



UNIVERSITY OF WASHINGTON  
*The Graduate School*  
*G-1 Communications*  
*Box 353770*  
*Seattle, Washington 98195-3770*

*Telephone: (206)543-5900*

*Fax: (206)685-3234*

May 28, 2004

To: David B. Thorud, Acting Provost  
Office of the Provost  
Box 351237

From: Gail L. Dubrow  
Associate Dean for Academic Programs  
The Graduate School

Re: Department of Biostatistics 10-Year Review

*Summary and Recommended Action*

At its meeting of December 11, 2003, the Graduate School Council met with members of the team reviewing the Department of Biostatistics, with the Chair and faculty of the Department, and the Dean and Associate Dean of the School of Public Health and Community. The Council unanimously reaffirmed continuation of the Department of Biostatistics degree programs including the Master of Public Health, Master of Science and Doctor of Philosophy, with the next review scheduled for the 2013-2014 academic year.

I concur with the Council's recommendations and comments.

The Council echoed the review team's findings that the Department of Biostatistics is stellar, one of the best in the world. A continuing demand exists for biostatisticians and the faculty are successfully educating the next generation. Faculty are leaders in all areas of medical and public health research. Faculty administer three major national data coordinating centers for clinical trials research in the areas of cancer, cardiovascular disease and AIDS. The lack of state support has forced the department to be innovative in its approach to the retention of faculty, but it also hampers their efforts, as do ongoing space needs.

The review team noted that the Biostatistics graduate program is one of the top three in the country. The department is competitive in the recruitment of excellent graduate students. The department's relationship with the Department of Statistics represents a model of cooperation, particularly in the course offerings and qualifying examinations that are jointly administered. The education and training they collaboratively offer gives students a stronger theoretical core than is available at other universities.

The department enjoys the respect of colleagues throughout the School of Public Health and Community Medicine. Departments within the School and the Interdisciplinary Quantitative Ecology and Resource Management program, located in the Graduate School, also depend on service courses offered by the Department of Biostatistics. The quantitative courses provide students with essential research training. A challenge for the department has been the increased demand for service courses without a parallel increase in state support. Research assistants and teaching assistants are supported by departmental resources.

The availability of space and the need for state funding are two major issues for the department. The lack of contiguous space is the most critical issue. Regular and research faculty are scattered in various locations within the Health Sciences Building and the FHCRC. This situation detracts from departmental efforts to create a cohesive intellectual community for students and faculty. The location of research faculty at the FHCRC represents a loss of indirect cost revenue and poses a physical barrier. The department would prefer that it benefit from this revenue in the future.

The review team noted that the department receives virtually no state funding for staff and minimal support for teaching assistants. The department's operation is funded largely by revenue generated from the three data coordinating centers. Coordinating center staff are very specialized and it will be difficult for the department to replace them in the future. The department should devise strategies to develop future leadership for the centers and to fund departmental activities.

The department has submitted a proposal to the School of Medicine to establish a Center for Biomedical Statistics, which has been well received. The Center's primary mission will be to facilitate collaboration with UW colleagues on various areas of research. Funding for Center operations are proposed to be generated from grants. Location is a major issue with this initiative. If it is located at the FHCRC it will not have the potential impact of a campus location. The University is losing funding to the FHCRC and other sites due to the shortage of on-campus space and the more flexible salary schedules FHCRC offers.

An issue raised in the review was whether the department should maintain a consulting center. The department would require core funding for support staff at the master's level and two research assistant positions for 3-5 years. The department's goal is to develop a center that would be self-sustaining by the end of the fifth year. Consulting centers provide students short-term assistance and help with proposal development. With appropriate arrangements and fee structure, the center would serve the needs of the department.

### *Background*

The Department of Biostatistics offers the Master of Public Health, Master of Science and Doctor of Philosophy degrees in Biostatistics. The Master of Public Health began three years ago but no students are enrolled currently in the program. From 1965 to 1986 Biostatistics and Qualitative Ecology graduate students were awarded M.S. and Ph.D. degrees by the Interdisciplinary Biomathematics Group, a program located administratively in the Graduate School. The interdisciplinary group program for many years involved active participation of faculty in Mathematics, Biostatistics, Zoology, Fisheries, Forestry, Genetics, and other academic units. With the Department of Statistics not being established until 1979, the Biostatistics program, which had more students, faculty, graduates and financial support, had a strong leadership role within the Biomathematics Group into the early 1980s. In 1986, authorization for the M.S. and Ph.D. degrees offered by the Interdisciplinary Biomathematics Group was transferred to the Department of Biostatistics in the School of Public Health and Community Medicine, with both the Health Sciences Biology and the Quantitative Ecology and Resource Management (QERM) pathways retained. In 1990, the Higher Education Coordinating Board and the Board of Regents approved the proposal from faculty in the Center for Quantitative Science in Forestry, Fisheries and Wildlife to establish the Interdisciplinary Quantitative Ecology and Resource Management Group to offer an M.S. and Ph.D. degrees, transferring the QERM pathway from the Department of Biostatistics.

Since the 1993 review, the size of the Department's faculty has increased significantly. The Department has 13 regular faculty with primary appointments in Biostatistics that have partial tenure or are tenure track; four tenured faculty in other departments with joint appointments in Biostatistics; 14 regular faculty without tenure; 12 research faculty; three adjunct faculty that hold

primary appointments in other departments and 27 affiliate faculty with appointments in external organizations, e.g. FHCRC. Since 1993, increasing the core of the junior faculty was a high priority. Of the 25 faculty that were recruited, the Department has retained 21, many of whom have attained national recognition as researchers.

The review committee was comprised of five faculty, three internal and two from peer institutions. Peter Guttrop, Professor and Chair, Department of Statistics, was the committee chair; other internal members included Timothy Larson, Professor in Civil and Environmental Engineering, and Emily White, Professor of Epidemiology and the Fred Hutchinson Cancer Research Center. The external committee members were Thomas Louis, Professor of Biostatistics at Johns Hopkins University, and Anastasios Tsiatis, Professor of Statistics at North Carolina State University. The committee met with faculty, students, staff, and administrative faculty during the review site visit on March 6 and 7, 2003.

### *Council Recommendations*

The Council emphasized that institutional investment is needed if the department is to sustain the excellence it has achieved in the past decade. Its core infrastructure needs to be maintained, but on more stable base of funding. The lack of campus space and the financial condition of the department ultimately will impact its overall health, the career development of junior faculty and the retention of faculty.

The Council supported the review committee's recommendation that the department develop a plan for the next decade to formalize how the data coordinating centers will be sustained and generate revenue to support the department. The Council also supported the committee's recommendation for the department to consider the issue of creating a consulting center.

The Council concurred with the review committee's recommendation that the department consider developing a school-wide professional fee-based clinical master's program. The program would meet an existing need. In this initiative, consideration should be given to involving professionals in teaching short courses.

One key strength of the Department of Biostatistics is its relationship with the Department of Statistics. The Department of Biostatistics and the Department of Statistics should work together to review and revise the graduate curriculum to incorporate new developments in the field, to identify areas of overlap, and to determine the best distribution of teaching among the two departments and CSSS. Particular attention should be given to curriculum content for the second year Master's students. Students were concerned that methods courses offered in the second year did not provide adequate preparation in understanding theoretical concepts. Some efforts to address these specific curriculum issues are therefore recommended.

c: Lee Huntsman, President  
Susan Jeffords, Vice Provost for Academic Planning, Office of the Provost  
Elizabeth L. Feetham, Acting Dean, The Graduate School  
Patricia W. Wahl, Dean, School of Public Health and Community Medicine  
Frederick A. Connell, Associate Dean, School of Public Health and  
Community Medicine  
Thomas R. Fleming, Professor and Chair, Department of Biostatistics  
Scott S. Emerson, Professor and Graduate Program Director, Department of Biostatistics  
Members of the Biostatistics Review Committee  
Graduate School Council  
Augustine McCaffery, Assistant to the Dean/Manager, The Graduate School