



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

*Telephone: (206)543-5900*

*Fax: (206)685-3234*

May 21<sup>st</sup>, 2020

To: Robert Stacey, Dean, College of Arts and Sciences  
Suzanne Hawley, Divisional Dean of Natural Sciences

From: Joy Williamson-Lott, Dean  
Kima Cargill, Associate Dean for Academic Affairs and Planning

A handwritten signature in black ink that reads "Joy Williamson-Lott".

A handwritten signature in black ink that reads "Kima Cargill, Ph.D.".

RE: Review of the Department of Statistics (2018 – 2019)

This memorandum outlines the Graduate School's final recommendations from the Department of Statistics academic program review. Detailed comments on the review can be found in the documents that were part of the following formal review proceedings:

- Charge meeting between review committee and administrators (May 19<sup>th</sup>, 2018)
- Self-Study (March 15<sup>th</sup>, 2019)
- Site visit (May 6<sup>th</sup> – 7<sup>th</sup>, 2019)
- Review committee report (June 19<sup>th</sup>, 2019)
- Department of Statistics response to the report (December 13<sup>th</sup>, 2019)
- Graduate School Council consideration of review (May 21<sup>st</sup>, 2020)

The review committee consisted of:

**Dale Durran**, Chair and Professor, UW Department of Atmospheric Sciences (Committee Chair)

**Ross Prentice**, Professor, UW Department of Biostatistics

**Bin Yu**, Chancellor's Professor, Department of Statistics, University of California, Berkeley

The Department of Statistics offers the following degrees: Bachelor of Science, Master of Science, and Doctor of Philosophy. The Department of Statistics is located in the College of Arts and Sciences at the University of Washington.

Members of the Graduate School Council presented findings and recommendations to the full Council at its meeting on May 21<sup>st</sup>, 2020. A summary of this report, composed by Graduate School Council Members, is attached to this document.

Graduate School Council Recommendations

The Graduate School Council commends Department of Statistics on the strength of its programs, faculty, and students. After discussion, the Council recommended the following:

- Interim report in 3 years (2021- 2022) as outlined in the following attachment
- Full academic program review in 10 years (2028 – 2029)

We concur with the Council's recommendations.

cc: Mark Richards, Provost and Executive Vice President  
Patricia Moy, Associate Vice Provost for Academic and Student Affairs, Office of the Provost  
Daniel Pollack, Interim Chair, Department of Statistics; Professor, Department of Mathematics  
Vicki Graybeal, Department Administrator, Department of Statistics  
Janice DeCosmo, Associate Dean, Undergraduate Academic Affairs  
Becky Corriell, Director, Academic Affairs & Planning, the Graduate School  
Academic unit Review Committee Members  
Members of the Graduate School Council  
GPSS President

## **Attachment**

University of Washington | Graduate Council

### **Summary of the review of Department of Statistics**

**Academic Unit Name:** Department of Statistics

#### **Degrees/Certificates Included in the Review:**

- Bachelor of Science (Statistics)
- Statistics Minor
- Master of Science in Statistics – Advanced Methods and Data Analysis (fee-based program)
- Master of Science (Statistics) – Part-time and Concurrent Program
- PhD in Statistics

#### **Program Strengths:**

The Review Committee described statistics as a “...key discipline crucial to a wide range of research and educational activities at UW.” The Committee also described the department as “...easily a top-10 department nationally,” and “...ahead of its time in championing interdisciplinary research.” The committee highlighted the following:

- Many Department faculty have joint appointments (e.g., with Computer Science, Biostatistics, and Sociology) and collaborate on research with UW faculty across the University.
- The Department has been a co-leader in developing data science educational programs at UW.
- Statistics partners with other departments on the Applied and Computational Mathematical Sciences (ACMS) major, as well as the MS in Professional Data Science.
- The Department does substantial service teaching for the campus, including a course in Basic Statistics with over 500 students enrolled every year.
- Undergraduate teaching is “in good shape and under capable leadership,” with high morale reported among undergraduate students.
- The Department offers free consulting services for researchers at UW.

#### **Challenges and Risks:**

While the committee acknowledged the substantial achievements of the Department of Statistics, it also pointed out that this is “...the critical, and perhaps final, opportunity to preserve and nurture this top-10 department.” The Department has recently experienced “...potentially crippling faculty losses,” and “...much work is needed to build an inclusive community” within the Department. The committee highlighted the following:

- The number of faculty has decreased by almost 40% on an FTE basis, from 15.25 FTE in 2016 to 9.25 in 2020. The committee feels this has pushed the department to “...the brink of crossing a critical sustainability threshold.”
- Faculty losses are the result of faculty with joint appointments shifting fractions of their appointments to other departments, as well as four other faculty members leaving the Department, altogether. The Committee attributes some of these losses to factors outside the control of the Department, but also believes the climate and resource allocation within the Department played a role.
- The Committee sensed a lack of senior faculty leadership within the Department. For example, senior Department faculty were unwilling to step into the role of Interim Chair as the Department conducts its external search for a new Chair.
- The Department faces significant challenges related to equity and inclusion. According to a study conducted by the University of Washington Center for Evaluation & Research for STEM Equity (CERSE), 1/3 of

women in the Department experienced sexism. Women among the students and faculty feel they are held to higher standards compared to men. CERSE also found that international and domestic students are not “well integrated,” and the department does not provide enough support for caregivers and parents.

### **Review Committee Recommendations**

The Committee feels that the Department’s status as top-10 program can be maintained by completing their external search for a new Department Chair, recruiting new faculty, devoting more resources to student support, and resolving issues related to their internal climate. The committee highlighted the following:

- The Department should complete their external search for a new Chair. Considering the recent faculty losses, this search should be configured as a cluster hire, with an endowed professorship for the new Chair.
- The Department should follow through on their “Statistics Hiring Plan: 2019-2024,” with seven hires in the next five years, followed by an additional 25% to 50% expansion. These new faculty would allow the Department to expand their undergraduate education program, which the Committee highlighted as a major strength.
- The Committee believes that some of these hires should be made above the level of assistant professor.
- The Department should offer a more generous funding package to new PhD students, in order to stay competitive with peer programs. The Department should also communicate the yearly cost of its fee-based Master’s program before their acceptance deadline.
- The Department should offer more financial support for student-organized activities
- The Department needs to prioritize the recommendations from CERSE’s report. The Committee believes that graduate students should be treated as equal partners in devising a plan for implementation. Although the Committee did not know the details of the report, they recommend prioritizing inclusivity training and transparent communications.
- The Committee feels that the Department should submit a three-year interim report detailing their progress on the external search for a Chair, the recruitment of new faculty, and the steps taken “...in revitalizing the department.”
- The Committee recommends the Graduate School conduct the next full program review in 10 years.

### **Areas of Concurrence:**

The Unit Response was prepared by Professor Daniel Pollack, Interim Chair of the Department of Statistics, and Professor of Mathematics. Professor Pollack prepared the report in consultation with the Department’s Personnel Committee. The Department agrees with many of the Committee’s recommendations, but felt the need to clarify some points made in the Committee’s review. The Unit Response emphasized the following:

- Three of the four faculty who left the Department did so for personal reasons, unrelated to the Department’s climate issues.
- With a small number of exceptions, the Department’s students and faculty work well together. This is evident from their productive collaboration during the ongoing Chair search.
- The Department agrees that it is critical to invest in new personnel, including the new Chair and seven new faculty positions detailed in the Department’s hiring plan. The Unit Response notes that the Deans support this hiring plan.
- The Unit Response notes a number of steps the Department has taken to address their climate issues. The Department provided financial support for students interested in attending the 2019 Women in Statistics and Data Science Conference, as well as the annual meeting of the American Association for the Advancement of Science. The Department also supported the launch of a Directed Reading Program organized by the undergraduate Statistics and Probability Association. The Department also solicited graduate student input during their Chair search, and intends to do the same in future faculty searches.

### **Areas of Disagreement:**

- The Department disagrees with the recommendation for a three-year interim report. They point out that this could be counterproductive for a new Chair, who will need time to learn how the Department and University function. The Department believes a five-year interim report would be more appropriate.

### **Graduate School Council Recommendations**

The Graduate School Council recommends that the department be granted continuing status with a full review in 10 years (2028-2029), as well as an interim report in 3 years (2021-2022). The Graduate School Council congratulates the Department of Statistics on the successful hiring of Professor Abel Rodriguez to serve as Chair of the department for a 5-year term. The Graduate School Council requests that the interim report focus on the recruitment of new faculty and steps taken in revitalizing the department, including concerns addressed in the review committee report.