPAN newsletter to solicit ideas and inputs, as well as to provide information on the faculty action committee, on the opportunity for faculty to work with Women in Engineering Programs, and for women faculty directory inputs.



## 1993 MINUTES INTERNATIONAL ACTION GROUP

The International Action Group of WEPAN was established in February of 1993. In keeping with the two primary goals of WEPAN, the goals are to:

1. Increase the participation and retention of women in engineering and, ultimately, in the sciences;
2. Provide technical assistance to institutions desiring to expand or initiate women in engineering and/or science programs.

More specifically, the proposed objectives are:

1. To provide opportunities for women in engineering, and ultimately the sciences, through international training and awareness of different cultures;
2. To provide opportunities for exchange programs for students, faculty, and administrators;
3. To conduct research examining cross-cultural issues for commonalities and differences;
4. To coordinate activities and share programmatic ideas among countries;
5. To encourage international companies to form partnerships with institutions of higher education to further co-op arrangements;
6. To share statistics on recruitment and retention levels; and,
7. To share measurement methodologies for Women in Engineering Programs.

Dr. Susan Vernon-Gerstenfeld, Associate Professor at Worcester Polytechnic Institution, will assume the position of Chair of the International Action Group. Although Dr. Monique Frize, Chair of Women in Engineering in Canada, will continue to participate in the Action Group, she is no longer able to continue in a leadership role.

A list of names and addresses is attached of all those who have at one time or another indicated an interest in the International Action Group.

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**Action Group on Research, Evaluation and Dissemination  
Minutes of Meeting  
May 23, 1993**

Chaired by Dr. Emily Wadsworth  
Purdue University, West Lafayette, Indiana

1. Introductions were made. Present were 21 WEPAN members: 9 from the Eastern Region, 9 from the Central Region, and 3 from the Western Region.
2. Emy Wadsworth recapped how the action group was formed: Emy had written a letter to the president of WEPAN, Jane Daniels, in September 1992 requesting that a division of WEPAN be created to concentrate on research and evaluation related to Women in Engineering Programs. The letter was sent on behalf of 20 additional WEPAN members who supported the request and who, by doing so, pledged to work at bringing research and evaluation professionals into the WEPAN organization. The request was ratified at the February 1993 meeting of the WEPAN Board of Directors. At that time, it was decided to call such divisions of WEPAN "Action Groups". The group has an ad hoc seat on the WEPAN Board of Directors.
3. Time was spent brainstorming goals for the action group. Over 20 ideas were generated by attendees. As a result of the brainstorming and follow-up discussion, the mission and scope of the action group and four sub-groups were established.

Mission

The mission of the Action Group on Research, Evaluation and Dissemination is to 1) advocate and support research and evaluation of projects and programs, and 2) to disseminate findings and recommendations based on model programs.

Scope

The Action Group on Research, Evaluation and Dissemination will encompass research, evaluation and dissemination about:

- Women in Engineering and Science
- Recruitment/Admissions/Retention/Curriculum Programs
- Pre-Kindergarten through Professional Career Education
- Climate (classroom, campus, workplace) Issues
- Faculty Development
- Administration Development
- Programs and Systems

Subgroups

*Subgroup 1: Communication among researchers both within and outside of WEPAN.* This subgroup will:

- Encourage and provide structures for collaborative efforts.

- Link with other organizations having similar goals.
- Support cross-university research.

*Subgroup 2: Dissemination of findings.* Ideas for this subgroup are to:

- Collect and provide abstracts of research and evaluation that have been done.
- Request column or page in WEPAN News to share information related to these issues.
- Seek publishing of, or publish, a book of research and evaluation findings.
- Develop a collection of programs and projects that work for dissemination.

*Subgroup 3: Evaluation design and assessment instruments.* This subgroup will:

- Provide structure for development and sharing of evaluation design and assessment instruments.
- Seek to standardize evaluation procedures.
- Develop a manual of "how to's" for evaluation and research.
- Incorporate the Quality Improvement Process whenever feasible.

*Subgroup 4: Opportunities for funding.* Program evaluation is important to funding agencies and should be an integral part of funding requests. It was determined that this group would:

- Provide information on funding availability and opportunities.
- Provide information about how to incorporate evaluation and research into funding proposals.

Once subgroups were formed, volunteers were solicited to serve as members of the subgroups. These volunteers are:

Subgroup 1: Jan Carpenter, Laura Kramer

Subgroup 2: Louise Chiatovich (pre-college), Mary Ann Evans, Irene Mikawoz

Subgroup 3: Michele Fish, Jamie Kelley, Carol O'Connor, Gloria Rogers

Subgroup 4: Louise Chiatovich (vocational education), Cinda Sue Davis, Nancy Holland, Parveen Wahid, Karen Wynn

During the brainstorming session, sign-in sheets were circulated and participants were asked to list their research/evaluation interests. A list of the members, addresses and their research interests can be obtained by contacting Emy Wadsworth.

4. Nominations for chairperson for the action group were sought. Emy Wadsworth was nominated and elected by unanimous acclamation.

5. Emy asked that an executive committee be formed to assist her in providing direction for the action group. The executive committee has the following members: Michele Fish, recorder, Jan Carpenter, Louise Chiatovich, Nancy Holland, Laura Kramer, and Irene Mikawoz. This committee will meet at regional meetings. Communication of all present will be further fostered through the dissemination of e-mail addresses and phone and fax numbers.

Michele D. Fish, Recorder



Minutes  
**WEPAN/CORPORATE PARTNERSHIPS**  
 Facilitator: Irene Bjorklund

The overall goal of the meeting was to articulate the mutual benefits of WEPAN/corporate affiliation. The group compiled this list based on discussion:

**What WEPAN can do for corporations:**

1. WEPAN can reduce corporate recruitment costs by helping employers target certain schools to meet particular needs; individual members can serve as points of contact for corporations to provide names of students available for corporate employment.
2. WEPAN members can serve as conduits for transmitting to their institutions the corporate perspective on what kind of "product" (graduates) corporations want.
3. WEPAN members can arrange corporate visibility at universities.
4. WEPAN compiles a useful directory of women's programs.
5. WEPAN provides a national perspective on women's issues.
6. WEPAN can leverage a corporate contribution for far greater impact via its nationwide network of affiliates than a corporate contribution to an individual institution would have.
7. WEPAN is a source of knowledge about how women in engineering programs affect women students (e.g., Purdue study).
8. WEPAN can provide to corporations an awareness of, and education about, issues affecting women.

**What corporations can do for WEPAN:**

1. Corporations can provide a "reality check" for institutions through WEPAN members.
2. Corporations can provide role models.
3. Corporations provide a different perspective.
4. Corporations can convene meetings with WEPAN members to brainstorm together about issues and to explore new ways of thinking and doing.
5. WEPAN and corporations can have frank talks about how best to facilitate university/industry partnerships. Universities need to know how to approach corporations for support for their women in engineering programs. Corporations would share information about their own "landscapes" and also let institutions know how they can respond to corporate needs.
6. Corporate support impresses deans and can help WEPAN members move their agenda forward.

The group discussed whether the appropriate focus for corporations was WEPAN or women in engineering programs. The conclusion was that corporations should be concerned about both aspects:

1. Corporate affiliation with WEPAN provides a **strategic** advantage. Corporations play a larger support role, e.g., providing funds for WEPAN conferences; supporting an executive's

**WOMEN IN ENGINEERING CONFERENCE: INCREASING ENROLLMENT AND RETENTION**

1993 WEPAN National Conference

time on the WEPAN board; leveraging other corporations on behalf of WEPAN to get them involved. Corporate support of WEPAN has a greater impact than giving to a small number of institutions and is more likely to result in a proliferation of programs for women; education about women's workplace issues for corporate employees; more support for existing programs; and a broader overall perspective both for participating corporations and WEPAN.

2. Corporate ties to a specific university and a specific women in engineering program provide a **tactical** advantage. Concerns are more practical, e.g., corporate access to students at that institution.

The group discussed the relationship and respective goals of women in engineering programs and SWE. The group agreed that women in engineering programs are focused on retention. They provide "nuts and bolts" services, such as tutoring, that help women graduate; they decrease feelings of isolation. SWE is a service organization. SWE has an outreach component targeting young women; university programs then recruit them. SWE has networking mechanisms for women who get through engineering school but who have issues in the workplace; there SWE takes them on again to support them. SWE doesn't intend to compete with or duplicate, but to support women in engineering programs. SWE is now developing a community college link because that is where most returning women students cluster.

The group expressed concern about the small number of corporate attendees and considered whether WEPAN should have a committee to work on identifying and including more corporate issues at future conferences. The corporate representatives said that corporate issues were not clearly represented on the schedule; there was too much emphasis on university presentations about data and research results that were not explicitly related to corporate interests. Corporations need to know what WEPAN does.

The group formulated these recommendations to the WEPAN board and members:

1. If WEPAN wants more industry participation, we will have to **learn how to target corporations more effectively**. Corporate representatives want more consultation with conference planners to convey a clearly articulated, direct message about the advantages of an affiliation with WEPAN. University members alone may not have considered some of these (e.g., recruitment facilitation). At universities we talk about research results; people in corporations talk differently. A "translation" is needed, but the conference brochure didn't provide it.

2. To ensure more industry participation, we will need to **structure industry involvement in future conferences**. We should schedule time for frank and practical talk about how WEPAN and industry can work together effectively (e.g., how to frame a proposal to get corporate support) and also time for discussion on cooperation in the visionary, strategic sense.

In summary, there was agreement that future conference programs should balance individual university program needs and national concerns, as well as the relationships between WEPAN/corporations and corporations/women in engineering programs.

Group members added their e-mail addresses to the workshop attendee list, to facilitate communication among ourselves.

--Submitted by Barbara Caretto, Director of Development and Alumni Relations, School of Engineering and Computer Science, California State University, Sacramento

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