CALIFORNIA STATE UNIVERSITY, HAYWARD

DESIGNATION CODE: 99-00 CAPR 15
DATE SUBMITTED: October 5, 2000

TO: The Academic Senate

FROM: The Committee on Academic Planning and Resources

SUBJECT: Five-Year Program Review for the Department of Statistics

ACTION REQUESTED: Approval of the Program Review of the Department of Statistics

BACKGROUND:

The Statistics Department offers a Master of Science degree, a Bachelor of Science degree, an undergraduate minor, an option in the Liberal Studies program, and post-baccalaureate certificates in applied statistics and theoretical statistics. Students are also encouraged to pursue double majors in statistics and the physical, biological, and social sciences. The Statistics Department offers courses which serve students from other departments within the university. There are six tenured or tenure-track faculty.

On May 18, 2000, CAPR met with Professors Bruce Trumbo and Eric Suess of the Statistics Department for discussion of the five-year program review. Mary Ellen Bock, Professor and Head of the Department of Statistics at Purdue University, visited and reviewed the department from March 15 - 17, 2000. The Statistics Department prepared a binder of information for Professor Bock to use in her review. The binder included information about the California State University system, catalog information about the CSUH Statistics Department, information about their new certificate programs and new courses, class schedules, faculty teaching assignments, faculty resumes, department newsletters, performance review statistics from 1993 - 1998 for the department and the university, departmental retention goals, and the external reviewer report from the prior (1995) program review. This binder, along with Professor Bock’s report and the department’s response, were submitted to CAPR for the purposes of this review.

PROGRAM REVIEW:

Professor Bock, the outside reviewer, found the department to have a welcoming and cohesive atmosphere for teaching, research and service that benefits department students, graduates, and the surrounding community. She cited several strengths of the department including expanded service course offerings in engineering and other areas, and the graduate certificates in statistics. Faculty achievements include high-quality teaching and research, a successful statistical consulting program, and involvement with distance education and in national professional organizations. She commends the department for its outreach programs and ties with its alumni. Also emphasized is the department’s recent success in hiring despite the current high demand for statistics Ph.D.’s in other sectors of the economy.
Growth opportunities identified for the department include possibilities of developing programs in Actuarial Science, Biostatistics, Bioinformatics, and Statistics in Software and Computer Engineering. The department has lost two tenure track positions since the last review. Analysis of the new program options may lead to a rationale for requesting new faculty for the department. In addition to the loss of faculty, other challenges faced by the department are a lack of teaching assistant positions, which may restrict the ability of the department to attract graduate students, and a need for additional resources to meet departmental computer needs.

CAPR expressed concern over the low and declining number of majors in statistics programs. In 1997-1998, there were 11 undergraduate students with a declared major in statistics and 23 students enrolled in graduate programs in statistics. These numbers represent a decline of 27% and 38% respectively from 1993-1994. Professors Trumbo and Suess responded that at Cal State Hayward, as on other campuses, statistics is in large part a service department and the low number of undergraduate majors is not an area of serious concern. Also, it is impossible to track the number of minors or double majors in progress.

DEPARTMENTAL RESPONSE TO OUTSIDE REVIEWER REPORT:

A memorandum of May 10, 2000 from Julia Norton, Chair of the Statistics Department, states that the department is pleased with the quality of the outside reviewer’s report and the noted recognition of the high quality of the Statistics Department. The department welcomes the reviewer’s suggestions for departmental growth, and is already pursuing the Actuarial Science program as an option within the masters degree program. They believe that a Biostatistics option is also feasible, and have support from Dean Leung to pursue an interdepartmental Bioinformatics program.

CAPR RECOMMENDATION: Continuation of the program of the Department of Statistics without modification, with a recommendation that the department continue to pursue the outside reviewer’s recommendations for potential growth.