Budget Crunch Emphasizes the Need for Industry Partnerships

California faced a budget deficit for fiscal 1992 of nearly $14 billion. As a result, the California State University System received a budget reduction of nearly $70 million or 4.2 percent. This comes as the CSU anticipates an increase of nearly 7,500 students and unavoidable spending increases of nearly $100 million.

CSUS lost eight percent in real purchasing power and has been forced to completely restructure its budget to deal with this fiscal reality. In 1990-91 the campus faced a significantly smaller reduction, which was largely accommodated through decreases in the instructional support portion of its budget (library books, instruction equipment, faculty travel, supplies and services, maintenance, etc.) rather than through reductions in faculty and staff. This year, with instructional support already strained, the reductions will necessarily affect personnel. Significantly larger class sizes and significantly fewer elective course offerings for most academic programs will result.

The effects of the budget crisis on the quality of the programs in the School of Engineering and Computer Science will be reduced by private gifts received by the Investment in Tomorrow Campaign from so many of our alumni and industrial supporters. These gifts—a form of “partnership” with education—will help our School maintain the close contact between faculty, staff and students that has always distinguished our academic programs. At a time when the state has curtailed many educational enhancement initiatives, these gifts have permitted the School to nearly double its equipment inventory; provide attractive development opportunities for its faculty; provide many scholarships for deserving students; and significantly support its special programs. It seems very likely that state-assisted institutions of higher education such as CSUS will continue to require a large measure of private support in order to fulfill their future educational missions.

The Investment in Tomorrow Campaign has renewed goals and program objectives. If you or your company would like to be a part of this “partnership” in education, please call Dean Gillott or Jim Obermaier, director of school development, at (916) 278-6366 and discuss your opportunities to participate.

Carnegie Quarterly Salutes CSUS Programs

Aleshia Smith, left, and Angelica Easmon receive supervision from Robert Miller, information systems manager for IBM’s Sacramento branch. Aleshia and Angelica participated in MESA and participate in MEP and Project Success.

- Carnegie Quarterly, the magazine of the Carnegie Corporation of New York, recently featured two of your School’s outstanding programs: the Capitol Center MESA and Project Success. The Capitol Center Mathematics, Engineering and Science Achievement program, a joint project between CSUS and the University of California, Davis, encourages pre-college underrepresented students to study math, science and engineering. It is the largest MESA program in California, serving more than 3,000 students. It has led the expansion of MESA to middle schools and elementary schools. Current MESA activities extend to the fourth grade and will soon extend to kindergarten.

- Project Success is an innovative approach to industry partnerships serving underrepresented students. It reduces by two to three years the average length of time Minority Engineering Program students spend to complete a bachelor’s degree. Due to dependence on part-time employment, the average time to degree is eight years for MEP students. In Project Success, industry sponsors offer fellowships that include employment during summers, vacations and cooperative education periods. The income earned allows students to carry full loads during academic terms without resorting to part-time employment. Students work in their field, earning and learning more while speeding up their degree programs.

The editor of the Carnegie Quarterly noted in a letter addressed to the School that the article on Project Success was the first time the Quarterly had written about a program not previously funded by the Carnegie Corporation.

Special Alumni Event

Prior to the Homecoming game against Cal Poly, San Luis Obispo on Saturday, Oct. 19, alumni and friends are invited to a tailgate party at 4 p.m. at the site of the future Alumni House. Bring your own food or enjoy that provided. For more information, contact the Alumni Association at (916) 278-6295 or the Stinger Foundation at (916) 489-8595.
Another successful venture was our investment in Tomorrow fund-raising effort. It was the first CSUS activity of its type. We have raised $5.5 million to date. Though there is a long way to go with the effort, we deeply appreciate the support of our Alumni and friends, who have participated so generously.

In-kind gifts from AT&T, Digital Equipment, Apple Computer, Sun, and Hewlett Packard have enabled the School to establish a very advanced computer system. The total system includes 189 AT&T 386 workstations, 32 DEC 3100 graphics workstations, 63 Apple Macintosh IIX workstations, and 13 Sun workstations. All machines are networked, providing complete communication capability across all platforms, including electronic mail capability throughout the School, to the entire California State University System and beyond. These machines are networked to the School’s mainframes and to the University’s computer center, thus providing access to most of the educational computer systems throughout the world. This advanced capability provides state-of-the-art computer support for all of the School’s academic programs.

Part of AT&T’s $3.2 million gift established a presentation and development facility. The objective of the facility is to provide a showcase of AT&T’s latest technology. It is used very sparingly by AT&T to present their latest technology to customers. All other times it is available to the School for use in its instructional and research programs. Because AT&T plans to keep the facility equipped with the latest technology, this unique facility provides opportunities for faculty to use this latest technology in their programs.

In addition to the major in-kind gifts, the School received significant cash donations for faculty development, student scholarships, a special study center and general academic program support. Some of the major contributors of cash donations include the Westinghouse Foundation, NEC Electronics, the ARCO Foundation, and the Pacific Telesis Foundation. The largest cash contribution and the gift which put the Investment in Tomorrow campaign over the top was a $275,000 gift from James and Susan Lennane. Mr. Lennane was the founder of Systems Integrators, a Sacramento company that he sold in 1988.

**SCHOOL HOLDS TWO COMMENCEMENT CEREMONIES**

- Your School continues its tradition of holding two commencements each academic year. It was the first School on campus to hold both fall and spring commencements, and the custom is very popular with the students and their families.

The fall commencement was held in the University’s gymnasium on December 22. Pacific Gas & Electric’s executive vice president for the Sacramento region, Rear Admiral Ben Montoya, spoke to the 207 graduates. Family, friends, University officials and faculty filled the gym to capacity.

Spring commencement was held in the University’s outdoor theater on May 24. James Lennane spoke. He is the founder of System Integrators, which specializes in computer-based publishing equipment. He gave the 278 graduates a realistic view of the business world, describing the negative attitude of California government toward business and of the decline of the United States in world competition. It was a strong message which carried important instructions to the graduates that they must exert leadership in bringing our state and nation back to a predominant role in business competition. Mr. Lennane has established a program to support an alumnus from each year’s Engineering and Computer Science graduating class to spend a year in Japan, learning the language and the Japanese business philosophy. This year’s recipient is Paul Scheffelin, who received his bachelor’s degree in Electrical Engineering at the May commencement.

The School is very appreciative of these two gentlemen for their continued support of engineering and computer science education at CSUS and for their contributions to the 1990-91 academic year commencements.
This newsletter is the first (after a long absence) of what we hope will be continuing issues. But to make this happen, we need your help. We plan to include an Alumni Section in future newsletters. This section may include items such as what our alumni are doing now, announcements for and by alumni, personal messages, job openings, etc.

The purpose of this questionnaire is twofold. First, for the Alumni Section to be successful, we need input from you! Let us know of ideas you may have for the Alumni Section and/or the newsletter in general. Send us information you would like published in the next issue. We'd also like to receive any comments you'd care to make about the School, the University or whatever else is on your mind. Second, for us to stay in touch with you, we must continually update our database. We would greatly appreciate it if you would take a few moments to fill out the information below.

This form has our address and a postage-paid stamp on the reverse. All you need do is fold, staple or tape it shut, and drop it in the mail. We appreciate your feedback.

Name
First   MI   Last   (Maiden)

Sex  M or F

Name used while attending CSUS
(If different from above)

Address
Street   Apt. #   City   State   Zip

Telephone __________________________ Social Security ____________

Degree  BS_ MS_ Received Fall ______ Spring ______ 19____ Major __________

Employer __________________________ ( )
Company Name Telephone

Address
Street   Ste. #   City   State   Zip

Comments:

__________________________________________________________

__________________________________________________________

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__________________________________________________________

__________________________________________________________

Ethnic Origin (Please check one):

1 - Indian, American Indian, Alaskan Native   2 - Black or Non-Hispanic
3 - Chicano, Mexican, Mexican-American   4 - Other Hispanic
5 - Asian   6 - Pacific Islander
7 - White, Non-Hispanic   8 - Other
F - Filipino   D - Decline to State
SCHOOL RECOGNIZES MANY AT ALUMNI BANQUET

The 10th Annual Alumni Banquet and Awards Presentation was held at the Holiday Inn Holidome on May 3, 1991, with more than 450 alumni, students, faculty, staff and friends in attendance.

Richard Weaver, deputy director of transportation engineering for the California Department of Transportation, was selected as the Outstanding Alumnus. Mr. Weaver (CE, 1963) has worked for the Department of Transportation for nearly 30 years. During his career, he has served as the construction manager on the Tijuana Trolley Project and as a district director.

Joseph Harralson, professor of mechanical engineering, was named as the Outstanding Faculty Member. His primary teaching area is machine design. He has served as associate chair of the Department of Mechanical Engineering and is the incoming coordinator of the Mechanical Engineering Technology Program.

As faculty sponsor for the Super Mileage Vehicle Competition, he played an instrumental role in the University’s achievement of the former national record of 1,977 miles per gallon. Professor Harralson is a 1970 CSUS Mechanical Engineering graduate.

Several milestone awards were presented at the banquet. A Distinguished Service award was given to Professor Boris Kaufman of the Department of Mechanical Engineering for 30 years of exceptional service and contributions to the School and the University. He is a recognized expert in the field of heating, ventilation and air conditioning. His primary teaching area is the thermal sciences. His colleagues acknowledge him as the most accomplished design engineer on the faculty. Early in his career at CSUS, he actively researched prosthetic heart valves, resulting in the development of one of the most widely used heart valves in the world. The University community has acknowledged his many contributions with six major awards.

Professor Lester Gabriel, one of the most senior faculty members, retired this year after 34 years on campus. He was honored at the banquet for the quality of his contributions as a teacher, scholar, researcher and faculty leader. Formerly an associate dean in the School and chair of the Department of Civil Engineering, Dr. Gabriel has distinguished himself by the major university-wide committees that he successfully chaired. Holder of 13 patents, he is an international authority in dry cast concrete applications and soil structure interactions. He has also received two national awards and two university awards. Dr. Gabriel will continue his research activities as an emeritus faculty member.

John Zickel, retiring chair of the Department of Mechanical Engineering, received an award honoring 40 years of superior accomplishment. Dr. Zickel developed the School’s first graduate program and was the first person appointed to the rank of full professor in the history of the School. He was named as a Tau Beta Pi Eminent Engineer and is a fellow of the American Society of Mechanical Engineers and the Society of Automotive Engineers.

Edgar Kolstad received an award for his 14 years of service to the University. He served as faculty advisor for the student chapter of the American Society of Mechanical Engineers and was selected as the outstanding faculty advisor in Region IX. He has chaired the local section of the ASME and is a candidate for national office in the society. He has received two Outstanding Member awards from the Sacramento-Sierra Nevada Section of ASME.

Julie Gwynn, lecturer in the Department of Computer Science, received the Upsilon Pi Epsilon Outstanding Faculty award. For 11 years she lectured, served as course coordinator for several courses, and served as a faculty mentor and a lab assistant coordinator. In 1987 she received a University award for teaching excellence. Her enthusiasm will be sorely missed as she moves on to retirement.

CO-OP STUDENT RECEIVES AWARD

Gordon Fong, a senior computer science student, won second place in the statewide essay contest sponsored by the California Cooperative Education Association. Gordon’s paper, “The Benefits of a CO-OP Experience,” was selected from 150 essays representing nearly every college and university in California. Gordon worked for IBM in San Jose, where he reported learning much about his field and working with people. The following is an excerpt from his award-winning paper.

“I discovered that my CO-op projects were large-scale assignments that required careful individual and group efforts. My share of the work was important not only because my performance grade depended on it, but also because other people needed to use my product at a specific time. Proper programming techniques were essential since the programs would be used, modified, and read by other people. Furthermore, the open-ended problems I encountered required me to search various resources for the answers. There was no instructor to lead me to the correct solution. I learned that many details are not defined or written out to a worker; one must find the solutions himself, if they exist. One can seldom expect the team leader to provide test data for an assignment; that responsibility belongs to the employee.

Perhaps even more important are the skills used to interact with people. As a CO-op, one learns how to be a team player, and how to get along with co-workers.”

Gordon received a check for $500 and an all-expenses-paid trip to San Diego to read his paper at the CCEA awards luncheon. Gordon represented CSUS exceedingly well. His presentation was polished and thoughtful. Co-op Director Maria Mejorado was on hand to share this honor with Gordon.

Gordon Fong learned teamwork while working for IBM as a Co-Op student. Co-op students gain full-time work experience and furnish enthusiastic talent to employers. Co-op also provides students with financial resources.
NEC PROVIDES FUNDS FOR NEW STUDY CENTER

The National Science Foundation predicts a shortfall in less than 20 years of more than 500,000 engineers and scientists. Nationally, 40 percent of all freshman who enter college in science fields change majors before the end of their first year. How can the University retain talented students in engineering?

Minority Engineering Programs, in existence for more than 10 years, have developed a retention model that works not only for ethnic groups underrepresented in engineering, but for all students. At CSUS, the MEP program has grown to more than 400 students and has a first year retention rate of nearly 90 percent. MEP encourages the development of an academic community based on the presence of a study center which facilitates the formation of study groups.

To capitalize on MEP's success, NEC Electronics has made a major donation for the establishment of an Engineering and Computer Science Study Center. A facility in the original engineering building was renovated and furnished during the summer. The new Study Center opened this fall. It will remain open all day, every day, and will provide a place where students can study, form study groups and obtain academic assistance from their peers, advanced students, tutors and faculty.

MEP staff members will personally contact freshman and sophomore students (the most likely to drop out of the sciences) and strongly encouraged them to make the NEC Center their base of operation on the campus. Engineering and Computer Science majors who become part of a scientific community will not only receive academic help but also the encouragement needed to stick with the rigors of the curriculum.

NEC Electronics is a leading manufacturer of semiconductors and electronic components used in today's computers, telecommunications systems and a wide variety of consumer products.

The company was established in 1981 and is headquartered in Mountain View, Calif. Today, more than 1200 employees provide quality products and outstanding service to customers throughout the United States.

NEC Electronics represents NEC Corp.'s commitment to a growing U.S. electronics market. Recognizing the specific requirements of this market and the need to be closer to the customer, NEC decided to build a major semiconductor manufacturing facility in this country.

NEC recently expanded this facility, located in Roseville, Calif., from 200,000 square feet to 500,000 square feet. The expansion created 400 new jobs and cost $500 million.

NEC's Roseville plant nears completion of its $500 million expansion.