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To: Phyllis Wise, Provost


This memo outlines the recommendations from the review of the Department of Statistics and its Bachelor of Science (BS), Master of Science (MS), and Doctor of Philosophy (PhD) degree programs. Detailed comments on the department and its programs can be found in the documents that were part of the following formal review proceedings:

- Statistics self-study (April, 2009)
- Charge meeting between review committee and administrators (April 28, 2009)
- Site visit (May 18-19, 2009)
- Review committee report (June 26, 2009)
- Statistics response to the report (March 1, 2010)
- Graduate School Council consideration of review (April 8, 2010)

The review committee consisted of:
Leslie J. Rosenberg, Professor, UW Physics (Committee Chair)
Henry M. Levy, Professor, UW Computer Science and Engineering
Iain Johnstone, Professor, Department of Statistics, Stanford University
James L. Rosenberger, Professor, Department of Statistics, Penn State University
A subcommittee of the Graduate School Council presented findings and recommendations to the full Council at its meeting on April 8, 2010. After discussion, Council recommended continuing status for the department, with the next review to be scheduled for the 2018-2019 academic year. Specific comments and recommendations regarding the department and its degree programs include the following:

## Program Strengths

- The department is very strong academically, near or in the top five programs nationally, with very highly regarded faculty and very strong grant support.
- The graduate program recruits top-notch students who finish in a median time of 5.2 years. The placement record for Ph.D.s is excellent; students are placed mainly in academic and research settings. There was no GPSS report for this review, but the review committee describes graduate students as "generally happy".
- The department has had transformative impacts on other departments through its many collaborations. This is facilitated by joint appointments, by the Center for Statistics and the Social Sciences (CSSS) and other centers, and by faculty consulting across campus.
- CSSS was started after the last 10-year report, with strong encouragement from that report. It allows consolidated teaching of statistics to social sciences and has led to strong collaborative research programs.
- Statistics has a strong, constructive synergy with the Department of Biostatistics.
- There is an efficient use of faculty teaching effort, including service teaching of undergraduate and graduate statistics classes that are attended by students from across campus.
- The Statistics Consulting Center offers free access to Statistics Department graduate students and faculty for members of other departments. The center trains students, leads to collaborations, and is highly successful.


## Challenges \& Risks

- The department is at significant risk of losing faculty to other institutions.
- Most recent hires have been joint appointments associated with CSSS, so upcoming retirements of faculty focused on the "core" of the discipline-i.e. on the theoretical underpinnings of the methods being applied in many fields-will impact the balance of the department.
- Lack of space and fragmentation of space is an ongoing challenge and has been a major impediment to obtaining funding through infrastructure proposals. The department has used its own funds to upgrade existing space, but this is a stopgap measure.
- The department needs to improve mentoring of and clarity of expectations for joint junior faculty appointments.
- The department's computing infrastructure is inadequate given the vast increase in size of datasets used by departmental faculty both internally and in support of other units.
- There may be some discontent amongst undergraduate majors at the level of advising.


## Areas of Concurrence and/or Disagreement

The major review committee recommendations (with which the department is in concurrence) are as follows.

- Develop growth plans that, over the next 10 years, achieve modest ( $25 \%$ ) to substantial ( $50 \%$ ) growth in the faculty. This is perceived as needed to match the teaching and research needs of the UW, as more fields have larger data-sets to analyze.
- Use open searches as the primary mechanism for faculty recruitment, so as to allow hiring of faculty focused on the "core" in addition to joint appointments.
- The College and University should give immediate attention to improve the department's space.
- Clarify expectations for contributions to the department and criteria for promotion for joint appointments of junior faculty.
- Continue to expand the department's campus-wide instructional role at both undergraduate and graduate levels.
In addition the report contains several other suggestions and comments.
- Provide secure administrative funding for the tutoring service (which is open to all students in statistics classes across campus).
- Ensure that the implementation of Activity Based Budgeting does not undermine the goal of consolidating the service teaching of statistics.
- Study the feasibility of a professional MS in light of the growing number of jobs requiring data analysis and statistical skills.


## Graduate School Council Recommendations

- The Graduate School Council recommends that the Department of Statistics continue to offer its graduate and undergraduate degree programs and that its next review be undertaken in 10 years (2018-2019).
- The Council endorses the recommendations described above and urges the department, college, and university to address them.

We concur with the Council's comments and recommendations.

cc: Ana Mari Cauce, Dean, College of Arts and Sciences<br>Werner Stuetzle, Divisional Dean for Natural Science, College of Arts and Sciences<br>John D. Sahr, Associate Dean, Undergraduate Academic Affairs<br>Jon Wakefield, Chair, Department of Statistics<br>Members of the Statistics Review Committee<br>Members of the Graduate School Council<br>David Canfield-Budde, Academic Program Specialist, The Graduate School Jake Faleschini, President, GPSS

