

**NATIONAL WEPAN PILOT CLIMATE SURVEY:  
Exploring the Environment for Undergraduate Engineering Students**

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**INTRODUCTION**

In the spring of 1998, WEPAN, Women in Engineering Programs & Advocates Network, surveyed 29,000 male and female students studying engineering at 29 institutions in the U.S. The *Engineering Student Experience Survey* was administered to all female and minority male engineering students at the 29 institutions as well as a random sample of non-minority male students enrolled in the schools' engineering programs. A total of 8,076 students completed the survey yielding a 27% response rate. Forty-three percent (43%) of the respondents were male; 57% of the respondents were female. At least 20% of the sample are represented at every undergraduate class level. The breakdown by ethnicity is as follows: 66.8% Caucasian; 14.4% Asian; 6.3% Hispanic; 5.3% African American; 3.9% combination of more than one ethnic background; 2.7% other; and .6% Native American.

Forty-five (45) survey questions were posed including demographic information. Questions focused on issues related to quality of teaching, quality of teaching assistants, quality of labs, and general questions such as confidence level in science and engineering courses and involvement in social and professional activities. Every participating institution received a confidential summary report of its own data generated by the Office of Educational Assessment at the University of Washington. The purpose of this report was to provide information to institutions regarding issues to explore further in their efforts to improve the climate for engineering students on their campus. The aggregate data analysis is currently underway and will be available to report on at the IEEE meeting.

The investigators on the project are Susan Staffin Metz, WEPAN President and Director of the Lore-El Center for Women in Engineering and Science, Stevens Institute of Technology; Suzanne G. Brainard, Ph.D., WEPAN Immediate Past President and Director of the Center for Women in Science and Engineering, University of Washington; Dr. Gerald Gilmore, Ph.D., Director, and Nana Lowell, Ph.D., Assistant

**MOVING BEYOND INDIVIDUAL PROGRAMS TO SYSTEMIC CHANGE**

Director, Office of Educational Assessment, University of Washington. A grant from the Engineering Information Foundation, New York, is funding this pilot project. The survey is modeled after a five-year climate survey administered to engineering students at the University of Washington and supported by the National Science Foundation.

WEPAN, a non-profit educational organization, was founded in 1990. A 23-member board of directors oversees more than \$4.5 million in federal, foundation and corporate grants that support WEPAN initiatives. WEPAN operates three regional centers at Purdue University, Stevens Institute of Technology; and the University of Washington. WEPAN's mission is to be a catalyst for change that enhances the success of women in the engineering professions.

The paper above was presented at the 1999 WEPAN Conference by Suzanne Brainard and Susan Staffin Metz. The entire paper can be found on the WEPAN Home Page, <http://www.wepan.org>. It will also be published in a special IEEE publication from the International Symposium on Technology and Society 1999 Conference held in at Rutgers University in New Brunswick, NJ, on July 29-31, 1999. For more information about this Conference, please visit their homepage at <http://www4.ncsu.edu/unity/users/j/jherkert/ist99/htm>.