

## Frair / continued

Five years ago they were enjoying successful careers at Virginia Tech when they "got the itch" to move to California. While the Golden State offers accommodating weather, beautiful scenery and access to the awe-inspiring Pacific Ocean, it was the California system of higher education and, in particular, the California State University system, that appealed to Karen Frair.

"I've always been very interested in undergraduate education," she explains. "The Cal State system, to me, emphasizes that and provides undergraduate students with the best education possible. In fact, we need to crow a little bit about what we're giving our students."

Something to "crow" about includes the school's strong program in environmental engineering offered by the Civil Engineering Department. According to the associate dean, faculty members are involved in toxic waste and water pollution problems. She adds that these are two areas most people don't think of as being related to engineering, and yet the people who can help solve these problems are engineers.

"We also have a fantastic program in industrial engineering," Frair says. "Last year we hired a faculty member whose special

interest is in human factors. He's developed a human factors laboratory where he studies people's response time to different situations. His research will tell us how to design aircraft cockpits and the interior of automobiles to take advantage of the human factor."

For Frair, engineering is fun. She teaches mechanical engineering courses, enjoys playing with computers and likes to solve problems. With that kind of personality, she says, engineering isn't tough.

What is "tough" for the associate dean are national and state figures showing a decrease in the number of women entering the engineering field. At CSUF, women seeking engineering degrees comprise only 10 percent of the student body. The national average is about 15 percent.

"Engineering has been and will continue to be a male-dominated field," Frair says. "That's a fact of life. It's a shame because there's no doubt in my mind that women certainly can be as capable engineers as men. They are going to be a minority — at school and when they go to work. If that would bother somebody, then they should know that."

In an outreach effort, the School of Engineering is conducting a summer workshop for female high school students. Frair hopes this workshop will strengthen the students' interest in engineering so when they graduate from high school they will pursue engineering degrees, preferably here at CSUF.

CSUF's chapter of the Society of Women Engineers (SWE) conducts its own recruitment program by visiting junior high schools. SWE members talk to students to generate interest in engineer-

ing and to educate students so they select the correct high school courses for this career path.

While Frair admits that engineering can't offer women the "sisterhood" that is found in more traditional careers, she says that students — female or male — need to know that "they can't beat it as a career."

"The reason I like engineering is because it is so flexible," Frair says. "An engineer can work for a small company, a huge corporation, the government or a university."

"I've always liked the university because I like to learn. To me learning is what makes life, *life*. That's why I went into administration. I saw it as a fantastic learning experience. As associate dean, I work with the dean, the assistant vice presidents and the department chairs and see the challenges they are faced with in their administrative positions. It has given me a chance to ask, 'Do I want to go on in administration? Do I want to become a dean? Or, do I want to go back into the teaching aspect of the university?'"

No matter what the final answer is to those questions, one thing is certain, Karen Frair will be an academician.

"I've worked in industry, at air force bases and for government," Frair says. "It was fun, but it wasn't where I wanted my career to be. I just cannot imagine myself away from a university. It's me; it's where I want to be."

## Discovery . . .

*When Karen Frair was pursuing her bachelor's degree, she was working as a clerk at a local department store. Right after graduating from the University of Tulsa with a degree in mechanical engineering, she became an aerospace engineer for Tinker Air Force Base in Oklahoma.*

*"That's the difference a bachelor's degree in engineering can make," Frair says. "Students who are questioning whether or not they should pursue an engineering degree need to know that they can't beat it as a career. They can pretty much write their own ticket — where they want to go and what they want to do."*